EMISSIONS INFORMATION COLLECTION TEST

COKE OVENS CLEAN AIR ACT SECTION 114 REQUEST (40CFR63, Subpart CCCCC)

Performed At

Cokenergy, LLC
HRSG Main Stack
East Chicago, Indiana

Test Dates

February 2 through 9, 2023

Report No.

TRC Environmental Corporation Report 508369

Report Submittal Date

April 25, 2023

TRC Environmental Corporation
207C Eisenhower Lane South
Lombard, Illinois 60148 T 312-533-2042
USA

Report Certification

I certify that to the best of my knowledge:

- Testing data and all corresponding information have been checked for accuracy and completeness.
- Sampling and analysis have been conducted in accordance with the approved protocol and applicable reference methods (as applicable).
- All deviations, method modifications, or sampling and analytical anomalies are summarized in the appropriate report narrative(s).

Anthony Sakellariou
Senior Project Manager

April 25, 2023
Date

TRC was operating in conformance with the requirements of ASTM D7036-04 during this test program.

Bruce Randall
TRC Emission Testing Technical Director

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EMISSIONS INFORMATION COLLECTION TEST

1.0 INTRODUCTION

TRC Environmental Corporation (TRC) performed an emissions information collection test program to support Cokenergy's response to the U.S. Environmental Protection Agency (EPA) Clean Air Act (CAA) section 114 request dated July 27, 2022. The test program was completed on the HRSG Main Stack at Cokenergy's Heat Recovery facility in East Chicago, Indiana on February 2 through 9, 2023. The Cokenergy facility is located adjacent to the non-recovery coke production facility operated by Indiana Harbor Coke company (IHCC). Cokenergy is not involved in the production of coke; Cokenergy receives and recovers the waste heat generated by the IHCC coke ovens for energy recovery and cools the gas for environmental treatment. The tests were authorized by and performed for Cokenergy, LLC.

The purpose of this test program was to determine filterable particulate matter (PM), dioxin/furans, nitrogen oxides (NO_X), carbon monoxide (CO), sulfur dioxide (SO_2), hydrogen chloride (HCl), hydrogen fluoride (HF), hydrogen cyanide (HCN), formaldehyde (CH_2O), and speciated volatile organic hazards air pollutants (SVO HAPs) emission rates during specified operating conditions. The test program was conducted according to the TRC Test Protocol dated December 15, 2022.

1.1 Project Contact Information

Participants		
Test Facility	Cokenergy, LLC 3210 Watling Street MC 2-991 East Chicago, Indiana 46312 Permit No. T089-43724-00383 Facility No. 089-00383	Mr. Luke E. Ford Director EH&S 219-397-4626 (phone) lford@primaryenergy.com
Air Emissions Testing Body (AETB)	TRC Environmental Corporation 207C Eisenhower Lane South Lombard, Illinois 60148	Mr. Anthony Sakellariou Senior Project Manager 312-533-2035 (phone) asakellariou@trccompanies.com

Rome Rothgeb, Ryan Novosel, Gregory Rock, David Wells, Gavin Lewis and Anthony Sakellariou of TRC conducted the testing. Documentation of the on-site ASTM D7036-04 Qualified Individual(s) (QI) can be located in the appendix to this report.

Mr. Jarod Fisher from the IDEM observed the testing on February 2, 2023.

1.2 Facility and Process Description

The Cokenergy facility is located in Cleveland-Cliffs (Cliffs) Indiana Harbor Works in East Chicago, Indiana. The Cokenergy facility is a first-of-a-kind combined heat and power system that uses the waste heat in the flue gas from the metallurgical coke facility to produce steam and power for the Cliffs Indiana Harbor steel mill. Cliffs' Indiana Harbor Works is a large-scale, integrated steel mill. Within the Indiana Harbor Works, SunCoke Energy owns and operates the Indiana Harbor Coke Company (IHCC) metallurgical coke plant, consisting of four batteries of 67 coke ovens each to produce coke for Cliffs' blast furnace. The coke ovens are non-recovery type, which combust the coke oven gas in the ovens as it is generated. The coke ovens exhaust the combusted hot flue gas, which must be cooled and environmentally treated, into a series of refractory-lined manifolds to collect the gas. Cokenergy's waste heat recovery steam generators (HRSGs), arranged four per oven battery, receive and recover heat from the coke oven exhaust gas, producing power-grade steam and cooling the gas in the process. The superheated steam is used to generate electricity in a GE industrial condensing/extraction steam turbine. With the steam and power generated in this process, Cokenergy supplies electricity as well as 300 psig process steam to the Cliffs Indiana Harbor Works. Cokenergy's Flue Gas Desulfurization (FGD) system then environmentally treats the cooled flue gas, after it passes through the HRSGs, to remove sulfur dioxide (SO_2) and particulate. Flue gas temperatures and flows, and corresponding steam flows, change depending on where a given coke battery is in its coking cycle.

The Cokenergy facility consists of:

- Sixteen (16) heat recovery steam generators (HRSGs), 4 per coke oven battery, which recover heat from the flue gas, and cool it for environmental treatment.
- Flue gas ductwork to manifold the flue gas from the HRSGs to the FGD system.
- Two (2) spray dryer absorber (SDA) vessels to allow mixing of the flue gas with sorbent to remove SO_2 from the flue gas.
- A thirty-two (32) compartment pulse jet, fabric filter baghouse to remove particulate from the flue gas.
- Two induced draft (ID) fans that are responsible for pulling draft through the entire flue gas system from the ovens to the ID fans.
- One GE extraction/condensing steam turbine generator (STG), rated at 95MW, that accepts the generated steam from the HRSGs, and ancillary equipment for operation of the STG, including a 6-cell cooling tower, boiler feedwater heater, and two deaerators.

2.0 SUMMARY OF RESULTS

The results of this test program are summarized in the tables below. Detailed individual run results are presented in Section 6.0.

Unit ID	Pollutant Tested		Measured Emissions
HRSG Main Stack	Filterable PM	mg/dscm	0.81
		mg/dscm at 7% O_2	1.24
		lb/hr	2.31
	HAP Metals	mg/dscm	0.011
		mg/dscm at 7% O_2	0.018
		lb/hr	0.033
	NO_X	mg/dscm	70.79
		mg/dscm at 7% O_2	109.63
		lb/hr	205.28
	CO	mg/dscm	2.13
		mg/dscm at 7% O_2	3.30
		lb/hr	6.16
	CEMS SO_2	mg/dscm	524.09
		mg/dscm at 7% O_2	801.14
		lb/hr	1,517.0
	COMS Opacity	Maximum 6-min Average %	3.4
	SVO HAPs, as Benzene, Ethyl Benzene, Toluene, Xylene (BTEX)	mg/dscm	0.4
		mg/dscm at 7% O_2	0.5
		lb/hr	1.2

Unit ID	Pollutant Tested		Measured Emissions
HRSG Main Stack	Formaldehyde	µg/dscm	202.17
		µg/dscm at 7% O_2	318.13
		lb/hr	0.57
	HCl	µg/dscm	18675.21
		µg/dscm at 7% O_2	30169.13
		lb/hr	53.36
	HF	µg/dscm	177.04
		µg/dscm at 7% O_2	278.44
		lb/hr	0.50
	HCN	µg/dscm	335.45
		µg/dscm at 7% O_2	525.86
		lb/hr	0.95
	Dioxin/furans	µg/dscm	3.40E-5
		µg/dscm at 7% O_2	5.14E-5
		lb/hr	9.75E-8
	Semi-volatile Organic HAP Compounds (Semi-vol), including Polycyclic Aromatic Hydrocarbons (PAHs)	µg/dscm	0.73
		µg/dscm at 7% O_2	0.98
		lb/hr	2.11E-3

Unit ID	Pollutant Tested		Measured Emissions
Downstream of HRSGs	Benzene	µg/dscm	573.67
	Toluene	µg/dscm	957.17
	Ethylbenzene	µg/dscm	891.02
	m,p-Xylene	µg/dscm	456.06
	o-Xylene	µg/dscm	456.04
	Mercury *	g/m^3	---

* Due to the amount of moisture in the flue gas the sorbent tubes were saturated and results were above quantifiable levels.

The table below summarizes the test methods used, as well as the number and duration of the test location:

Unit ID/ Sample Location	Parameter Measured	Test Method(s)	No. of Runs	Run Duration
HRSG Main Stack	Volumetric Flowrate Filterable PM, Total Metals	USEPA 1, 2, 4, 5, 29	7	240 mins
	Volumetric Flowrate Dioxin/Furans	USEPA 1, 2, OTM-46	7	240 mins
	SVO HAPs	USEPA 18	7	60 mins
	HCl, HF, HCN, CH_2O	USEPA 320	7	60 mins
	NO_X, CO	USEPA 7E, 10	3	60 mins
	Carbon dioxide (CO_2), Oxygen (O_2)	USEPA 3A	7	240 mins

Unit ID/ Sample Location	Parameter Measured	Test Method(s)	No. of Runs	Run Duration
Downstream of HRSGs	Mercury	ASTM D5954-98	3	240 mins
	BTEX	GPA STD 2286	3	Grab

3.0 DISCUSSION OF RESULTS

There were issues with the mercury samples collected downstream of the HRSGs. Due to the amount of moisture in the flue gas the sorbent tubes were saturated and results were above quantifiable levels. The testing was completed over the period of February 2 through 9, 2023. All sixteen (16) HRSGs were on-line during the testing on February 2, 8 and 9. HRSG C2 was forced off-line with a tube leak at 1:30 AM on February 3. Repairs were completed and the HRSG was returned to service at 8:30 PM on February 7. The pollution control equipment was in normal operation throughout the testing period and Cokenergy personnel are unaware of any coke production issues by the IHCC during the testing.

Method 5 runs 1, 2 and 3 gravimetric analyses were performed in the TRC Burr Ridge, IL laboratory. Method 5 runs 4 through 7 gravimetric analyses were performed by Enthalpy Analytical, LLC and their sample catch weights were adjusted using the corresponding reagent blank correction values. For measured filter weights that were negative due to filter material collected in the acetone rinse, a method detection limit of half a milligram was used for that fraction and for subsequent calculations.

No problems were encountered with the testing equipment during the test program. No changes or problems were encountered that required modification of any procedures presented in the test plan. No adverse test or environmental conditions were encountered during the conduct of this test program. Unit operating data was recorded by plant personnel and appended to the report.

4.0 SAMPLING AND ANALYSIS PROCEDURES

All testing, sampling, analytical, and calibration procedures used for this test program were performed in accordance with the methods presented in the following sections. Where applicable, the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods, USEPA 600/R-94/038c, September 1994 was used to supplement procedures.

4.1 Determination of Sample Point Locations by USEPA Method 1

This method is applicable to gas streams flowing in ducts, stacks, and flues and is designed to provide guidance for the selection of sampling ports and traverse points at which sampling for air pollutants will be performed. Sample ports must be located at least two duct diameters downstream and a half a duct diameter upstream from any flow disturbance.

The cross-section of the measurement site was divided into a number of equal areas, and the traverse points were located in the center of each area. The minimum number of points were determined from Figure 1-1 (particulate) of the Method.

4.2 Volumetric Flow Rate Determination by USEPA Method 2

This method is applicable for the determination of the average velocity and the volumetric flow rate of a gas stream.

The gas velocity head (ΔP) and temperature were measured at traverse points defined by USEPA Method 1. The velocity head was measured with a Type S (Stausscheibe or reverse type) pitot tube and oil-filled manometer; and the gas temperature was measured with a

Type K thermocouple. The average gas velocity in the flue was calculated based on: the gas density (as determined by USEPA Methods 3A and 4); the flue gas pressure; the average of the square roots of the velocity heads at each traverse point, and the average flue gas temperature.

4.3 Determination of the Concentration of Gaseous Pollutants Using a Multi-Pollutant Sampling System

Concentrations of the pollutants in the following sub-sections were determined using one sampling system.

A straight-extractive sampling system was used. A data logger continuously recorded pollutant concentrations and generated one-minute averages of those concentrations. All calibrations and system checks were conducted using USEPA Protocol gases. Three-point linearity checks were performed prior to sampling, and in the event of a failing system bias or drift test (and subsequent corrective action). System bias and drift checks were performed using the low-level gas and either the high- or mid-level gas (as specified in the appendices) prior to and following each test run.

The Low Concentration Analyzers (those that routinely operate with a calibration span of less than 20 ppm) used by TRC are ambient-level analyzers. Per Section 3.12 of Method 7E, a Manufacturer's Stability Test is not required for ambient-level analyzers. Analyzer interference tests were conducted in accordance with the regulations in effect at the time that TRC placed an analyzer model in service.

4.3.1 CO_2 Determination by USEPA Method 3A

This method is applicable for the determination of CO_2 concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The CO_2 analyzer was equipped with a non-dispersive infrared (IR) detector.

4.3.2 O_2 Determination by USEPA Method 3A

This method is applicable for the determination of O_2 concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The O_2 analyzer was equipped with a paramagnetic-based detector.

4.3.3 NO_x Determination by USEPA Method 7E

This method is applicable for the determination of NO_x concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The NO_x analyzer utilized a photomultiplier tube to measure the linear and proportional luminescence caused by the reaction of nitric oxide and ozone.

4.3.4 CO Determination by USEPA Method 10

This method is applicable for the determination of CO concentrations in controlled and uncontrolled emissions from stationary sources only when specified within the regulations. The non-dispersive infrared analyzer (NDIR) CO analyzer was equipped with an internal gas correlation filter wheel, which eliminates potential detector interference. As such, use of an interference removal trap was not required.

4.4 Filterable PM Determination by USEPA Method 5

This method is applicable for the determination of PM emissions from stationary sources. USEPA Methods 2-4 were performed concurrently with, and as an integral part of, these determinations.

Flue gas was withdrawn isokinetically from the source at traverse points determined per USEPA Method 1, and PM was collected in the nozzle, probe liner, and on a glass fiber filter. The probe liner and filter were maintained at a temperature of 120$\pm$14°C (248 + 25°F). The PM mass, which included any material that condensed at or above the filtration temperature, was determined gravimetrically after the removal of uncombined water.

4.5 Gaseous Organic Compound Determination by USEPA Method 18

This method is designed to measure gaseous organics emitted from an industrial source. This method will not determine compounds that (1) are polymeric (high molecular weight), (2) can polymerize before analysis, or (3) have very low vapor pressures at stack or instrument conditions.

An integrated sample of flue gas was collected on sorbent traps. The major organic components of the sample were separated by gas chromatography (GC) and individually quantified by flame ionization.

4.6 Trace Metals Determination by USEPA Method 29

This method is applicable for the determination of metals emissions from stationary sources. This method may be used to determine particulate emissions in addition to the metals emissions if the prescribed procedures and precautions are followed. USEPA Methods 2-4 were performed concurrently with, and as an integral part of these determinations.

Flue gas was withdrawn isokinetically from the source at traverse points determined per USEPA Method 1 through a nozzle, probe liner, glass fiber filter and a series of impingers. The probe liner and filter were maintained at a temperature of 120±14°C (248 + 25°F). Particle-bound metals were collected in the nozzle, probe on the filter. Gaseous metals were collected in a solution of nitric acid and hydrogen peroxide (analyzed for all metals including Hg) and a solution of acidified potassium permanganate (analyzed only for Hg).

The recovered samples were analyzed using the techniques identified in the appended analytical report.

4.7 Determination of Polychlorinated Dibenzo-p-Dioxins, Polychlorinated Dibenzofurans, Polychlorinated Biphenyls, and Polycyclic Aromatic Hydrocarbons by USEPA OTM 46

This method is applicable to the determination of emissions of Polychlorinated Dibenzo-p-Dioxins (PCDDs), Polychlorinated Dibenzofurans (PCDFs), Polychlorinated Biphenyls (PCB), and/or Polycyclic Aromatic Hydrocarbons (PAH) from stationary sources. USEPA Methods 2-4 were performed concurrently with, and as an integral part of these determinations.

A sample was withdrawn isokinetically from the gas stream. PCDD, PCDF, PCB and PAH compounds were collected in the sample probe, on a glass fiber filter, and on a packed column of adsorbent material. The PCDD, PCDF, PCB and PAH compounds were extracted from the sample, separated by high-resolution gas chromatography (HRCG), and measured by high-resolution mass spectrometry (HRMS). This method uses isotopically labeled standards to improve method accuracy and precision through isotope dilution quantitation.

4.8 Mercury Determination in Natural Gas by ASTM D5954-98

This method is applicable to the determination of mercury in natural gas streams at concentrations down to 1 ng/m^3. Adsorption of the mercury on gold-coated beads can remove interferences associated with the direct measurement of mercury in natural gas. It preconcentrates the mercury before analysis thereby offering measurement of ultra-low average concentrations in a natural gas stream over a long span of time. The procedure detects both inorganic and organic forms of mercury.

4.9 Extended Analysis of Natural Gas by GPA STD 2286 (2014)

This method is intended for the compositional analysis of natural gas and similar gaseous mixtures where precise physical property data of the hexanes and heavier fractions are required. The procedure is applicable for mixtures which may contain components of nitrogen, carbon dioxide, and/or hydrocarbon compounds C1-C14.

4.10 Speciated Pollutant Determination by Extractive FTIR

The Method 320, 40CFR63, sampling and measurement system meets the requirements for stack sampling of gaseous organic and inorganic compounds set forth by the United States Environmental Protection Agency (USEPA). In particular, it meets the requirements of USEPA Reference Method 320, "Measurement Of Vapor Phase Organic And Inorganic Emissions By Extractive Fourier Transform Infrared (FTIR) Spectroscopy," 40CFR63. This method applies to the analysis of a range of volatile organic compounds (VOCs) and volatile inorganic compounds emitted from an industrial source.

The source emissions were extracted from the single sampling point in the gas stream and then transported to the FTIR analyzer via a heated, extractive sampling system. The various components of the matrix were identified and quantified by absorbance of infrared radiation. All data measurements and analytical results were stored on the computer. The data was copied to CD, flash drive, or a second hard drive before departing the test site.

The FTIR spectrometer used was an MKS 2030 Analyzer outfitted with a liquid nitrogen cooled MCT (mercury cadmium telluride) detector and a heated low volume (200 mL) gas cell with a 5.11 meter pathlength. The spectral resolution was 0.5 cm^{-1} (wavenumbers). This FTIR instrument was calibrated using a spectral library of reference spectra stored on computer. Calibration was verified on site through direct and system calibration measurements using gas standards. These gases include the method-required CTS (calibration transfer standard, 10 ppm Ethylene) and a nitrogen zero gas. Direct, system and dynamic matrix spiking calibrations were conducted using a formaldehyde, HCl, HF and HCN gas standards.

The validation requirements in EPA Method 320 (sections 3.25, and 13.0 through 13.4) were performed for HCl and HF.

5.0 QUALITY ASSURANCE PROCEDURES

TRC integrates our Quality Management System (QMS) into every aspect of our testing service. We follow the procedures specified in current published versions of the test Method(s) referenced in this report. Any modifications or deviations are specifically identified in the body of the report. We routinely participate in independent, third party audits of our activities, and maintain:

- Accreditation from the Louisiana Environmental Laboratory Accreditation Program (LELAP);
- Accreditation from the Stack Testing Accreditation Council (STAC) and the American Association for Laboratory Accreditation (A2LA) that our operations conform with the requirements of ASTM D 7036 as an Air Emission Testing Body (AETB).

These accreditations demonstrate that our systems for training, equipment maintenance and calibration, document control and project management will fully ensure that project objectives are achieved in a timely and efficient manner with a strict commitment to quality.

All calibrations are performed in accordance with the test Method(s) identified in this report. If a Method allows for more than one calibration approach, or if approved alternatives are available, the calibration documentation in the appendices specifies which approach was used. All measurement devices are calibrated or verified at set intervals against standards traceable to the National Institute of Standards and Technology (NIST). NIST traceability information is available upon request.

ASTM D7036-04 specifies that: *"AETBs shall have and shall apply procedures for estimating the uncertainty of measurement. Conformance with this section may be demonstrated by the use of approved test protocols for all tests. When such protocols are used, reference shall be made to published literature, when available, where estimates of uncertainty for test methods may be found."* TRC conforms with this section by using approved test protocols for all tests.

6.0 TEST RESULTS SUMMARIES

METHOD 5 PARTICULATE TEST RESULTS SUMMARY

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Test Run Number:	1	2	3	4	5	6	7	Average
Source Condition:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Sample Duration (min):	240.0	240.0	240.0	240.0	240.0	240.0	240.0	240.0
Average Gas Temp, T_s, (^oF):	273.4	274.0	272.6	272.4	274.9	273.5	274.7	273.7
Fractional Gas Moisture Content, B_{ws}:	0.143	0.146	0.138	0.142	0.150	0.152	0.161	0.147
Gas CO_2 Content (%vol):	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
Gas O_2 Content (%vol):	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Gas Wet MW, M_s, (lb/lb-mole):	27.86	27.80	27.85	27.82	27.73	27.71	27.62	27.77
Average Gas Velocity, V_s, (ft/sec):	84.42	81.76	82.42	82.45	83.30	85.68	86.59	83.80
Measured Volumetric Flow Rate:								
Q (actual ft^3/min):	1,288,884	1,248,329	1,258,436	1,258,920	1,271,862	1,308,171	1,322,138	1,279,534
Q_{std} (std ft^3/min):	903,762	877,580	886,447	887,041	880,844	920,276	906,398	894,621
$Q_{std(dry)}$ (dry std ft^3/min):	774,081	749,880	764,156	761,506	748,404	780,320	760,582	762,704
Sample Volume, $V_{m(std)}$, (dry std ft^3):	164.961	157.934	158.335	162.148	154.034	161.287	157.064	159.395
Sample Volume, $V_{m(std)(metric)}$, (dry std. m^3):	4.671	4.472	4.484	4.592	4.362	4.567	4.448	4.514
PM Collected, m_n, (mg):								
Filterable	6.91	4.00	0.13	3.06	3.98	3.31	4.26	3.66
PM Concentration, C_s, (gr/dscf):								
Filterable	0.0006	0.0004	0.0000	0.0003	0.0004	0.0003	0.0004	0.0004
PM Concentration, C_{om}, (mg/std. m^3):								
Filterable:	1.479	0.893	0.029	0.666	0.912	0.725	0.958	0.809
PM Concentration, Ccorr. (mg/std. m^3 corrected to 7% O_2):								
Filterable:	2.239	1.377	0.049	1.085	1.397	1.126	1.424	1.242
PM Emission Rate, ER_{M2}, (lb/hr based on measured volumetric flow rate):								
Filterable:	4.287	2.509	0.084	1.901	2.558	2.118	2.728	2.312
Isokinetic Variance (I)	102.5	101.3	99.7	102.5	99.0	99.5	99.4	100.6

Note: The laboratory filter mass is reported at detection limit for runs 1, 3, 4, 5, 6 and 7.

English Units: Standard conditions of 29.92 inHg and 68º F
Metric Units: Standard conditions of 760 mmHg and 20º C

GASEOUS TEST RESULTS SUMMARY

Instrumental Reference Method
Calibration Corrected Test Data

Project Number:	508369	Start Date:	2/2/2023
Customer:	Primary Energy	End Date:	2/2/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
RM Probe Type:	Extractive (Dry)	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

Reference Method Results, As Measured Moisture Basis

Run #	Date	Start Time	End Time	NOX ppmvd	SO2 ppmvd	CO ppmvd	CO2 % v/v dry	O2 % v/v dry
1	2/2/23	9:45	10:44	-	-	-	6.52	11.72
2	2/2/23	11:40	12:39	36.39	-	1.59	6.33	11.70
3	2/2/23	13:00	13:59	36.64	-	1.38	6.17	12.00
4	2/2/23	14:25	15:24	38.02	-	2.51	6.17	12.06
Average Runs 2, 3, 4				**37.02**	**-**	**1.83**	**6.22**	**11.92**

Emission Rate Calculation Summary

Run #	NOX lb/MMBtu	SO2 lb/MMBtu	CO lb/MMBtu	NOX lb/hr	SO2 lb/hr	CO lb/hr	Flow DSCFM
1	-	-	-	-	-	-	-
2	-	-	-	201.82	-	5.36	774,081
3	-	-	-	203.18	-	4.67	774,081
4	-	-	-	210.83	-	8.47	774,081
Average	**-**	**-**	**-**	**205.28**	**-**	**6.16**	**-**

Note: Run 1 was not used due to a failed post calibration check on the CO analyzer.

SO2 CEMS Calculation Summary

Run #	SO2 ppm	SO2 lb/hr	
1	200.3	1,544.3	
2	196.7	1,516.5	
3	193.3	1,490.3	
Average	**196.8**	**1,517.0**	

Pollutants Test Calculation Summary

Run #	NOX mg/dscm	CEMS SO2 mg/dscm	CO mg/dscm	NOX mg/dscm at 7% O2	CEMS SO2 mg/dscm at 7% O2	CO mg/dscm at 7% O2
1	69.60	533.51	1.85	105.19	807.69	2.79
2	70.06	523.92	1.61	109.40	791.86	2.51
3	72.70	514.86	2.92	114.30	803.88	4.59
Average	**70.79**	**524.09**	**2.13**	**109.63**	**801.14**	**3.30**

Method 29 Metals Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

Run No:	1	2	3	4	5	6	7	Average
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Run Duration (min):	240.0	240.0	240.0	240.0	240.0	240.0	240.0	
Fixed Gas Content:								
CO_2 (% vol)	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
O_2 (% vol)	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Fractional Moisture Content:	0.143	0.146	0.138	0.142	0.150	0.152	0.161	0.147
Sample Volume, $V_{m(std)}$								
(dry std ft^3):	164.961	157.934	158.335	162.148	154.034	161.287	157.064	159.395
(dry std m^3):	4.671	4.472	4.484	4.592	4.362	4.567	4.448	4.514
Measured Volumetric Flow Rate								
Q_{std} (std ft^3/min):	903,762	877,580	886,447	887,041	880,844	920,276	906,398	894,621
$Q_{std(dry)}$ (dry std ft^3/min):	774,081	749,880	764,156	761,506	748,404	780,320	760,582	762,704
Net Mass Collected (µg)								
Arsenic:	0.901 [1]	0.807 [1]	0.971 [1]	1.761	0.811 [1]	1.499	0.912 [1]	1.095 DLL
Beryllium:	0.136 [1]	0.111	0.071 [2]	0.070 [2]	0.070 [2]	0.070 [2]	0.070 [2]	0.086 DLL
Cadmium:	0.468	0.791	0.119	0.285	0.143	0.138 [1]	0.110	0.293 DLL
Chromium:	3.723	1.424	0.906	1.196	1.011	2.010	1.304	1.653 ADL
Cobalt:	0.750	0.529	0.173	0.275	0.198	0.206	0.172	0.329 ADL
Mercury:	17.235 [1]	13.707 [1]	21.808 [1]	19.895 [1]	14.682 [1]	18.830 [1]	17.884 [1]	17.720 DLL
Manganese:	6.082	10.512	4.712	3.632	3.202	2.832	3.512	4.926 ADL
Nickel:	9.213	3.088	1.110	1.643	1.069	1.457	1.622	2.743 ADL
Lead:	2.489	1.262	0.946	1.241	1.050	1.007	1.098	1.299 ADL
Antimony:	0.565	0.382	0.316 [1]	0.381 [1]	0.346 [1]	0.338 [1]	0.313 [1]	0.377 DLL
Selenium:	24.167	7.517	26.173	34.626	12.399	23.503	20.094	21.211 ADL
Total Metals (µg)	**65.730**	**40.130**	**57.304**	**65.006**	**34.981**	**51.891**	**47.091**	**51.733**
Total Non-Mercury Metals (µg)	**48.495**	**26.423**	**35.496**	**45.111**	**20.299**	**33.061**	**29.207**	**34.013**
Metals Concentration (µg/dscm)								
Arsenic:	1.93E-01 [1]	1.80E-01 [1]	2.17E-01 [1]	3.84E-01	1.86E-01 [1]	3.28E-01	2.05E-01 [1]	2.42E-01 DLL
Beryllium:	2.92E-02 [1]	2.47E-02	1.57E-02 [2]	1.53E-02 [2]	1.61E-02 [2]	1.54E-02 [2]	1.58E-02 [2]	1.89E-02 DLL
Cadmium:	1.00E-01	1.77E-01	2.64E-02	6.21E-02	3.29E-02	3.03E-02 [1]	2.46E-02	6.48E-02 DLL
Chromium:	7.97E-01	3.18E-01	2.02E-01	2.60E-01	2.32E-01	4.40E-01	2.93E-01	3.63E-01 ADL
Cobalt:	1.61E-01	1.18E-01	3.86E-02	5.99E-02	4.53E-02	4.51E-02	3.88E-02	7.23E-02 ADL
Mercury:	3.69E+00 [1]	3.06E+00 [1]	4.86E+00 [1]	4.33E+00 [1]	3.37E+00 [1]	4.12E+00 [1]	4.02E+00 [1]	3.92E+00 DLL
Manganese:	1.30E+00	2.35E+00	1.05E+00	7.91E-01	7.34E-01	6.20E-01	7.90E-01	1.09E+00 ADL
Nickel:	1.97E+00	6.90E-01	2.48E-01	3.58E-01	2.45E-01	3.19E-01	3.65E-01	6.00E-01 ADL
Lead:	5.33E-01	2.82E-01	2.11E-01	2.70E-01	2.41E-01	2.21E-01	2.47E-01	2.86E-01 ADL
Antimony:	1.21E-01	8.55E-02	7.04E-02 [1]	8.30E-02 [1]	7.93E-02 [1]	7.41E-02 [1]	7.03E-02 [1]	8.33E-02 DLL
Selenium:	5.17E+00	1.68E+00	5.84E+00	7.54E+00	2.84E+00	5.15E+00	4.52E+00	4.68E+00 ADL
Total Metals (µg/dscm)	**1.41E+01**	**8.97E+00**	**1.28E+01**	**1.42E+01**	**8.02E+00**	**1.14E+01**	**1.06E+01**	**1.14E+01**
Total Non-Mercury Metals (µg/dscm)	**1.04E+01**	**5.91E+00**	**7.92E+00**	**9.82E+00**	**4.65E+00**	**7.24E+00**	**6.57E+00**	**7.50E+00**
Metals Emission Rate (lb/hr)								
Arsenic:	5.59E-04 [1]	5.07E-04 [1]	6.20E-04 [1]	1.09E-03	5.21E-04 [1]	9.59E-04	5.84E-04 [1]	6.92E-04 DLL
Beryllium:	8.45E-05 [1]	6.94E-05	4.50E-05 [2]	4.37E-05 [2]	4.52E-05 [2]	4.51E-05 [2]	4.50E-05 [2]	5.40E-05 DLL
Cadmium:	2.90E-04	4.97E-04	7.56E-05	1.77E-04	9.21E-05	8.85E-05 [1]	7.02E-05	1.84E-04 DLL
Chromium:	2.31E-03	8.94E-04	5.78E-04	7.43E-04	6.50E-04	1.29E-03	8.35E-04	1.04E-03 ADL
Cobalt:	4.66E-04	3.32E-04	1.10E-04	1.71E-04	1.27E-04	1.32E-04	1.10E-04	2.07E-04 ADL
Mercury:	1.07E-02 [1]	8.61E-03 [1]	1.39E-02 [1]	1.24E-02 [1]	9.44E-03 [1]	1.21E-02 [1]	1.15E-02 [1]	1.12E-02 DLL
Manganese:	3.78E-03	6.60E-03	3.01E-03	2.26E-03	2.06E-03	1.81E-03	2.25E-03	3.11E-03 ADL
Nickel:	5.72E-03	1.94E-03	7.09E-04	1.02E-03	6.87E-04	9.32E-04	1.04E-03	1.72E-03 ADL
Lead:	1.55E-03	7.93E-04	6.04E-04	7.71E-04	6.75E-04	6.45E-04	7.04E-04	8.19E-04 ADL
Antimony:	3.51E-04	2.40E-04	2.01E-04 [1]	2.37E-04 [1]	2.22E-04 [1]	2.16E-04 [1]	2.00E-04 [1]	2.38E-04 DLL
Selenium:	1.50E-02	4.72E-03	1.67E-02	2.15E-02	7.97E-03	1.50E-02	1.29E-02	1.34E-02 ADL
Total Metals (lb/hr):	**4.08E-02**	**2.52E-02**	**3.66E-02**	**4.04E-02**	**2.25E-02**	**3.32E-02**	**3.02E-02**	**3.27E-02**
Total Non-Mercury Metals (lb/hr):	**3.01E-02**	**1.66E-02**	**2.27E-02**	**2.80E-02**	**1.30E-02**	**2.12E-02**	**1.87E-02**	**2.15E-02**

Method 29 Metals Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

Run No:	1	2	3	4	5	6	7	Average
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Run Duration (min):	240.0	240.0	240.0	240.0	240.0	240.0	240.0	
Fixed Gas Content:								
CO_2 (% vol)	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
O_2 (% vol)	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Fractional Moisture Content:	0.143	0.146	0.138	0.142	0.150	0.152	0.161	0.147
Sample Volume, $V_{m(std)}$								
(dry std ft^3):	164.961	157.934	158.335	162.148	154.034	161.287	157.064	159.395
(dry std m^3):	4.671	4.472	4.484	4.592	4.362	4.567	4.448	4.514
Measured Volumetric Flow Rate								
Q_{std} (std ft^3/min):	903,762	877,580	886,447	887,041	880,844	920,276	906,398	894,621
$Q_{std(dry)}$ (dry std ft^3/min):	774,081	749,880	764,156	761,506	748,404	780,320	760,582	762,704
Metals Concentration (µg/dscm @ 7% O2)								
Arsenic:	2.92E-01 [1]	2.78E-01 [1]	3.57E-01 [1]	6.24E-01	2.85E-01 [1]	5.10E-01	3.05E-01 [1]	3.79E-01 DLL
Beryllium:	4.41E-02 [1]	3.81E-02	2.59E-02 [2]	2.50E-02 [2]	2.47E-02 [2]	2.39E-02 [2]	2.35E-02 [2]	2.93E-02 DLL
Cadmium:	1.52E-01	2.73E-01	4.36E-02	1.01E-01	5.03E-02	4.70E-02 [1]	3.66E-02	1.00E-01 DLL
Chromium:	1.21E+00	4.91E-01	3.33E-01	4.24E-01	3.55E-01	6.84E-01	4.36E-01	5.61E-01 ADL
Cobalt:	2.43E-01	1.82E-01	6.36E-02	9.75E-02	6.94E-02	7.00E-02	5.76E-02	1.12E-01 ADL
Mercury:	5.59E+00 [1]	4.72E+00 [1]	8.02E+00 [1]	7.05E+00 [1]	5.15E+00 [1]	6.40E+00 [1]	5.98E+00 [1]	6.13E+00 DLL
Manganese:	1.97E+00	3.62E+00	1.73E+00	1.29E+00	1.12E+00	9.63E-01	1.17E+00	1.70E+00 ADL
Nickel:	2.99E+00	1.06E+00	4.08E-01	5.82E-01	3.75E-01	4.95E-01	5.42E-01	9.22E-01 ADL
Lead:	8.07E-01	4.35E-01	3.48E-01	4.40E-01	3.69E-01	3.43E-01	3.67E-01	4.44E-01 ADL
Antimony:	1.83E-01	1.32E-01	1.16E-01 [1]	1.35E-01 [1]	1.21E-01 [1]	1.15E-01 [1]	1.04E-01 [1]	1.30E-01 DLL
Selenium:	7.83E+00	2.59E+00	9.63E+00	1.23E+01	4.35E+00	7.99E+00	6.72E+00	7.34E+00 ADL
Total Metals (µg/dscm at 7% O2)	**2.13E+01**	**1.38E+01**	**2.11E+01**	**2.30E+01**	**1.23E+01**	**1.76E+01**	**1.57E+01**	**1.78E+01**
otal Non-Mercury Metals (µg/dscm at 7% O2)	**1.57E+01**	**9.10E+00**	**1.31E+01**	**1.60E+01**	**7.12E+00**	**1.12E+01**	**9.76E+00**	**1.17E+01**
Metals Concentration (mg/dscm @ 7% O2)								
Arsenic:	2.92E-04 [1]	2.78E-04 [1]	3.57E-04 [1]	6.24E-04	2.85E-04 [1]	5.10E-04	3.05E-04 [1]	3.79E-04 DLL
Beryllium:	4.41E-05 [1]	3.81E-05	2.59E-05 [2]	2.50E-05 [2]	2.47E-05 [2]	2.39E-05 [2]	2.35E-05 [2]	2.93E-05 DLL
Cadmium:	1.52E-04	2.73E-04	4.36E-05	1.01E-04	5.03E-05	4.70E-05 [1]	3.66E-05	1.00E-04 DLL
Chromium:	1.21E-03	4.91E-04	3.33E-04	4.24E-04	3.55E-04	6.84E-04	4.36E-04	5.61E-04 ADL
Cobalt:	2.43E-04	1.82E-04	6.36E-05	9.75E-05	6.94E-05	7.00E-05	5.76E-05	1.12E-04 ADL
Mercury:	5.59E-03 [1]	4.72E-03 [1]	8.02E-03 [1]	7.05E-03 [1]	5.15E-03 [1]	6.40E-03 [1]	5.98E-03 [1]	6.13E-03 DLL
Manganese:	1.97E-03	3.62E-03	1.73E-03	1.29E-03	1.12E-03	9.63E-04	1.17E-03	1.70E-03 ADL
Nickel:	2.99E-03	1.06E-03	4.08E-04	5.82E-04	3.75E-04	4.95E-04	5.42E-04	9.22E-04 ADL
Lead:	8.07E-04	4.35E-04	3.48E-04	4.40E-04	3.69E-04	3.43E-04	3.67E-04	4.44E-04 ADL
Antimony:	1.83E-04	1.32E-04	1.16E-04 [1]	1.35E-04 [1]	1.21E-04 [1]	1.15E-04 [1]	1.04E-04 [1]	1.30E-04 DLL
Selenium:	7.83E-03	2.59E-03	9.63E-03	1.23E-02	4.35E-03	7.99E-03	6.72E-03	7.34E-03 ADL
Total Metals (mg/dscm at 7% O2)	**2.13E-02**	**1.38E-02**	**2.11E-02**	**2.30E-02**	**1.23E-02**	**1.76E-02**	**1.57E-02**	**1.78E-02**
tal Non-Mercury Metals (mg/dscm at 7% O2)	**1.57E-02**	**9.10E-03**	**1.31E-02**	**1.60E-02**	**7.12E-03**	**1.12E-02**	**9.76E-03**	**1.17E-02**
Isokinetic Variation (%):	102.5	101.3	99.7	102.5	99.0	99.5	99.4	100.6

1 - The mass at least one of the sample fractions was below the analytical detection limit
2 - The mass in all of the sample fractions was below the analytical detection limit

ADL - all analytical values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

DLL - at least one, but not all values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

BDL - all analytical values used to calculate and report an in-stack emissions value are less than the laboratory's reported detection level(s)

English Units: Standard conditions of 29.92 inHg and 68º F
Metric Units: Standard conditions of 760 mmHg and 20º C

OTM-46 Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

Test Run Number:	1	2	3	4	5	6	7	Average
Source Condition:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Run Duration (min):	240	240	240	240	240	240	240	240
Fixed Gas Content:								
CO_2 (% vol):	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
O_2 (% vol):	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Fractional Moisture Content:	0.143	0.146	0.136	0.141	0.151	0.150	0.159	0.147
Sample Volume, $V_{m(std)}$								
(dry std ft^3):	158.111	154.209	151.274	153.794	150.338	156.344	153.766	153.976
(dry std m^3):	4.477	4.367	4.284	4.355	4.257	4.427	4.354	4.360
Measured Volumetric Flow Rate								
Q (actual ft^3/min):	1,300,647	1,261,746	1,262,680	1,249,741	1,261,642	1,283,542	1,308,774	1,275,539
Q_{std} (std ft^3/min):	915,823	890,991	880,278	883,288	875,803	905,059	897,950	892,742
$Q_{std(dry)}$ (dry std ft^3/min):	784,926	761,170	760,665	758,883	743,156	769,484	755,182	761,924
Net Mass Collected (pg)								
2,3,7,8-TCDD	3.70 [1]	3.70 [1]	3.06 [1]	2.80 [1]	6.47 [1]	1.77 [1]	2.72 [1]	3.46 BDL
1,2,3,7,8-PeCDD	3.68 [1]	3.98 [1]	3.33 [1]	3.06 [1]	10.00 [1]	2.37 [1]	3.62 [1]	4.29 BDL
1,2,3,4,7,8-HxCDD	4.53 [1]	5.68 [1]	4.04 [1]	3.39 [1]	10.40 [1]	2.64	3.55 [1]	4.89 DLL
1,2,3,6,7,8-HxCDD	4.21 [1]	5.39 [1]	3.41 [1]	3.14 [1]	9.56 [1]	2.74 [1]	3.52 [1]	4.57 BDL
1,2,3,7,8,9-HxCDD	5.03 [1]	5.84 [1]	3.88 [1]	3.33 [1]	10.50 [1]	2.76	3.80 [1]	5.02 DLL
1,2,3,4,6,7,8-HpCDD	42.10	39.30	12.70	16.80	15.70	16.50	16.10	22.74 ADL
OCDD	149.00	151.00	11.50	6.36 [1]	20.00 [1]	7.47 [1]	3.18	49.79 DLL
2,3,7,8 -TCDF	5.00 [1]	8.25	2.11 [1]	2.42 [1]	6.04 [1]	1.34 [1]	1.86 [1]	3.86 BDL
1,2,3,7,8-PeCDF	25.00 [1]	4.64	2.48 [1]	2.21 [1]	7.56 [1]	1.85 [1]	2.68 [1]	6.63 BDL
2,3,4,7,8-PeCDF	2.00	5.16	2.51 [1]	2.28 [1]	7.33 [1]	1.95 [1]	3.01 [1]	3.46 BDL
1,2,3,4,7,8-HxCDF	4.26	2.79	2.07	1.90 [1]	6.33 [1]	1.84	2.12 [1]	3.04 DLL
1,2,3,6,7,8-HxCDF	2.61	3.79	2.27	1.40	7.14 [1]	1.65 [1]	2.34 [1]	3.03 BDL
2,3,4,6,7,8-HxCDF	2.61	3.61	1.82	2.21 [1]	7.32 [1]	2.04	2.37 [1]	3.14 DLL
1,2,3,7,8,9-HxCDF	1.22	3.92 [1]	2.86 [1]	2.54 [1]	8.79 [1]	1.44	2.62	3.34 DLL
1,2,3,4,6,7,8-HpCDF	5.93	8.52	4.19	2.53	11.00 [1]	3.34	3.56	5.58 DLL
1,2,3,4,7,8,9-HpCDF	25.00 [1]	4.76 [1]	3.90 [1]	2.87 [1]	14.20 [1]	2.27 [1]	3.07 [1]	8.01 BDL
OCDF	50.00 [1]	7.17 [1]	5.38 [1]	5.11 [1]	21.50 [1]	3.84 [1]	5.26 [1]	14.04 BDL
Total TCDD	3.70	3.70	3.06	2.80	6.47	1.77	2.72	3.46
Total PeCDD	3.68	3.98	3.33	3.06	10.00	2.37	3.62	4.29
Total HxCDD	13.77	16.91	11.33	9.86	30.46	8.14	10.87	14.48
Total HpCDD	42.10	39.30	12.70	16.80	15.70	16.50	16.10	22.74
Total TCDF	5.00	8.25	2.11	2.42	6.04	1.34	1.86	3.86
Total PeCDF	27.00	9.80	4.99	4.49	14.89	3.80	5.69	10.09
Total HxCDF	10.70	14.11	9.02	8.05	29.58	6.97	9.45	12.55
Total HpCDF	30.93	13.28	8.09	5.40	25.20	5.61	6.63	13.59
Total PCDD/PCDF	**335.88**	**267.50**	**71.51**	**64.35**	**179.84**	**57.81**	**65.38**	**148.90**
Concentration (ug/dscm)								
2,3,7,8-TCDD	8.264E-07 [1]	8.473E-07 [1]	7.143E-07 [1]	6.429E-07 [1]	1.520E-06 [1]	3.998E-07 [1]	6.247E-07 [1]	7.965E-07 BDL
1,2,3,7,8-PeCDD	8.219E-07 [1]	9.114E-07 [1]	7.774E-07 [1]	7.026E-07 [1]	2.349E-06 [1]	5.353E-07 [1]	8.314E-07 [1]	9.899E-07 BDL
1,2,3,4,7,8-HxCDD	1.012E-06 [1]	1.301E-06 [1]	9.431E-07 [1]	7.784E-07 [1]	2.443E-06 [1]	5.963E-07	8.153E-07 [1]	1.127E-06 DLL
1,2,3,6,7,8-HxCDD	9.403E-07 [1]	1.234E-06 [1]	7.961E-07 [1]	7.210E-07 [1]	2.246E-06 [1]	6.189E-07 [1]	8.084E-07 [1]	1.052E-06 BDL
1,2,3,7,8,9-HxCDD	1.123E-06 [1]	1.337E-06 [1]	9.058E-07 [1]	7.646E-07 [1]	2.466E-06 [1]	6.234E-07	8.727E-07 [1]	1.156E-06 DLL
1,2,3,4,6,7,8-HpCDD	9.403E-06	9.000E-06	2.965E-06	3.858E-06	3.688E-06	3.727E-06	3.698E-06	5.191E-06 ADL
OCDD	3.328E-05	3.458E-05	2.685E-06	1.460E-06 [1]	4.698E-06 [1]	1.687E-06 [1]	7.303E-07	1.130E-05 DLL
2,3,7,8 -TCDF	1.117E-06 [1]	1.889E-06	4.926E-07 [1]	5.557E-07 [1]	1.419E-06 [1]	3.027E-07 [1]	4.272E-07 [1]	8.861E-07 BDL
1,2,3,7,8-PeCDF	5.584E-06 [1]	1.063E-06	5.789E-07 [1]	5.075E-07 [1]	1.776E-06 [1]	4.179E-07 [1]	6.155E-07 [1]	1.506E-06 BDL
2,3,4,7,8-PeCDF	4.467E-07	1.182E-06	5.860E-07 [1]	5.235E-07 [1]	1.722E-06 [1]	4.405E-07 [1]	6.913E-07 [1]	7.988E-07 BDL
1,2,3,4,7,8-HxCDF	9.515E-07	6.389E-07	4.832E-07	4.363E-07 [1]	1.487E-06 [1]	4.156E-07	4.869E-07 [1]	6.999E-07 DLL
1,2,3,6,7,8-HxCDF	5.830E-07	8.679E-07	5.299E-07	3.215E-07	1.677E-06 [1]	3.727E-07 [1]	5.374E-07 [1]	6.985E-07 BDL
2,3,4,6,7,8-HxCDF	5.830E-07	8.267E-07	4.249E-07	5.075E-07 [1]	1.719E-06 [1]	4.608E-07	5.443E-07 [1]	7.238E-07 DLL
1,2,3,7,8,9-HxCDF	2.725E-07	8.977E-07 [1]	6.677E-07 [1]	5.832E-07 [1]	2.065E-06 [1]	3.253E-07	6.017E-07	7.733E-07 DLL
1,2,3,4,6,7,8-HpCDF	1.324E-06	1.951E-06	9.781E-07	5.809E-07	2.584E-06 [1]	7.544E-07	8.176E-07	1.284E-06 DLL
1,2,3,4,7,8,9-HpCDF	5.584E-06 [1]	1.090E-06 [1]	9.104E-07 [1]	6.590E-07 [1]	3.336E-06 [1]	5.127E-07 [1]	7.051E-07 [1]	1.828E-06 BDL
OCDF	1.117E-05 [1]	1.642E-06 [1]	1.256E-06 [1]	1.173E-06 [1]	5.050E-06 [1]	8.674E-07 [1]	1.208E-06 [1]	3.195E-06 BDL
Total TCDD	8.264E-07	8.473E-07	7.143E-07	6.429E-07	1.520E-06	3.998E-07	6.247E-07	7.965E-07
Total PeCDD	8.219E-07	9.114E-07	7.774E-07	7.026E-07	2.349E-06	5.353E-07	8.314E-07	9.899E-07
Total HxCDD	3.076E-06	3.872E-06	2.645E-06	2.264E-06	7.155E-06	1.839E-06	2.496E-06	3.335E-06
Total HpCDD	9.403E-06	9.000E-06	2.965E-06	3.858E-06	3.688E-06	3.727E-06	3.698E-06	5.191E-06
Total TCDF	1.117E-06	1.889E-06	4.926E-07	5.557E-07	1.419E-06	3.027E-07	4.272E-07	8.861E-07
Total PeCDF	6.031E-06	2.244E-06	1.165E-06	1.031E-06	3.498E-06	8.583E-07	1.307E-06	2.305E-06
Total HxCDF	2.390E-06	3.231E-06	2.106E-06	1.848E-06	6.948E-06	1.574E-06	2.170E-06	2.895E-06
Total HpCDF	6.908E-06	3.041E-06	1.889E-06	1.240E-06	5.919E-06	1.267E-06	1.523E-06	3.112E-06
Total PCDD/PCDF	**7.502E-05**	**6.126E-05**	**1.669E-05**	**1.478E-05**	**4.224E-05**	**1.306E-05**	**1.502E-05**	**3.401E-05**

OTM-46 Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

Test Run Number:	1	2	3	4	5	6	7	Average
Source Condition:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Run Duration (min):	240	240	240	240	240	240	240	240
Fixed Gas Content:								
CO_2 (% vol):	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
O_2 (% vol):	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Fractional Moisture Content:	0.143	0.146	0.136	0.141	0.151	0.150	0.159	0.147
Sample Volume, $V_{m(std)}$								
(dry std ft^3):	158.111	154.209	151.274	153.794	150.338	156.344	153.766	153.976
(dry std m^3):	4.477	4.367	4.284	4.355	4.257	4.427	4.354	4.360
Measured Volumetric Flow Rate								
Q (actual ft^3/min):	1,300,647	1,261,746	1,262,680	1,249,741	1,261,642	1,283,542	1,308,774	1,275,539
Q_{std} (std ft^3/min):	915,823	890,991	880,278	883,288	875,803	905,059	897,950	892,742
$Q_{std(dry)}$ (dry std ft^3/min):	784,926	761,170	760,665	758,883	743,156	769,484	755,182	761,924
Emission Rate (lb/hr)								
2,3,7,8-TCDD	2.430E-09 [1]	2.416E-09 [1]	2.035E-09 [1]	1.828E-09 [1]	4.231E-09 [1]	1.152E-09 [1]	1.767E-09 [1]	2.265E-09 BDL
1,2,3,7,8-PeCDD	2.417E-09 [1]	2.599E-09 [1]	2.215E-09 [1]	1.997E-09 [1]	6.539E-09 [1]	1.543E-09 [1]	2.352E-09 [1]	2.809E-09 BDL
1,2,3,4,7,8-HxCDD	2.975E-09 [1]	3.708E-09 [1]	2.687E-09 [1]	2.213E-09 [1]	6.800E-09 [1]	1.719E-09 [1]	2.306E-09 [1]	3.201E-09 DLL
1,2,3,6,7,8-HxCDD	2.765E-09 [1]	3.519E-09 [1]	2.268E-09 [1]	2.049E-09 [1]	6.251E-09 [1]	1.784E-09 [1]	2.287E-09 [1]	2.989E-09 BDL
1,2,3,7,8,9-HxCDD	3.303E-09 [1]	3.813E-09 [1]	2.581E-09 [1]	2.173E-09 [1]	6.866E-09 [1]	1.797E-09 [1]	2.469E-09 [1]	3.286E-09 DLL
1,2,3,4,6,7,8-HpCDD	2.765E-08	2.566E-08	8.447E-09	1.097E-08	1.027E-08	1.074E-08	1.046E-08	1.488E-08 ADL
OCDD	9.784E-08	9.859E-08	7.649E-09	4.151E-09 [1]	1.308E-08 [1]	4.863E-09 [1]	2.066E-09	3.261E-08 DLL
2,3,7,8 -TCDF	3.283E-09 [1]	5.386E-09	1.403E-09 [1]	1.580E-09 [1]	3.949E-09 [1]	8.724E-10 [1]	1.208E-09 [1]	2.526E-09 BDL
1,2,3,7,8-PeCDF	1.642E-08 [1]	3.029E-09	1.650E-09 [1]	1.442E-09 [1]	4.943E-09 [1]	1.204E-09 [1]	1.741E-09 [1]	4.347E-09 BDL
2,3,4,7,8-PeCDF	1.313E-09	3.369E-09	1.669E-09 [1]	1.488E-09 [1]	4.793E-09 [1]	1.269E-09 [1]	1.955E-09 [1]	2.265E-09 BDL
1,2,3,4,7,8-HxCDF	2.797E-09	1.822E-09	1.377E-09	1.240E-09 [1]	4.139E-09 [1]	1.198E-09	1.377E-09 [1]	1.993E-09 DLL
1,2,3,6,7,8-HxCDF	1.714E-09	2.475E-09	1.510E-09	9.138E-10	4.669E-09 [1]	1.074E-09 [1]	1.520E-09 [1]	1.982E-09 BDL
2,3,4,6,7,8-HxCDF	1.714E-09	2.357E-09	1.211E-09	1.442E-09 [1]	4.786E-09 [1]	1.328E-09	1.540E-09 [1]	2.054E-09 DLL
1,2,3,7,8,9-HxCDF	8.011E-10	2.559E-09	1.902E-09 [1]	1.658E-09 [1]	5.747E-09 [1]	9.375E-10	1.702E-09	2.187E-09 DLL
1,2,3,4,6,7,8-HpCDF	3.894E-09	5.563E-09	2.787E-09	1.651E-09	7.193E-09 [1]	2.174E-09	2.313E-09	3.654E-09 DLL
1,2,3,4,7,8,9-HpCDF	1.642E-08 [1]	3.108E-09 [1]	2.594E-09 [1]	1.873E-09 [1]	9.285E-09 [1]	1.478E-09 [1]	1.994E-09 [1]	5.250E-09 BDL
OCDF	3.283E-08 [1]	4.681E-09 [1]	3.578E-09 [1]	3.335E-09 [1]	1.406E-08 [1]	2.500E-09 [1]	3.417E-09 [1]	9.201E-09 BDL
Total TCDD	2.430E-09	2.416E-09	2.035E-09	1.828E-09	4.231E-09	1.152E-09	1.767E-09	2.265E-09
Total PeCDD	2.417E-09	2.599E-09	2.215E-09	1.997E-09	6.539E-09	1.543E-09	2.352E-09	2.809E-09
Total HxCDD	9.042E-09	1.104E-08	7.536E-09	6.436E-09	1.992E-08	5.299E-09	7.062E-09	9.476E-09
Total HpCDD	2.765E-08	2.566E-08	8.447E-09	1.097E-08	1.027E-08	1.074E-08	1.046E-08	1.488E-08
Total TCDF	3.283E-09	5.386E-09	1.403E-09	1.580E-09	3.949E-09	8.724E-10	1.208E-09	2.526E-09
Total PeCDF	1.773E-08	6.398E-09	3.319E-09	2.931E-09	9.736E-09	2.474E-09	3.696E-09	6.612E-09
Total HxCDF	7.026E-09	9.212E-09	5.999E-09	5.254E-09	1.934E-08	4.538E-09	6.139E-09	8.216E-09
Total HpCDF	2.031E-08	8.671E-09	5.381E-09	3.525E-09	1.648E-08	3.652E-09	4.307E-09	8.903E-09
Total PCDD/PCDF	**2.206E-07**	**1.747E-07**	**4.756E-08**	**4.200E-08**	**1.176E-07**	**3.764E-08**	**4.247E-08**	**9.750E-08**
Concentration (ug/dscm at 7% O2)								
2,3,7,8-TCDD	1.170E-06 [1]	1.306E-06 [1]	1.178E-06 [1]	1.046E-06 [1]	2.327E-06 [1]	6.209E-07 [1]	9.287E-07 [1]	1.225E-06 BDL
1,2,3,7,8-PeCDD	1.164E-06 [1]	1.405E-06 [1]	1.282E-06 [1]	1.144E-06 [1]	3.596E-06 [1]	8.314E-07 [1]	1.236E-06 [1]	1.522E-06 BDL
1,2,3,4,7,8-HxCDD	1.433E-06 [1]	2.004E-06 [1]	1.555E-06 [1]	1.267E-06 [1]	3.740E-06 [1]	9.261E-07 [1]	1.212E-06 [1]	1.734E-06 DLL
1,2,3,6,7,8-HxCDD	1.332E-06 [1]	1.902E-06 [1]	1.313E-06 [1]	1.174E-06 [1]	3.438E-06 [1]	9.612E-07 [1]	1.202E-06 [1]	1.617E-06 BDL
1,2,3,7,8,9-HxCDD	1.591E-06 [1]	2.061E-06 [1]	1.494E-06 [1]	1.245E-06 [1]	3.776E-06 [1]	9.682E-07	1.297E-06 [1]	1.776E-06 DLL
1,2,3,4,6,7,8-HpCDD	1.332E-05	1.387E-05	4.889E-06	6.279E-06	5.646E-06	5.788E-06	5.497E-06	7.898E-06 ADL
OCDD	4.713E-05	5.329E-05	4.427E-06	2.377E-06 [1]	7.192E-06 [1]	2.621E-06 [1]	1.086E-06	1.687E-05 DLL
2,3,7,8 -TCDF	1.581E-06 [1]	2.911E-06	8.122E-07 [1]	9.045E-07 [1]	2.172E-06 [1]	4.701E-07 [1]	6.351E-07 [1]	1.355E-06 BDL
1,2,3,7,8-PeCDF	7.907E-06 [1]	1.637E-06	9.546E-07 [1]	8.260E-07 [1]	2.719E-06 [1]	6.490E-07 [1]	9.150E-07 [1]	2.230E-06 BDL
2,3,4,7,8-PeCDF	6.326E-07	1.821E-06	9.662E-07 [1]	8.521E-07 [1]	2.636E-06 [1]	6.841E-07 [1]	1.028E-06 [1]	1.231E-06 BDL
1,2,3,4,7,8-HxCDF	1.347E-06	9.846E-07	7.968E-07	7.101E-07 [1]	2.276E-06 [1]	6.455E-07	7.238E-07 [1]	1.069E-06 DLL
1,2,3,6,7,8-HxCDF	8.255E-07	1.337E-06	8.738E-07	5.232E-07	2.568E-06 [1]	5.788E-07 [1]	7.989E-07 [1]	1.072E-06 BDL
2,3,4,6,7,8-HxCDF	8.255E-07	1.274E-06	7.006E-07	8.260E-07 [1]	2.632E-06 [1]	7.156E-07	8.092E-07 [1]	1.112E-06 DLL
1,2,3,7,8,9-HxCDF	3.859E-07	1.383E-06 [1]	1.101E-06 [1]	9.493E-07 [1]	3.161E-06 [1]	5.052E-07	8.945E-07	1.197E-06 DLL
1,2,3,4,6,7,8-HpCDF	1.876E-06	3.007E-06	1.613E-06	9.456E-07	3.956E-06 [1]	1.172E-06	1.215E-06	1.969E-06 DLL
1,2,3,4,7,8,9-HpCDF	7.907E-06 [1]	1.680E-06 [1]	1.501E-06 [1]	1.073E-06 [1]	5.106E-06 [1]	7.963E-07 [1]	1.048E-06 [1]	2.730E-06 BDL
OCDF	1.581E-05 [1]	2.530E-06 [1]	2.071E-06 [1]	1.910E-06 [1]	7.731E-06 [1]	1.347E-06 [1]	1.796E-06 [1]	4.743E-06 BDL
Total TCDD	1.170E-06	1.306E-06	1.178E-06	1.046E-06	2.327E-06	6.209E-07	9.287E-07	1.225E-06
Total PeCDD	1.164E-06	1.405E-06	1.282E-06	1.144E-06	3.596E-06	8.314E-07	1.236E-06	1.522E-06
Total HxCDD	4.355E-06	5.968E-06	4.361E-06	3.685E-06	1.095E-05	2.856E-06	3.711E-06	5.127E-06
Total HpCDD	1.332E-05	1.387E-05	4.889E-06	6.279E-06	5.646E-06	5.788E-06	5.497E-06	7.898E-06
Total TCDF	1.581E-06	2.911E-06	8.122E-07	9.045E-07	2.172E-06	4.701E-07	6.351E-07	1.355E-06
Total PeCDF	8.540E-06	3.458E-06	1.921E-06	1.678E-06	5.354E-06	1.333E-06	1.943E-06	3.461E-06
Total HxCDF	3.384E-06	4.979E-06	3.472E-06	3.009E-06	1.064E-05	2.445E-06	3.226E-06	4.450E-06
Total HpCDF	9.783E-06	4.687E-06	3.114E-06	2.018E-06	9.062E-06	1.968E-06	2.264E-06	4.699E-06
Total PCDD/PCDF	**1.062E-04**	**9.440E-05**	**2.753E-05**	**2.405E-05**	**6.467E-05**	**2.028E-05**	**2.232E-05**	**5.136E-05**
Isokinetic Variation (%):	99.9	100.5	98.6	100.5	100.3	100.7	101.0	

[1] -Sample fractions were below the detection limit, results calculated based upon: the detection limit

ADL - all analytical values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

DLL - at least one, but not all values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

BDL - all analytical values used to calculate and report an in-stack emissions value are less than the laboratory's reported detection level(s)

English Units: Standard conditions of 29.92 inHg and 68º F
Metric Units: Standard conditions of 760 mmHg and 20º C

Method 23 Toxic Equivalency Average Results Summary

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Analytes	Toxic Equivalency Factor (TEF)*	Adjusted Concentration (ug/dscm)	Adjusted Emission Rate (ug/dscm at 7% O2)	Adjusted Emission Rate (lb/hr)
2,3,7,8-TCDD	1.0	7.96E-07	1.23E-06	2.27E-09
1,2,3,7,8-PeCDD	1.0	9.90E-07	1.52E-06	2.81E-09
1,2,3,4,7,8-HxCDD	0.1	1.13E-07	1.73E-07	3.20E-10
1,2,3,6,7,8-HxCDD	0.1	1.05E-07	1.62E-07	2.99E-10
1,2,3,7,8,9-HxCDD	0.1	1.16E-07	1.78E-07	3.29E-10
1,2,3,4,6,7,8-HpCDD	0.01	5.19E-08	7.90E-08	1.49E-10
OCDD	0.0003	3.39E-09	5.06E-09	9.78E-12
2,3,7,8 -TCDF	0.1	8.86E-08	1.36E-07	2.53E-10
1,2,3,7,8-PeCDF	0.03	4.52E-08	6.69E-08	1.30E-10
2,3,4,7,8-PeCDF	0.3	2.40E-07	3.69E-07	6.80E-10
1,2,3,4,7,8-HxCDF	0.1	7.00E-08	1.07E-07	1.99E-10
1,2,3,6,7,8-HxCDF	0.1	6.99E-08	1.07E-07	1.98E-10
2,3,4,6,7,8-HxCDF	0.1	7.24E-08	1.11E-07	2.05E-10
1,2,3,7,8,9-HxCDF	0.1	7.73E-08	1.20E-07	2.19E-10
1,2,3,4,6,7,8-HpCDF	0.01	1.28E-08	1.97E-08	3.65E-11
1,2,3,4,7,8,9-HpCDF	0.01	1.83E-08	2.73E-08	5.25E-11
OCDF	0.0003	9.58E-10	1.42E-09	2.76E-12
Toxic Equivalency Quotient (TEQ) Adjusted Total		**2.87E-06**	**4.41E-06**	**8.16E-09**

*Toxic Equivalency Factors (TEF) from: The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

OTM-46 Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

	1	2	3	4	5	6	7	Average	
Source Condition:	Normal	Normal	Normal	Normal	Normal	Normal	Normal		
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023		
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25		
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55		
Run Duration (min):	240	240	240	240	240	240	240	240	
Fixed Gas Content:									
CO_2 (% vol):	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12	
O_2 (% vol):	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96	
Fractional Moisture Content:	0.143	0.146	0.136	0.141	0.151	0.150	0.159	0.147	
Sample Volume, $V_{m(std)}$									
(dry std ft^3):	158.111	154.209	151.274	153.794	150.338	156.344	153.766	153.976	
(dry std m^3):	4.477	4.367	4.284	4.355	4.257	4.427	4.354	4.360	
Measured Volumetric Flow Rate									
Q (actual ft^3/min):	1,300,647	1,261,746	1,262,680	1,249,741	1,261,642	1,283,542	1,308,774	1,275,539	
Q_{std} (std ft^3/min):	915,823	890,991	880,278	883,288	875,803	905,059	897,950	892,742	
$Q_{std(dry)}$ (dry std ft^3/min):	784,926	761,170	760,665	758,883	743,156	769,484	755,182	761,924	
Net Mass Collected (ug)									
Naphthalene	1.470	1.510	1.560	1.350	1.490	2.000	1.430	1.544	ADL
2-Methyl-naphthalene	0.418	0.374	0.416	0.328	0.451	0.490	0.465	0.420	ADL
Acenaphthylene	0.011	0.006	0.008	0.007	0.010	0.009	0.013	0.009	ADL
Acenaphthene	0.013	0.015	0.015	0.012	0.012	0.014	0.013	0.013	ADL
Fluorene	0.055	0.054	0.044	0.049	0.046	0.050	0.043	0.049	ADL
Phenanthrene	0.416	0.517	0.364	0.464	0.304	0.268	0.360	0.385	ADL
Anthracene	0.025	0.024	0.018	0.018	0.016	0.015	0.012	0.018	ADL
Fluoranthene	0.151	0.279	0.208	0.323	0.148	0.129	0.140	0.197	ADL
Pyrene	0.119	0.256	0.192	0.770	0.139	0.129	0.128	0.248	ADL
Benzo(a)Anthracene	0.031	0.032	0.026	0.021	0.017	0.016	0.011	0.022	ADL
Chrysene	0.058	0.062	0.047	0.034	0.038	0.032	0.025	0.042	ADL
Benzo(b)Fluoranthene	0.072	0.068	0.047	0.029	0.032	0.030	0.022	0.043	ADL
Benzo(k)Fluoranthene	0.019	0.016	0.014	0.007	0.008	0.006	0.006	0.011	ADL
Benzo(e)Pyrene	0.045	0.079	0.060	0.036	0.028	0.027	0.027	0.043	ADL
Benzo(a)Pyrene	0.017	0.035	0.028	0.019	0.012	0.011	0.011	0.019	ADL
Perylene	0.004	0.004	0.003	0.002	0.001	0.001	0.001	0.002	ADL
Indeno(123-cd)Pyrene	0.027	0.046	0.035	0.014	0.013	0.012	0.015	0.023	ADL
Benzo(ghi)Perylene	0.074	0.274	0.207	0.086	0.068	0.068	0.087	0.123	ADL
Dibenzo(a,h)Anthracene	0.006	0.006	0.005	0.003	0.003	0.003	0.002	0.004	ADL
Total	**3.030**	**3.656**	**3.295**	**3.571**	**2.837**	**3.310**	**2.809**	**3.215**	ADL
Concentration (ug/dscm)									
Naphthalene	3.283E-01	3.458E-01	3.642E-01	3.100E-01	3.500E-01	4.518E-01	3.284E-01	3.541E-01	ADL
2-Methyl-naphthalene	9.336E-02	8.565E-02	9.711E-02	7.532E-02	1.059E-01	1.107E-01	1.068E-01	9.641E-02	ADL
Acenaphthylene	2.390E-03	1.385E-03	1.928E-03	1.600E-03	2.288E-03	2.019E-03	2.871E-03	2.069E-03	ADL
Acenaphthene	2.904E-03	3.458E-03	3.385E-03	2.641E-03	2.842E-03	3.230E-03	2.894E-03	3.050E-03	ADL
Fluorene	1.237E-02	1.225E-02	1.020E-02	1.132E-02	1.073E-02	1.120E-02	9.853E-03	1.113E-02	ADL
Phenanthrene	9.291E-02	1.184E-01	8.497E-02	1.065E-01	7.141E-02	6.054E-02	8.268E-02	8.821E-02	ADL
Anthracene	5.517E-03	5.519E-03	4.132E-03	4.087E-03	3.829E-03	3.456E-03	2.825E-03	4.195E-03	ADL
Fluoranthene	3.373E-02	6.389E-02	4.856E-02	7.417E-02	3.477E-02	2.914E-02	3.215E-02	4.520E-02	ADL
Pyrene	2.658E-02	5.862E-02	4.482E-02	1.768E-01	3.265E-02	2.914E-02	2.940E-02	5.686E-02	ADL
Benzo(a)Anthracene	6.969E-03	7.282E-03	6.046E-03	4.914E-03	4.040E-03	3.524E-03	2.526E-03	5.043E-03	ADL
Chrysene	1.289E-02	1.415E-02	1.093E-02	7.784E-03	8.950E-03	7.228E-03	5.627E-03	9.651E-03	ADL
Benzo(b)Fluoranthene	1.597E-02	1.546E-02	1.102E-02	6.682E-03	7.517E-03	6.731E-03	5.030E-03	9.772E-03	ADL
Benzo(k)Fluoranthene	4.288E-03	3.756E-03	3.268E-03	1.626E-03	1.849E-03	1.355E-03	1.263E-03	2.486E-03	ADL
Benzo(e)Pyrene	1.012E-02	1.811E-02	1.401E-02	8.243E-03	6.671E-03	6.076E-03	6.109E-03	9.906E-03	ADL
Benzo(a)Pyrene	3.819E-03	7.969E-03	6.443E-03	4.409E-03	2.748E-03	2.507E-03	2.503E-03	4.343E-03	ADL
Perylene	8.063E-04	9.527E-04	7.167E-04	4.661E-04	3.242E-04	3.004E-04	2.503E-04	5.452E-04	ADL
Indeno(123-cd)Pyrene	6.053E-03	1.042E-02	8.101E-03	3.100E-03	3.148E-03	2.778E-03	3.376E-03	5.282E-03	ADL
Benzo(ghi)Perylene	1.644E-02	6.275E-02	4.832E-02	1.970E-02	1.602E-02	1.534E-02	2.000E-02	2.837E-02	ADL
Dibenzo(a,h)Anthracene	1.345E-03	1.363E-03	1.079E-03	6.131E-04	7.799E-04	6.686E-04	5.397E-04	9.124E-04	ADL
Total	**6.768E-01**	**8.372E-01**	**7.692E-01**	**8.200E-01**	**6.665E-01**	**7.477E-01**	**6.451E-01**	**7.375E-01**	ADL

OTM-46 Test Results Summary

Company:	Primary Energy
Plant:	Cokenergy Facility
Unit:	HRSG
Location:	Main Stack

	1	2	3	4	5	6	7	Average
Source Condition:	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
Date:	2/2/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	
Start Time:	9:45	8:40	8:10	8:50	8:05	8:10	8:25	
End Time:	15:25	12:57	12:40	13:20	12:35	12:40	12:55	
Run Duration (min):	240	240	240	240	240	240	240	240
Fixed Gas Content:								
CO_2 (% vol):	6.52	6.16	5.79	5.90	6.12	6.09	6.28	6.12
O_2 (% vol):	11.72	11.88	12.47	12.36	11.82	11.95	11.55	11.96
Fractional Moisture Content:	0.143	0.146	0.136	0.141	0.151	0.150	0.159	0.147
Sample Volume, $V_{m(std)}$								
(dry std ft^3):	158.111	154.209	151.274	153.794	150.338	156.344	153.766	153.976
(dry std m^3):	4.477	4.367	4.284	4.355	4.257	4.427	4.354	4.360
Measured Volumetric Flow Rate								
Q (actual ft^3/min):	1,300,647	1,261,746	1,262,680	1,249,741	1,261,642	1,283,542	1,308,774	1,275,539
Q_{std} (std ft^3/min):	915,823	890,991	880,278	883,288	875,803	905,059	897,950	892,742
$Q_{std(dry)}$ (dry std ft^3/min):	784,926	761,170	760,665	758,883	743,156	769,484	755,182	761,924
Emission Rate (lb/hr)								
Naphthalene	9.653E-04	9.859E-04	1.038E-03	8.811E-04	9.743E-04	1.302E-03	9.290E-04	1.011E-03 ADL
2-Methyl-naphthalene	2.745E-04	2.442E-04	2.767E-04	2.141E-04	2.949E-04	3.190E-04	3.021E-04	2.751E-04 ADL
Acenaphthylene	7.026E-06	3.950E-06	5.494E-06	4.549E-06	6.369E-06	5.820E-06	8.120E-06	5.904E-06 ADL
Acenaphthene	8.537E-06	9.859E-06	9.644E-06	7.506E-06	7.912E-06	9.310E-06	8.185E-06	8.708E-06 ADL
Fluorene	3.638E-05	3.493E-05	2.907E-05	3.218E-05	2.988E-05	3.229E-05	2.787E-05	3.180E-05 ADL
Phenanthrene	2.732E-04	3.376E-04	2.421E-04	3.029E-04	1.988E-04	1.745E-04	2.339E-04	2.518E-04 ADL
Anthracene	1.622E-05	1.573E-05	1.177E-05	1.162E-05	1.066E-05	9.961E-06	7.991E-06	1.199E-05 ADL
Fluoranthene	9.916E-05	1.822E-04	1.383E-04	2.108E-04	9.677E-05	8.398E-05	9.095E-05	1.289E-04 ADL
Pyrene	7.814E-05	1.671E-04	1.277E-04	5.026E-04	9.089E-05	8.398E-05	8.315E-05	1.619E-04 ADL
Benzo(a)Anthracene	2.049E-05	2.076E-05	1.723E-05	1.397E-05	1.125E-05	1.016E-05	7.146E-06	1.443E-05 ADL
Chrysene	3.789E-05	4.035E-05	3.113E-05	2.213E-05	2.491E-05	2.083E-05	1.592E-05	2.759E-05 ADL
Benzo(b)Fluoranthene	4.695E-05	4.407E-05	3.139E-05	1.899E-05	2.092E-05	1.940E-05	1.423E-05	2.799E-05 ADL
Benzo(k)Fluoranthene	1.261E-05	1.071E-05	9.312E-06	4.621E-06	5.146E-06	3.906E-06	3.573E-06	7.125E-06 ADL
Benzo(e)Pyrene	2.975E-05	5.164E-05	3.991E-05	2.343E-05	1.857E-05	1.751E-05	1.728E-05	2.830E-05 ADL
Benzo(a)Pyrene	1.123E-05	2.272E-05	1.836E-05	1.253E-05	7.650E-06	7.226E-06	7.081E-06	1.240E-05 ADL
Perylene	2.371E-06	2.716E-06	2.042E-06	1.325E-06	9.023E-07	8.659E-07	7.081E-07	1.561E-06 ADL
Indeno(123-cd)Pyrene	1.780E-05	2.971E-05	2.308E-05	8.811E-06	8.762E-06	8.008E-06	9.550E-06	1.510E-05 ADL
Benzo(ghi)Perylene	4.833E-05	1.789E-04	1.377E-04	5.600E-05	4.459E-05	4.420E-05	5.658E-05	8.090E-05 ADL
Dibenzo(a,h)Anthracene	3.953E-06	3.885E-06	3.073E-06	1.743E-06	2.171E-06	1.927E-06	1.527E-06	2.611E-06 ADL
Total	**1.990E-03**	**2.387E-03**	**2.192E-03**	**2.331E-03**	**1.855E-03**	**2.155E-03**	**1.825E-03**	**2.105E-03** ADL
Concentration (ug/dscm at 7% O2)								
Naphthalene	4.650E-01	2.151E-01	5.616E-01	4.719E-01	5.011E-01	6.562E-01	4.566E-01	4.753E-01 ADL
2-Methyl-naphthalene	1.322E-01	5.327E-02	1.498E-01	1.146E-01	1.517E-01	1.608E-01	1.485E-01	1.301E-01 ADL
Acenaphthylene	3.384E-03	8.618E-04	2.974E-03	2.436E-03	3.276E-03	2.933E-03	3.991E-03	2.837E-03 ADL
Acenaphthene	4.112E-03	2.151E-03	5.220E-03	4.020E-03	4.069E-03	4.692E-03	4.023E-03	4.041E-03 ADL
Fluorene	1.752E-02	7.621E-03	1.573E-02	1.723E-02	1.537E-02	1.627E-02	1.370E-02	1.478E-02 ADL
Phenanthrene	1.316E-01	7.364E-02	1.310E-01	1.622E-01	1.022E-01	8.793E-02	1.150E-01	1.148E-01 ADL
Anthracene	7.812E-03	3.433E-03	6.372E-03	6.222E-03	5.482E-03	5.020E-03	3.928E-03	5.467E-03 ADL
Fluoranthene	4.776E-02	3.974E-02	7.488E-02	1.129E-01	4.977E-02	4.232E-02	4.470E-02	5.887E-02 ADL
Pyrene	3.764E-02	3.647E-02	6.912E-02	2.691E-01	4.675E-02	4.232E-02	4.087E-02	7.747E-02 ADL
Benzo(a)Anthracene	9.868E-03	4.530E-03	9.324E-03	7.480E-03	5.785E-03	5.118E-03	3.513E-03	6.517E-03 ADL
Chrysene	1.825E-02	8.803E-03	1.685E-02	1.185E-02	1.281E-02	1.050E-02	7.823E-03	1.241E-02 ADL
Benzo(b)Fluoranthene	2.262E-02	9.615E-03	1.699E-02	1.017E-02	1.076E-02	9.777E-03	6.993E-03	1.242E-02 ADL
Benzo(k)Fluoranthene	6.073E-03	2.336E-03	5.040E-03	2.475E-03	2.647E-03	1.969E-03	1.756E-03	3.185E-03 ADL
Benzo(e)Pyrene	1.433E-02	1.127E-02	2.160E-02	1.255E-02	9.551E-03	8.826E-03	8.494E-03	1.237E-02 ADL
Benzo(a)Pyrene	5.409E-03	4.957E-03	9.936E-03	6.711E-03	3.935E-03	3.642E-03	3.481E-03	5.439E-03 ADL
Perylene	1.142E-03	5.926E-04	1.105E-03	7.096E-04	4.641E-04	4.364E-04	3.481E-04	6.854E-04 ADL
Indeno(123-cd)Pyrene	8.572E-03	6.481E-03	1.249E-02	4.719E-03	4.507E-03	4.036E-03	4.694E-03	6.500E-03 ADL
Benzo(ghi)Perylene	2.328E-02	3.903E-02	7.452E-02	2.999E-02	2.294E-02	2.228E-02	2.781E-02	3.426E-02 ADL
Dibenzo(a,h)Anthracene	1.904E-03	8.475E-04	1.663E-03	9.333E-04	1.117E-03	9.711E-04	7.504E-04	1.169E-03 ADL
Total	**9.584E-01**	**5.207E-01**	**1.186E+00**	**1.248E+00**	**9.543E-01**	**1.086E+00**	**8.969E-01**	**9.787E-01** ADL
Isokinetic Variation (%):	99.9	100.5	98.6	100.5	100.3	100.7	101.0	

1 -One or more of the sample fractions were below the detection limit

ADL - all analytical values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

DLL - at least one, but not all values used to calculate and report an in-stack emissions value are greater than the laboratory's reported detection level(s)

BDL - all analytical values used to calculate and report an in-stack emissions value are less than the laboratory's reported detection level(s)

English Units: Standard conditions of 29.92 inHg and 68º F
Metric Units: Standard conditions of 760 mmHg and 20º C

ORGANIC HAP TEST RESULTS SUMMARY METHOD 18

Company: Primary Energy
Plant: Cokenergy Facility
Unit/Location: HRSG Main Stack

Test Run Number	1A		2A		3A		4A		5A		6A		7A		Average
Date	2/2/2023		2/2/2023		2/2/2023		2/2/2023		2/4/2023		2/4/2023		2/4/2023		
Start Time	9:45		11:40		13:00		14:40		8:40		10:20		11:45		
End Time	10:45		12:40		14:00		15:40		9:40		11:20		12:45		
Sample Duration (min):	60		60		60		60		60		60		60		
Test Condition:	Normal		Normal		Normal		Normal		Normal		Normal		Normal		
Measured Volumetric Flow Rate															
$Q_{std(dry)}$ (dscfm):	774,081		774,081		774,081		774,081		749,880		749,880		749,880		763,709
Gas Composition:															
O_2 % Dry	11.72		11.70		12.00		12.06		11.88		11.88		11.88		11.87
CO_2 % Dry	6.52		6.33		6.17		6.17		6.16		6.16		6.16		6.24
Sample Volume, Unspiked Train															
(dry std. liters):	30.708		30.238		29.935		29.795		31.336		30.442		30.257		
(dry std. m^3):	0.0307		0.0302		0.0299		0.0298		0.0313		0.0304		0.0303		
(dry std. ft^3):	1.084		1.068		1.057		1.052		1.107		1.075		1.069		
Mass of Pollutant Collected (µg)															
Benzene	1.9	BDL	1.9	BDL	1.9	BDL	1.9	BDL	2.0	BDL	2.0	BDL	2.0	BDL	1.9
Ethylbenzene	2.5	BDL	2.5	BDL	2.5	BDL	2.5	BDL	2.5	BDL	2.5	BDL	2.5	BDL	2.5
m/p Xylene	3.7	BDL	3.7	BDL	3.7	BDL	3.7	BDL	3.8	BDL	3.7	BDL	3.7	BDL	3.7
o-Xylene	2.4	BDL	2.4	BDL	2.4	BDL	2.4	BDL	2.4	BDL	2.4	BDL	2.4	BDL	2.4
Toluene	2.3	BDL	2.3	BDL	2.3	BDL	2.3	BDL	2.3	BDL	2.3	BDL	2.3	BDL	2.3
Total HAPS (µg)	**12.7**	**BDL**	**12.7**	**BDL**	**12.7**	**BDL**	**12.7**	**BDL**	**13.0**	**BDL**	**12.8**	**BDL**	**12.8**	**BDL**	**12.8**
Pollutant Concentration (µg/dscm)															
Benzene	63.2	BDL	64.2	BDL	64.8	BDL	65.1	BDL	63.2	BDL	64.1	BDL	64.4	BDL	64.1
Ethylbenzene	79.8	BDL	81.0	BDL	81.8	BDL	82.2	BDL	79.5	BDL	80.5	BDL	81.0	BDL	80.8
m/p Xylene	120.5	BDL	122.4	BDL	123.6	BDL	124.2	BDL	120.9	BDL	122.5	BDL	123.3	BDL	122.5
o-Xylene	76.5	BDL	77.7	BDL	78.5	BDL	78.9	BDL	76.6	BDL	77.9	BDL	78.3	BDL	77.8
Toluene	74.6	BDL	75.7	BDL	76.5	BDL	76.9	BDL	74.0	BDL	75.2	BDL	75.7	BDL	75.5
Total HAPS (µg/dscm)	**414.5**	**BDL**	**421.0**	**BDL**	**425.3**	**BDL**	**427.3**	**BDL**	**414.2**	**BDL**	**420.1**	**BDL**	**422.7**	**BDL**	**420.7**
Pollutant Emission Rate (lb/hr)															
Benzene	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2
Ethylbenzene	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2
m/p Xylene	0.3	BDL	0.4	BDL	0.4	BDL	0.4	BDL	0.3	BDL	0.3	BDL	0.3	BDL	0.3
o-Xylene	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2
Toluene	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2
Total HAPS (lbs/hr)	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**	**BDL**	**1.2**
Pollutant Concentration (mg/dscm)															
Benzene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
Ethylbenzene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
m/p Xylene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
o-Xylene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
Toluene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
Total HAPS (mg/dscm)	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**	**BDL**	**0.4**
Pollutant Concentration (mg/dscm corrected to 7% O_2)															
Benzene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.0	BDL	0.0	BDL	0.1
Ethylbenzene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
m/p Xylene	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.2	BDL	0.1	BDL	0.1	BDL	0.1
o-Xylene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1
Toluene	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.1	BDL	0.0	BDL	0.0	BDL	0.1
Total HAPS (mg/dscm @ 7% O_2)	**0.6**	**BDL**	**0.6**	**BDL**	**0.7**	**BDL**	**0.7**	**BDL**	**0.6**	**BDL**	**0.3**	**BDL**	**0.3**	**BDL**	**0.5**

BDL - all analytical values used to calculate and report an in-stack emissions value are less than the laboratory's reported detection level(s)

DOWNSTREAM OF HRSGs METHOD 18 TEST RESULTS SUMMARY

gti testing laboratories

BTEX Analysis in Gas by EPA TO-14 (GC-PID)

Client: TRC Environmental Corporation

Date Analyzed: 02/16-17/2023

Sample #	232106-001	232106-002	232106-003	
Description	HRSG-Inlet-R1 02/08/23	HRSG-Inlet-R2 02/08/23	HRSG-Inlet-R3 02/08/23	Molecular Weight lb/lb-mole
Benzene	0.16	0.1	0.27	78.11
Toluene	0.12	0.1	0.83	92.14
Ethylbenzene	0.1	0.1	0.1	106.17
m,p-Xylene	0.1	0.1	0.12	106.16
o-Xylene	0.1	0.1	0.1	106.16

This test does not fall under the lab's ISO 17025 accreditation.

Gas Technology Institute | 1700 S. Mount Prospect Rd. | Des Plaines, IL 60018 | T: 847 768 0500 | F: 847 768 0970 | www.gti.energy/gtilabs

				ug/dscm Average
Benzene	519.5531	324.7207	876.7459	573.6732
Toluene	459.6558	383.0465	3179.2862	957.1680
Ethylbenzene	441.3724	441.3724	441.3724	891.0176
m,p-Xylene	441.3308	441.3308	529.5970	456.0626
o-Xylene	441.3308	441.3308	441.3308	456.0418

METHOD 320 FTIR TEST RESULT SUMMARIES

EMISSIONS TEST RESULTS SUMMARY - EPA METHOD 320					
Company:	**Primary Energy**		**Date:**	**2/6/2023**	
Plant:	**Cokenergy Facility**		**Project #:**	**508369**	
Unit:	**HRSG**		**Op. Condition:**	**Normal**	
Sample Loc:	**Main Stack**		**TRC ENVIRONMENTAL**		
	Date		2/6/2023	2/6/2023	2/6/2023
	Start Time		10:18	11:19	12:20
	End Time		11:18	12:19	13:20
	Test Run		1	2	3
Flow	Stack Flow Method 29	dscfm	761,506	761,506	761,506
Moisture	Moisture Method 320	Fraction	0.145	0.143	0.141
	O_2 Method 3A	%, Dry	12.36	12.36	12.36
	O_2 Basis for Correction	7			
	Hydrogen Chloride HCl	ppmvw	17.35	21.33	24.22
MW=	36.4606	ppmvd	20.29	24.90	28.20
		lb/hr	87.75	107.65	121.91
		µg/dscm	30761.78	37740.10	42737.58
		µg/dscm @ 7% O2	50068.94	61427.09	69561.17
		ppmvd at 7% O2	33.03	40.53	45.89
	Hydrogen Fluoride HF	ppmvw	<0.17	<0.17	<0.17
MW=	20.00634	ppmvd	<0.2	<0.2	<0.2
		lb/hr	<0.47	<0.48	<0.47
		µg/dscm	<166.34	<166.34	<166.34
		µg/dscm @ 7% O2	<270.74	<270.74	<270.74
		ppmvd at 7% O2	<0.32	<0.33	<0.32
	Hydrogen Cyanide HCN	ppmvw	<0.21	<0.21	<0.21
MW=	27.0254	ppmvd	<0.24	<0.24	<0.25
		lb/hr	<0.78	<0.77	<0.79
		µg/dscm	<269.64	<269.64	<280.88
		µg/dscm @ 7% O2	<438.88	<438.88	<457.16
		ppmvd at 7% O2	<0.4	<0.39	<0.4
	Formaldehyde CH2O	ppmvw	0.12	0.14	0.14
MW=	30.026	ppmvd	0.14	0.17	0.17
		lb/hr	0.51	0.60	0.59
		µg/dscm	179.09	209.62	207.68
		µg/dscm @ 7% O2	291.50	341.19	338.02
		ppmvd at 7% O2	0.23	0.27	0.27

EMISSIONS TEST RESULTS SUMMARY - EPA METHOD 320					
Company:	**Primary Energy**		**Date:**	**2/7/2023**	
Plant:	**Cokenergy Facility**		**Project #:**	**508369**	
Unit:	**HRSG**		**Op. Condition:**	**Normal**	
Sample Loc:	**Main Stack**		**TRC ENVIRONMENTAL**		
	Date		2/7/2023	2/7/2023	2/7/2023
	Start Time		9:33	10:34	11:35
	End Time		10:33	11:34	12:35
	Test Run		4	5	6
Flow	Stack Flow Method 29	dscfm	748,404	748,404	748,404
Moisture	Moisture Method 320	Fraction	0.154	0.152	0.149
	O_2 Method 3A	%, Dry	11.82	11.82	11.82
	O_2 Basis for Correction	7			
	Hydrogen Chloride HCl	ppmvw	0.85	0.92	1.71
MW=	36.4606	ppmvd	1.01	1.08	2.01
		lb/hr	4.28	4.60	8.53
		µg/dscm	1525.92	1639.81	3041.38
		µg/dscm @ 7% O2	2335.93	2510.28	4655.86
		ppmvd at 7% O2	1.54	1.66	3.07
	Hydrogen Fluoride HF	ppmvw	<0.19	<0.2	<0.19
MW=	20.00634	ppmvd	<0.23	<0.23	<0.23
		lb/hr	<0.53	<0.54	<0.53
		µg/dscm	<191.29	<191.29	<191.29
		µg/dscm @ 7% O2	<292.84	<292.84	<292.84
		ppmvd at 7% O2	<0.34	<0.36	<0.35
	Hydrogen Cyanide HCN	ppmvw	<0.31	<0.31	<0.29
MW=	27.0254	ppmvd	<0.36	<0.37	<0.35
		lb/hr	<1.14	<1.15	<1.09
		µg/dscm	<404.46	<415.70	<393.23
		µg/dscm @ 7% O2	<619.17	<636.36	<601.97
		ppmvd at 7% O2	<0.55	<0.56	<0.53
	Formaldehyde CH2O	ppmvw	0.23	0.16	<0.08
MW=	30.026	ppmvd	0.27	0.18	<0.1
		lb/hr	0.95	0.64	<0.34
		µg/dscm	339.82	229.30	<124.82
		µg/dscm @ 7% O2	520.21	351.03	<191.09
		ppmvd at 7% O2	0.42	0.28	<0.15

EMISSIONS TEST RESULTS SUMMARY - EPA METHOD 320				
Company:	**Primary Energy**		**Date:**	**2/8/2023**
Plant:	**Cokenergy Facility**		**Project #:**	**508369**
Unit:	**HRSG**		**Op. Condition:**	**Normal**
Sample Loc:	**Main Stack**		**TRC ENVIRONMENTAL**	
	Date		2/8/2023	
	Start Time		9:38	
	End Time		10:38	
	Test Run		7	Average
Flow	Stack Flow Method 29	dscfm	780,320	
Moisture	Moisture Method 320	Fraction	0.151	
	O_2 Method 3A	%, Dry	11.95	
	O_2 Basis for Correction	7		
	Hydrogen Chloride HCl	ppmvw	7.44	10.54
MW=	36.4606	ppmvd	8.76	12.32
		lb/hr	38.82	53.36
		µg/dscm	13279.90	18675.21
		µg/dscm @ 7% O2	20624.65	30169.13
		ppmvd at 7% O2	13.61	19.90
	Hydrogen Fluoride HF	ppmvw	<0.17	<0.18
MW=	20.00634	ppmvd	<0.2	<0.21
		lb/hr	<0.49	<0.50
		µg/dscm	<166.34	<177.04
		µg/dscm @ 7% O2	<258.34	<278.44
		ppmvd at 7% O2	<0.31	<0.33
	Hydrogen Cyanide HCN	ppmvw	<0.23	<0.25
MW=	27.0254	ppmvd	<0.28	<0.30
		lb/hr	<0.9	<0.95
		µg/dscm	<314.58	<335.45
		µg/dscm @ 7% O2	<488.57	<525.86
		ppmvd at 7% O2	<0.43	<0.47
	Formaldehyde CH2O	ppmvw	<0.08	<0.14
MW=	30.026	ppmvd	<0.1	<0.16
		lb/hr	<0.35	<0.57
		µg/dscm	<124.82	<202.17
		µg/dscm @ 7% O2	<193.86	<318.13
		ppmvd at 7% O2	<0.15	<0.25

APPENDIX

AETB and QI Information Summary

Facility Name:	Cokenergy, LLC – East Chicago, Indiana
Location:	HRSG Main Stack
Test Date:	February 2 through 9, 2023

Test Parameters:	1, 2, 3A, 5, 7E, 10, 18, 29, 202, 320	1, 2, 3A, 5, 7E, 10, 29, 202	1, 2, 3A, 5, 7E, 10, 202
QI Last Name:	Sakellariou	Lewis	Wells
QI First Name:	Anthony	Gavin	David
QI Middle Initial:	----	----	----
AETB Name:	TRC Environmental Corporation	TRC Environmental Corporation	TRC Environmental Corporation
AETB Phone No:	312-533-2035	312-533-2025	312-533-2027
AETB Email:	asakellariou@trccompanies.com	glewis@trccompanies.com	dwells@trccompanies.com
Group 1 Exam Date:	10/29/2019	01/05/2023	10/11/2022
Provider Name:	Source Evaluation Society	Source Evaluation Society	Source Evaluation Society
Provider Email:	qstiprogram@gmail.com	qstiprogram@gmail.com	qstiprogram@gmail.com
Group 3 Exam Date:	10/31/2019	01/05/2023	10/12/2022
Provider Name:	Source Evaluation Society	Source Evaluation Society	Source Evaluation Society
Provider Email:	qstiprogram@gmail.com	qstiprogram@gmail.com	qstiprogram@gmail.com
Group 4 Exam Date:	10/30/2019	01/05/2023	----
Provider Name:	Source Evaluation Society	Source Evaluation Society	Source Evaluation Society
Provider Email:	qstiprogram@gmail.com	qstiprogram@gmail.com	qstiprogram@gmail.com
Misc. Method Internal Exam Date:	08/17/2020 (M18) 09/28/2022 (M320)	----	----
Provider Name:	TRC Environmental Corporation	TRC Environmental Corporation	TRC Environmental Corporation
Provider Email:	emackinnon@trcsolutions.com	emackinnon@trcsolutions.com	emackinnon@trcsolutions.com

This is to Certify that:

Anthony Sakellariou

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5i, 17, 19, 201A, and 202.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-29-2024

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 11-01-2019

Certificate Number: 01527

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Anthony Sakellariou

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 3A, 6C, 7E, 10, 10B, 19, 20, 25A.

CEM Performance Specifications PS2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-31-2024

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 11-01-2019

Certificate Number: 01529

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Anthony Sakellariou

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 2, 3, 4, 12, 19, 29, 30B, 101, 101A, 102, and ASTM D6784-02.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-30-2024

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 11-01-2019

Certificate Number: 01530

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Anthony Sakellariou

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Method 318

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed an internal comprehensive examination for the test methods designated above.

This certification is effective until:

08-17-2025

Date of Issue: 08-18-2020

Certificate Number: 01587

Edward MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Anthony Sakellariou

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test method(s):

EPA Methods 320 and 321

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed an internal comprehensive examination for the test methods designated above.

This certification is effective until:

09-28-2027

Date of Issue: 09-28-2022

Certificate Number: 01880

Edward MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gavin Lewis

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5i, 17, 19, 201A, and 202.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 01-05-2028

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 01-09-2023

Certificate Number: 01903

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gavin Lewis

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 3A, 6C, 7E, 10, 10B, 19, 20, 25A.

CEM Performance Specifications PS2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 01-05-2028

Date of Issue: 01-09-2023

Certificate Number: 01904

Edward J MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gavin Lewis

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 2, 3, 4, 12, 19, 29, 30B, 101, 101A, 102, and ASTM D6784-02.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 01-05-2028

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 01-09-2023

Certificate Number: 01905

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

David Wells

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5i, 17, 19, 201A, and 202.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-11-2027

Date of Issue: 11-14-2022

Certificate Number: 01897

Edward J MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

David Wells

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 3A, 6C, 7E, 10, 10B, 19, 20, 25A.

CEM Performance Specifications PS2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-12-2027

Edward J MacKinnon
Air Measurements Practice Quality Manager

Date of Issue: 11-14-2022

Certificate Number: 01898

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gregory Rock

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5i, 17, 19, 201A, and 202.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 10-13-2027

Date of Issue: 11-14-2022

Certificate Number: 01896

Edward J MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gregory Rock

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 3A, 6C, 7E, 10, 10B, 19, 20, 25A.

CEM Performance Specifications PS2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 08-08-2023

Date of Issue: 08-09-2018

Certificate Number: 01390

Edward J MacKinnon
Air Measurements Practice Quality Manager

This certificate is the exclusive property of TRC and is non-transferable.

This is to Certify that:

Gregory Rock

Is a Qualified Individual as defined in Section 8.3 of ASTM D7036-04 for the following test methods:

EPA Methods 1, 2, 3, 4, 12, 19, 29, 30B, 101, 101A, 102, and ASTM D6784-02.

The individual has met the minimum experience requirements defined in Section 8.3.4.2 of ASTM D7036-04 and has successfully passed a comprehensive examination for the test methods designated above.

This certification is effective until: 01-21-2026

Date of Issue: 01-22-2021

Certificate Number: 01642

Edward J MacKinnon
Air Measurements Practice Quality Manager

TRC

This certificate is the exclusive property of TRC and is non-transferable.

Sulfur Dioxide Operating Data Run 1

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 11:40:00 AM	202.7	SVC10000030-----
2/2/2023 11:41:00 AM	202.9	SVC10000030-----
2/2/2023 11:42:00 AM	204.1	SVC10000030-----
2/2/2023 11:43:00 AM	202.5	SVC10000030-----
2/2/2023 11:44:00 AM	205.0	SVC10000030-----
2/2/2023 11:45:00 AM	200.1	SVC10000030-----
2/2/2023 11:46:00 AM	200.6	SVC10000030-----
2/2/2023 11:47:00 AM	201.6	SVC10000030-----
2/2/2023 11:48:00 AM	204.2	SVC10000030-----
2/2/2023 11:49:00 AM	203.6	SVC10000030-----
2/2/2023 11:50:00 AM	202.2	SVC10000030-----
2/2/2023 11:51:00 AM	201.4	SVC10000030-----
2/2/2023 11:52:00 AM	202.6	SVC10000030-----
2/2/2023 11:53:00 AM	200.8	SVC10000030-----
2/2/2023 11:54:00 AM	202.0	SVC10000030-----
2/2/2023 11:55:00 AM	204.5	SVC10000030-----
2/2/2023 11:56:00 AM	200.7	SVC10000030-----
2/2/2023 11:57:00 AM	200.0	SVC10000030-----
2/2/2023 11:58:00 AM	201.8	SVC10000030-----
2/2/2023 11:59:00 AM	202.2	SVC10000030-----
2/2/2023 12:00:00 PM	199.8	SVC10000030-----
2/2/2023 12:01:00 PM	75.1	PRG10000030-----
2/2/2023 12:02:00 PM	11.5	NSA10000030-----
2/2/2023 12:03:00 PM	148.4	NSA10000030-----
2/2/2023 12:04:00 PM	200.6	SVC10000030-----
2/2/2023 12:05:00 PM	203.2	SVC10000030-----
2/2/2023 12:06:00 PM	202.6	SVC10000030-----
2/2/2023 12:07:00 PM	201.0	SVC10000030-----
2/2/2023 12:08:00 PM	200.9	SVC10000030-----
2/2/2023 12:09:00 PM	200.0	SVC10000030-----
2/2/2023 12:10:00 PM	197.3	SVC10000030-----
2/2/2023 12:11:00 PM	200.1	SVC10000030-----
2/2/2023 12:12:00 PM	199.2	SVC10000030-----
2/2/2023 12:13:00 PM	200.8	SVC10000030-----
2/2/2023 12:14:00 PM	200.0	SVC10000030-----
2/2/2023 12:15:00 PM	196.9	SVC10000030-----
2/2/2023 12:16:00 PM	195.2	SVC10000030-----
2/2/2023 12:17:00 PM	198.6	SVC10000030-----
2/2/2023 12:18:00 PM	199.6	SVC10000030-----
2/2/2023 12:19:00 PM	201.6	SVC10000030-----
2/2/2023 12:20:00 PM	199.2	SVC10000030-----
2/2/2023 12:21:00 PM	199.0	SVC10000030-----
2/2/2023 12:22:00 PM	199.6	SVC10000030-----
2/2/2023 12:23:00 PM	199.3	SVC10000030-----
2/2/2023 12:24:00 PM	199.2	SVC10000030-----

Sulfur Dioxide Operating Data Run 1

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 12:25:00 PM	198.4	SVC10000030-----
2/2/2023 12:26:00 PM	199.2	SVC10000030-----
2/2/2023 12:27:00 PM	201.3	SVC10000030-----
2/2/2023 12:28:00 PM	198.4	SVC10000030-----
2/2/2023 12:29:00 PM	199.8	SVC10000030-----
2/2/2023 12:30:00 PM	196.5	SVC10000030-----
2/2/2023 12:31:00 PM	197.7	SVC10000030-----
2/2/2023 12:32:00 PM	199.0	SVC10000030-----
2/2/2023 12:33:00 PM	199.9	SVC10000030-----
2/2/2023 12:34:00 PM	199.2	SVC10000030-----
2/2/2023 12:35:00 PM	196.9	SVC10000030-----
2/2/2023 12:36:00 PM	196.8	SVC10000030-----
2/2/2023 12:37:00 PM	198.1	SVC10000030-----
2/2/2023 12:38:00 PM	198.9	SVC10000030-----
2/2/2023 12:39:00 PM	200.2	SVC10000030-----
Average	**200.3**	

Sulfur Dioxide Operating Data Run 2

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 1:00:00 PM	198.7	SVC10000030-----
2/2/2023 1:01:00 PM	200.7	SVC10000030-----
2/2/2023 1:02:00 PM	199.1	SVC10000030-----
2/2/2023 1:03:00 PM	198.9	SVC10000030-----
2/2/2023 1:04:00 PM	196.7	SVC10000030-----
2/2/2023 1:05:00 PM	200.5	SVC10000030-----
2/2/2023 1:06:00 PM	199.7	SVC10000030-----
2/2/2023 1:07:00 PM	198.9	SVC10000030-----
2/2/2023 1:08:00 PM	196.6	SVC10000030-----
2/2/2023 1:09:00 PM	199.1	SVC10000030-----
2/2/2023 1:10:00 PM	195.8	SVC10000030-----
2/2/2023 1:11:00 PM	198.1	SVC10000030-----
2/2/2023 1:12:00 PM	198.5	SVC10000030-----
2/2/2023 1:13:00 PM	199.8	SVC10000030-----
2/2/2023 1:14:00 PM	196.7	SVC10000030-----
2/2/2023 1:15:00 PM	195.4	SVC10000030-----
2/2/2023 1:16:00 PM	199.0	SVC10000030-----
2/2/2023 1:17:00 PM	199.1	SVC10000030-----
2/2/2023 1:18:00 PM	200.4	SVC10000030-----
2/2/2023 1:19:00 PM	201.1	SVC10000030-----
2/2/2023 1:20:00 PM	201.3	SVC10000030-----
2/2/2023 1:21:00 PM	199.9	SVC10000030-----
2/2/2023 1:22:00 PM	197.2	SVC10000030-----
2/2/2023 1:23:00 PM	194.9	SVC10000030-----
2/2/2023 1:24:00 PM	196.8	SVC10000030-----
2/2/2023 1:25:00 PM	196.2	SVC10000030-----
2/2/2023 1:26:00 PM	194.4	SVC10000030-----
2/2/2023 1:27:00 PM	196.3	SVC10000030-----
2/2/2023 1:28:00 PM	195.2	SVC10000030-----
2/2/2023 1:29:00 PM	194.0	SVC10000030-----
2/2/2023 1:30:00 PM	195.0	SVC10000030-----
2/2/2023 1:31:00 PM	196.0	SVC10000030-----
2/2/2023 1:32:00 PM	195.6	SVC10000030-----
2/2/2023 1:33:00 PM	194.7	SVC10000030-----
2/2/2023 1:34:00 PM	195.4	SVC10000030-----
2/2/2023 1:35:00 PM	194.8	SVC10000030-----
2/2/2023 1:36:00 PM	195.3	SVC10000030-----
2/2/2023 1:37:00 PM	195.4	SVC10000030-----
2/2/2023 1:38:00 PM	193.9	SVC10000030-----
2/2/2023 1:39:00 PM	195.1	SVC10000030-----
2/2/2023 1:40:00 PM	193.4	SVC10000030-----
2/2/2023 1:41:00 PM	193.9	SVC10000030-----
2/2/2023 1:42:00 PM	194.3	SVC10000030-----
2/2/2023 1:43:00 PM	194.8	SVC10000030-----
2/2/2023 1:44:00 PM	195.4	SVC10000030-----

Sulfur Dioxide Operating Data Run 2

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 1:45:00 PM	197.1	SVC10000030-----
2/2/2023 1:46:00 PM	196.5	SVC10000030-----
2/2/2023 1:47:00 PM	195.4	SVC10000030-----
2/2/2023 1:48:00 PM	195.1	SVC10000030-----
2/2/2023 1:49:00 PM	196.2	SVC10000030-----
2/2/2023 1:50:00 PM	196.3	SVC10000030-----
2/2/2023 1:51:00 PM	193.2	SVC10000030-----
2/2/2023 1:52:00 PM	195.7	SVC10000030-----
2/2/2023 1:53:00 PM	195.8	SVC10000030-----
2/2/2023 1:54:00 PM	197.9	SVC10000030-----
2/2/2023 1:55:00 PM	196.8	SVC10000030-----
2/2/2023 1:56:00 PM	196.8	SVC10000030-----
2/2/2023 1:57:00 PM	194.0	SVC10000030-----
2/2/2023 1:58:00 PM	195.6	SVC10000030-----
2/2/2023 1:59:00 PM	197.4	SVC10000030-----
Average	**196.7**	

Sulfur Dioxide Operating Data Run 3

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 2:25:00 PM	185.3	SVC10000030-----
2/2/2023 2:26:00 PM	184.3	SVC10000030-----
2/2/2023 2:27:00 PM	185.6	SVC10000030-----
2/2/2023 2:28:00 PM	184.6	SVC10000030-----
2/2/2023 2:29:00 PM	186.2	SVC10000030-----
2/2/2023 2:30:00 PM	185.3	SVC10000030-----
2/2/2023 2:31:00 PM	187.0	SVC10000030-----
2/2/2023 2:32:00 PM	186.8	SVC10000030-----
2/2/2023 2:33:00 PM	187.5	SVC10000030-----
2/2/2023 2:34:00 PM	186.0	SVC10000030-----
2/2/2023 2:35:00 PM	186.2	SVC10000030-----
2/2/2023 2:36:00 PM	184.7	SVC10000030-----
2/2/2023 2:37:00 PM	185.7	SVC10000030-----
2/2/2023 2:38:00 PM	187.3	SVC10000030-----
2/2/2023 2:39:00 PM	187.1	SVC10000030-----
2/2/2023 2:40:00 PM	189.0	SVC10000030-----
2/2/2023 2:41:00 PM	187.9	SVC10000030-----
2/2/2023 2:42:00 PM	184.9	SVC10000030-----
2/2/2023 2:43:00 PM	189.0	SVC10000030-----
2/2/2023 2:44:00 PM	190.6	SVC10000030-----
2/2/2023 2:45:00 PM	189.7	SVC10000030-----
2/2/2023 2:46:00 PM	190.6	SVC10000030-----
2/2/2023 2:47:00 PM	191.1	SVC10000030-----
2/2/2023 2:48:00 PM	193.9	SVC10000030-----
2/2/2023 2:49:00 PM	192.7	SVC10000030-----
2/2/2023 2:50:00 PM	191.5	SVC10000030-----
2/2/2023 2:51:00 PM	187.5	SVC10000030-----
2/2/2023 2:52:00 PM	190.2	SVC10000030-----
2/2/2023 2:53:00 PM	192.5	SVC10000030-----
2/2/2023 2:54:00 PM	193.4	SVC10000030-----
2/2/2023 2:55:00 PM	197.3	SVC10000030-----
2/2/2023 2:56:00 PM	197.4	SVC10000030-----
2/2/2023 2:57:00 PM	195.8	SVC10000030-----
2/2/2023 2:58:00 PM	195.4	SVC10000030-----
2/2/2023 2:59:00 PM	198.1	SVC10000030-----
2/2/2023 3:00:00 PM	199.0	SVC10000030-----
2/2/2023 3:01:00 PM	198.2	SVC10000030-----
2/2/2023 3:02:00 PM	198.3	SVC10000030-----
2/2/2023 3:03:00 PM	203.2	SVC10000030-----
2/2/2023 3:04:00 PM	202.3	SVC10000030-----
2/2/2023 3:05:00 PM	199.2	SVC10000030-----
2/2/2023 3:06:00 PM	196.2	SVC10000030-----
2/2/2023 3:07:00 PM	196.5	SVC10000030-----
2/2/2023 3:08:00 PM	199.5	SVC10000030-----
2/2/2023 3:09:00 PM	199.2	SVC10000030-----

Sulfur Dioxide Operating Data Run 3

Timestamp	SO2, PPM	SO2, PPM-STATUS
2/2/2023 3:10:00 PM	199.1	SVC10000030-----
2/2/2023 3:11:00 PM	199.0	SVC10000030-----
2/2/2023 3:12:00 PM	200.5	SVC10000030-----
2/2/2023 3:13:00 PM	198.9	SVC10000030-----
2/2/2023 3:14:00 PM	200.3	SVC10000030-----
2/2/2023 3:15:00 PM	197.4	SVC10000030-----
2/2/2023 3:16:00 PM	193.8	SVC10000030-----
2/2/2023 3:17:00 PM	199.8	SVC10000030-----
2/2/2023 3:18:00 PM	201.0	SVC10000030-----
2/2/2023 3:19:00 PM	199.8	SVC10000030-----
2/2/2023 3:20:00 PM	198.4	SVC10000030-----
2/2/2023 3:21:00 PM	196.9	SVC10000030-----
2/2/2023 3:22:00 PM	197.4	SVC10000030-----
2/2/2023 3:23:00 PM	198.2	SVC10000030-----
2/2/2023 3:24:00 PM	196.7	SVC10000030-----
Average	**193.3**	

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 9:00:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:01:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:02:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/2/2023 9:03:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/2/2023 9:04:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/2/2023 9:05:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/2/2023 9:06:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/2/2023 9:07:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/2/2023 9:08:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/2/2023 9:09:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/2/2023 9:10:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:11:00 AM	2.7	SVC10000030-----	2.8	SVC10000030-----
2/2/2023 9:12:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:13:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:14:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:15:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:17:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/2/2023 9:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:19:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:20:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:22:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 9:23:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/2/2023 9:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 9:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 9:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:29:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 9:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:31:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:32:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:33:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:34:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:35:00 AM	2.2	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 9:36:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:37:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:38:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:39:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:40:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:41:00 AM	2.1	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 9:42:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:43:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:44:00 AM	2.1	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 9:45:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:46:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:47:00 AM	2.1	SVC10000030-----	2.1	SVC10000030-----
2/2/2023 9:48:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:49:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 9:50:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:51:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 9:52:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:53:00 AM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 9:54:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 9:58:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 9:59:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 10:00:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:01:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:03:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:05:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 10:06:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:07:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:08:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:09:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:10:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:11:00 AM	2.1	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 10:12:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:13:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:14:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:15:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:16:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:17:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 10:18:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:19:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:20:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:21:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:22:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:23:00 AM	2.2	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 10:24:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 10:25:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:26:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:29:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 10:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:31:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:32:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:35:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 10:36:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:37:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:38:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:40:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:41:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 10:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:43:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:44:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:47:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 10:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:51:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:52:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 10:54:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 10:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 10:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 10:59:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 11:00:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:03:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:05:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 11:06:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:07:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:11:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/2/2023 11:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:13:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/2/2023 11:14:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 11:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:17:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 11:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:22:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:23:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 11:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:29:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 11:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:32:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:33:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:35:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 11:36:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:37:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:38:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:41:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 11:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:43:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 11:44:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 11:47:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 11:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 11:54:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:55:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 11:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 11:59:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 12:00:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:01:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:02:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:03:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:04:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:05:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 12:06:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:09:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:10:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:11:00 PM	2.3	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 12:12:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:13:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:14:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:15:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:16:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:17:00 PM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 12:18:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:19:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:21:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:22:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:23:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 12:24:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 12:25:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 12:26:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:28:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:29:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 12:30:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:31:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:32:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:33:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:34:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 12:35:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 12:36:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:37:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 12:38:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:39:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 12:40:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:41:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 12:42:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:43:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:44:00 PM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 12:45:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:46:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:47:00 PM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 12:48:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:49:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 12:50:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 12:51:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:52:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 12:53:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 12:54:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:56:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 12:57:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:58:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 12:59:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 1:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:01:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:02:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:03:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:04:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:05:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 1:06:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:07:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:08:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:09:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:10:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:11:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 1:12:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:13:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:14:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:15:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:16:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:17:00 PM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 1:18:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:19:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:21:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:22:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 1:23:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 1:24:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:25:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:26:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 1:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:28:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 1:29:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 1:30:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:31:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:32:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:33:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:34:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:35:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 1:36:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:37:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:38:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:39:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:40:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:41:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 1:42:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:43:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:44:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:45:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:46:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:47:00 PM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 1:48:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:49:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:50:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:51:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:52:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 1:53:00 PM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 1:54:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:56:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:57:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 1:58:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 1:59:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 2:00:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:01:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:02:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:03:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:04:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:05:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 2:06:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:07:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:08:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:09:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:10:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:11:00 PM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 2:12:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:13:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:14:00 PM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
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2/2/2023 2:16:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:17:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 2:18:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:19:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:20:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:21:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:22:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:23:00 PM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 2:24:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:25:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:26:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:27:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:28:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:29:00 PM	2.1	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 2:30:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:31:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:32:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:33:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:34:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:35:00 PM	2.1	SVC10000030-----	2.1	SVC10000030-----
2/2/2023 2:36:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:37:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:38:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/2/2023 2:39:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 2:40:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:41:00 PM	2.4	SVC10000030-----	2.2	SVC10000030-----
2/2/2023 2:42:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 2:43:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:44:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:45:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:46:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:47:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 2:48:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:49:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:50:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:51:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:52:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:53:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 2:54:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 2:56:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:57:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 2:58:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 2:59:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 3:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:01:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:02:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:03:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:04:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:05:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 3:06:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:07:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:08:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:09:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:10:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:11:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 3:12:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:13:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:14:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:15:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:16:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:17:00 PM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 3:18:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:19:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:21:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:22:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:23:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 3:24:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:25:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:26:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:28:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 3:29:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/2/2023 3:30:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 3:31:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/2/2023 3:32:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:33:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/2/2023 3:34:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/2/2023 3:35:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/2/2023 3:36:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:37:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:38:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:39:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:40:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:41:00 PM	2.2	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 3:42:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:43:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:44:00 PM	2.2	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 1

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/2/2023 3:45:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:46:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 3:47:00 PM	2.2	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 3:48:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 3:49:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 3:50:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 3:51:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:52:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:53:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/2/2023 3:54:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:55:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/2/2023 3:56:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:57:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:58:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/2/2023 3:59:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
	Maximum 6-min Average		2.8	

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 8:00:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:01:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:02:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:03:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:04:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:05:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/4/2023 8:06:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:07:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:08:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:09:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:10:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:11:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 8:12:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 8:14:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:16:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:17:00 AM	2.8	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 8:18:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:19:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:20:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:21:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:22:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:23:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 8:24:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:25:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:26:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:27:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:28:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 8:29:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/4/2023 8:30:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:31:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:32:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:34:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:35:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 8:36:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:37:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:39:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:40:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:41:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 8:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 8:43:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:44:00 AM	2.6	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 8:45:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:46:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:47:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 8:48:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:49:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/4/2023 8:50:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:51:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:52:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:53:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 8:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:55:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 8:57:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:58:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 8:59:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 9:00:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:01:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:02:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:03:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 9:05:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:06:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:07:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:11:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:14:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:17:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:18:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:19:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:20:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 9:21:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:22:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:23:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 9:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 9:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 9:29:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 9:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:31:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 9:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 9:35:00 AM	2.8	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:36:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:37:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:39:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:40:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:41:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:42:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:43:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:44:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:45:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:46:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:47:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 9:48:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:49:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:50:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:51:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:53:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 9:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 9:55:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:58:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 9:59:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:00:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 10:01:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 10:02:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:03:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:04:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:05:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 10:06:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 10:07:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/4/2023 10:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:11:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/4/2023 10:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:14:00 AM	2.6	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 10:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:17:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:19:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:20:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:22:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:23:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:27:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:28:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:29:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:31:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:34:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:35:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:36:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/4/2023 10:37:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 10:40:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:41:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 10:43:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:44:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:45:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:46:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:47:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 10:48:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:49:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 10:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 10:51:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 10:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 10:53:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 10:54:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 10:55:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 10:56:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 10:57:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 10:58:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 10:59:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 11:00:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:01:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/4/2023 11:02:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:03:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/4/2023 11:04:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/4/2023 11:05:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/4/2023 11:06:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:07:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:08:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:09:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/4/2023 11:10:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/4/2023 11:11:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/4/2023 11:12:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:13:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:15:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/4/2023 11:16:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:17:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/4/2023 11:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:20:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:23:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 11:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 11:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:29:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 11:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:32:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:33:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:35:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/4/2023 11:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:40:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:41:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 11:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:44:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 11:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:47:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 11:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 11:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 11:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 11:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:58:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 11:59:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/4/2023 12:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:01:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:02:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:03:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:04:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:05:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/4/2023 12:06:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:09:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:10:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:11:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:12:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:13:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:14:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:15:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:16:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:17:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:18:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:19:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:20:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:21:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:22:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:23:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/4/2023 12:24:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:25:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:26:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:28:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:29:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 2

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/4/2023 12:30:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:31:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/4/2023 12:32:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:33:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:34:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:35:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:36:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:37:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:38:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:39:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:40:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:41:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:42:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:43:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:44:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:45:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/4/2023 12:46:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:47:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:48:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:49:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:50:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:51:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:52:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:53:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/4/2023 12:54:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:55:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:56:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:57:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:58:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/4/2023 12:59:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
	Maximum 6-min Average		2.8	

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 8:00:00 AM	1.7	SVC10000030-----		SVC10000030-----
2/5/2023 8:01:00 AM	1.8	SVC10000030-----		SVC10000030-----
2/5/2023 8:02:00 AM	1.9	SVC10000030-----		SVC10000030-----
2/5/2023 8:03:00 AM	1.9	SVC10000030-----		SVC10000030-----
2/5/2023 8:04:00 AM	2.0	SVC10000030-----		SVC10000030-----
2/5/2023 8:05:00 AM	2.0	SVC10000030-----	1.9	SVC10000030-----
2/5/2023 8:06:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:07:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:08:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:09:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:10:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:11:00 AM	2.1	SVC10000030-----	2.1	SVC10000030-----
2/5/2023 8:12:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:13:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:14:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 8:15:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:16:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:17:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/5/2023 8:18:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:19:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:20:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 8:21:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:22:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:23:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 8:24:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:25:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:26:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:27:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:28:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:29:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 8:30:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 8:31:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:32:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:33:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:35:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 8:36:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:37:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:38:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:40:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:41:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 8:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:44:00 AM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 8:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:47:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 8:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:50:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:53:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 8:54:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 8:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 8:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:00:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:03:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:05:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:06:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:07:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 9:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:16:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:17:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 9:18:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:23:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 9:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:26:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:29:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 9:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:40:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 9:41:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 9:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 9:44:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:46:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:47:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 9:48:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:49:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:50:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:51:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:52:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 9:53:00 AM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 9:54:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:55:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:56:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:57:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:58:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 9:59:00 AM	2.2	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 10:00:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:01:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:02:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:03:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:04:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:05:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 10:06:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:07:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:08:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:09:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 10:11:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 10:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:14:00 AM	2.6	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 10:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 10:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:17:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 10:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:20:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:23:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 10:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 10:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 10:26:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:29:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 10:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:33:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:35:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 10:36:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:37:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:38:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:39:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:41:00 AM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 10:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:43:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:44:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:45:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 10:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:47:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 10:48:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:49:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:50:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 10:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 10:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 10:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 11:00:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:03:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:05:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 11:06:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:07:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:10:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 11:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:14:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:15:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:17:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 11:18:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:19:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:20:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:22:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:23:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 11:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:29:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 11:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:31:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:33:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:35:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 11:36:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:37:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:38:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:41:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 11:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:43:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:44:00 AM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 11:45:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:47:00 AM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 11:48:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:49:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:50:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:51:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:52:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 11:53:00 AM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 11:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 11:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 11:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 12:00:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/5/2023 12:01:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:02:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:03:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:04:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:05:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 12:06:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:09:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:10:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:11:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/5/2023 12:12:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:13:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:14:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:15:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:16:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/5/2023 12:17:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/5/2023 12:18:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:19:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:20:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:21:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:22:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:23:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 12:24:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:25:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/5/2023 12:26:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:27:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:28:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:29:00 PM	2.4	SVC10000030-----	2.3	SVC10000030-----

Opacity Operating Data Run 3

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/5/2023 12:30:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:31:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:32:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:33:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:34:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/5/2023 12:35:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/5/2023 12:36:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:37:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:38:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:39:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:40:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:41:00 PM	2.1	SVC10000030-----	2.2	SVC10000030-----
2/5/2023 12:42:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:43:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:44:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:45:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:46:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:47:00 PM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/5/2023 12:48:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:49:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:50:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:51:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:52:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:53:00 PM	2.2	SVC10000030-----	2.1	SVC10000030-----
2/5/2023 12:54:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/5/2023 12:55:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:56:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:57:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:58:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/5/2023 12:59:00 PM	2.2	SVC10000030-----	2.2	SVC10000030-----
	Maximum 6-min Average		2.5	

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 8:00:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/6/2023 8:01:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/6/2023 8:02:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:03:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:04:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:05:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/6/2023 8:06:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:07:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:08:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:09:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 8:10:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 8:11:00 AM	2.4	SVC10000030-----	2.3	SVC10000030-----
2/6/2023 8:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 8:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 8:15:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 8:16:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 8:17:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 8:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:20:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:23:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 8:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:25:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:26:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:27:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:28:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:29:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 8:30:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:31:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:34:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:35:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 8:36:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:37:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:39:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:40:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:41:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 8:42:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:43:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:44:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:45:00 AM	2.6	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 8:46:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:47:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 8:48:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:49:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:50:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:51:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:53:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 8:54:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:55:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 8:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 8:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 8:59:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 9:00:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:03:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:04:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:05:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 9:06:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:07:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:10:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 9:12:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:14:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:17:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 9:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:19:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:20:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:23:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 9:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 9:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:26:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 9:29:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 9:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 9:31:00 AM	2.6	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 9:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:34:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:35:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 9:36:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:37:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:38:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:39:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:40:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:41:00 AM	2.8	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 9:42:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:43:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:44:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:45:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:46:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:47:00 AM	2.7	SVC10000030-----	2.8	SVC10000030-----
2/6/2023 9:48:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:49:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:50:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:51:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 9:53:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 9:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 9:55:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:56:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 9:57:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 9:58:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 9:59:00 AM	2.9	SVC10000030-----	2.8	SVC10000030-----
2/6/2023 10:00:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:01:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:02:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:03:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:04:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:05:00 AM	2.9	SVC10000030-----	2.9	SVC10000030-----
2/6/2023 10:06:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:07:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:08:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:09:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:10:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:11:00 AM	2.9	SVC10000030-----	2.9	SVC10000030-----
2/6/2023 10:12:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:13:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/6/2023 10:14:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:15:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:17:00 AM	2.7	SVC10000030-----	2.8	SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 10:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:19:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:20:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:22:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:23:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 10:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:25:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:26:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:27:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:28:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:29:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 10:30:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:31:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:32:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:33:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:34:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:35:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/6/2023 10:36:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:37:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:38:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/6/2023 10:39:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:40:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:41:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/6/2023 10:42:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:43:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:44:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:47:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 10:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:49:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 10:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:55:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/6/2023 10:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 10:58:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 10:59:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/6/2023 11:00:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 11:01:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 11:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:03:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 11:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:05:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:06:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:07:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:10:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:12:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:13:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:14:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:16:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:17:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:20:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:21:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:23:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:26:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:28:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 11:29:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 11:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:40:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:41:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 11:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:43:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:44:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:47:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 11:48:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:49:00 AM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 11:50:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:51:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 11:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:53:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 11:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 11:58:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 11:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:00:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:01:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:02:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:03:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:04:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:05:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:06:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:09:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:10:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:11:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:12:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:13:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:14:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:15:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:16:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:17:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:18:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:19:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:20:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:21:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:22:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:23:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:24:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:25:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:26:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:27:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:28:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:29:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:30:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:31:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:32:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:33:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:34:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:35:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 12:36:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:37:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:38:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:39:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:40:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:41:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:42:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:43:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:44:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/6/2023 12:45:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:46:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:47:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:48:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:49:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:50:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:51:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:52:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:53:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 12:54:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:55:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:56:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:57:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 12:58:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 12:59:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 1:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:01:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:02:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:03:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:04:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:05:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 1:06:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:07:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:09:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:10:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:11:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 1:12:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:13:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:14:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:15:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:16:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:17:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 1:18:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:19:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:20:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:21:00 PM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 4

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/6/2023 1:22:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:23:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 1:24:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:25:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:26:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:28:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 1:29:00 PM	2.2	SVC10000030-----	2.4	SVC10000030-----
2/6/2023 1:30:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/6/2023 1:31:00 PM	2.1	SVC10000030-----		SVC10000030-----
2/6/2023 1:32:00 PM	2.0	SVC10000030-----		SVC10000030-----
2/6/2023 1:33:00 PM	1.9	SVC10000030-----		SVC10000030-----
2/6/2023 1:34:00 PM	1.9	SVC10000030-----		SVC10000030-----
2/6/2023 1:35:00 PM	1.9	SVC10000030-----	2.0	SVC10000030-----
2/6/2023 1:36:00 PM	1.9	SVC10000030-----		SVC10000030-----
2/6/2023 1:37:00 PM	1.9	SVC10000030-----		SVC10000030-----
2/6/2023 1:38:00 PM	2.0	SVC10000030-----		SVC10000030-----
2/6/2023 1:39:00 PM	2.0	SVC10000030-----		SVC10000030-----
2/6/2023 1:40:00 PM	2.0	SVC10000030-----		SVC10000030-----
2/6/2023 1:41:00 PM	2.2	SVC10000030-----	2.0	SVC10000030-----
2/6/2023 1:42:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/6/2023 1:43:00 PM	2.2	SVC10000030-----		SVC10000030-----
2/6/2023 1:44:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:45:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/6/2023 1:46:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:47:00 PM	2.5	SVC10000030-----	2.3	SVC10000030-----
2/6/2023 1:48:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:49:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:50:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:51:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:52:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/6/2023 1:53:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/6/2023 1:54:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:56:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:57:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:58:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/6/2023 1:59:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
	Maximum 6-min Average		2.9	

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 8:00:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:01:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:03:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:04:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:05:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:06:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:07:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:10:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 8:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:15:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:16:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:17:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:18:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:22:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 8:23:00 AM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:29:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 8:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:41:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 8:42:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:43:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:44:00 AM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 8:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:46:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:47:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:48:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:51:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 8:52:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:53:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 8:54:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 8:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:58:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 8:59:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 9:00:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:01:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:03:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:05:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/7/2023 9:06:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:07:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:08:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:10:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 9:12:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:13:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:15:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:16:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 9:17:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 9:18:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:22:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 9:23:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 9:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:26:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 9:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:28:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 9:29:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 9:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 9:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:39:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:41:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 9:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:44:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:46:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:47:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 9:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:49:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:51:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 9:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 9:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 9:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:58:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 9:59:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 10:00:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:03:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:04:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:05:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 10:06:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:07:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:08:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:10:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:11:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 10:12:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:14:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 10:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:17:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 10:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 10:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:22:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:23:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 10:24:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:25:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:26:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:27:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:28:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:29:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/7/2023 10:30:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:31:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:32:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:33:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:34:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:35:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/7/2023 10:36:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:37:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:38:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:39:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:40:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:41:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 10:42:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:43:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:44:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/7/2023 10:45:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:46:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:47:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 10:48:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/7/2023 10:49:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:50:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:51:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:52:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/7/2023 10:53:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 10:54:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 10:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 10:56:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:57:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:58:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 10:59:00 AM	2.2	SVC10000030-----	2.3	SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 11:00:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:01:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:02:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:03:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:04:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/7/2023 11:05:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 11:06:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:07:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:08:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:09:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:10:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:11:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 11:12:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:13:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:14:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:15:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:16:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:17:00 AM	2.2	SVC10000030-----	2.2	SVC10000030-----
2/7/2023 11:18:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:19:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:20:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:21:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:22:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/7/2023 11:23:00 AM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/7/2023 11:24:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:26:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 11:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:29:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 11:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:31:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 11:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 11:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 11:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:37:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:41:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 11:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:44:00 AM	2.4	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 11:45:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:47:00 AM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 11:48:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:52:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 11:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 11:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 11:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 12:00:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:01:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:02:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:03:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:04:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/7/2023 12:05:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/7/2023 12:06:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:08:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:09:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:10:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:11:00 PM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 12:12:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:13:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:14:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:15:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:16:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:17:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
2/7/2023 12:18:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:19:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:21:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:22:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:23:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/7/2023 12:24:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:25:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:26:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:27:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:28:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:29:00 PM	2.6	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 5

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/7/2023 12:30:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:31:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/7/2023 12:32:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/7/2023 12:33:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:34:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:35:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/7/2023 12:36:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:37:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:38:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:39:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:40:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:41:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/7/2023 12:42:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:43:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:44:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:45:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/7/2023 12:46:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:47:00 PM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/7/2023 12:48:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:49:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:50:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/7/2023 12:51:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:52:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:53:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/7/2023 12:54:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/7/2023 12:56:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:57:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:58:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/7/2023 12:59:00 PM	2.3	SVC10000030-----	2.3	SVC10000030-----
	Maximum 6-min Average		2.6	

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 8:00:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/8/2023 8:01:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/8/2023 8:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:03:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/8/2023 8:04:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:05:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/8/2023 8:06:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:07:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:08:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:09:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:10:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:11:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:12:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:13:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:14:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 8:15:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:16:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:17:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:22:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:23:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:24:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:27:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:28:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:29:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/8/2023 8:30:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:31:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/8/2023 8:32:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:33:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/8/2023 8:34:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 8:35:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/8/2023 8:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:39:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:41:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:44:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 8:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:47:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:51:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:53:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 8:54:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:55:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:57:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 8:59:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 9:00:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:01:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:02:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:03:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:04:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:05:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 9:06:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:07:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:10:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:11:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 9:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:14:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:17:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 9:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:19:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:20:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 9:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:22:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:23:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 9:24:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 9:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:29:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 9:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:35:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 9:36:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:39:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 9:40:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:41:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 9:42:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:44:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:45:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:47:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 9:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 9:50:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 9:51:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:53:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 9:54:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:55:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:58:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 9:59:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 10:00:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:01:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:02:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:03:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 10:05:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 10:06:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 10:07:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 10:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:09:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:10:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 10:11:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/8/2023 10:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:14:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 10:15:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:17:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 10:18:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 10:19:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 10:20:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:22:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:23:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 10:24:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:27:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 10:28:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 10:29:00 AM	2.8	SVC10000030-----	2.7	SVC10000030-----
2/8/2023 10:30:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 10:31:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 10:32:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 10:33:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/8/2023 10:34:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/8/2023 10:35:00 AM	3.4	SVC10000030-----	3.1	SVC10000030-----
2/8/2023 10:36:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/8/2023 10:37:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/8/2023 10:38:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:39:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/8/2023 10:40:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:41:00 AM	3.4	SVC10000030-----	3.4	SVC10000030-----
2/8/2023 10:42:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:43:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/8/2023 10:44:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:45:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:46:00 AM	3.4	SVC10000030-----		SVC10000030-----
2/8/2023 10:47:00 AM	3.3	SVC10000030-----	3.4	SVC10000030-----
2/8/2023 10:48:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:49:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/8/2023 10:50:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:51:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:52:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:53:00 AM	3.2	SVC10000030-----	3.2	SVC10000030-----
2/8/2023 10:54:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:55:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/8/2023 10:56:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 10:57:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/8/2023 10:58:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/8/2023 10:59:00 AM	3.1	SVC10000030-----	3.1	SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 11:00:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/8/2023 11:01:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 11:02:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 11:03:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 11:04:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:05:00 AM	3.1	SVC10000030-----	3.0	SVC10000030-----
2/8/2023 11:06:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 11:07:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/8/2023 11:08:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:09:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:10:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:11:00 AM	2.9	SVC10000030-----	2.9	SVC10000030-----
2/8/2023 11:12:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:13:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 11:14:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 11:15:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 11:16:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 11:17:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/8/2023 11:18:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/8/2023 11:19:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:20:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:21:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/8/2023 11:22:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:23:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/8/2023 11:24:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:25:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:26:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:27:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:28:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 11:29:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 11:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:31:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 11:35:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 11:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 11:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 11:38:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:39:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:40:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:41:00 AM	2.7	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 11:42:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:43:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:44:00 AM	2.7	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 11:45:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:46:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:47:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/8/2023 11:48:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:49:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:50:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:51:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:52:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:53:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/8/2023 11:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:55:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 11:56:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 11:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 11:59:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 12:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:01:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:02:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:03:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:04:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:05:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 12:06:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:07:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:08:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:09:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:10:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:11:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 12:12:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:13:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:14:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:15:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:16:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:17:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 12:18:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:19:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:21:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:22:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:23:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 12:24:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:25:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:26:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:28:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:29:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----

Opacity Operating Data Run 6

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/8/2023 12:30:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:31:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:32:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:33:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:34:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/8/2023 12:35:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/8/2023 12:36:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:37:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:38:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:39:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:40:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:41:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/8/2023 12:42:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:43:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:44:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:45:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:46:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:47:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 12:48:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 12:49:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:50:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 12:51:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:52:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:53:00 PM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/8/2023 12:54:00 PM	2.7	SVC10000030-----		SVC10000030-----
2/8/2023 12:55:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/8/2023 12:56:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:57:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:58:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/8/2023 12:59:00 PM	2.5	SVC10000030-----	2.6	SVC10000030-----
	Maximum 6-min Average		3.4	

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 8:00:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:01:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:02:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 8:03:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:04:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:05:00 AM	2.4	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 8:06:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 8:07:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/9/2023 8:08:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/9/2023 8:09:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/9/2023 8:10:00 AM	2.0	SVC10000030-----		SVC10000030-----
2/9/2023 8:11:00 AM	2.0	SVC10000030-----	2.1	SVC10000030-----
2/9/2023 8:12:00 AM	2.0	SVC10000030-----		SVC10000030-----
2/9/2023 8:13:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/9/2023 8:14:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/9/2023 8:15:00 AM	2.0	SVC10000030-----		SVC10000030-----
2/9/2023 8:16:00 AM	2.1	SVC10000030-----		SVC10000030-----
2/9/2023 8:17:00 AM	2.1	SVC10000030-----	2.1	SVC10000030-----
2/9/2023 8:18:00 AM	2.2	SVC10000030-----		SVC10000030-----
2/9/2023 8:19:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 8:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 8:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 8:22:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 8:23:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 8:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:26:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:27:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 8:28:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:29:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 8:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 8:31:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:32:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:33:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:34:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:35:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/9/2023 8:36:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:37:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:38:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:39:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:40:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 8:41:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/9/2023 8:42:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 8:43:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:44:00 AM	2.9	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 8:45:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:46:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 8:47:00 AM	2.9	SVC10000030-----	2.9	SVC10000030-----
2/9/2023 8:48:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:49:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:50:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 8:51:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 8:52:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 8:53:00 AM	2.7	SVC10000030-----	2.8	SVC10000030-----
2/9/2023 8:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 8:55:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 8:56:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:57:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 8:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 8:59:00 AM	2.4	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 9:00:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 9:01:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 9:02:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:03:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:04:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:05:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 9:06:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:07:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:08:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:09:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 9:10:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:11:00 AM	2.3	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 9:12:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:13:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:14:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:15:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:16:00 AM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 9:17:00 AM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 9:18:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:19:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:20:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:21:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 9:23:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 9:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 9:25:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 9:27:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:28:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:29:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 9:30:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:31:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:32:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:33:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:34:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 9:35:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 9:36:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 9:37:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 9:38:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 9:39:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 9:40:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:41:00 AM	2.9	SVC10000030-----	2.8	SVC10000030-----
2/9/2023 9:42:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 9:43:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:44:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 9:45:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:46:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:47:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/9/2023 9:48:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:49:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:50:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:51:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:52:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:53:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----
2/9/2023 9:54:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 9:55:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 9:56:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 9:57:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 9:58:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 9:59:00 AM	2.9	SVC10000030-----	2.9	SVC10000030-----
2/9/2023 10:00:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:01:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:02:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:03:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:04:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:05:00 AM	3.1	SVC10000030-----	3.0	SVC10000030-----
2/9/2023 10:06:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:07:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:08:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:09:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:10:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:11:00 AM	3.2	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:12:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:13:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:14:00 AM	3.3	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 10:15:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:16:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:17:00 AM	3.1	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:18:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:19:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:20:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:21:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:22:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:23:00 AM	3.2	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:24:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:25:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:26:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:27:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:28:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:29:00 AM	3.3	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:30:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:31:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:32:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:33:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:34:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:35:00 AM	3.3	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:36:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:37:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:38:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:39:00 AM	3.3	SVC10000030-----		SVC10000030-----
2/9/2023 10:40:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:41:00 AM	3.2	SVC10000030-----	3.2	SVC10000030-----
2/9/2023 10:42:00 AM	3.2	SVC10000030-----		SVC10000030-----
2/9/2023 10:43:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:44:00 AM	3.1	SVC10000030-----		SVC10000030-----
2/9/2023 10:45:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:46:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:47:00 AM	3.0	SVC10000030-----	3.1	SVC10000030-----
2/9/2023 10:48:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:49:00 AM	3.0	SVC10000030-----		SVC10000030-----
2/9/2023 10:50:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:51:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:52:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:53:00 AM	2.8	SVC10000030-----	2.9	SVC10000030-----
2/9/2023 10:54:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 10:55:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:56:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 10:57:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 10:58:00 AM	2.9	SVC10000030-----		SVC10000030-----
2/9/2023 10:59:00 AM	2.8	SVC10000030-----	2.8	SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 11:00:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:01:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 11:02:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:03:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 11:04:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:05:00 AM	2.7	SVC10000030-----	2.7	SVC10000030-----
2/9/2023 11:06:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:07:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:08:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:09:00 AM	2.8	SVC10000030-----		SVC10000030-----
2/9/2023 11:10:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:11:00 AM	2.6	SVC10000030-----	2.7	SVC10000030-----
2/9/2023 11:12:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:13:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:14:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:15:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:16:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:17:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 11:18:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:19:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:20:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:21:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:22:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:23:00 AM	2.5	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 11:24:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:25:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:26:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:27:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:28:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:29:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 11:30:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:31:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:32:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:33:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:34:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:35:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 11:36:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:37:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:38:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:39:00 AM	2.7	SVC10000030-----		SVC10000030-----
2/9/2023 11:40:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:41:00 AM	2.6	SVC10000030-----	2.6	SVC10000030-----
2/9/2023 11:42:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:43:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:44:00 AM	2.5	SVC10000030-----		SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 11:45:00 AM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 11:46:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:47:00 AM	2.6	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 11:48:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:49:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:50:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:51:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:52:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:53:00 AM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 11:54:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:55:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:56:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:57:00 AM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 11:58:00 AM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 11:59:00 AM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 12:00:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:01:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:02:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:03:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:04:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:05:00 PM	2.5	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 12:06:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:07:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:08:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:09:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:10:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:11:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 12:12:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:13:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:14:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:15:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:16:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:17:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 12:18:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:19:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:20:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:21:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:22:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:23:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 12:24:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:25:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:26:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:27:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:28:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:29:00 PM	2.5	SVC10000030-----	2.5	SVC10000030-----

Opacity Operating Data Run 7

Timestamp	OPACITY, %	OPACITY, %-STATUS	OPACITY, %	OPACITY, %-STATUS
2/9/2023 12:30:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:31:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:32:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:33:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:34:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:35:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 12:36:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:37:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:38:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:39:00 PM	2.6	SVC10000030-----		SVC10000030-----
2/9/2023 12:40:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:41:00 PM	2.4	SVC10000030-----	2.5	SVC10000030-----
2/9/2023 12:42:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:43:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:44:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:45:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:46:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:47:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 12:48:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:49:00 PM	2.3	SVC10000030-----		SVC10000030-----
2/9/2023 12:50:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:51:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:52:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:53:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
2/9/2023 12:54:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:55:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:56:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:57:00 PM	2.4	SVC10000030-----		SVC10000030-----
2/9/2023 12:58:00 PM	2.5	SVC10000030-----		SVC10000030-----
2/9/2023 12:59:00 PM	2.4	SVC10000030-----	2.4	SVC10000030-----
	Maximum 6-min Average		3.2	

CEMS Calibration Operating Data

Run 1

Primary Energy Coke

Calibration Report

Created on : Feb 02, 2023 06:41:10

East Chicago, IN

02/02/2023 - 02/02/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/02/2023								
	05:52:41	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:54:11	OPACITY, %	Span	40.0	40.0	0.0	3	Pass
	06:22:02	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	O2 WET, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	SO2, PPM	Zero	1.5	0.0	0.2	5	Pass
	06:27:02	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:02	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:02	SO2, PPM	Span	386.2	395.3	1.3	5	Pass
	06:37:25	VOL FLOW, KSCFM	Zero	-0.2	0.0	0.0	3	Pass
	06:40:26	VOL FLOW, KSCFM	Span	746.7	750.0	0.3	3	Pass

Run 2

Primary Energy Coke

Calibration Report

Created on : Feb 04, 2023 06:41:31

East Chicago, IN

02/04/2023 - 02/04/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/04/2023								
	05:52:09	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:53:40	OPACITY, %	Span	40.0	40.0	0.0	3	Pass
	06:22:02	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	O2 WET, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	SO2, PPM	Zero	1.2	0.0	0.2	5	Pass
	06:27:02	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:02	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:02	SO2, PPM	Span	386.4	395.3	1.3	5	Pass
	06:37:24	VOL FLOW, KSCFM	Zero	0.1	0.0	0.0	3	Pass
	06:40:25	VOL FLOW, KSCFM	Span	746.8	750.0	0.3	3	Pass

Run 3

Primary Energy Coke

Calibration Report

Created on : Feb 05, 2023 06:42:37

East Chicago, IN

02/05/2023 - 02/05/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/05/2023								
	05:51:52	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:53:22	OPACITY, %	Span	40.0	40.0	0.0	3	Pass
	06:22:01	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:01	O2 WET, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:01	SO2, PPM	Zero	1.5	0.0	0.2	5	Pass
	06:27:03	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:03	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:03	SO2, PPM	Span	385.9	395.3	1.3	5	Pass
	06:37:23	VOL FLOW, KSCFM	Zero	0.2	0.0	0.0	3	Pass
	06:40:24	VOL FLOW, KSCFM	Span	747.1	750.0	0.3	3	Pass

Run 4

Primary Energy Coke

Calibration Report

Created on : Feb 06, 2023 06:41:44

East Chicago, IN

02/06/2023 - 02/06/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/06/2023								
	05:51:37	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:53:07	OPACITY, %	Span	40.1	40.0	0.1	3	Pass
	06:22:02	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	O2 WET, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	SO2, PPM	Zero	1.7	0.0	0.2	5	Pass
	06:27:02	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:02	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:02	SO2, PPM	Span	387.0	395.3	1.2	5	Pass
	06:37:22	VOL FLOW, KSCFM	Zero	0.2	0.0	0.0	3	Pass
	06:40:23	VOL FLOW, KSCFM	Span	746.6	750.0	0.3	3	Pass

Run 5

Primary Energy Coke

Calibration Report

Created on : Feb 07, 2023 06:42:16

East Chicago, IN

02/07/2023 - 02/07/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/07/2023								
	05:51:25	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:52:55	OPACITY, %	Span	40.1	40.0	0.1	3	Pass
	06:22:02	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	O2 WET, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:02	SO2, PPM	Zero	1.8	0.0	0.3	5	Pass
	06:27:02	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:02	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:02	SO2, PPM	Span	391.3	395.3	0.6	5	Pass
	06:37:28	VOL FLOW, KSCFM	Zero	1.3	0.0	0.1	3	Pass
	06:40:27	VOL FLOW, KSCFM	Span	746.5	750.0	0.3	3	Pass

Run 6

Primary Energy Coke

Calibration Report

Created on : Feb 08, 2023 06:41:33

East Chicago, IN

02/08/2023 - 02/08/2023

STACK 201

Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/08/2023								
	05:51:08	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:52:40	OPACITY, %	Span	40.0	40.0	0.0	3	Pass
	06:22:01	O2 DRY, %	Span	21.1	21.1	0.0	0.5	Pass
	06:22:01	O2 WET, %	Span	21.2	21.1	0.1	0.5	Pass
	06:22:01	SO2, PPM	Zero	1.8	0.0	0.3	5	Pass
	06:27:03	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:03	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:03	SO2, PPM	Span	391.4	395.3	0.6	5	Pass
	06:37:27	VOL FLOW, KSCFM	Zero	0.9	0.0	0.1	3	Pass
	06:40:26	VOL FLOW, KSCFM	Span	747.2	750.0	0.3	3	Pass

Run 7

Primary Energy Coke

Calibration Report

Created on : Feb 09, 2023 06:53:47

East Chicago, IN

02/09/2023 - 02/09/2023

STACK 201

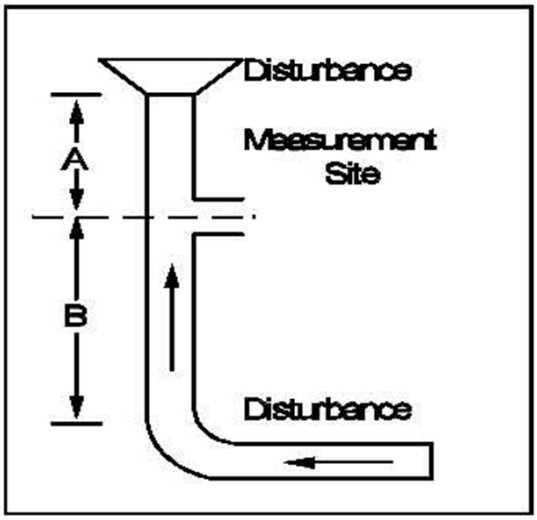
Date	Timestamp	Parameter	Type	Measured	Expected	Error	Tolerance	Result
02/09/2023								
	05:50:53	OPACITY, %	Zero	0.6	0.0	0.6	3	Pass
	05:52:23	OPACITY, %	Span	40.0	40.0	0.0	3	Pass
	06:22:02	O2 DRY, %	Span	21.0	21.1	0.1	0.5	Pass
	06:22:02	O2 WET, %	Span	21.0	21.1	0.1	0.5	Pass
	06:22:02	SO2, PPM	Zero	1.5	0.0	0.2	5	Pass
	06:27:02	O2 DRY, %	Zero	0.1	0.0	0.1	0.5	Pass
	06:27:02	O2 WET, %	Zero	0.0	0.0	0.0	0.5	Pass
	06:27:02	SO2, PPM	Span	389.6	395.3	0.8	5	Pass
	06:37:26	VOL FLOW, KSCFM	Zero	1.4	0.0	0.1	3	Pass
	06:40:25	VOL FLOW, KSCFM	Span	747.6	750.0	0.2	3	Pass

Sample Location Information for Isokinetic Sampling - Round Ducts

Project #: 508369
Company: Primary Energy
Plant: Cokenergy Facility
Unit ID: HRSG
Sample Location: Main Stack

Distance A: 73.80 Feet, 4.10 Duct diameters
Distance B: 201.00 Feet, 11.17 Duct diameters
Meets Method 1 criteria

Duct Diameter: 216 inches 18.00 feet
# of Ports Used: 4
# of Points/Diameter: 6
Sample Plane: Horizontal
Port Type: Flange
Port Length: 7.0 inches
Port Inside Diameter: 6.0 inches



Traverse Point Locations

Point	% of diameter	Inches from wall	Inches from port edge
1	4.4	9.5	16.5
2	14.6	31.5	38.5
3	29.6	63.9	70.9

Pre-cyclonic flow check conducted? Yes

Pre-Test Cyclonic Flow Check Data

	Port: 1			Port: 2			Port: 3			Port: 4		
	ΔP	T_s	a	ΔP	T_s	a	ΔP	T_s	a	ΔP	T_s	a
Point #	("H2O)	(°F)	(°)	("H2O)	(°F)	(°)	("H2O)	(°F)	(°)	("H2O)	(°F)	(°)
1	-	-	2	-	-	6	-	-	6	-	-	8
2	-	-	2	-	-	6	-	-	6	-	-	8
3	-	-	2	-	-	12	-	-	10	-	-	12

Average a: 6.7 (°) Average Ts: _____ (°F) Average ΔP: _____ ("H2O)
Status: Pass Avg of sqrt ΔP: _____

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Part 60 Compliance Test
Initial Stratification Check and Test Point Selection

Project Number:	508369	Date:	2/2/2023	
Customer:	Primary Energy	Duct Shape:	Round	
Unit Identification:	HRSG	Diameter:	18	feet
Sample Location:	Main Stack			
		Port Length:	4	inches

Number of Points Used for Stratification Check: 3

Port/Point	NO_X (ppm)	SO_2 (ppm)	CO (ppm)	CO_2 (%vol)	O_2 (%vol)
1	35.47				
2	35.63				
3	35.30				
Mean:	35.47				

Parameter	Max Raw Difference	Max % Difference From Mean	Result	Number of Points
NO_X	0.2	0.5	Un-Stratified	1
SO_2				
CO				
CO_2				
O_2				

Sampling line/strategy selected?: Single Point

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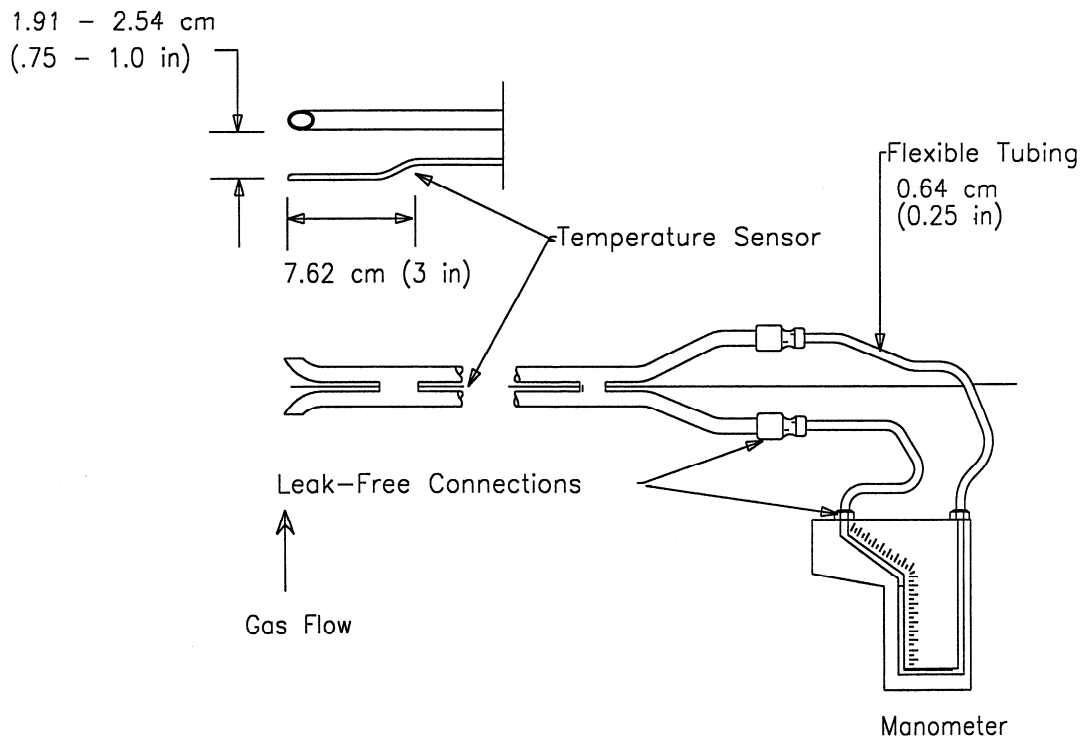
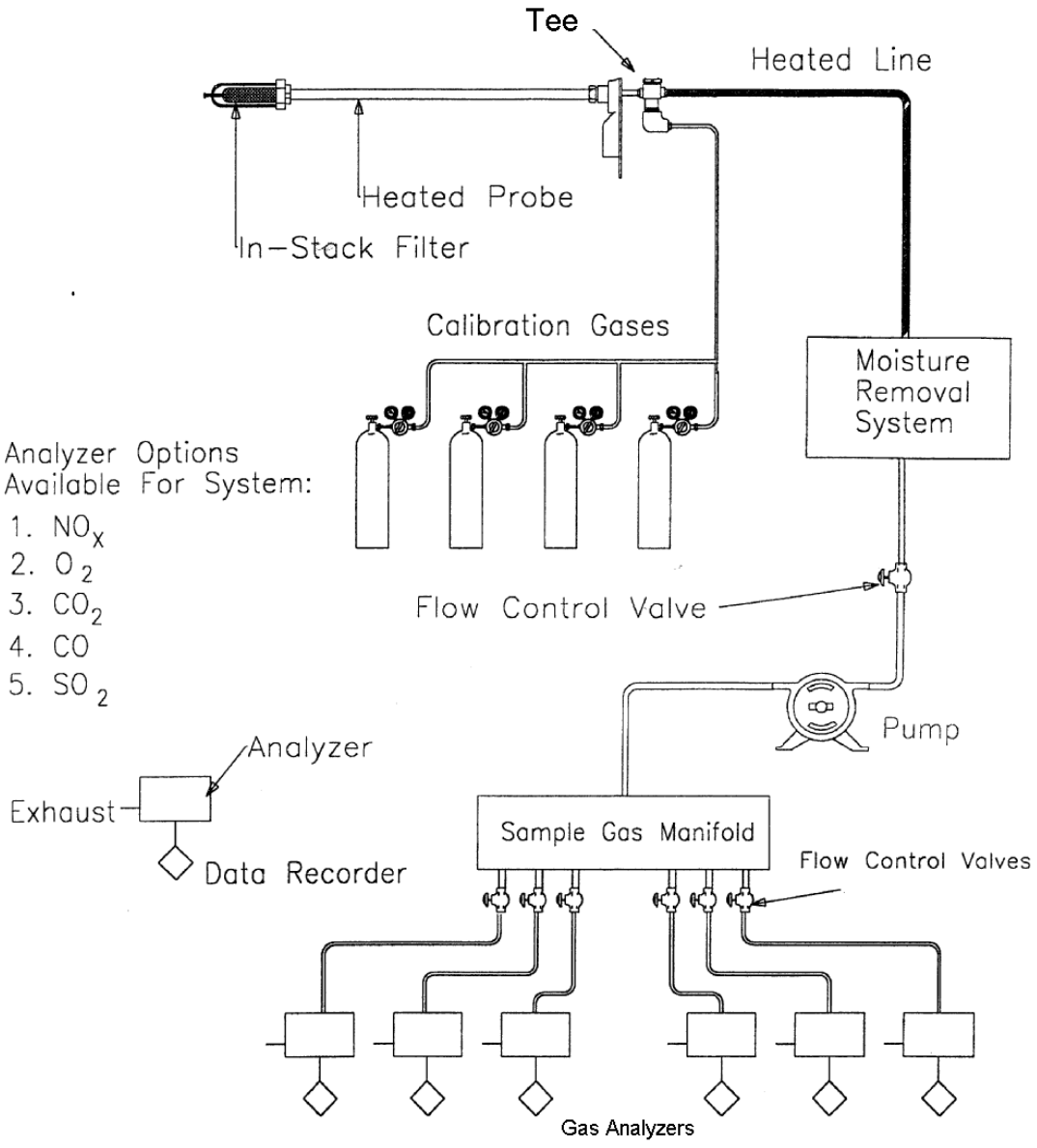
Determination of Stack Gas Velocity and Volumetric Flow Rate

USEPA Promulgated Test Method 2



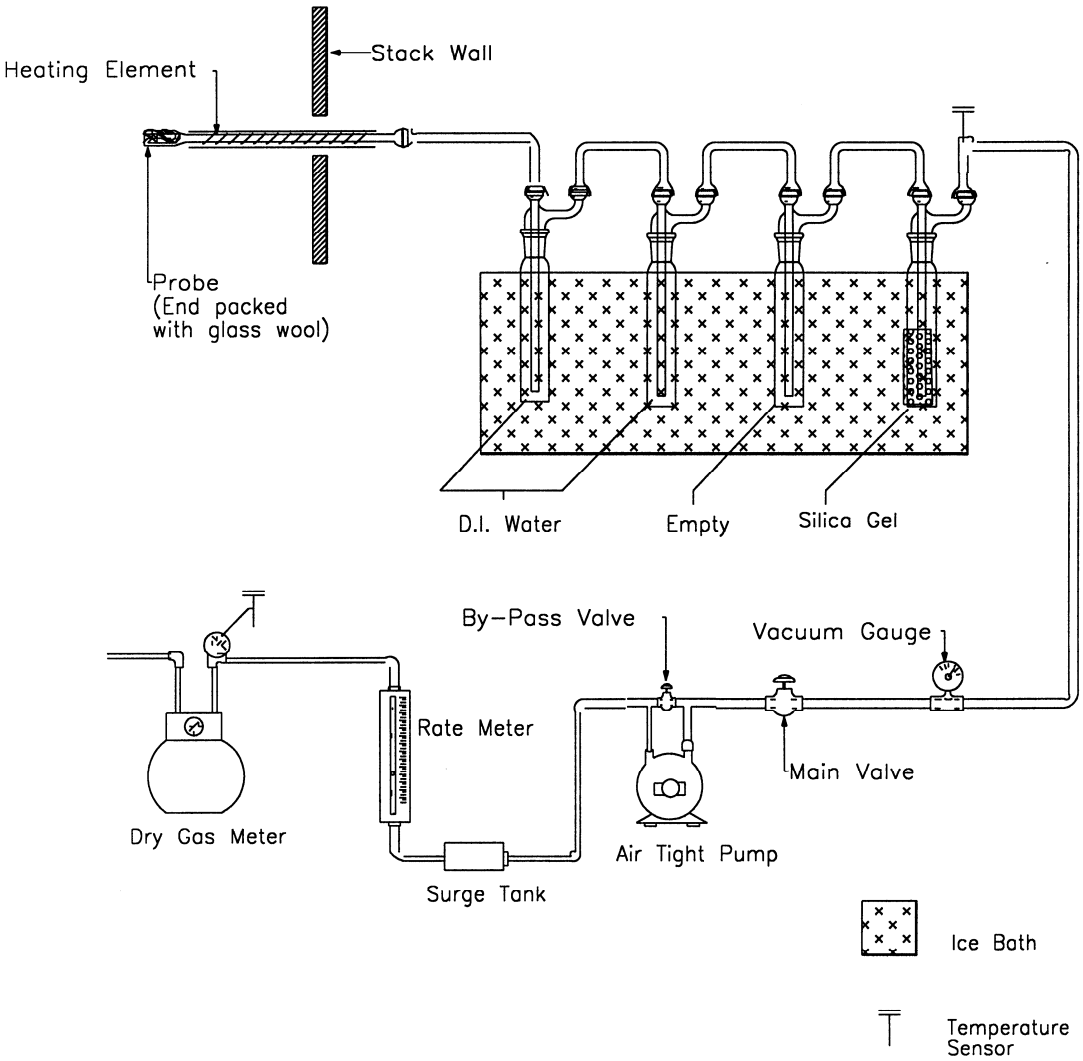
Determination of Multiple Gaseous Pollutants Using an Extractive Sampling Train

USEPA Promulgated Methods 3A, 7E and 10



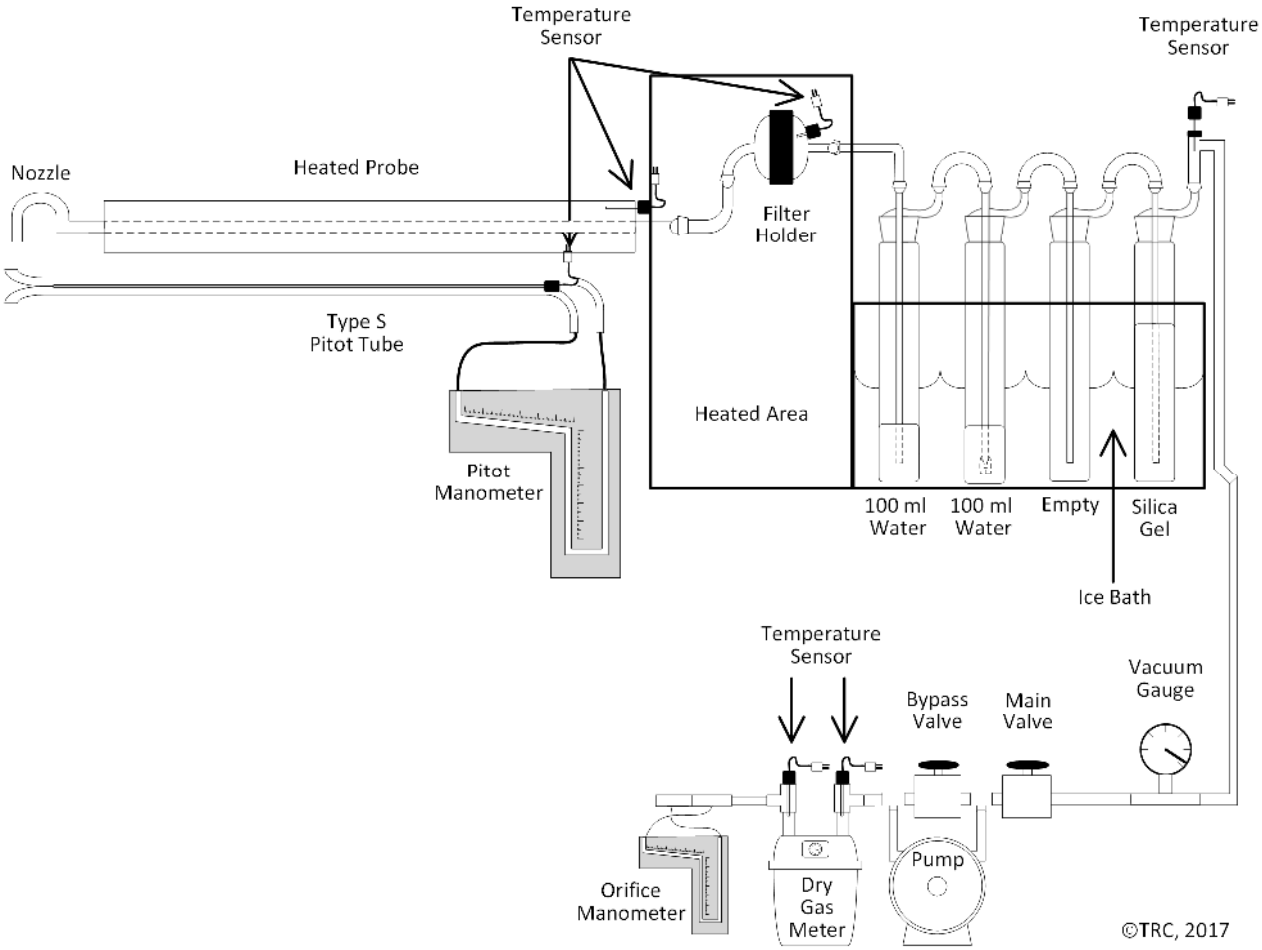
Determination of Moisture Content in Stack Gases

USEPA Promulgated Method 4



Determination of Particulate Emissions From Stationary Sources

USEPA Promulgated Method 5



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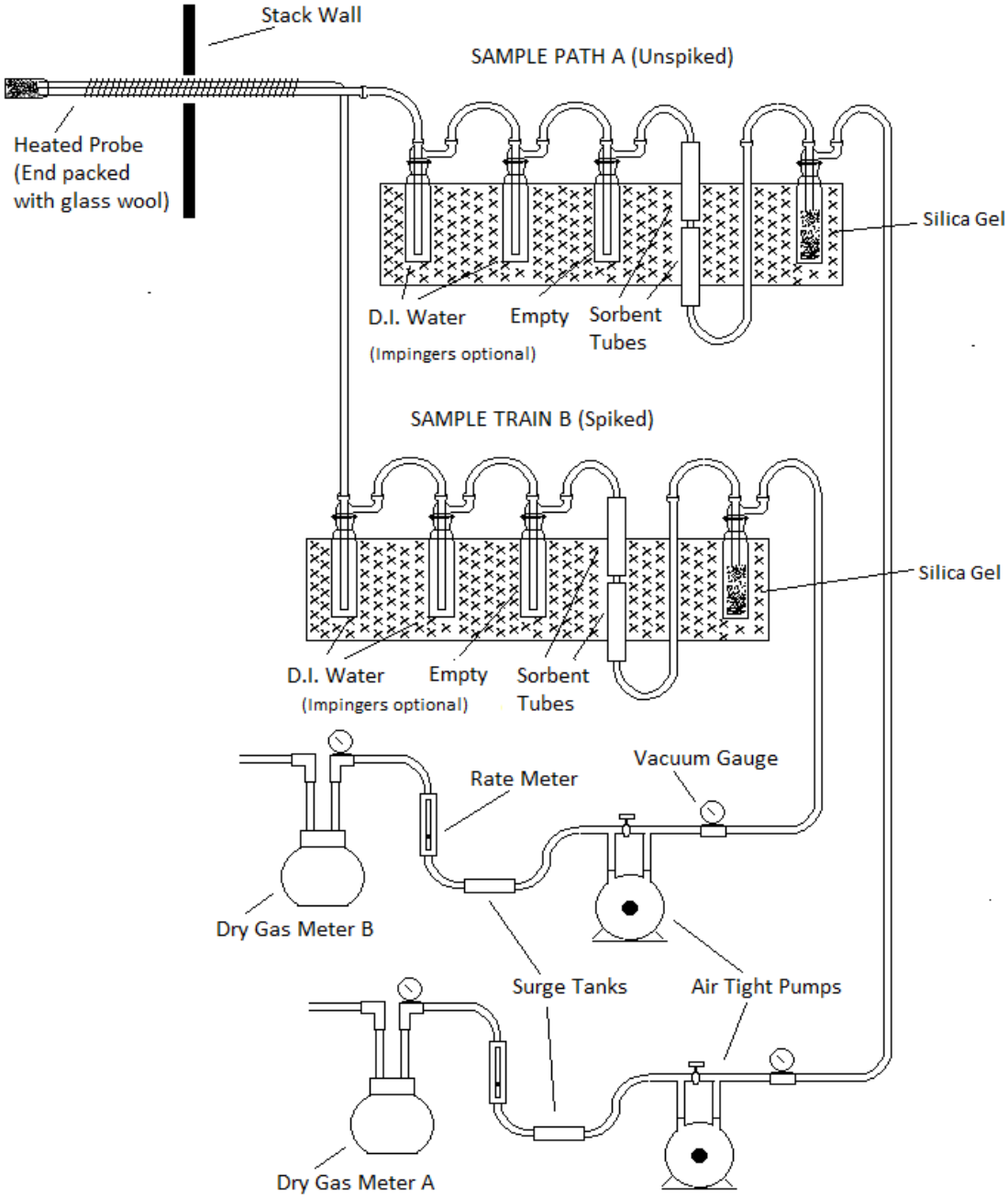
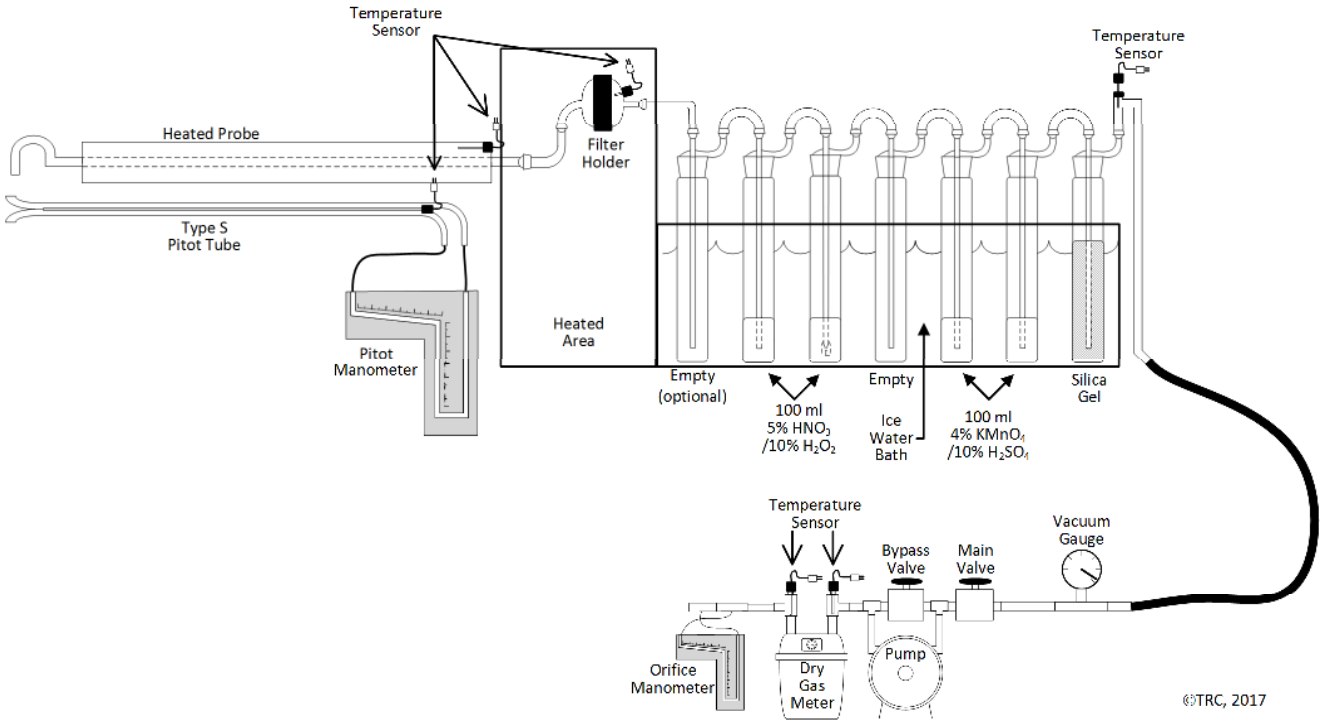
Measurement of Gaseous Organic Compounds Emissions by Gas Chromatography (Adsorption Tube Procedure)

USEPA Promulgated Method 18



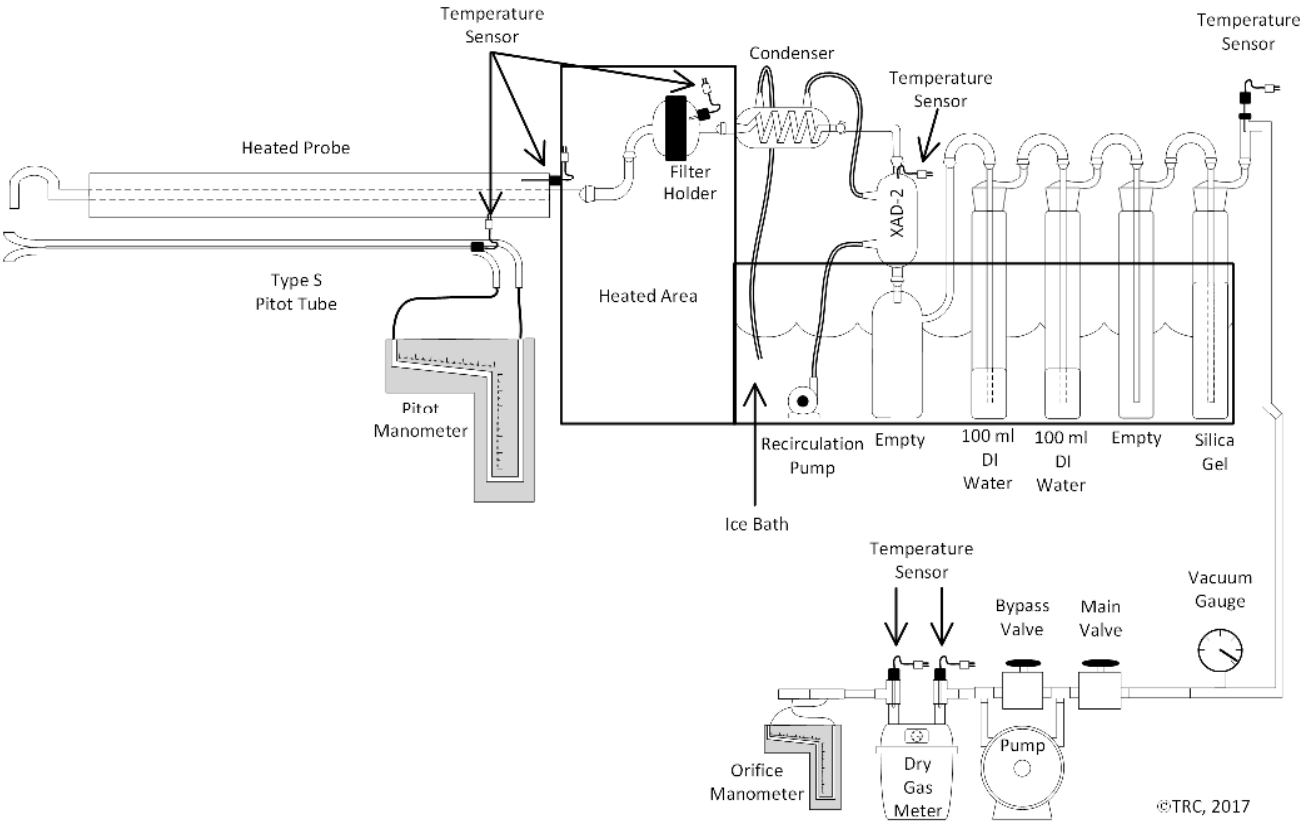
Determination of Metals Emissions From Stationary Sources

USEPA Promulgated Method 29



Determination of Polychlorinated Dibenzo-p-dioxins, Polychlorinated Dibenzofurans, Polychlorinated Biphenyls, and Polycyclic Aromatic Hydrocarbons

USEPA Other Test Method 46



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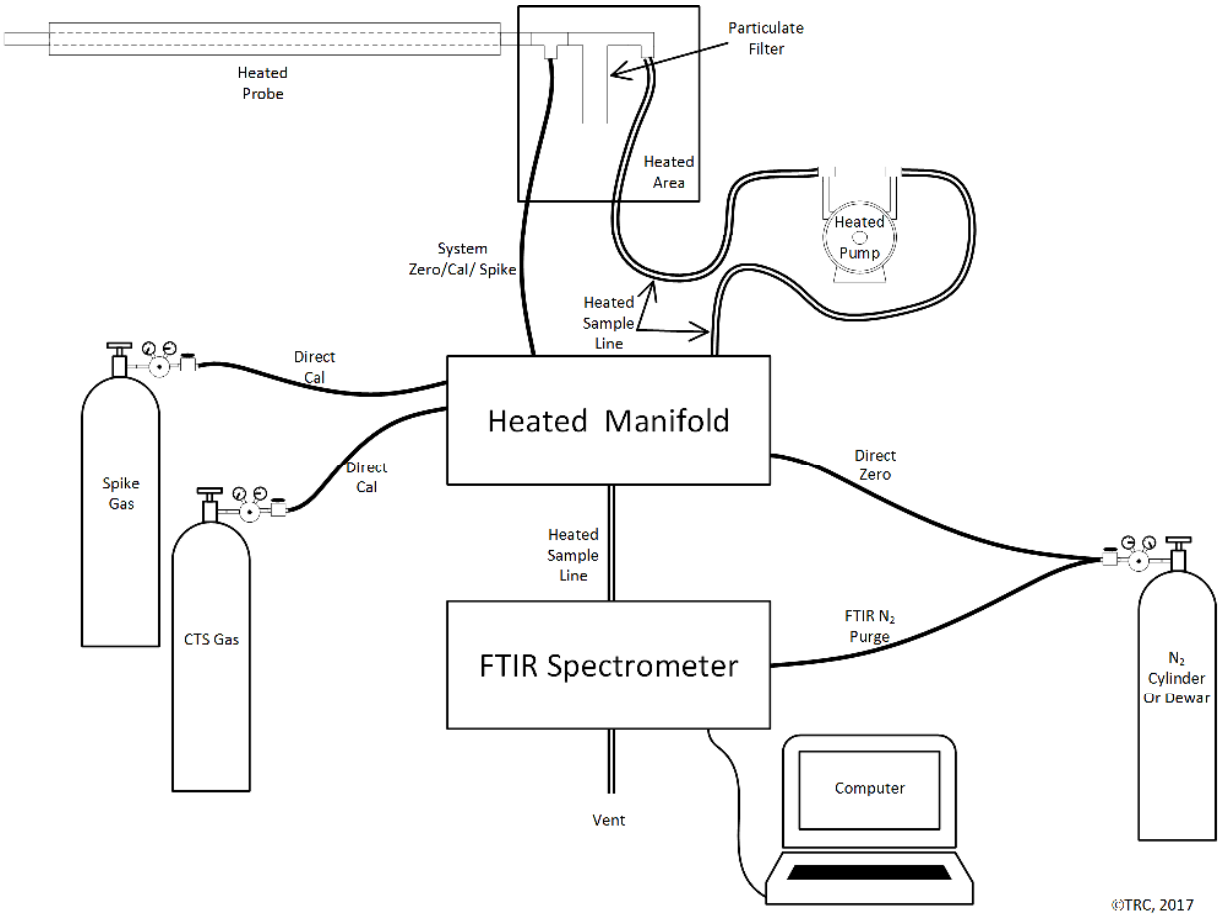
Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive FTIR

USEPA Promulgated Method 320



Filterable Particulate Sample Analysis Summary

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**2/2/2023 through 2/6/2023**

Filterable PM	Run 1	Run 2	Run 3	Run 4	Blank
Filter material collected in acetone rinse?	Y	Y	Y	Y	
Filter final - Filter tare (mg):	<0.50	1.80	<0.50	<0.50	
Rinse volume, V_{aw}, (ml):	122.0	93.0	72.0	100.0	200.0
Rinse final - Rinse tare, m_a, (mg):	7.20	2.80	0.10	2.56	1.3
Rinse blank correction, W_a (mg)**:	0.79	0.60	0.47	0.00	
Total rinse mass (mg):	6.41	2.20	-0.37	2.56	
***Total Filterable PM, m_n, (milligrams):**	**6.91**	**4.00**	**0.13**	**3.06**	

** - the maximum allowable blank correction is 0.0079 mg/ml

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Filterable Particulate Sample Analysis Summary

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**2/7/2023 through 2/9/2023**

Filterable PM	Run 5	Run 6	Run 7	Run 8	Blank
Filter material collected in acetone rinse?	Y	Y	Y	Y	
Filter final - Filter tare (mg):	<0.50	<0.50	<0.50	-	
Rinse volume, V_{aw}, (ml):	124.0	100.0	120.0	-	200.0
Rinse final - Rinse tare, m_a, (mg):	3.48	2.81	3.76	-	0.0
Rinse blank correction, W_a (mg)**:	0.00	0.00	0.00	-	
Total rinse mass (mg):	3.48	2.81	3.76	-	
***Total Filterable PM, m_n, (milligrams):**	**3.98**	**3.31**	**4.26**	**-**	

** - the maximum allowable blank correction is 0.0079 mg/ml

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Laboratory Analysis Report

Case Narrative

General Information

TRC Client Office:	**Burr Ridge**
Company:	Primary Energy
Facility:	Cokenergy HRSG Stack
Project #:	508369
Analysis Date(s):	2/3-15/2023
Analyst:	Gayle Swanson

Analysis

Analytes:	Particulate Matter
Analytical Protocols:	EPA Method 5
TRC SOP:	AM-P60-5, AM-P60L-5

Analytical Notes: No problems were encountered during the analyses.

QA/QC Review: All of the data have been reviewed for quality assurance. All of the quality control and sample specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.

Comments: All samples arrived at the laboratory in a condition acceptable for analysis.

If you have any questions or concerns regarding this analysis, please feel free to contact me.

Laboratory Certification Statements

I certify that to the best of my knowledge:

- Test data and all corresponding information have been checked for accuracy and completeness.
- Analyses have been conducted in accordance with approved protocol and reference methods (as applicable).
- All deviations, method modifications, or analytical anomalies are summarized in the appropriate report narrative(s).
- Analysis results only represent that of the samples as received into the laboratory.
- This document contains a total of 4 pages.

This test report shall not be reproduced except in full, without the written approval of the laboratory.

Gayle Swanson	2/15/2023	Anthony Dakellarios	2/15/2023
Analyst	Date	Quality Assurance Review	Date

Sample Receipt Checklist

TRC Client Office: Burr Ridge **Date:** 2/3/2023

Project #: 508369 **Time:** 2:00

 # Samples: 3 **Recipient:** Gs

	Yes or **N**o
Container Seals Inspected	
Present?	Y
If present, are seals intact?	Y
Chain-of-Custody Form Inspected	
COC present with samples?	Y
Name of individual who collected samples on COC?	Y
Date of sample collection on COC?	Y
COC indicates analytical methodology to be used for each sample?	Y
Has form been signed - Relinquished By?	Y
Have date and time custody released been noted on form?	Y
Are you signing COC - Received By?	Y
Have date and time custody received noted on form?	Y
All Sample Containers Inspected	
Does number of samples match number on COC form?	Y
Do all sample IDs on sample labels match those on the COC form?	Y
Are the sample containers intact?	Y
No signs of leakage?	Y
No visible damage to sample containers?	Y

Sample Temperature Upon Receipt 70 °F

Notes and/or Explanations for any "No" above:

Signed (Recipient): Gaz Sua

Laboratory Report Summary

TRC Office: Burr Ridge
Company: Primary Energy
Facility: Cokenergy HRSG Stack
Project #: 508369
Analysis Date(s): 2/3-15/2023
Analyst: Gayle Swanson

Method 5 Data

PM Filter:

Client Sample ID / Description	Net Mass (mg)
369-01 / Run 1	-1.7
369-12 / Run 2	1.8
369-23 / Run 3	-1.1

PM Front Half Wash:

Client Sample ID / Description	Sample Volume (ml)	Net Mass (mg)
369-02 / Run 1	122	7.2
369-13 / Run 2	93	2.8
369-24 / Run 3	72	0.1

Method 5 Particulate Laboratory Run Data

TRC Office:	Burr Ridge
Company:	Primary Energy
Facility:	Cokenergy HRSG Stack
Project #:	508369
Analysis Date(s):	2/3-15/2023
Analyst:	Gayle Swanson

Client Sample		Filter Data			
ID	Description	Filter #	Initial Weight (g)	Final Weight (g)	Net Weight (g)
369-01	Run 1	559	0.3768	0.3751	-0.0017
369-12	Run 2	560	0.3747	0.3765	0.0018
369-23	Run 3	622	0.3463	0.3452	-0.0011

Client Sample		Acetone Wash Data				
ID	Description	Weighing Pan #	Volume (mL)	Initial Weight (g)	Final Weight (g)	Net Weight (g)
369-02	Run 1	Coke 1	122	27.8464	27.8536	0.0072
369-13	Run 2	Coke 2	93	29.5746	29.5774	0.0028
369-24	Run 3	Coke 3	72	32.6965	32.6966	0.0001

Method 29 Sample Analysis Summary

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 2 through 6, 2023**

Filter Diameter (mm): 82 (NuTech)

Gross front-half metals

	Run 1	Run 2	Run 3	Run 4	Reagent Blank
Ag (ug)	-	-	-	-	-
As (µg)	< 0.671	< 0.671	< 0.671	1.08	< 0.671
Ba (µg)	-	-	-	-	
Be (µg)	0.119	0.0913	< 0.0532	< 0.0532	< 0.0532
Cd (µg)	0.307	0.742	0.0961	0.178	< 0.0519
Cr (µg)	3.98	1.74	1.49	1.51	0.722
Co (µg)	0.489	0.367	0.120	0.125	< 0.0562
Cu (µg)	-	-	-	-	
1B Hg (µg)	< 0.0250	< 0.0250	< 0.0250	< 0.0250	< 0.0250
Mn (µg)	3.84	2.11	1.37	1.49	< 0.399
Ni (µg)	7.90	2.85	1.04	1.14	0.365
P (µg)	-	-	-	-	
Pb (µg)	1.82	0.734	0.615	0.737	0.0907
Sb (µg)	0.466	0.290	< 0.250	< 0.250	< 0.250
Se (µg)	0.767	0.457	0.373	0.426	< 0.304
Tl (µg)	-	-	-	-	-
Zn (µg)	-	-	-	-	-

"<" indicates that the mass of a metal in the sample was below the laboratory analytical detection limit

Blank-corrected front-half metals

	Run 1	Run 2	Run 3	Run 4
Ag (µg)	-	-	-	-
As (µg)	0.671 *	0.671 *	0.671 *	1.080
Ba (µg)	-	-	-	-
Be (µg)	0.119	0.091	0.053 *	0.053 *
Cd (µg)	0.307	0.742	0.096	0.178
Cr (µg)	3.258	1.018	0.768	0.788
Co (µg)	0.489	0.367	0.120	0.125
Cu (µg)	-	-	-	-
1B Hg (µg)	N/A *	N/A *	N/A *	N/A *
Mn (µg)	3.840	2.110	1.370	1.490
Ni (µg)	7.535	2.485	0.675	0.775
P (µg)	-	-	-	-
Pb (µg)	1.729	0.643	0.524	0.646
Sb (µg)	0.466	0.290	0.250 *	0.250 *
Se (µg)	0.767	0.457	0.373	0.426
Tl (µg)	-	-	-	-
Zn (µg)	-	-	-	-
-	-	-	-	-

* If a "Gross" Run value was below the detection limit, subsequent calculations used the detection limit
If a Reagent Blank value was below the detection limit, subsequent calculations used a value of 0.0

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Revised 11/22/21

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Method 29 Sample Analysis Summary

FSR#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 2 through 6, 2023**

Gross Back-half metals

	Run 1	Run 2	Run 3	Run 4	Reagent Blank
Ag (µg)	-	-	-	-	`
As (µg)	0.230	0.136	0.300	0.681	< 0.0600
Ba (µg)	-	-	-	-	
Be (µg)	< 0.0172	0.0192	< 0.0173	< 0.0172	< 0.0194
Cd (µg)	0.161	0.0492	0.0224	0.107	< 0.0232
Cr (µg)	0.973	0.914	0.646	0.916	0.508
Co (µg)	0.261	0.162	0.0529	0.150	< 0.0185
Cu (µg)	-	-	-	-	
2B Hg (µg)	13.40	6.12	17.70	16.20	< 0.150
3A Hg (µg)	0.244	0.422	0.753	0.614	< 0.0245
3B Hg (µg)	< 0.0962	< 0.100	< 0.100	< 0.0962	< 0.0212
3C Hg (µg)	3.47	7.04	3.23	2.96	< 0.0762
Mn (µg)	2.63	8.79	3.73	2.53	0.388
Ni (µg)	1.90	0.825	0.657	1.09	0.222
P (µg)	-	-	-	-	
Pb (µg)	0.867	0.726	0.529	0.702	0.107
Sb (µg)	0.099	0.0924	0.0655	0.131	< 0.0600
Se (µg)	23.40	7.06	25.80	34.20	< 0.0959
Tl (µg)	-	-	-	-	-
Zn (µg)	-	-	-	-	-
-	-	-	-	-	-

"<" indicates that the mass of a metal in the sample was below the laboratory analytical detection limit

Blank-corrected back-half metals

	Run 1	Run 2	Run 3	Run 4
Ag (µg)	-	-	-	-
As (µg)	0.230	0.136	0.300	0.681
Ba (µg)	-	-	-	-
Be (µg)	0.017 *	0.019	0.017 *	0.017 *
Cd (µg)	0.161	0.049	0.022	0.107
Cr (µg)	0.465	0.406	0.138	0.408
Co (µg)	0.261	0.162	0.053	0.150
Cu (µg)	-	-	-	-
Total Hg (front and back) (µg)	17.235	13.707	21.808	19.895
Mn (µg)	2.242	8.402	3.342	2.142
Ni (µg)	1.678	0.603	0.435	0.868
P (µg)	-	-	-	-
Pb (µg)	0.760	0.619	0.422	0.595
Sb (µg)	0.099	0.092	0.066	0.131
Se (µg)	23.400	7.060	25.800	34.200
Tl (µg)	-	-	-	-
Zn (µg)	-	-	-	-
-	-	-	-	-

* If a "Gross" Run value was below the detection limit, subsequent calculations used the detection limit

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Method 29 Sample Analysis Summary

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 7 through 9, 2023**

Filter Diameter (mm): 82 (NuTech)

Gross front-half metals

	Run 5	Run 6	Run 7	Run 8	Reagent Blank
Ag (ug)	-	-	-	-	-
As (µg)	< 0.671	1.04	< 0.671	-	< 0.671
Ba (µg)	-	-	-	-	
Be (µg)	< 0.0532	< 0.0532	< 0.0532	-	< 0.0532
Cd (µg)	0.109	< 0.0519	0.0688	-	< 0.0519
Cr (µg)	1.56	1.39	1.57	-	0.722
Co (µg)	0.134	0.0769	0.111	-	< 0.0562
Cu (µg)	-	-	-	-	
1B Hg (µg)	< 0.0250	< 0.0250	< 0.0250	-	< 0.0250
Mn (µg)	1.53	1.14	2.07	-	< 0.399
Ni (µg)	1.03	0.664	0.919	-	0.365
P (µg)	-	-	-	-	
Pb (µg)	0.727	0.720	0.831	-	0.0907
Sb (µg)	< 0.250	< 0.250	< 0.250	-	< 0.250
Se (µg)	0.499	0.403	0.494	-	< 0.304
Tl (µg)	-	-	-	-	-
Zn (µg)	-	-	-	-	-

"<" indicates that the mass of a metal in the sample was below the laboratory analytical detection limit

Blank-corrected front-half metals

	Run 5	Run 6	Run 7	Run 8
Ag (µg)	-	-	-	-
As (µg)	0.671 *	1.040	0.671 *	-
Ba (µg)	-	-	-	-
Be (µg)	0.053 *	0.053 *	0.053 *	-
Cd (µg)	0.109	0.052 *	0.069	-
Cr (µg)	0.838	0.668	0.848	-
Co (µg)	0.134	0.077	0.111	-
Cu (µg)	-	-	-	-
1B Hg (µg)	N/A *	N/A *	N/A *	N/A
Mn (µg)	1.530	1.140	2.070	-
Ni (µg)	0.665	0.299	0.554	-
P (µg)	-	-	-	-
Pb (µg)	0.636	0.629	0.740	-
Sb (µg)	0.250 *	0.250 *	0.250 *	-
Se (µg)	0.499	0.403	0.494	-
Tl (µg)	-	-	-	-
Zn (µg)	-	-	-	-
-	-	-	-	-

* If a "Gross" Run value was below the detection limit, subsequent calculations used the detection limit
If a Reagent Blank value was below the detection limit, subsequent calculations used a value of 0.0

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Method 29 Sample Analysis Summary

FSR#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 7 through 9, 2023**

Gross Back-half metals

	Run 5	Run 6	Run 7	Run 8	Reagent Blank
Ag (µg)	-	-	-	-	`
As (µg)	0.140	0.459	0.241	-	< 0.0600
Ba (µg)	-	-	-	-	
Be (µg)	< 0.0172	< 0.0172	< 0.0171	-	< 0.0194
Cd (µg)	0.0343	0.0864	0.0408	-	< 0.0232
Cr (µg)	0.681	1.85	0.964	-	0.508
Co (µg)	0.0636	0.129	0.0614	-	< 0.0185
Cu (µg)	-	-	-	-	
2B Hg (µg)	8.43	15.1	13.8	-	< 0.150
3A Hg (µg)	0.345	0.488	0.213	-	< 0.0245
3B Hg (µg)	0.152	0.167	0.136	-	< 0.0212
3C Hg (µg)	5.73	3.05	3.71	-	< 0.0762
Mn (µg)	2.06	2.08	1.83	-	0.388
Ni (µg)	0.626	1.38	1.29	-	0.222
P (µg)	-	-	-	-	
Pb (µg)	0.521	0.485	0.465	-	0.107
Sb (µg)	0.0958	0.0882	0.0625	-	< 0.0600
Se (µg)	11.9	23.1	19.6	-	< 0.0959
Tl (µg)	-	-	-	-	-
Zn (µg)	-	-	-	-	-
-	-	-	-	-	-

"<" indicates that the mass of a metal in the sample was below the laboratory analytical detection limit

Blank-corrected back-half metals

	Run 5	Run 6	Run 7	Run 8
Ag (µg)	-	-	-	-
As (µg)	0.140	0.459	0.241	-
Ba (µg)	-	-	-	-
Be (µg)	0.017 *	0.017 *	0.017 *	-
Cd (µg)	0.034	0.086	0.041	-
Cr (µg)	0.173	1.342	0.456	-
Co (µg)	0.064	0.129	0.061	-
Cu (µg)	-	-	-	-
Total Hg (front and back) (µg)	14.682	18.830	17.884	-
Mn (µg)	1.672	1.692	1.442	-
Ni (µg)	0.404	1.158	1.068	-
P (µg)	-	-	-	-
Pb (µg)	0.414	0.378	0.358	-
Sb (µg)	0.096	0.088	0.063	-
Se (µg)	11.900	23.100	19.600	-
Tl (µg)	-	-	-	-
Zn (µg)	-	-	-	-
-	-	-	-	-

* If a "Gross" Run value was below the detection limit, subsequent calculations used the detection limit

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TRC Environmental Corporation – Burr Ridge

7521 Brush Hill Road
Burr Ridge, IL 60527

Primary Energy

Cokenergy
Client Project # 508369

Analytical Report
(0123-099)

EPA Method 18(Adsorbents)

Benzene, Ethylbenzene, Toluene, o-xylene, m-xylene, p-xylene

EPA Method 5

Particulate Matter

EPA Method 29

Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Manganese, Mercury, Nickel, Selenium

Enthalpy Analytical, LLC
Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

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AMCross

Report Issued: 3/7/23

ENTHALPY ANALYTICAL

Summary of Results

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge
Job No.: 0123-099 - EPA Method 18
Client No.: 508369 Site: Primary Energy - Cokenergy

Summary Table

	Compound / Adjusted Catch Weight (ug)					
Sample ID	Benzene	Ethylbenzene	m-xylene	o-xylene	p-xylene	Toluene
HRSG Stack M18 Run 1	1.94 ND	2.45 ND	1.82 ND	2.35 ND	1.88 ND	2.29 ND
HRSG Stack M18 Run 2	1.94 ND	2.45 ND	1.82 ND	2.35 ND	1.88 ND	2.29 ND
HRSG Stack M18 Run 3	1.94 ND	2.45 ND	1.82 ND	2.35 ND	1.88 ND	2.29 ND
HRSG Stack M18 Run 4	1.94 ND	2.45 ND	1.82 ND	2.35 ND	1.88 ND	2.29 ND
HRSG Stack M18 Run 5	1.98 ND	2.49 ND	1.87 ND	2.40 ND	1.92 ND	2.32 ND
HRSG Stack M18 Run 6	1.95 ND	2.45 ND	1.84 ND	2.37 ND	1.89 ND	2.29 ND
HRSG Stack M18 Run 7	1.95 ND	2.45 ND	1.84 ND	2.37 ND	1.89 ND	2.29 ND

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 EPA Method 5

Client No.: 508369 Site: Primary Energy - Cokenergy

Summary Report

	Run 4	Run 5	Run 6	Run 7
Net Filter Catch (mg)	-4.36	-3.08	-1.83	-1.82
Net Front Rinse (mg)	2.56	3.48	2.81	3.76
Total Particulate (mg)	2.6	3.5	2.8	3.8

	369 M5/29 Blank-12	Filter# 620	Filter# 621
Net Filter Catch (mg)	0.64	0.89	0.72

EPA Method 29 Summary

EA Project #: 0123-099
Client: TRC Environmental Corporation - Burr Ridge
Client Project ID: 508369 - Primary Energy - Cokenergy

	Total Micrograms in Sample (ug)				
Sample ID	**Antimony**	**Arsenic**	**Beryllium**	**Cadmium**	**Chromium**
HRSG-STACK-M29-1 - FH	0.466 J	0.671 ND	0.119 J	0.307 J	3.98
HRSG-STACK-M29-1 - BH	0.0990 J	0.230 J	0.0172 ND	0.161	0.973
HRSG-STACK-M29-2 - FH	0.290 J	0.671 ND	0.0913 J	0.742	1.74 J
HRSG-STACK-M29-2 - BH	0.0924 J	0.136 J	0.0192 J	0.0492 J	0.914
HRSG-STACK-M29-3 - FH	0.250 ND	0.671 ND	0.0532 ND	0.0961 J	1.49 J
HRSG-STACK-M29-3 - BH	0.0655 J	0.300 J	0.0173 ND	0.0224 J	0.646
HRSG-STACK-M29-4 - FH	0.250 ND	1.08 J	0.0532 ND	0.178 J	1.51 J
HRSG-STACK-M29-4 - BH	0.131 J	0.681	0.0172 ND	0.107	0.916
HRSG-STACK-M29-5 - FH	0.250 ND	0.671 ND	0.0532 ND	0.109 J	1.56 J
HRSG-STACK-M29-5 - BH	0.0958 J	0.140 J	0.0172 ND	0.0343 J	0.681
HRSG-STACK-M29-6 - FH	0.250 ND	1.04 J	0.0532 ND	0.0519 ND	1.39 J
HRSG-STACK-M29-6 - BH	0.0882 J	0.459 J	0.0172 ND	0.0864 J	1.85
HRSG-STACK-M29-7 - FH	0.250 ND	0.671 ND	0.0532 ND	0.0688 J	1.57 J
HRSG-STACK-M29-7 - BH	0.0625 J	0.241 J	0.0171 ND	0.0408 J	0.964
HRSG-STACK-M29-Blank - FH	0.250 ND	0.671 ND	0.0532 ND	0.0519 ND	0.722 J
HRSG-STACK-M29-Blank - BH	0.0600 ND	0.0600 ND	0.0194 ND	0.0232 ND	0.508 J

EPA Method 29 Summary

EA Project #: 0123-099
Client: TRC Environmental Corporation - Burr Ridge
Client Project ID: 508369 - Primary Energy - Cokenergy

	Total Micrograms in Sample (ug)				
Sample ID	**Cobalt**	**Lead**	**Manganese**	**Nickel**	**Selenium**
HRSG-STACK-M29-1 - FH	0.489 J	1.82	3.84	7.90	0.767 J
HRSG-STACK-M29-1 - BH	0.261	0.867	2.63	1.90	23.4
HRSG-STACK-M29-2 - FH	0.367 J	0.734	2.11 J	2.85	0.457 J
HRSG-STACK-M29-2 - BH	0.162	0.726	8.79	0.825	7.06
HRSG-STACK-M29-3 - FH	0.120 J	0.615	1.37 J	1.04 J	0.373 J
HRSG-STACK-M29-3 - BH	0.0529 J	0.529	3.73	0.657	25.8
HRSG-STACK-M29-4 - FH	0.125 J	0.737	1.49 J	1.14 J	0.426 J
HRSG-STACK-M29-4 - BH	0.150	0.702	2.53	1.09	34.2
HRSG-STACK-M29-5 - FH	0.134 J	0.727	1.53 J	1.03 J	0.499 J
HRSG-STACK-M29-5 - BH	0.0636 J	0.521	2.06	0.626	11.9
HRSG-STACK-M29-6 - FH	0.0769 J	0.720	1.14 J	0.664 J	0.403 J
HRSG-STACK-M29-6 - BH	0.129	0.485	2.08	1.38	23.1
HRSG-STACK-M29-7 - FH	0.111 J	0.831	2.07 J	0.919 J	0.494 J
HRSG-STACK-M29-7 - FH	0.0614 J	0.465	1.83	1.29	19.6
HRSG-STACK-M29-Blank - FH	0.0562 ND	0.0907 J	0.399 ND	0.365 J	0.304 ND
HRSG-STACK-M29-Blank - BH	0.0185 ND	0.107 J	0.388 J	0.222 J	0.0959 ND

EPA Method 29 Summary

EA Project #: 0123-099
Client: TRC Environmental Corporation - Burr Ridge
Client Project ID: 508369 - Primary Energy - Cokenergy

	Total Micrograms of Mercury in Sample (ug)				
Sample ID	**Frac 1B**	**Frac 2B**	**Frac 3A**	**Frac 3B**	**Frac 3C**
HRSG-STACK-M29-1	0.0250 ND	13.4	0.244	0.0962 ND	3.47
HRSG-STACK-M29-2	0.0250 ND	6.12	0.422	0.100 ND	7.04
HRSG-STACK-M29-3	0.0250 ND	17.7	0.753	0.100 ND	3.23
HRSG-STACK-M29-4	0.0250 ND	16.2	0.614	0.0962 ND	2.96
HRSG-STACK-M29-5	0.0250 ND	8.43	0.345	0.152	5.73
HRSG-STACK-M29-6	0.0250 ND	15.1	0.488	0.167	3.05
HRSG-STACK-M29-7	0.0250 ND	13.8	0.213	0.136 J	3.71
HRSG-STACK-M29-Blank	0.0250 ND	0.150 ND	0.0245 ND	0.0212 ND	0.0762 ND

0123-099 Hg Top

Results

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
Benzene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.7	1.94	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
																				1.94	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.263	2.63	1,055	0.82	0.82	0.82	0.0	9.88	9.74	9.83	0.8	9.82	1	5.00	49.1	100	49.1	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				49.1	
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.7	1.94	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
																				1.94	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.263	2.63	1,055	0.82	0.82	0.82	0.0	9.97	9.74	9.68	1.8	9.79	1	5.00	49.0	100	49.0	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				49.0	
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.7	1.94	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
																				1.94	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.263	2.63	1,055	0.82	0.82	0.82	0.0	9.72	9.61	9.99	2.2	9.77	1	5.00	48.9	100	48.9	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				48.9	
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.7	1.94	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.7	1.42	ND
																				1.94	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.389	5.00	1.83	100	1.83	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.263	2.63	1,055	0.82	0.82	0.82	0.1	9.75	9.63	9.73	0.8	9.70	1	5.00	48.5	100	48.5	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				48.5	
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.389	5.00	1.83	92.2	1.98	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
																				1.98	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.263	2.63	1,055	0.82	0.82	0.82	0.0	9.57	9.65	9.87	1.8	9.70	1	5.00	48.5	100	48.5	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				48.5	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
Benzene																					
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.2	1.95	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
																				1.95	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.263	2.63	1,055	0.82	0.82	0.82	0.1	9.73	9.51	9.65	1.2	9.63	1	5.00	48.1	100	48.1	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				48.1	
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	92.2	1.95	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	92.2	1.43	ND
																				1.95	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1.368	5.00	1.80	100	1.80	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.263	2.63	1,055	0.82	0.82	0.82	0.1	9.77	9.86	9.88	0.6	9.84	1	5.00	49.2	100	49.2	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.263	2.63	1,055	NA	NA	NA	NA	0.263	0.263	0.263	0.0	0.263	1	5.00	1.31	100	1.31	ND
																				49.2	
Ethylbenzene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.9	2.45	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
																				2.45	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.4	10.2	10.4	1.1	10.3	1	5.00	51.7	100	51.7	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				51.7	
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.9	2.45	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
																				2.45	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.4	10.3	10.3	0.8	10.3	1	5.00	51.7	100	51.7	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				51.7	
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.9	2.45	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
																				2.45	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.4	10.5	10.5	0.7	10.5	1	5.00	52.4	100	52.4	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				52.4	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
Ethylbenzene																					
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.9	2.45	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.9	1.79	ND
																				2.45	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.389	5.00	2.48	100	2.48	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.3	10.3	10.5	1.2	10.3	1	5.00	51.7	100	51.7	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				51.7	
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.389	5.00	2.48	99.7	2.49	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
																				2.49	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.2	10.4	10.2	1.6	10.3	1	5.00	51.3	100	51.3	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				51.3	
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.7	2.45	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
																				2.45	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.4	10.3	10.4	0.7	10.4	1	5.00	51.8	100	51.8	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				51.8	
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	99.7	2.45	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	99.7	1.79	ND
																				2.45	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1.368	5.00	2.45	100	2.45	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.358	2.59	1,039	1.50	1.50	1.50	0.0	10.5	10.1	10.7	3.0	10.5	1	5.00	52.3	100	52.3	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.358	2.59	1,039	NA	NA	NA	NA	0.358	0.358	0.358	0.0	0.358	1	5.00	1.79	100	1.79	ND
																				52.3	
m-xylene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	97.0	1.82	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
																				1.82	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	9.91	9.76	9.98	1.2	9.88	1	5.00	49.4	100	49.4	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				49.4	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
m-xylene																					
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	97.0	1.82	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
																				1.82	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	10.2	10.2	10.1	0.4	10.2	1	5.00	50.9	100	50.9	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				50.9	
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	97.0	1.82	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
																				1.82	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	9.80	10.3	10.3	3.1	10.1	1	5.00	50.5	100	50.5	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				50.5	
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	97.0	1.82	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	97.0	1.33	ND
																				1.82	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.389	5.00	1.79	100	1.79	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	9.83	9.87	10.3	3.2	10.0	1	5.00	50.0	100	50.0	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				50.0	
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.389	5.00	1.79	96.1	1.87	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
																				1.87	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	9.83	9.96	9.88	0.7	9.89	1	5.00	49.5	100	49.5	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				49.5	
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	96.1	1.84	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
																				1.84	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	9.61	10.0	9.91	2.4	9.84	1	5.00	49.2	100	49.2	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				49.2	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
m-xylene																					
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	96.1	1.84	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	96.1	1.34	ND
																				1.84	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1.368	5.00	1.77	100	1.77	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.258	2.58	1,036	1.57	1.57	1.57	0.0	10.2	9.99	10.1	1.4	10.1	1	5.00	50.6	100	50.6	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.258	2.58	1,036	NA	NA	NA	NA	0.258	0.258	0.258	0.0	0.258	1	5.00	1.29	100	1.29	ND
																				50.6	
o-xylene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	87.3	2.35	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
																				2.35	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	9.00	9.02	9.19	1.3	9.07	1	5.00	45.4	100	45.4	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				45.4	
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	87.3	2.35	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
																				2.35	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	9.44	9.41	9.38	0.3	9.41	1	5.00	47.1	100	47.1	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				47.1	
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	87.3	2.35	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
																				2.35	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	9.34	9.34	9.31	0.2	9.33	1	5.00	46.6	100	46.6	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				46.6	
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	87.3	2.35	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	87.3	1.72	ND
																				2.35	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.389	5.00	2.08	100	2.08	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	8.66	8.75	9.20	3.7	8.87	1	5.00	44.4	100	44.4	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				44.4	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
o-xylene																					
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.389	5.00	2.08	86.5	2.40	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
																				2.40	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	9.13	8.99	9.09	0.9	9.07	1	5.00	45.4	100	45.4	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				45.4	
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	86.5	2.37	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
																				2.37	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	8.96	9.18	8.83	2.1	8.99	1	5.00	44.9	100	44.9	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				44.9	
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	86.5	2.37	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	86.5	1.73	ND
																				2.37	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1.368	5.00	2.05	100	2.05	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.299	2.62	1,051	1.78	1.78	1.78	0.0	9.10	9.30	9.23	1.2	9.21	1	5.00	46.1	100	46.1	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.299	2.62	1,051	NA	NA	NA	NA	0.299	0.299	0.299	0.0	0.299	1	5.00	1.50	100	1.50	ND
																				46.1	
p-xylene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.8	1.88	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
																				1.88	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.73	9.54	9.51	1.4	9.59	1	5.00	48.0	100	48.0	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				48.0	
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.8	1.88	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
																				1.88	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.85	9.78	9.79	0.5	9.81	1	5.00	49.0	100	49.0	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				49.0	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
p-xylene																					
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.8	1.88	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
																				1.88	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.55	9.70	9.65	0.9	9.64	1	5.00	48.2	100	48.2	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				48.2	
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.8	1.88	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.8	1.37	ND
																				1.88	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.389	5.00	1.79	100	1.79	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.46	9.64	9.87	2.2	9.66	1	5.00	48.3	100	48.3	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				48.3	
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.389	5.00	1.79	93.2	1.92	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
																				1.92	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.43	9.52	9.48	0.4	9.48	1	5.00	47.4	100	47.4	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				47.4	
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.2	1.89	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
																				1.89	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.65	9.65	9.62	0.2	9.64	1	5.00	48.2	100	48.2	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				48.2	
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	93.2	1.89	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	93.2	1.38	ND
																				1.89	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1.368	5.00	1.76	100	1.76	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.257	2.57	1,031	1.54	1.54	1.54	0.0	9.86	9.44	9.81	2.7	9.71	1	5.00	48.5	100	48.5	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.257	2.57	1,031	NA	NA	NA	NA	0.257	0.257	0.257	0.0	0.257	1	5.00	1.29	100	1.29	ND
																				48.5	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
Toluene																					
5081 M18 R1A C1.EXT	004F3501.D	004F3502.D	004F3503.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
5082 M18 R1A C2.FH	022F1001.D	022F1002.D	022F1003.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
5083 M18 R1A C3.BH	024F1201.D	024F1202.D	024F1203.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
5084 M18 R1B SPK C1.EXT	011F4201.D	011F4202.D	011F4203.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
5085 M18 R1B SPK C2.FH	038F2601.D	038F2602.D	038F2603.D	0.317	2.59	1,038	1.14	1.14	1.14	0.1	9.74	9.65	9.80	0.8	9.73	1	5.00	48.7	100	48.7	
5086 M18 R1B SPK C3.BH	040F2801.D	040F2802.D	040F2803.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				48.7	
5087 M18 R2A C1.EXT	005F3601.D	005F3602.D	005F3603.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
5088 M18 R2A C2.FH	025F1301.D	025F1302.D	025F1303.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
5089 M18 R2A C3.BH	026F1401.D	026F1402.D	026F1403.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
50810 M18 R2B SPK C1.EXT	014F0201.D	014F0202.D	014F0203.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
50811 M18 R2B SPK C2.FH	041F2901.D	041F2902.D	041F2903.D	0.317	2.59	1,038	1.14	1.14	1.14	0.0	9.96	9.77	9.94	1.2	9.89	1	5.00	49.5	100	49.5	
50812 M18 R2B SPK C3.BH	042F3001.D	042F3002.D	042F3003.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				49.5	
50813 M18 R3A C1.EXT	006F3701.D	006F3702.D	006F3703.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
50814 M18 R3A C2.FH	027F1501.D	027F1502.D	027F1503.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
50815 M18 R3A C3.BH	028F1601.D	028F1602.D	028F1603.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
50816 M18 R3B SPK C1.EXT	015F0301.D	015F0302.D	015F0303.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
50817 M18 R3B SPK C2.FH	043F3101.D	043F3102.D	043F3103.D	0.317	2.59	1,038	1.14	1.14	1.14	0.0	9.78	10.1	9.98	1.8	9.96	1	5.00	49.8	100	49.8	
50818 M18 R3B SPK C3.BH	044F3201.D	044F3202.D	044F3203.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				49.8	
50819 M18 R4A C1.EXT	007F3801.D	007F3802.D	007F3803.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
50820 M18 R4A C2.FH	029F1701.D	029F1702.D	029F1703.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
50821 M18 R4A C3.BH	030F1801.D	030F1802.D	030F1803.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
50822 M18 R4B SPK C1.EXT	016F0401.D	016F0402.D	016F0403.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.389	5.00	2.20	100	2.20	ND
50823 M18 R4B SPK C2.FH	046F3401.D	046F3402.D	046F3403.D	0.317	2.59	1,038	1.14	1.14	1.14	0.0	9.66	9.58	10.1	3.0	9.77	1	5.00	48.8	100	48.8	
50824 M18 R4B SPK C3.BH	047F3501.D	047F3502.D	047F3503.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				48.8	
50825 M18 R5A C1.EXT	008F3901.D	008F3902.D	008F3903.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.389	5.00	2.20	94.8	2.32	ND
50826 M18 R5A C2.FH	031F1901.D	031F1902.D	031F1903.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
50827 M18 R5A C3.BH	032F2001.D	032F2002.D	032F2003.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.32	ND
50828 M18 R5B SPK C1.EXT	017F0501.D	017F0502.D	017F0503.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
50829 M18 R5B SPK C2.FH	048F3601.D	048F3602.D	048F3603.D	0.317	2.59	1,038	1.14	1.14	1.14	0.0	9.73	9.67	9.72	0.4	9.71	1	5.00	48.5	100	48.5	
50830 M18 R5B SPK C3.BH	049F3701.D	049F3702.D	049F3703.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				48.5	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Sample ID	Filename #1	Filename #2	Filename #3	MDL	Curve Min	Curve Max	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	Conc #1 (ug/mL)	Conc #2 (ug/mL)	Conc #3 (ug/mL)	%dif conc	Avg Conc (ug/mL)	DF * Aliquot Factor	Liquid Vol (mL)	Catch Weight (ug)	Rec Eff (%)	Adj. Catch Weight (ug)	Flag
Toluene																					
50831 M18 R6A C1.EXT	009F4001.D	009F4002.D	009F4003.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
50832 M18 R6A C2.FH	033F2101.D	033F2102.D	033F2103.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
50833 M18 R6A C3.BH	035F2301.D	035F2302.D	035F2303.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
50834 M18 R6B SPK C1.EXT	018F0601.D	018F0602.D	018F0603.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
50835 M18 R6B SPK C2.FH	050F3801.D	050F3802.D	050F3803.D	0.317	2.59	1,038	1.14	1.14	1.14	0.1	9.90	9.64	10.0	2.1	9.85	1	5.00	49.2	100	49.2	
50836 M18 R6B SPK C3.BH	051F3901.D	051F3902.D	051F3903.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				49.2	
50837 M18 R7A C1.EXT	010F4101.D	010F4102.D	010F4103.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	94.8	2.29	ND
50838 M18 R7A C2.FH	036F2401.D	036F2402.D	036F2403.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
50839 M18 R7A C3.BH	037F2501.D	037F2502.D	037F2503.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	94.8	1.67	ND
																				2.29	ND
50840 M18 R7B SPK C1.EXT	019F0701.D	019F0702.D	019F0703.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1.368	5.00	2.17	100	2.17	ND
50841 M18 R7B SPK C2.FH	052F4001.D	052F4002.D	052F4003.D	0.317	2.59	1,038	1.14	1.14	1.14	0.1	9.92	9.80	10.1	1.8	9.95	1	5.00	49.8	100	49.8	
50842 M18 R7B SPK C3.BH	053F4101.D	053F4102.D	053F4103.D	0.317	2.59	1,038	NA	NA	NA	NA	0.317	0.317	0.317	0.0	0.317	1	5.00	1.58	100	1.58	ND
																				49.8	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: Benzene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	52.7	Spiked Train		49.1	30.286	93.1%
		Un-spiked Train	ND	1.80	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	52.7	Spiked Train		49.0	29.842	92.9%
		Un-spiked Train	ND	1.80	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	52.7	Spiked Train		48.9	29.548	92.7%
		Un-spiked Train	ND	1.80	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	52.7	Spiked Train		48.5	29.501	92.0%
		Un-spiked Train	ND	1.80	29.795	

Average Recovery 92.7%

Analyte: Benzene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	52.7	Spiked Train		48.5	30.893	92.0%
		Un-spiked Train	ND	1.83	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	52.7	Spiked Train		48.1	29.993	91.3%
		Un-spiked Train	ND	1.80	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	52.7	Spiked Train		49.2	29.848	93.3%
		Un-spiked Train	ND	1.80	30.257	

Average Recovery 92.2%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: Ethylbenzene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	52.0	Spiked Train		51.7	30.286	99.5%
		Un-spiked Train	ND	2.45	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	52.0	Spiked Train		51.7	29.842	99.5%
		Un-spiked Train	ND	2.45	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	52.0	Spiked Train		52.4	29.548	101%
		Un-spiked Train	ND	2.45	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	52.0	Spiked Train		51.7	29.501	99.6%
		Un-spiked Train	ND	2.45	29.795	

Average Recovery 99.9%

Analyte: Ethylbenzene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	52.0	Spiked Train		51.3	30.893	98.8%
		Un-spiked Train	ND	2.48	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	52.0	Spiked Train		51.8	29.993	99.8%
		Un-spiked Train	ND	2.45	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	52.0	Spiked Train		52.3	29.848	101%
		Un-spiked Train	ND	2.45	30.257	

Average Recovery 99.7%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: m-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	51.8	Spiked Train		49.4	30.286	95.4%
		Un-spiked Train	ND	1.77	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	51.8	Spiked Train		50.9	29.842	98.2%
		Un-spiked Train	ND	1.77	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	51.8	Spiked Train		50.5	29.548	97.6%
		Un-spiked Train	ND	1.77	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	51.8	Spiked Train		50.0	29.501	96.6%
		Un-spiked Train	ND	1.77	29.795	

Average Recovery 97.0%

Analyte: m-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	51.8	Spiked Train		49.5	30.893	95.5%
		Un-spiked Train	ND	1.79	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	51.8	Spiked Train		49.2	29.993	95.0%
		Un-spiked Train	ND	1.77	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	51.8	Spiked Train		50.6	29.848	97.8%
		Un-spiked Train	ND	1.77	30.257	

Average Recovery 96.1%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: o-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	52.5	Spiked Train		45.4	30.286	86.3%
		Un-spiked Train	ND	2.05	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	52.5	Spiked Train		47.1	29.842	89.6%
		Un-spiked Train	ND	2.05	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	52.5	Spiked Train		46.6	29.548	88.8%
		Un-spiked Train	ND	2.05	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	52.5	Spiked Train		44.4	29.501	84.4%
		Un-spiked Train	ND	2.05	29.795	

Average Recovery 87.3%

Analyte: o-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	52.5	Spiked Train		45.4	30.893	86.3%
		Un-spiked Train	ND	2.08	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	52.5	Spiked Train		44.9	29.993	85.6%
		Un-spiked Train	ND	2.05	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	52.5	Spiked Train		46.1	29.848	87.7%
		Un-spiked Train	ND	2.05	30.257	

Average Recovery 86.5%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: p-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	51.6	Spiked Train		48.0	30.286	93.0%
		Un-spiked Train	ND	1.76	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	51.6	Spiked Train		49.0	29.842	95.1%
		Un-spiked Train	ND	1.76	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	51.6	Spiked Train		48.2	29.548	93.4%
		Un-spiked Train	ND	1.76	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	51.6	Spiked Train		48.3	29.501	93.7%
		Un-spiked Train	ND	1.76	29.795	

Average Recovery 93.8%

Analyte: p-xylene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	51.6	Spiked Train		47.4	30.893	91.9%
		Un-spiked Train	ND	1.79	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	51.6	Spiked Train		48.2	29.993	93.5%
		Un-spiked Train	ND	1.76	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	51.6	Spiked Train		48.5	29.848	94.1%
		Un-spiked Train	ND	1.76	30.257	

Average Recovery 93.2%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

Spike and Recovery Calculations

Analyte: Toluene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 1	51.9	Spiked Train		48.7	30.286	93.8%
		Un-spiked Train	ND	2.17	30.708	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 2	51.9	Spiked Train		49.5	29.842	95.3%
		Un-spiked Train	ND	2.17	30.238	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 3	51.9	Spiked Train		49.8	29.548	96.0%
		Un-spiked Train	ND	2.17	29.935	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 4	51.9	Spiked Train		48.8	29.501	94.1%
		Un-spiked Train	ND	2.17	29.795	

Average Recovery 94.8%

Analyte: Toluene

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 5	51.9	Spiked Train		48.5	30.893	93.5%
		Un-spiked Train	ND	2.20	31.336	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 6	51.9	Spiked Train		49.2	29.993	94.9%
		Un-spiked Train	ND	2.17	30.442	

	Spike Amount		Flag	Catch (ug)	Sample Volume	Recovery (%)
Run 7	51.9	Spiked Train		49.8	29.848	95.9%
		Un-spiked Train	ND	2.17	30.257	

Average Recovery 94.8%

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 - EPA Method 18

Client No.: 508369 Site: Primary Energy - Cokenergy

QC Samples

QC Type	QC Sample Name		Benzene	Ethylbenzene	m-xylene	o-xylene	p-xylene	Toluene
Spiked Blank Solvent	gcprep5306 #LCS-EXT	catch (ug)	47.6	48.3	47.6	48.5	46.7	46.5
	spiked:	spike (ug)	52.7	52.0	51.8	52.5	51.6	51.9
	gcstds1858.6 * 50uL	recovery	90.3%	93.0%	92.0%	92.3%	90.7%	89.6%
Spiked Blank Tube	gcprep5306 #LCS-CT	catch (ug)	48.8	51.5	50.8	48.4	48.8	48.7
	spiked:	spike (ug)	52.7	52.0	51.8	52.5	51.6	51.9
	gcstds1853.5 * 25uL	recovery	92.6%	99.2%	98.0%	92.1%	94.7%	93.9%
Lab Dup	LD / R1-SPK.EXT	ug/mL	ND	ND	ND	ND	ND	ND
	R1-SPK.EXT	ug/mL	ND	ND	ND	ND	ND	ND
		RD	NA	NA	NA	NA	NA	NA
Lab Dup	LD / R1-SPK.FH	ug/mL	9.95	10.5	10.1	9.17	9.81	9.95
	R1-SPK.FH	ug/mL	9.82	10.3	9.88	9.07	9.59	9.73
		RD	1.4%	1.2%	2.5%	1.1%	2.2%	2.2%
Blank Solvent	gcprep5306 #MB-EXT	ug/mL	ND	ND	ND	ND	ND	ND
Blank Media	gcprep5306 #MB-CT	ug/mL	ND	ND	ND	ND	ND	ND

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 EPA Method 5

Client No.: 508369 Site: Primary Energy - Cokenergy

Results

	369 M5/29 4-1		369 M5/29 5-1		369 M5/29 6-1		369 M5/29 7-1	
Filter ID	615		616		617		618	
Final Weight 1 (g)	0.34216	2/23/23 12:35	0.34066	2/23/23 12:36	0.34262	2/23/23 12:37	0.34152	2/23/23 12:37
Final Weight 2 (g)	0.34204	2/24/23 08:44	0.34052	2/24/23 08:45	0.34227	2/24/23 08:48	0.34138	2/24/23 08:49
Tare (g)	0.34640		0.34360		0.34410		0.34320	
Net Filter Catch (mg)	-4.36		-3.08		-1.83		-1.82	
Beaker No.	G-845		G-846		G-847		G-848	
Weight 1 (g)	29.85185	2/23/23 12:42	29.21579	2/23/23 12:43	30.02887	2/23/23 12:43	30.08818	2/23/23 12:44
Weight 2 (g)	29.85179	2/24/23 08:52	29.21575	2/24/23 08:53	30.02880	2/24/23 08:53	30.08819	2/24/23 08:54
Tare (g)	29.84911	2/22/23 07:35	29.21212	2/22/23 07:36	30.02587	2/22/23 07:36	30.08429	2/22/23 07:37
Acetone Volume (mL)	100		124		100		120	
Acetone Blank (g)	0.00012		0.00015		0.00012		0.00014	
Net Front Rinse (mg)	2.56		3.48		2.81		3.76	
Total Particulate (mg)	2.56		3.48		2.81		3.76	

	369 M5/29 Blank-12		Filter# 620		Filter# 621	
Filter ID	601		620		621	
Final Weight 1 (g)	0.32579	2/23/23 12:38	0.34835	2/23/23 12:39	0.34763	2/23/23 12:40
Final Weight 2 (g)	0.32564	2/24/23 08:50	0.34799	2/24/23 08:51	0.34732	2/24/23 08:51
Tare (g)	0.32500		0.34710		0.34660	
Net Filter Catch (mg)	0.64		0.89		0.72	

Enthalpy Analytical

Company: TRC Environmental Corporation - Burr Ridge

Job No.: 0123-099 EPA Method 5

Client No.: 508369 Site: Primary Energy - Cokenergy

Reagent Blanks (Acetone)

	In House	
Beaker	G-850	
Weight 1 (g)	30.66863	2/23/23 12:46
Weight 2 (g)	30.66862	2/24/23 08:59
Tare	30.66849	2/22/23 07:37
Residue (g)	0.00013	
Vol. (mL)	200	
Max. Residue	0.00158	

	Client's	
Beaker	G-849	
Weight 1 (g)	29.76159	2/23/23 12:46
Weight 2 (g)	29.76161	2/24/23 08:56
Tare	29.76149	2/22/23 07:37
Residue (g)	0.00012	
Vol. (mL)	100	
Max. Residue	0.00079	

Method 29 Analysis Run Summary Calculations

Element	Sb 121	Methodology		ICP-MS
Client	TRC	MDL	0.50	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	0.93	4.66	100	5		0.4657	J
HRSG-STACK-M29-2	0123-099.2	-1A	0.58	2.90	100	5		0.2896	J
HRSG-STACK-M29-3	0123-099.3	-1A	0.19	0.93	100	5		0.2500	ND
HRSG-STACK-M29-4	0123-099.4	-1A	0.19	0.95	100	5		0.2500	ND
HRSG-STACK-M29-5	0123-099.5	-1A	0.31	1.56	100	5		0.2500	ND
HRSG-STACK-M29-6	0123-099.6	-1A	0.18	0.92	100	5		0.2500	ND
HRSG-STACK-M29-7	0123-099.7	-1A	0.15	0.76	100	5		0.2500	ND
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.08	0.42	100	5		0.2500	ND
Lab Blank Front	0123-099.LB	-1A	0.45	0.45	100	1		0.0500	ND
LCS Front	0123-099.LCS	-1A	45.73	91.47	100	2	% REC =	91.5%	
Spike Front	0123-099.1S	-1A	47.32	236.59	100	5	% REC =	92.8%	
Duplicate Front	0123-099.2D	-1A	0.46				RPD =	N/A	

Element	Sb 121	Methodology		ICP-MS
Client	TRC	MDL	0.50	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	0.93	0.93	100	1	857	807	0.0990	J
HRSG-STACK-M29-2	0123-099.2	-2A	0.87	0.87	100	1	852	802	0.0924	J
HRSG-STACK-M29-3	0123-099.3	-2A	0.61	0.61	100	1	815	765	0.0655	J
HRSG-STACK-M29-4	0123-099.4	-2A	1.24	1.24	100	1	870	820	0.1312	J
HRSG-STACK-M29-5	0123-099.5	-2A	0.90	0.90	100	1	864	814	0.0958	J
HRSG-STACK-M29-6	0123-099.6	-2A	0.83	0.83	100	1	903	853	0.0882	J
HRSG-STACK-M29-7	0123-099.7	-2A	0.59	0.59	100	1	980	930	0.0625	J
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.05	0.05	100	1	300	250	0.0600	ND
Lab Blank Front	0123-099.LB	-2A	0.02	0.02	100	1			0.0500	ND
LCS Front	0123-099.LCS	-2A	44.81	89.63	100	2		% REC =	89.6%	
Spike Front	0123-099.1S	-2A	45.27	45.27	100	1		% REC =	88.7%	
Duplicate Front	0123-099.2D	-2A	0.77					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	As 75	Methodology		ICP-MS	
Client	TRC	MDL	1.34	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	0.96	4.82	100	5		0.6707	ND
HRSG-STACK-M29-2	0123-099.2	-1A	0.59	2.95	100	5		0.6707	ND
HRSG-STACK-M29-3	0123-099.3	-1A	1.05	5.23	100	5		0.6707	ND
HRSG-STACK-M29-4	0123-099.4	-1A	2.15	10.77	100	5		1.0770	J
HRSG-STACK-M29-5	0123-099.5	-1A	0.84	4.20	100	5		0.6707	ND
HRSG-STACK-M29-6	0123-099.6	-1A	2.08	10.41	100	5		1.0412	J
HRSG-STACK-M29-7	0123-099.7	-1A	1.20	6.02	100	5		0.6707	ND
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.25	1.24	100	5		0.6707	ND
Lab Blank Front	0123-099.LB	-1A	1.84	1.84	100	1		0.1839	J
LCS Front	0123-099.LCS	-1A	47.58	95.15	100	2	% REC =	95.2%	
Spike Front	0123-099.1S	-1A	46.07	230.36	100	5	% REC =	92.1%	
Duplicate Front	0123-099.2D	-1A	0.48				RPD =	N/A	

Element	As 75	Methodology		ICP-MS	
Client	TRC	MDL	0.50	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	2.17	2.17	100	1	857	807	0.2301	J
HRSG-STACK-M29-2	0123-099.2	-2A	1.28	1.28	100	1	852	802	0.1360	J
HRSG-STACK-M29-3	0123-099.3	-2A	2.82	2.82	100	1	815	765	0.3001	J
HRSG-STACK-M29-4	0123-099.4	-2A	6.42	6.42	100	1	870	820	0.6814	
HRSG-STACK-M29-5	0123-099.5	-2A	1.32	1.32	100	1	864	814	0.1397	J
HRSG-STACK-M29-6	0123-099.6	-2A	4.34	4.34	100	1	903	853	0.4594	J
HRSG-STACK-M29-7	0123-099.7	-2A	2.29	2.29	100	1	980	930	0.2410	J
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.05	0.05	100	1	300	250	0.0600	ND
Lab Blank Front	0123-099.LB	-2A	0.03	0.03	100	1			0.0500	ND
LCS Front	0123-099.LCS	-2A	45.54	91.07	100	2		% REC =	91.1%	
Spike Front	0123-099.1S	-2A	50.20	1004.04	100	20		% REC =	100.2%	
Duplicate Front	0123-099.2D	-2A	1.08					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Be 9	Methodology	ICP-MS	
Client	TRC	MDL	0.11	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	0.24	1.18	100	5		0.1185	J
HRSG-STACK-M29-2	0123-099.2	-1A	0.18	0.91	100	5		0.0913	J
HRSG-STACK-M29-3	0123-099.3	-1A	0.04	0.20	100	5		0.0532	ND
HRSG-STACK-M29-4	0123-099.4	-1A	0.02	0.09	100	5		0.0532	ND
HRSG-STACK-M29-5	0123-099.5	-1A	0.08	0.41	100	5		0.0532	ND
HRSG-STACK-M29-6	0123-099.6	-1A	0.03	0.16	100	5		0.0532	ND
HRSG-STACK-M29-7	0123-099.7	-1A	0.02	0.09	100	5		0.0532	ND
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.01	0.03	100	5		0.0532	ND
Lab Blank Front	0123-099.LB	-1A	0.07	0.07	100	1		0.0106	ND
LCS Front	0123-099.LCS	-1A	47.86	95.71	100	2	% REC =	95.7%	
Spike Front	0123-099.1S	-1A	45.91	229.57	100	5	% REC =	91.4%	
Duplicate Front	0123-099.2D	-1A	0.07				RPD =	N/A	

Element	Be 9	Methodology	ICP-MS	
Client	TRC	MDL	0.16	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	0.14	0.14	100	1	857	807	0.0172	ND
HRSG-STACK-M29-2	0123-099.2	-2A	0.18	0.18	100	1	852	802	0.0192	J
HRSG-STACK-M29-3	0123-099.3	-2A	0.03	0.03	100	1	815	765	0.0173	ND
HRSG-STACK-M29-4	0123-099.4	-2A	0.02	0.02	100	1	870	820	0.0172	ND
HRSG-STACK-M29-5	0123-099.5	-2A	0.05	0.05	100	1	864	814	0.0172	ND
HRSG-STACK-M29-6	0123-099.6	-2A	0.04	0.04	100	1	903	853	0.0172	ND
HRSG-STACK-M29-7	0123-099.7	-2A	0.02	0.02	100	1	980	930	0.0171	ND
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.01	0.01	100	1	300	250	0.0194	ND
Lab Blank Front	0123-099.LB	-2A	0.01	0.01	100	1			0.0162	ND
LCS Front	0123-099.LCS	-2A	47.79	95.58	100	2		% REC =	95.6%	
Spike Front	0123-099.1S	-2A	48.32	48.32	100	1		% REC =	96.6%	
Duplicate Front	0123-099.2D	-2A	0.07					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Cd 111	Methodology	ICP-MS	
Client	TRC	MDL	0.10	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	0.61	3.07	100	5		0.3072	J
HRSG-STACK-M29-2	0123-099.2	-1A	1.48	7.42	100	5		0.7423	
HRSG-STACK-M29-3	0123-099.3	-1A	0.19	0.96	100	5		0.0961	J
HRSG-STACK-M29-4	0123-099.4	-1A	0.36	1.78	100	5		0.1784	J
HRSG-STACK-M29-5	0123-099.5	-1A	0.22	1.09	100	5		0.1091	J
HRSG-STACK-M29-6	0123-099.6	-1A	0.09	0.44	100	5		0.0519	ND
HRSG-STACK-M29-7	0123-099.7	-1A	0.14	0.69	100	5		0.0688	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.02	0.09	100	5		0.0519	ND
Lab Blank Front	0123-099.LB	-1A	0.06	0.06	100	1		0.0104	ND
LCS Front	0123-099.LCS	-1A	49.82	99.65	100	2	% REC =	99.6%	
Spike Front	0123-099.1S	-1A	48.28	241.41	100	5	% REC =	95.3%	
Duplicate Front	0123-099.2D	-1A	1.47				RPD =	N/A	

Element	Cd 111	Methodology	ICP-MS	
Client	TRC	MDL	0.19	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	1.51	1.51	100	1	857	807	0.1606	
HRSG-STACK-M29-2	0123-099.2	-2A	0.46	0.46	100	1	852	802	0.0492	J
HRSG-STACK-M29-3	0123-099.3	-2A	0.21	0.21	100	1	815	765	0.0224	J
HRSG-STACK-M29-4	0123-099.4	-2A	1.00	1.00	100	1	870	820	0.1066	
HRSG-STACK-M29-5	0123-099.5	-2A	0.32	0.32	100	1	864	814	0.0343	J
HRSG-STACK-M29-6	0123-099.6	-2A	0.82	0.82	100	1	903	853	0.0864	J
HRSG-STACK-M29-7	0123-099.7	-2A	0.39	0.39	100	1	980	930	0.0408	J
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.01	0.01	100	1	300	250	0.0232	ND
Lab Blank Front	0123-099.LB	-2A	0.01	0.01	100	1			0.0193	ND
LCS Front	0123-099.LCS	-2A	47.61	95.22	100	2		% REC =	95.2%	
Spike Front	0123-099.1S	-2A	48.06	48.06	100	1		% REC =	93.1%	
Duplicate Front	0123-099.2D	-2A	0.35					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Cr 52	Methodology		ICP-MS
Client	TRC	MDL	0.50	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	7.96	39.80	100	5		3.9799	
HRSG-STACK-M29-2	0123-099.2	-1A	3.48	17.38	100	5		1.7384	J
HRSG-STACK-M29-3	0123-099.3	-1A	2.98	14.88	100	5		1.4885	J
HRSG-STACK-M29-4	0123-099.4	-1A	3.03	15.13	100	5		1.5130	J
HRSG-STACK-M29-5	0123-099.5	-1A	3.12	15.61	100	5		1.5612	J
HRSG-STACK-M29-6	0123-099.6	-1A	2.78	13.88	100	5		1.3883	J
HRSG-STACK-M29-7	0123-099.7	-1A	3.14	15.70	100	5		1.5696	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	1.44	7.22	100	5		0.7220	J
Lab Blank Front	0123-099.LB	-1A	0.36	0.36	100	1		0.0500	ND
LCS Front	0123-099.LCS	-1A	50.71	101.43	100	2	% REC =	101.4%	
Spike Front	0123-099.1S	-1A	55.68	278.42	100	5	% REC =	95.4%	
Duplicate Front	0123-099.2D	-1A	3.36				RPD =	N/A	

Element	Cr 52	Methodology		ICP-OES
Client	TRC	MDL	0.50	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	9.16	9.16	100	1	857	807	0.9732	
HRSG-STACK-M29-2	0123-099.2	-2A	8.60	8.60	100	1	852	802	0.9141	
HRSG-STACK-M29-3	0123-099.3	-2A	6.06	6.06	100	1	815	765	0.6457	
HRSG-STACK-M29-4	0123-099.4	-2A	8.63	8.63	100	1	870	820	0.9158	
HRSG-STACK-M29-5	0123-099.5	-2A	6.42	6.42	100	1	864	814	0.6813	
HRSG-STACK-M29-6	0123-099.6	-2A	17.45	17.45	100	1	903	853	1.8474	
HRSG-STACK-M29-7	0123-099.7	-2A	9.15	9.15	100	1	980	930	0.9640	
HRSG-STACK-M29-Blank	0123-099.8	-2A	4.23	4.23	100	1	300	250	0.5079	J
Lab Blank Front	0123-099.LB	-2A	0.41	0.41	100	1			0.0500	ND
LCS Front	0123-099.LCS	-2A	48.03	96.05	100	2		% REC =	96.1%	
Spike Front	0123-099.1S	-2A	52.75	52.75	100	1		% REC =	87.2%	
Duplicate Front	0123-099.2D	-2A	8.63					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Co 59	Methodology	ICP-MS	
Client	TRC	MDL	0.11	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	0.98	4.88	100	5		0.4885	J
HRSG-STACK-M29-2	0123-099.2	-1A	0.73	3.67	100	5		0.3668	J
HRSG-STACK-M29-3	0123-099.3	-1A	0.24	1.20	100	5		0.1202	J
HRSG-STACK-M29-4	0123-099.4	-1A	0.25	1.25	100	5		0.1245	J
HRSG-STACK-M29-5	0123-099.5	-1A	0.27	1.34	100	5		0.1341	J
HRSG-STACK-M29-6	0123-099.6	-1A	0.15	0.77	100	5		0.0769	J
HRSG-STACK-M29-7	0123-099.7	-1A	0.22	1.11	100	5		0.1114	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.04	0.18	100	5		0.0562	ND
Lab Blank Front	0123-099.LB	-1A	0.15	0.15	100	1		0.0146	J
LCS Front	0123-099.LCS	-1A	49.94	99.89	100	2	% REC =	99.9%	
Spike Front	0123-099.1S	-1A	47.77	238.83	100	5	% REC =	93.6%	
Duplicate Front	0123-099.2D	-1A	0.64				RPD =	N/A	

Element	Co 59	Methodology	ICP-MS	
Client	TRC	MDL	0.15	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	2.46	2.46	100	1	857	807	0.2608	
HRSG-STACK-M29-2	0123-099.2	-2A	1.53	1.53	100	1	852	802	0.1623	
HRSG-STACK-M29-3	0123-099.3	-2A	0.50	0.50	100	1	815	765	0.0529	J
HRSG-STACK-M29-4	0123-099.4	-2A	1.41	1.41	100	1	870	820	0.1497	
HRSG-STACK-M29-5	0123-099.5	-2A	0.60	0.60	100	1	864	814	0.0636	J
HRSG-STACK-M29-6	0123-099.6	-2A	1.22	1.22	100	1	903	853	0.1288	
HRSG-STACK-M29-7	0123-099.7	-2A	0.58	0.58	100	1	980	930	0.0614	J
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.05	0.05	100	1	300	250	0.0185	ND
Lab Blank Front	0123-099.LB	-2A	0.01	0.01	100	1			0.0155	ND
LCS Front	0123-099.LCS	-2A	48.83	97.67	100	2		% REC =	97.7%	
Spike Front	0123-099.1S	-2A	45.21	45.21	100	1		% REC =	85.5%	
Duplicate Front	0123-099.2D	-2A	1.40					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Pb 208	Methodology	ICP-MS	
Client	TRC	MDL	0.10	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID	Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES								
HRSG-STACK-M29-1	0123-099.1 -1A	3.65	18.24	100	5		1.8242	
HRSG-STACK-M29-2	0123-099.2 -1A	1.47	7.34	100	5		0.7343	
HRSG-STACK-M29-3	0123-099.3 -1A	1.23	6.15	100	5		0.6150	
HRSG-STACK-M29-4	0123-099.4 -1A	1.47	7.37	100	5		0.7368	
HRSG-STACK-M29-5	0123-099.5 -1A	1.45	7.27	100	5		0.7271	
HRSG-STACK-M29-6	0123-099.6 -1A	1.44	7.20	100	5		0.7200	
HRSG-STACK-M29-7	0123-099.7 -1A	1.66	8.31	100	5		0.8308	
HRSG-STACK-M29-Blank	0123-099.8 -1A	0.18	0.91	100	5		0.0907	J
Lab Blank Front	0123-099.LB -1A	0.12	0.12	100	1		0.0125	J
LCS Front	0123-099.LCS -1A	51.85	103.70	100	2	% REC =	103.7%	
Spike Front	0123-099.1S -1A	54.94	274.72	100	5	% REC =	102.6%	
Duplicate Front	0123-099.2D -1A	1.35				RPD =	N/A	

Element	Pb 208	Methodology	ICP-MS	
Client	TRC	MDL	0.19	µg/L
EA Project No.	0123-099	LOQ	1.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID	Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES									
HRSG-STACK-M29-1	0123-099.1 -2A	8.17	8.17	100	1	857	807	0.8673	
HRSG-STACK-M29-2	0123-099.2 -2A	6.83	6.8	100	1	852	802	0.7259	
HRSG-STACK-M29-3	0123-099.3 -2A	4.97	4.97	100	1	815	765	0.5293	
HRSG-STACK-M29-4	0123-099.4 -2A	6.62	6.62	100	1	870	820	0.7023	
HRSG-STACK-M29-5	0123-099.5 -2A	4.91	4.91	100	1	864	814	0.5214	
HRSG-STACK-M29-6	0123-099.6 -2A	4.58	4.58	100	1	903	853	0.4851	
HRSG-STACK-M29-7	0123-099.7 -2A	4.41	4.41	100	1	980	930	0.4651	
HRSG-STACK-M29-Blank	0123-099.8 -2A	0.89	0.89	100	1	300	250	0.1065	J
Lab Blank Front	0123-099.LB -2A	0.08	0.08	100	1			0.0185	ND
LCS Front	0123-099.LCS -2A	51.13	102.26	100	2		% REC =	102.3%	
Spike Front	0123-099.1S -2A	59.20	59.2	100	1		% REC =	102.1%	
Duplicate Front	0123-099.2D -2A	6.59					RPD =	3.60%	

Method 29 Analysis Run Summary Calculations

Element	Mn 55	Methodology		ICP-MS	
Client	TRC	MDL	0.80	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	7.68	38.38	100	5		3.8385	
HRSG-STACK-M29-2	0123-099.2	-1A	4.23	21.14	100	5		2.1138	J
HRSG-STACK-M29-3	0123-099.3	-1A	2.74	13.68	100	5		1.3679	J
HRSG-STACK-M29-4	0123-099.4	-1A	2.98	14.91	100	5		1.4909	J
HRSG-STACK-M29-5	0123-099.5	-1A	3.06	15.30	100	5		1.5305	J
HRSG-STACK-M29-6	0123-099.6	-1A	2.28	11.41	100	5		1.1406	J
HRSG-STACK-M29-7	0123-099.7	-1A	4.13	20.67	100	5		2.0669	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.65	3.26	100	5		0.3993	ND
Lab Blank Front	0123-099.LB	-1A	0.14	0.14	100	1		0.0799	ND
LCS Front	0123-099.LCS	-1A	51.11	102.21	100	2	% REC =	102.2%	
Spike Front	0123-099.1S	-1A	56.98	284.90	100	5	% REC =	98.6%	
Duplicate Front	0123-099.2D	-1A	4.12				RPD =	N/A	

Element	Mn 55	Methodology		ICP-MS	
Client	TRC	MDL	0.59	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	24.77	24.77	100	1	857	807	2.6304	
HRSG-STACK-M29-2	0123-099.2	-2A	82.72	82.72	100	1	852	802	8.7876	
HRSG-STACK-M29-3	0123-099.3	-2A	35.00	35.00	100	1	815	765	3.7292	
HRSG-STACK-M29-4	0123-099.4	-2A	23.84	23.84	100	1	870	820	2.5293	
HRSG-STACK-M29-5	0123-099.5	-2A	19.42	19.42	100	1	864	814	2.0615	
HRSG-STACK-M29-6	0123-099.6	-2A	19.62	19.62	100	1	903	853	2.0767	
HRSG-STACK-M29-7	0123-099.7	-2A	17.32	17.32	100	1	980	930	1.8253	
HRSG-STACK-M29-Blank	0123-099.8	-2A	3.24	3.24	100	1	300	250	0.3882	J
Lab Blank Front	0123-099.LB	-2A	0.12	0.12	100	1			0.0589	ND
LCS Front	0123-099.LCS	-2A	49.73	99.47	100	2		% REC =	99.5%	
Spike Front	0123-099.1S	-2A	68.31	68.31	100	1		% REC =	87.1%	
Duplicate Front	0123-099.2D	-2A	84.38					RPD =	1.98%	

Method 29 Analysis Run Summary Calculations

Element	Ni 60	Methodology	ICP-MS	
Client	TRC	MDL	0.65	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	15.79	78.97	100	5		7.8967	
HRSG-STACK-M29-2	0123-099.2	-1A	5.70	28.49	100	5		2.8491	
HRSG-STACK-M29-3	0123-099.3	-1A	2.07	10.35	100	5		1.0352	J
HRSG-STACK-M29-4	0123-099.4	-1A	2.28	11.41	100	5		1.1415	J
HRSG-STACK-M29-5	0123-099.5	-1A	2.05	10.25	100	5		1.0252	J
HRSG-STACK-M29-6	0123-099.6	-1A	1.33	6.64	100	5		0.6637	J
HRSG-STACK-M29-7	0123-099.7	-1A	1.84	9.19	100	5		0.9194	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.73	3.65	100	5		0.3646	J
Lab Blank Front	0123-099.LB	-1A	0.25	0.25	100	1		0.0651	ND
LCS Front	0123-099.LCS	-1A	49.20	98.40	100	2	% REC =	98.4%	
Spike Front	0123-099.1S	-1A	61.86	309.30	100	5	% REC =	92.1%	
Duplicate Front	0123-099.2D	-1A	5.61				RPD =	N/A	

Element	Ni 60	Methodology	ICP-MS	
Client	TRC	MDL	0.50	µg/L
EA Project No.	0123-099	LOQ	5.0	µg/L
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L
		Analyst(s)	KAH	

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	17.93	17.93	100	1	857	807	1.9041	
HRSG-STACK-M29-2	0123-099.2	-2A	7.76	7.76	100	1	852	802	0.8246	
HRSG-STACK-M29-3	0123-099.3	-2A	6.16	6.16	100	1	815	765	0.6567	
HRSG-STACK-M29-4	0123-099.4	-2A	10.31	10.31	100	1	870	820	1.0934	
HRSG-STACK-M29-5	0123-099.5	-2A	5.89	5.89	100	1	864	814	0.6257	
HRSG-STACK-M29-6	0123-099.6	-2A	13.04	13.04	100	1	903	853	1.3809	
HRSG-STACK-M29-7	0123-099.7	-2A	12.23	12.23	100	1	980	930	1.2888	
HRSG-STACK-M29-Blank	0123-099.8	-2A	1.85	1.85	100	1	300	250	0.2224	J
Lab Blank Front	0123-099.LB	-2A	0.34	0.34	100	1			0.0500	ND
LCS Front	0123-099.LCS	-2A	47.79	95.59	100	2		% REC =	95.6%	
Spike Front	0123-099.1S	-2A	59.59	59.59	100	1		% REC =	83.3%	
Duplicate Front	0123-099.2D	-2A	7.87					RPD =	N/A	

Method 29 Analysis Run Summary Calculations

Element	Se 77	Methodology		ICP-MS	
Client	TRC	MDL	0.61	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor		Total (µg)	
FRONT HALVES									
HRSG-STACK-M29-1	0123-099.1	-1A	1.53	7.67	100	5		0.7670	J
HRSG-STACK-M29-2	0123-099.2	-1A	0.91	4.57	100	5		0.4566	J
HRSG-STACK-M29-3	0123-099.3	-1A	0.75	3.73	100	5		0.3734	J
HRSG-STACK-M29-4	0123-099.4	-1A	0.85	4.26	100	5		0.4257	J
HRSG-STACK-M29-5	0123-099.5	-1A	1.00	4.99	100	5		0.4991	J
HRSG-STACK-M29-6	0123-099.6	-1A	0.81	4.03	100	5		0.4032	J
HRSG-STACK-M29-7	0123-099.7	-1A	0.99	4.94	100	5		0.4940	J
HRSG-STACK-M29-Blank	0123-099.8	-1A	0.08	0.40	100	5		0.3036	ND
Lab Blank Front	0123-099.LB	-1A	0.23	0.23	100	1		0.0607	ND
LCS Front	0123-099.LCS	-1A	48.80	97.60	100	2	% REC =	97.6%	
Spike Front	0123-099.1S	-1A	45.50	227.50	100	5	% REC =	87.9%	
Duplicate Front	0123-099.2D	-1A	0.69				RPD =	N/A	

Element	Se 77	Methodology		ICP-MS	
Client	TRC	MDL	0.80	µg/L	
EA Project No.	0123-099	LOQ	5.0	µg/L	
Analysis Date	2/28/2023	Postdig'n Spike Conc.	50	µg/L	
		Analyst(s)	KAH		

Client ID	EA ID		Test Sol'n (µg/L)	Dig'te Conc (µg/L)	FV (mL)	Dil'n Factor	Total Volume (mL)	Volume Dig'd (mL)	Total (µg)	
BACK HALVES										
HRSG-STACK-M29-1	0123-099.1	-2A	22.08	220.80	100	10	857	807	23.4480	
HRSG-STACK-M29-2	0123-099.2	-2A	66.42	66.42	100	1	852	802	7.0558	
HRSG-STACK-M29-3	0123-099.3	-2A	24.25	242.54	100	10	815	765	25.8389	
HRSG-STACK-M29-4	0123-099.4	-2A	32.28	322.78	100	10	870	820	34.2466	
HRSG-STACK-M29-5	0123-099.5	-2A	11.21	112.15	100	10	864	814	11.9038	
HRSG-STACK-M29-6	0123-099.6	-2A	21.86	218.61	100	10	903	853	23.1420	
HRSG-STACK-M29-7	0123-099.7	-2A	18.58	185.75	100	10	980	930	19.5737	
HRSG-STACK-M29-Blank	0123-099.8	-2A	0.63	0.63	100	1	300	250	0.0959	ND
Lab Blank Front	0123-099.LB	-2A	0.00	0.00	100	1			0.0799	ND
LCS Front	0123-099.LCS	-2A	46.61	93.22	100	2		% REC =	93.2%	
Spike Front	0123-099.1S	-2A	68.15	1362.99	100	20		% REC =	114.2%	
Duplicate Front	0123-099.2D	-2A	65.32					RPD =	1.66%	

METHOD 29 MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: TRC Environmental Corporation - Burr Ridge — MDL = 0.050 µg/L
EA Project #: 0123-099 — RL = 0.10 µg/L
Analysis Date: 2/20/23, 2/21/23, 2/27/23 — Matrix spike conc. = 5.00 µg/L

Sample ID		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Vol. ml	Vol. Dig'd ml	Total µg	
FRACTION 1B									
HRSG-STACK-M29-1	0123-099.1 -1B	0.005	0.01	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-2	0123-099.2 -1B	-0.018	-0.02	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-3	0123-099.3 -1B	0.015	0.02	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-4	0123-099.4 -1B	0.011	0.01	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-5	0123-099.5 -1B	-0.006	-0.01	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-6	0123-099.6 -1B	0.035	0.04	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-7	0123-099.7 -1B	0.002	0.00	50	1	100	10.0	0.0250	ND
HRSG-STACK-M29-Blank	0123-099.8 -1B	-0.041	-0.04	50	1	100	10.0	0.0250	ND
Matrix Spike	0123-099.1S -1B	4.810				% REC =	96.2%		
Duplicate	0123-099.2D -1B	0.011				% RPD =	N/A		
FRACTION 2B									
HRSG-STACK-M29-1	0123-099.1 -2B	1.560	1.56	50	1	857	5.0	13.3692	
HRSG-STACK-M29-2	0123-099.2 -2B	0.718	0.72	50	1	852	5.0	6.1174	
HRSG-STACK-M29-3	0123-099.3 -2B	2.170	2.17	50	1	815	5.0	17.6855	
HRSG-STACK-M29-4	0123-099.4 -2B	1.860	1.86	50	1	870	5.0	16.1820	
HRSG-STACK-M29-5	0123-099.5 -2B	0.976	0.98	50	1	864	5.0	8.4326	
HRSG-STACK-M29-6	0123-099.6 -2B	1.670	1.67	50	1	903	5.0	15.0801	
HRSG-STACK-M29-7	0123-099.7 -2B	1.410	1.41	50	1	980	5.0	13.8180	
HRSG-STACK-M29-Blank	0123-099.8 -2B	-0.022	-0.02	50	1	300	5.0	0.1500	ND
Matrix Spike	0123-099.1S -2B	6.320				% REC =	95.2%		
Duplicate	0123-099.2D -2B	0.767				% RPD =	6.6%		
FRACTION 3A									
HRSG-STACK-M29-1	0123-099.1 -3A	0.349	0.35	50	1	140	10.0	0.2443	
HRSG-STACK-M29-2	0123-099.2 -3A	0.555	0.56	50	1	152	10.0	0.4218	
HRSG-STACK-M29-3	0123-099.3 -3A	1.060	1.06	50	1	142	10.0	0.7526	
HRSG-STACK-M29-4	0123-099.4 -3A	0.945	0.95	50	1	130	10.0	0.6143	
HRSG-STACK-M29-5	0123-099.5 -3A	0.486	0.49	50	1	142	10.0	0.3451	
HRSG-STACK-M29-6	0123-099.6 -3A	0.787	0.79	50	1	124	10.0	0.4879	
HRSG-STACK-M29-7	0123-099.7 -3A	0.417	0.42	50	1	102	10.0	0.2127	
HRSG-STACK-M29-Blank	0123-099.8 -3A	-0.046	-0.05	50	1	98	10.0	0.0245	ND
Matrix Spike	0123-099.1S -3A	5.310				% REC =	99.2%		
Duplicate	0123-099.2D -3A	0.556				% RPD =	0.2%		

METHOD 29 MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: TRC Environmental Corporation - Burr Ridge — MDL = 0.050 µg/L
EA Project #: 0123-099 — RL = 0.10 µg/L
Analysis Date: 2/20/23, 2/21/23, 2/27/23 — Matrix spike conc. = 5.00 µg/L

Sample ID		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Vol. ml	Vol. Dig'd ml	Total µg	
FRACTION 3B									
HRSG-STACK-M29-1	0123-099.1 -3B	0.011	0.01	50	1	385	10.0	0.0962	ND
HRSG-STACK-M29-2	0123-099.2 -3B	0.045	0.05	50	1	400	10.0	0.1000	ND
HRSG-STACK-M29-3	0123-099.3 -3B	0.017	0.02	50	1	400	10.0	0.1000	ND
HRSG-STACK-M29-4	0123-099.4 -3B	0.013	0.01	50	1	385	10.0	0.0962	ND
HRSG-STACK-M29-5	0123-099.5 -3B	0.101	0.10	50	1	300	10.0	0.1515	
HRSG-STACK-M29-6	0123-099.6 -3B	0.113	0.11	50	1	295	10.0	0.1667	
HRSG-STACK-M29-7	0123-099.7 -3B	0.097	0.10	50	1	280	10.0	0.1358	J
HRSG-STACK-M29-Blank	0123-099.8 -3B	-0.021	-0.02	50	1	85	10.0	0.0212	ND
FRACTION 3C									
HRSG-STACK-M29-1	0123-099.1 -3C	1.780	1.78	50	1	390	10.0	3.4710	
HRSG-STACK-M29-2	0123-099.2 -3C	3.590	3.59	50	1	392	10.0	7.0364	
HRSG-STACK-M29-3	0123-099.3 -3C	1.820	1.82	50	1	355	10.0	3.2305	
HRSG-STACK-M29-4	0123-099.4 -3C	1.560	1.56	50	1	380	10.0	2.9640	
HRSG-STACK-M29-5	0123-099.5 -3C	2.900	2.90	50	1	395	10.0	5.7275	
HRSG-STACK-M29-6	0123-099.6 -3C	1.670	1.67	50	1	365	10.0	3.0478	
HRSG-STACK-M29-7	0123-099.7 -3C	2.320	2.32	50	1	320	10.0	3.7120	
HRSG-STACK-M29-Blank	0123-099.8 -3C	-0.007	-0.01	50	1	305	10.0	0.0762	ND
Batch Quality Control									
Lab Blank	0123-099.LB1	-0.043	-0.04	50	1	50	20	0.0062	ND
Lab Control Sample	0123-099.LCS1	4.970				% REC =	99.4%		
Lab Blank	0123-099.LB2	-0.019	-0.02	50	1	50	20	0.0062	ND
Lab Control Sample	0123-099.LCS2	4.890				% REC =	97.8%		
Lab Blank	0123-099.LB3	-0.035	-0.04	50	1	50	20	0.0062	ND
Lab Control Sample	0123-099.LCS3	4.970				% REC =	99.4%		

Narrative Summary

Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	TRC Environmental Corporation – Burr Ridge 0123-099 EPA Method 18 (Adsorbents) 508369 Site: Primary Energy - Cokenergy

Custody	Conor Benson received the samples on 2/15/23 at 3.5°C after being relinquished by TRC Environmental Corporation – Burr Ridge. The samples were then transferred to Enthalpy Analytical's Durham, NC facility on 2/16/23. Alyssa Miller logged the samples in on 2/16/23 at 1.8°C in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis	The samples were analyzed for benzene, ethylbenzene, toluene, o-xylene, m-xylene, and p-xylene using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A). The standards and samples were analyzed following the procedures specified in section 8.2.4, Adsorption Tube Procedure. Each sample train consisted of one condensate, followed by two charcoal tubes. Prior to extraction, 7 mL was archived from each whole condensate fraction. The remaining condensate was then extracted with 5 mL of solvent and shaken. To account for the removed volume, an aliquot factor was applied to the extract condensate fractions. The Zefon charcoal (Cat #ZST-002) tubes were desorbed in two fractions: the front half (FH) consisting of the whole first tube combined with the front half of the second tube in series and the back half (BH) consisting of the back half of the second tube. All fractions were desorbed using 5 mL of a solvent and shaken. The tubes were desorbed on 2/20/23. The Gas Chromatograph "Lucy" was equipped with a Flame Ionization Detector for these analyses.

Calibration	The calibration curves are located in the back of this report. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.

Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	TRC Environmental Corporation – Burr Ridge 0123-099 EPA Method 18 (Adsorbents) 508369 Site: Primary Energy - Cokenergy

Chrom. Conditions	The acquisition methods (LUCY0301.M, LUCY0301B.M) may be made available upon request.

QC Notes	None of the compounds of interest were identified at levels greater than their MDL in the analyses of the laboratory blanks. A Laboratory Duplicate (LD) was analyzed using aliquots of samples ***HRSG Stack M18 Run 1 Spike (EXT*** and ***FH)***. The original and duplicate analyses differed by no more than 2.5%. As required by section 8.4.3, Recovery Study for Adsorption Tube Sampling, a recovery study was performed for the compounds of interest during the field test. The laboratory prepared 12 charcoal tube spikes containing 52.7 µg of benzene, 52.0 µg of ethylbenzene, 51.9 µg of toluene, 54.5 µg of styrene, 52.0 µg of naphthalene, 52.5 µg of o-xylene, 51.8 µg of m-xylene, and 51.6 µg of p-xylene. Ten of the spikes were provided to the client prior to sample collection while two were retained by the lab to be used as a Laboratory Control Samples (LCS). The train collection efficiencies (R) were calculated using equations 18-7, 18-8, and 18-9 in EPA Method 18. The reported results have been adjusted using these recovery efficiency values, which all met the method-required limits of 70% to 130%. One of the retained LCS tubes was desorbed and analyzed with the samples and yielded percent recovery values between 92.1% and 99.2%. An aqueous LCS was also prepared and analyzed with the samples and yielded percent recovery values between 89.6% and 93.0%.

Reporting Notes	The MDL was determined by performing an IDL study and performing calculations as described in Title 40 of the Code of Federal Regulations, Part 136, Appendix B, Revision 1.1. The study is included in the raw data section. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the sample as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	TRC Environmental Corporation – Burr Ridge		**Client #**	508369 Site: Primary Energy – Cokenergy
Analyst	CCB		**Job #**	0123-099
Parameters	EPA Method 5		**# Samples**	4 Runs + 2 Filters + Blank

Custody	Conor Benson picked up the samples on 2/15/23 after being relinquished by TRC Environmental Corporation – Burr Ridge. He then dropped off the samples at Enthalpy Durham's laboratory on 2/16/23. Alyssa Miller logged the samples in on 2/17/23 at 1.8 ºC in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.
Analysis	The samples were analyzed for Particulate Matter using the analytical procedures in EPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources. The filter fractions were weighed on Balance 2 (Mettler Toledo, Model AB265-S, Serial# 1125163272) and the rinse fractions were weighed on Balance 8 (Sartorius Model ME5-OCE, Serial # 23104965). Both balances are certified by Mettler Toledo through July 31, 2023.
QC Notes	The samples catch weights were adjusted using the corresponding reagent blank correction value. A mathematically determined (theoretical) maximum value was calculated and compared with the actual value measured for the reagent blank. The lower of the two values was used as the blank correction value, which was then factored by the sample volume divided by the reagent blank volume, and subtracted from the sample catch weight. The acetone blank was received and used as described. The laboratory also dried down an acetone blank with the samples. The results are reported but not used to adjust any of the data.
Reporting Notes	These gravimetric analyses are considered to be accurate to ±0.5 mg. Therefore, negative catch weights between 0 and –0.5 mg are set to zero and no investigation is undertaken. Negative catch weights less than -0.5 mg are investigated. Filter IDs ***615, 616, 617, and 618*** were below the investigation threshold. It was noted by the analyst that the filters were either frayed, received with loose pieces, or had pin holes in them. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	TRC Environmental Corporation – Burr Ridge 0123-099 EPA Method 29 508369 Site: Primary Energy - Cokenergy

Custody	Conor Benson received the samples on 2/15/23 after being relinquished by TRC Environmental Corporation – Burr Ridge. He then delivered the samples to Enthalpy Analytical, LLC – Durham on 2/16/23. Alyssa Miller logged in the samples on 2/17/23 at 1.8 ºC in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis	The samples were prepared and analyzed for antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, selenium and mercury using the procedures in EPA Method 29, Determination of Metals Emissions from Stationary Sources. The Inductively Coupled Plasma Mass Spectrometer “X” and the Cold Vapor Atomic Absorption Spectrometer “Walt Jr.” were used for these analyses.

Calibration	The calibration curves met all method-specified precision criteria.

QC Notes	The analytes of interest were not identified at concentrations greater than the reporting limit in the analyses of the laboratory blanks. The Laboratory Control Spikes were within the acceptance limits of 80% to 120%. The Matrix Spike recovery values were within the acceptance range of 75% to 125%. The required duplicate samples had a relative percent difference of 20% or less or were less than five times the limit of quantitation. All of the samples were analyzed at least in duplicate.

Reporting Notes	These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the sample as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.

- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.

- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.

- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.

- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.

- Sample results are presented 'as measured' for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.

- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).

- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.

- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).

General Reporting Notes
(continued)

- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.

- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).

- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.

- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

Sample Custody

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: (312) 533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Anthony Sakellariou		
Project No.: 508369	Samples Recovered by: Anthony Sakellariou		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Speciated Volatile Organic HAP as BTEX* by GC					Comments:
	5081	HRSG Stack - Method 18 - R1A - C1	2/2/2023	60 min	1	x					Condensate
	5082	HRSG Stack - Method 18 - R1A - C2	2/2/2023	60 min	1	x					1st Sorbent Tube
	5083	HRSG Stack - Method 18 - R1A - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	5084	HRSG Stack - Method 18 - R1B - C1	2/2/2023	60 min	1	x					Condensate
	5085	HRSG Stack - Method 18 - R1B - C2	2/2/2023	60 min	1	x					1st Spiked Sorbent Tube
	5086	HRSG Stack - Method 18 - R1B - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	5087	HRSG Stack - Method 18 - R2A - C1	2/2/2023	60 min	1	x					Condensate
	5088	HRSG Stack - Method 18 - R2A - C2	2/2/2023	60 min	1	x					1st Sorbent Trap
	5089	HRSG Stack - Method 18 - R2A - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	50810	HRSG Stack - Method 18 - R2B - C1	2/2/2023	60 min	1	x					Condensate
	50811	HRSG Stack - Method 18 - R2B - C2	2/2/2023	60 min	1	x					1st Spiked Sorbent Tube
	50812	HRSG Stack - Method 18 - R2B - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube

		Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
TAT: Standard Need By Date:	Project Remarks:	[signature]	2-13-23		
Shipped by: Shipped On:		Gavin Lewis	1410		
Ship To Attn: Trent Lee		Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Lab: Enthalpy Analytical		Gayle Swanson	1:20	Conor Benson	1:20
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		[signature] WJC2	2/16/23	Alyssa M Miller	02-17-23
Phone: 919-850-4392		Conor Benson	17:00		0730

Special Instructions: *Benzene, Ethyl Benzene, Toluene and Xylene 1.8°C Daylite 2 good condition AMM3 02-17-23

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation
7521 Brush Hill Road
Burr Ridge, Illinois 60527 USA
T: (312) 533-2042 F: (312)533-2070

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AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: (312) 533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Anthony Sakellariou		
Project No.: 508369	Samples Recovered by: Anthony Sakellariou		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Speciated Volatile Organic HAP as BTEX* by GC					Comments:
	50813	HRSG Stack - Method 18 - R3A - C1	2/2/2023	60 min	1	x					Condensate
	50814	HRSG Stack - Method 18 - R3A - C2	2/2/2023	60 min	1	x					1st Sorbent Tube
	50815	HRSG Stack - Method 18 - R3A - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	50816	HRSG Stack - Method 18 - R3B - C1	2/2/2023	60 min	1	x					Condensate
	50817	HRSG Stack - Method 18 - R3B - C2	2/2/2023	60 min	1	x					1st Spiked Sorbent Tube
	50818	HRSG Stack - Method 18 - R3B - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	50819	HRSG Stack - Method 18 - R4A - C1	2/2/2023	60 min	1	x					Condensate
	50820	HRSG Stack - Method 18 - R4A - C2	2/2/2023	60 min	1	x					1st Sorbent Trap
	50821	HRSG Stack - Method 18 - R4A - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube
	50822	HRSG Stack - Method 18 - R4B - C1	2/2/2023	60 min	1	x					Condensate
	50823	HRSG Stack - Method 18 - R4B - C2	2/2/2023	60 min	1	x					1st Spiked Sorbent Tube
	50824	HRSG Stack - Method 18 - R4B - C3	2/2/2023	60 min	1	x					2nd Sorbent Tube

		Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
TAT: Standard	Need By Date:		[signature]	2-13-23		
Shipped by:	Shipped On:		Gavin Lewis	1410		
Ship To Attn:	Trent Lee		[signature]	2/15/23	[signature]	2/15/23 3.5°C
Lab:	Enthalpy Analytical		Gayle Swanson	1:20	Conor Benson	1:20
Address:	800 Capitola Drive Ste. 1 Durham, NC 27713		[signature]	2/16/23	Alyssa M Miller	02-17-23
Phone:	919-850-4392		Conor Benson WJC 2	17:00		0730

Special Instructions: *Benzene, Ethyl Benzene, Toluene and Xylene 1.8°C Rayleth 2, good condition Amm 3 02-17-23

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation
7521 Brush Hill Road
Burr Ridge, Illinois 60527 USA
T: (312) 533-2042 F: (312)533-2070

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AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: (312) 533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Anthony Sakellariou		
Project No.: 508369	Samples Recovered by: Anthony Sakellariou		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Analyses Required: Speciated Volatile Organic HAP as BTEX* by GC					Comments:
	50825	HRSG Stack - Method 18 - R5A - C1	2/4/2023	60 min	1	x					Condensate
	50826	HRSG Stack - Method 18 - R5A - C2	2/4/2023	60 min	1	x					1st Sorbent Tube
	50827	HRSG Stack - Method 18 - R5A - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube
	50828	HRSG Stack - Method 18 - R5B - C1	2/4/2023	60 min	1	x					Condensate
	50829	HRSG Stack - Method 18 - R5B - C2	2/4/2023	60 min	1	x					1st Spiked Sorbent Tube
	50830	HRSG Stack - Method 18 - R5B - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube
	50831	HRSG Stack - Method 18 - R6A - C1	2/4/2023	60 min	1	x					Condensate
	50832	HRSG Stack - Method 18 - R6A - C2	2/4/2023	60 min	1	x					1st Sorbent Trap
	50833	HRSG Stack - Method 18 - R6A - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube
	50834	HRSG Stack - Method 18 - R6B - C1	2/4/2023	60 min	1	x					Condensate
	50835	HRSG Stack - Method 18 - R6B - C2	2/4/2023	60 min	1	x					1st Spiked Sorbent Tube
	50836	HRSG Stack - Method 18 - R6B - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube

		Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
TAT: Standard	Need By Date:					
Shipped by:	Shipped On:		[signature] Gavin Lewis	2-13-23 1410		
Ship To Attn:	Trent Lee					
Lab:	Enthalpy Analytical		[signature] Gayle Swanson	2/15/23 1:20	[signature] Conor Benson	2/15/23 1:20 3.5°C
Address:	800 Capitola Drive Ste. 1 Durham, NC 27713					
Phone:	919-850-4392		[signature] Conor Benson WIC2	2/16/23 17:00	[signature] Alyssa M Miller	02-17-23 0730

Special Instructions: *Benzene, Ethyl Benzene, Toluene and Xylene 1.8°C Raytek 2 good condition Amin3 02-17-23

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation
7521 Brush Hill Road
Burr Ridge, Illinois 60527 USA
T: (312) 533-2042 F: (312)533-2070

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AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: (312) 533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Anthony Sakellariou		
Project No.: 508369	Samples Recovered by: Anthony Sakellariou		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Analyses Required: Speciated Volatile Organic HAP as BTEX* by GC					Comments:
	50837	HRSG Stack - Method 18 - R7A - C1	2/4/2023	60 min	1	x					Condensate
	50838	HRSG Stack - Method 18 - R7A - C2	2/4/2023	60 min	1	x					1st Sorbent Tube
	50839	HRSG Stack - Method 18 - R7A - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube
	50840	HRSG Stack - Method 18 - R7B - C1	2/4/2023	60 min	1	x					Condensate
	50841	HRSG Stack - Method 18 - R7B - C2	2/4/2023	60 min	1	x					1st Spiked Sorbent Tube
	50842	HRSG Stack - Method 18 - R7B - C3	2/4/2023	60 min	1	x					2nd Sorbent Tube

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23		
Ship To Attn: Trent Lee		Gavin Lewis	1410		
Lab: Enthalpy Analytical		Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
Phone: 919-850-4392		[signature] Conor Benson WIC2	2/16/23 17:00	Alyssa Mmello	02-17-23 0730

Special Instructions: *Benzene, Ethyl Benzene, Toluene and Xylene

1.8°C Raytek2 good condition
Amm3 02-17-23

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation
7521 Brush Hill Road
Burr Ridge, Illinois 60527 USA
T: (312) 533-2042 F: (312)533-2070

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Revised: 04/25/2019

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Analyses Required: M5	M29	OTM-46			Comments:
	369-01	HRSG-STACK-M5/29-1-1	2/2/2023	240MIN	1	X	X				Filter
	369-02	HRSG-STACK-M5/29-1-2	2/2/2023	240MIN	1	X	X				Acetone PW
	369-03	HRSG-STACK-M5/29-1-3	2/2/2023	240MIN	1		X				HNO3 PW
	369-04	HRSG-STACK-M5/29-1-4/A-C	2/2/2023	240MIN	3		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-05	HRSG-STACK-M5/29-1-5A	2/2/2023	240MIN	1		X				4 IMPINGER
	369-06	HRSG-STACK-M5/29-1-5B	2/2/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-07	HRSG-STACK-M5/29-1-5C	2/2/2023	240MIN	1		X				8N HCL
	369-08	HRSG-STACK-OTM46-1-1	2/2/2023	240MIN	1			X			Filter
	369-09	HRSG-STACK-OTM46-1-2	2/2/2023	240MIN	1			X			Toluene/Acetone
	369-10	HRSG-STACK-OTM46-1-3	2/2/2023	240MIN	2			X			Impinger Water
	369-11	HRSG-STACK-OTM-1-XAD	2/2/2023	240MIN	1			X			XAD Trap 0123-704-00G

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1724	Gayle Swanson	2:35
Lab: Enthalpy Analytical		Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature] WJC2	2/16/23	Alyssa M Miller	02.17.23
Phone: 919-850-4392		Conor Benson	17:00		073

Special Instructions: 1.8°C Reagent 2, good condition
Amm3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-12	HRSG-STACK-M5/29-2-1	2/4/2023	240MIN	1	X	X				Filter
	369-13	HRSG-STACK-M5/29-2-2	2/4/2023	240MIN	1	X	X				Acetone PW
	369-14	HRSG-STACK-M5/29-2-3	2/4/2023	240MIN	1		X				HNO3 PW
	369-15	HRSG-STACK-M5/29-2-4	2/4/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-16	HRSG-STACK-M5/29-2-5A	2/4/2023	240MIN	1		X				4 IMPINGER
	369-17	HRSG-STACK-M5/29-2-5B	2/4/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-18	HRSG-STACK-M5/29-2-5C	2/4/2023	240MIN	1		X				8N HCL
	369-19	HRSG-STACK-OTM46-2-1	2/4/2023	240MIN	1			X			Filter
	369-20	HRSG-STACK-OTM46-2-2	2/4/2023	240MIN	1			X			Toluene/Acetone
	369-21	HRSG-STACK-OTM46-2-3	2/4/2023	240MIN	1			X			Impinger Water
	369-22	HRSG-STACK-OTM-2-XAD	2/4/2023	240MIN	1			X			XAD Trap 0123-704-00H

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	[signature]	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:35
Lab: Enthalpy Analytical		[signature]	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature] WJC2	2/16/23	[signature]	02.17-23
Phone: 919-850-4392		Conor Benson	17:00		0730

Special Instructions: 1.8°C Raylok 2, good condition
AMIN3 02.17-23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

EA Job# 0123-099 Page 53 of 397

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-23	HRSG-STACK-M5/29-3-1	2/5/2023	240MIN	1	X	X				Filter
	369-24	HRSG-STACK-M5/29-3-2	2/5/2023	240MIN	1	X	X				Acetone PW
	369-25	HRSG-STACK-M5/29-3-3	2/5/2023	240MIN	1		X				HNO3 PW
	369-26	HRSG-STACK-M5/29-3-4	2/5/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-27	HRSG-STACK-M5/29-3-5A	2/5/2023	240MIN	1		X				4 IMPINGER
	369-28	HRSG-STACK-M5/29-3-5B	2/5/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-29	HRSG-STACK-M5/29-3-5C	2/5/2023	240MIN	1		X				8N HCL
	369-30	HRSG-STACK-OTM46-3-1	2/5/2023	240MIN	1			X			Filter
	369-31	HRSG-STACK-OTM46-3-2	2/5/2023	240MIN	1			X			Toluene/Acetone
	369-32	HRSG-STACK-OTM46-3-3	2/5/2023	240MIN	1			X			Impinger Water
	369-33	HRSG-STACK-OTM-3-XAD	2/5/2023	240MIN	1			X			XAD Trap 0123-704-00H

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	[signature]	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:30
Lab: Enthalpy Analytical		[signature]	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature] WIC 2	2/16/23	[signature]	02.17.23
Phone: 919-850-4392		Conor Benson	17:00		0730

Special Instructions: 1.8°C Raytek 2 good condition
AMM3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-34	HRSG-STACK-M5/29-4-1	2/6/2023	240MIN	1	X	X				Filter
	369-35	HRSG-STACK-M5/29-4-2	2/6/2023	240MIN	1	X	X				Acetone PW
	369-36	HRSG-STACK-M5/29-4-3	2/6/2023	240MIN	1		X				HNO3 PW
	369-37	HRSG-STACK-M5/29-4-4	2/6/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-38	HRSG-STACK-M5/29-4-5A	2/6/2023	240MIN	1		X				4 IMPINGER
	369-39	HRSG-STACK-M5/29-4-5B	2/6/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-40	HRSG-STACK-M5/29-4-5C	2/6/2023	240MIN	1		X				8N HCL
	369-41	HRSG-STACK-OTM46-4-1	2/6/2023	240MIN	1			X			Filter
	369-42	HRSG-STACK-OTM46-4-2	2/6/2023	240MIN	1			X			Toluene/Acetone
	369-43	HRSG-STACK-OTM46-4-3	2/6/2023	240MIN	1			X			Impinger Water
	369-44	HRSG-STACK-OTM-4-XAD	2/6/2023	240MIN	1			X			XAD Trap 0123-704-00H

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:34
Lab: Enthalpy Analytical		Gayle Swan	2/15/23	[signature]	2/15/23
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	Alyssa M Miller	02-17-23
Phone: 919-850-4392		Conor Benson	17:00		

3.5°C

Special Instructions: 1.8°C Raytek 2, good condition
AMM 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-45	HRSG-STACK-M5/29-5-1	2/7/2023	240MIN	1	X	X				Filter
	369-46	HRSG-STACK-M5/29-5-2	2/7/2023	240MIN	1	X	X				Acetone PW
	369-47	HRSG-STACK-M5/29-5-3	2/7/2023	240MIN	1		X				HNO3 PW
	369-48	HRSG-STACK-M5/29-5-4	2/7/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-49	HRSG-STACK-M5/29-5-5A	2/7/2023	240MIN	1		X				4 IMPINGER
	369-50	HRSG-STACK-M5/29-5-5B	2/7/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-51	HRSG-STACK-M5/29-5-5C	2/7/2023	240MIN	1		X				8N HCL
	369-52	HRSG-STACK-OTM46-5-1	2/7/2023	240MIN	1			X			Filter
	369-53	HRSG-STACK-OTM46-5-2	2/7/2023	240MIN	1			X			Toluene/Acetone
	369-54	HRSG-STACK-OTM46-5-3	2/7/2023	240MIN	1			X			Impinger Water
	369-55	HRSG-STACK-OTM-5-XAD	2/7/2023	240MIN	1			X			XAD Trap 0123-704-00H

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swanson	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:34
Lab: Enthalpy Analytical		Gayle Swanson	2/15/23	[signature]	2/15/23
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	Alyssa Mmelin	02.17-23
Phone: 919-850-4392		Conor Benson WJC2	17:00		0730

3.5°C

Special Instructions: 1.8°C Raytek 2, good condition
Amm3 02.17-23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

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Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Analyses Required: M5	M29	OTM-46			Comments:
	369-56	HRSG-STACK-M5/29-6-1	2/8/2023	240MIN	1	X	X				Filter
	369-57	HRSG-STACK-M5/29-6-2	2/8/2023	240MIN	1	X	X				Acetone PW
	369-58	HRSG-STACK-M5/29-6-3	2/8/2023	240MIN	1		X				HNO3 PW
	369-59	HRSG-STACK-M5/29-6-4	2/8/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-60	HRSG-STACK-M5/29-6-5A	2/8/2023	240MIN	1		X				4 IMPINGER
	369-61	HRSG-STACK-M5/29-6-5B	2/8/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-62	HRSG-STACK-M5/29-6-5C	2/8/2023	240MIN	1		X				8N HCL
	369-63	HRSG-STACK-OTM46-6-1	2/8/2023	240MIN	1			X			Filter
	369-64	HRSG-STACK-OTM46-6-2	2/8/2023	240MIN	1			X			Toluene/Acetone
	369-65	HRSG-STACK-OTM46-6-3	2/8/2023	240MIN	1			X			Impinger Water
	369-66	HRSG-STACK-OTM-6-XAD	2/8/2023	240MIN	1			X			XAD Trap 0123-704-00F

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:35
Lab:		Gayle Swan	2/15/23	[signature]	2/15/23
Address:		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	Alyssa Mmille	02.17.23
Phone:		Conor Benson WIC2	17:00		0730

3.5°C

Special Instructions: 1.8°C Rayltk 2, good condition
AMIN3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Report 508369

187 of 2048

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

Chain of Custody Record

Project Name: Primary Energy

Site Name: Cokenergy

Project No.: 508369

TRC Contact: Gavin Lewis T: 312-533-2025

Email: glewis@trccompanies.com

Sampling System Prepared by: Gavin Lewis

Samples Recovered by: Gavin Lewis

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-67	HRSG-STACK-M5/29-1-1	2/9/2023	240MIN	1	X	X				Filter
	369-68	HRSG-STACK-M5/29-1-2	2/9/2023	240MIN	1	X	X				Acetone PW
	369-69	HRSG-STACK-M5/29-1-3	2/9/2023	240MIN	1		X				HNO3 PW
	369-70	HRSG-STACK-M5/29-1-4	2/9/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-71	HRSG-STACK-M5/29-1-5A	2/9/2023	240MIN	1		X				4 IMPINGER
	369-72	HRSG-STACK-M5/29-1-5B	2/9/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-73	HRSG-STACK-M5/29-1-5C	2/9/2023	240MIN	1		X				8N HCL
	369-74	HRSG-STACK-OTM46-1-1	2/9/2023	240MIN	1			X			Filter
	369-75	HRSG-STACK-OTM46-1-2	2/9/2023	240MIN	1			X			Toluene/Acetone
	369-76	HRSG-STACK-OTM46-1-3	2/9/2023	240MIN	1			X			Impinger Water
	369-77	HRSG-STACK-OTM-1-XAD	2/9/2023	240MIN	1			X			XAD Trap 0123-704-00H
		7 Pmm3 02.17.23									

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:			2-13-23	Gayle Swanson	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:35
Lab:		Gayle Swanson	2/15/23		2/15/23
Address:		Gayle Swanson	1:20	Conor Benson	1:20
Phone:		Conor Benson WTC2	2/16/23 17:00		02.17.23 0730

Special Instructions: 1.8°C Rayleh 2, good condition pmm3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Report 508369

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3.5°C

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AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

TRC

Chain of Custody Record

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-78	HRSG-STACK-M5/29-Blank-12	2/9/2023		1	X	X				Filter Blank
	369-79	HRSG-STACK-M5/29-Blank-7	2/9/2023		1	X	X				Acetone Blank
	369-80	HRSG-STACK-M5/29-Blank-8A	2/9/2023		1		X				0.1 N HNO3 Blank
	369-81	HRSG-STACK-M5/29-1=Blank-8B	2/9/2023		1		X				Water Blank
	369-82	HRSG-STACK-M5/29-Blank-9	2/9/2023		1		X				5% HNO3/10% H2O2 Blank
	369-83	HRSG-STACK-M5/29-Blank-10	2/9/2023		1		X				Acidified KMnO4 Blank
	369-84	HRSG-STACK-M5/29-Blank-11	2/9/2023		1		X				8N HCL Blank
	369-85	HRSG-STACK-OTM46-Blank	2/9/2023		1			X			Toluene
	369-86	HRSG-STACK-OTM46-Blank	2/9/2023		1			X			XAD-0123-704-00E
	369-87	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Filter Blank
	369-88	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Acetone & Toluene
	369-89	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Imps and rinses
	369-90	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						XAD-0123-704-00J

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:35
Lab:		Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Address:		Gayle Swanson	1:20	Conor Benson	1:20
		[signature] WJC2	2/16/23	Alyssa Mmiller	02-17-23
Phone:		Conor Benson	17:00		0720

Special Instructions: 1.8°C Raytech 2, good condition
Amm3 02-17-23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

EA Job# 0123-099 Page 59 of 397

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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Logbooks

Samples Received

JobNo	SampleName	Train	OafNos	Quant	Volume (mL)	LoggedBy	Login Date
0123-099	5081 M18 R1A C1	0	1		26	ammiller	2/17/2023
0123-099	5082 M18 R1A C2	0	1			ammiller	2/17/2023
0123-099	5083 M18 R1A C3	0	1			ammiller	2/17/2023
0123-099	5084 M18 R1B SPK C1	0	1		26	ammiller	2/17/2023
0123-099	5085 M18 R1B SPK C2	0	1			ammiller	2/17/2023
0123-099	5086 M18 R1B SPK C3	0	1			ammiller	2/17/2023
0123-099	5087 M18 R2A C1	0	1		26	ammiller	2/17/2023
0123-099	5088 M18 R2A C2	0	1			ammiller	2/17/2023
0123-099	5089 M18 R2A C3	0	1			ammiller	2/17/2023
0123-099	50810 M18 R2B SPK C1	0	1		26	ammiller	2/17/2023
0123-099	50811 M18 R2B SPK C2	0	1			ammiller	2/17/2023
0123-099	50812 M18 R2B SPK C3	0	1			ammiller	2/17/2023
0123-099	50813 M18 R3A C1	0	1		26	ammiller	2/17/2023
0123-099	50814 M18 R3A C2	0	1			ammiller	2/17/2023
0123-099	50815 M18 R3A C3	0	1			ammiller	2/17/2023
0123-099	50816 M18 R3B SPK C1	0	1		26	ammiller	2/17/2023
0123-099	50817 M18 R3B SPK C2	0	1			ammiller	2/17/2023
0123-099	50818 M18 R3B SPK C3	0	1			ammiller	2/17/2023
0123-099	50819 M18 R4A C1	0	1		26	ammiller	2/17/2023
0123-099	50820 M18 R4A C2	0	1			ammiller	2/17/2023
0123-099	50821 M18 R4A C3	0	1			ammiller	2/17/2023
0123-099	50822 M18 R4B SPK C1	0	1		25	ammiller	2/17/2023
0123-099	50823 M18 R4B SPK C2	0	1			ammiller	2/17/2023
0123-099	50824 M18 R4B SPK C3	0	1			ammiller	2/17/2023
0123-099	50825 M18 R5A C1	0	1		25	ammiller	2/17/2023
0123-099	50826 M18 R5A C2	0	1			ammiller	2/17/2023
0123-099	50827 M18 R5A C3	0	1			ammiller	2/17/2023
0123-099	50828 M18 R5B SPK C1	0	1		26	ammiller	2/17/2023
0123-099	50829 M18 R5B SPK C2	0	1			ammiller	2/17/2023
0123-099	50830 M18 R5B SPK C3	0	1			ammiller	2/17/2023
0123-099	50831 M18 R6A C1	0	1		26	ammiller	2/17/2023
0123-099	50832 M18 R6A C2	0	1			ammiller	2/17/2023
0123-099	50833 M18 R6A C3	0	1			ammiller	2/17/2023
0123-099	50834 M18 R6B SPK C1	0	1		26	ammiller	2/17/2023
0123-099	50835 M18 R6B SPK C2	0	1			ammiller	2/17/2023
0123-099	50836 M18 R6B SPK C3	0	1			ammiller	2/17/2023
0123-099	50837 M18 R7A SPK C1	0	1		26	ammiller	2/17/2023
0123-099	50838 M18 R7A SPK C2	0	1			ammiller	2/17/2023
0123-099	50839 M18 R7A SPK C3	0	1			ammiller	2/17/2023
0123-099	50840 M18 R7B SPK C1	0	1		26	ammiller	2/17/2023

Volumed by SLSZ 02-20-23

Analyst: TLP

Date: 1/19/2023

Job #s	Describe Work Documented on This Page	Supplies, Ancillary Equipment Serial #s, Lot #s, etc
0123-099	TRC-Burr Ridge -BTEX Tube Spikes	Syringe: Lot# 1072462

TLP 1/19/23

Chemist: TLP

Solvent: CS2 **Solvent Lot #:** Caledon LOT#108762 EXP7/17/24

Preparation Date: 1/19/23

Expiration Date: 7/11/23

Spike Solution (gcstds1853 P.S.)

Compound	Manufacturer	Lot #	MW	(density) µg/mL	purity	µg/mL	µg	µL to add	mL [redacted] µg/mL	Spike amounts µL [redacted] µg	Date Bottle In to Lab	EXP DATE
Benzene - anhydrous, 99.8%	Sigma-Aldrich	SHBG6315V	78.11	879,000	0.9998	878,824	52,729	[redacted]	2,109	52.729452	5/10/16	7/20/23
Ethylbenzene - anhydrous, 99.8%	Sigma-Aldrich	SHBK6272	106.16	867,000	0.9987	865,873	51,952	[redacted]	2,078	51.952374	1/28/19	8/8/23
Styrene, ReagentPlus, contains 4-tert-butylcatechol stabilizer	Sigma-Aldrich	MKCK7862	104.15	908,000	1.000	908,000	54,480	[redacted]	2,179	54.480000	4/7/20	7/11/23
Toluene, anhydrous, 99.8%	Sigma-Aldrich	SHBL3013	92.14	865,000	0.9999	864,914	51,895	[redacted]	2,076	51.894810	2/10/20	8/2/23
m- Xylene	TCI	ANBLG	106.17	865,700	0.997	863,103	51,786	[redacted]	2,071	51.786174	12/19/22	1/16/25
o- Xylene	Sigma-Aldrich	BCCB4572	106.17	880,000	0.995	875,600	52,536	[redacted]	2,101	52.536000	4/7/20	8/8/23
p- Xylene	Sigma-Aldrich	SHBL3934	106.17	861,000	0.998	859,278	51,557	[redacted]	2,062	51.556680	4/7/20	8/8/23

- Used Primary Stock (~~#5~~ #6) to spike charcoal tubes. Used a syringe.
  EE TLP 1/19/22

0123-099
Tube Spike
BTEXSN @ ~50µg
Spikeprep1896 store < 4°C
TLP 1/19/23 Exp 7/11/23
TLP 1/19/23

10x shipped to Client

2x retained as LCS.

Witness: CEW 1-19-23

Charcoal Tubes
226-16
Lot # 161
Exp: 10/2026

Reviewer's Initials & Date:

AJP 1/19/23

SPIKEPrep
Page 1896

ENTHALPY ANALYTICAL

Analyst: SLSZ Date: 02-20-23

Job #s	Describe Work Documented on This Page
0123-099	M18: Tubes + Condensates

Date: 02-20-23 Prep Analyst: SLSZ Job Number: 0123-099

Client: Primary Energy - Cokenergy OAF Line#: 1

Analyte(s): Benzene, Ethylbenzene, Toluene, o-Xylene, m/p xylene

Media Type: Charcoal SKC#: 25T-002 Lot#: 161 Exp Date: 10-2026

Desorption Solvent: CS_2 Brand: Caledon (exp: 2-14-23) Lot#: 106846

Desorption Volume: 5 mL Pipette #: GC-108 (5-14-23)

Sampling train consists of: x1 Condensate; x2 Tubes

Prep Information for Tubes:

Sample Alignment Witness: SLSZ Confirms Client field spikes have Enthalpy spike label: Yes, SLSZ

Field Blanks & Field Spikes, LCS's and Media Blanks to be desorbed whole.

The sample tubes are to be desorbed as follows: MB + LCS: 25T-002, lot #161, exp: 10/2026

3-Fraction
Frac 1 = Condensate
Frac 2 = Tube 1 + FH Tube 2
Frac 3 = BH Tube 2

- R2-SPK-C2; C3 desorbed whole tube
- Downloaded ~1mL aliquots to AS vials w/ pasteur pipettes

CEW 2/21/23

LD = R1-SPK.FH

Tube LCS – Retained/Internal (circle one) Spike used: 0123-099 Tube Spike BTEXSN @ ~50µg Spikeprep1896 store < 4°C TLP 1/19/23 Exp 7/11/23

Internal LCS Prep Analyst: N/A Witness: N/A

1 Media Blank per batch of not more than 20 samples

*Shaken at 450 rev/min for 30 minutes.

*For optimum desorption efficiency, shake samples at 450 rpm for 30 min. (Silica Gel tubes should be allowed to set overnight and then shaken a 2nd time.)

CEW 2/21/23

Prep Information for Condensates:

- Took volumes using graduated cylinder
- Archived 7 mL of Sample to 12 mL w/
- Added 5mL CS_2(SAA) w/ gc-108 (5-14-23) and Shook for 1 min
- Downloaded ~1 mL aliquots to AS vials via pasteur pipettes
- MB = 30 mL DiH_2O + 5mL CS_2 (SAA)
- LD-R1-SPK.EXT

Aqueous LCS – Retained Internal (circle one) Spike used: 50 µL Primary Stock Sol'n (exp: 7-5-23) w/ Syringe lot# 631450 + 30 mL $Di\ H_2O$ (millipore) + 5 mL CS_2 (SAA)

Internal LCS Prep Analyst: SLSZ Witness: N/A

1 Media Blank per batch of not more than 20 samples

Observations / Notes:

Reviewer's Initials & Date: AJP 2/22/23

GCPrep page5306

ENTHALPY

Location: GC Drawer: LUCY Analyst: RJH

Cabinet: 2023 Folder: Q1 Date: 2/23/23

Job #s	Describe Work Documented on This Page
0123-099 0123-160	M18: BTEX cont. from pg. 1283

Supplies, Ancillary Equipment Serial #s, Lot #s, Etc
0 inj 2-4 used
RJH 2/24/23

C:\GC\2023\LUCY\Q1\LUCY1284\LUCY1284.S Front Inlet

Line	Vial	SampleName	Method	Inj
1	vial 35	0123-160.ON-R2-SPK-CT.BH	LUCY0301	3
2	vial 36	0123-160.ON-R3-SPK-XAD.BH	LUCY0301	3
3	vial 37	0123-160.ON-R3-SPK-CT.BH	LUCY0301	3
4	vial 38	0123-160.OFF-R1-SPK-XAD.BH	LUCY0301	3
5	vial 39	0123-160.OFF-R1-SPK-CT.BH	LUCY0301	3
6	vial 40	0123-160.OFF-R2-SPK-XAD.BH	LUCY0301	3
7	vial 41	0123-160.OFF-R2-SPK-CT.BH	LUCY0301	3
8	vial 42	0123-160.OFF-R3-SPK-XAD.BH	LUCY0301	3
9	vial 43	0123-160.OFF-R3-SPK-CT.BH	LUCY0301	3
10	vial 44	0123-160.ON-R1-SPK-XAD.FH	LUCY0301	3
11	vial 45	gcstds1858 #3	LUCY0301	4
12	vial 46	0123-160.ON-R1-SPK-XAD-LD.FH	LUCY0301	3
13	vial 47	0123-160.ON-R1-SPK-CT.FH	LUCY0301	3
14	vial 48	0123-160.ON-R1-SPK-CT-LD.FH	LUCY0301	3
15	vial 49	0123-160.ON-R2-SPK-XAD.FH	LUCY0301	3
16	vial 50	0123-160.ON-R2-SPK-CT.FH	LUCY0301	3
17	vial 51	0123-160.ON-R3-SPK-XAD.FH	LUCY0301	3
18	vial 52	0123-160.ON-R3-SPK-CT.FH	LUCY0301	3
19	vial 53	0123-160.OFF-R1-SPK-XAD.FH	LUCY0301	3
20	vial 54	0123-160.OFF-R1-SPK-CT.FH	LUCY0301	3
21	vial 55	0123-160.OFF-R2-SPK-XAD.FH	LUCY0301	3
22	vial 56	gcstds1858 #3	LUCY0301	4
23	vial 57	0123-160.OFF-R2-SPK-CT.FH	LUCY0301	3
24	vial 58	0123-160.OFF-R3-SPK-XAD.FH	LUCY0301	3
25	vial 59	0123-160.OFF-R3-SPK-CT.FH	LUCY0301	3
26	vial 60	gcstds1858 #3	LUCY0301	4
27	vial 61	gcstds1858 #6	LUCY0301	4
28	vial 62	gcstds1858 #5 0	LUCY0301	4
29	vial 63	gcstds1858 #4	LUCY0301	4
30	vial 64	gcstds1858 #2	LUCY0301	4
31	vial 65	gcstds1858 #1	LUCY0301	4
32	vial 1	gcstds1858 #3	LUCY0301	4
33	vial 2	gcprep5306 #MB-EXT	LUCY0301	3
34	vial 3	gcprep5306 #LCS-EXT	LUCY0301	3
35	vial 4	0123-099.R1.EXT	LUCY0301	3
36	vial 5	0123-099.R2.EXT	LUCY0301	3
37	vial 6	0123-099.R3.EXT	LUCY0301	3
38	vial 7	0123-099.R4.EXT	LUCY0301	3
39	vial 8	0123-099.R5.EXT	LUCY0301	3
40	vial 9	0123-099.R6.EXT	LUCY0301	3
41	vial 10	0123-099.R7.EXT	LUCY0301	3
42	vial 11	0123-099.R1-SPK.EXT	LUCY0301	3
43	vial 12	gcstds1858 #3	LUCY0301	4

RJH 2/24/23

Reviewer's Initials & Date: AJP 2/24/23

LUCY
1284

ENTHALPY ANALYTICAL

Location: GC Drawer: LUCY Analyst: RJH

Cabinet: 2023 Folder: Q1 Date: 2/24/23

Job #s	Describe Work Documented on This Page
0123-099	Stabilwax 10m X 0.10mm X 0.10 µm Split Precision Liner Cont. from Pg. 1284

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

C:\GC\2023\LUCY\Q1\LUCY1285\LUCY1285.S Front Inlet

Line	Vial	SampleName	Method	Inj
1	vial 13	0123-099.R1-SPK-LD.EXT	LUCY0301	3
2	vial 14	0123-099.R2-SPK.EXT	LUCY0301	3
3	vial 15	0123-099.R3-SPK.EXT	LUCY0301	3
4	vial 16	0123-099.R4-SPK.EXT	LUCY0301	3
5	vial 17	0123-099.R5-SPK.EXT	LUCY0301	3
6	vial 18	0123-099.R6-SPK.EXT	LUCY0301	3
7	vial 19	0123-099.R7-SPK.EXT	LUCY0301	3
8	vial 20	gcprep5306 #MB-CT	LUCY0301	3
9	vial 21	gcprep5306 #LCS-CT	LUCY0301	3
10	vial 22	0123-099.R1.FH	LUCY0301	3
11	vial 23	gcstds1858 #3	LUCY0301	4
12	vial 24	0123-099.R1.BH	LUCY0301	3
13	vial 25	0123-099.R2.FH	LUCY0301	3
14	vial 26	0123-099.R2.BH	LUCY0301	3
15	vial 27	0123-099.R3.FH	LUCY0301	3
16	vial 28	0123-099.R3.BH	LUCY0301	3
17	vial 29	0123-099.R4.FH	LUCY0301	3
18	vial 30	0123-099.R4.BH	LUCY0301	3
19	vial 31	0123-099.R5.FH	LUCY0301	3
20	vial 32	0123-099.R5.BH	LUCY0301	3
21	vial 33	0123-099.R6.FH	LUCY0301	3
22	vial 34	gcstds1858 #3	LUCY0301	4
23	vial 35	0123-099.R6.BH	LUCY0301	3
24	vial 36	0123-099.R7.FH	LUCY0301	3
25	vial 37	0123-099.R7.BH	LUCY0301	3
26	vial 38	0123-099.R1-SPK.FH	LUCY0301	3
27	vial 39	0123-099.R1-SPK-LD.FH	LUCY0301	3
28	vial 40	0123-099.R1-SPK.BH	LUCY0301	3
29	vial 41	0123-099.R2-SPK.FH	LUCY0301	3
30	vial 42	0123-099.R2-SPK.BH	LUCY0301	3
31	vial 43	0123-099.R3-SPK.FH	LUCY0301	3
32	vial 44	0123-099.R3-SPK.BH	LUCY0301	3
33	vial 45	gcstds1858 #3	LUCY0301	4
34	vial 46	0123-099.R4-SPK.FH	LUCY0301	3
35	vial 47	0123-099.R4-SPK.BH	LUCY0301	3
36	vial 48	0123-099.R5-SPK.FH	LUCY0301	3
37	vial 49	0123-099.R5-SPK.BH	LUCY0301	3
38	vial 50	0123-099.R6-SPK.FH	LUCY0301	3
39	vial 51	0123-099.R6-SPK.BH	LUCY0301	3
40	vial 52	0123-099.R7-SPK.FH	LUCY0301	3
41	vial 53	0123-099.R7-SPK.BH	LUCY0301	3
42	vial 54	gcstds1858 #3	LUCY0301	4
43	vial 55	gcstds1858 #6	LUCY0301	4
44	vial 56	gcstds1858 #5	LUCY0301	4
45	vial 57	gcstds1858 #4	LUCY0301	4
46	vial 58	gcstds1858 #2	LUCY0301	4
47	vial 59	gcstds1858 #1	LUCY0301	4
48	vial -1	pause	PAUSE	1

RJH 2/27/23

Reviewer's Initials & Date: AJP 2/27/23

LUCY
1285

ENTHALPY
ANALYTICAL

Analyst: CCB Date: 02-20-23

Job #s	Describe Work Documented on This Page
0123-099	M5

Supplies, Ancillary Equipment Serial #s, Lot #s, Etc

CCB 02-20-23

Sample ID	Fraction	Filter ID	Tare Wt. (g)
369-34 M5/29 4-1 Filter	Filter	615 ●	0.3464
369-45 M5/29 5-1 Filter	↓	616 *	0.3436
369-56 M5/29 6-1 Filter		617 *	0.3441
369-67 M5/29 7-1 Filter		618 □	0.3432
369-78 M5/29 Blank-12		601	0.3250
Filter# 620		620	0.3471
Filter# 621		621	0.3466

Sample ID	Fraction	Aluminum
369-35 M5/29 4-2 Ace PW	Acetone	G-845
369-46 M5/29 5-2 Ace PW	↓	G-846
369-57 M5/29 6-2 Ace PW		G-847
369-68 M5/29 7-2 Ace PW		G-848
369-79 M5/29 Blank-7		G-849
In House (218250)		G-850

Filters:

1. Confirm filter ID's on petri labels match actual ID's on filters (Initial/Date) CCB/02-20-23
2. Petri dishes opened and placed into desiccator(s) for at least 24 hours.
   a. desiccator ID Lambda Date/Time In: 02-22-23/12:30
3. Filters were weighed to constant weight.

● frayed edge
* received with loose filter pieces
□ received with pin-holes

CCB 02-20-23

Acetone
Brand: Fisher
Lot: 218250
Exp: 07-08-24

Rinse Fractions:

1. Rinse fractions were measured using 250 mL graduated cylinder(s).
2. Rinse fractions (which include the Lab Acetone and Client Acetone Blanks) were assigned to glass beakers, which were topped off until dry, in evaporator(s) (evaporator ID Evap.3).
3. Rinse fraction glass beakers were placed in desiccator(s) for more than 24 hours.
   a. desiccator ID Lambda Date/Time In: 02-22-23/12:30

CCB 02-20-23

Filter Tare Weights:

1. Filter Tare Weight Date/Time. Balance Verified (Initials)
   a. Initial Tare measured by N/A using balance ___ on ___ @ ___ N/A
   b. Final Tare measured by N/A using balance ___ on ___ @ ___ N/A
   c. Tare weights provided by Client Yes; filters also provided by client.

CCB 02-20-23

Final Weights:

1. Filter final weights dates:
   a. 1st Weights measured by CCB using balance 2 on 02/23/23 CCB
   b. 2nd Weights measured by CCB using balance 2 on 02/24/23 CCB
   c. 3rd Weights measured by N/A using balance ___ on ___ N/A
   d. 4th Weights measured by N/A using balance ___ on ___ N/A
2. Rinse final weights dates:
   a. 1st Weights measured by CCB using balance 2 on 02/23/23 CCB
   b. 2nd Weights measured by CCB using balance 2 on 02/24/23 CCB
   c. 3rd Weights measured by N/A using balance ___ on ___ N/A
   d. 4th Weights measured by N/A using balance ___ on ___ N/A

Reviewer's Initials & Date: SEA 3/3/23

PARTICULATE
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ENTHALPY ANALYTICAL

Samples Received

JobNo	SampleName	Train	OafNos	Quant	Volume	LoggedBy	Login Date
0123-099	5081 M18 R1A C1	0	1			ammiller	2/17/2023
0123-099	5082 M18 R1A C2	0	1			ammiller	2/17/2023
0123-099	5083 M18 R1A C3	0	1			ammiller	2/17/2023
0123-099	5084 M18 R1B SPK C1	0	1			ammiller	2/17/2023
0123-099	5085 M18 R1B SPK C2	0	1			ammiller	2/17/2023
0123-099	5086 M18 R1B SPK C3	0	1			ammiller	2/17/2023
0123-099	5087 M18 R2A C1	0	1			ammiller	2/17/2023
0123-099	5088 M18 R2A C2	0	1			ammiller	2/17/2023
0123-099	5089 M18 R2A C3	0	1			ammiller	2/17/2023
0123-099	50810 M18 R2B SPK C1	0	1			ammiller	2/17/2023
0123-099	50811 M18 R2B SPK C2	0	1			ammiller	2/17/2023
0123-099	50812 M18 R2B SPK C3	0	1			ammiller	2/17/2023
0123-099	50813 M18 R3A C1	0	1			ammiller	2/17/2023
0123-099	50814 M18 R3A C2	0	1			ammiller	2/17/2023
0123-099	50815 M18 R3A C3	0	1			ammiller	2/17/2023
0123-099	50816 M18 R3B SPK C1	0	1			ammiller	2/17/2023
0123-099	50817 M18 R3B SPK C2	0	1			ammiller	2/17/2023
0123-099	50818 M18 R3B SPK C3	0	1			ammiller	2/17/2023
0123-099	50819 M18 R4A C1	0	1			ammiller	2/17/2023
0123-099	50820 M18 R4A C2	0	1			ammiller	2/17/2023
0123-099	50821 M18 R4A C3	0	1			ammiller	2/17/2023
0123-099	50822 M18 R4B SPK C1	0	1			ammiller	2/17/2023
0123-099	50823 M18 R4B SPK C2	0	1			ammiller	2/17/2023
0123-099	50824 M18 R4B SPK C3	0	1			ammiller	2/17/2023
0123-099	50825 M18 R5A C1	0	1			ammiller	2/17/2023
0123-099	50826 M18 R5A C2	0	1			ammiller	2/17/2023
0123-099	50827 M18 R5A C3	0	1			ammiller	2/17/2023
0123-099	50828 M18 R5B SPK C1	0	1			ammiller	2/17/2023
0123-099	50829 M18 R5B SPK C2	0	1			ammiller	2/17/2023
0123-099	50830 M18 R5B SPK C3	0	1			ammiller	2/17/2023
0123-099	50831 M18 R6A C1	0	1			ammiller	2/17/2023
0123-099	50832 M18 R6A C2	0	1			ammiller	2/17/2023
0123-099	50833 M18 R6A C3	0	1			ammiller	2/17/2023
0123-099	50834 M18 R6B SPK C1	0	1			ammiller	2/17/2023
0123-099	50835 M18 R6B SPK C2	0	1			ammiller	2/17/2023
0123-099	50836 M18 R6B SPK C3	0	1			ammiller	2/17/2023
0123-099	50837 M18 R7A SPK C1	0	1			ammiller	2/17/2023
0123-099	50838 M18 R7A SPK C2	0	1			ammiller	2/17/2023
0123-099	50839 M18 R7A SPK C3	0	1			ammiller	2/17/2023
0123-099	50840 M18 R7B SPK C1	0	1			ammiller	2/17/2023

Samples Received

JobNo	SampleName	Train	OafNos	Quant	Volume	LoggedBy	Login Date
0123-099	50841 M18 R7B SPK C2	0	1			ammiller	2/17/2023
0123-099	50842 M18 R7B SPK C3	0	1			ammiller	2/17/2023
0123-099	369-01 M5/29 1-1 Filter	0	4			ammiller	2/17/2023
0123-099	369-02 M5/29 1-2 Ace PW	0	4			ammiller	2/17/2023
0123-099	369-03 M5/29 1-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-04 M5/29 1-4A HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-04 M5/29 1-4B HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-04 M5/29 1-4C HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-05 M5/29 1-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-06 M5/29 1-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-07 M5/29 1-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-12 M5/29 2-1 Filter	0	4			ammiller	2/17/2023
0123-099	369-13 M5/29 2-2 Ace PW	0	4			ammiller	2/17/2023
0123-099	369-14 M5/29 2-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-15 M5/29 2-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-16 M5/29 2-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-17 M5/29 2-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-18 M5/29 2-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-23 M5/29 3-1 Filter	0	4			ammiller	2/17/2023
0123-099	369-24 M5/29 3-2 Ace PW	0	4			ammiller	2/17/2023
0123-099	369-25 M5/29 3-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-26 M5/29 3-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-27 M5/29 3-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-28 M5/29 3-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-29 M5/29 3-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-34 M5/29 4-1 Filter 615	0	2,4			ammiller	2/17/2023
0123-099	369-35 M5/29 4-2 Ace PW	0	2,4		100	ammiller	2/17/2023
0123-099	369-36 M5/29 4-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-37 M5/29 4-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-38 M5/29 4-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-39 M5/29 4-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-40 M5/29 4-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-45 M5/29 5-1 Filter 616	0	2,4			ammiller	2/17/2023
0123-099	369-46 M5/29 5-2 Ace PW	0	2,4		124	ammiller	2/17/2023
0123-099	369-47 M5/29 5-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-48 M5/29 5-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-49 M5/29 5-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-50 M5/29 5-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-51 M5/29 5-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-56 M5/29 6-1 Filter 617	0	2,4			ammiller	2/17/2023

Volumed by CCB 02-20-23

Samples Received

JobNo	SampleName	Train	OafNos	Quant	Volume	LoggedBy	Login Date
0123-099	369-57 M5/29 6-2 Ace PW	0	2,4		100	ammiller	2/17/2023
0123-099	369-58 M5/29 6-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-59 M5/29 6-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-60 M5/29 6-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-61 M5/29 6-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-62 M5/29 6-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-67 M5/29 7-1 Filter 618	0	2,4			ammiller	2/17/2023
0123-099	369-68 M5/29 7-2 Ace PW	0	2,4		120	ammiller	2/17/2023
0123-099	369-69 M5/29 7-3 HNO3 PW	0	4			ammiller	2/17/2023
0123-099	369-70 M5/29 7-4 HNO3/H202	0	4			ammiller	2/17/2023
0123-099	369-71 M5/29 7-5A 4 Imp	0	4			ammiller	2/17/2023
0123-099	369-72 M5/29 7-5B 5&6 Imp	0	4			ammiller	2/17/2023
0123-099	369-73 M5/29 7-5C HCl	0	4			ammiller	2/17/2023
0123-099	369-78 M5/29 Blank-12 601	0	3,4			ammiller	2/17/2023
0123-099	369-79 M5/29 Blank-7	0	3,4		100	ammiller	2/17/2023
0123-099	369-80 M5/29 Blank-8A	0	4			ammiller	2/17/2023
0123-099	369-81 M5/29 Blank-8B	0	4			ammiller	2/17/2023
0123-099	369-82 M5/29 Blank-9	0	4			ammiller	2/17/2023
0123-099	369-83 M5/29 Blank-10	0	4			ammiller	2/17/2023
0123-099	369-84 M5/29 Blank-11	0	4			ammiller	2/17/2023

Also received CCB 02-20-23
- Filter #620
- Filter #621

Volumed by CCB 02-20-23

Analyst: LMP

Date: 2/20/23

Job #s	Describe Work Documented on This Page
0223-099	m29 prep

1367A = M29 volume worksheet

1367B = M29 FH prep sheet

1367C = M29 BH prep sheet

Supplies, Ancillary Equipment Serial #s, Lot #s, Etc

NA

Reviewer's Initials & Date:

Metals Prep

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1367A

Method 29 Volumes Worksheet

Client: TRC	8N HCl ID:	ES-0823	8N HCl Exp:	8/1/23	2B Digitube ID	J506384-4932
EA Project #: ① 0223-099	8N HCl Pipette ID:	J6534747898	Pipette Exp:	NA	0.50L/1.0L Bottle ID	L-2-008-05BB
Analyst: LMP	Custody Seals Intact?	Yes / No	Comments:			
Date: 2/20/23, 2/21/23, ② 2/27/23	Leak Check Levels Ok?	Yes / No	Comments:			

Method 29 Fraction Volumes (mL):

Sample ID	Container 3	Container 4 (EE LMP 2/20/23)	Container 2B	Container 3A	Container 3B	Container 3C	Cont. 3 pH Initial / Final	Amount HNO_3 Added (mL)	Cont. 4 Initial / Final	Amount HNO_3 Added (mL)
① 0223-099.1	92	~~887~~ 854	50	140	385	390	<2		<2	
.2	94	852		152	400	392	<2		<2	
.3	97	815		142	400	355	<2		<2	
.4	97	870		130	385	380	<2		<2	
.5	90	864		142	300	395	<2		<2	
.6	100	903		124	295	365	<2		<2	
.7	96	980		102	280	320	<2		<2	
.8	see below	see below		98	85	305	<2		<2	

Reagent & Field Blank Composites

When possible: the FH Blank should consist of 100 mL of Container 3. The BH Blank should consist of 100 mL of Container 3 + 200 mL of Container 4. If not enough solution provided, treat as field sample by digesting entire containers w/o combining.

	Container 3 Total	Container 3 Digested	Container 4 Total	Container 4 Composite		Hg Aliquot Removed from BH Composite:		Container 4 Digested
0223-099.8	295	100	200	300	-	50	=	250
					-		=	

Comments:
① EE LMP 2/20/23
② EE LMP 2/27/23

If pH is >2

HNO_3 ID:		HNO_3 Exp:	
HNO_3 Pip:		HNO_3 Pip Exp:	

TRC Report 508369
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ENTHALPY ANALYTICAL

Method 29 Prep Sheet
M2902
Rev.: I
Effective Date: 07-31-20

1367B

METHOD 29 METALS PREP SHEET

FRONT HALF SAMPLES

DAY 1	Date: 2/20/23	Analyst(s): LMP	DAY 3	Date:	Analyst(s):
DAY 2	Date: 2/24/23	Analyst(s): LMP	DAY 4	Date:	Analyst(s):

Ves. #	Reagents	ID#:	Expiration Date:	Sample ID	Final Volume (mL)
1	HNO_3: 6 mL	22400034	10/24	0123-099.1 -1	100
2	HF: 4 mL	SCA 2348098	11/25	.2 -1	
3	Support Equipment	ID#:	Expiration Date:	.3 -1	
4				.4 -1	
5	Ag vessels used? YES / NOT NEEDED			.5 -1	
6	Cleaning Cycle Completed? YES / NO			.6 -1	
7	Micro. #	6	N/A	.7 -1	
8				.8 -1	
	Hotplate #	8	N/A	-1	
				-1	
	HF Pipette	130	3/3/23	-1	
				-1	
	HNO_3 Pipette	1	1	-1	
				-1	
	Digitube	J553474-7898	N/A	-1	
				-1	
	Comments:			-1	
				-1	
				-1	
				-1	

Front Half Quality Control

Ves. #	QC	ID:	Expiraton:	Stock Conc. (ppm)	Prepped Conc. (ppb)	Amount Added (mL)	Pip ID:	Pip Exp:
9	Lab Blank-1	--	--	--	--	--	--	--
10	LCS-1	F0814	11/23	10	100	1.0	124	3/4/23

List additional LCS's below as needed. For example: Ag, LCS-High

ENTHALPY ANALYTICAL

1367C

METHOD 29 METALS PREP SHEET

BACK HALF SAMPLES

DAY 1	Date: 2/20/23	Analyst(s): LMP	DAY 3	Date:	Analyst(s):
DAY 2	Date: 2/24/23	Analyst(s): LMP	DAY 4	Date:	Analyst(s):

Reagents	ID#:	Expiration Date:	Sample ID		Final Volume (mL)
1:1 HNO3: 30mL	ES-0832	8/10/23	0123-099.1	-2A	100
H2O2: 1mL	61326206	11/30/23	.2	-2A	
			.3	-2A	
Support Equipment	**ID#:**	**Expiration Date:**	.4	-2A	
Hotplate #	10	N/A	.5	-2A	
			.6	-2A	
1:1 HNO3 Pipette	J553474-7898 Digitube	NA	.7	-2A	
			.8	-2A	
H2O2 Pipette	125	3/1/23		-2A	
				-2A	
Hg Aliquot Removed (mL) (-2B)	50			-2A	
				-2A	
Digitube	J553474-7898	N/A		-2A	
				-2A	
Comments:				-2A	
				-2A	
				-2A	
				-2A	
				-2A	
				-2A	

Back Half Quality Control

QC	ID:	Expiraton:	Stock Conc. (ppm)	Prepped Conc. (ppb)	Amount Added (mL)	Pip ID:	Pip Exp:
Lab Blank-2A	--	--	--	--	--	--	--
LCS-2A	F0814	11/23	10	100	1.0	124	3/4/23

List additional LCS's below as needed. For example: Ag, LCS-High

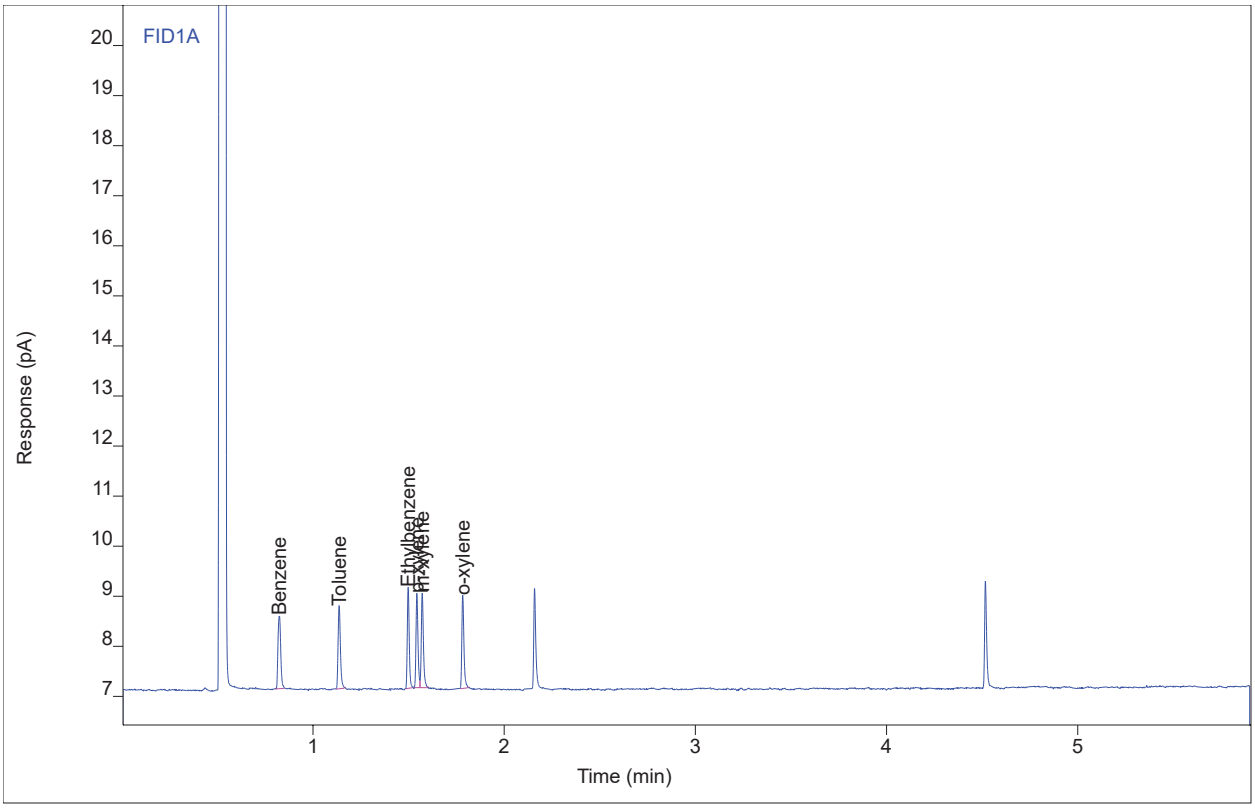
Raw Data

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1284 ver.2
Inj Data File	001F3201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:03 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 1
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



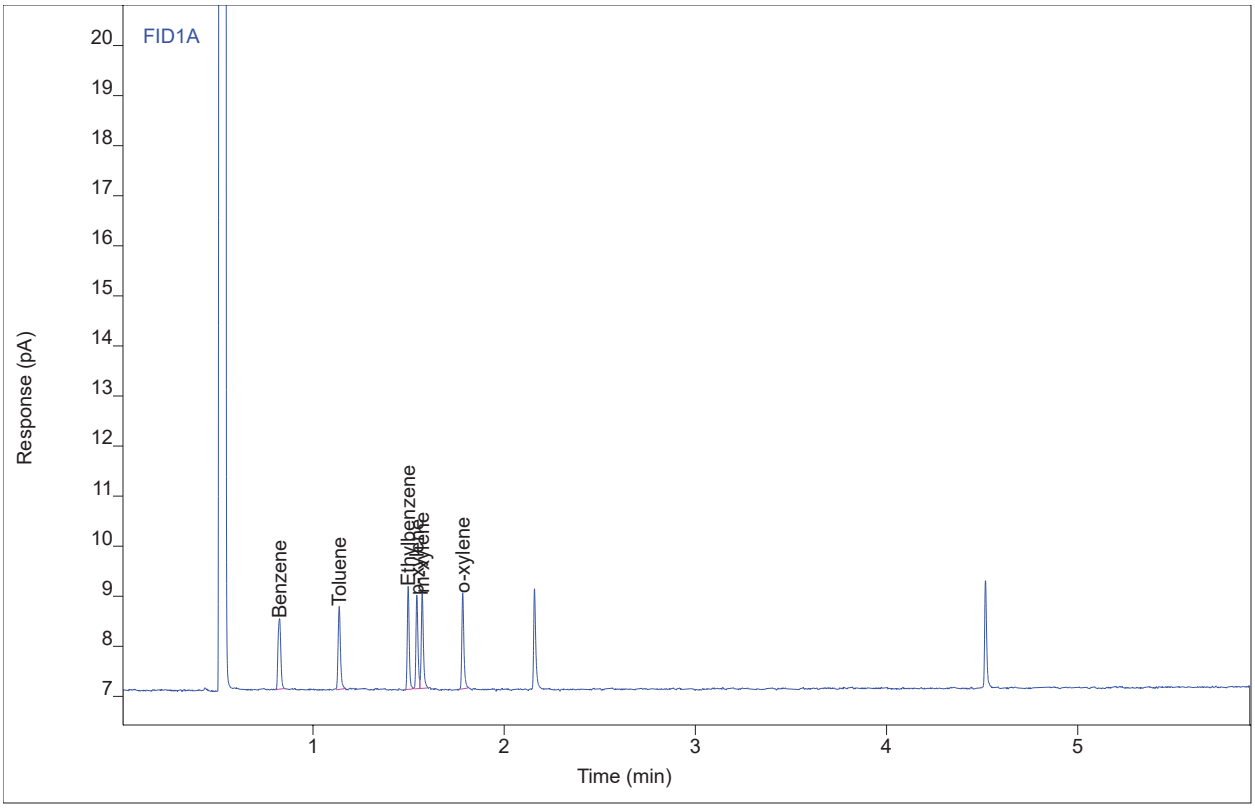
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.45711	1.46379	12.7794	1	12.7794	µg/mL
Toluene	BB	1.14	1.41244	1.66214	12.5668	1	12.5668	µg/mL
Ethylbenzene	BB	1.50	1.40389	2.01810	12.4789	1	12.4789	µg/mL
p-xylene	BV	1.54	1.35735	1.88916	12.2711	1	12.2711	µg/mL
m-xylene	VB	1.57	1.46926	1.90203	12.7799	1	12.7799	µg/mL
o-xylene	BB	1.78	1.42070	1.85515	12.7094	1	12.7094	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1284 ver.2
Inj Data File	001F3202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:13 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 1
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM

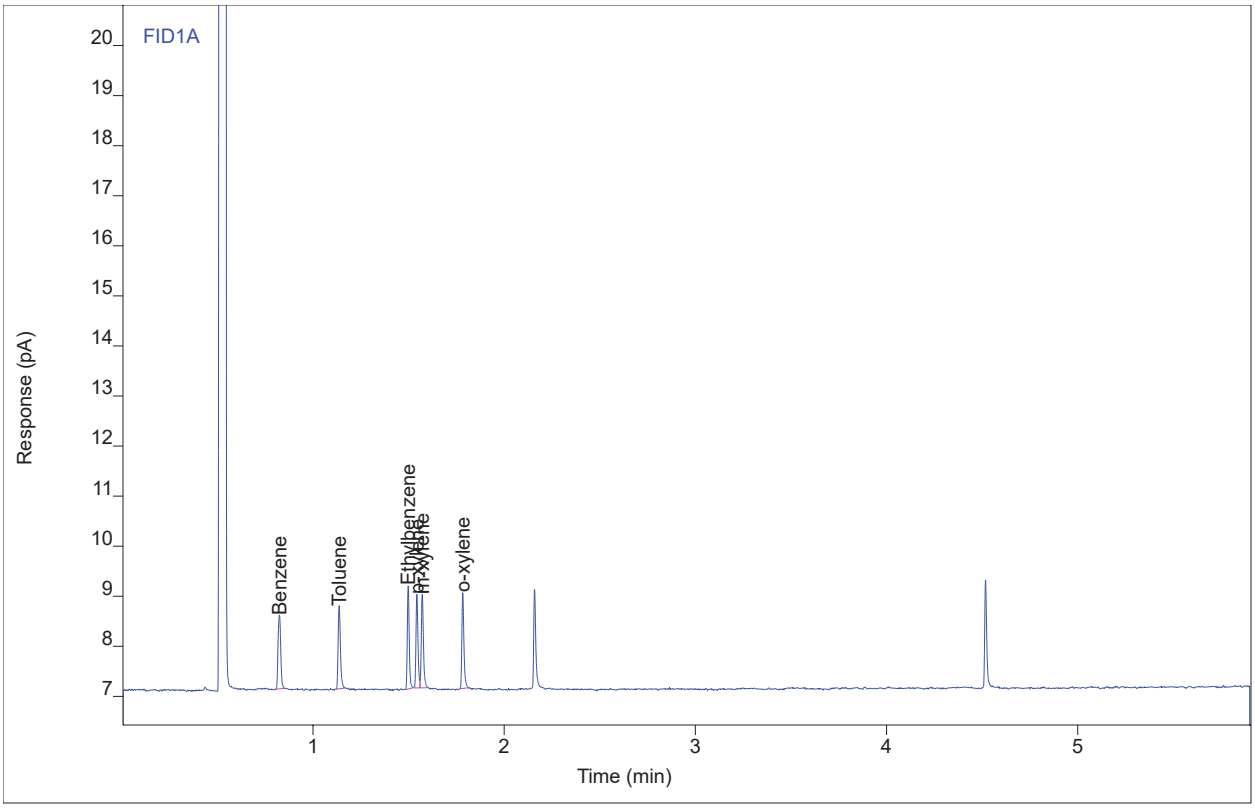


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	1.43025	1.41087	12.5442	1	12.5442	µg/mL
Toluene	BB	1.14	1.41529	1.65543	12.5916	1	12.5916	µg/mL
Ethylbenzene	BB	1.50	1.43356	2.05851	12.7355	1	12.7355	µg/mL
p-xylene	BV	1.54	1.37235	1.88071	12.4025	1	12.4025	µg/mL
m-xylene	VB	1.57	1.48177	1.89950	12.8863	1	12.8863	µg/mL
o-xylene	BB	1.78	1.44019	1.92166	12.8793	1	12.8793	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3	Sample Type	Calibration
Sequence Name	LUCY1284 ver.2	Vial Number	Vial 1
Inj Data File	001F3203.D	Injection Volume	1
File Location	GC/2023/Lucy/Quarter 1	Injection	3 of 4
Injection Date	2/23/2023 4:24 AM	Acquisition Method	LUCY0301.M
File Modified	2/24/2023 1:10 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	2/23/2023 7:42 AM
Operator	Remington Heathcoat	Printed	2/27/2023 4:07 PM



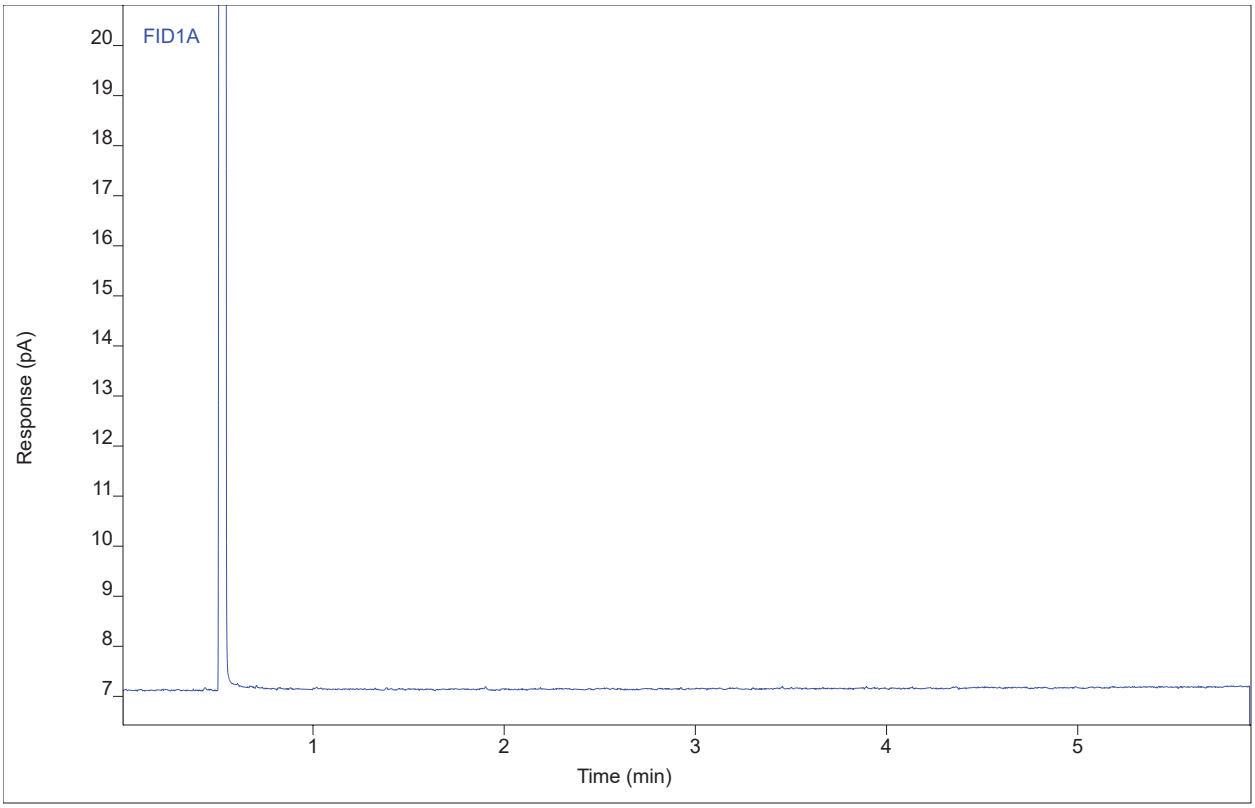
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.44011	1.47648	12.6305	1	12.6305	µg/mL
Toluene	BB	1.14	1.40087	1.66702	12.4658	1	12.4658	µg/mL
Ethylbenzene	BB	1.50	1.42614	2.07219	12.6713	1	12.6713	µg/mL
p-xylene	BV	1.54	1.36164	1.87570	12.3086	1	12.3086	µg/mL
m-xylene	VB	1.57	1.45608	1.86895	12.6678	1	12.6678	µg/mL
o-xylene	BB	1.78	1.43381	1.92204	12.8236	1	12.8236	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcprep5306 #MB-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	002F3301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:44 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 2
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



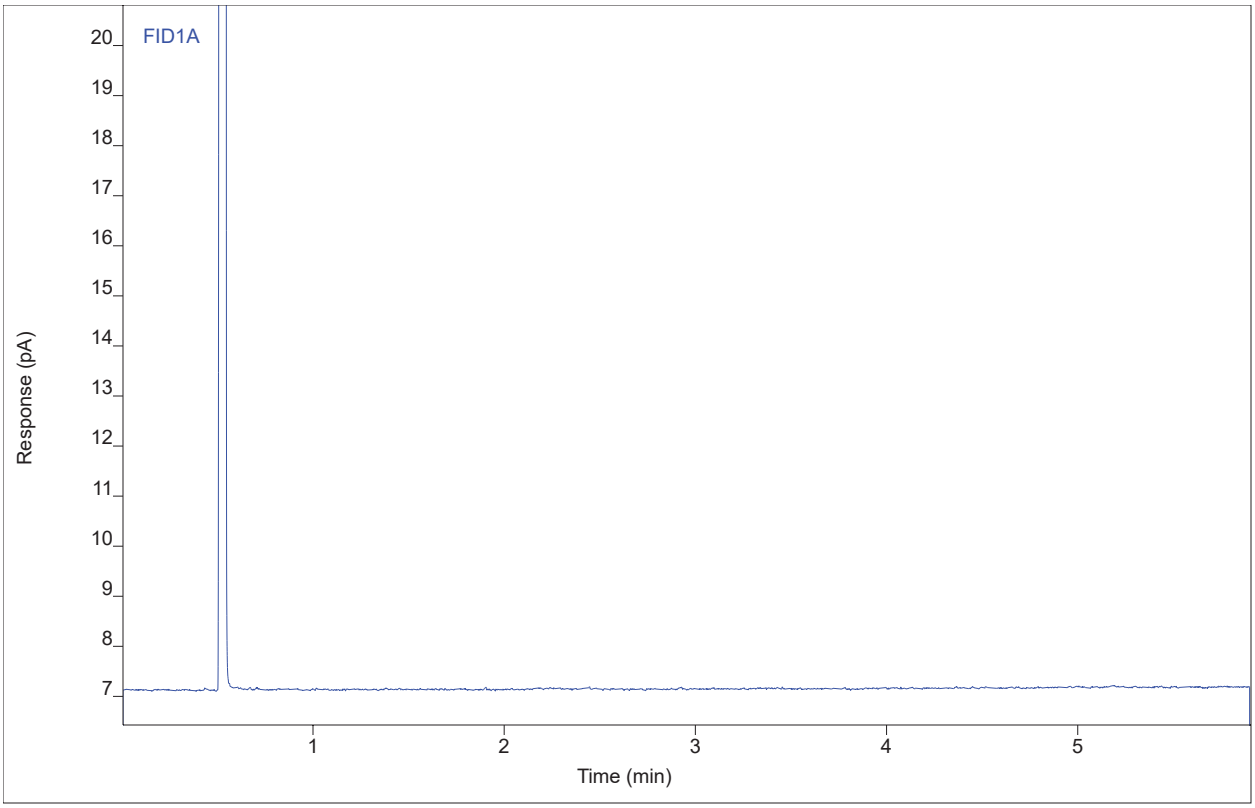
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #MB-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	002F3302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:55 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 2
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



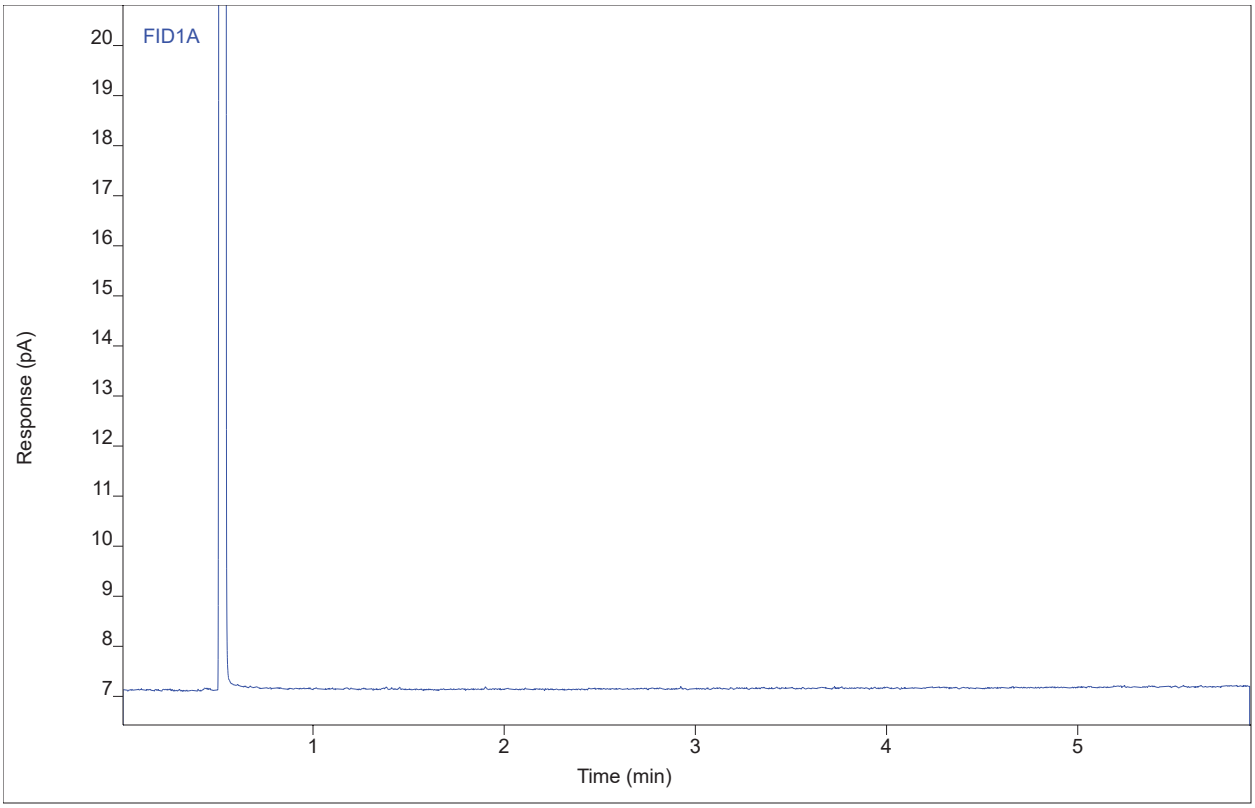
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #MB-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	002F3303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:05 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 2
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



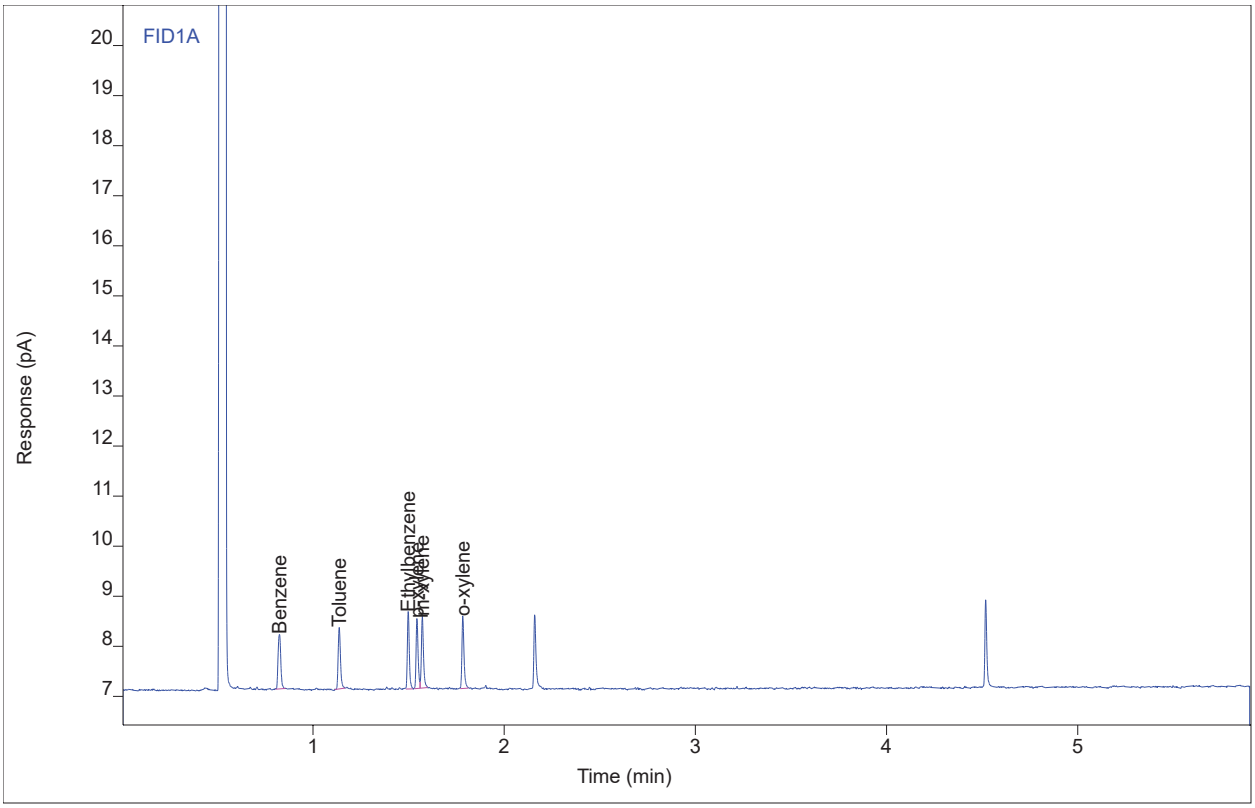
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #LCS-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	003F3401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:15 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 3
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



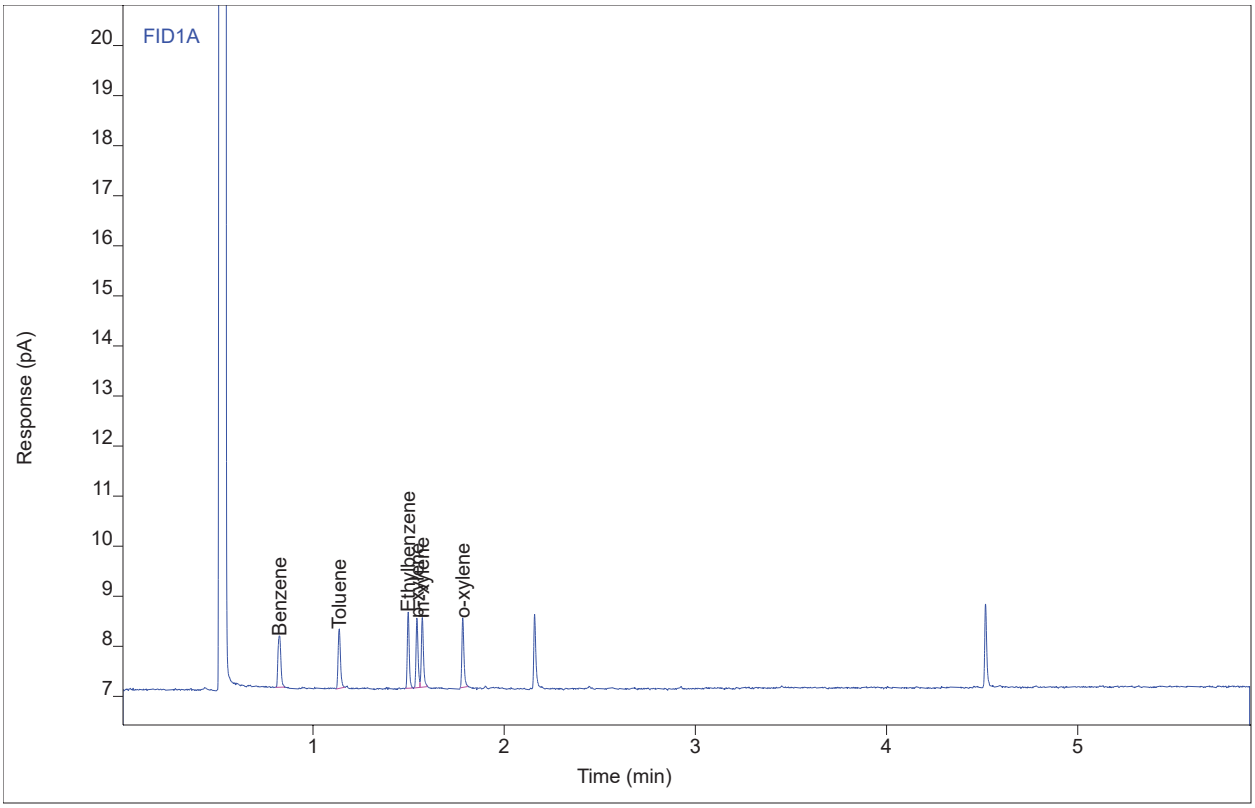
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.07920	1.09959	9.47044	1	9.47044	µg/mL
Toluene	BB	1.14	1.04240	1.22669	9.33877	1	9.33877	µg/mL
Ethylbenzene	BB	1.50	1.09496	1.54752	9.80701	1	9.80701	µg/mL
p-xylene	BV	1.54	1.03139	1.40499	9.41254	1	9.41254	µg/mL
m-xylene	VB	1.57	1.09441	1.43112	9.59132	1	9.59132	µg/mL
o-xylene	BB	1.78	1.09818	1.44778	9.89840	1	9.89840	µg/mL

Chromatogram Report

Sample Name	gcprep5306 #LCS-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	003F3402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:26 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 3
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



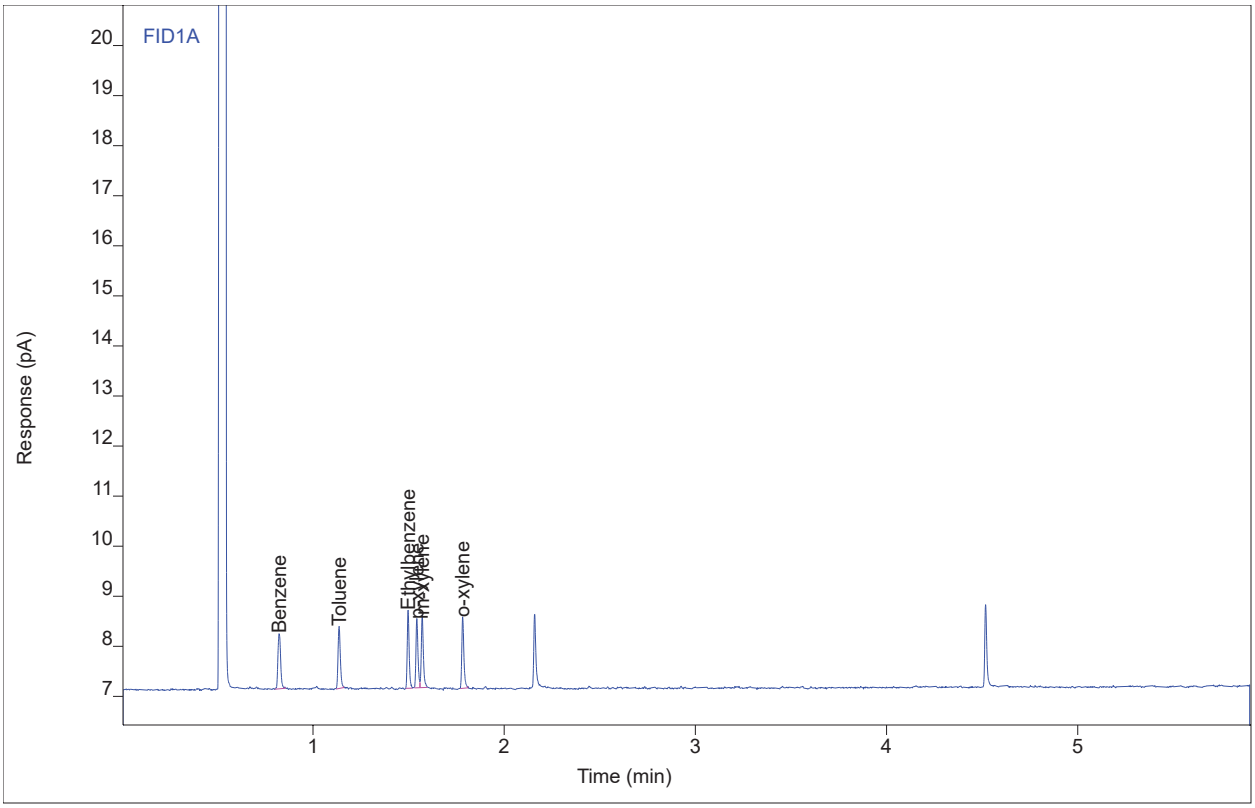
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	1.08408	1.03016	9.51315	1	9.51315	µg/mL
Toluene	BB	1.14	1.03058	1.18376	9.23567	1	9.23567	µg/mL
Ethylbenzene	BB	1.50	1.06170	1.50770	9.51942	1	9.51942	µg/mL
p-xylene	BV	1.54	1.01979	1.38253	9.31077	1	9.31077	µg/mL
m-xylene	VB	1.57	1.07916	1.38690	9.46162	1	9.46162	µg/mL
o-xylene	BB	1.78	1.04347	1.38582	9.42159	1	9.42159	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcprep5306 #LCS-EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	003F3403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:36 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 3
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



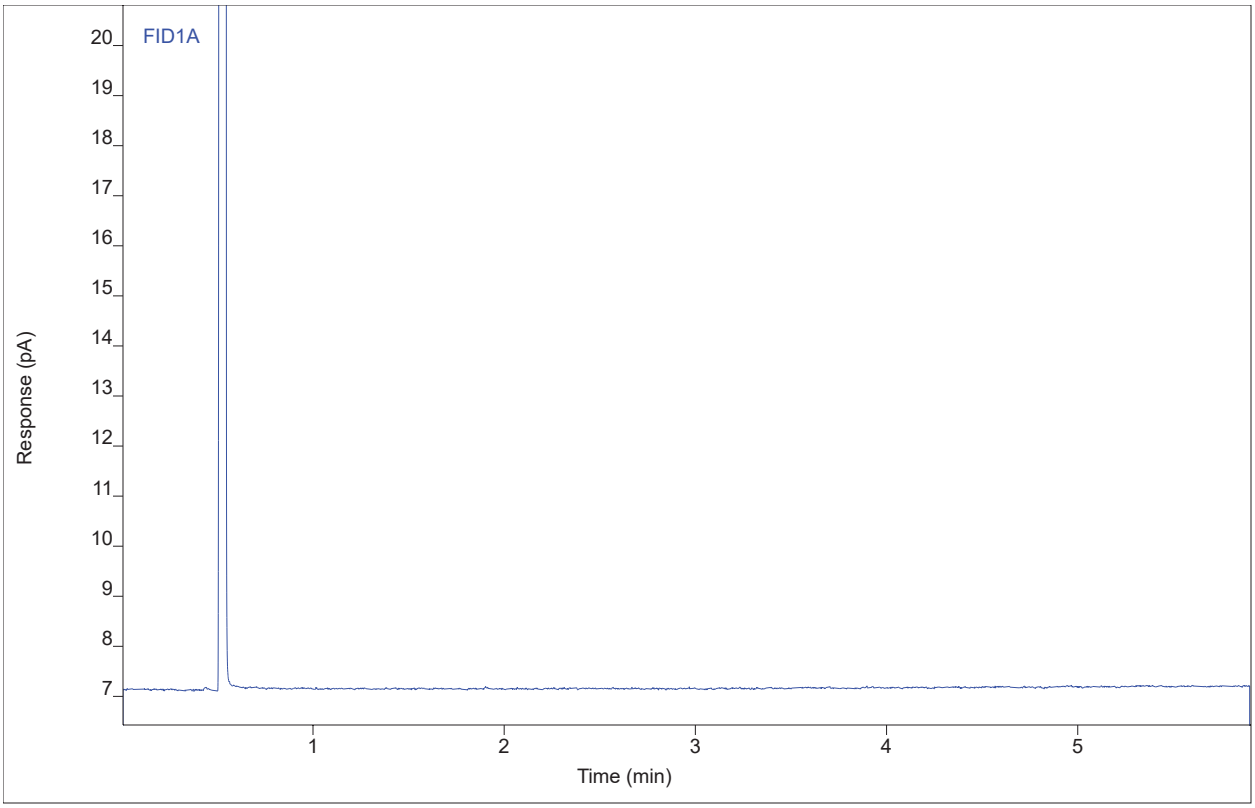
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.09370	1.10875	9.59740	1	9.59740	µg/mL
Toluene	BB	1.14	1.04249	1.23972	9.33956	1	9.33956	µg/mL
Ethylbenzene	BB	1.50	1.07873	1.56821	9.66668	1	9.66668	µg/mL
p-xylene	BV	1.54	1.02067	1.38435	9.31847	1	9.31847	µg/mL
m-xylene	VB	1.57	1.08763	1.43646	9.53366	1	9.53366	µg/mL
o-xylene	BB	1.78	1.08425	1.41062	9.77698	1	9.77698	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	004F3501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:46 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 4
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



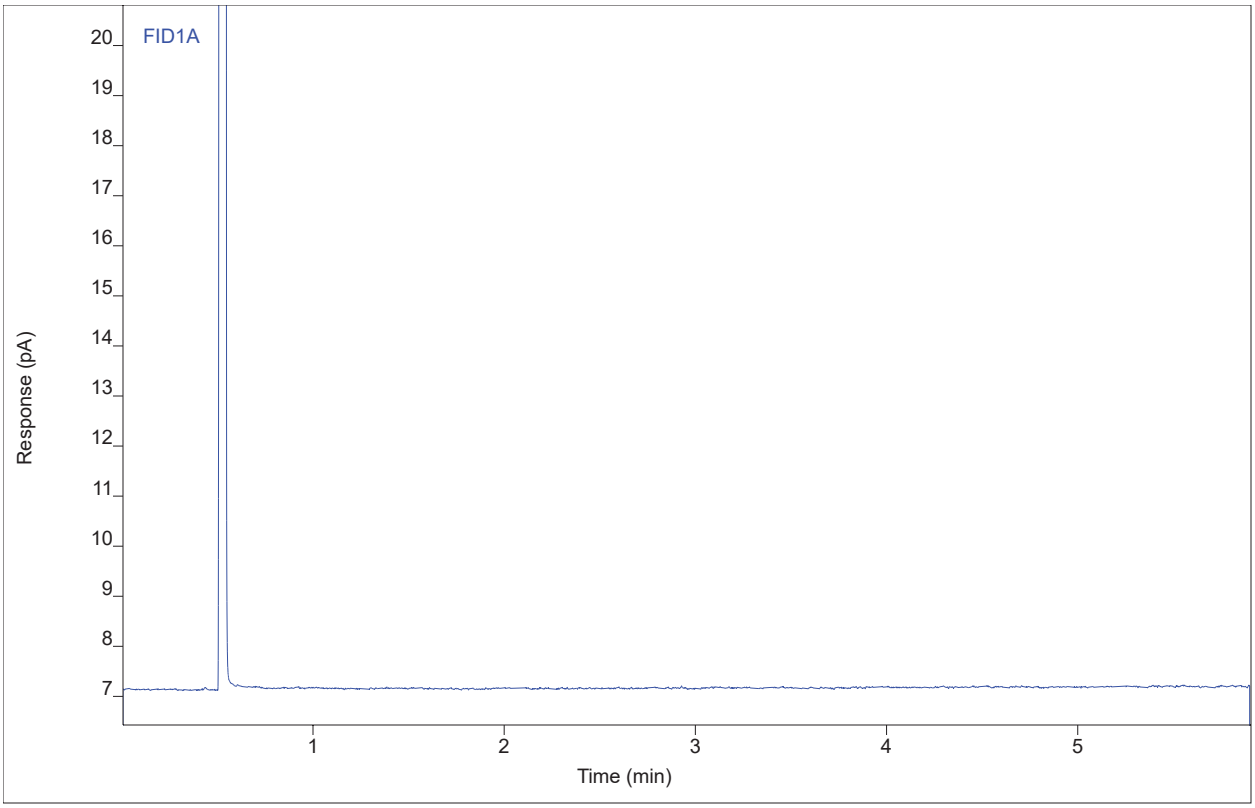
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	004F3502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:57 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 4
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



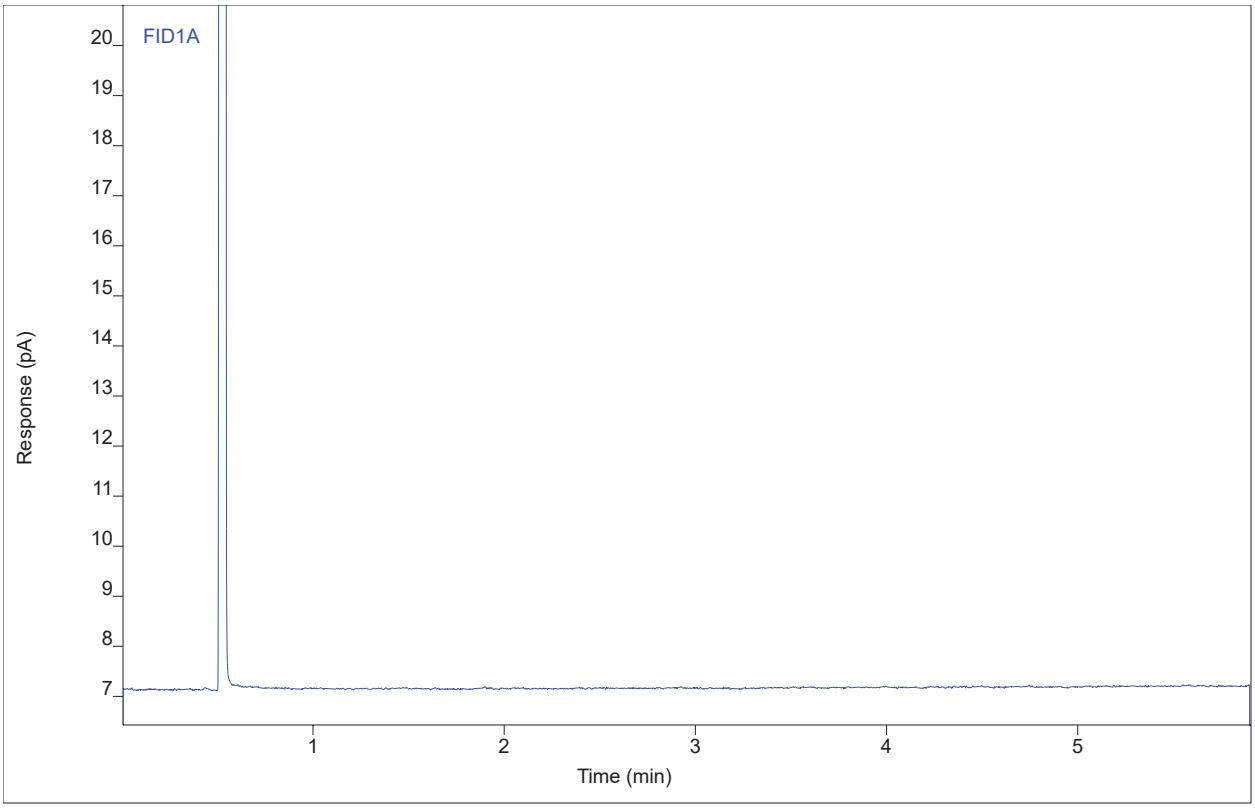
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	004F3503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:07 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 4
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



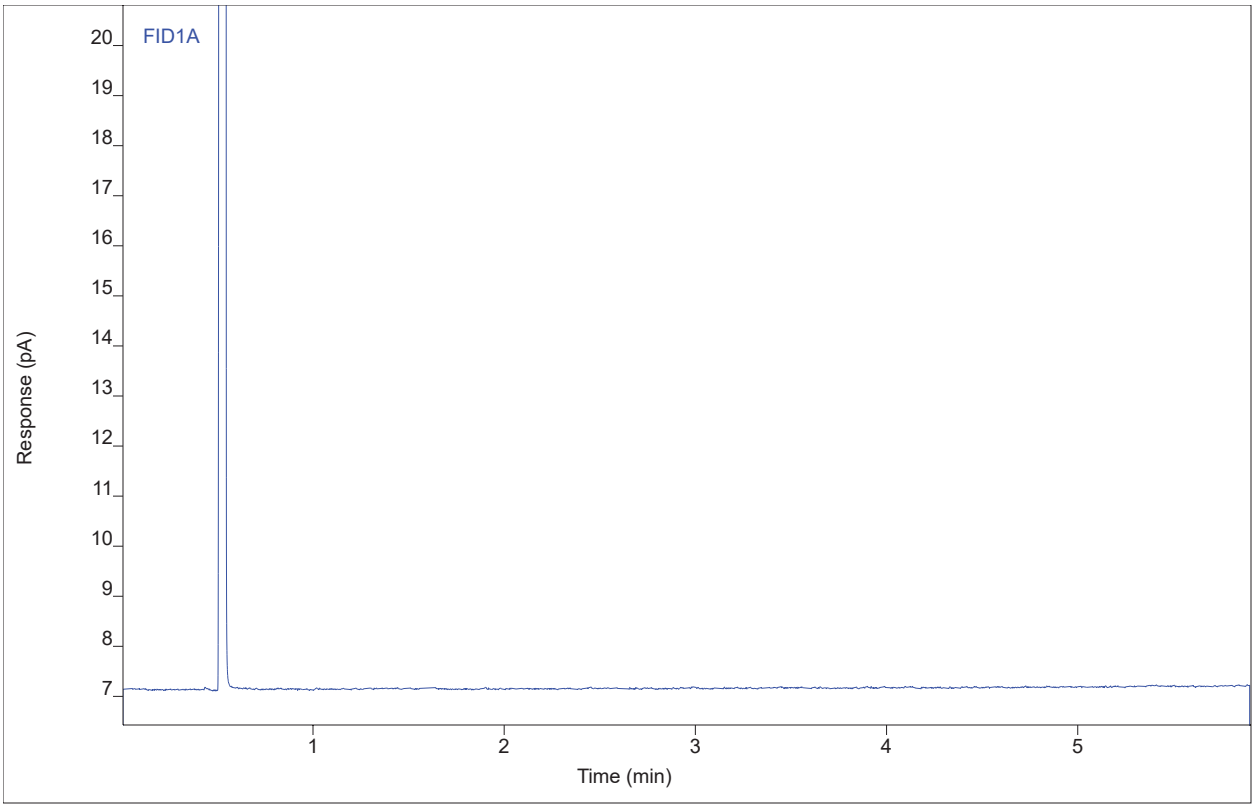
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	005F3601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:18 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



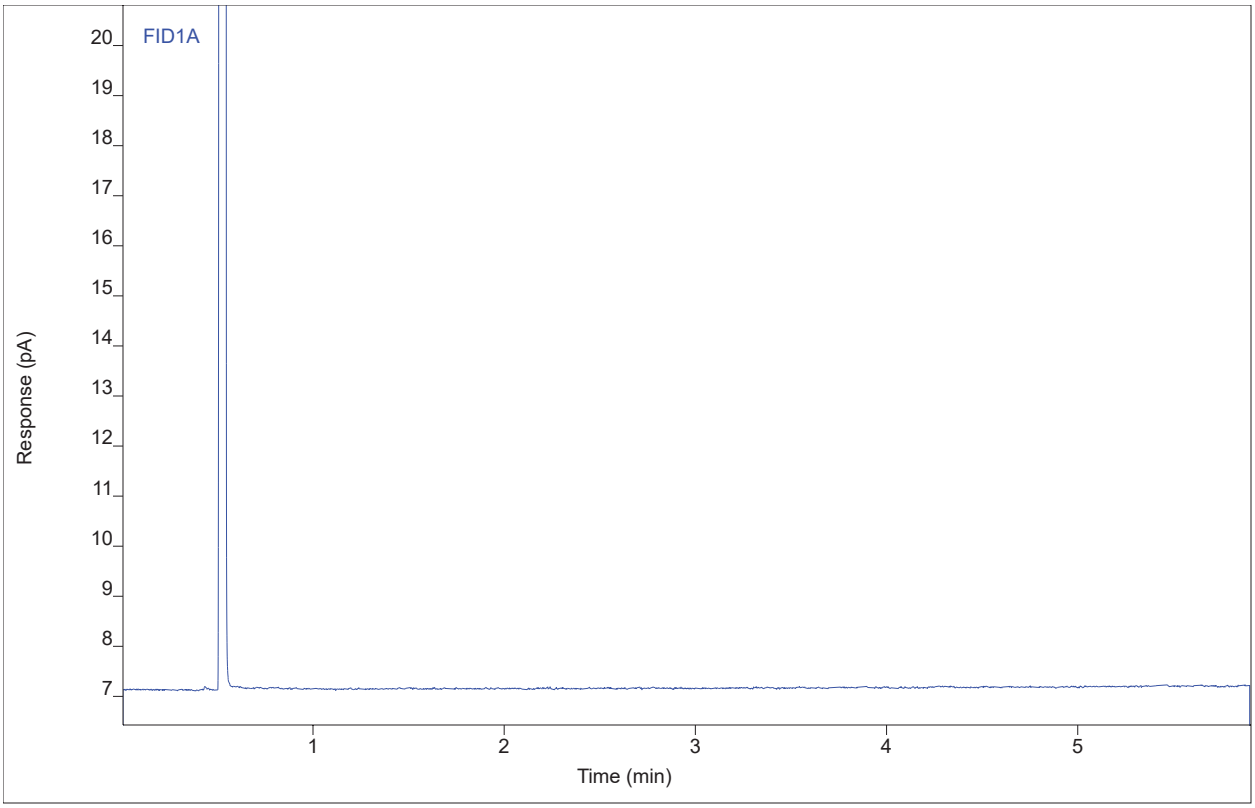
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	005F3602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:28 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



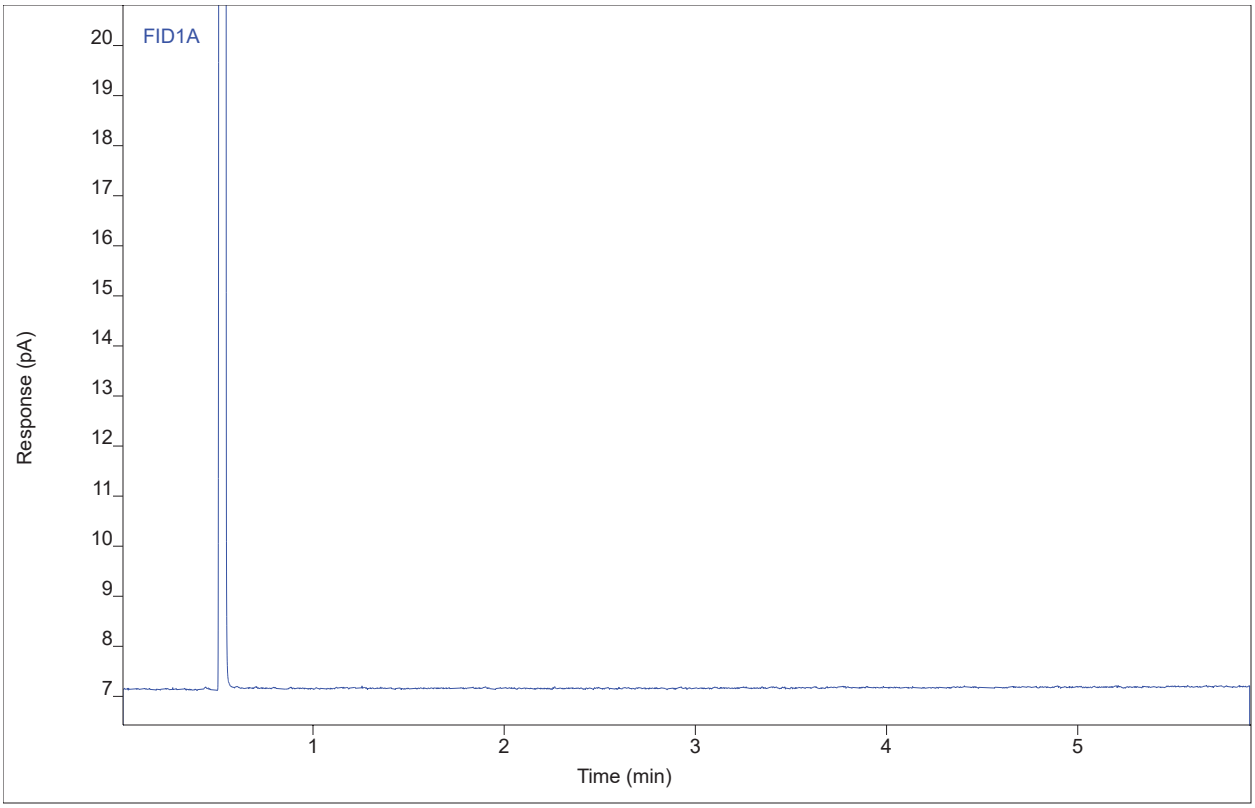
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	005F3603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:38 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



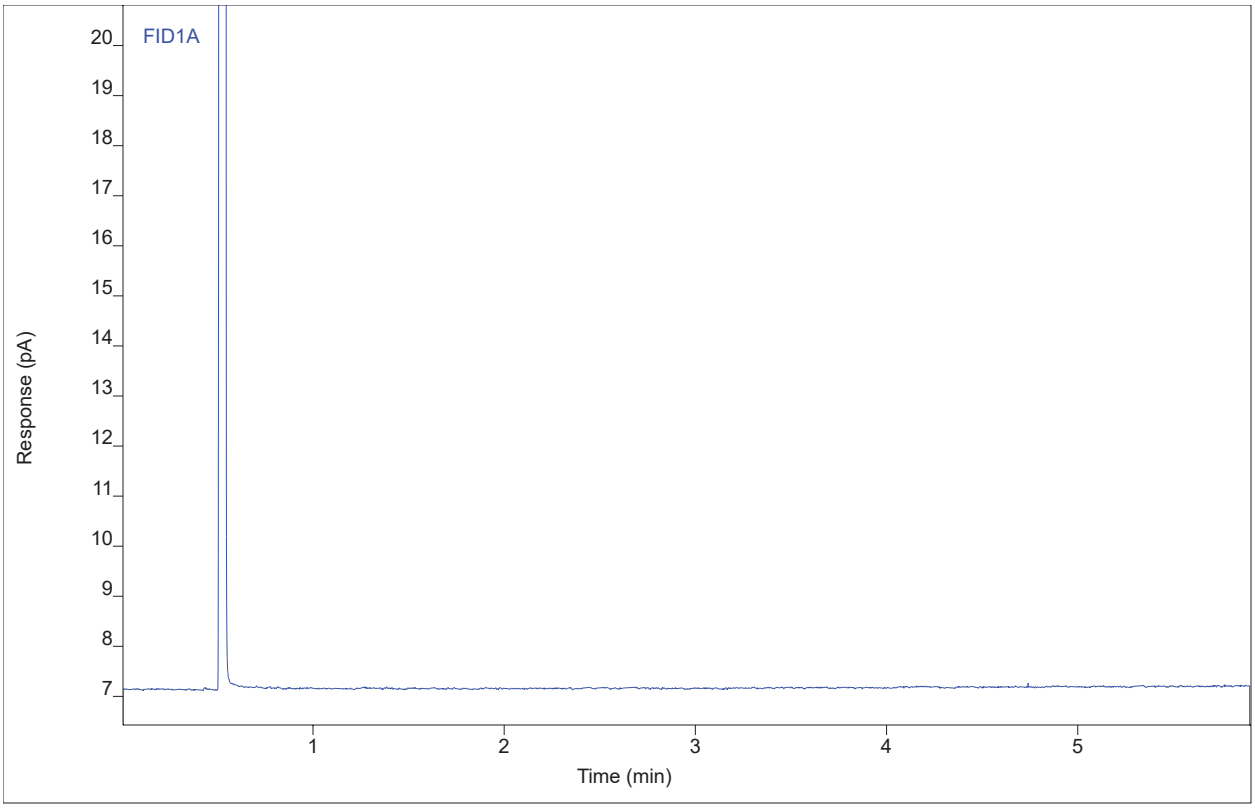
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	006F3701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:49 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 6
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



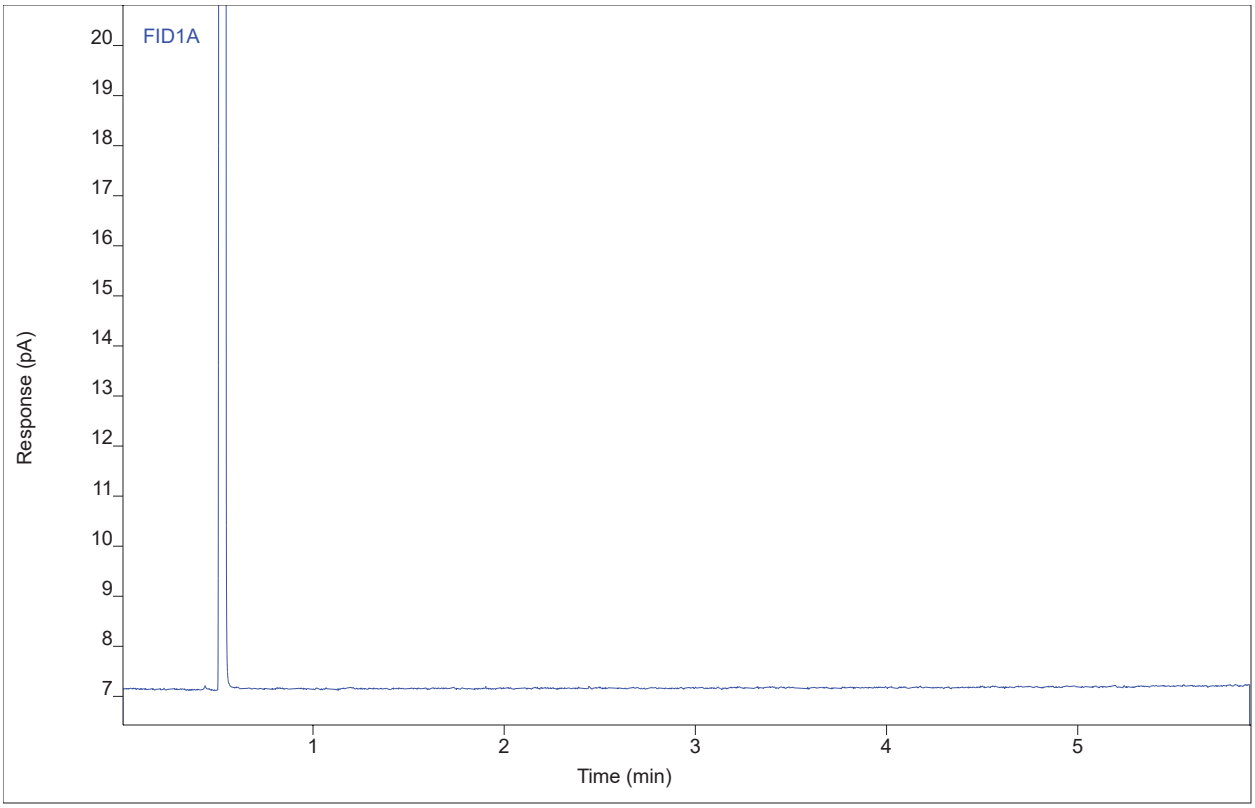
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	006F3702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:59 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 6
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



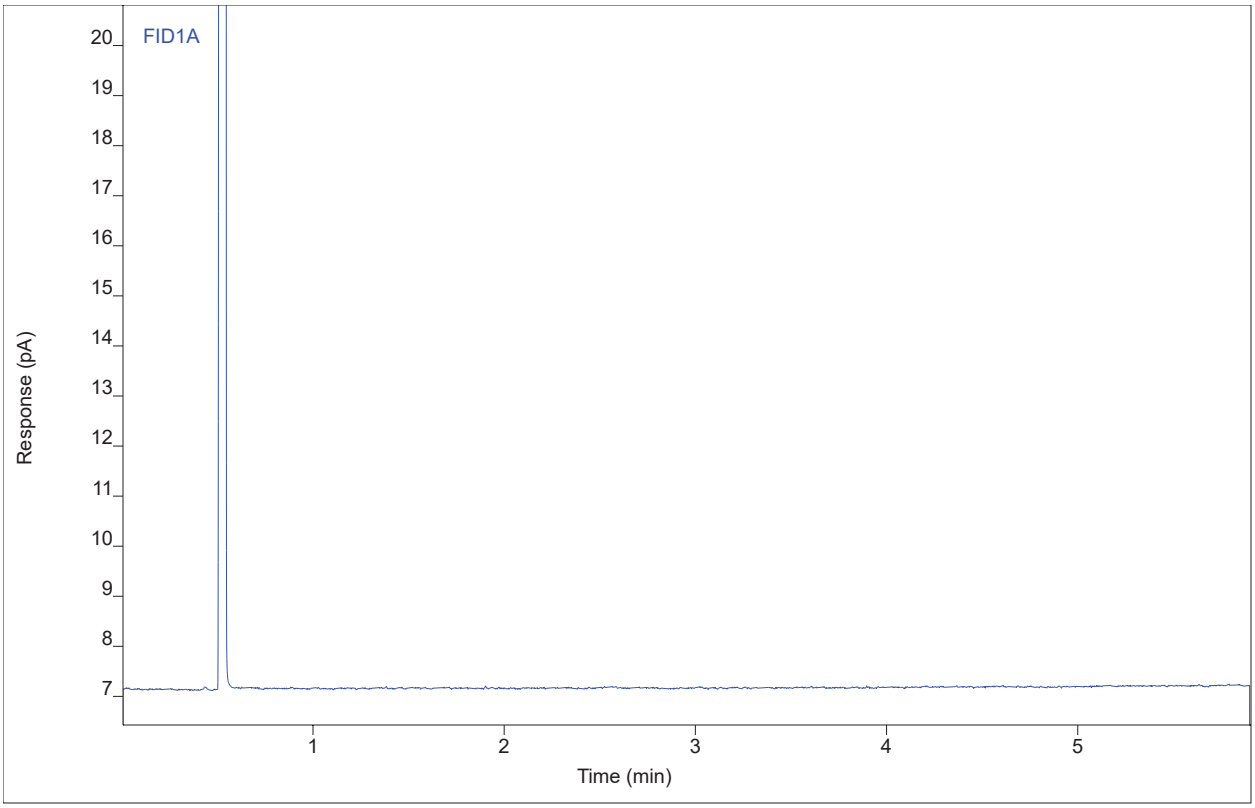
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	006F3703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:09 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 6
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



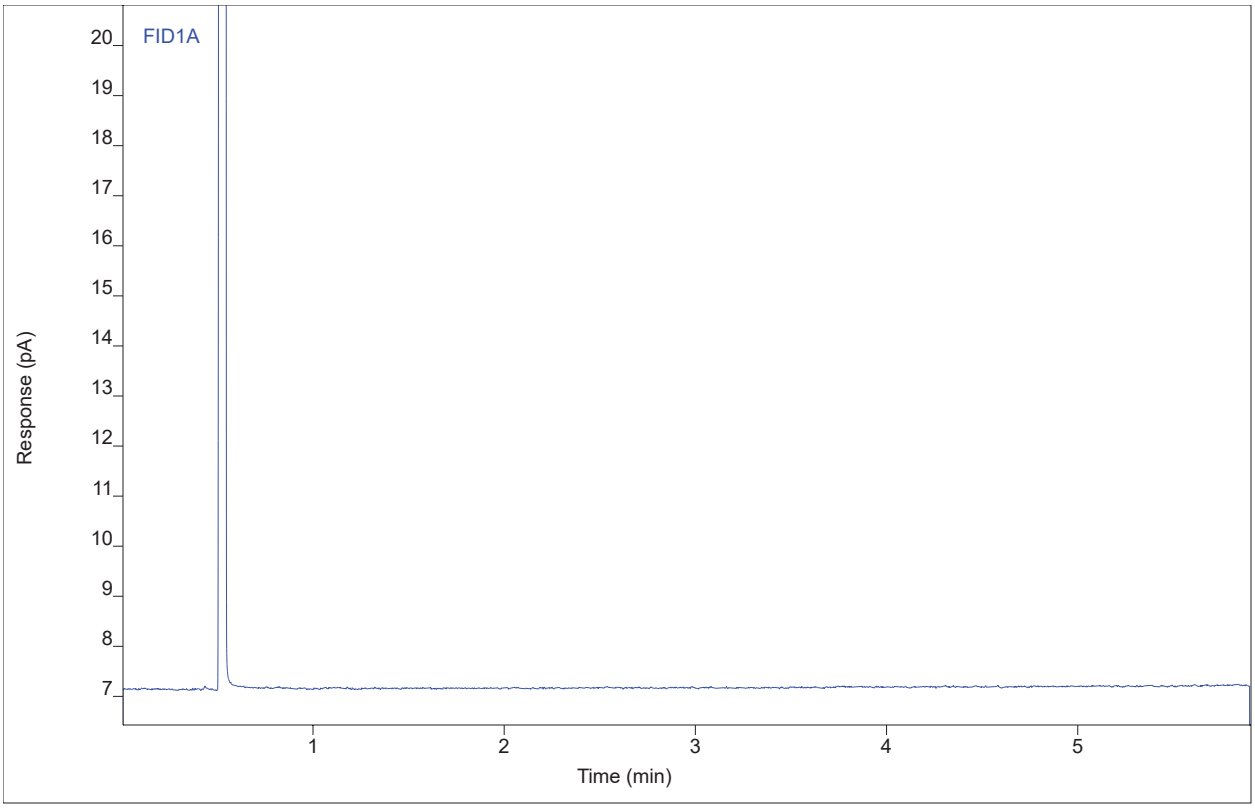
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	007F3801.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:20 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



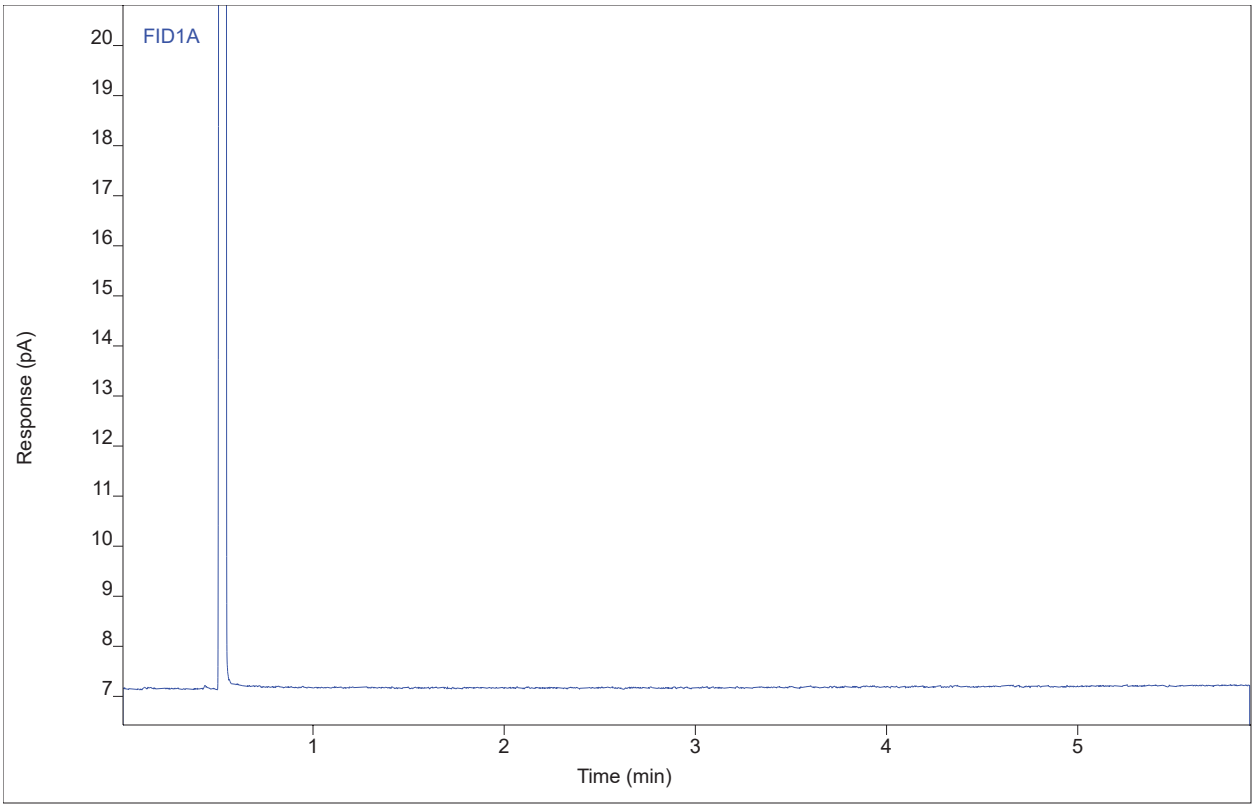
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	007F3802.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:30 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



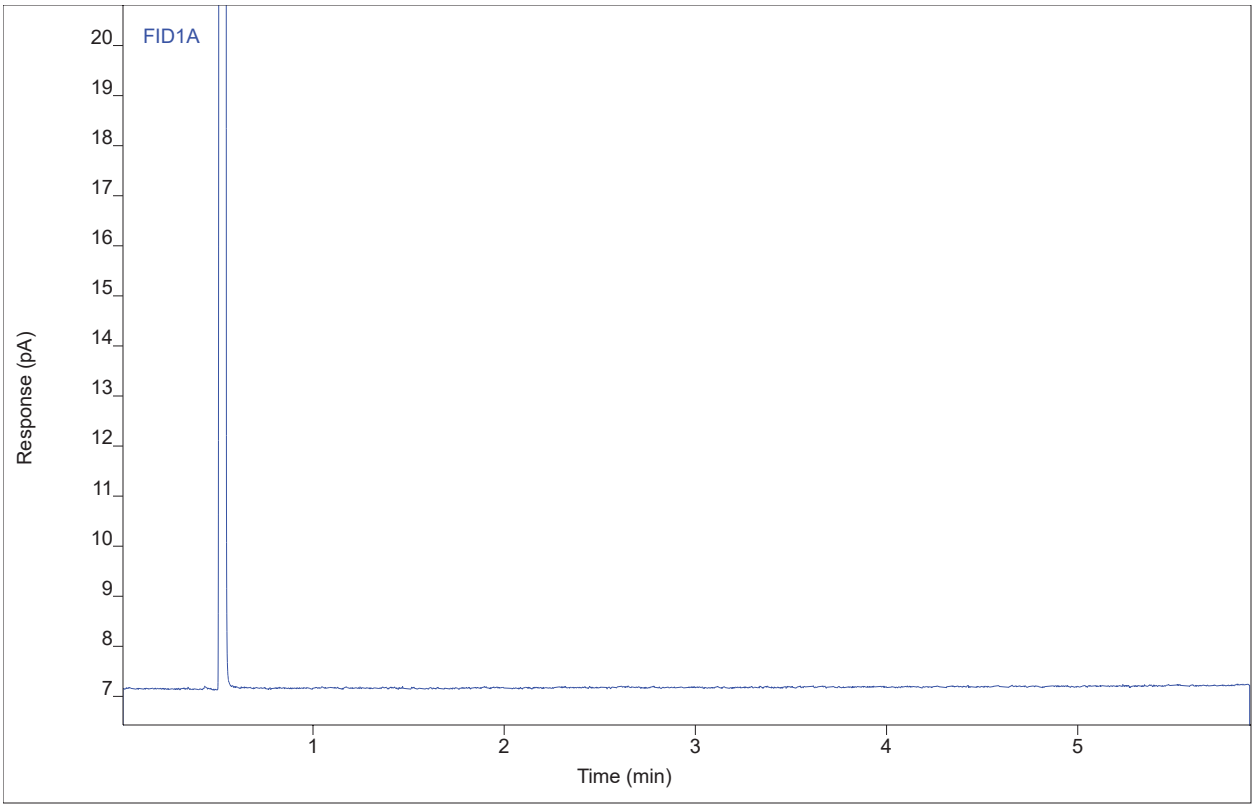
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	007F3803.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:41 AM
File Modified	2/24/2023 1:10 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



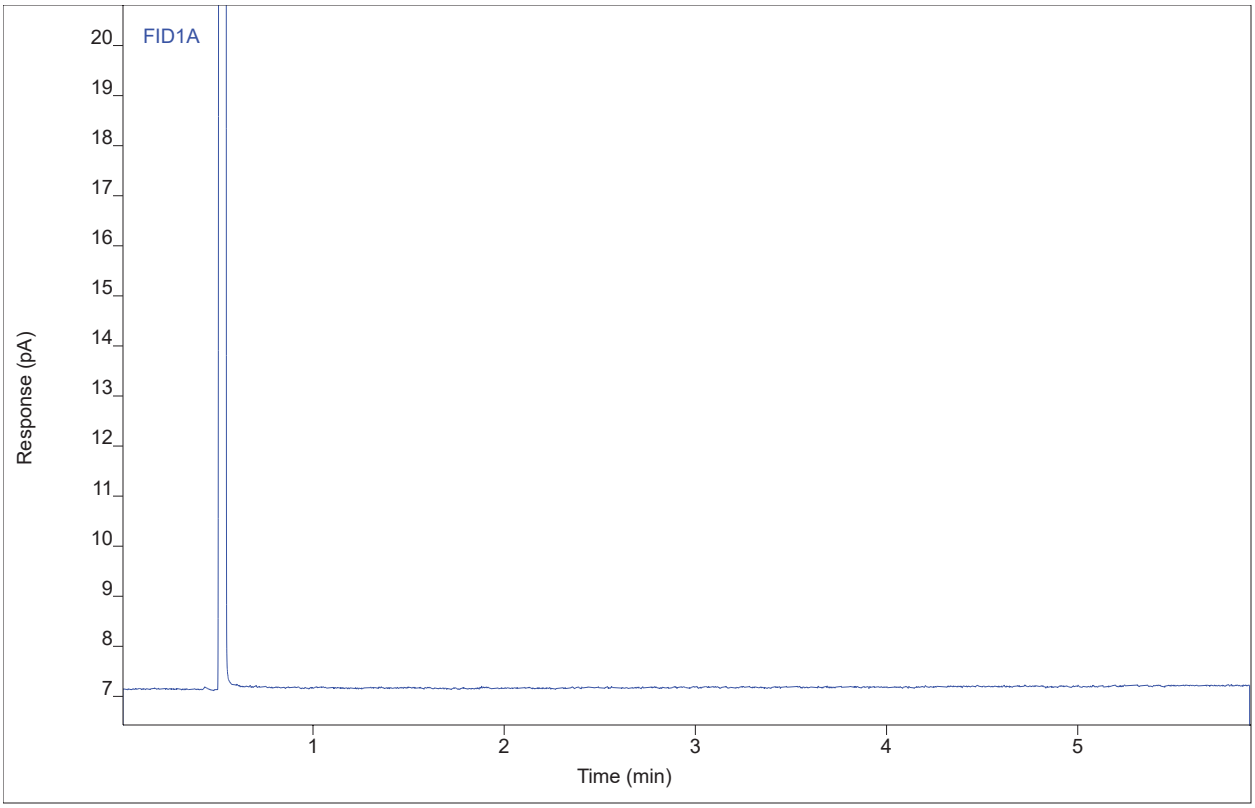
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	008F3901.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:51 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 8
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



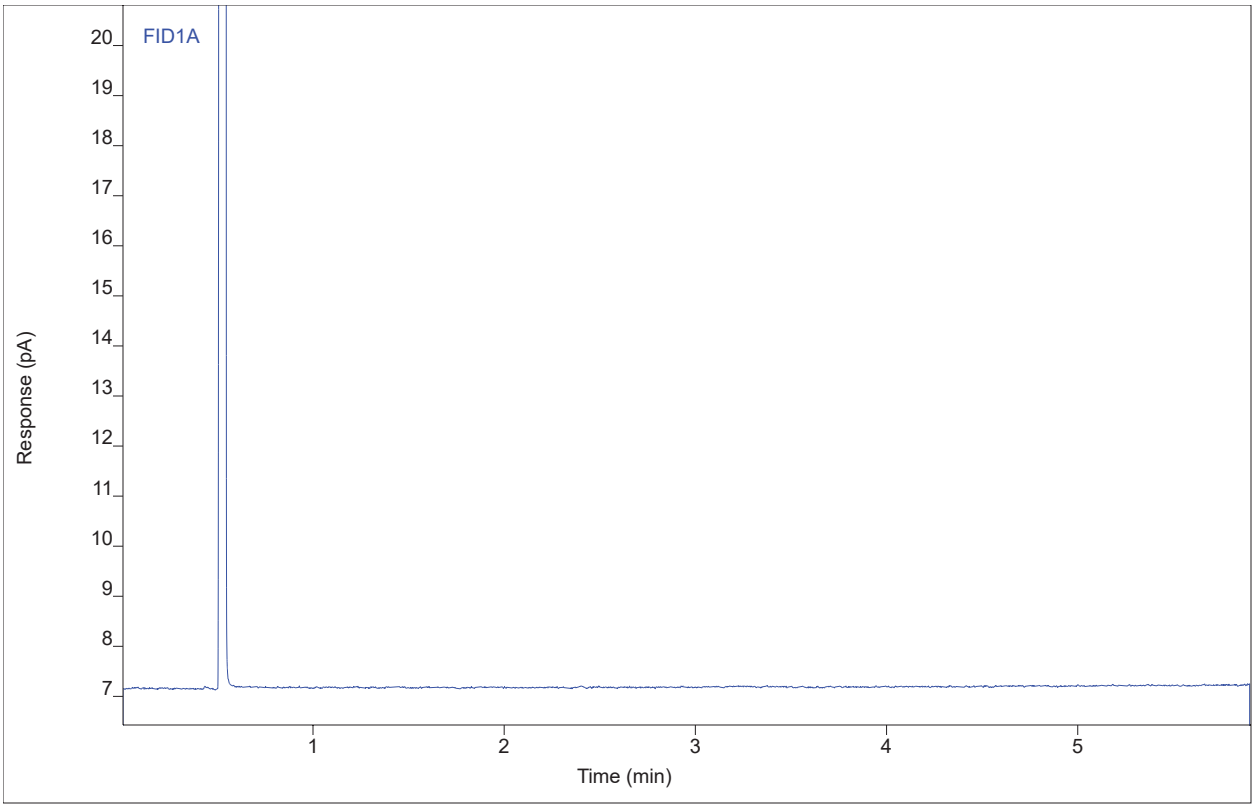
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	008F3902.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:01 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 8
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



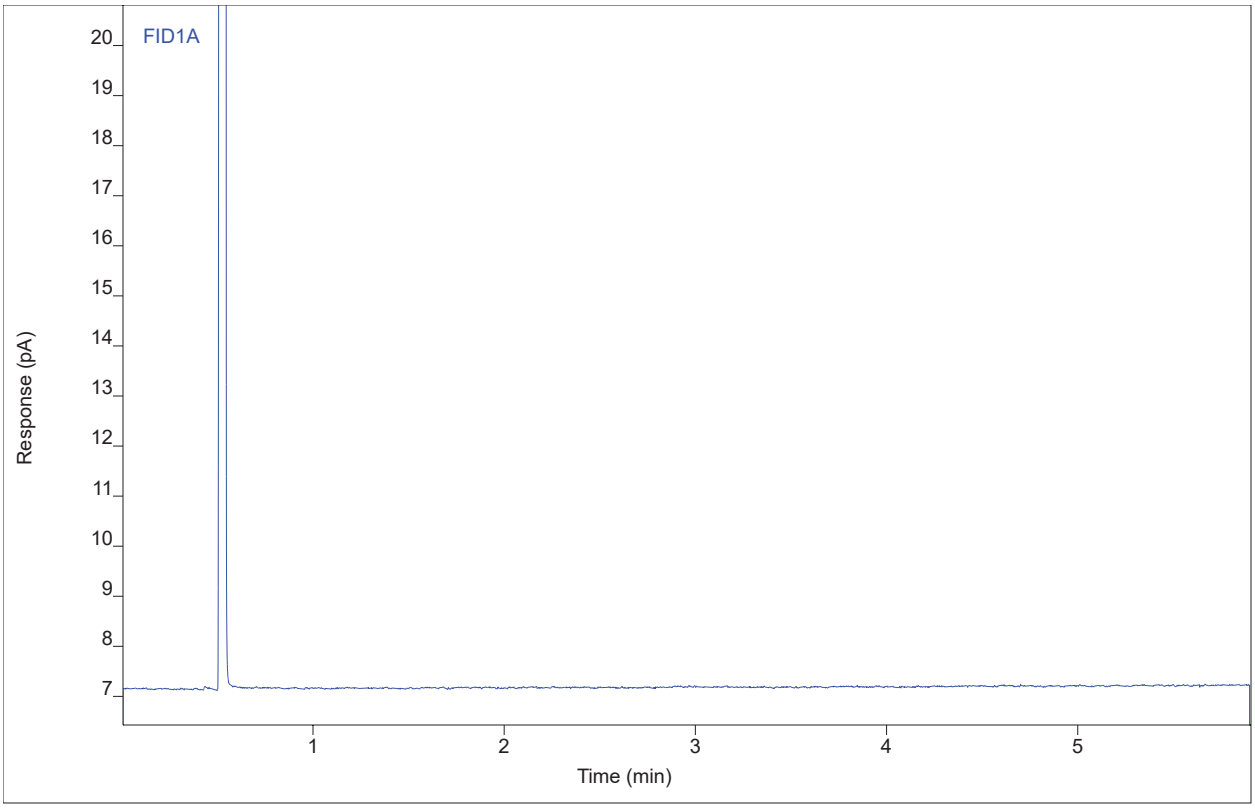
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	008F3903.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:12 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 8
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



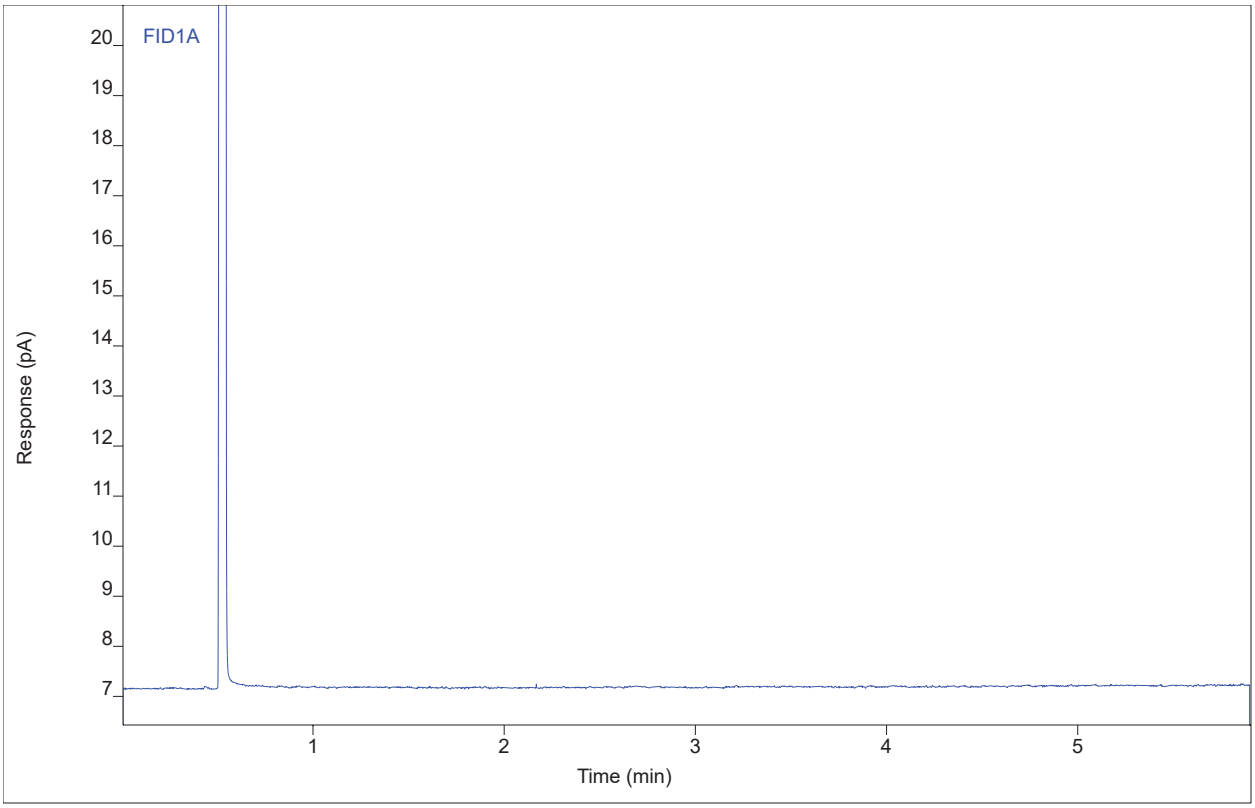
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	009F4001.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:22 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 9
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



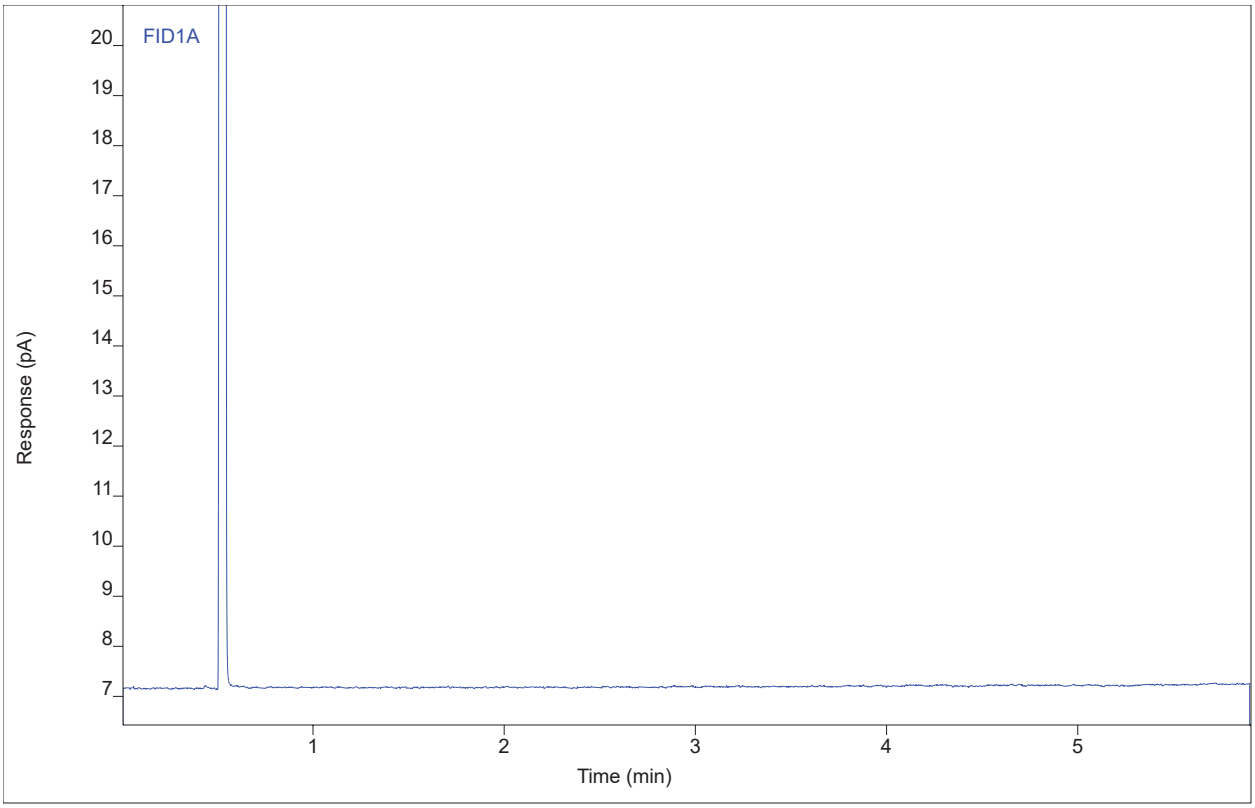
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	009F4002.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:33 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 9
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



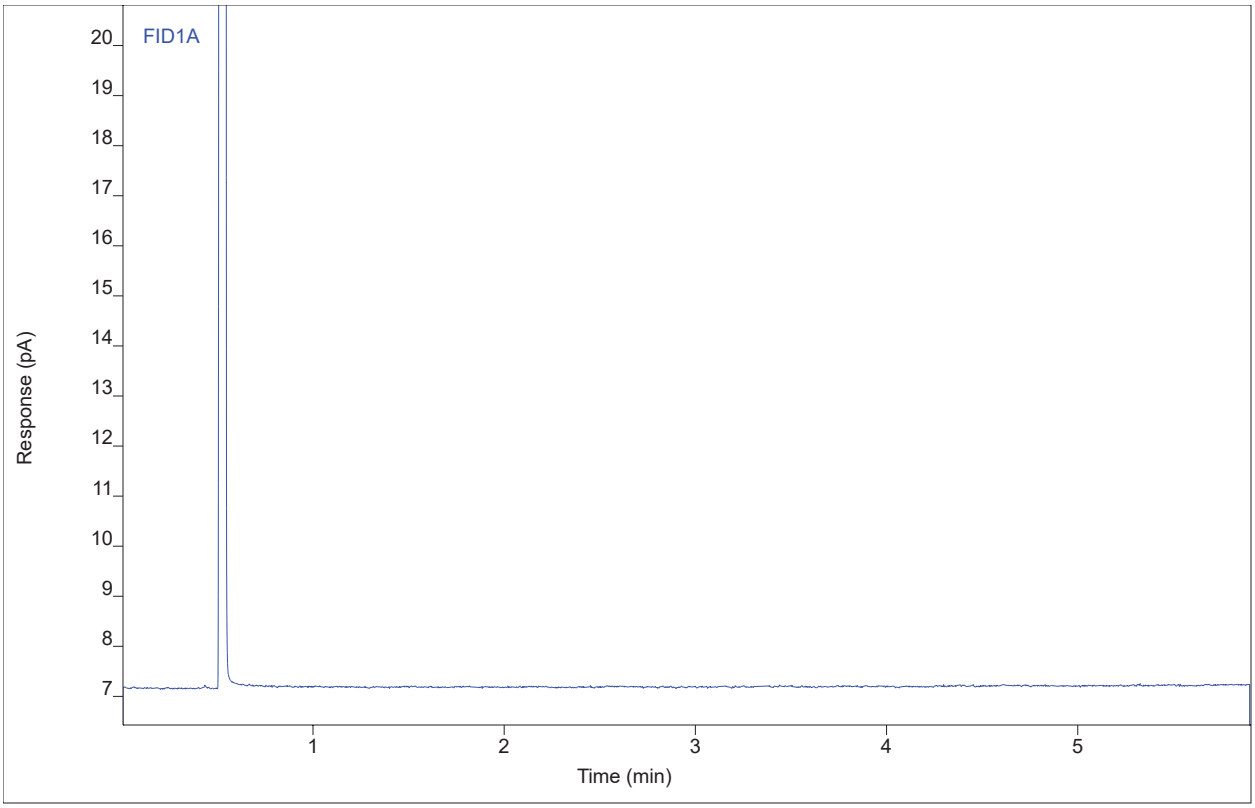
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	009F4003.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:43 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 9
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



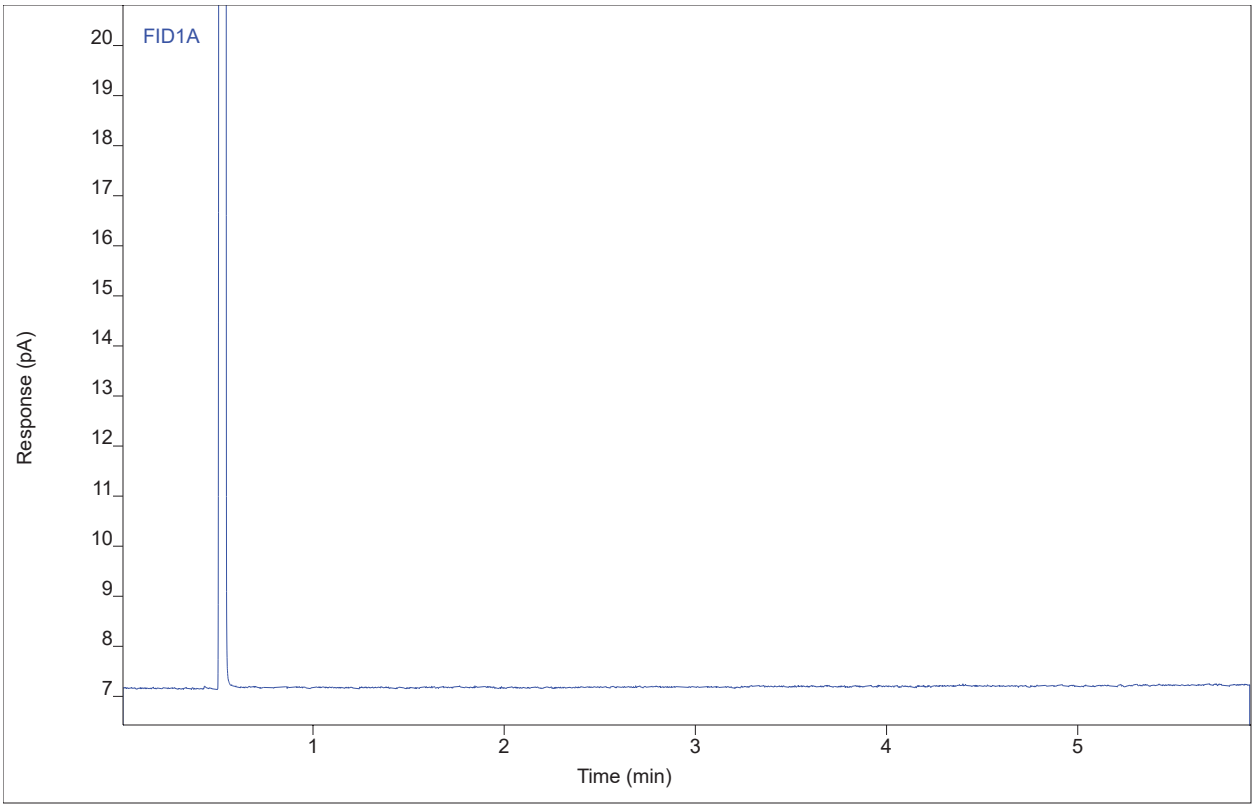
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	010F4101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:53 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 10
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



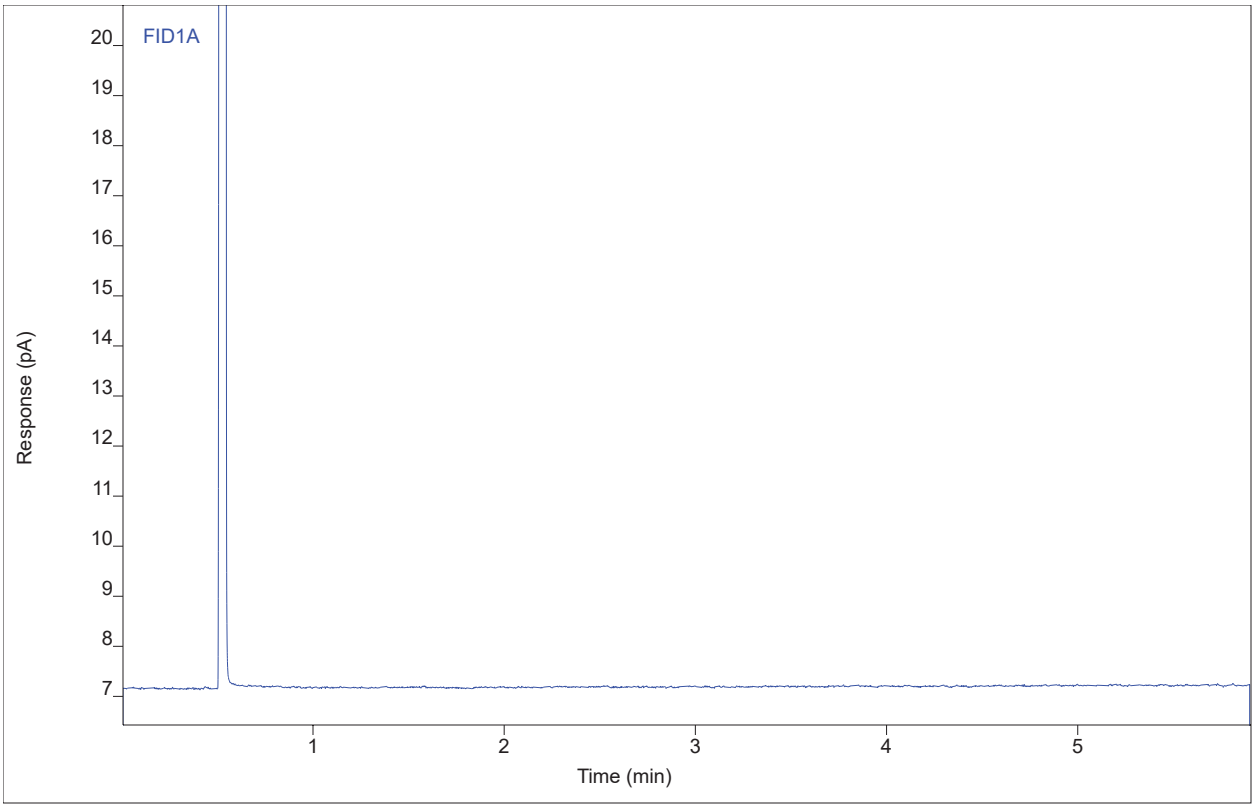
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	010F4102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:04 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 10
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



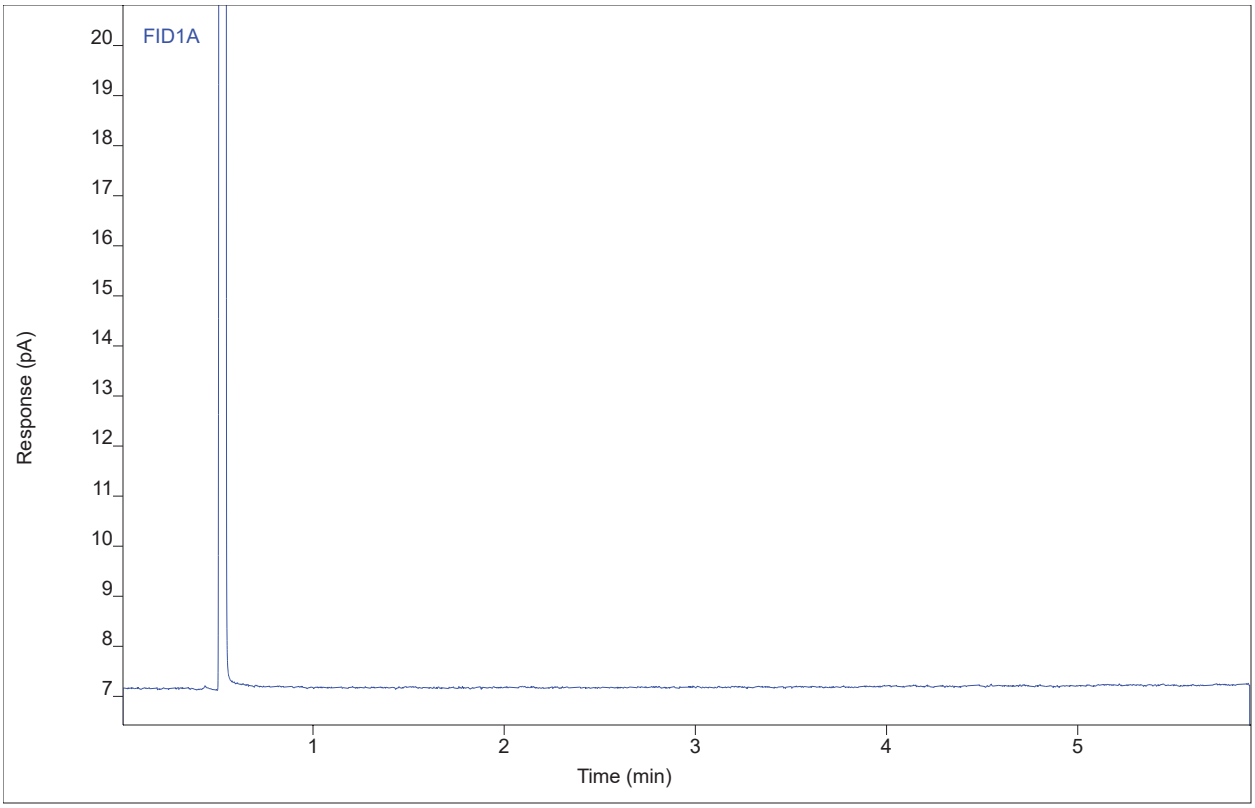
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	010F4103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:14 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 10
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



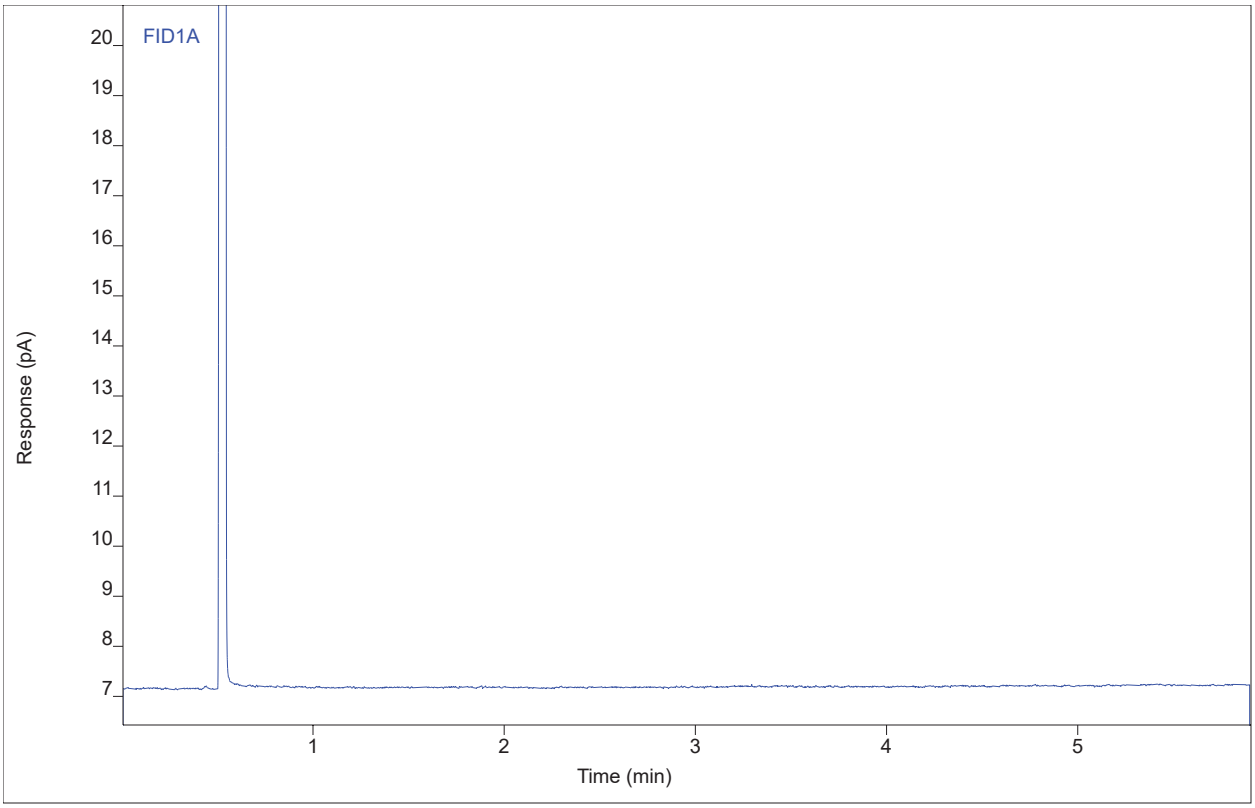
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	011F4201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:24 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 11
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



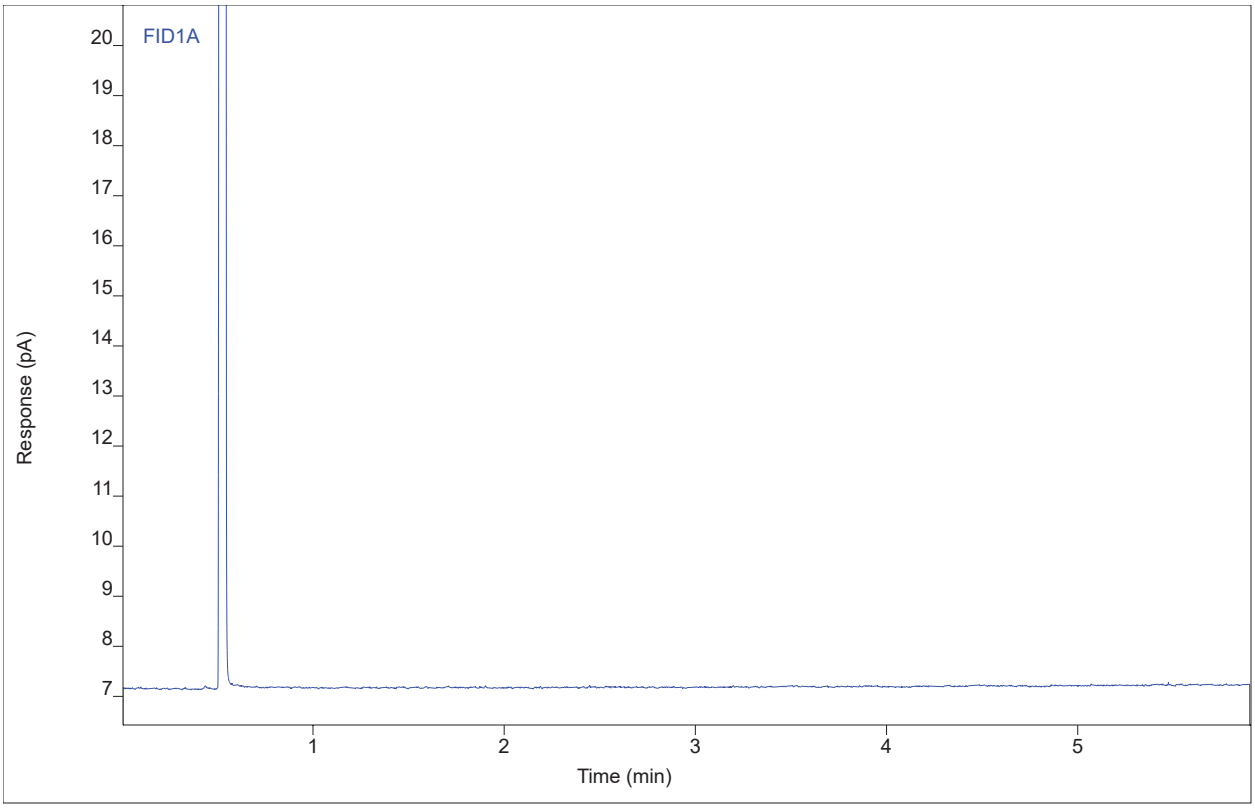
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	011F4202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:35 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 11
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



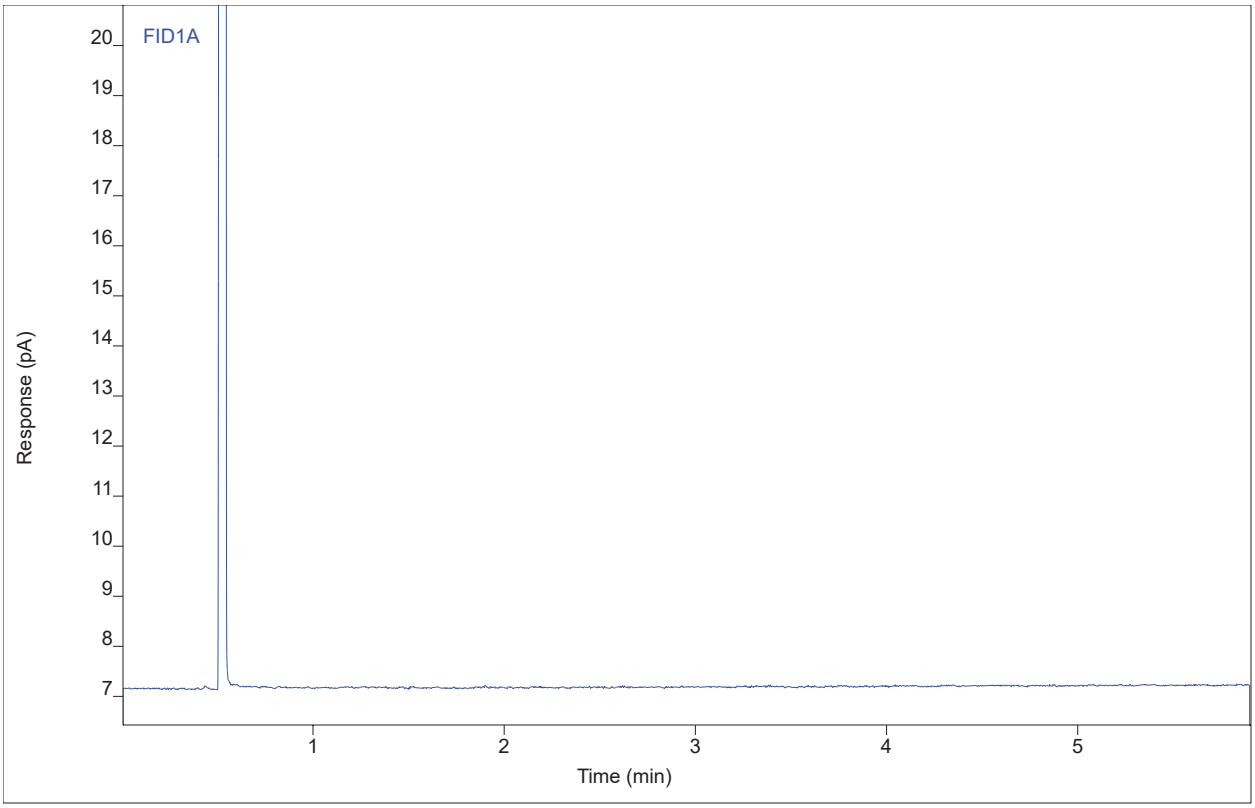
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.EXT
Sequence Name	LUCY1284 ver.2
Inj Data File	011F4203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:45 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 11
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM

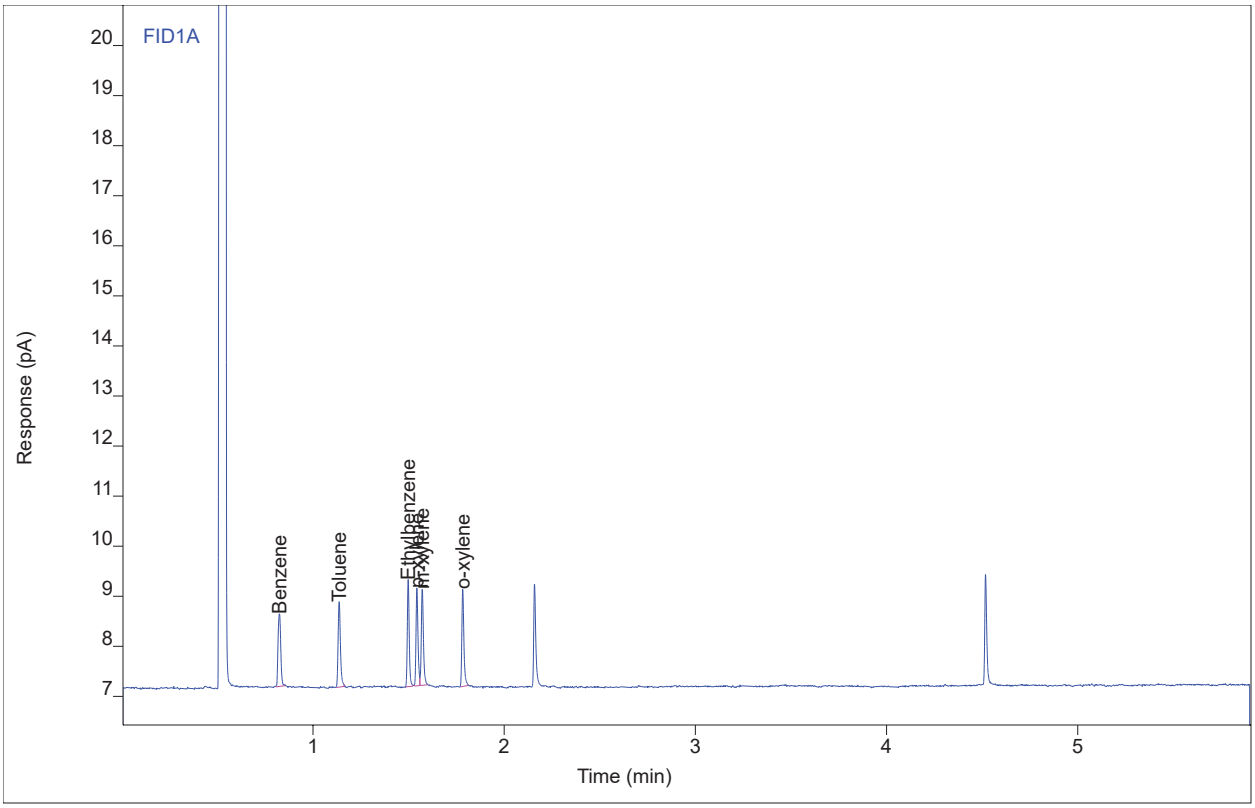


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.53)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3	Sample Type	Calibration
Sequence Name	LUCY1284 ver.2	Vial Number	Vial 12
Inj Data File	012F4301.D	Injection Volume	1
File Location	GC/2023/Lucy/Quarter 1	Injection	1 of 4
Injection Date	2/23/2023 9:56 AM	Acquisition Method	LUCY0301.M
File Modified	2/24/2023 1:11 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	2/23/2023 7:42 AM
Operator	Remington Heathcoat	Printed	2/27/2023 4:07 PM



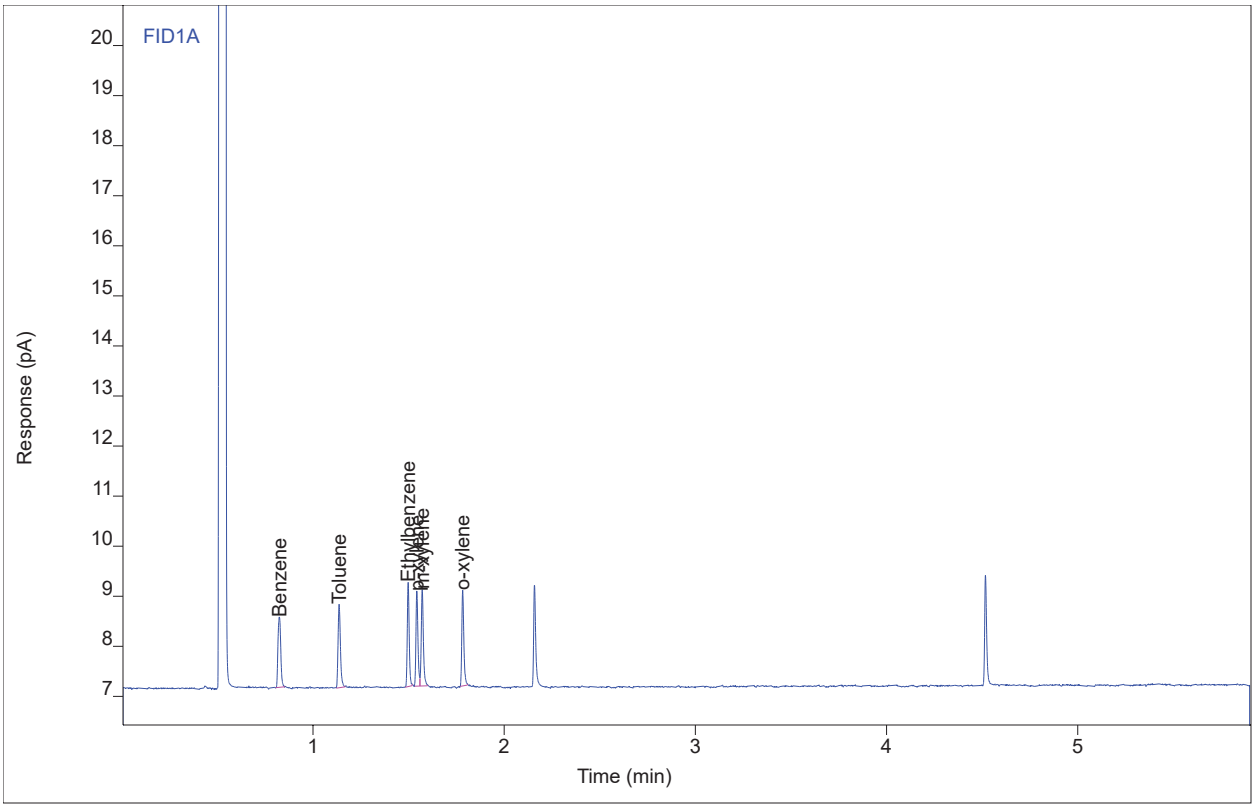
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.42639	1.45571	12.5104	1	12.5104	µg/mL
Toluene	BB	1.14	1.44581	1.70446	12.8579	1	12.8579	µg/mL
Ethylbenzene	BB	1.50	1.46918	2.14164	13.0435	1	13.0435	µg/mL
p-xylene	BV	1.54	1.40055	1.95276	12.6498	1	12.6498	µg/mL
m-xylene	VB	1.57	1.49938	1.93013	13.0361	1	13.0361	µg/mL
o-xylene	BB	1.78	1.45247	1.94033	12.9863	1	12.9863	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1284 ver.2
Inj Data File	012F4302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:06 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 12
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



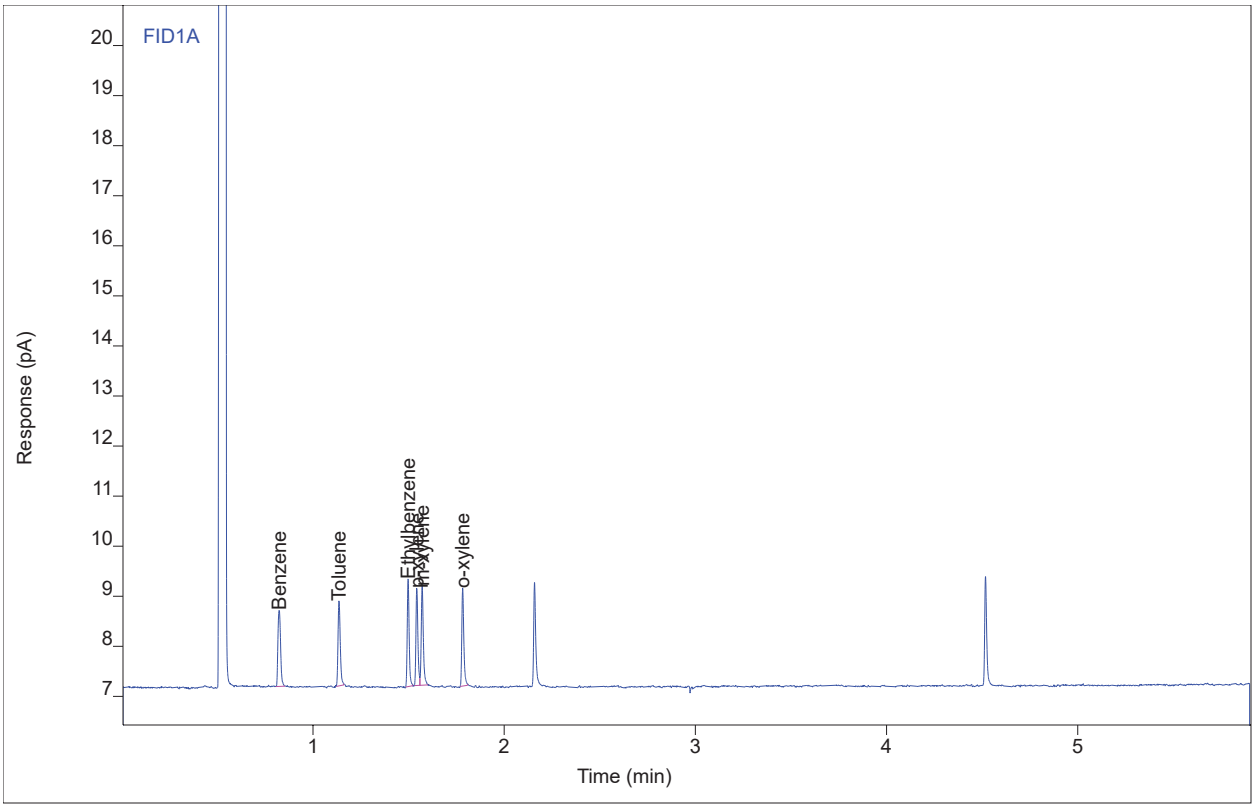
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.42687	1.41058	12.5146	1	12.5146	µg/mL
Toluene	BB	1.14	1.43683	1.66509	12.7796	1	12.7796	µg/mL
Ethylbenzene	BB	1.50	1.43865	2.08347	12.7795	1	12.7795	µg/mL
p-xylene	BV	1.54	1.38061	1.90432	12.4750	1	12.4750	µg/mL
m-xylene	VB	1.57	1.49644	1.93183	13.0111	1	13.0111	µg/mL
o-xylene	BB	1.78	1.41213	1.91264	12.6347	1	12.6347	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1284 ver.2
Inj Data File	012F4303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:16 AM
File Modified	2/24/2023 1:11 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 12
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/23/2023 7:42 AM
Printed	2/27/2023 4:07 PM



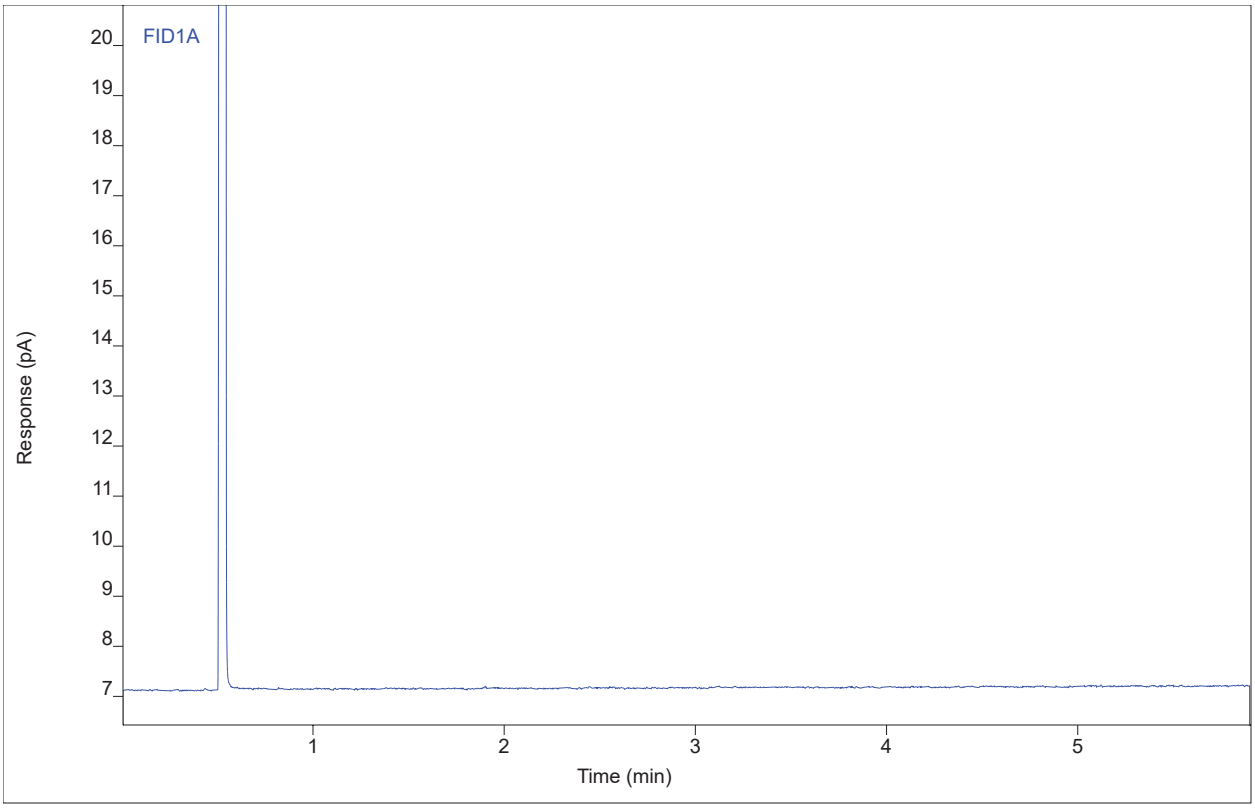
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.48127	1.53345	12.9909	1	12.9909	µg/mL
Toluene	BB	1.14	1.39208	1.70831	12.3892	1	12.3892	µg/mL
Ethylbenzene	BB	1.50	1.48372	2.15532	13.1694	1	13.1694	µg/mL
p-xylene	BV	1.54	1.39251	1.94909	12.5794	1	12.5794	µg/mL
m-xylene	VB	1.57	1.52107	1.97963	13.2206	1	13.2206	µg/mL
o-xylene	BB	1.78	1.43980	1.94630	12.8759	1	12.8759	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK-LD.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	013F0101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:47 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 13
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



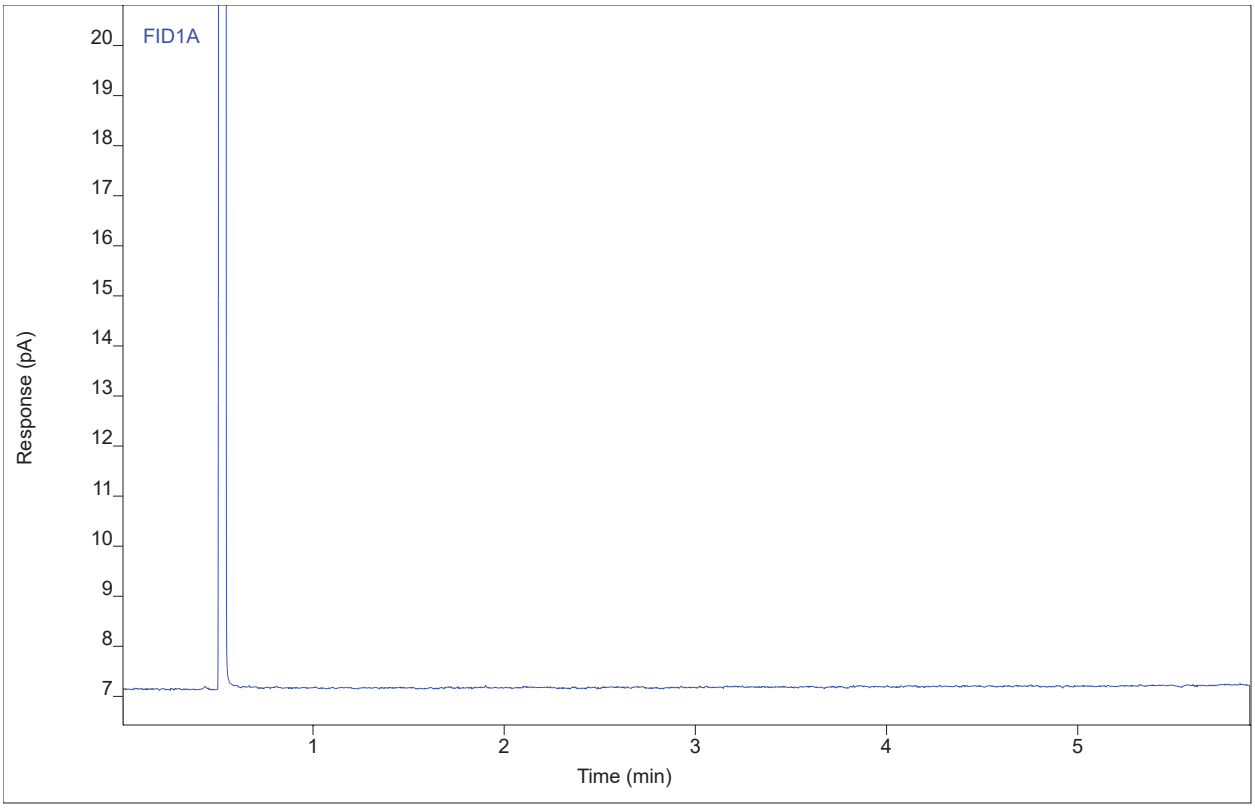
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK-LD.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	013F0102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:58 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 13
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



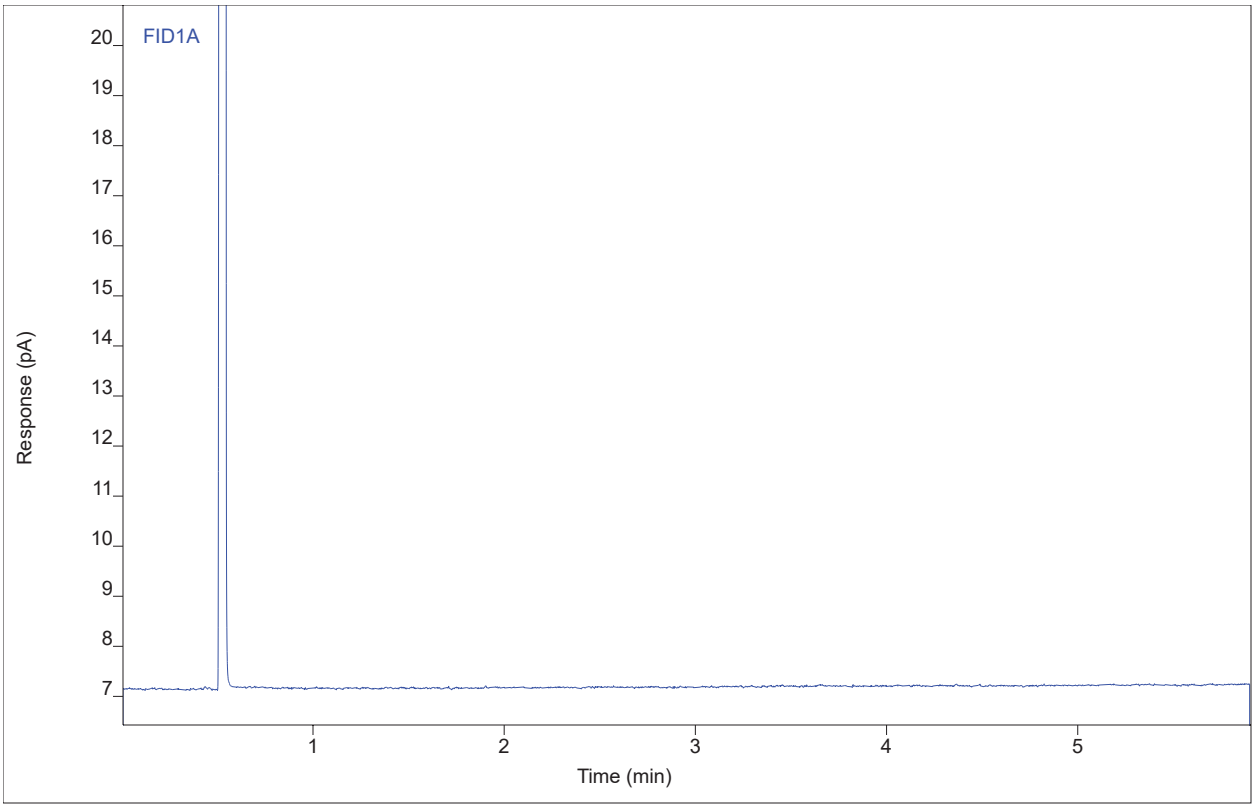
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK-LD.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	013F0103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:08 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 13
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	014F0201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:18 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
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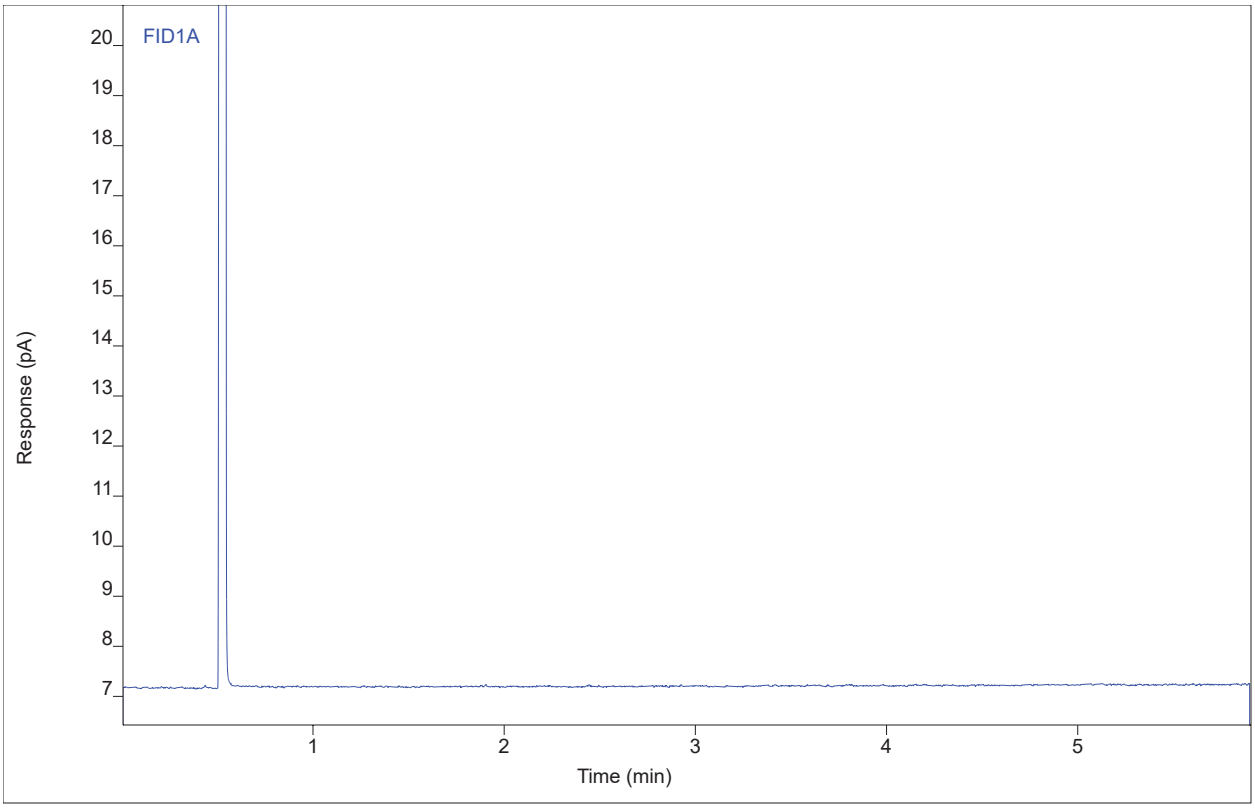


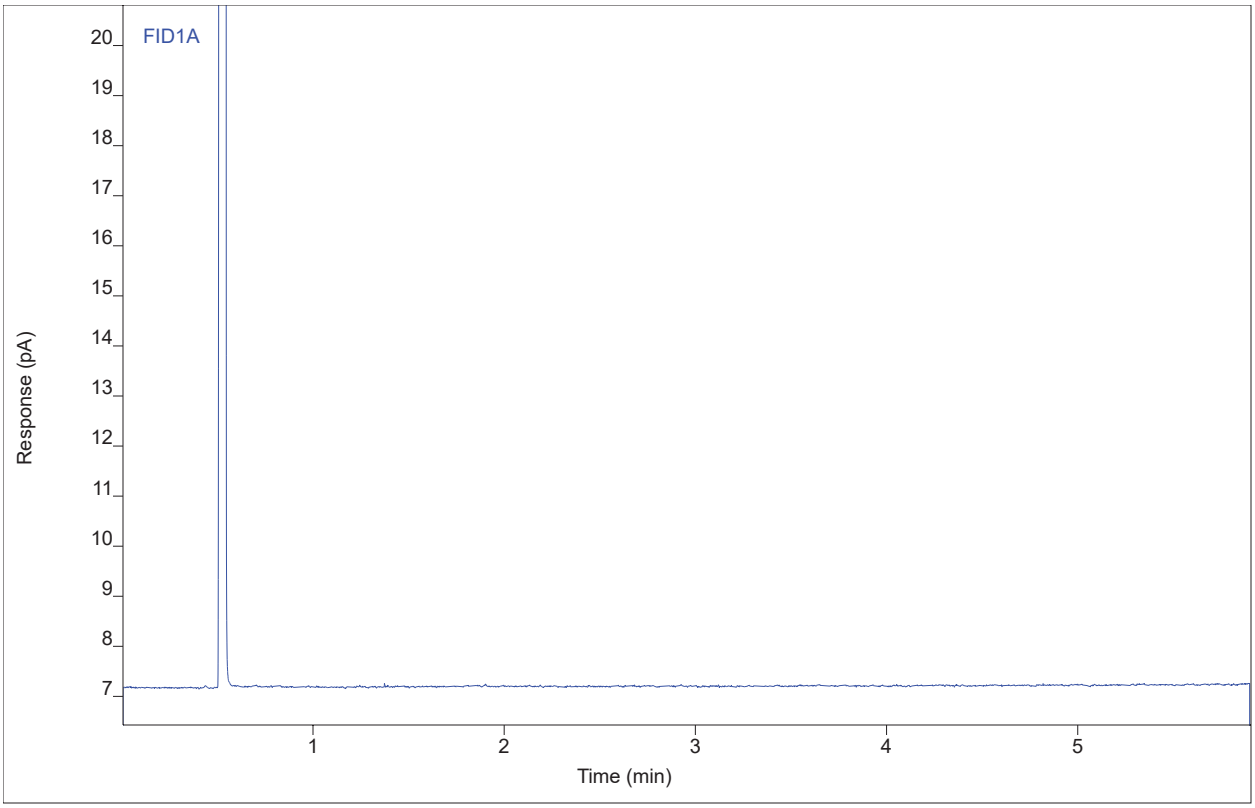
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	014F0202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:29 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



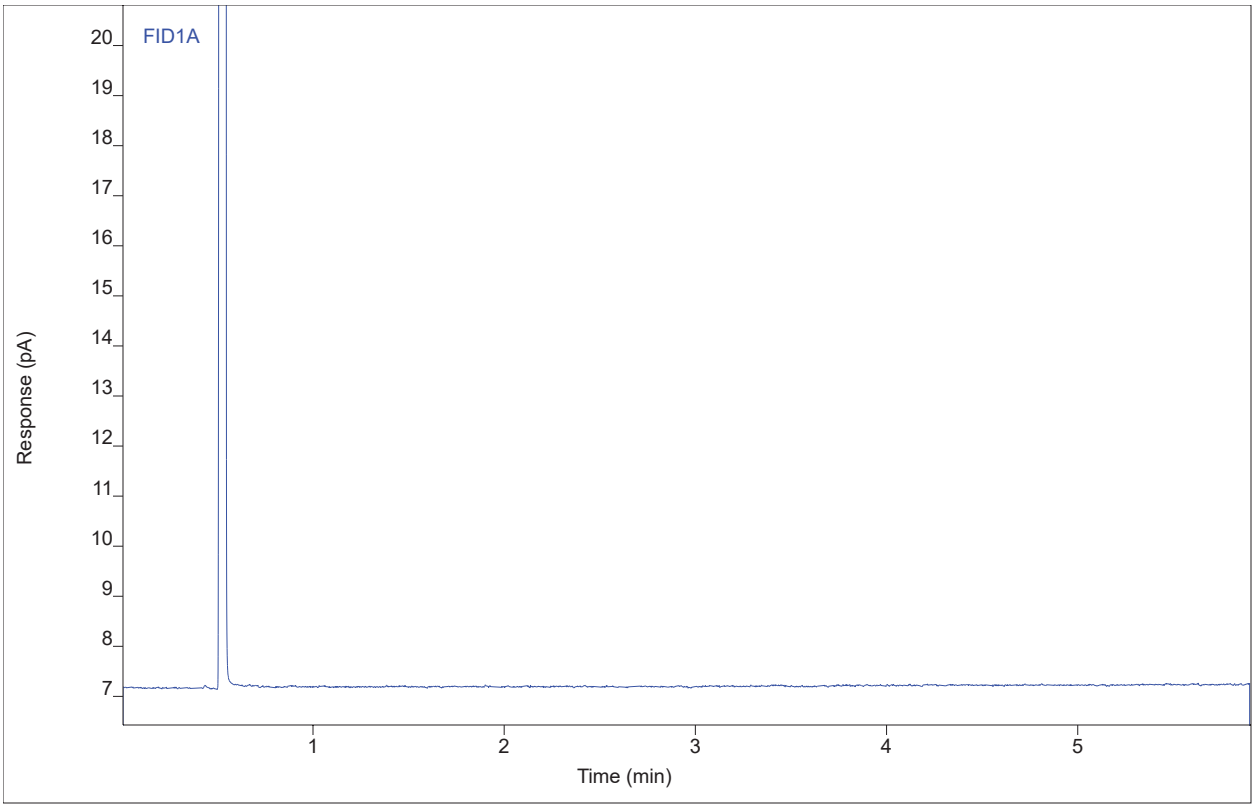
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	014F0203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:39 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



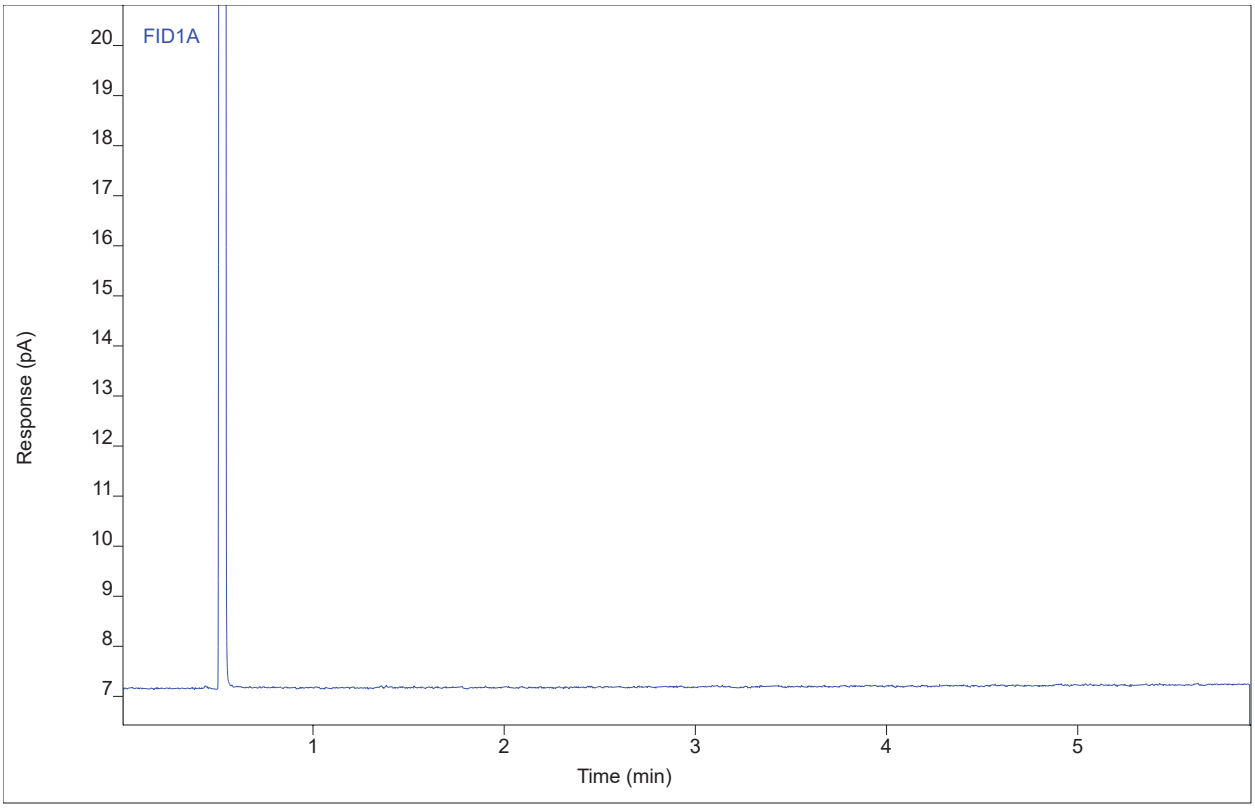
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	015F0301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:50 AM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 15
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



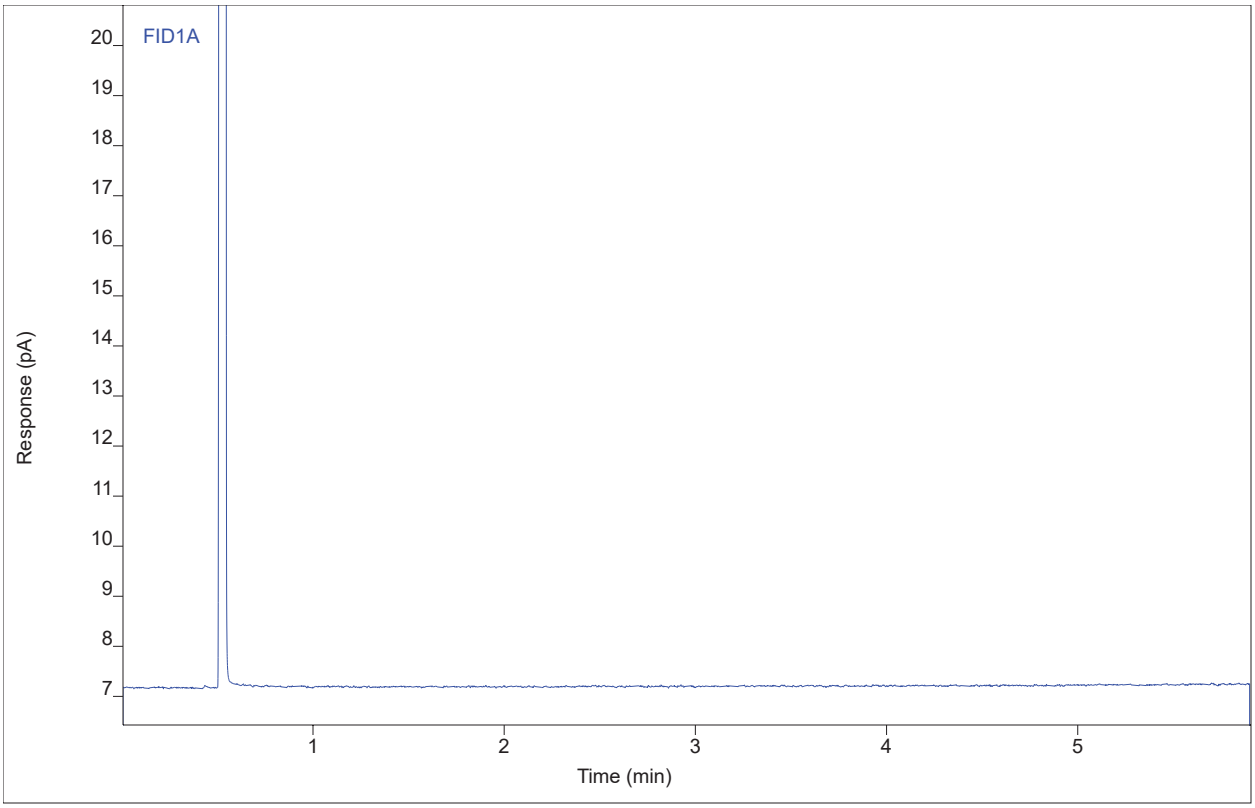
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	015F0302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:00 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 15
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



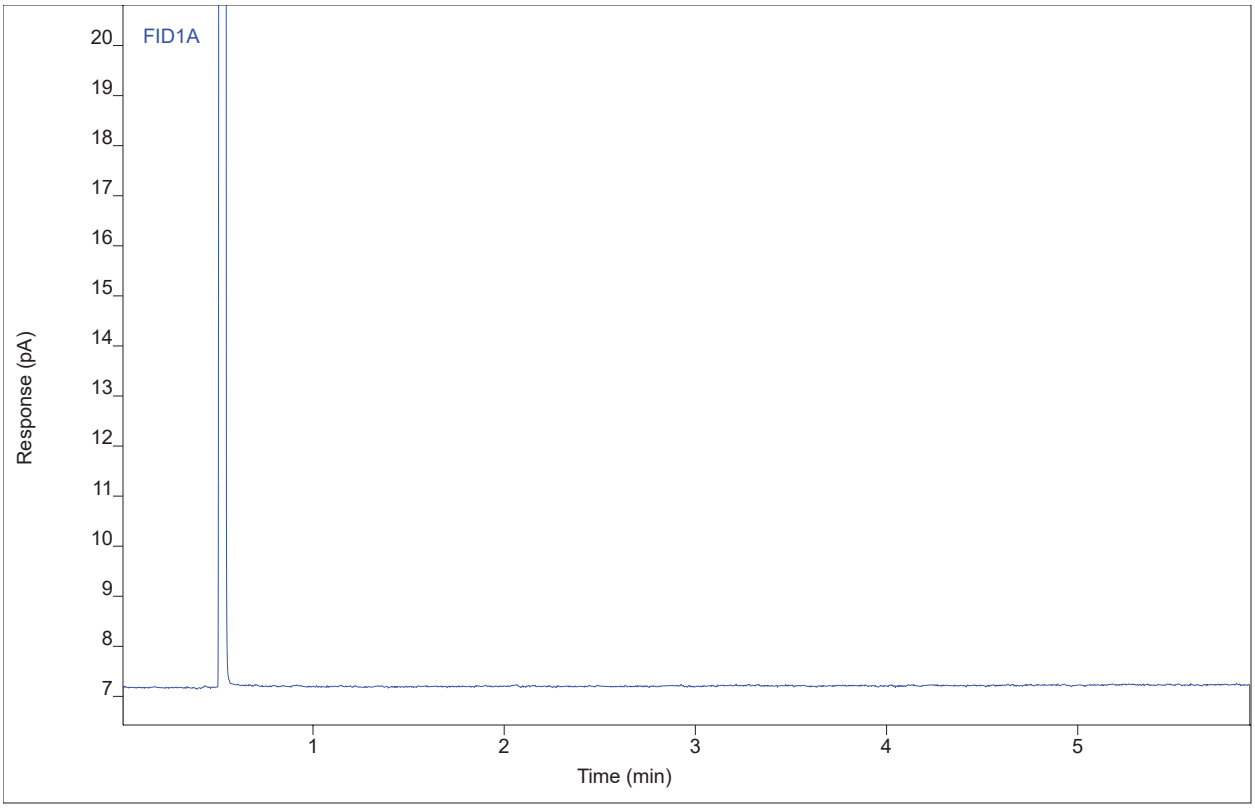
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	015F0303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:10 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 15
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



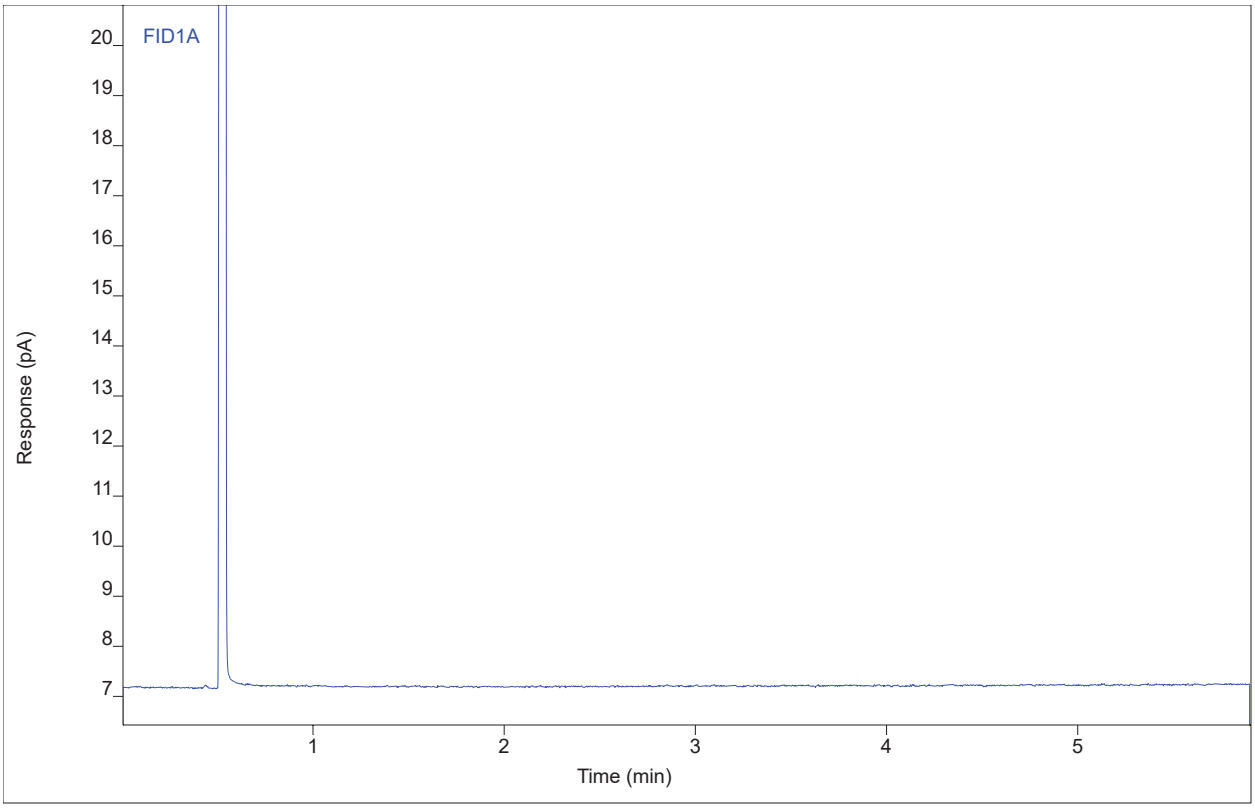
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	016F0401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:21 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



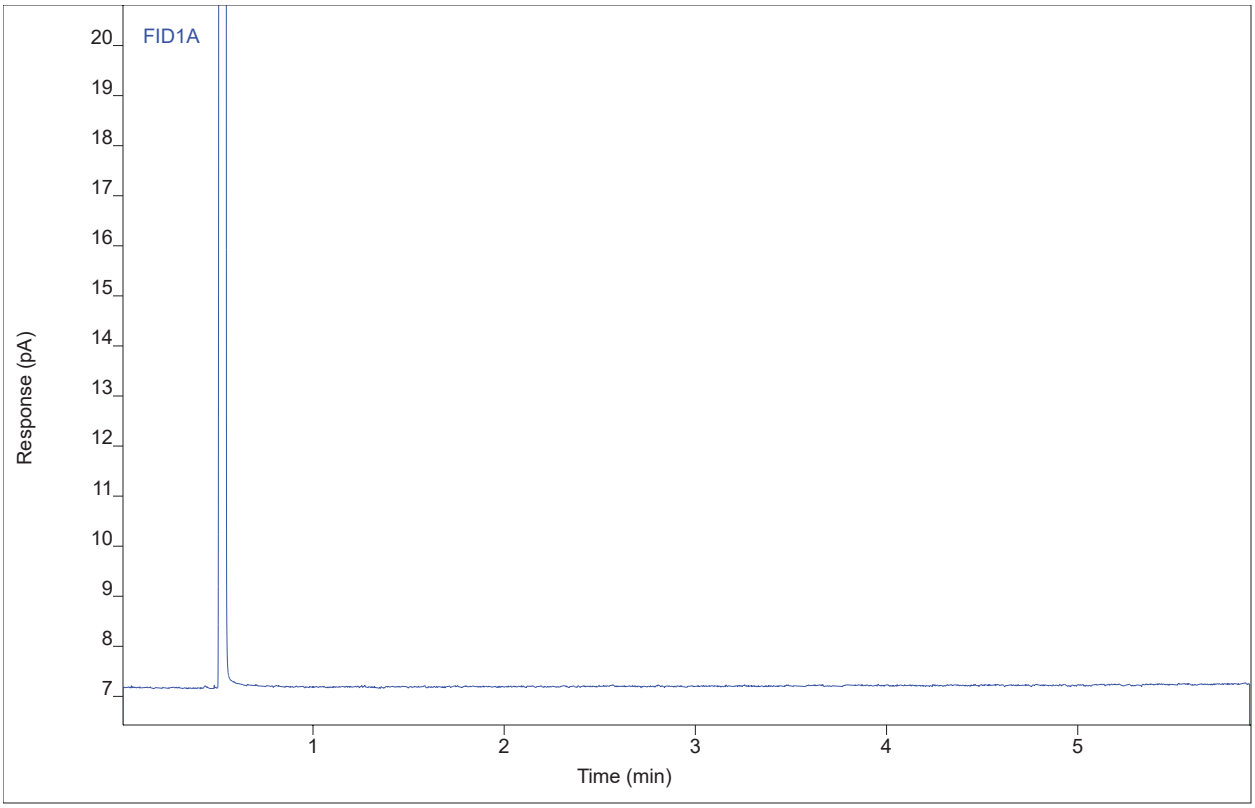
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	016F0402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:31 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



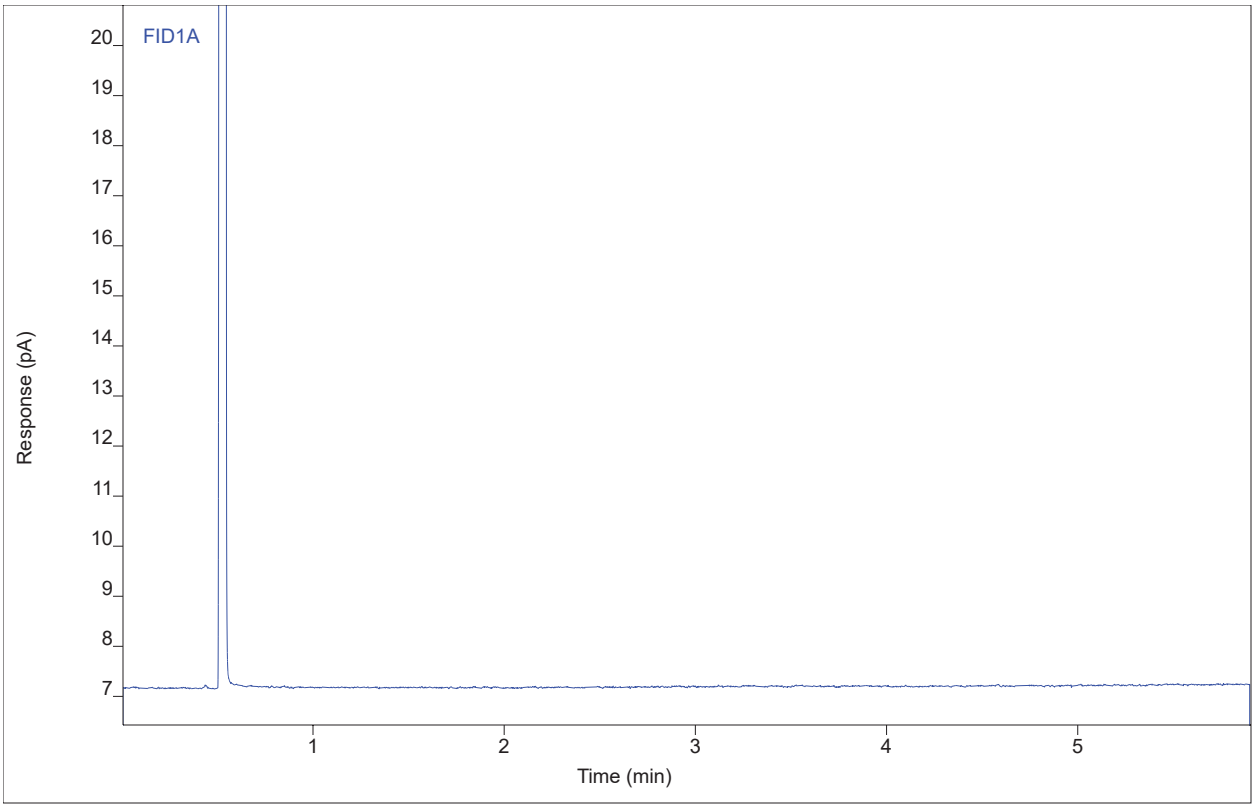
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	016F0403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:42 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 16
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



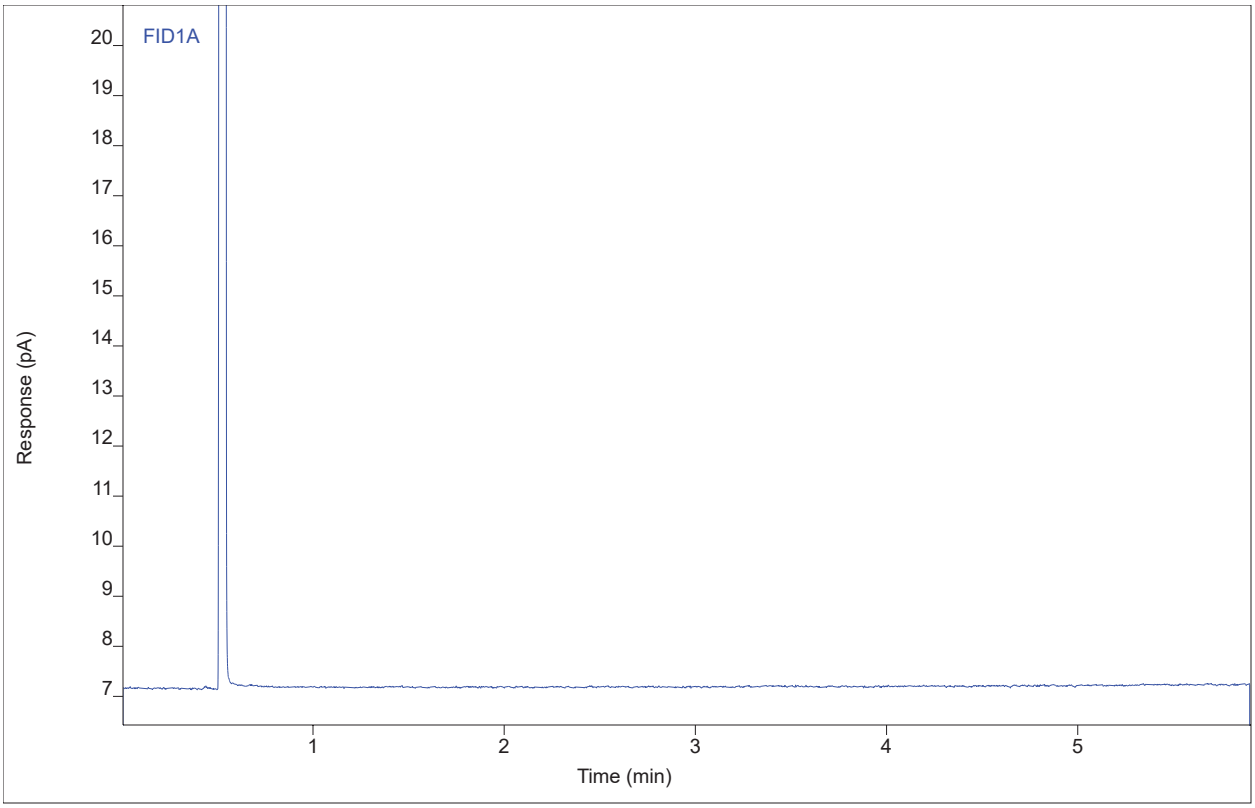
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	017F0501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 12:52 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 17
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



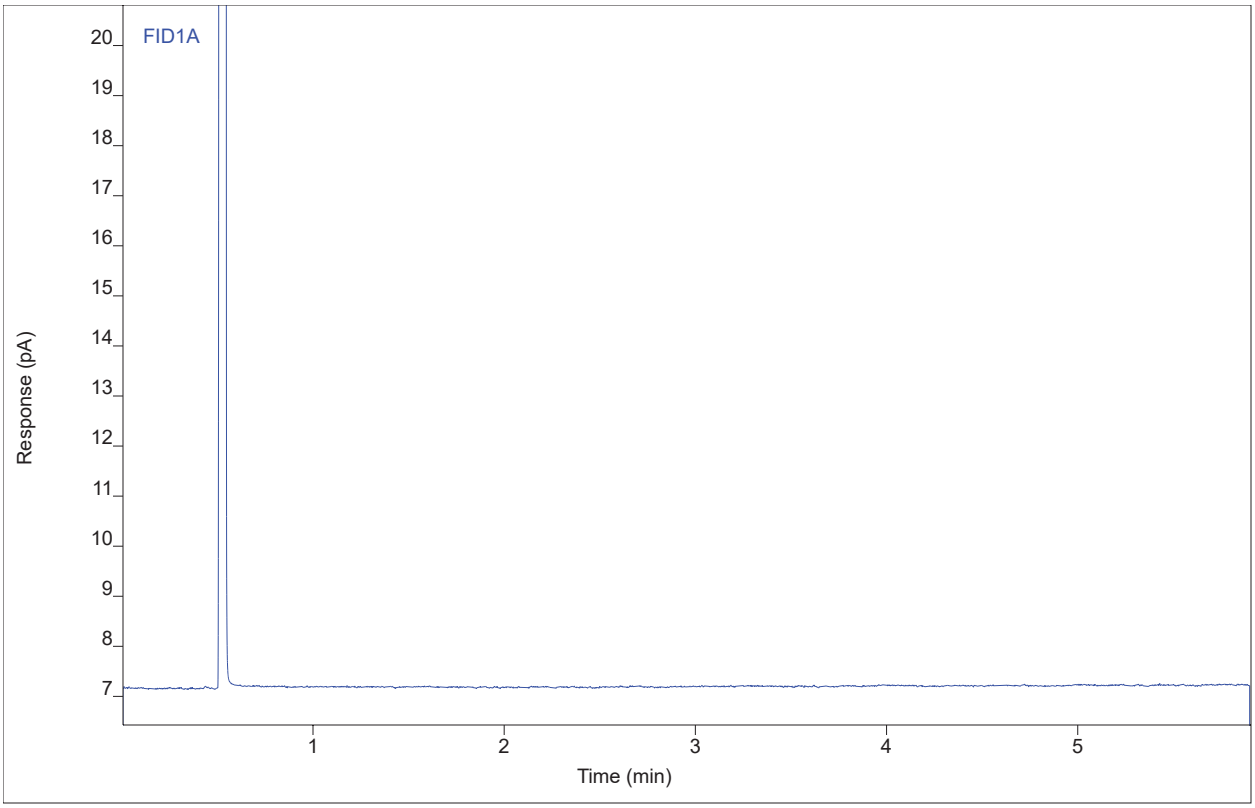
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R5-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	017F0502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:02 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 17
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



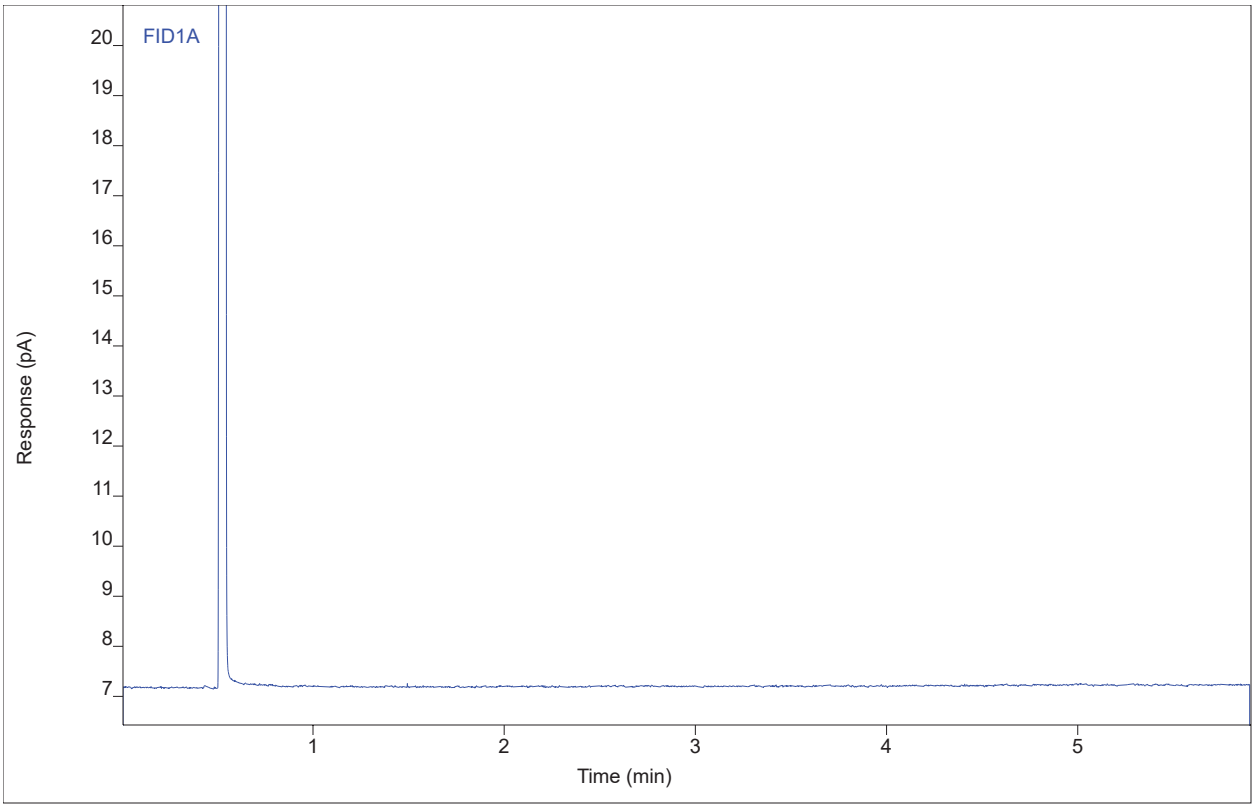
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	017F0503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:13 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 17
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



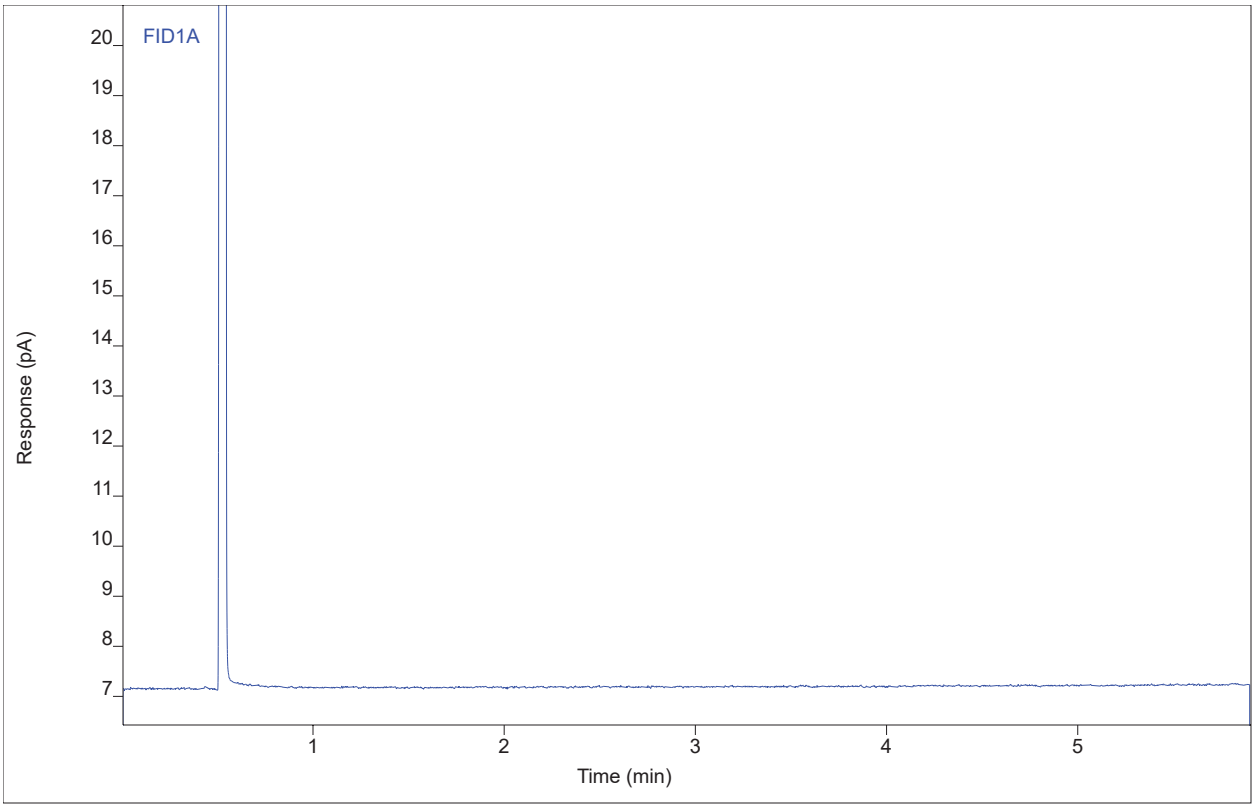
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	018F0601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:23 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 18
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



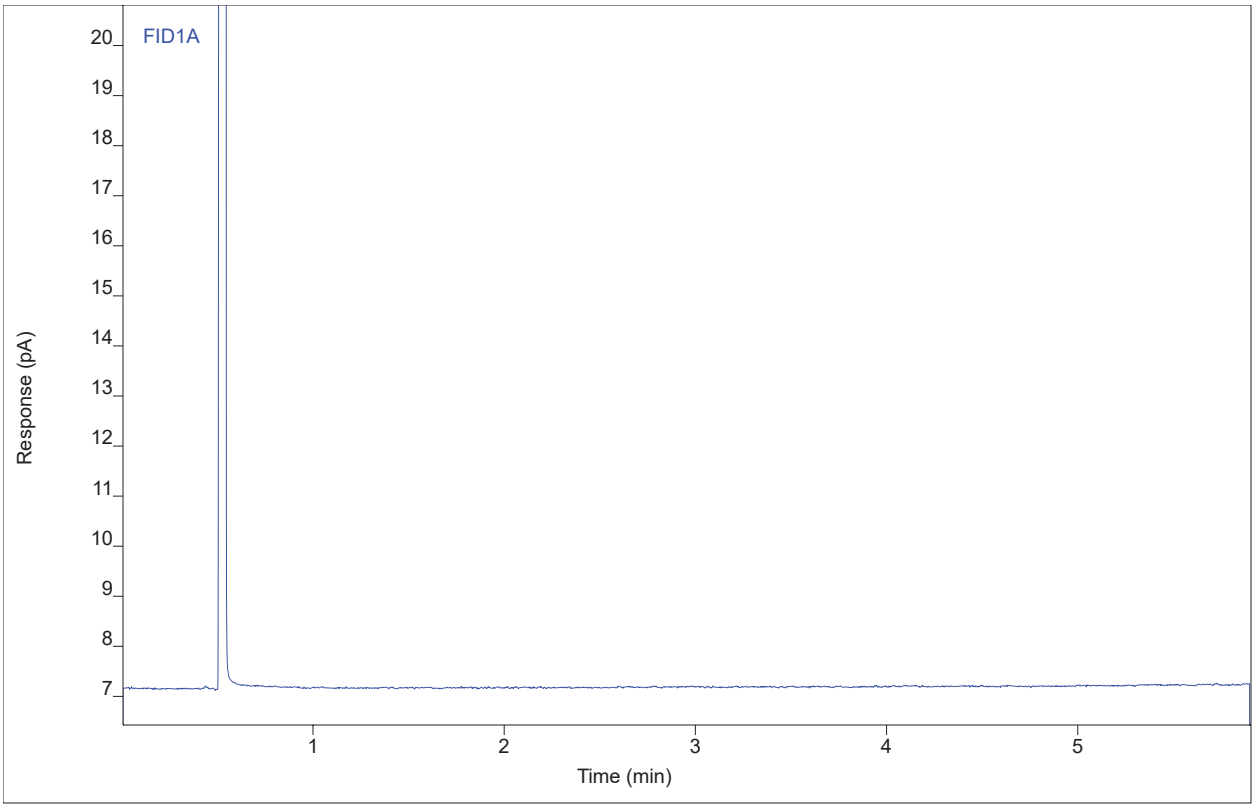
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	018F0602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:34 PM
File Modified	2/24/2023 4:46 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 18
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



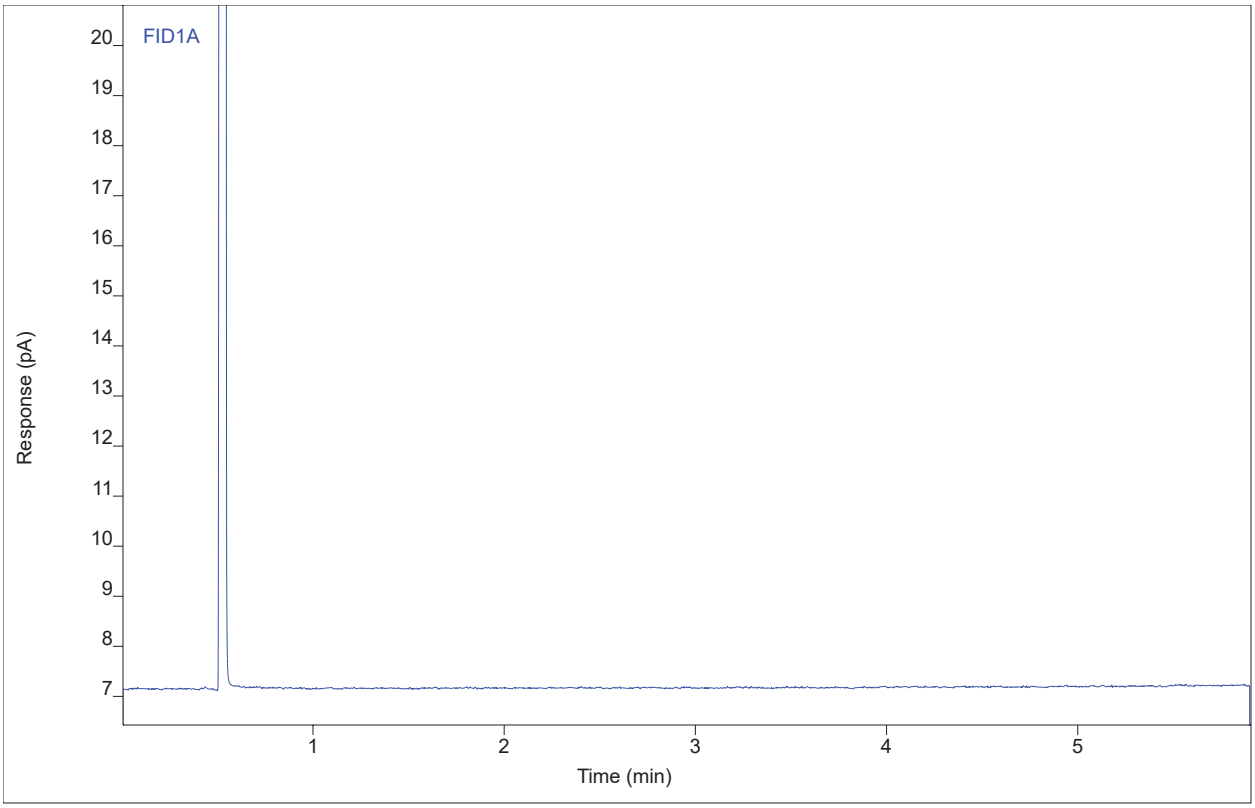
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	018F0603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:44 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 18
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



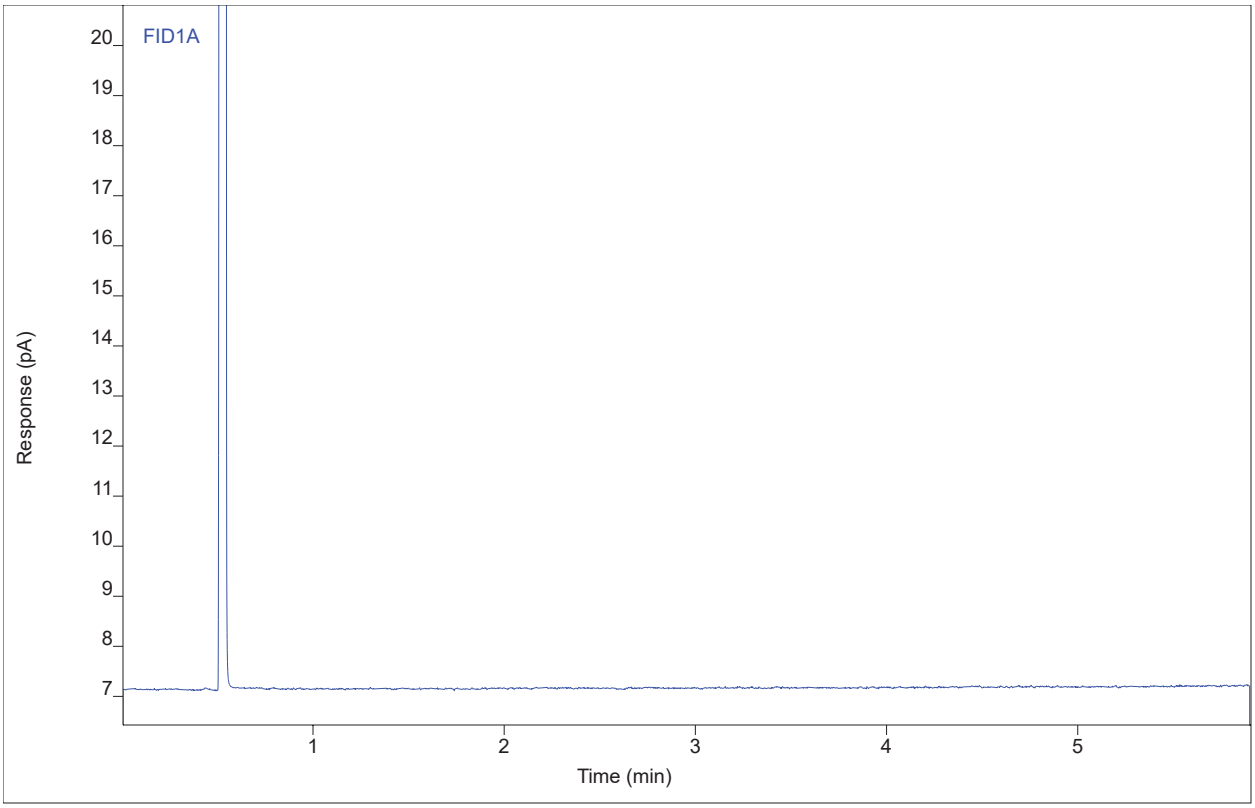
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	019F0701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 1:54 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 19
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



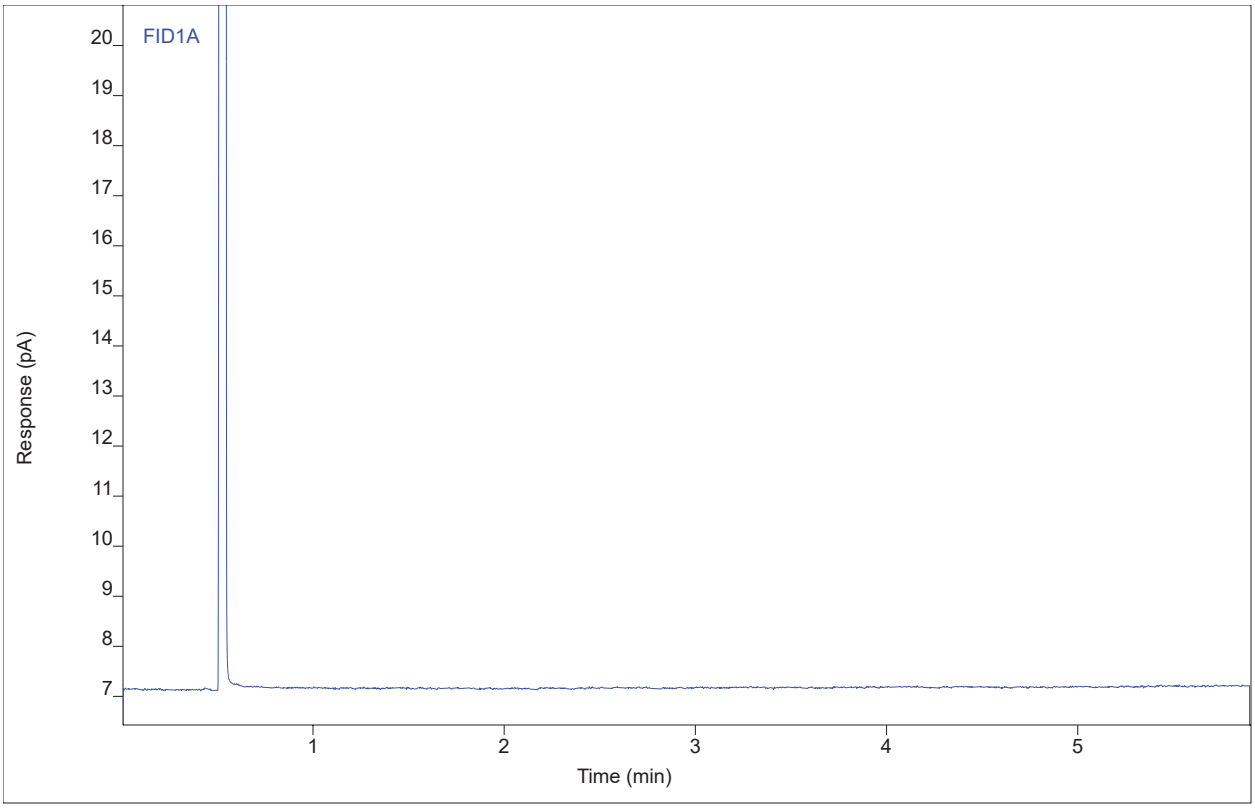
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	019F0702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:05 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 19
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



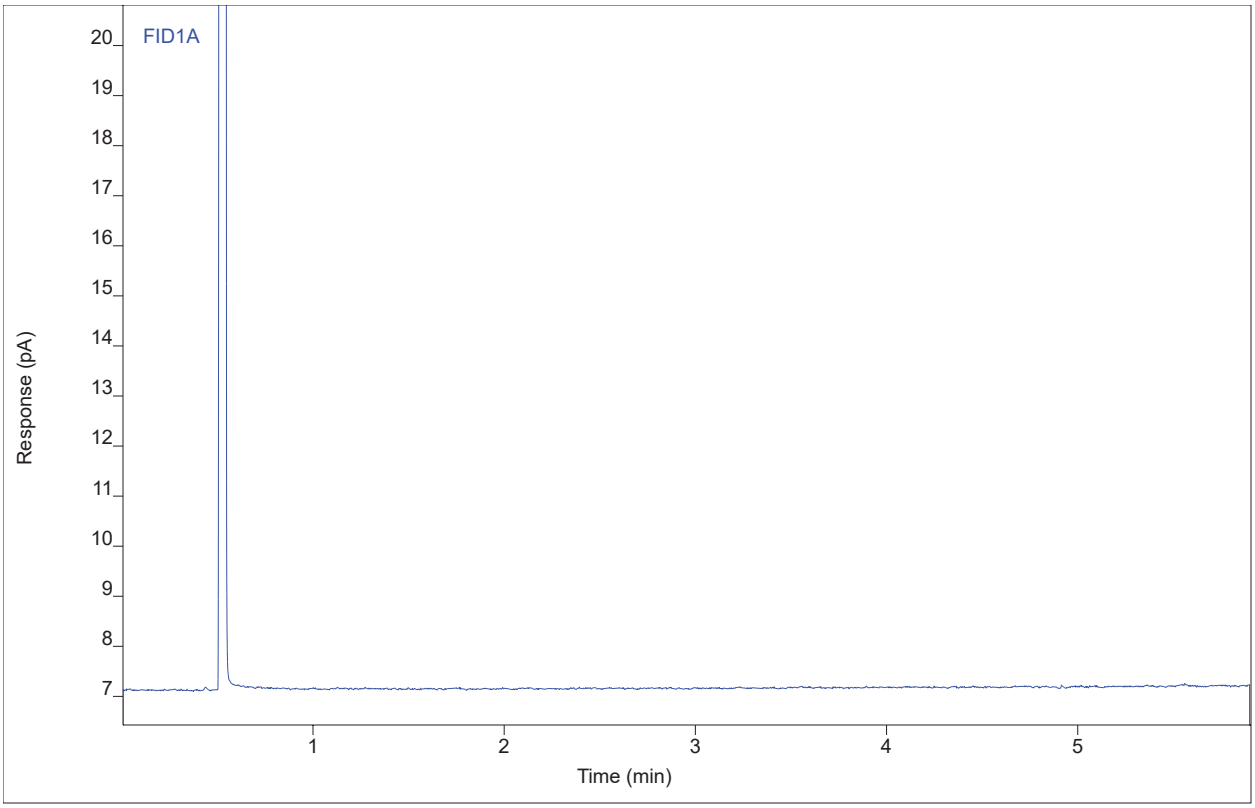
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.EXT
Sequence Name	LUCY1285 ver.1
Inj Data File	019F0703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:15 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 19
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



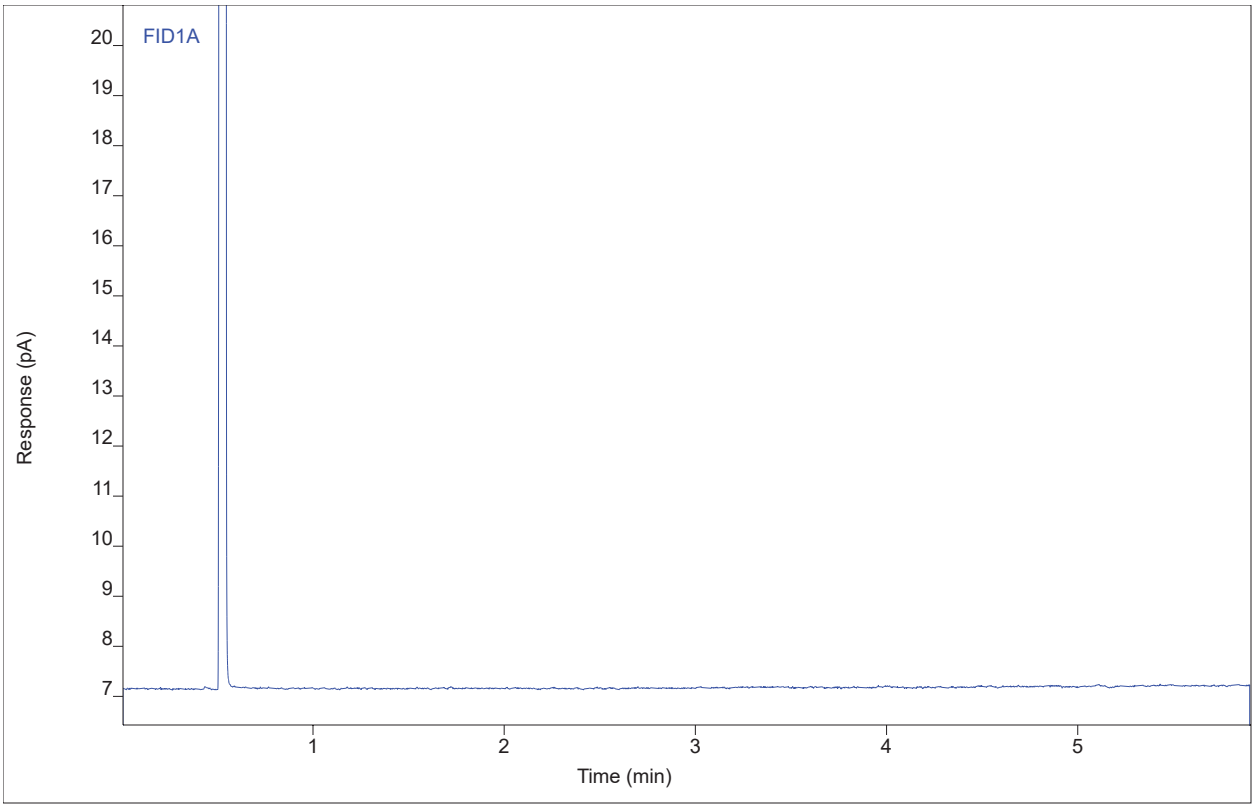
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #MB-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	020F0801.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:25 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 20
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



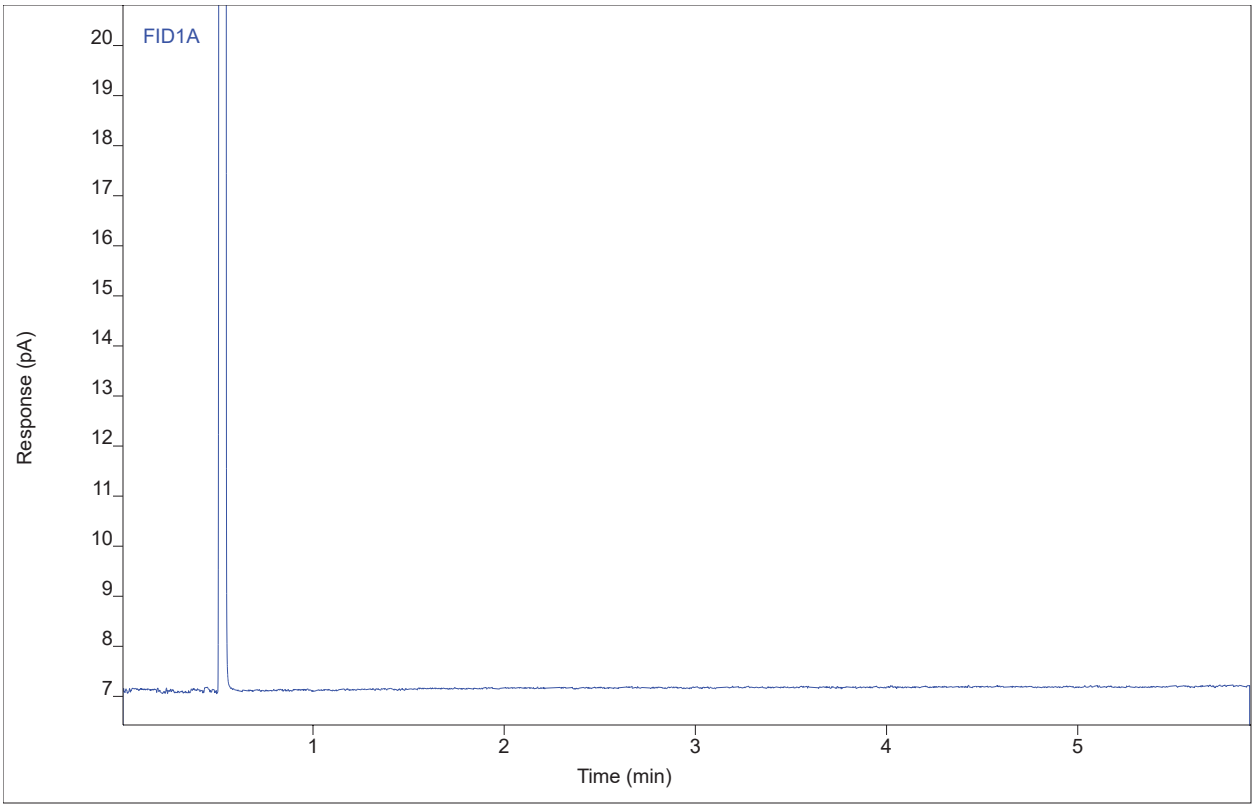
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #MB-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	020F0802.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:36 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 20
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



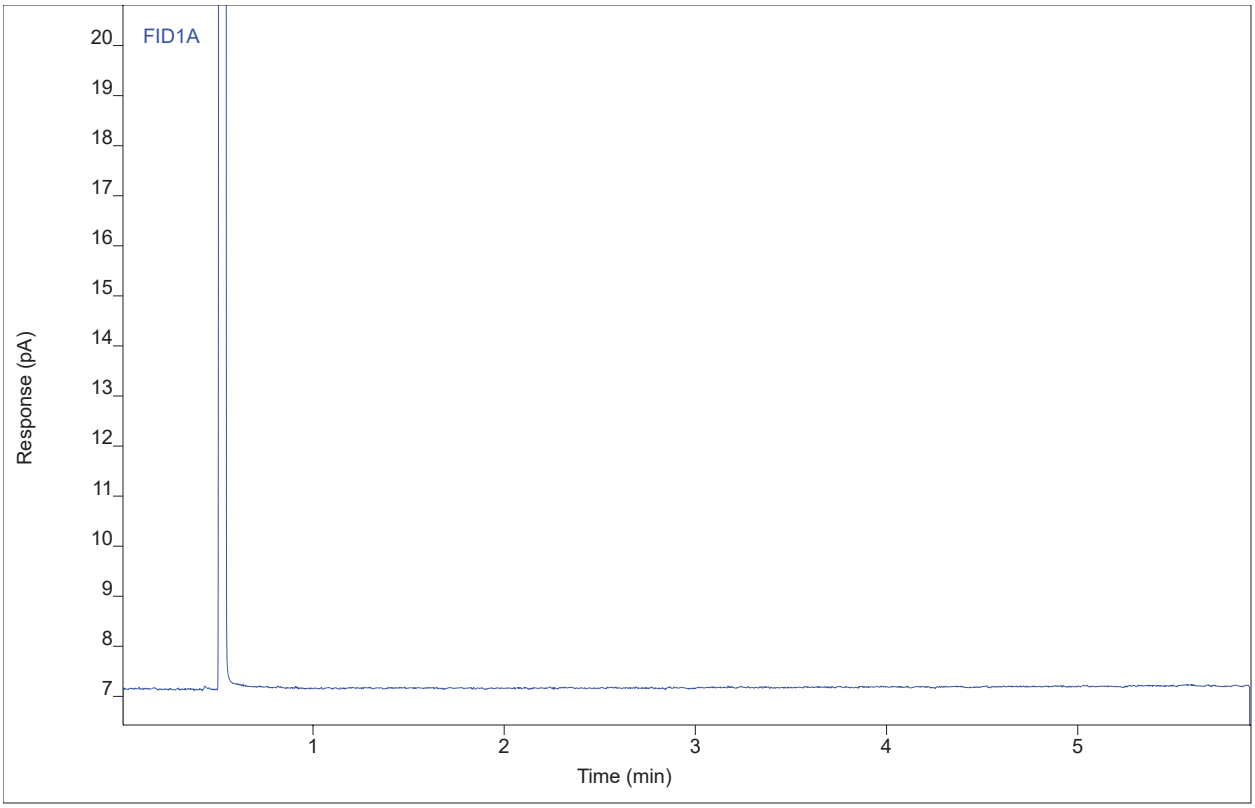
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcprep5306 #MB-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	020F0803.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:46 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 20
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



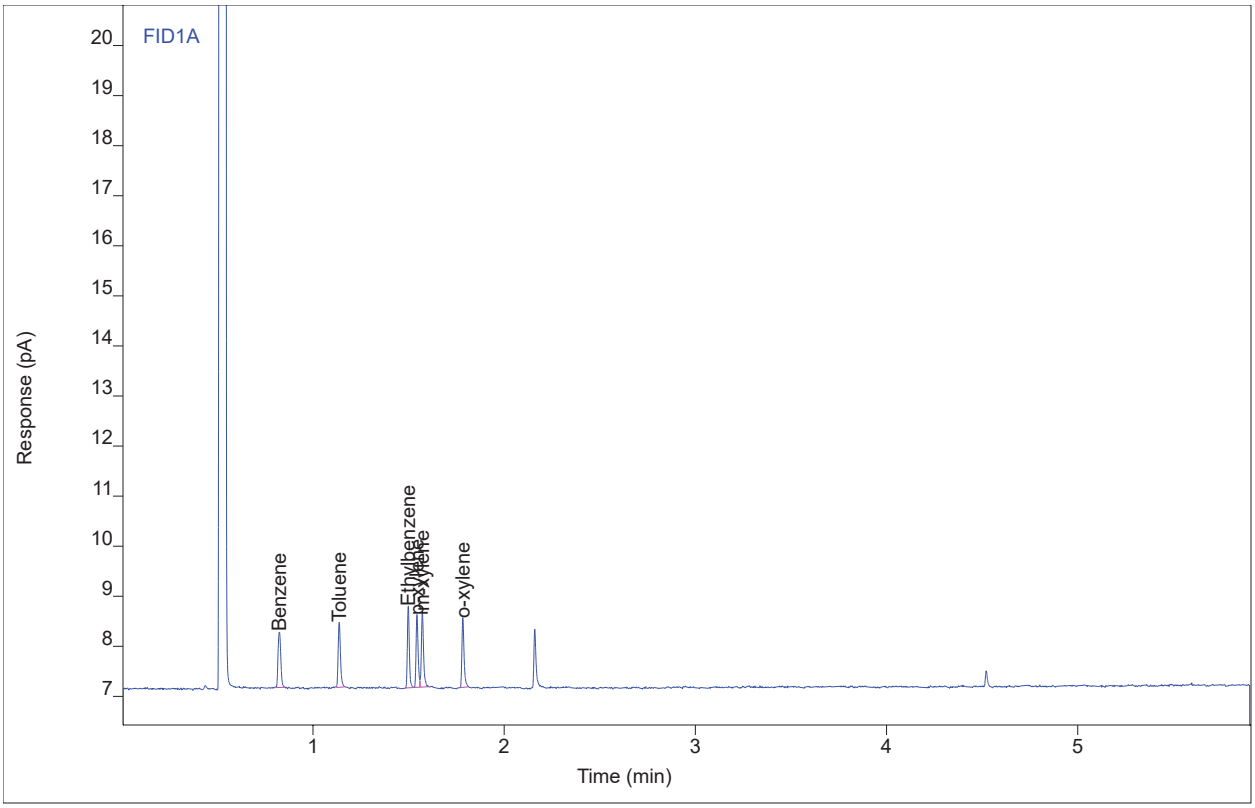
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	gcprep5306 #LCS-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	021F0901.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 2:57 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 21
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11233	1.11641	9.76057	1	9.76057	µg/mL
Toluene	BB	1.14	1.10116	1.30333	9.85137	1	9.85137	µg/mL
Ethylbenzene	BB	1.50	1.15620	1.63153	10.3367	1	10.3367	µg/mL
p-xylene	BV	1.54	1.07898	1.45387	9.82986	1	9.82986	µg/mL
m-xylene	VB	1.57	1.20365	1.50560	10.5205	1	10.5205	µg/mL
o-xylene	BB	1.78	1.08717	1.39302	9.80240	1	9.80240	µg/mL

Analyst Peak Integration Comments

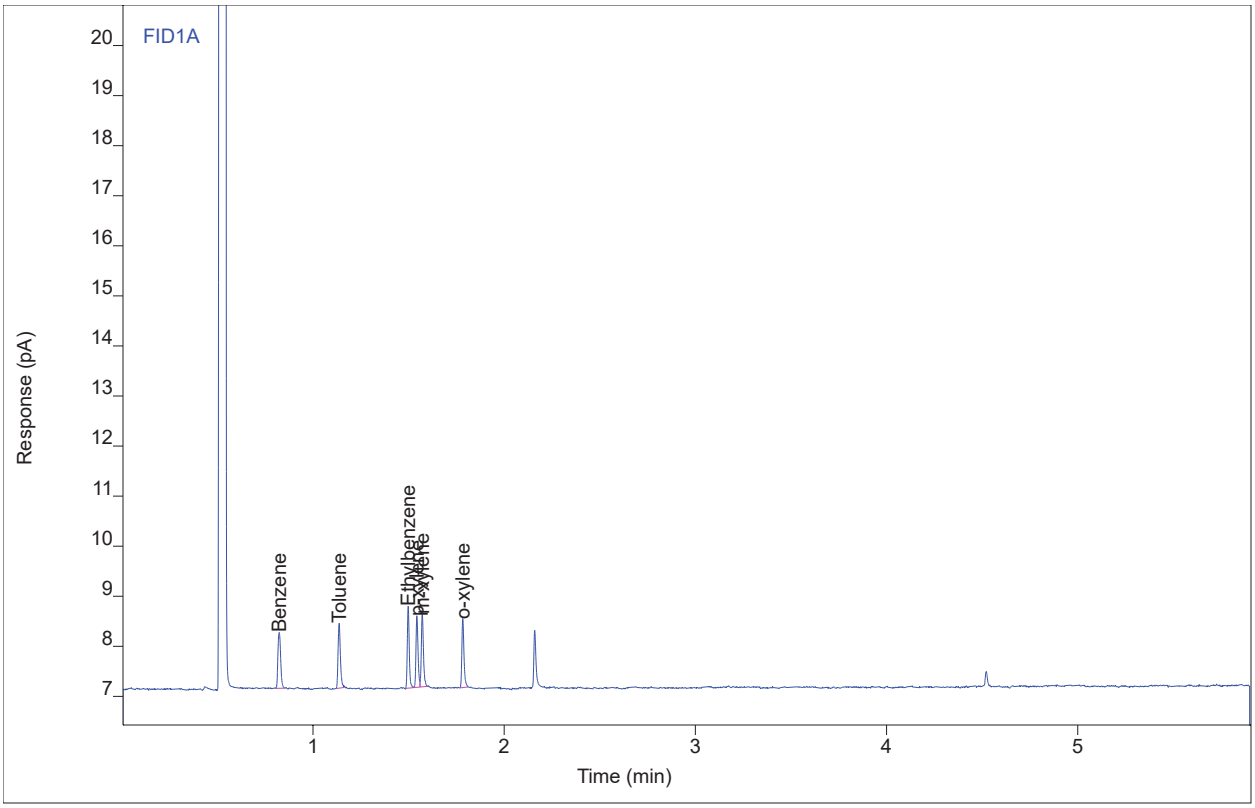
16:45:11 02/24/23 Remington Heathcoat ii

Chromatogram Report

Sample Name	gcprep5306 #LCS-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	021F0902.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:07 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 21
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11212	1.12135	9.75867	1	9.75867	µg/mL
Toluene	BB	1.14	1.10201	1.29189	9.85878	1	9.85878	µg/mL
Ethylbenzene	BB	1.50	1.14567	1.64347	10.2456	1	10.2456	µg/mL
p-xylene	BV	1.54	1.06561	1.42309	9.71263	1	9.71263	µg/mL
m-xylene	VB	1.57	1.12811	1.45128	9.87800	1	9.87800	µg/mL
o-xylene	BB	1.78	1.06323	1.37593	9.59375	1	9.59375	µg/mL

Analyst Peak Integration Comments

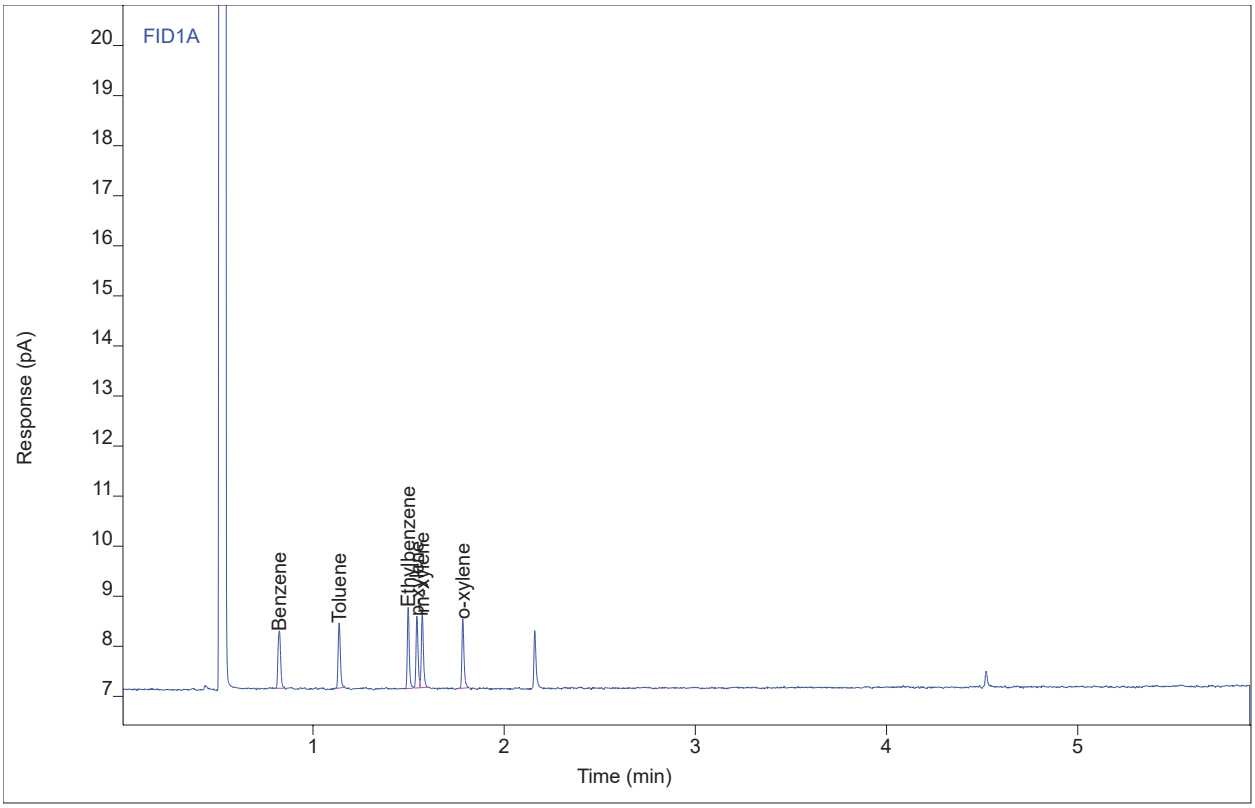
16:44:46 02/24/23 Remington Heathcoat ii

Chromatogram Report

Sample Name	gcprep5306 #LCS-CT
Sequence Name	LUCY1285 ver.1
Inj Data File	021F0903.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:17 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 21
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11273	1.14923	9.76402	1	9.76402	µg/mL
Toluene	BB	1.14	1.06473	1.29622	9.53356	1	9.53356	µg/mL
Ethylbenzene	BB	1.50	1.15544	1.62634	10.3301	1	10.3301	µg/mL
p-xylene	BV	1.54	1.06909	1.43562	9.74311	1	9.74311	µg/mL
m-xylene	VB	1.57	1.14873	1.49807	10.0534	1	10.0534	µg/mL
o-xylene	BB	1.78	1.06866	1.38548	9.64110	1	9.64110	µg/mL

Analyst Peak Integration Comments

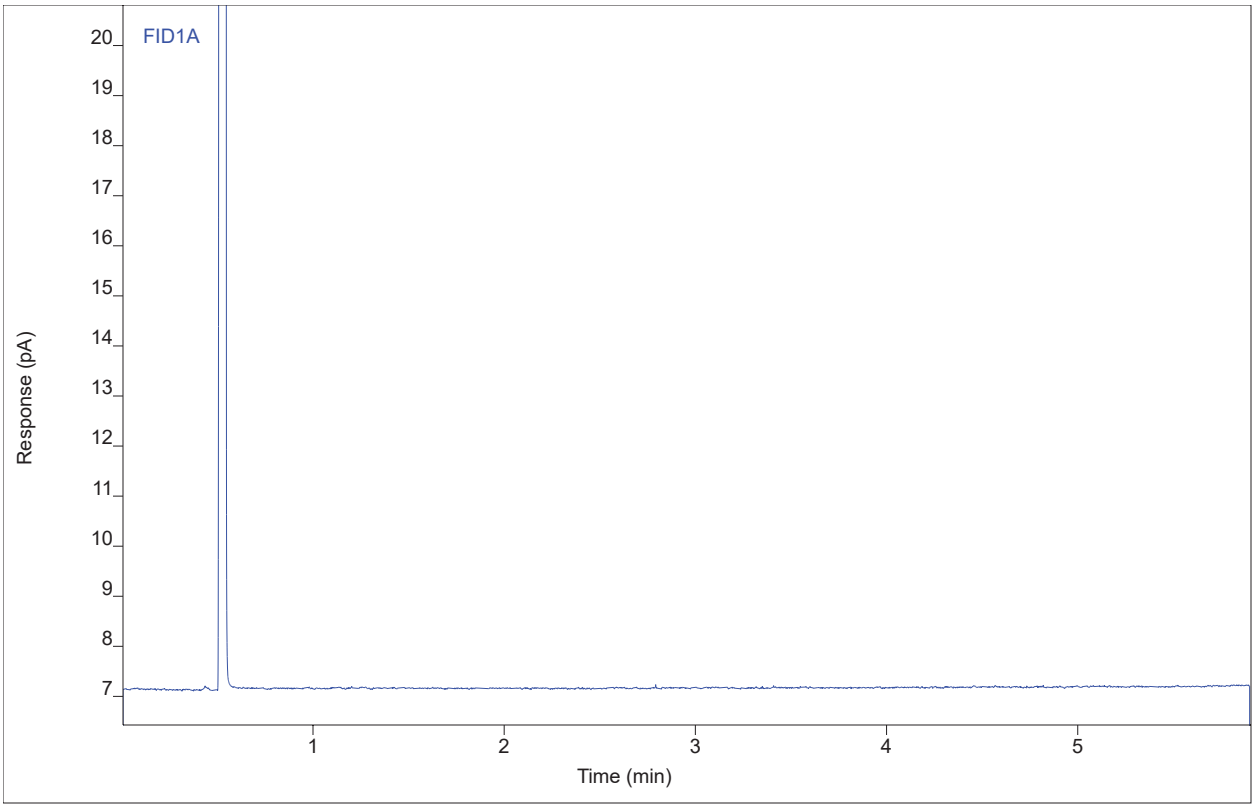
16:44:57 02/24/23 Remington Heathcoat ii

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	022F1001.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:28 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 22
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



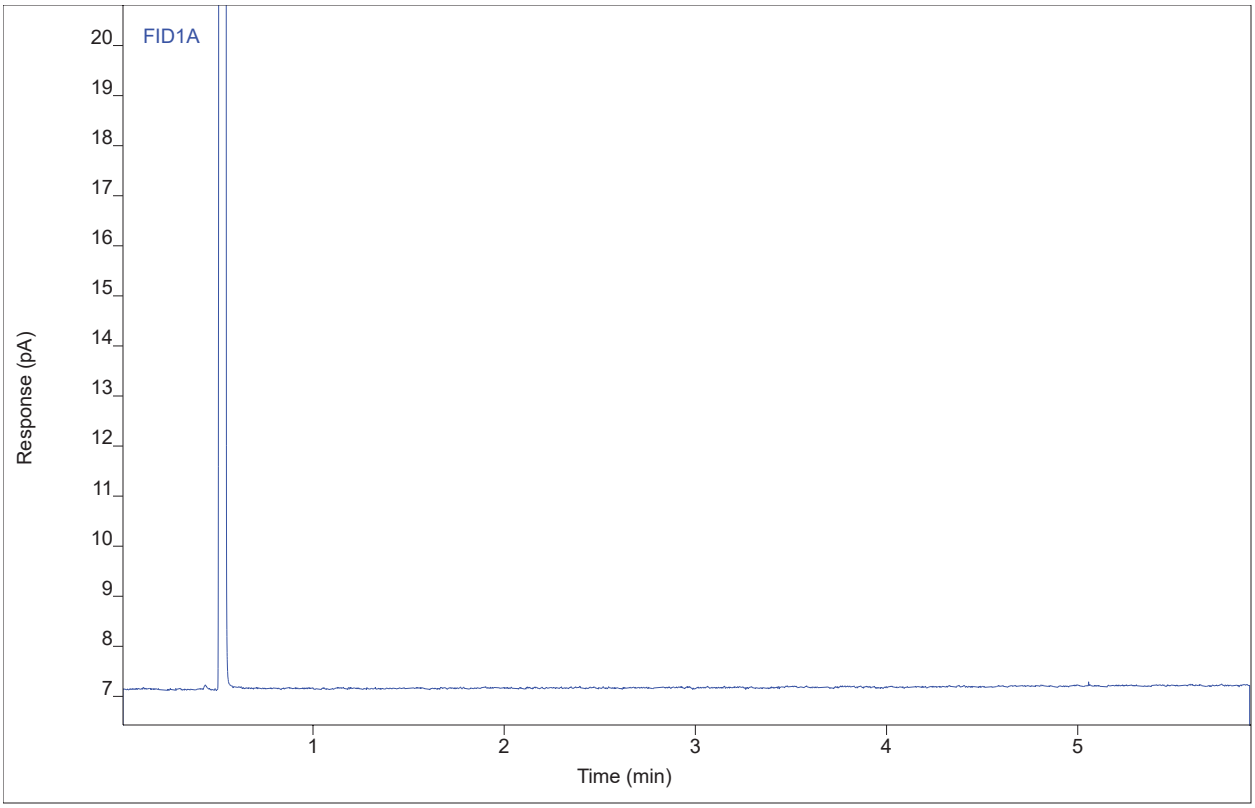
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	022F1002.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:38 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 22
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



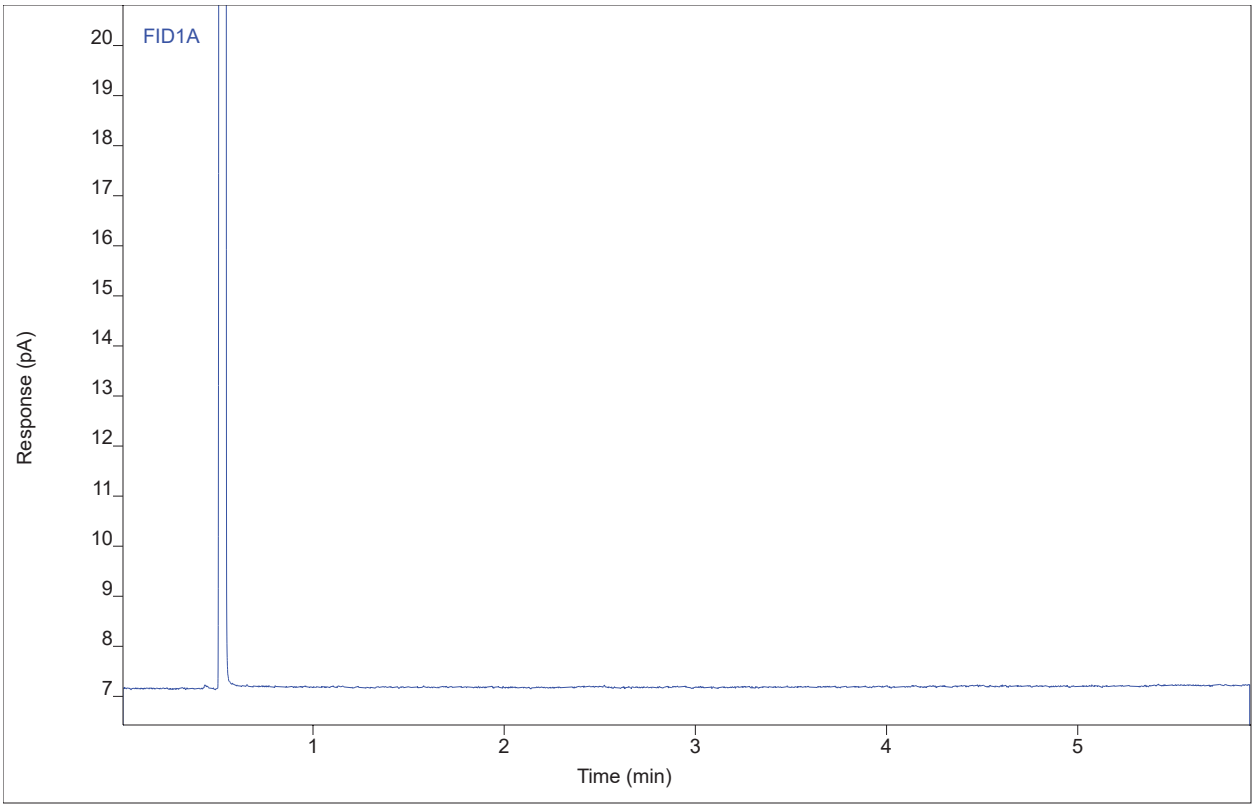
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	022F1003.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:49 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 22
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



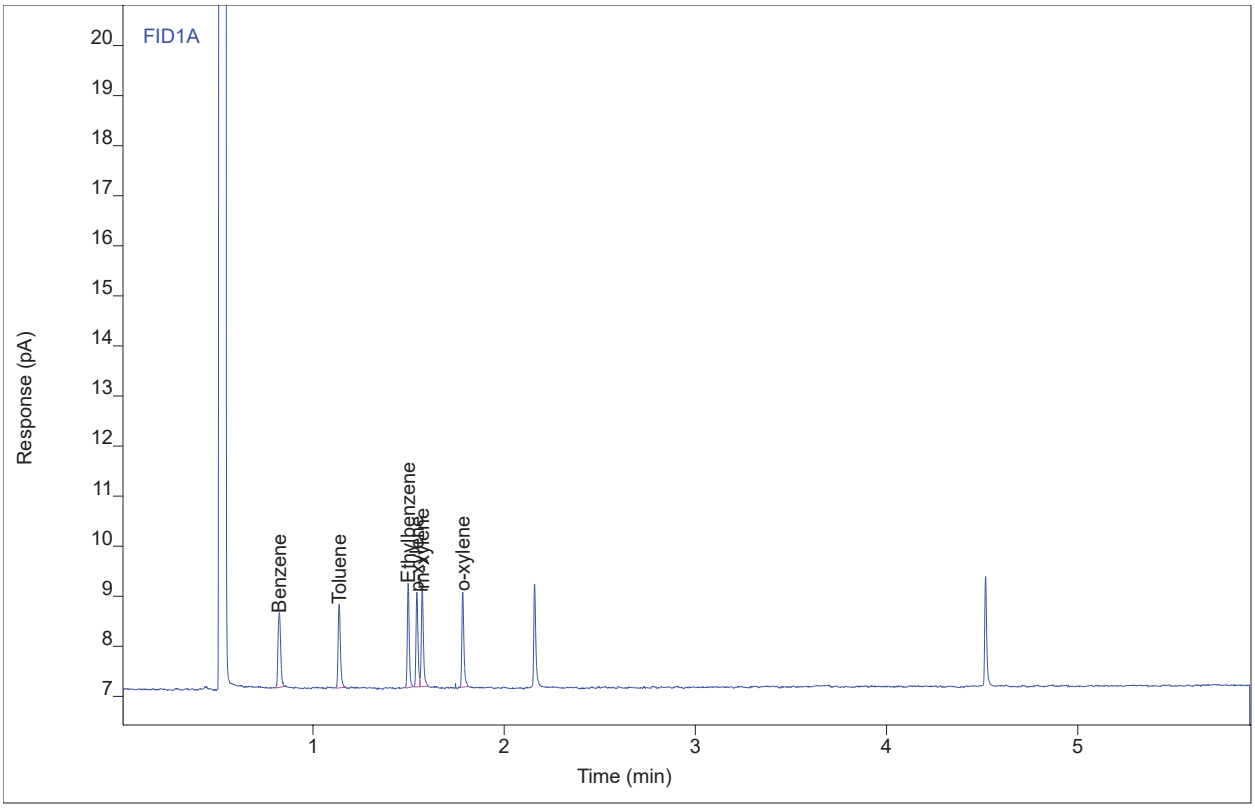
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	023F1101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 3:59 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 23
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



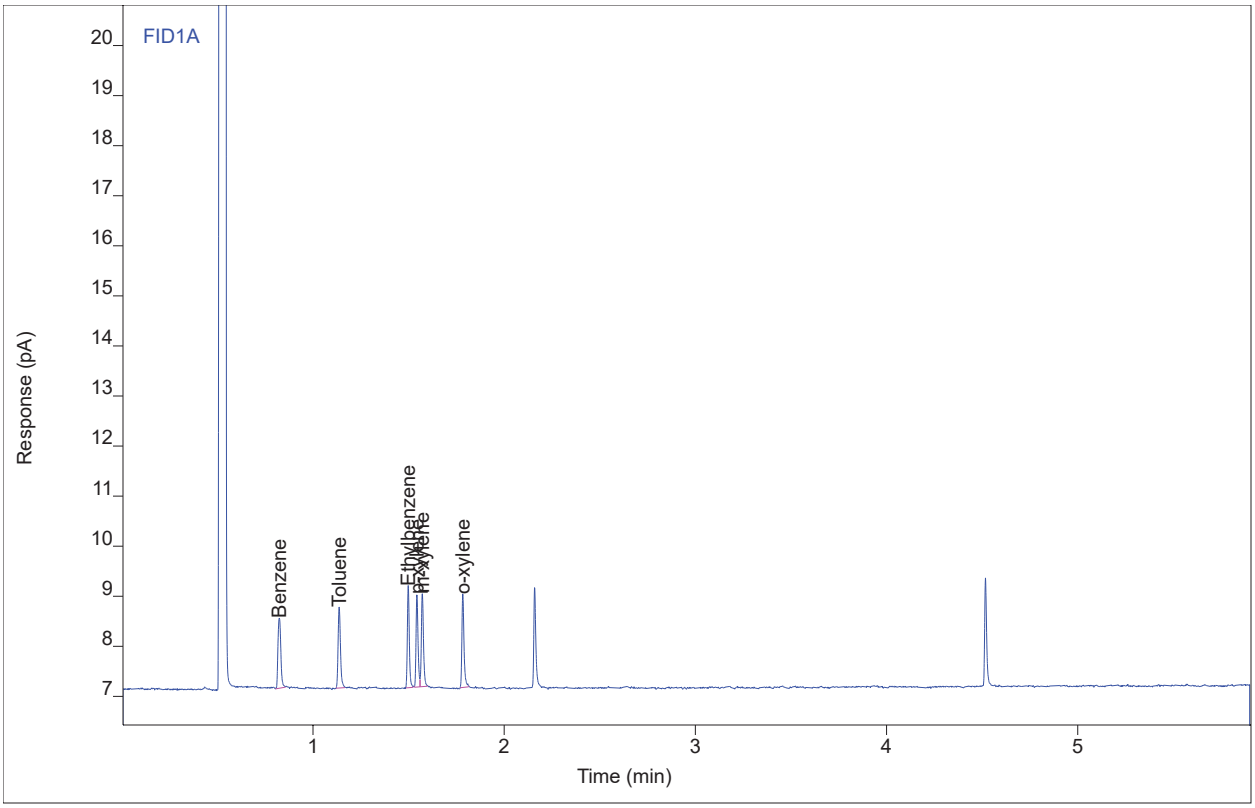
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.45900	1.49333	12.7960	1	12.7960	µg/mL
Toluene	BB	1.14	1.41602	1.66962	12.5980	1	12.5980	µg/mL
Ethylbenzene	BB	1.50	1.45473	2.09421	12.9186	1	12.9186	µg/mL
p-xylene	BV	1.54	1.37902	1.89920	12.4610	1	12.4610	µg/mL
m-xylene	VB	1.57	1.50949	1.95654	13.1221	1	13.1221	µg/mL
o-xylene	BB	1.78	1.42466	1.91055	12.7440	1	12.7440	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	023F1102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:09 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 23
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



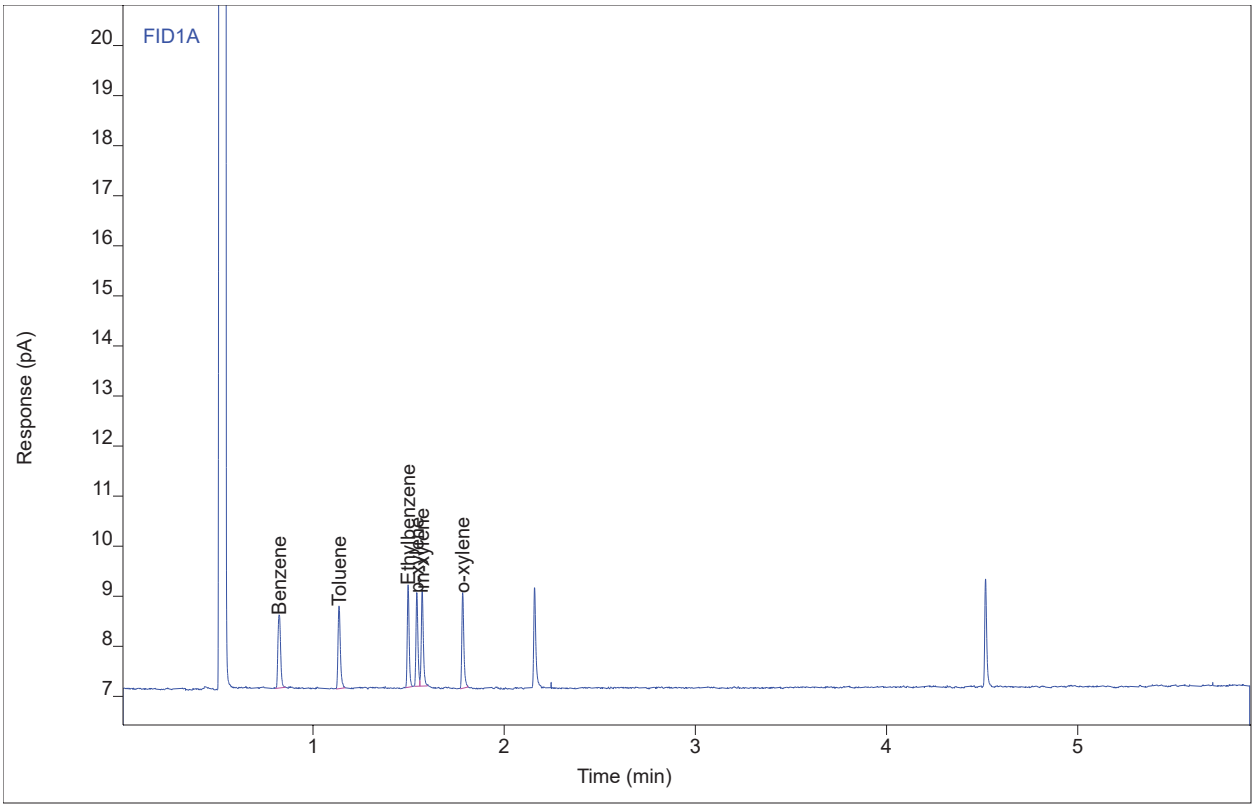
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.46553	1.41182	12.8531	1	12.8531	µg/mL
Toluene	BB	1.14	1.41166	1.62793	12.5600	1	12.5600	µg/mL
Ethylbenzene	BB	1.50	1.43125	2.04386	12.7155	1	12.7155	µg/mL
p-xylene	BV	1.54	1.34654	1.84807	12.1762	1	12.1762	µg/mL
m-xylene	VB	1.57	1.44804	1.86095	12.5994	1	12.5994	µg/mL
o-xylene	BB	1.78	1.43889	1.86441	12.8679	1	12.8679	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	023F1103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:20 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 23
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



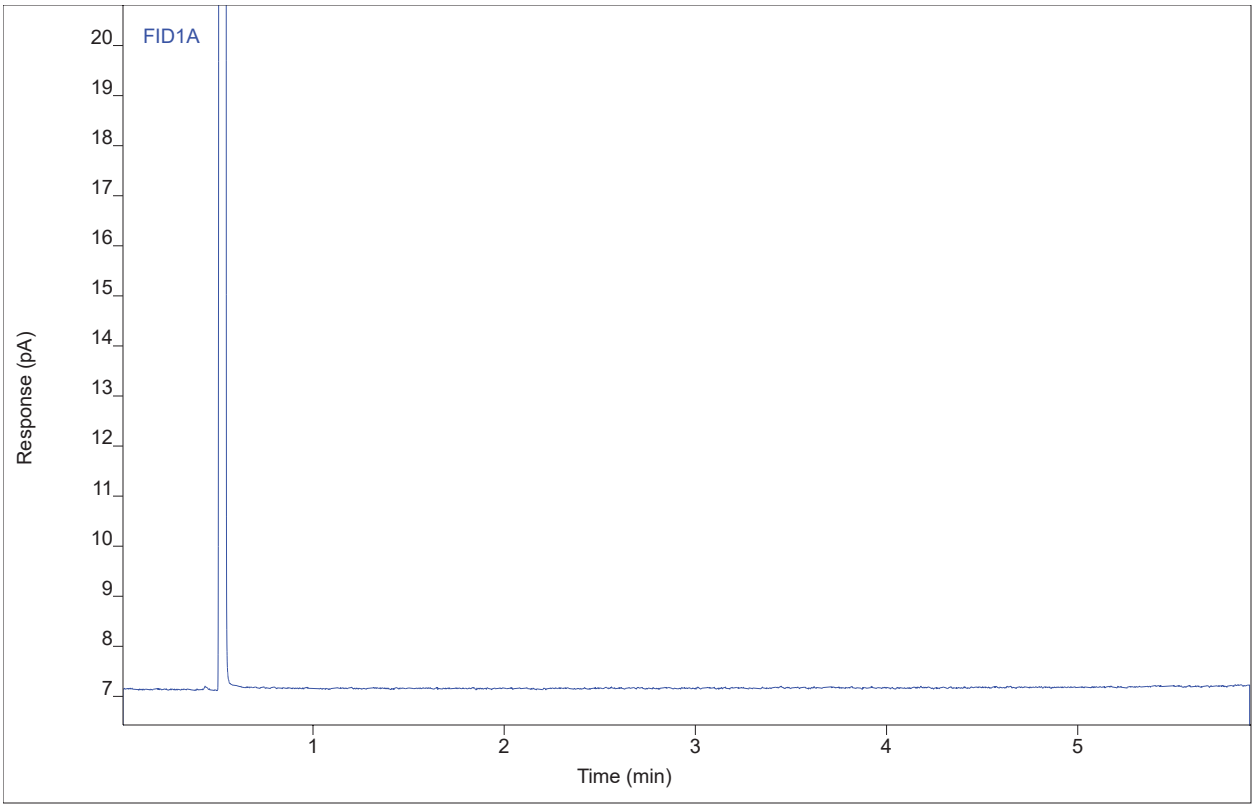
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.44478	1.46432	12.6714	1	12.6714	µg/mL
Toluene	BB	1.14	1.42400	1.65986	12.6676	1	12.6676	µg/mL
Ethylbenzene	BB	1.50	1.39612	2.05054	12.4117	1	12.4117	µg/mL
p-xylene	BV	1.54	1.32239	1.86297	11.9644	1	11.9644	µg/mL
m-xylene	VB	1.57	1.44172	1.93422	12.5456	1	12.5456	µg/mL
o-xylene	BB	1.78	1.42552	1.90855	12.7514	1	12.7514	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	024F1201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:41 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 24
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



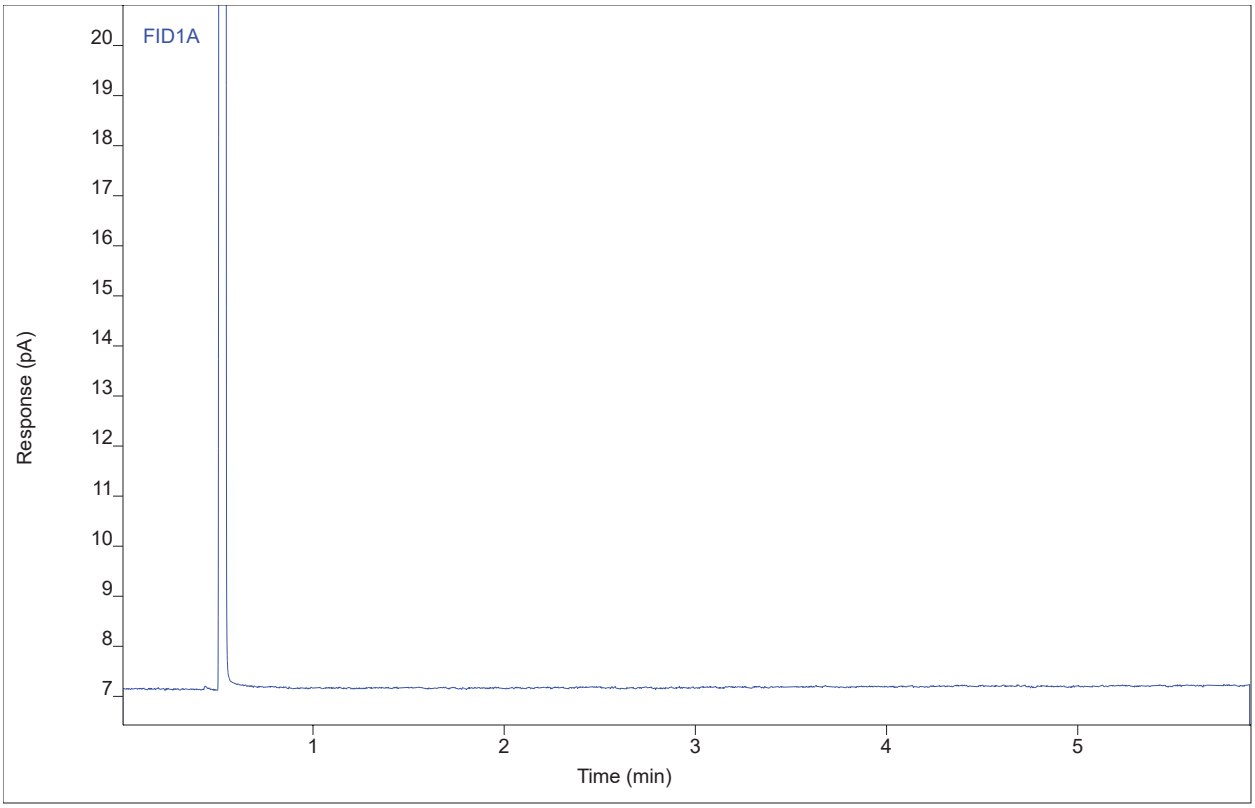
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	024F1202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 4:51 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 24
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



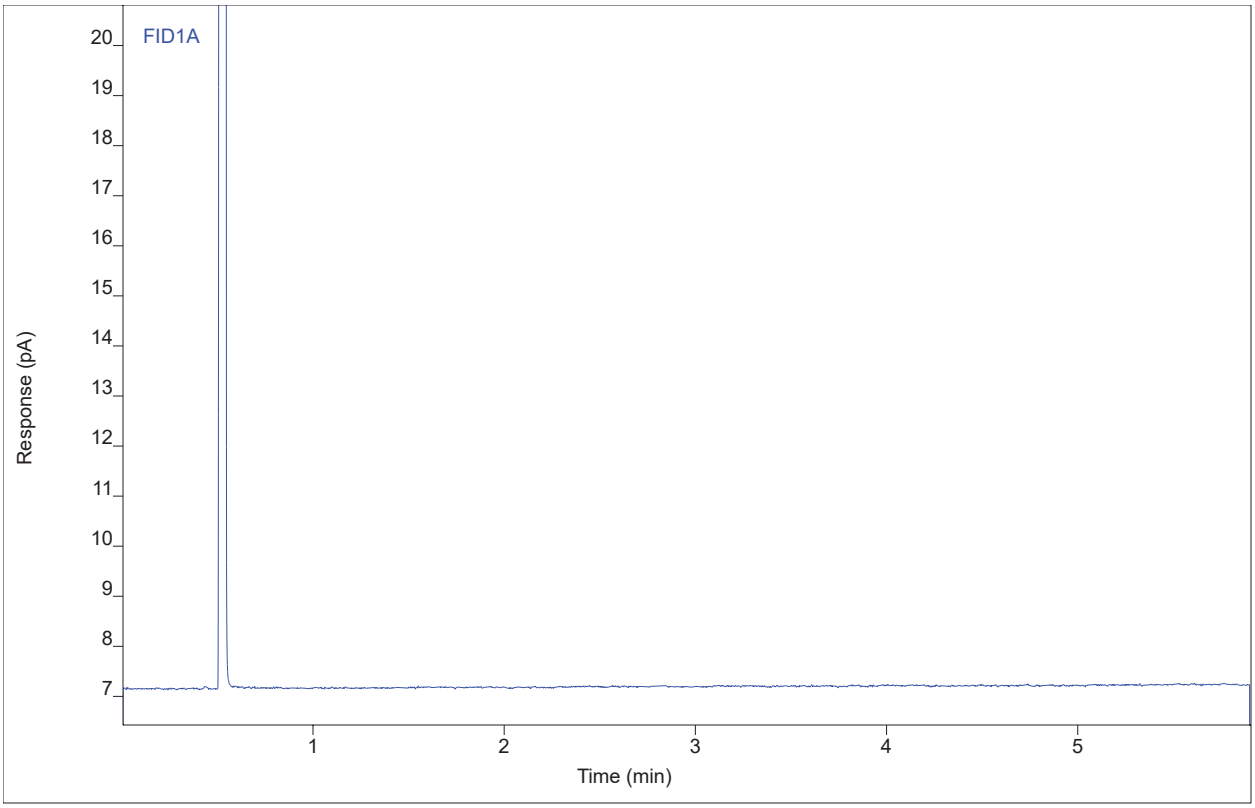
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	024F1203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:01 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 24
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



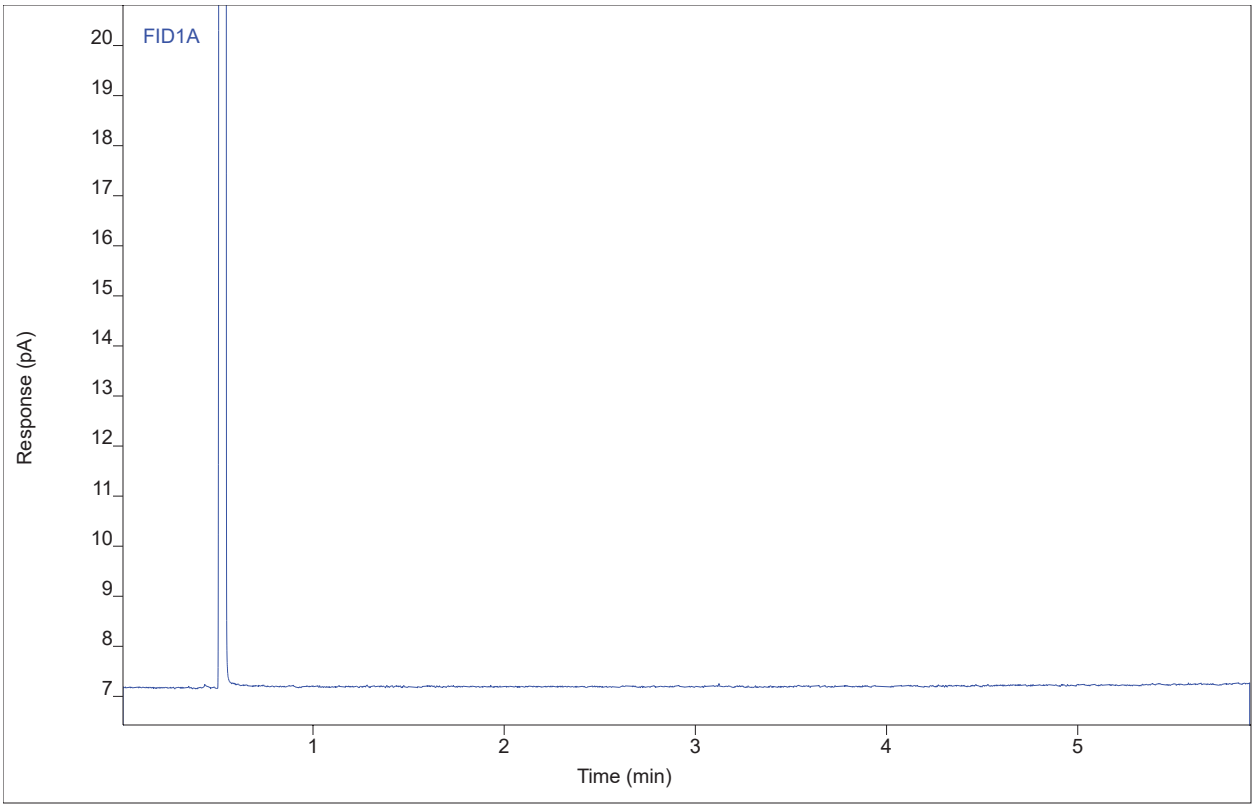
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	025F1301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:12 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 25
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



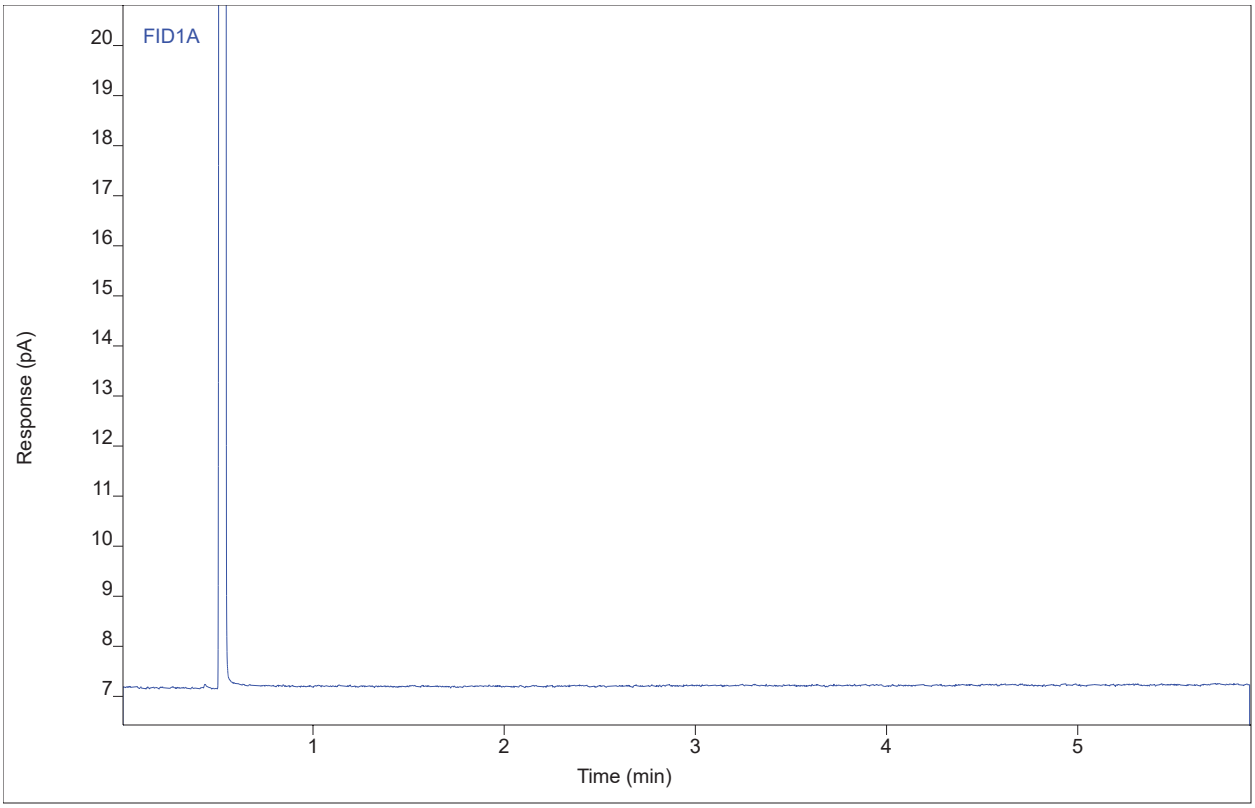
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	025F1302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:22 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 25
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



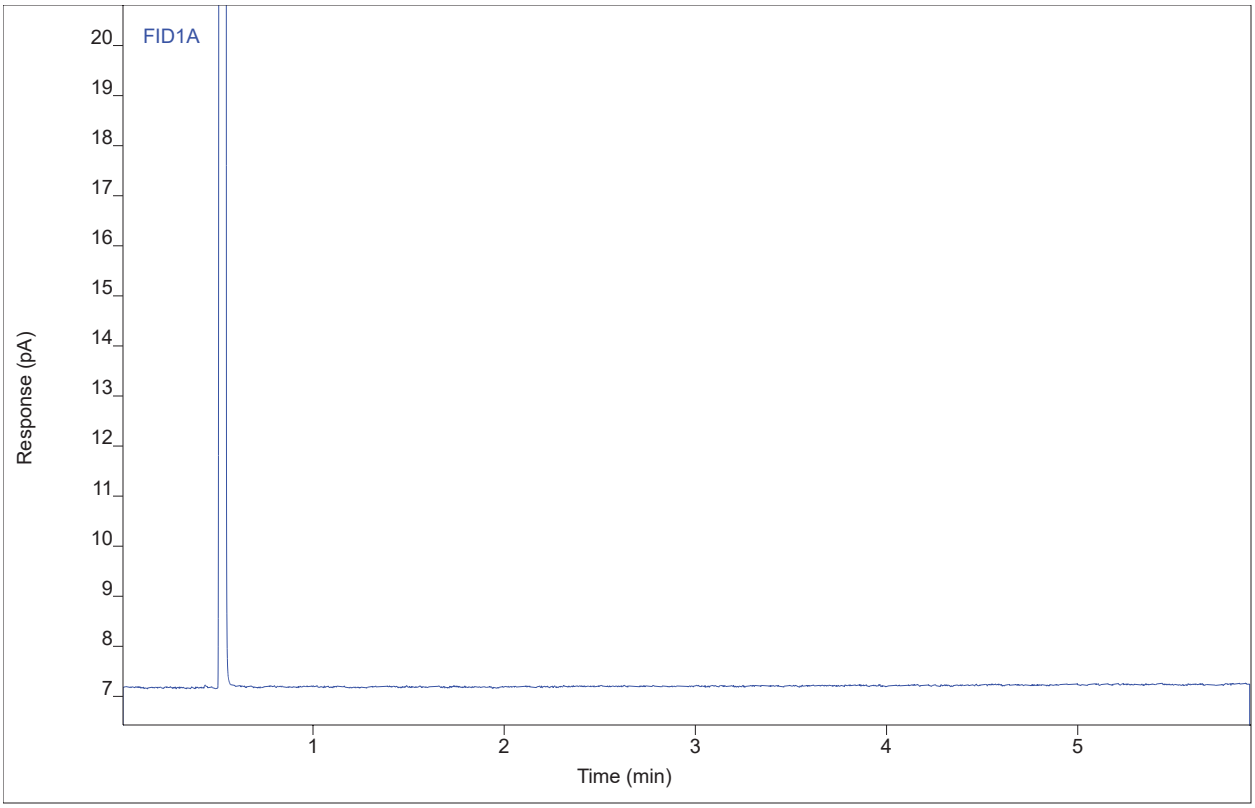
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	025F1303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:32 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 25
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



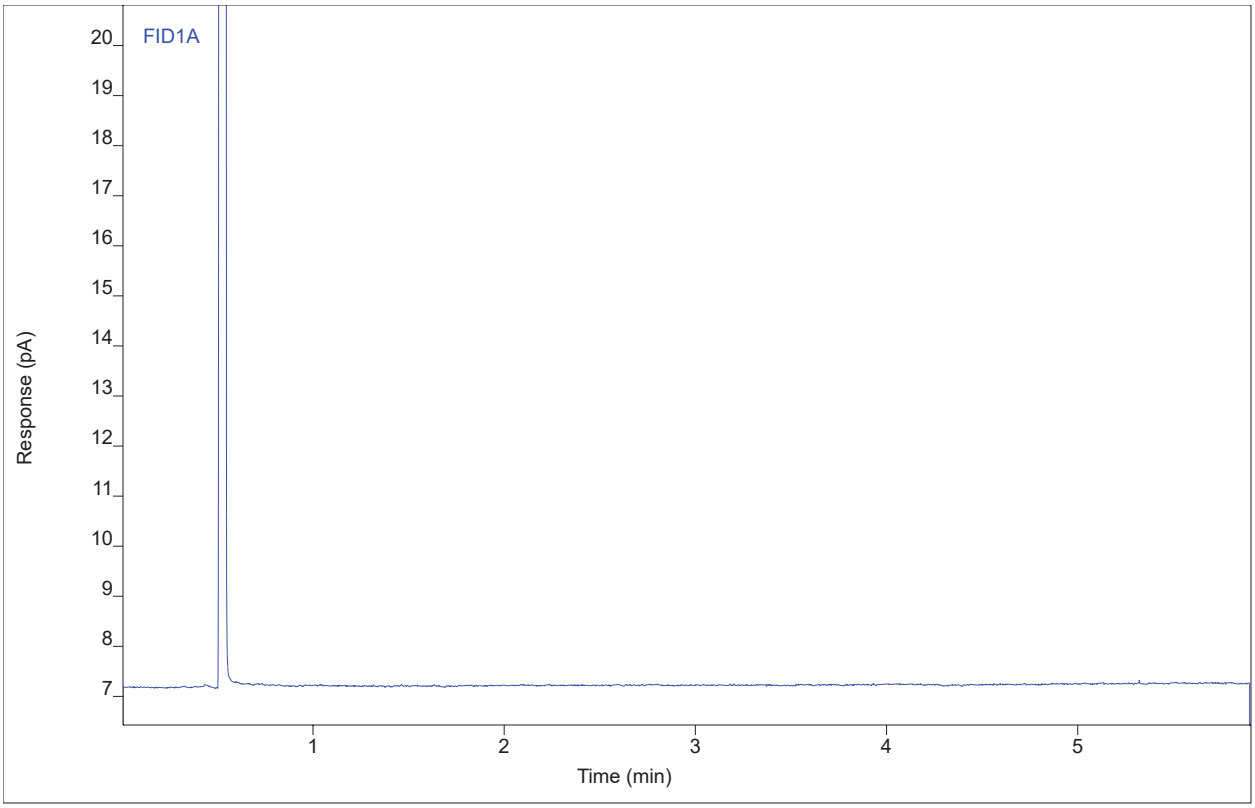
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	026F1401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:43 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 26
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



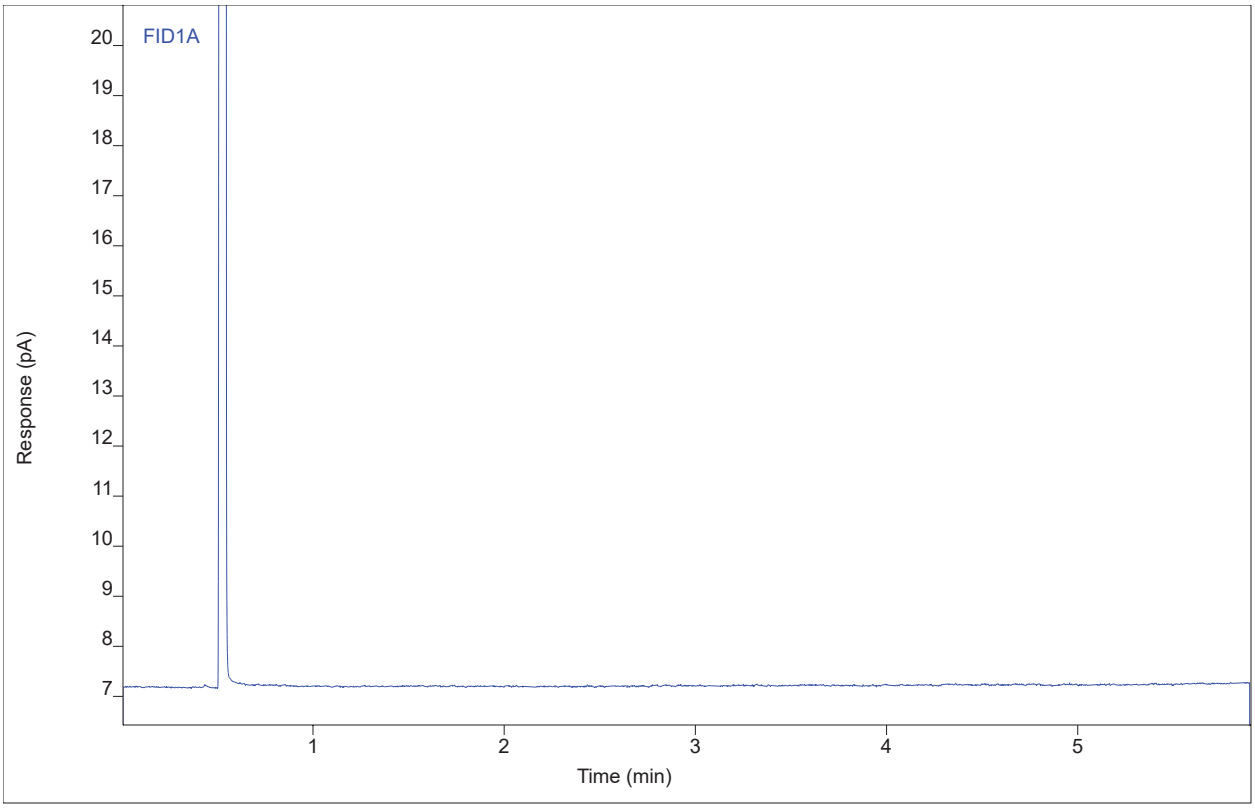
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	026F1402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 5:53 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 26
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



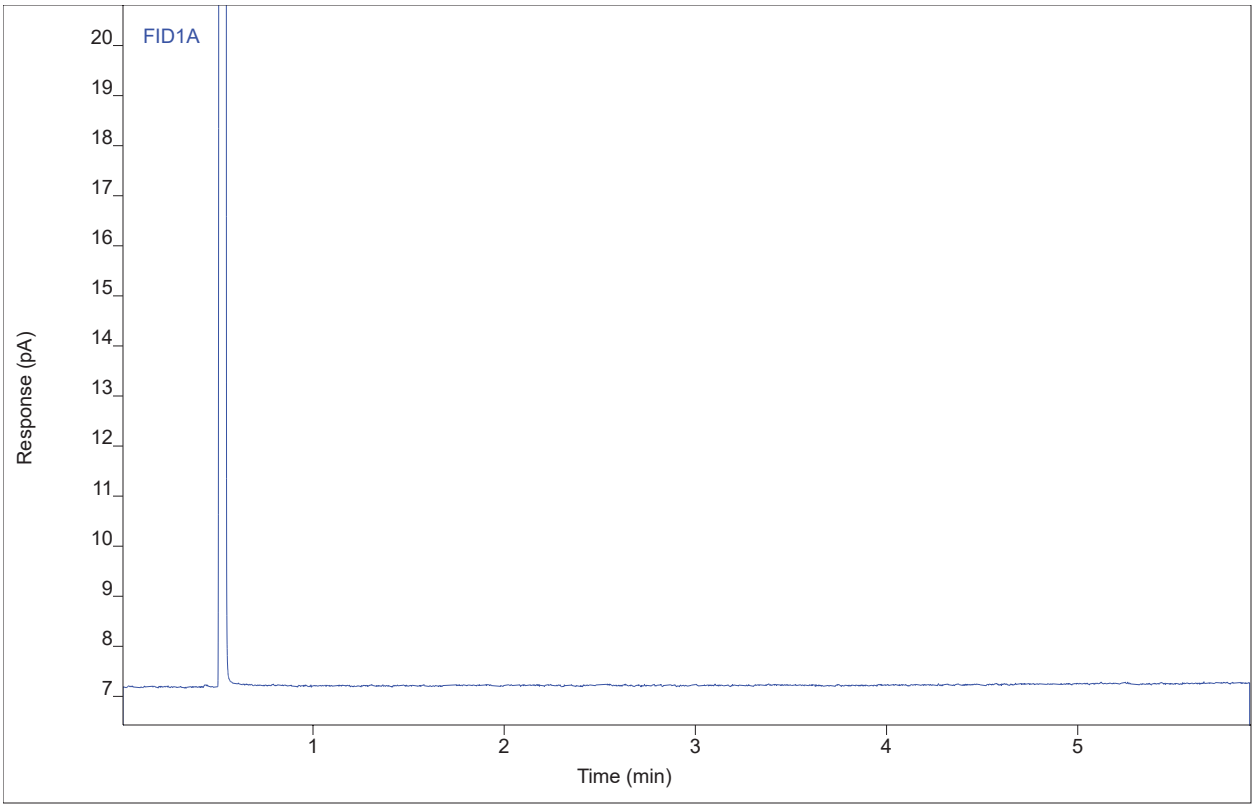
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	026F1403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:03 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 26
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



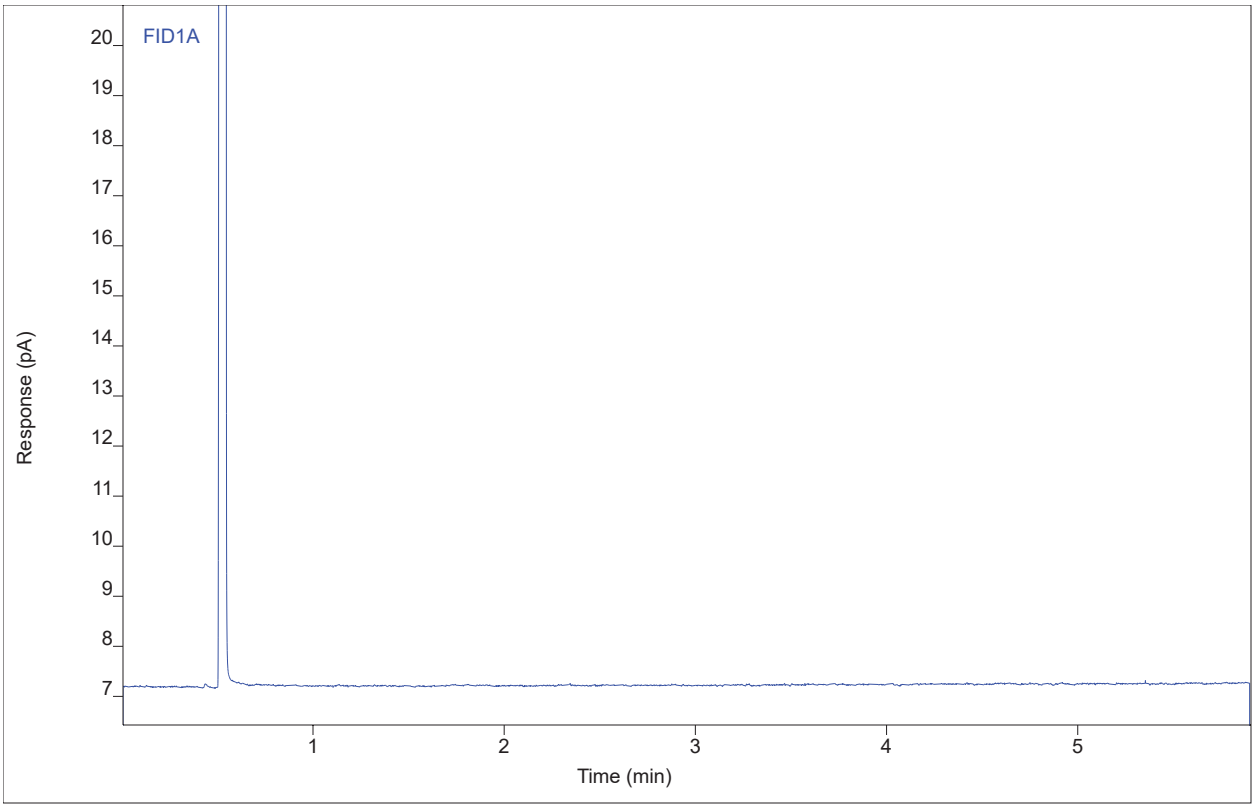
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	027F1501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:13 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 27
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



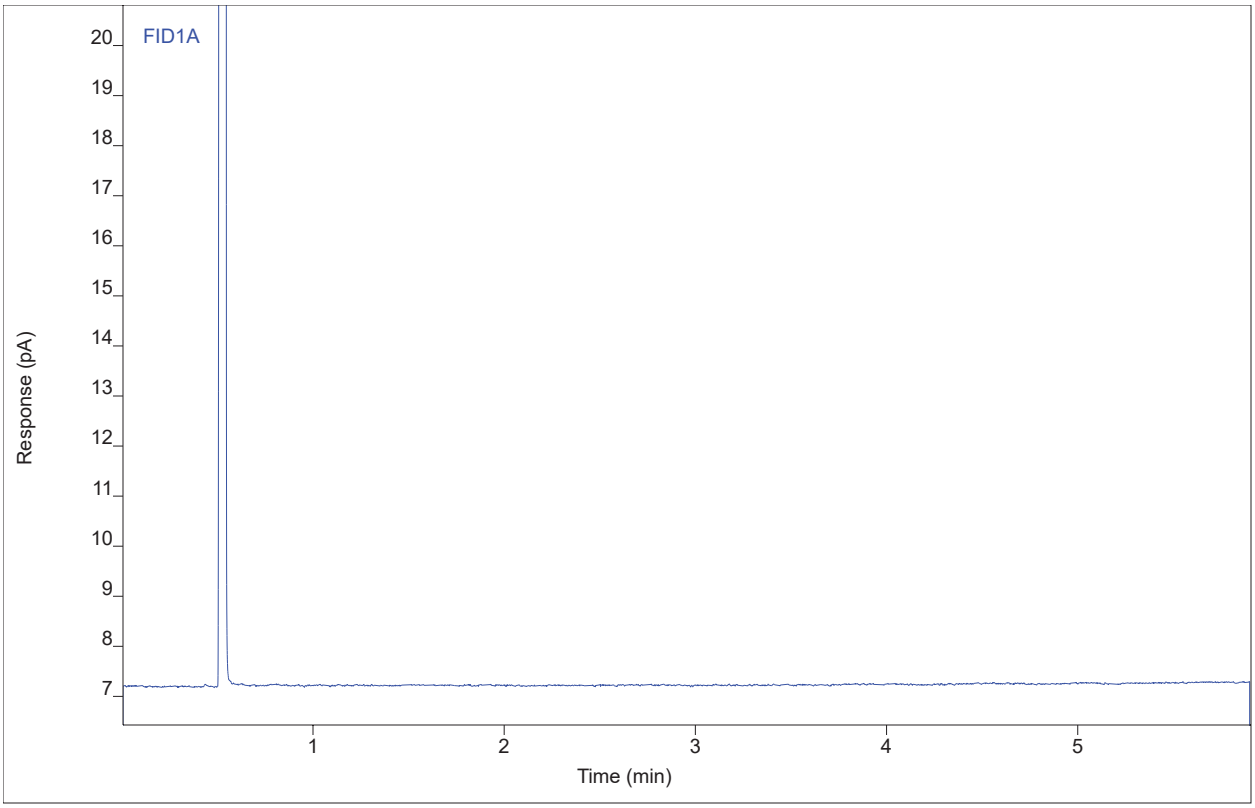
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	027F1502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:24 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 27
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



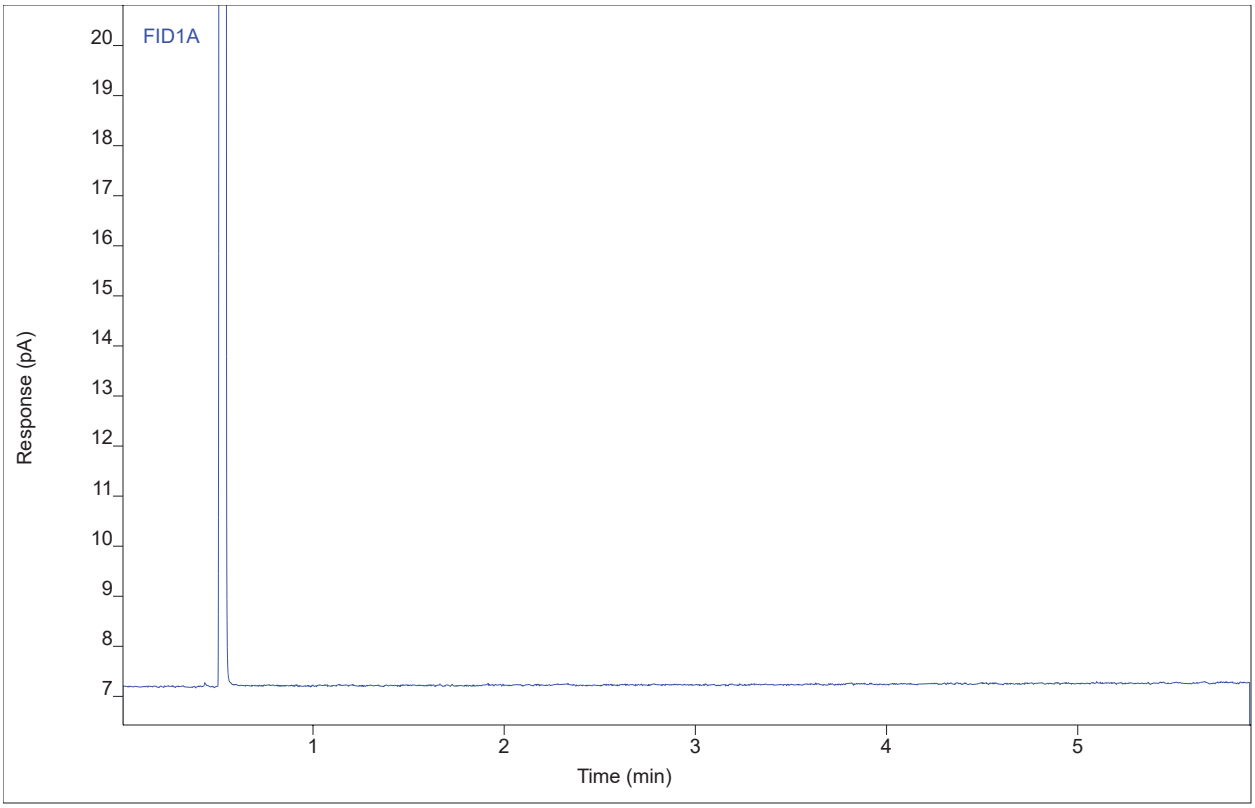
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	027F1503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:34 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 27
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



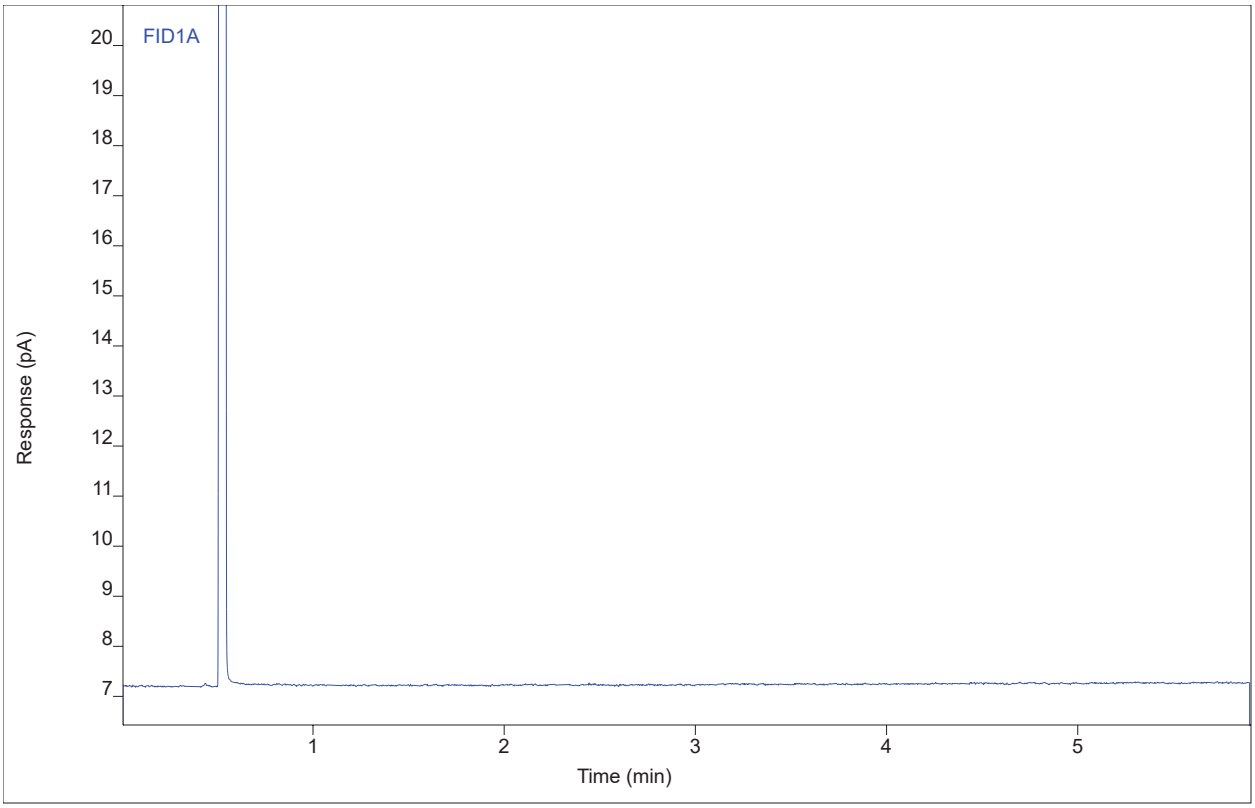
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	028F1601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:44 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 28
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



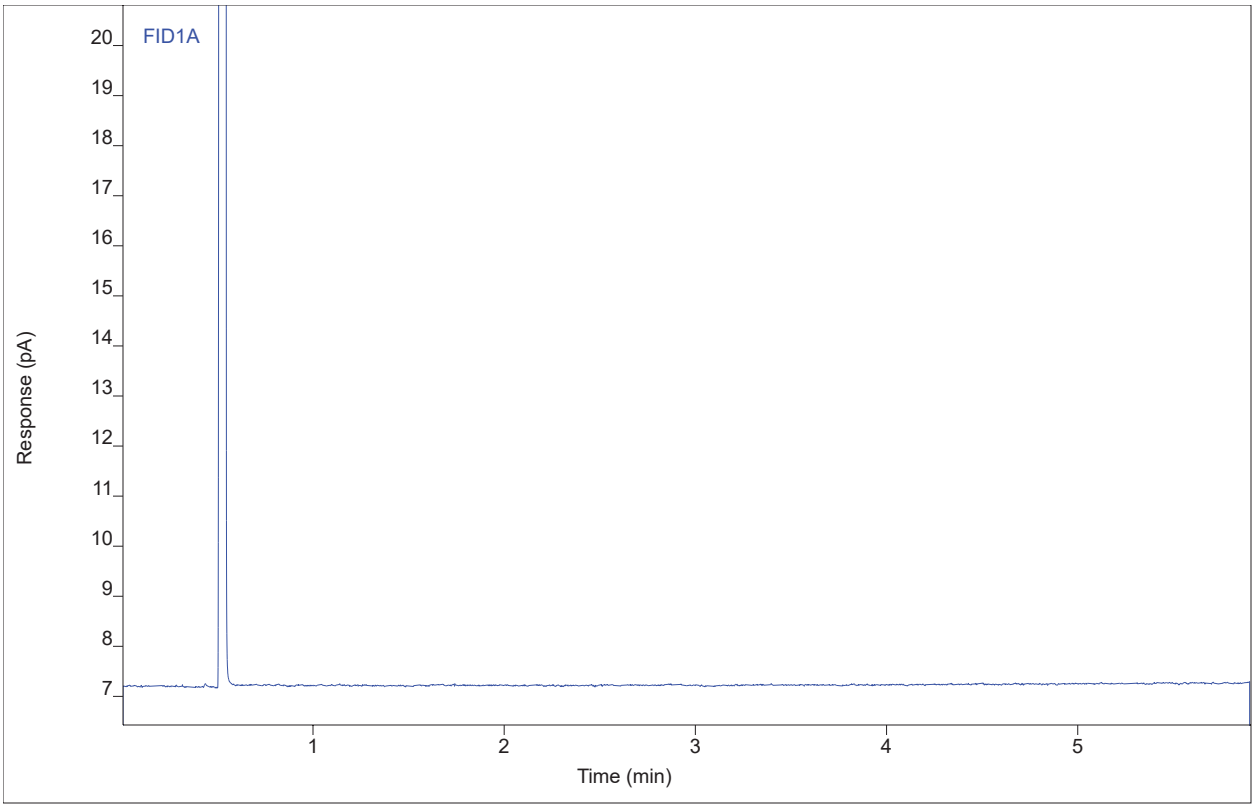
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	028F1602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 6:55 PM
File Modified	2/24/2023 4:47 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 28
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	028F1603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:05 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 28
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
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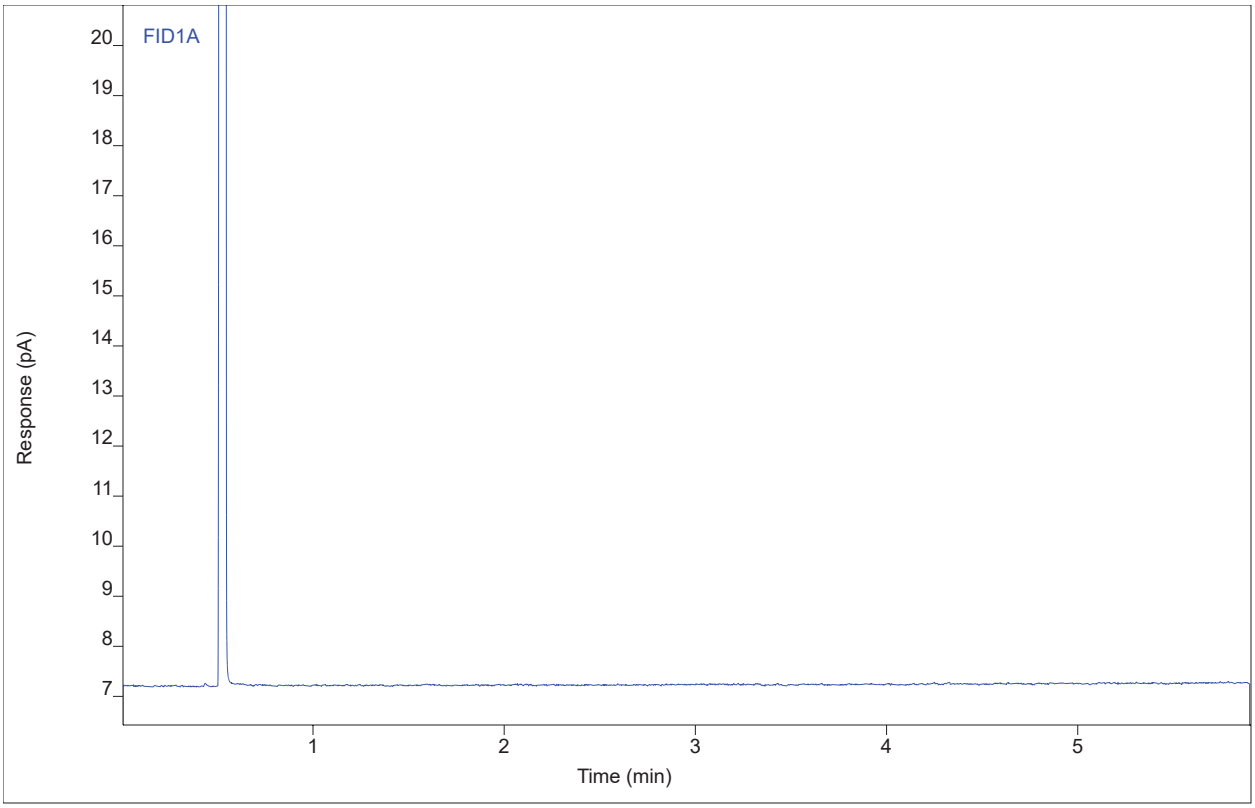


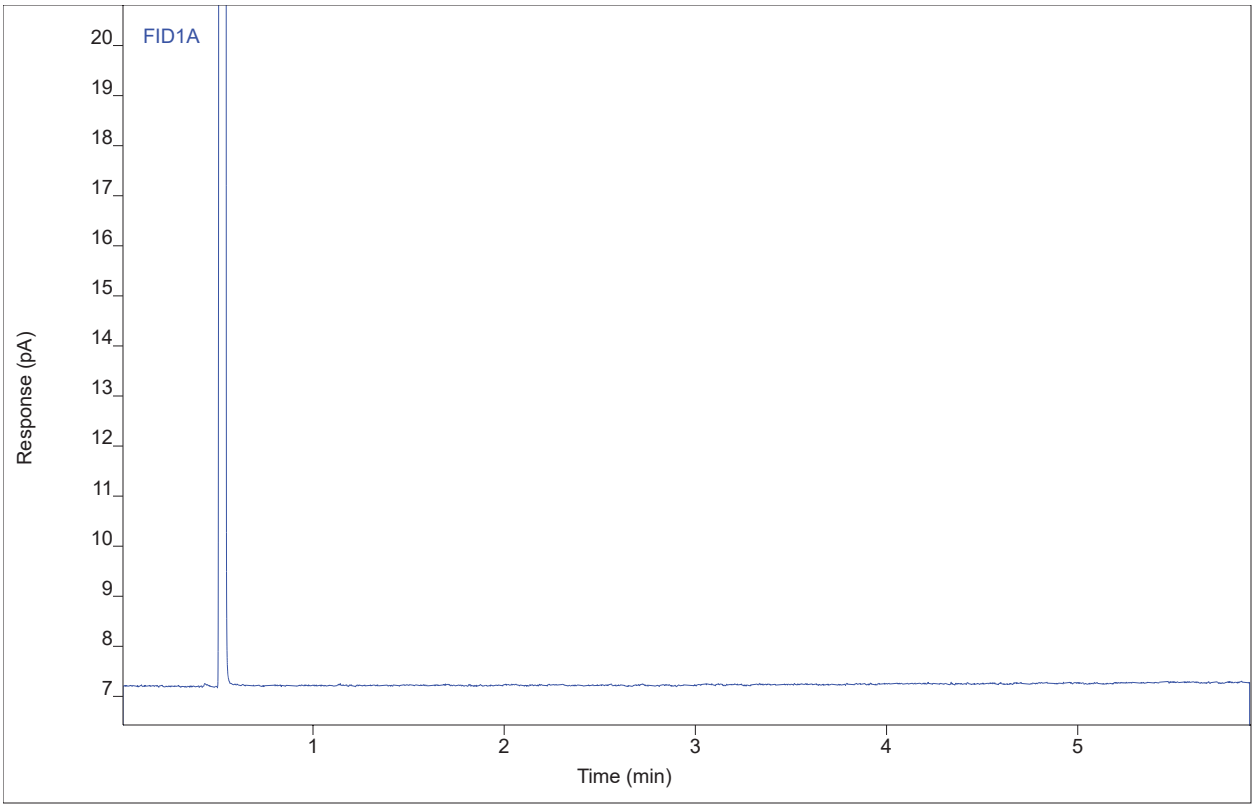
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	029F1701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:15 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 29
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



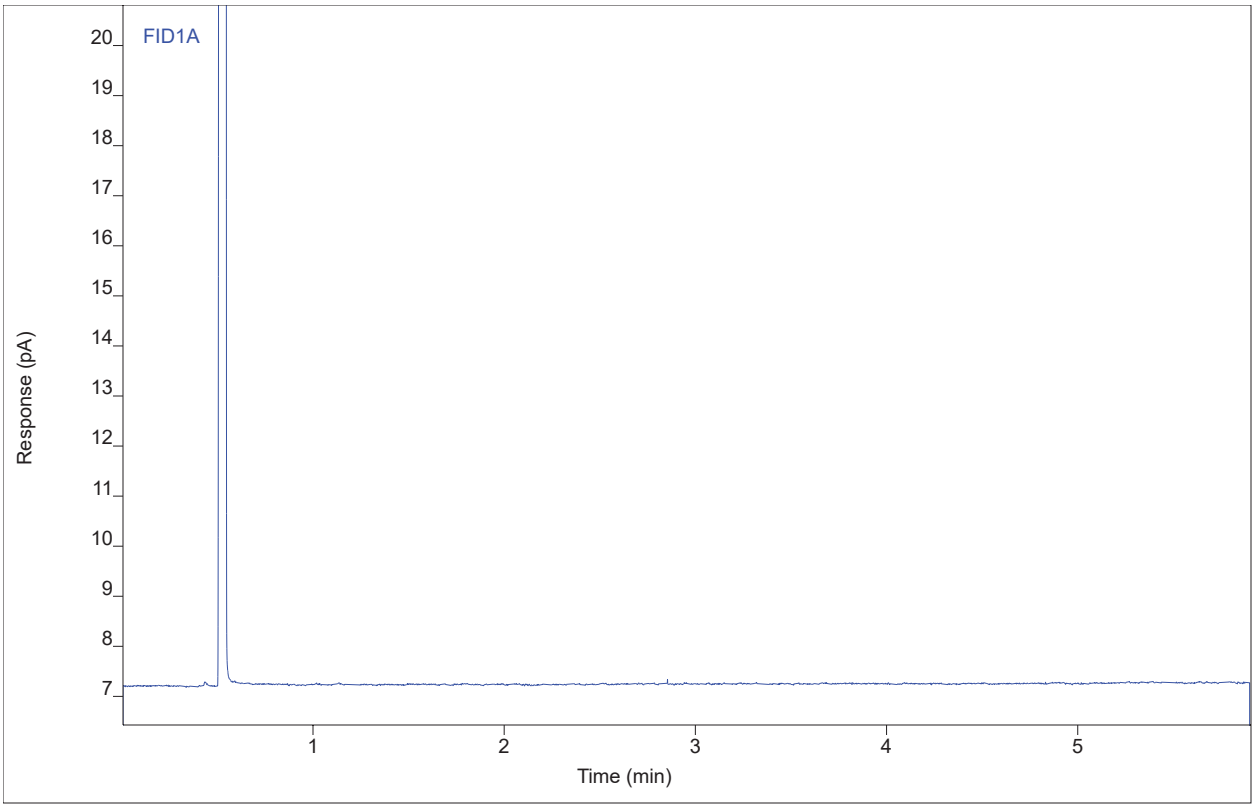
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	029F1702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:26 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 29
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



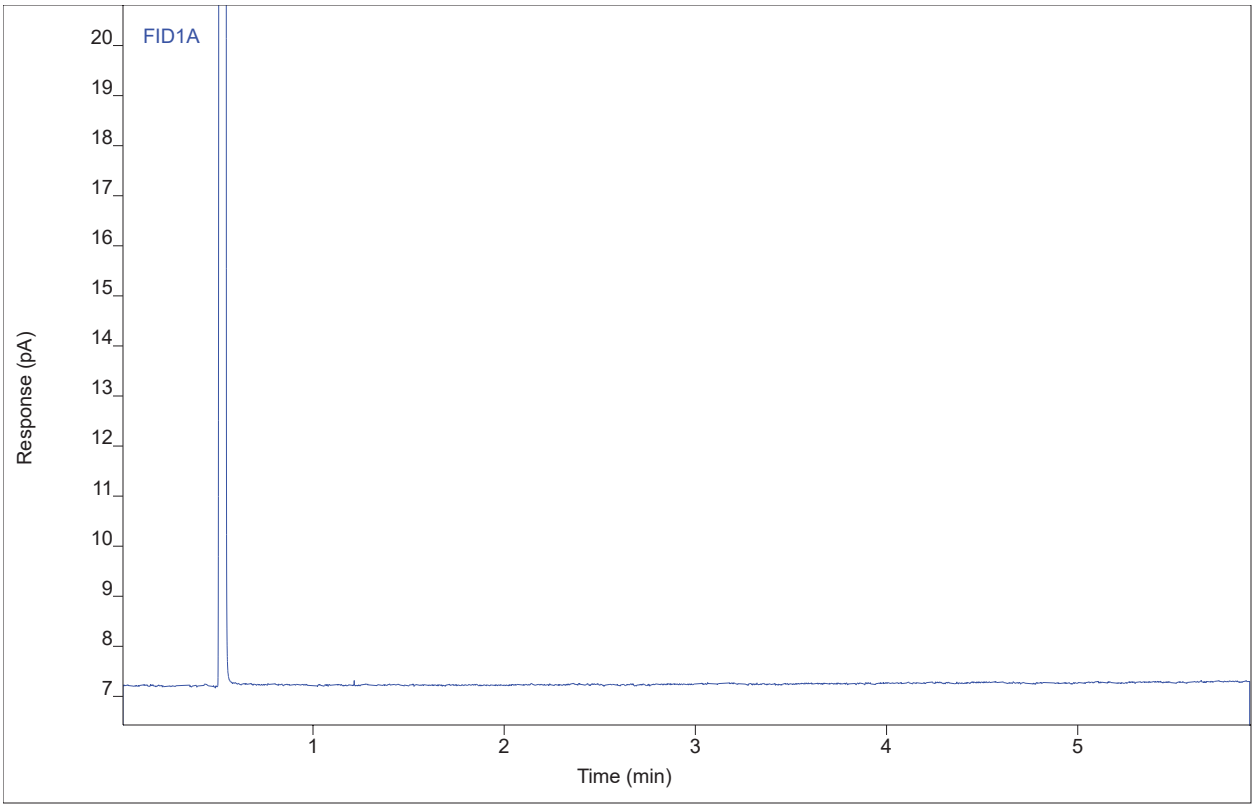
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	029F1703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:36 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 29
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



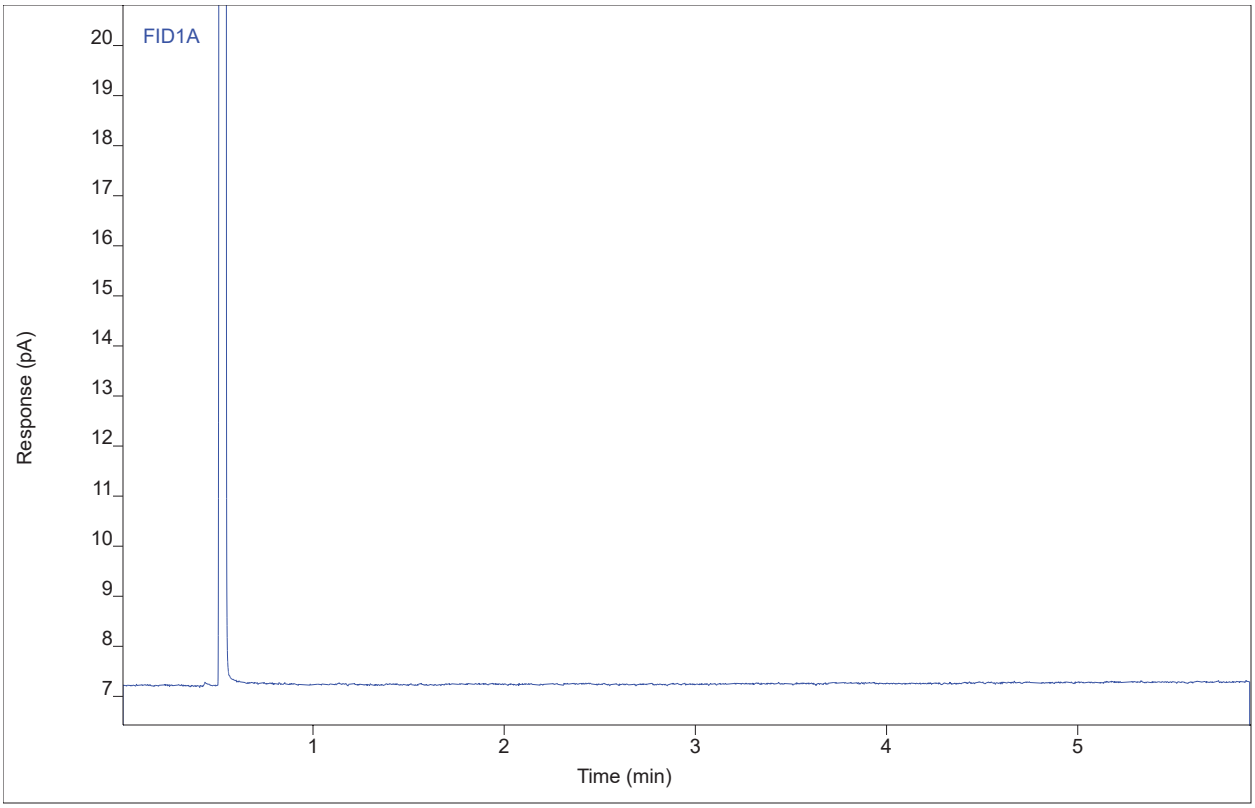
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	030F1801.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:46 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 30
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



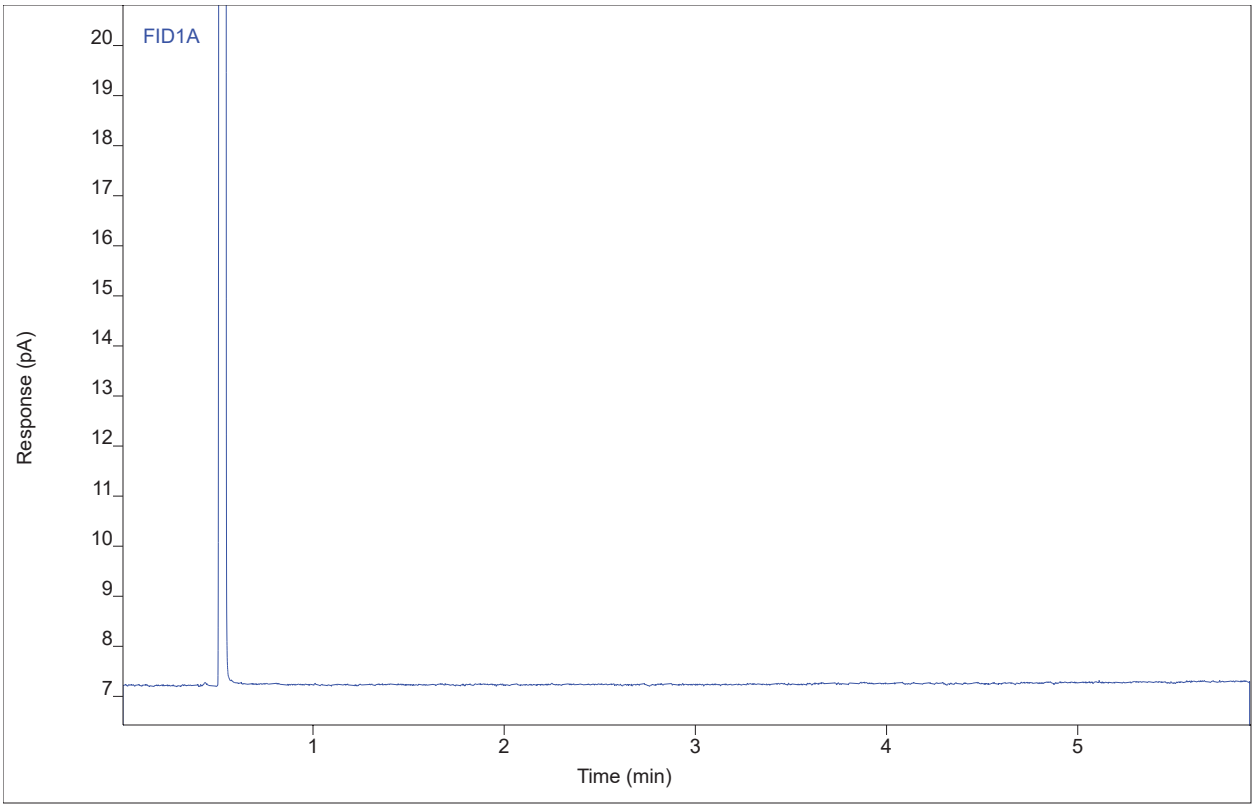
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	030F1802.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 7:57 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 30
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



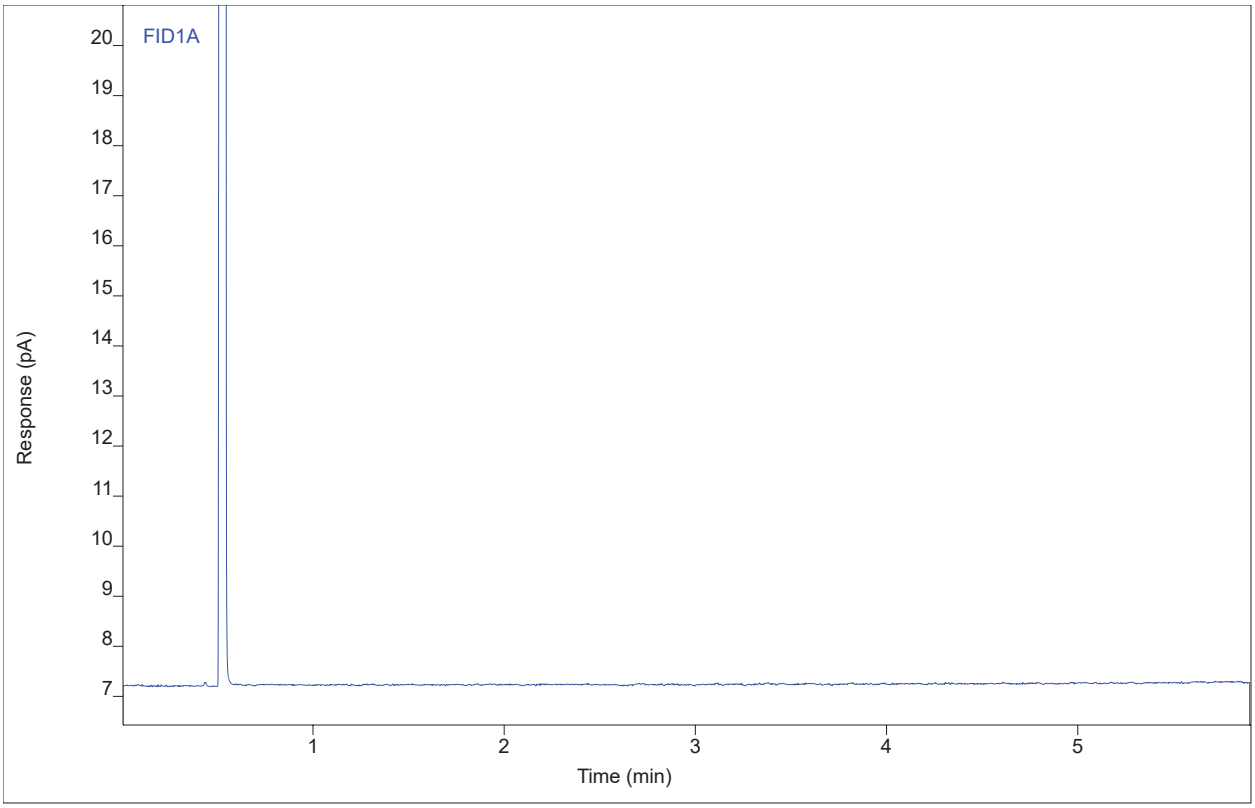
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	030F1803.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:07 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 30
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



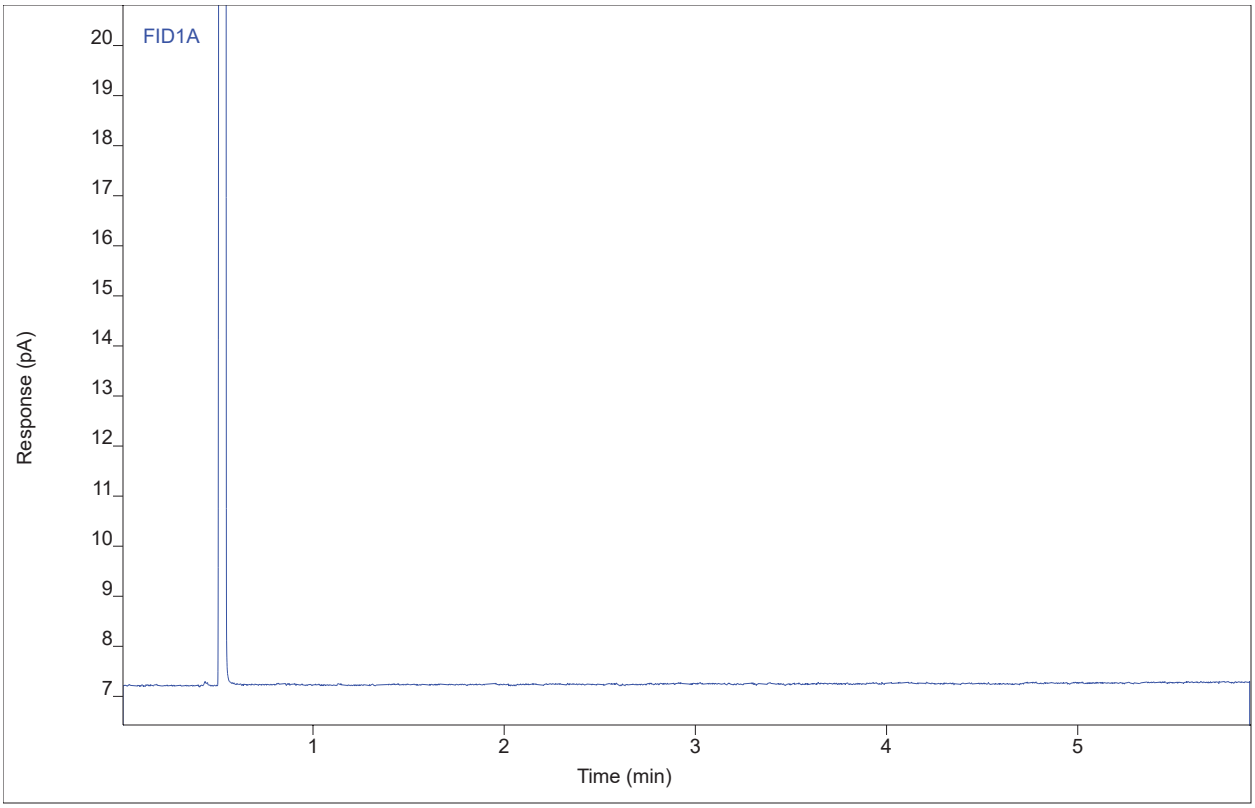
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	031F1901.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:17 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 31
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



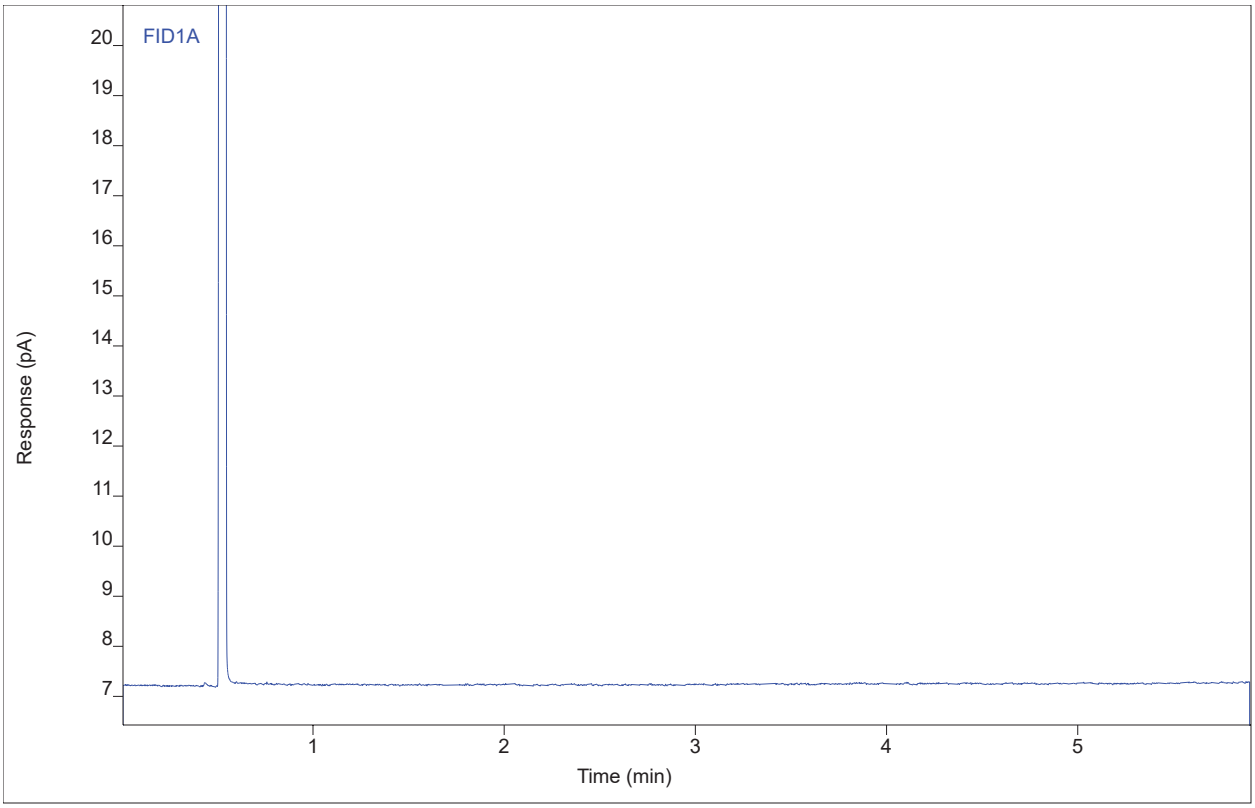
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	031F1902.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:28 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 31
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



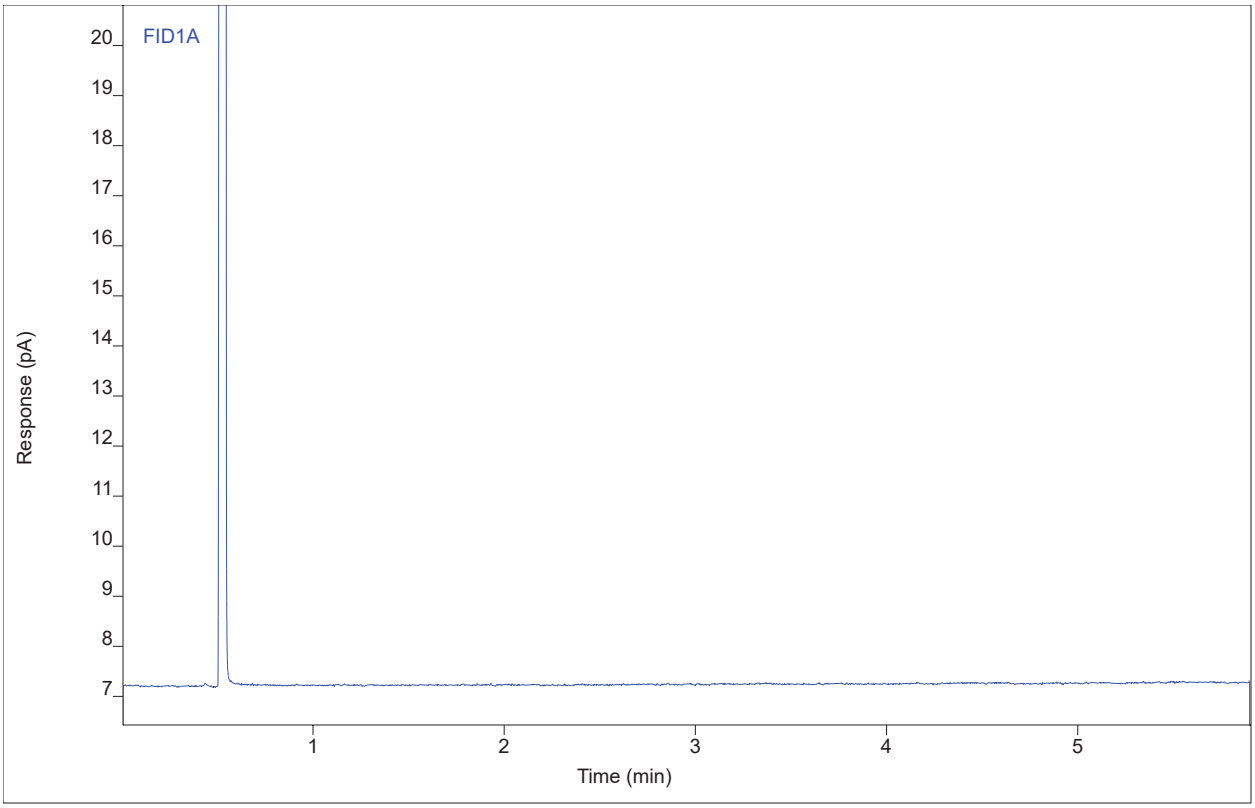
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	031F1903.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:38 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 31
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



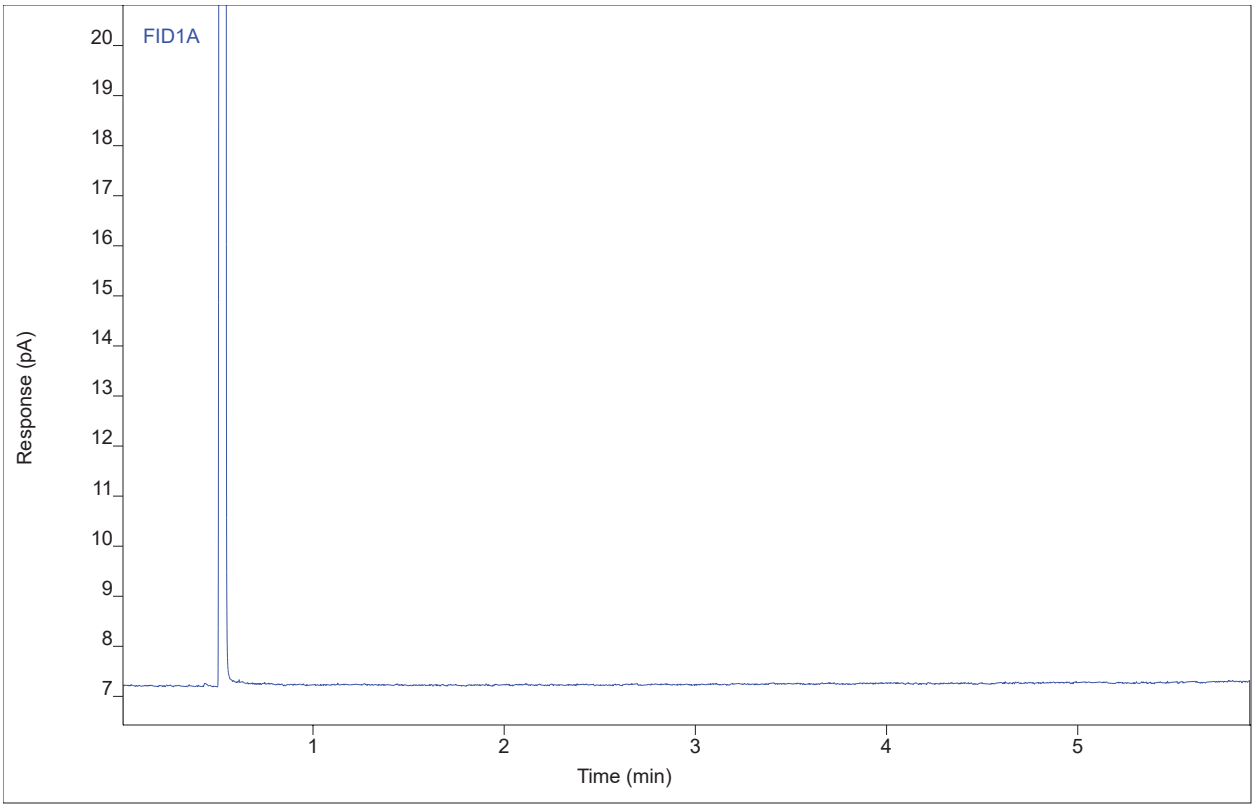
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	032F2001.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:48 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 32
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



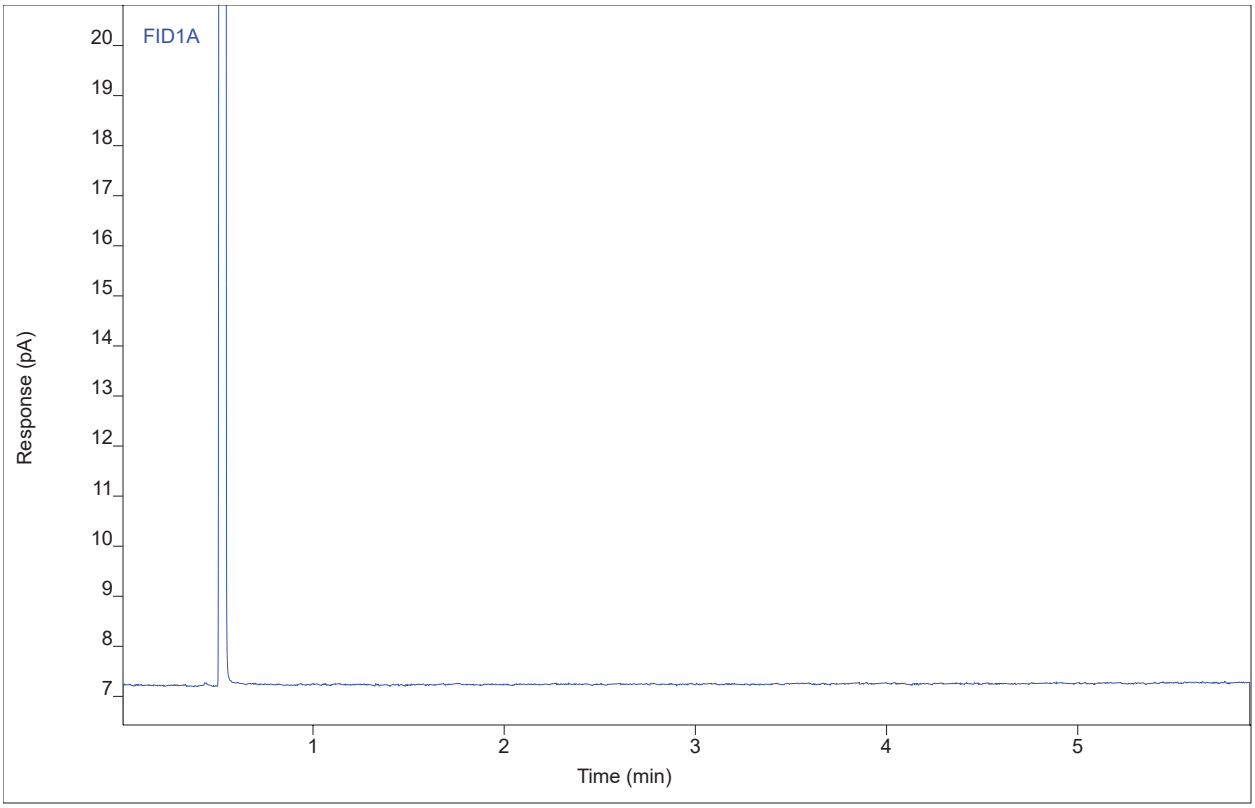
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	032F2002.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 8:59 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 32
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



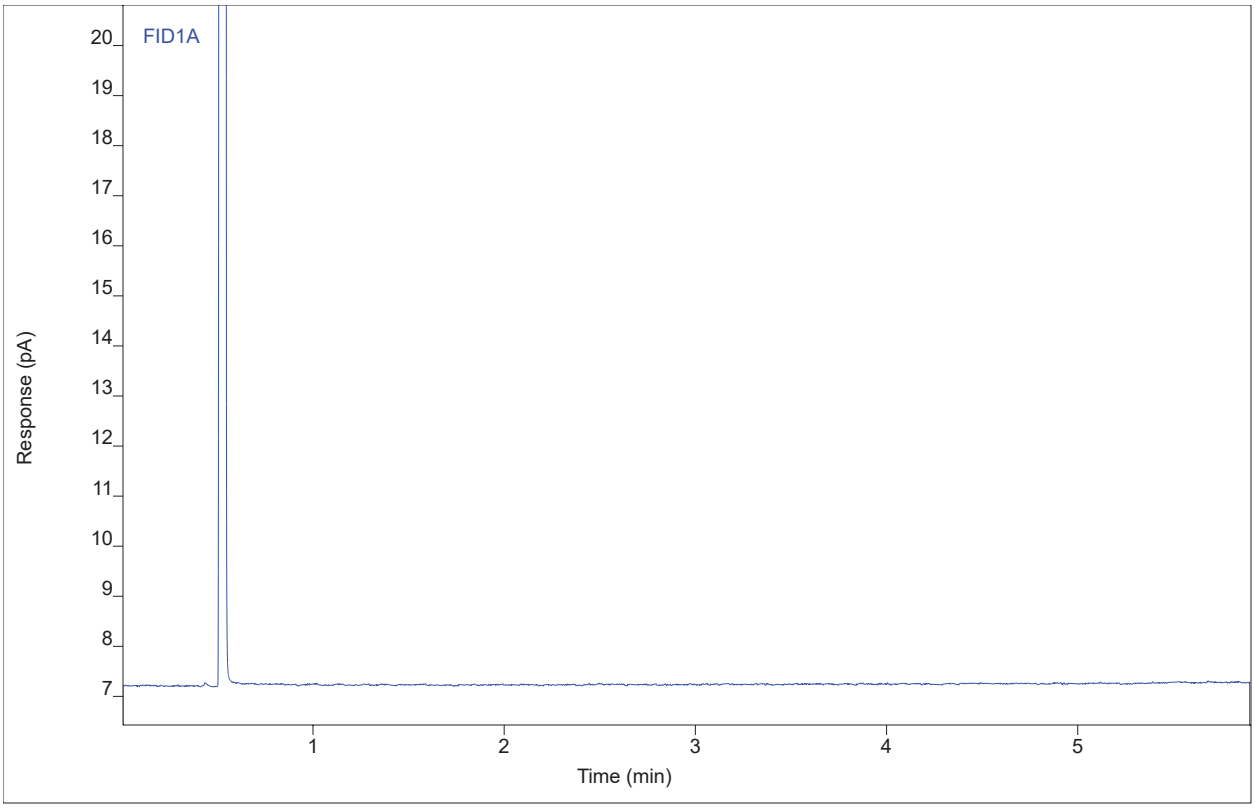
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R5.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	032F2003.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:09 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 32
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



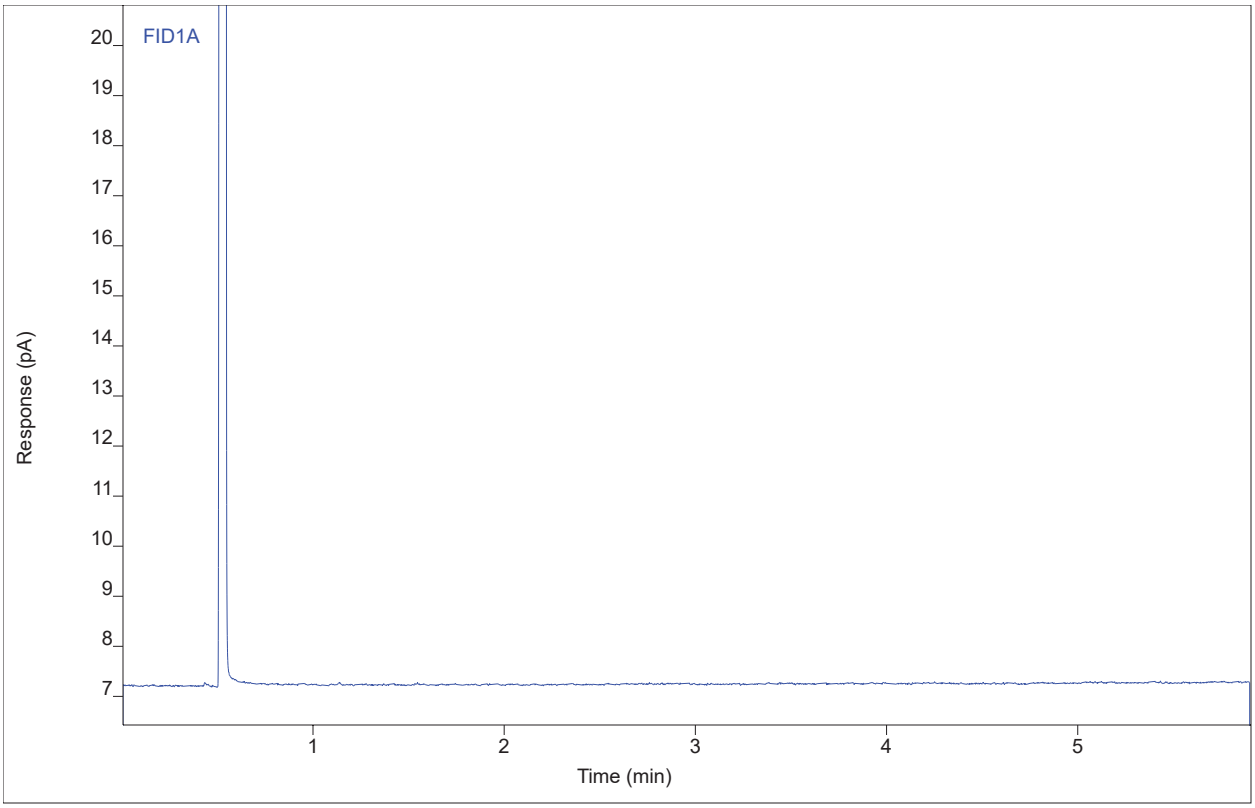
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	033F2101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:19 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 33
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



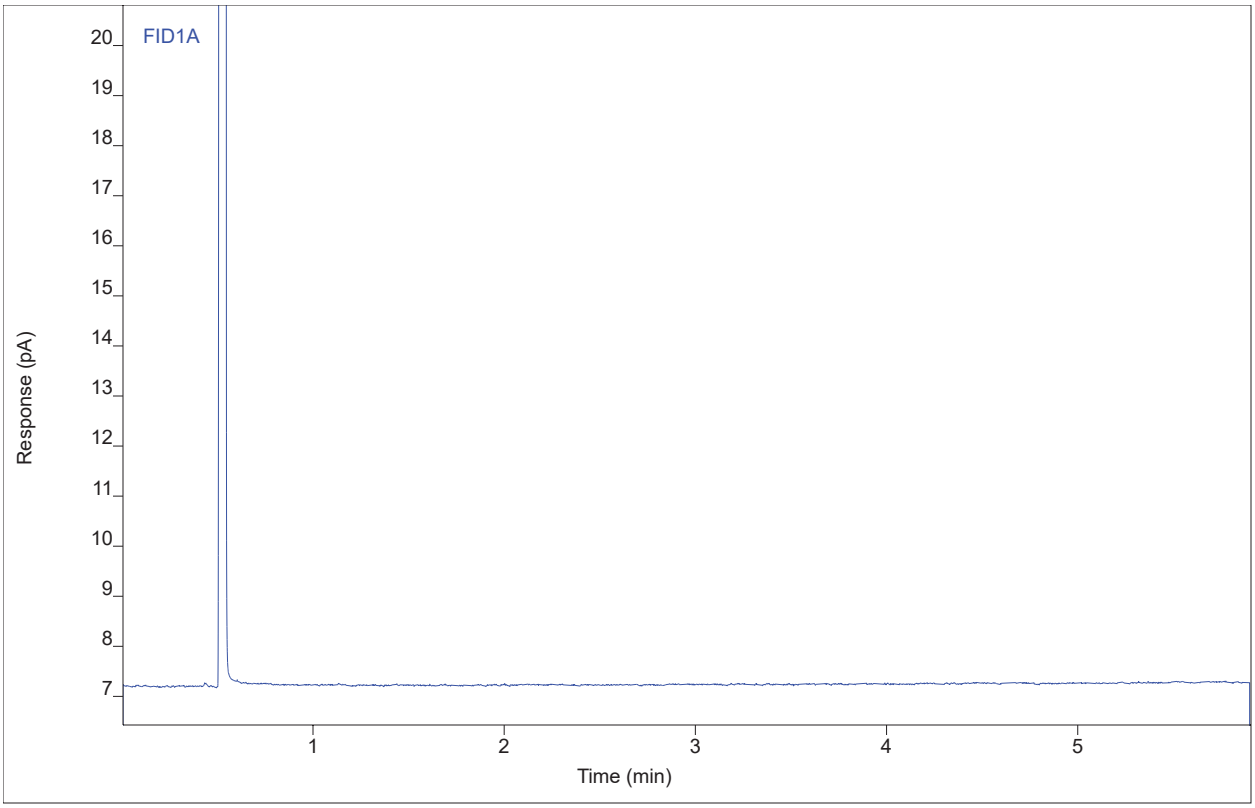
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	033F2102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:30 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 33
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



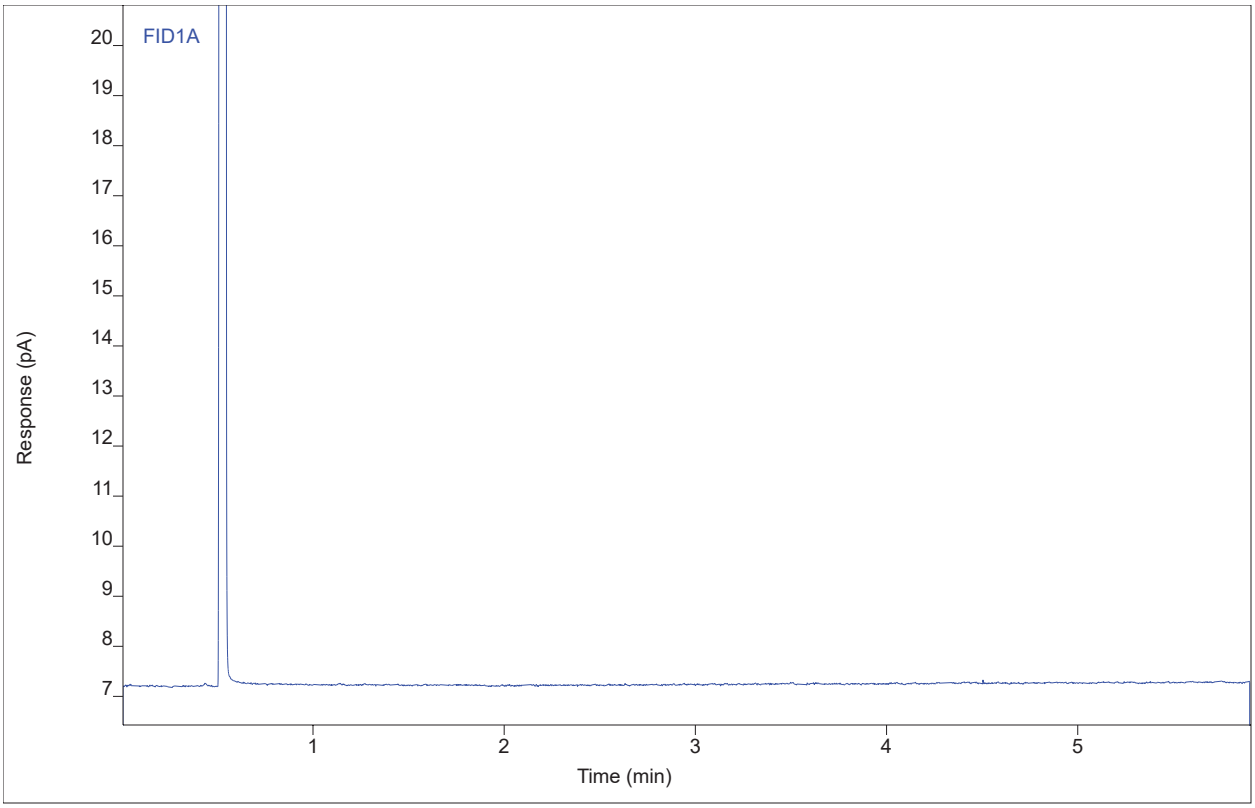
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	033F2103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:40 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 33
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



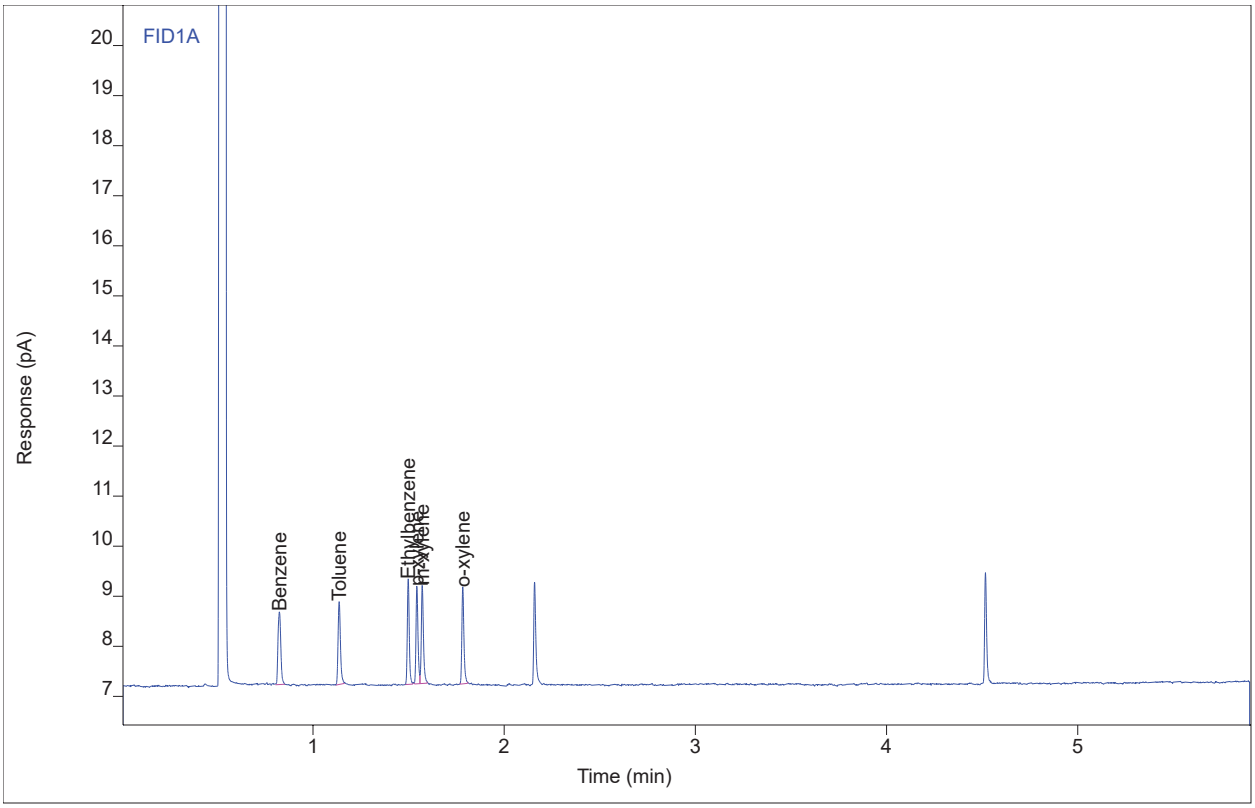
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	034F2201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 9:50 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 34
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



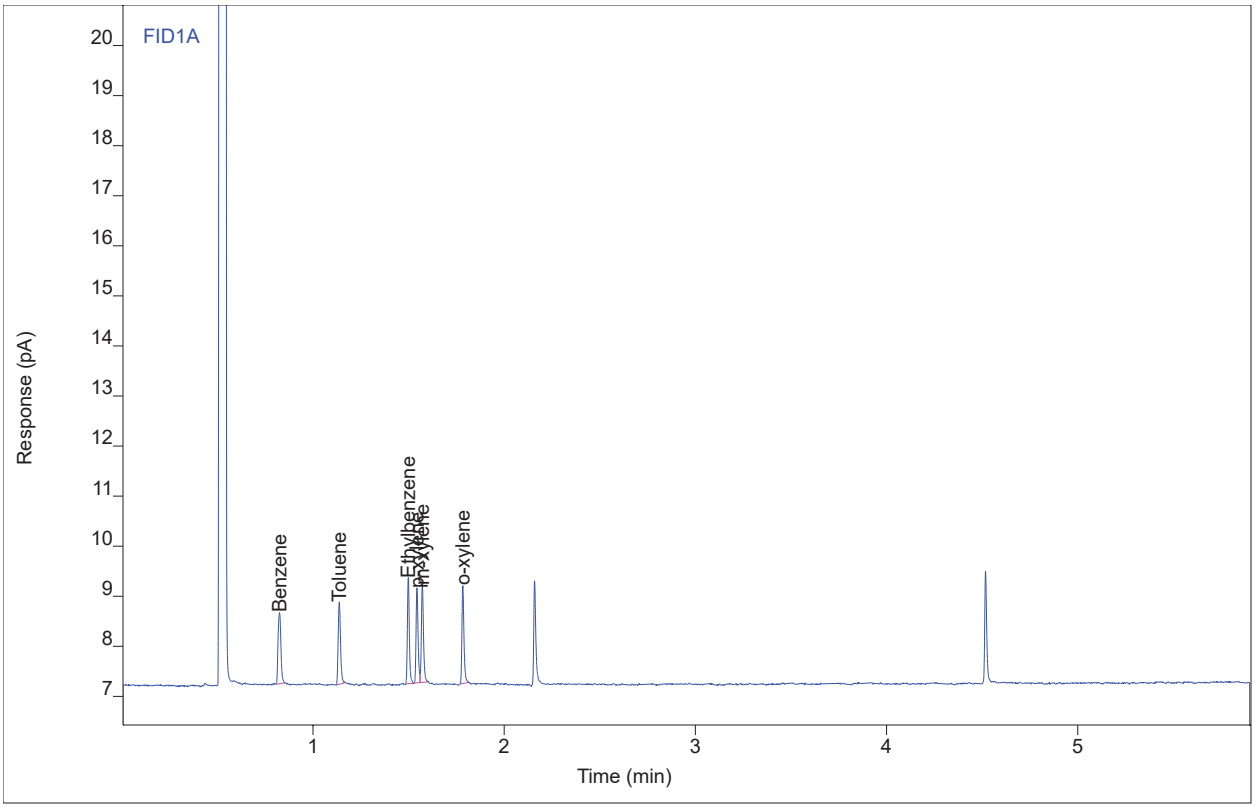
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.48850	1.45702	13.0542	1	13.0542	µg/mL
Toluene	BB	1.14	1.43919	1.66134	12.8001	1	12.8001	µg/mL
Ethylbenzene	BB	1.50	1.48769	2.11062	13.2037	1	13.2037	µg/mL
p-xylene	BV	1.54	1.41735	1.95193	12.7972	1	12.7972	µg/mL
m-xylene	VB	1.57	1.52335	1.96187	13.2400	1	13.2400	µg/mL
o-xylene	BB	1.78	1.46060	1.93595	13.0572	1	13.0572	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	034F2202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:01 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 34
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



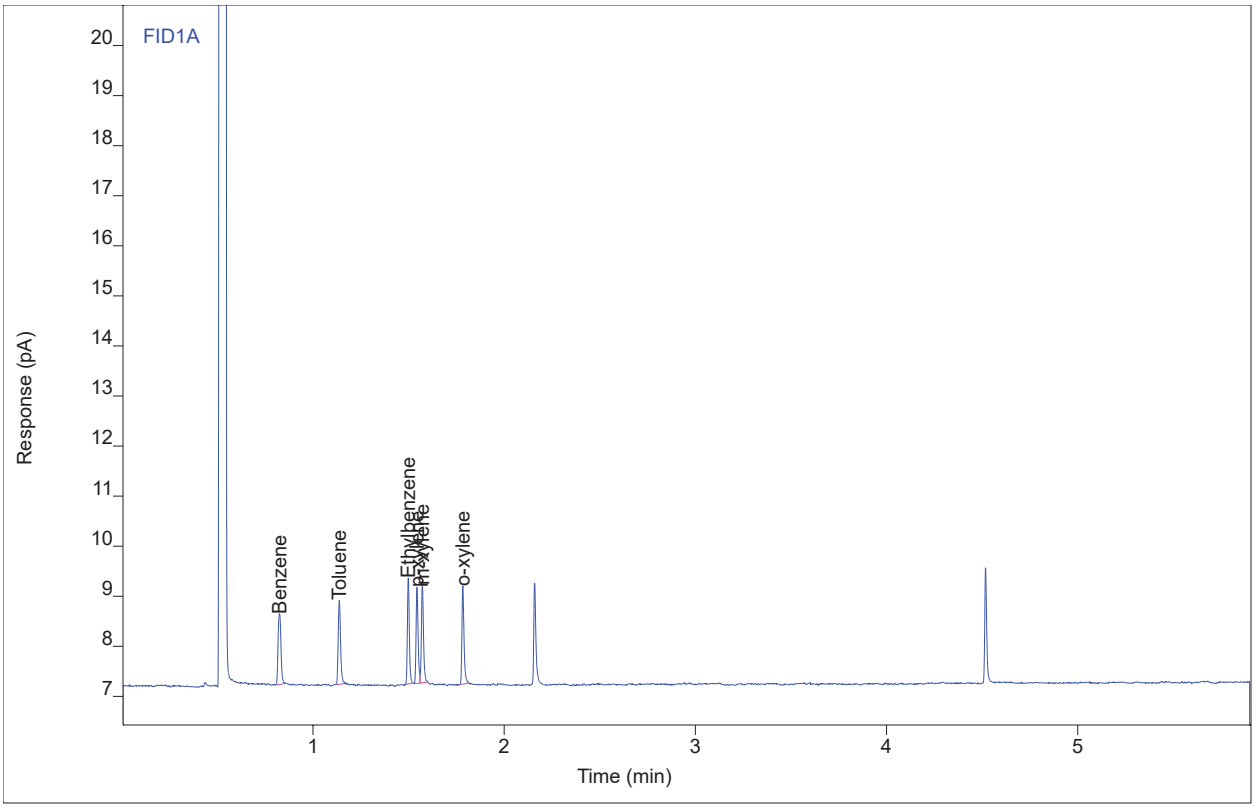
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	1.46847	1.42826	12.8788	1	12.8788	µg/mL
Toluene	BB	1.14	1.41276	1.64804	12.5696	1	12.5696	µg/mL
Ethylbenzene	BB	1.50	1.48674	2.12017	13.1955	1	13.1955	µg/mL
p-xylene	BV	1.54	1.39923	1.90577	12.6383	1	12.6383	µg/mL
m-xylene	VB	1.57	1.49897	1.95404	13.0326	1	13.0326	µg/mL
o-xylene	BB	1.78	1.45222	1.95363	12.9842	1	12.9842	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	034F2203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:11 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 34
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



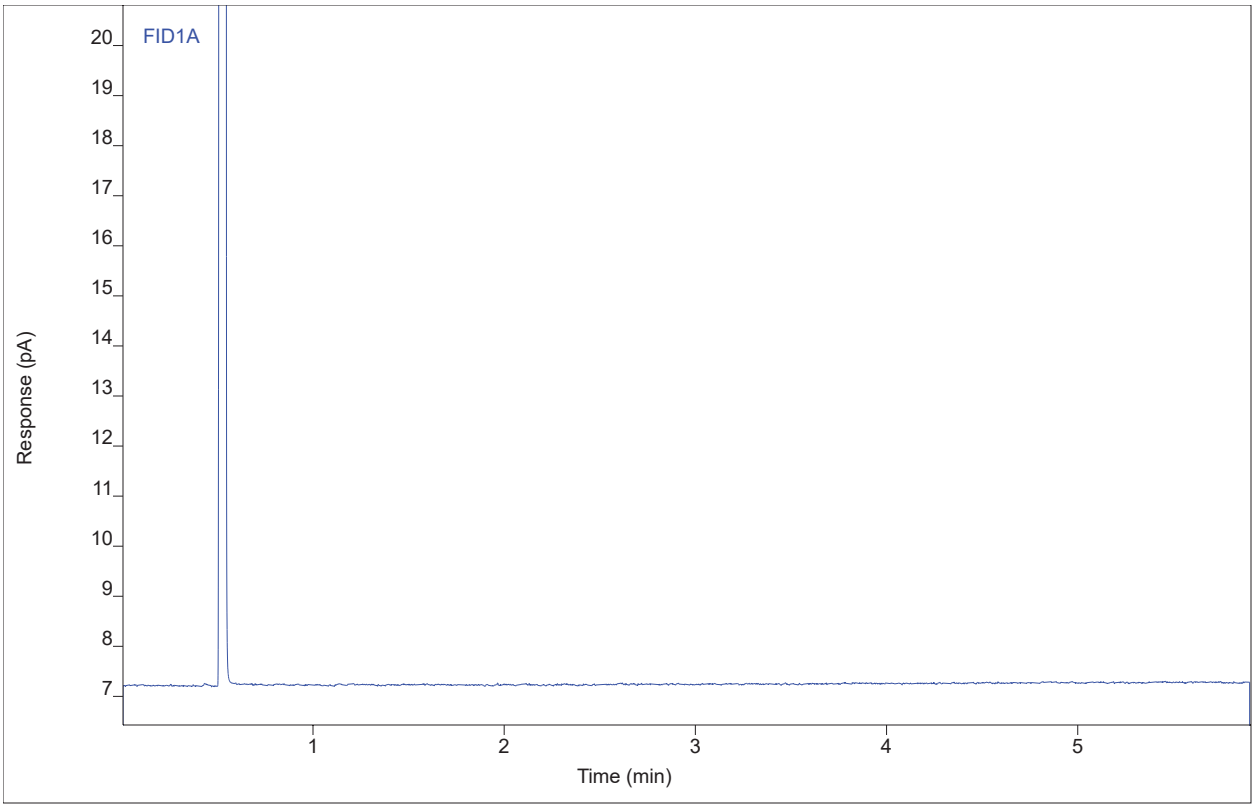
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.49294	1.41088	13.0931	1	13.0931	µg/mL
Toluene	BB	1.14	1.44039	1.68407	12.8106	1	12.8106	µg/mL
Ethylbenzene	BB	1.50	1.47413	2.11520	13.0864	1	13.0864	µg/mL
p-xylene	BV	1.54	1.41605	1.93396	12.7858	1	12.7858	µg/mL
m-xylene	VB	1.57	1.49493	1.95174	12.9982	1	12.9982	µg/mL
o-xylene	BB	1.78	1.47770	1.95380	13.2062	1	13.2062	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	035F2301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:32 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 35
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



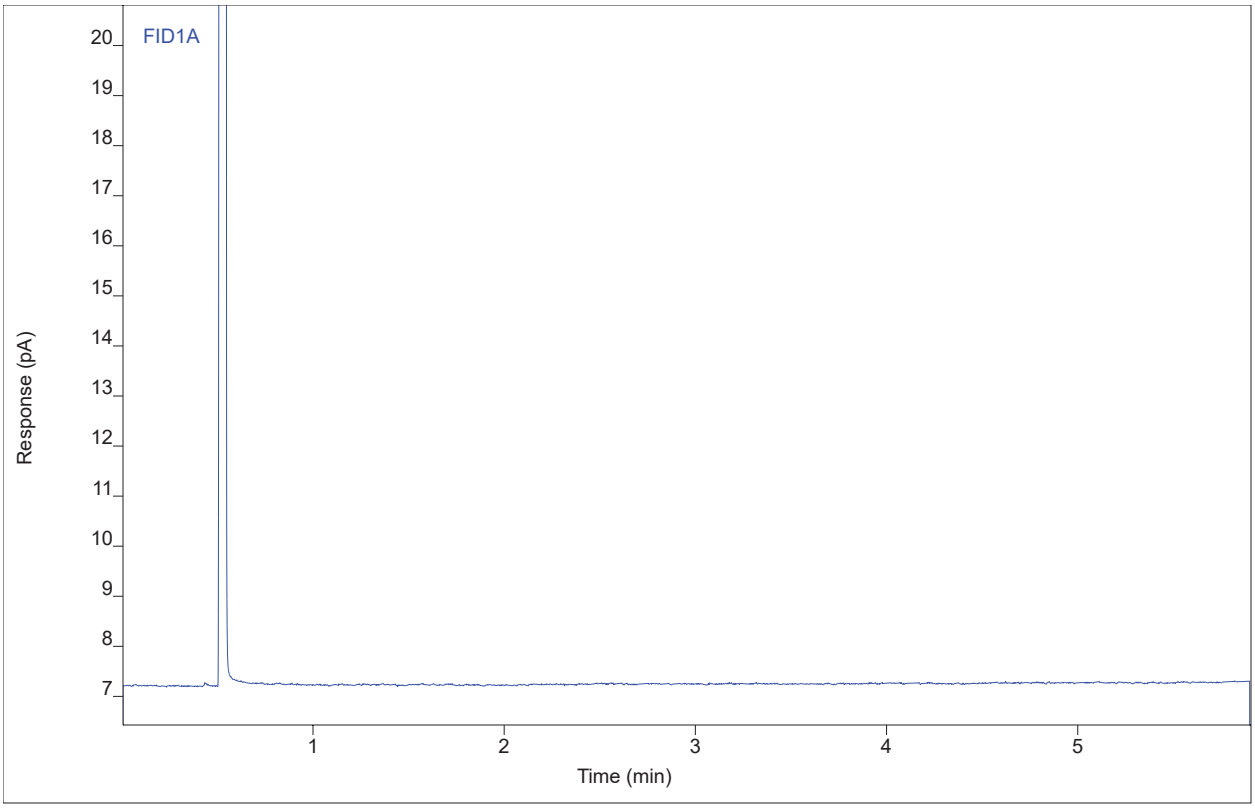
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	035F2302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:42 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 35
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



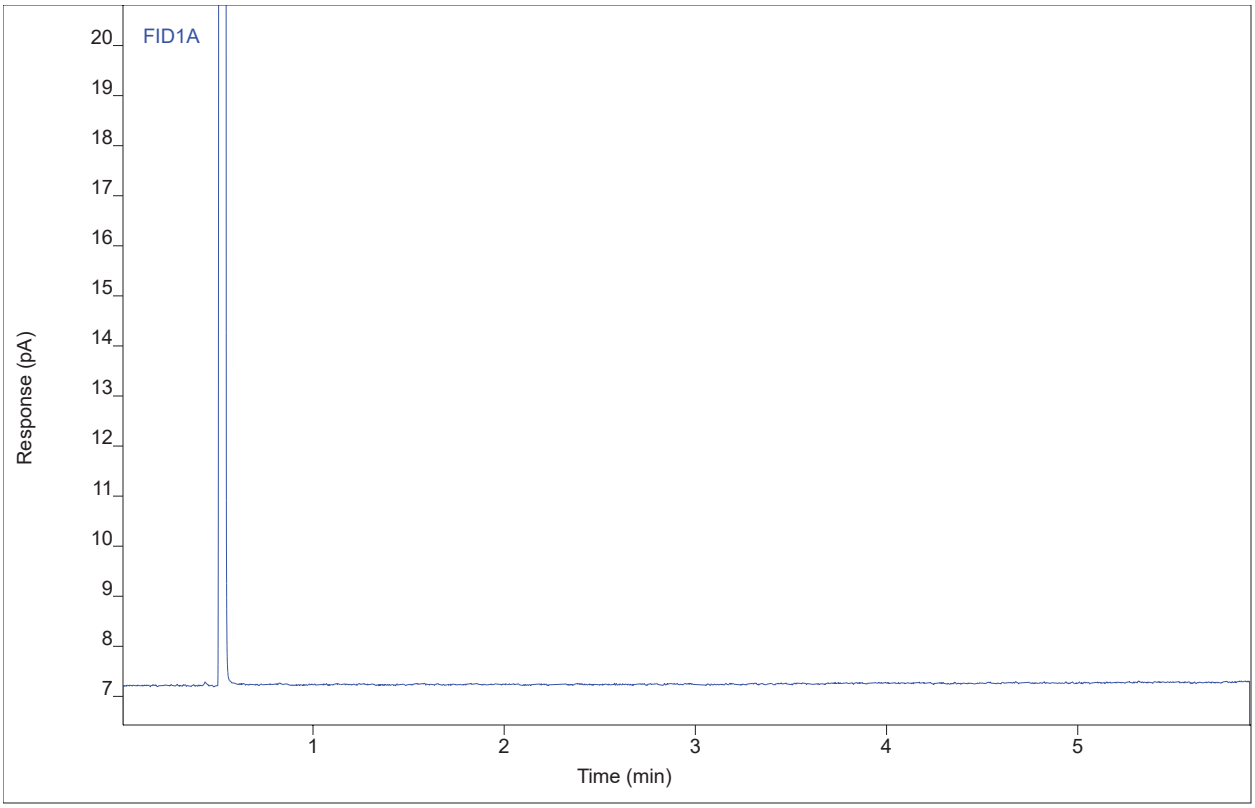
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	035F2303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 10:52 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 35
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



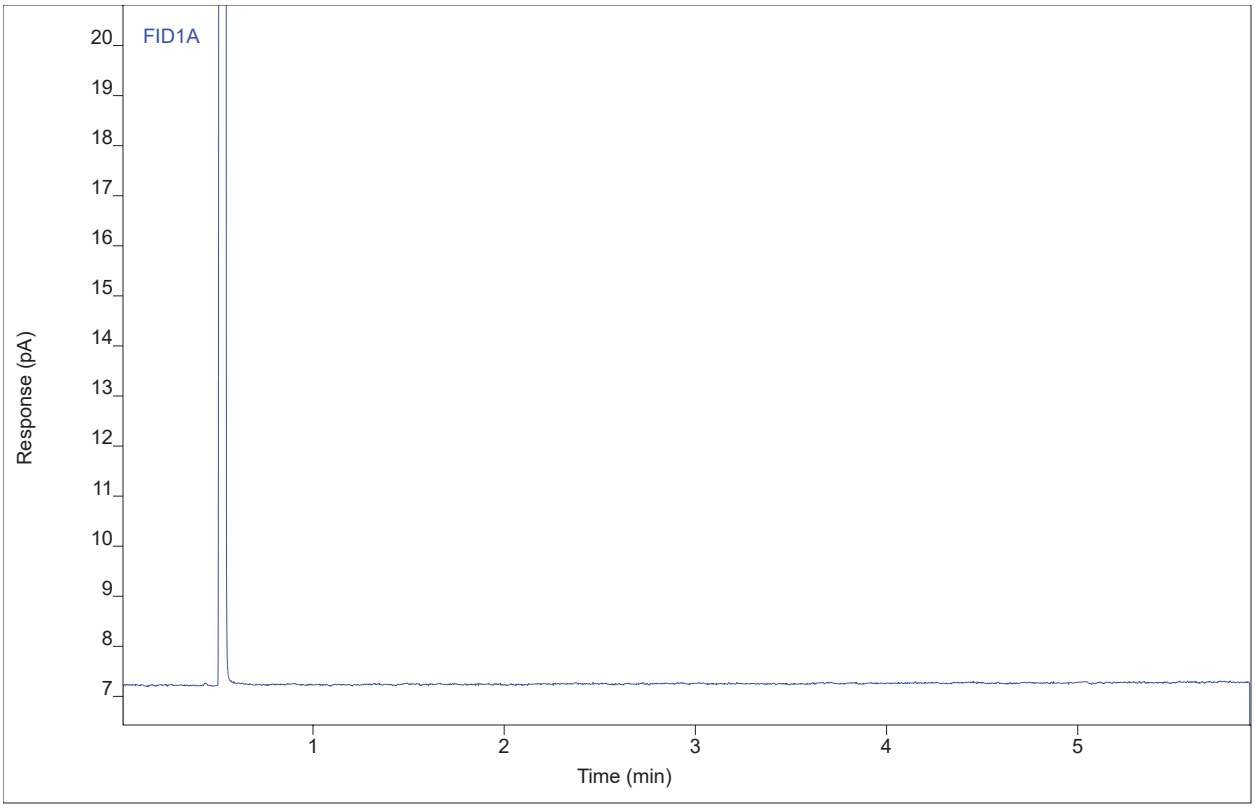
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R7.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	036F2401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:03 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 36
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



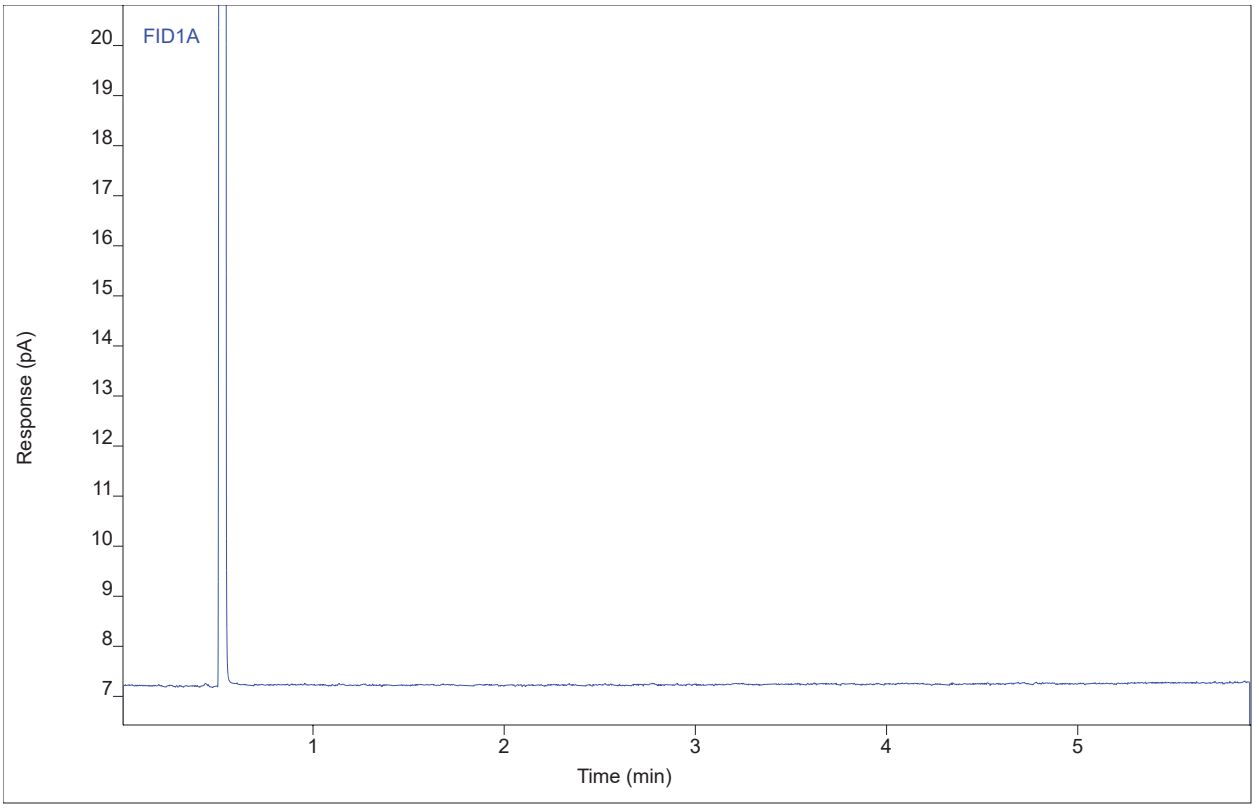
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	036F2402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:13 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 36
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



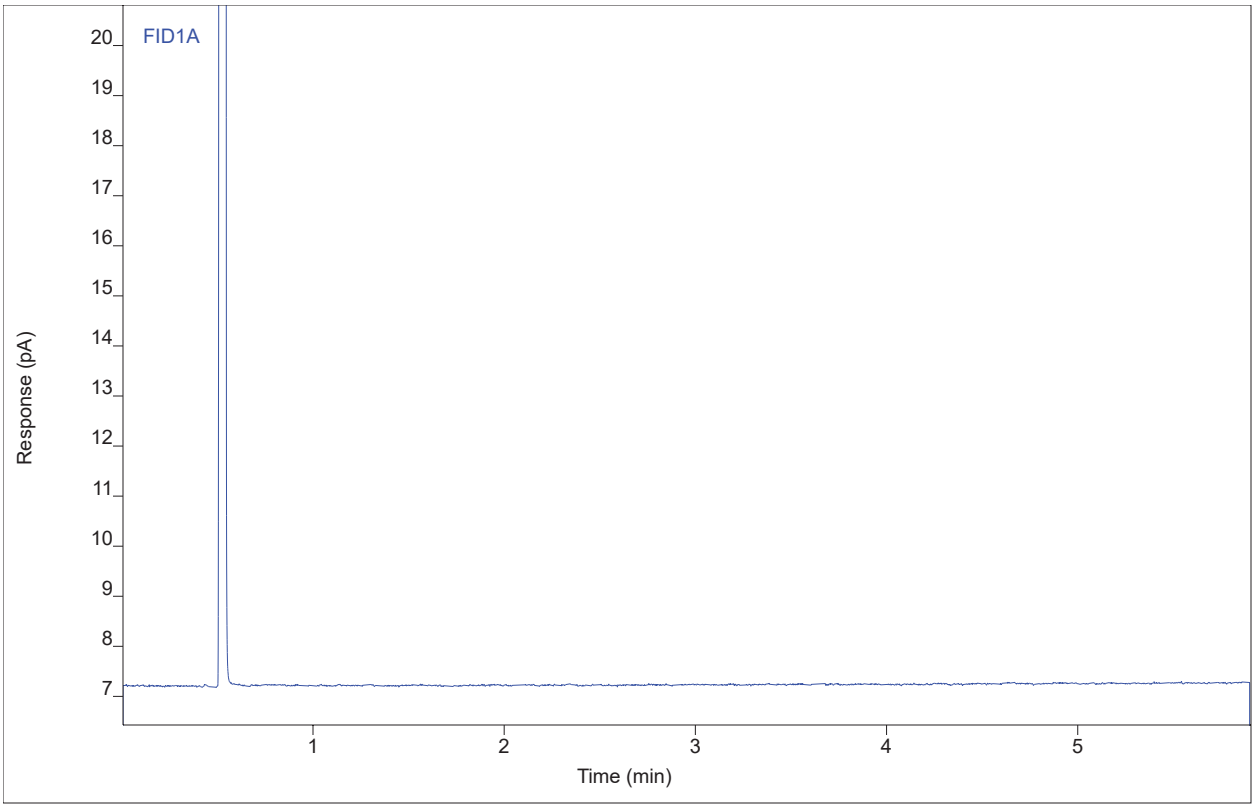
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R7.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	036F2403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:23 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 36
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



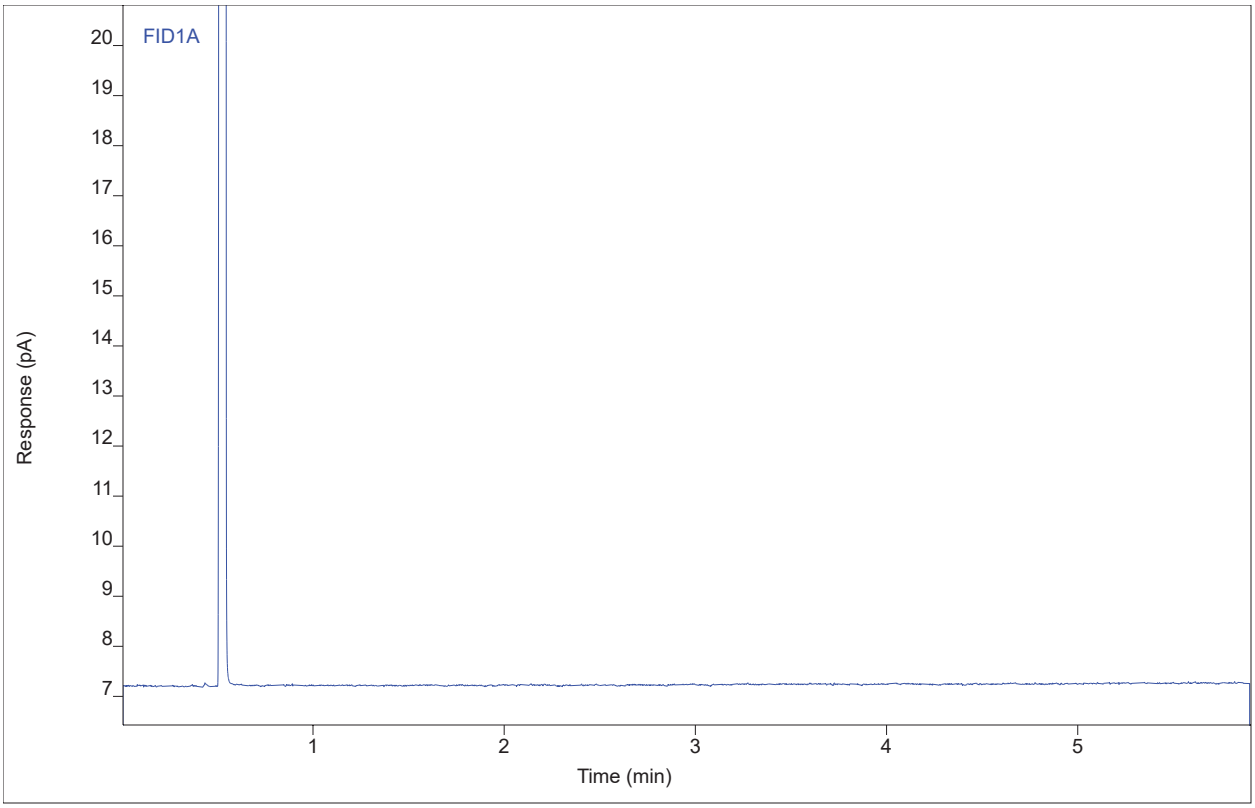
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	037F2501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:33 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 37
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



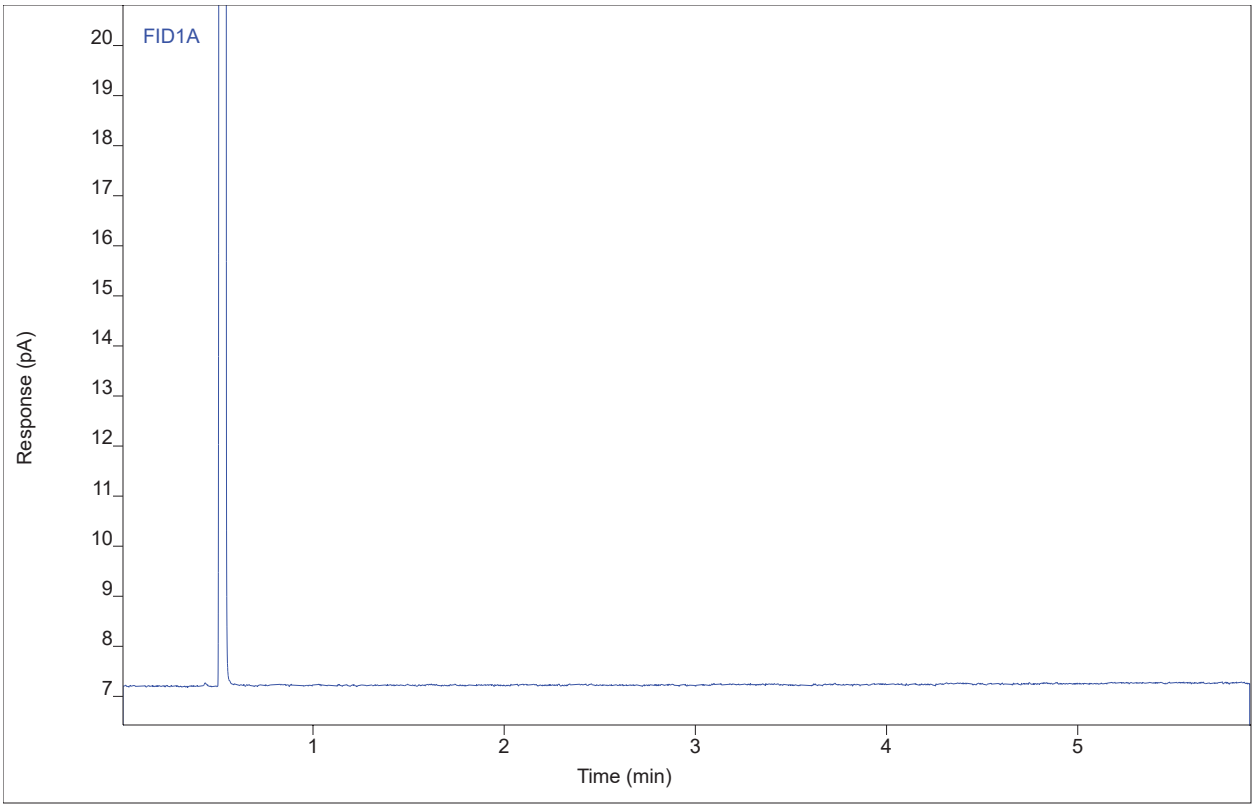
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R7.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	037F2502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:44 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 37
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



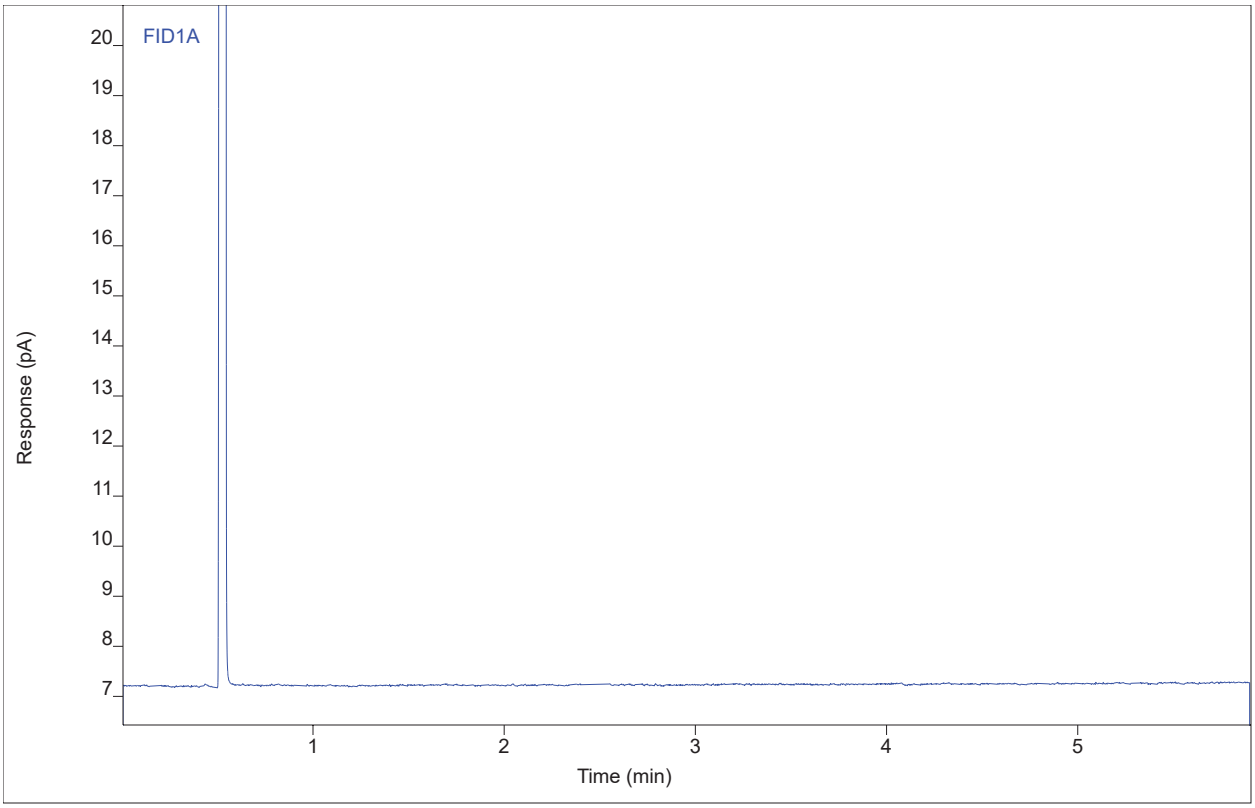
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	037F2503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/23/2023 11:54 PM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 37
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



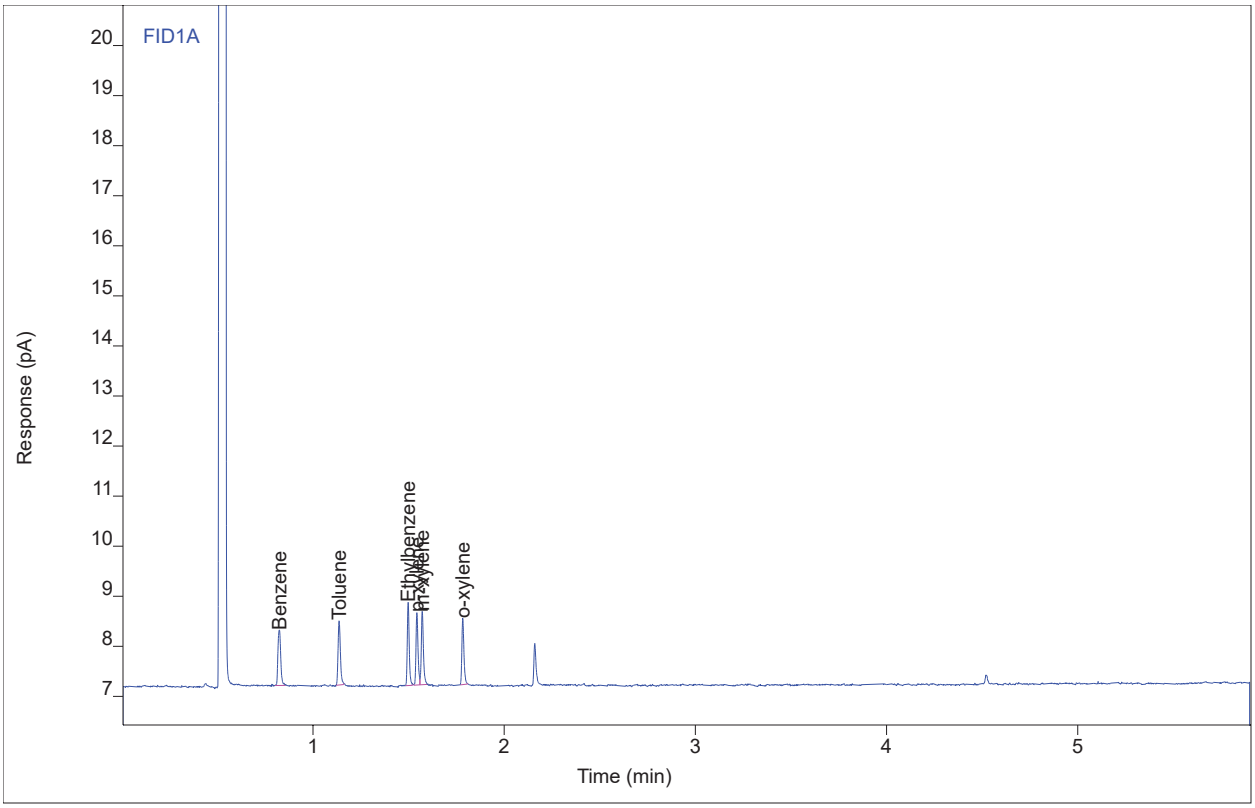
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	038F2601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:04 AM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 38
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



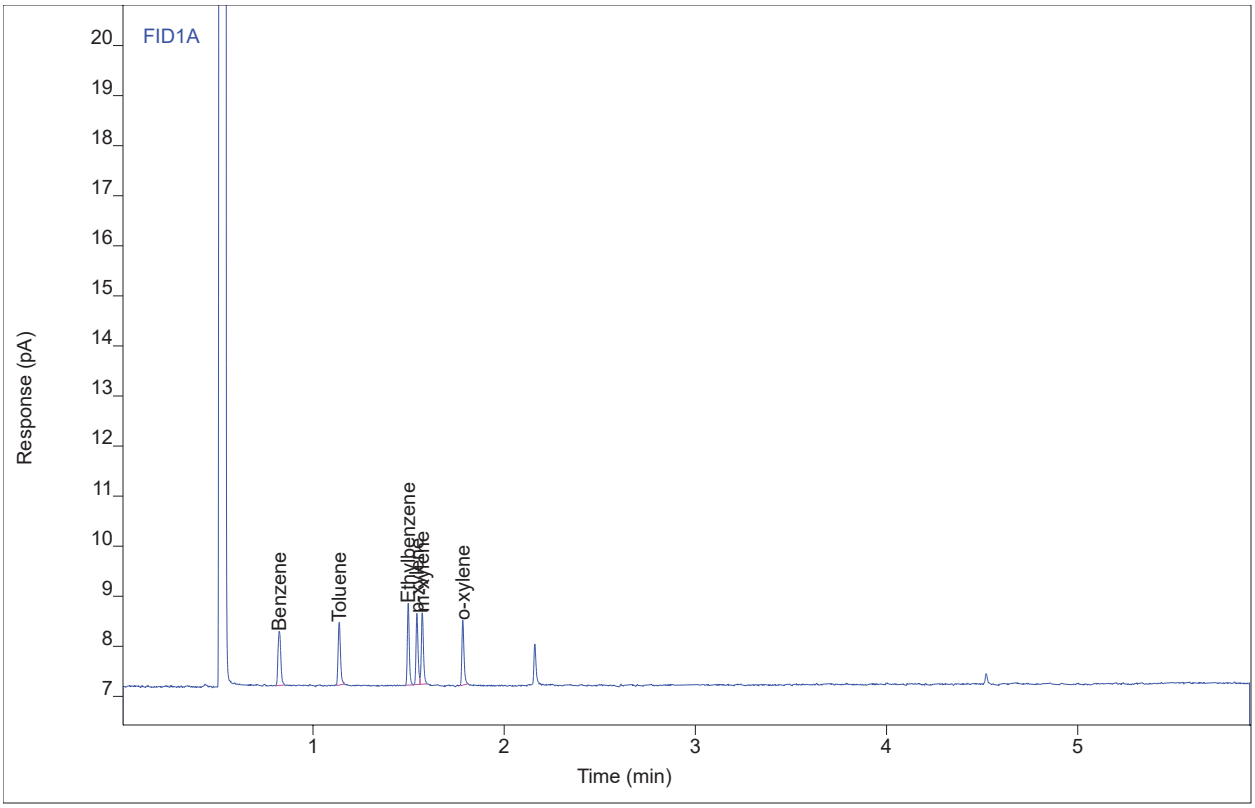
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.12645	1.11344	9.88419	1	9.88419	µg/mL
Toluene	BB	1.14	1.08884	1.28817	9.74391	1	9.74391	µg/mL
Ethylbenzene	BB	1.50	1.16023	1.65983	10.3715	1	10.3715	µg/mL
p-xylene	BV	1.54	1.06769	1.44587	9.73080	1	9.73080	µg/mL
m-xylene	VB	1.57	1.13199	1.47091	9.91101	1	9.91101	µg/mL
o-xylene	BB	1.78	0.99532	1.33303	9.00193	1	9.00193	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	038F2602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:15 AM
File Modified	2/24/2023 4:48 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 38
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



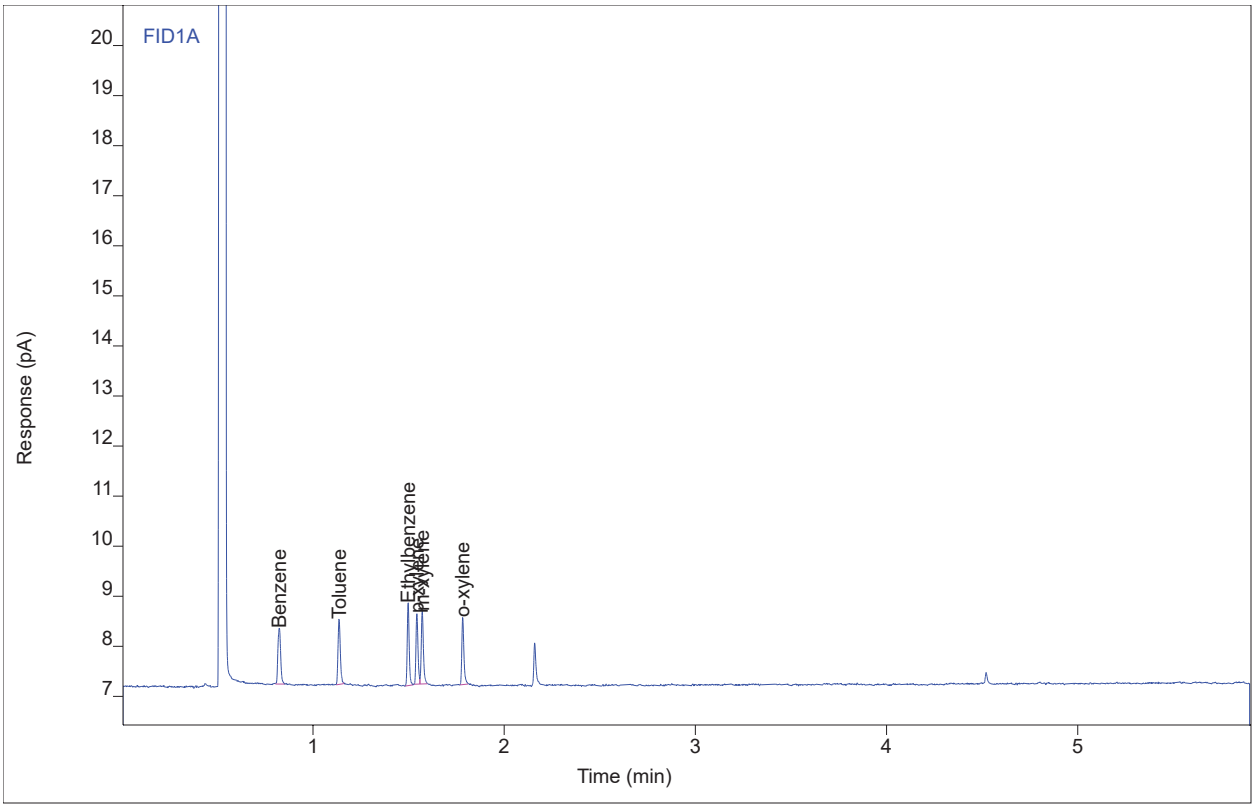
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11010	1.08890	9.74101	1	9.74101	µg/mL
Toluene	BB	1.14	1.07829	1.25765	9.65185	1	9.65185	µg/mL
Ethylbenzene	BB	1.50	1.14247	1.62793	10.2179	1	10.2179	µg/mL
p-xylene	BV	1.54	1.04598	1.42561	9.54044	1	9.54044	µg/mL
m-xylene	VB	1.57	1.11406	1.43482	9.75844	1	9.75844	µg/mL
o-xylene	BB	1.78	0.99737	1.28957	9.01974	1	9.01974	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	038F2603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:25 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 38
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



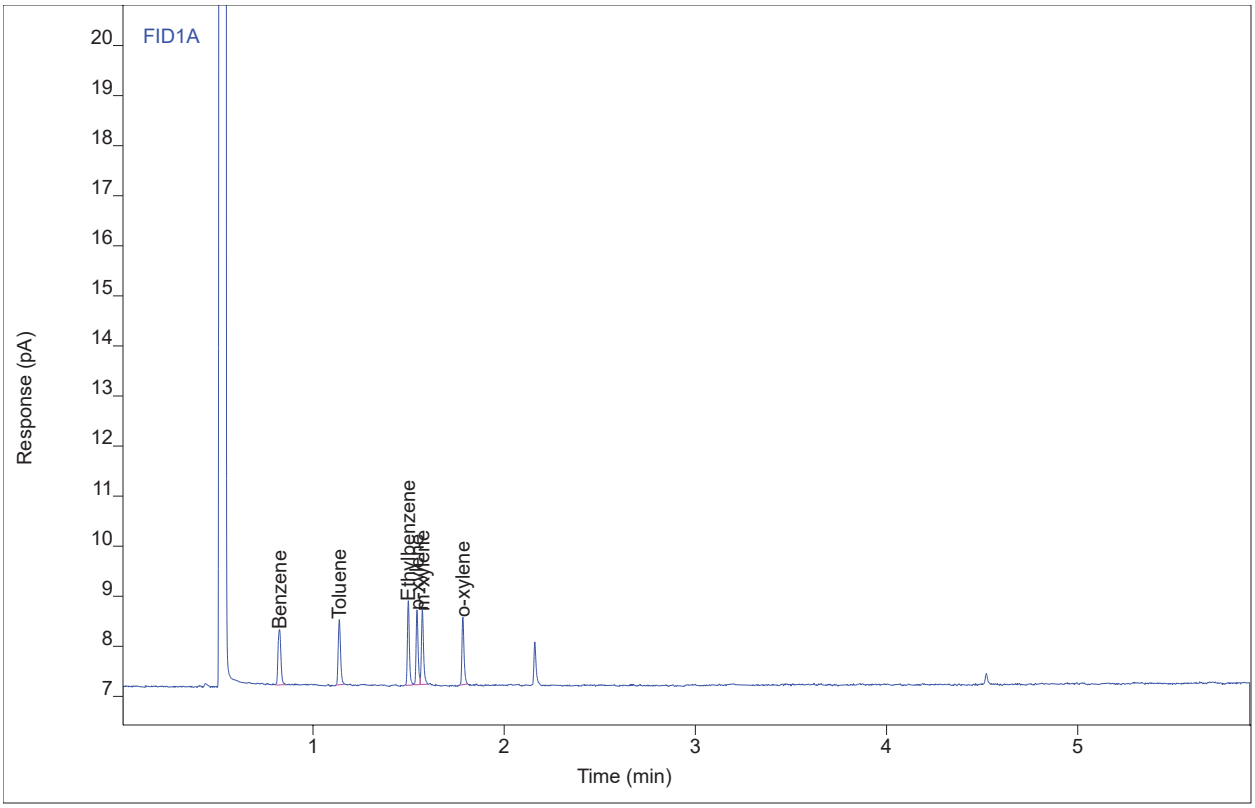
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.12017	1.11396	9.82919	1	9.82919	µg/mL
Toluene	BB	1.14	1.09550	1.29673	9.80198	1	9.80198	µg/mL
Ethylbenzene	BB	1.50	1.16505	1.66130	10.4132	1	10.4132	µg/mL
p-xylene	BV	1.54	1.04273	1.41182	9.51199	1	9.51199	µg/mL
m-xylene	VB	1.57	1.13962	1.46273	9.97583	1	9.97583	µg/mL
o-xylene	BB	1.78	1.01707	1.34102	9.19143	1	9.19143	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK-LD.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	039F2701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:35 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 39
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



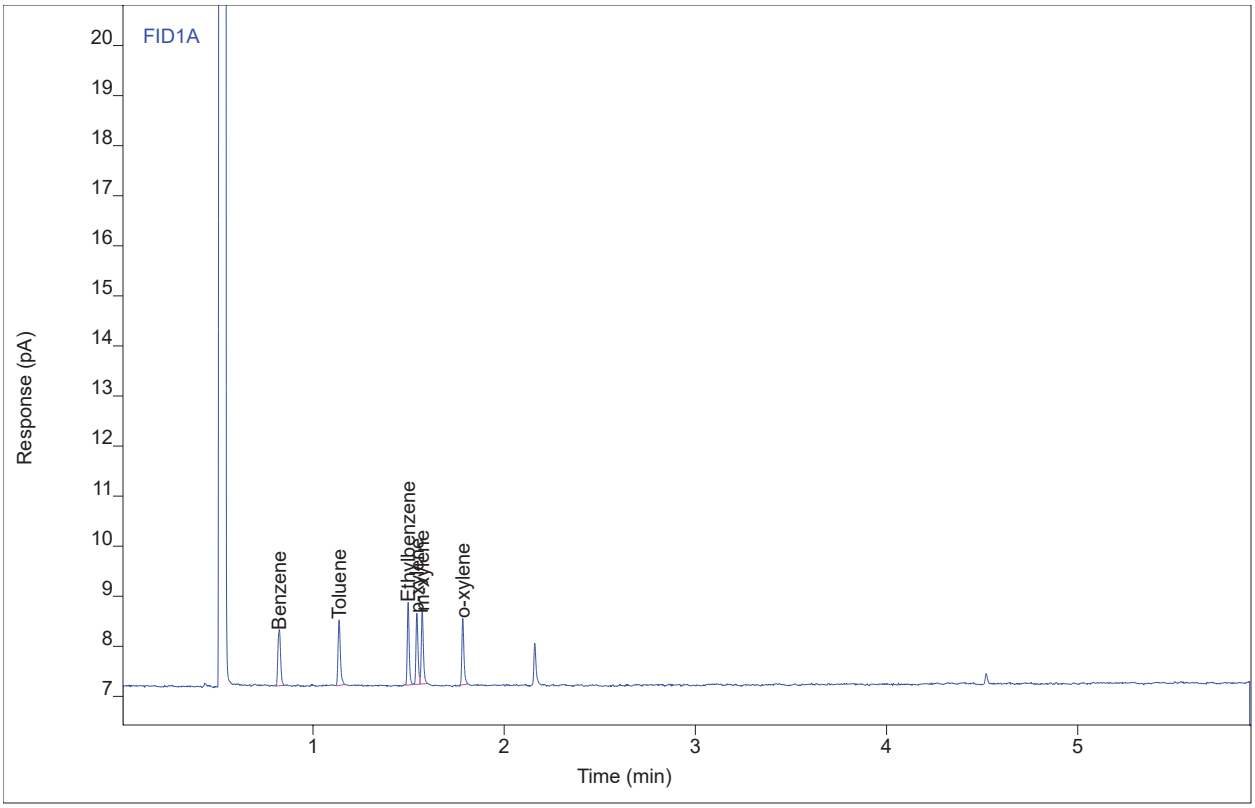
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.16768	1.11152	10.2451	1	10.2451	µg/mL
Toluene	BB	1.14	1.11032	1.30775	9.93125	1	9.93125	µg/mL
Ethylbenzene	BB	1.50	1.19921	1.68907	10.7086	1	10.7086	µg/mL
p-xylene	BV	1.54	1.08781	1.49915	9.90728	1	9.90728	µg/mL
m-xylene	VB	1.57	1.16674	1.47576	10.2065	1	10.2065	µg/mL
o-xylene	BB	1.78	1.02382	1.35333	9.25033	1	9.25033	µg/mL

Chromatogram Report

Sample Name	0123-099.R1-SPK-LD.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	039F2702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:45 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 39
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



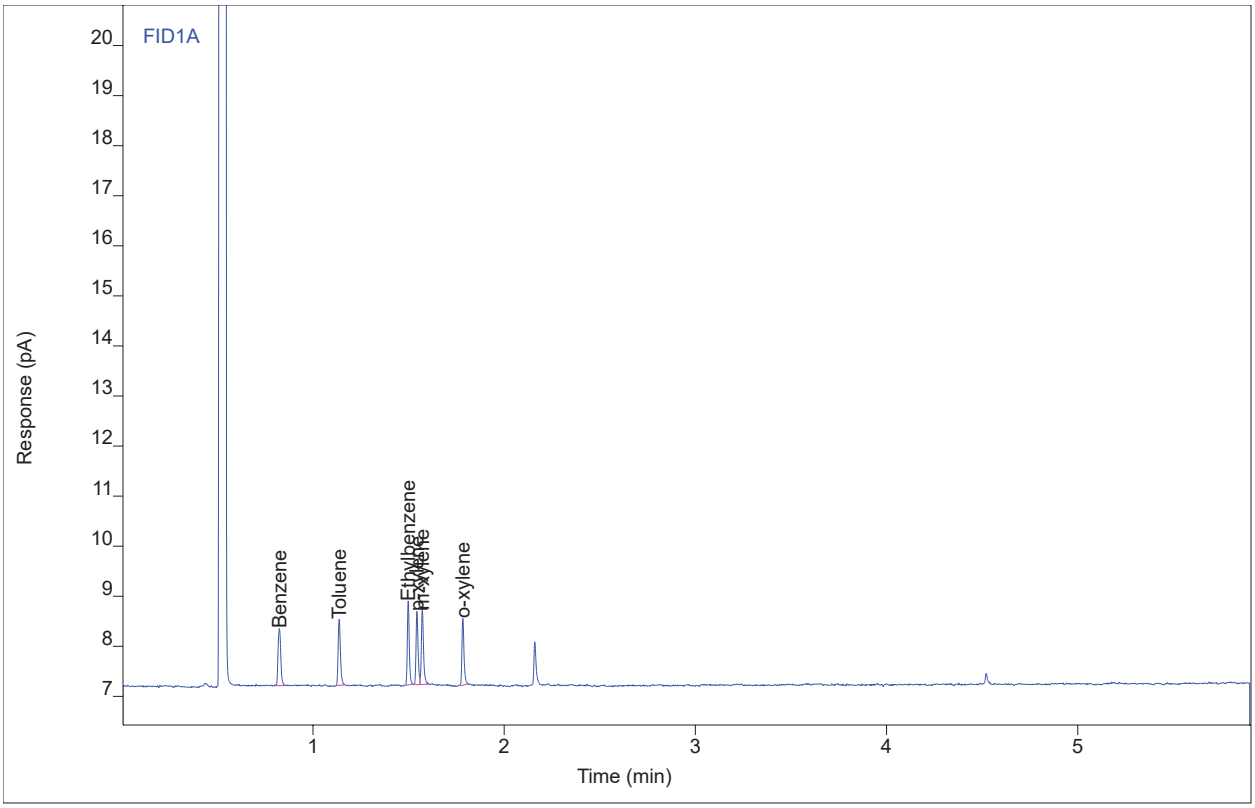
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10479	1.12057	9.69453	1	9.69453	µg/mL
Toluene	BB	1.14	1.12633	1.31811	10.0709	1	10.0709	µg/mL
Ethylbenzene	BB	1.50	1.14243	1.65819	10.2176	1	10.2176	µg/mL
p-xylene	BV	1.54	1.05869	1.42716	9.65189	1	9.65189	µg/mL
m-xylene	VB	1.57	1.12357	1.46581	9.83937	1	9.83937	µg/mL
o-xylene	BB	1.78	1.00578	1.32834	9.09305	1	9.09305	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK-LD.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	039F2703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:56 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 39
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



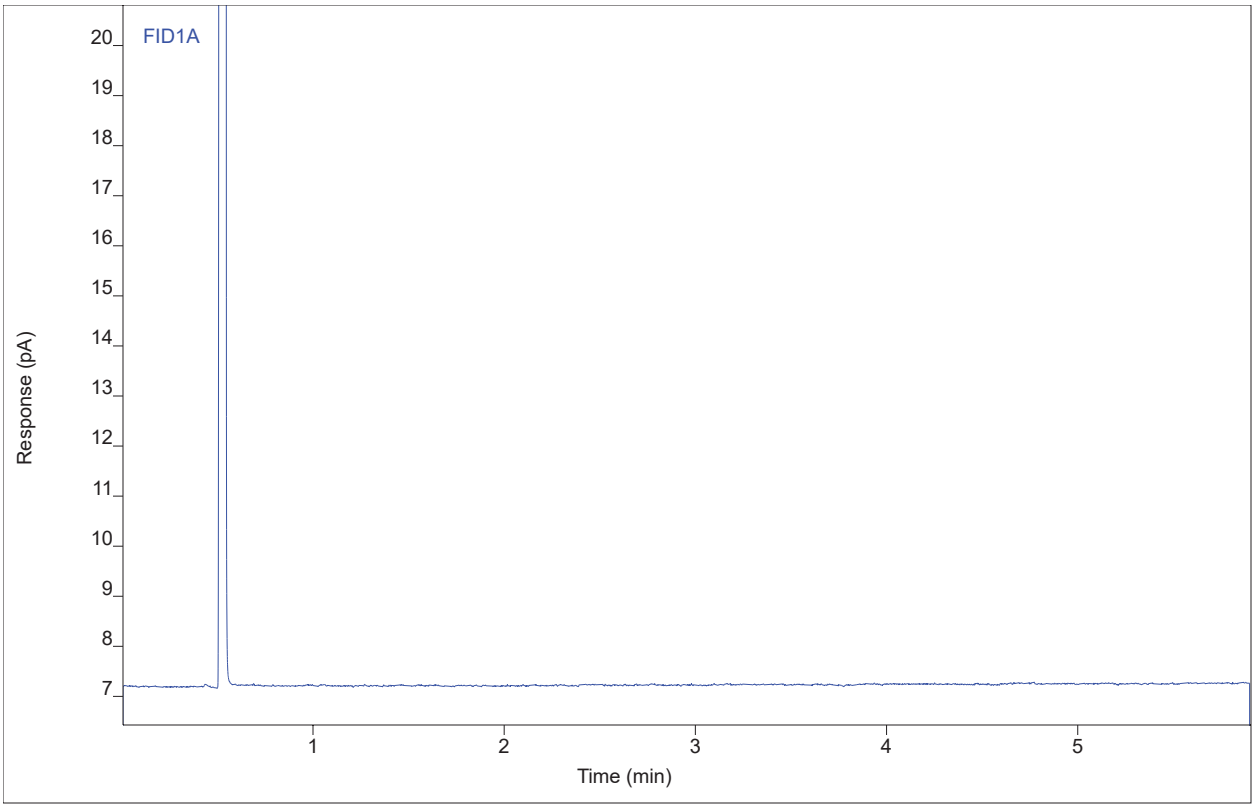
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.13038	1.14320	9.91856	1	9.91856	µg/mL
Toluene	BB	1.14	1.10045	1.31732	9.84512	1	9.84512	µg/mL
Ethylbenzene	BB	1.50	1.16871	1.67974	10.4449	1	10.4449	µg/mL
p-xylene	BV	1.54	1.08241	1.45280	9.85991	1	9.85991	µg/mL
m-xylene	VB	1.57	1.18403	1.49190	10.3536	1	10.3536	µg/mL
o-xylene	BB	1.78	1.01550	1.34671	9.17774	1	9.17774	µg/mL

Chromatogram Report

Sample Name	0123-099.R1-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	040F2801.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:06 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 40
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



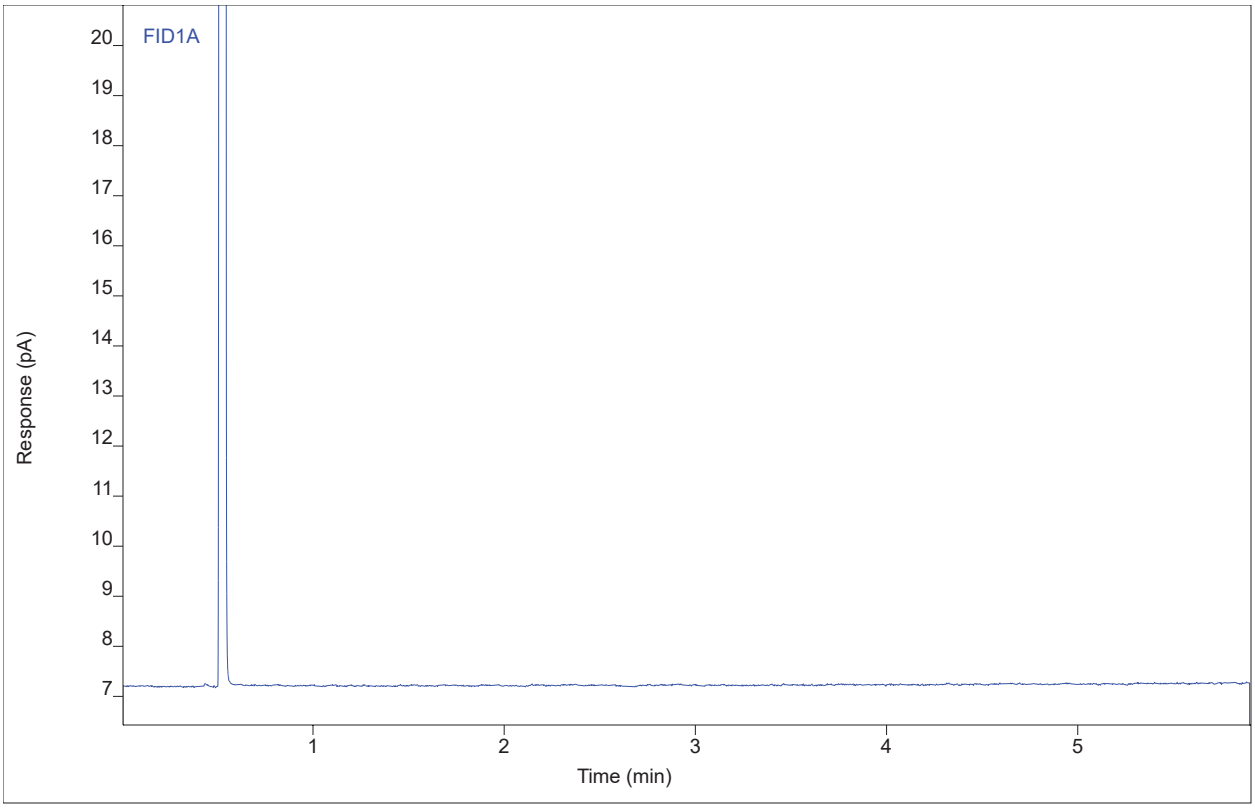
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R1-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	040F2802.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:16 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 40
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



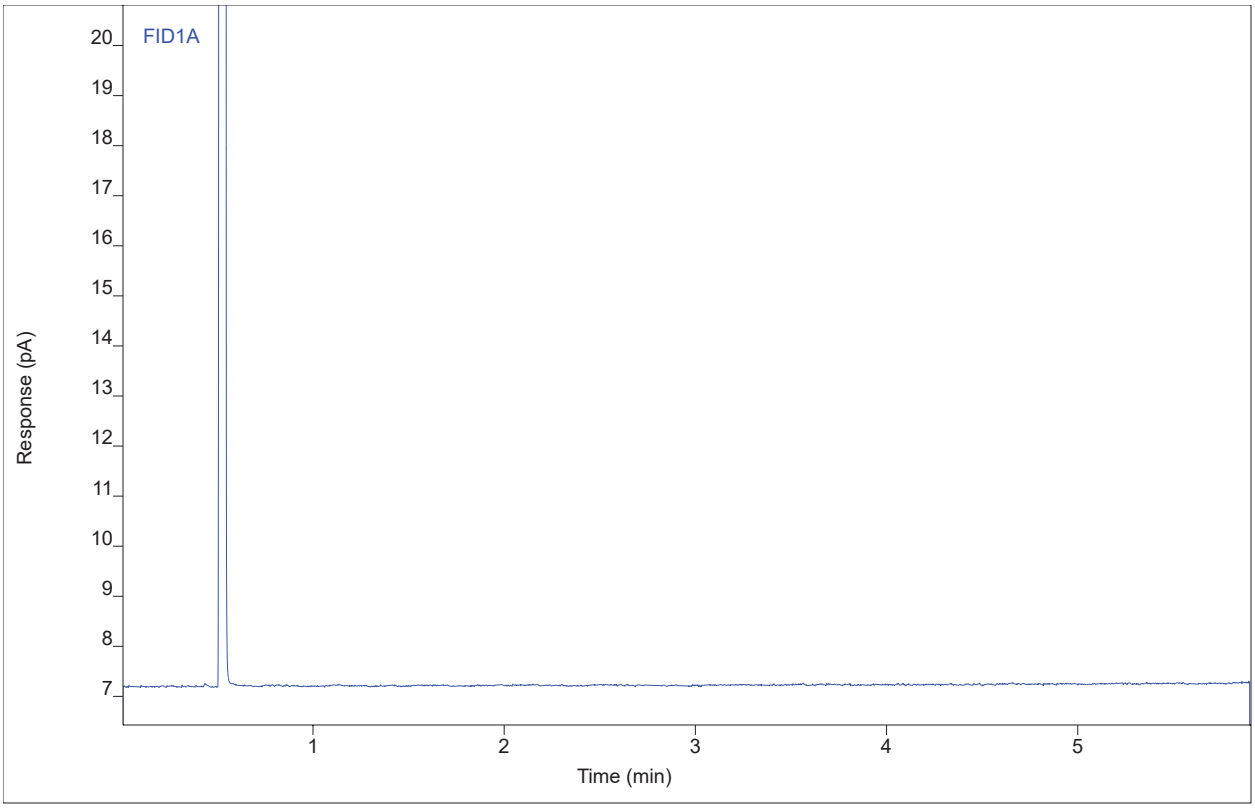
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	0123-099.R1-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	040F2803.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:27 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 40
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



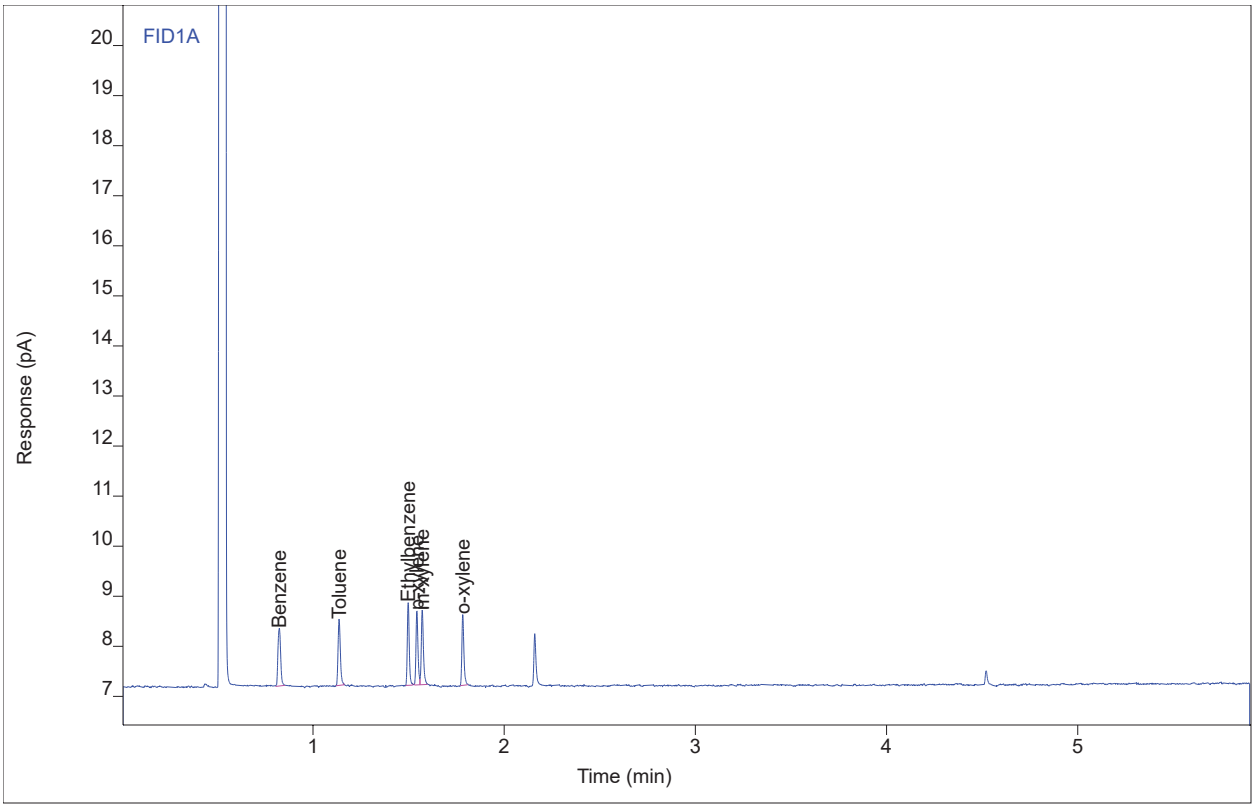
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	041F2901.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:37 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 41
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



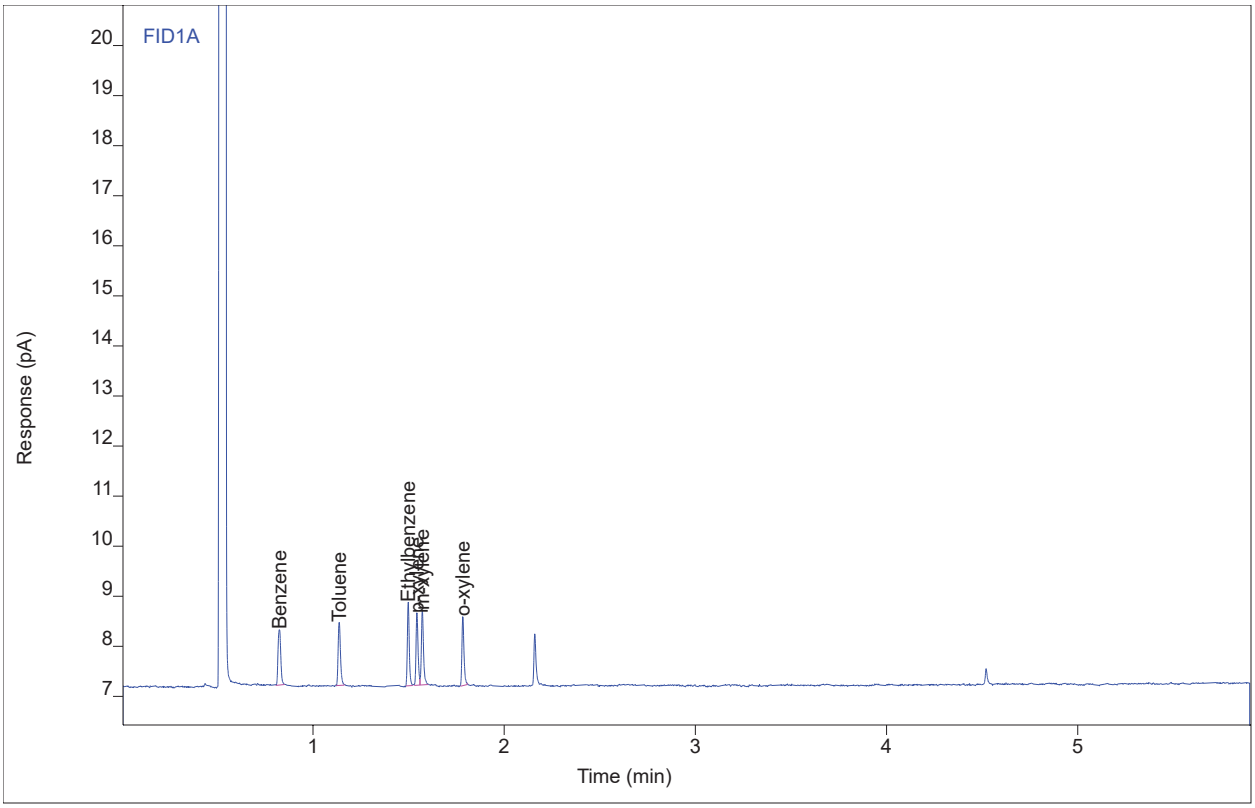
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.13597	1.14895	9.96752	1	9.96752	µg/mL
Toluene	BB	1.14	1.11372	1.31721	9.96090	1	9.96090	µg/mL
Ethylbenzene	BB	1.50	1.16640	1.66032	10.4249	1	10.4249	µg/mL
p-xylene	BV	1.54	1.08131	1.48946	9.85027	1	9.85027	µg/mL
m-xylene	VB	1.57	1.16014	1.49061	10.1504	1	10.1504	µg/mL
o-xylene	BB	1.78	1.04547	1.42290	9.43902	1	9.43902	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	041F2902.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:47 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 41
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



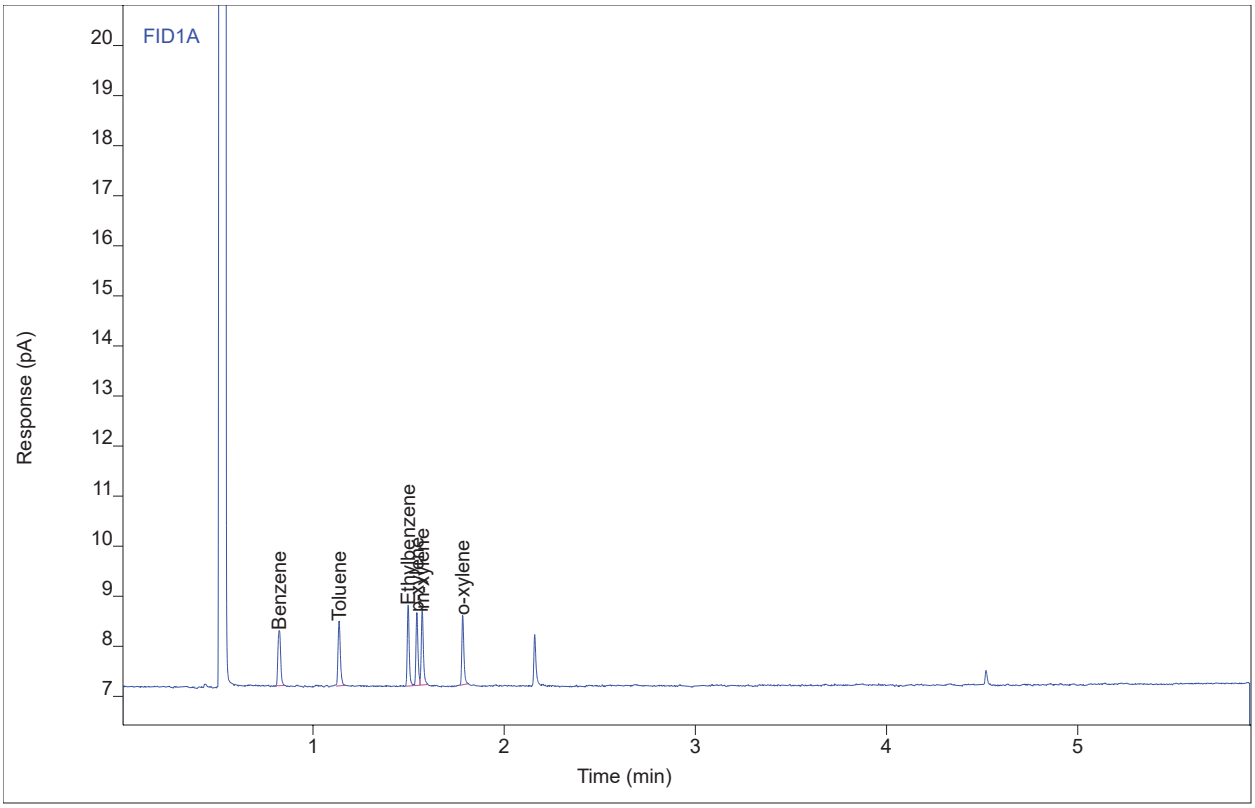
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10945	1.11873	9.73534	1	9.73534	µg/mL
Toluene	BB	1.14	1.09153	1.27505	9.76732	1	9.76732	µg/mL
Ethylbenzene	BB	1.50	1.15032	1.66260	10.2858	1	10.2858	µg/mL
p-xylene	BV	1.54	1.07283	1.44885	9.77590	1	9.77590	µg/mL
m-xylene	VB	1.57	1.16804	1.48567	10.2176	1	10.2176	µg/mL
o-xylene	BB	1.78	1.04234	1.38969	9.41167	1	9.41167	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	041F2903.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 1:58 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 41
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM

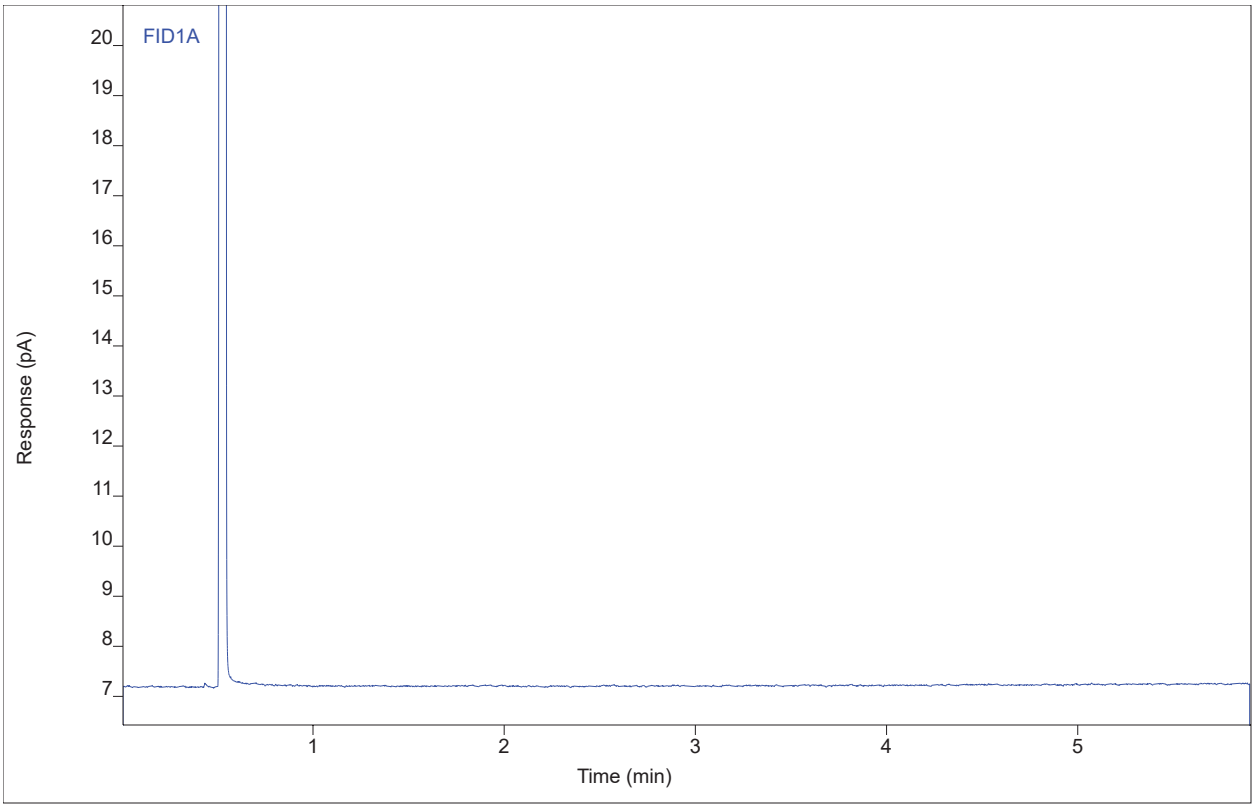


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10276	1.11759	9.67674	1	9.67674	µg/mL
Toluene	BB	1.14	1.11175	1.29296	9.94373	1	9.94373	µg/mL
Ethylbenzene	BB	1.50	1.15248	1.61899	10.3045	1	10.3045	µg/mL
p-xylene	BV	1.54	1.07465	1.46515	9.79188	1	9.79188	µg/mL
m-xylene	VB	1.57	1.15995	1.50373	10.1488	1	10.1488	µg/mL
o-xylene	BB	1.78	1.03871	1.39048	9.38007	1	9.38007	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.BH	Sample Type	Sample
Sequence Name	LUCY1285 ver.1	Vial Number	Vial 42
Inj Data File	042F3001.D	Injection Volume	1
File Location	GC/2023/Lucy/Quarter 1	Injection	1 of 3
Injection Date	2/24/2023 2:08 AM	Acquisition Method	LUCY0301.M
File Modified	2/24/2023 4:49 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	2/24/2023 4:42 PM
Operator	Remington Heathcoat	Printed	2/27/2023 4:07 PM



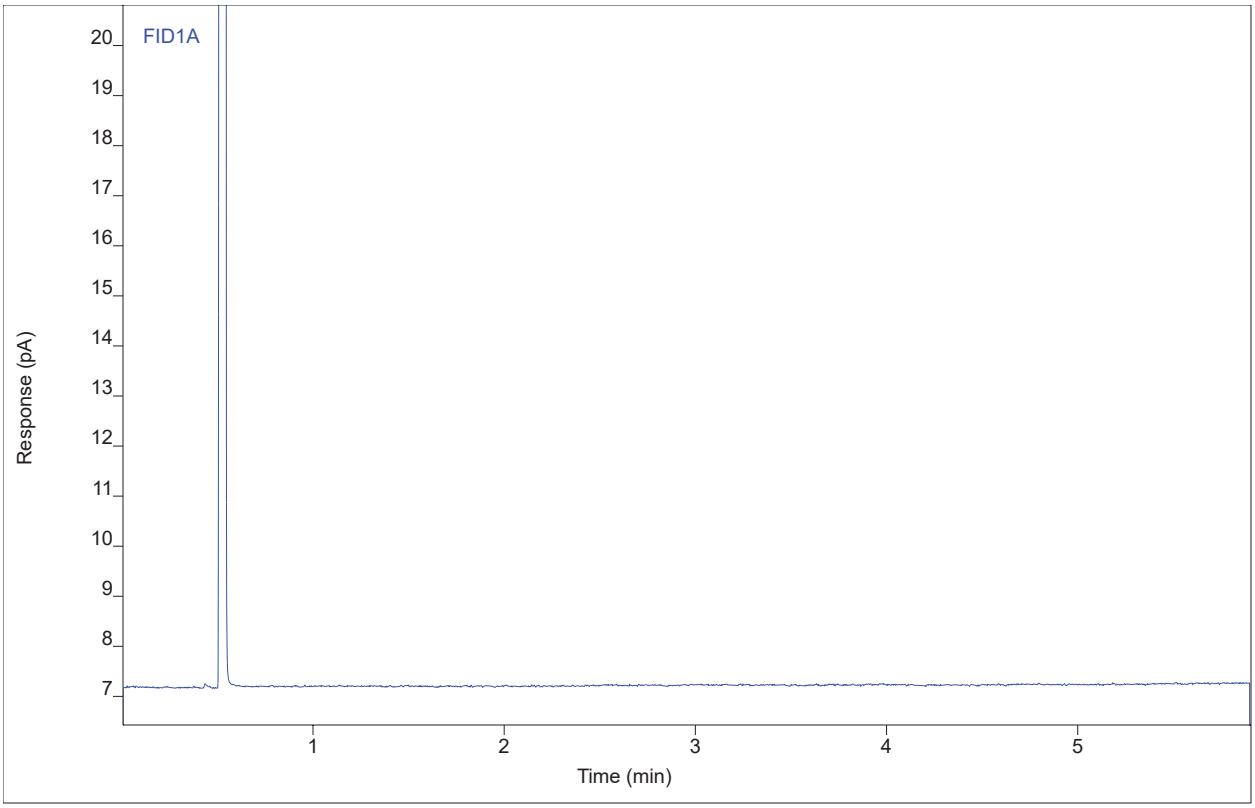
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	042F3002.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 2:18 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 42
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



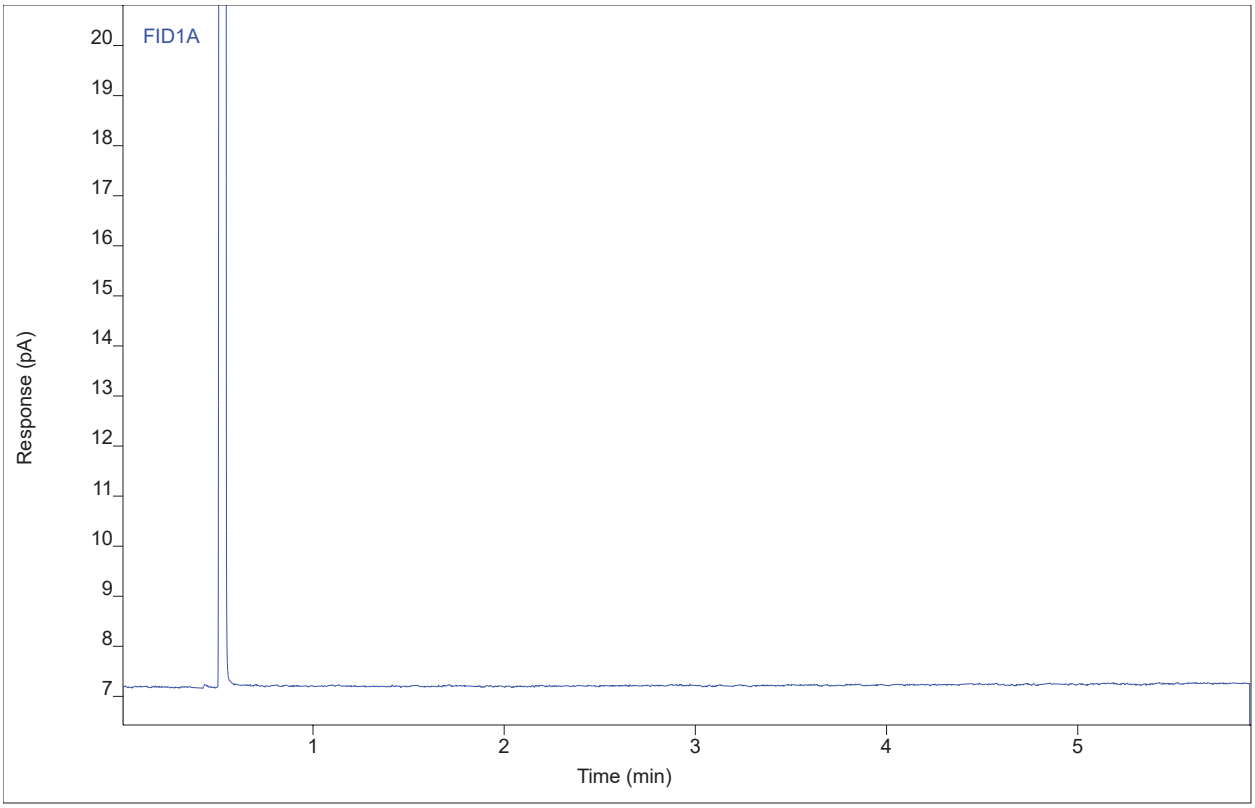
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R2-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	042F3003.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 2:29 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 42
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



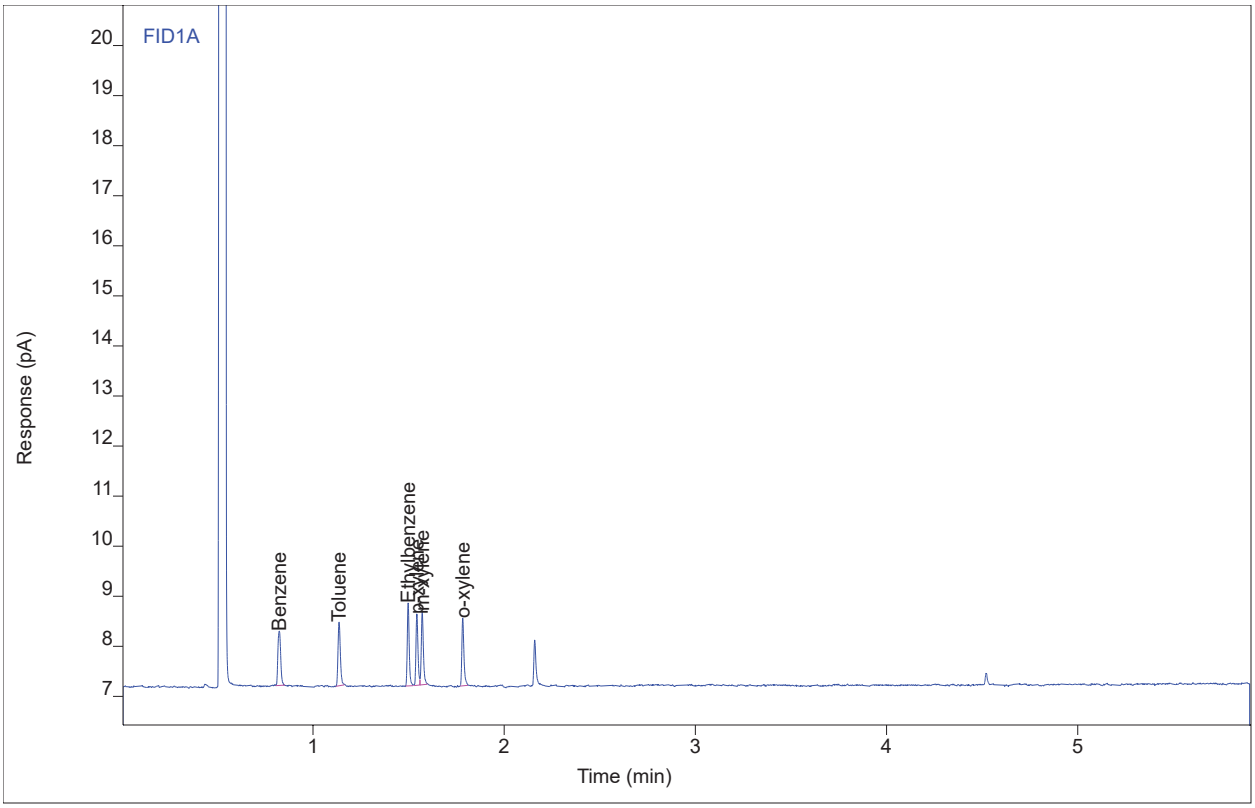
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	043F3101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 2:39 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 43
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



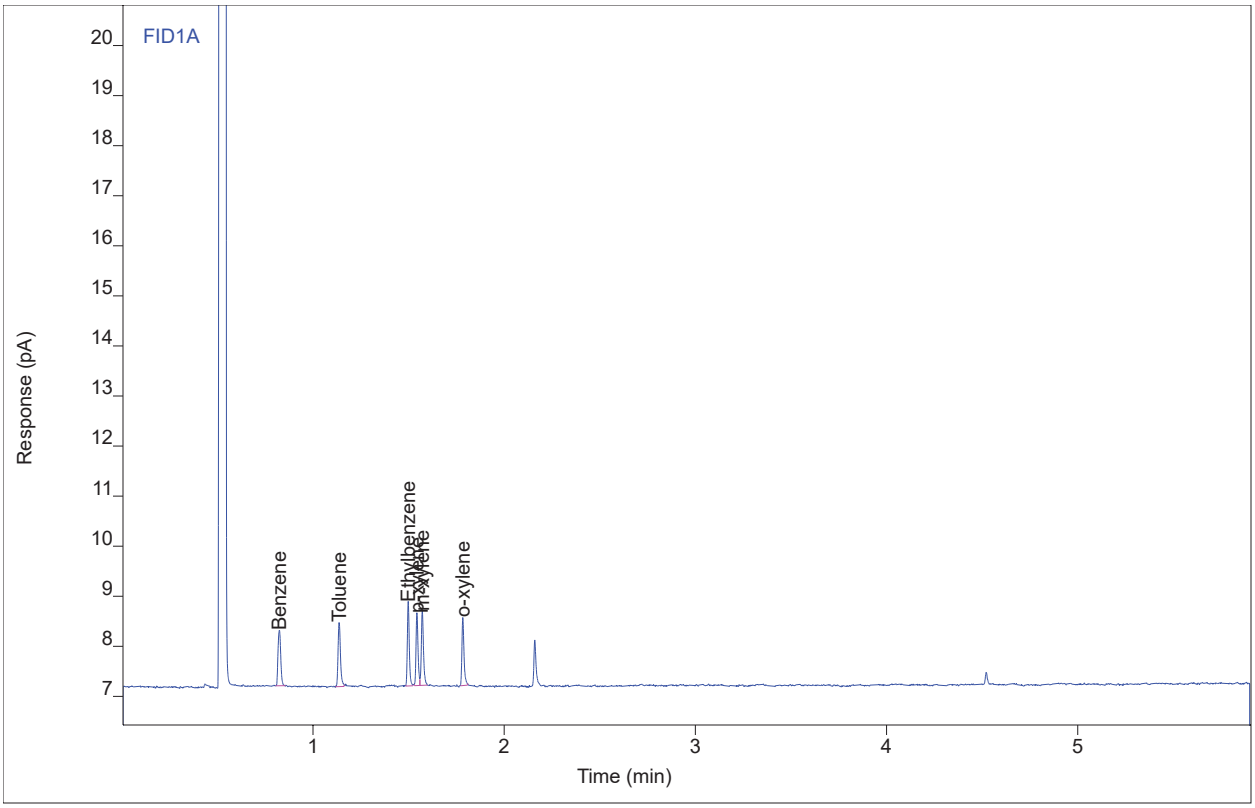
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10748	1.10034	9.71807	1	9.71807	µg/mL
Toluene	BB	1.14	1.09266	1.27639	9.77716	1	9.77716	µg/mL
Ethylbenzene	BB	1.50	1.16540	1.65990	10.4162	1	10.4162	µg/mL
p-xylene	BV	1.54	1.04733	1.42645	9.55231	1	9.55231	µg/mL
m-xylene	VB	1.57	1.11851	1.46312	9.79632	1	9.79632	µg/mL
o-xylene	BB	1.78	1.03418	1.35814	9.34055	1	9.34055	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	043F3102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 2:49 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 43
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



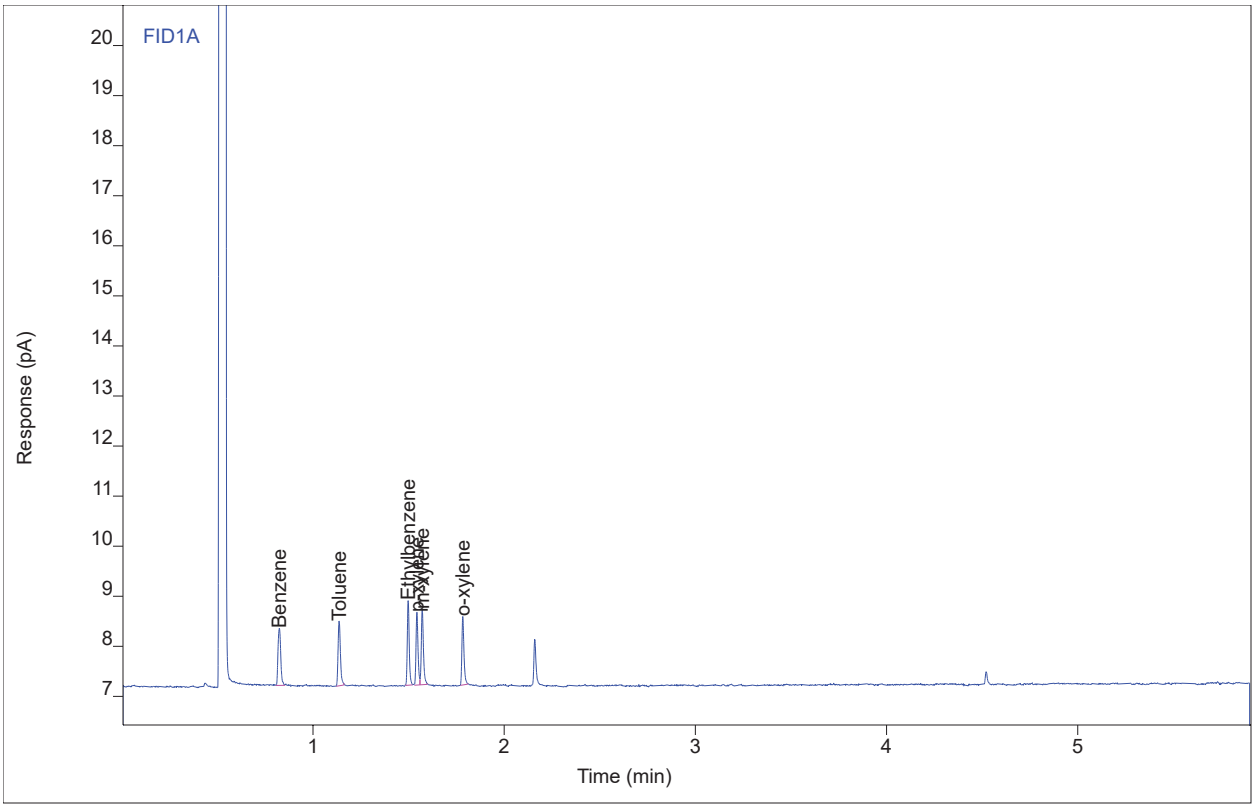
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.09488	1.10867	9.60778	1	9.60778	µg/mL
Toluene	BB	1.14	1.13268	1.28943	10.1263	1	10.1263	µg/mL
Ethylbenzene	BB	1.50	1.18058	1.68549	10.5476	1	10.5476	µg/mL
p-xylene	BV	1.54	1.06428	1.45081	9.70092	1	9.70092	µg/mL
m-xylene	VB	1.57	1.17367	1.48780	10.2655	1	10.2655	µg/mL
o-xylene	BB	1.78	1.03426	1.36879	9.34124	1	9.34124	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	043F3103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 2:59 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 43
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



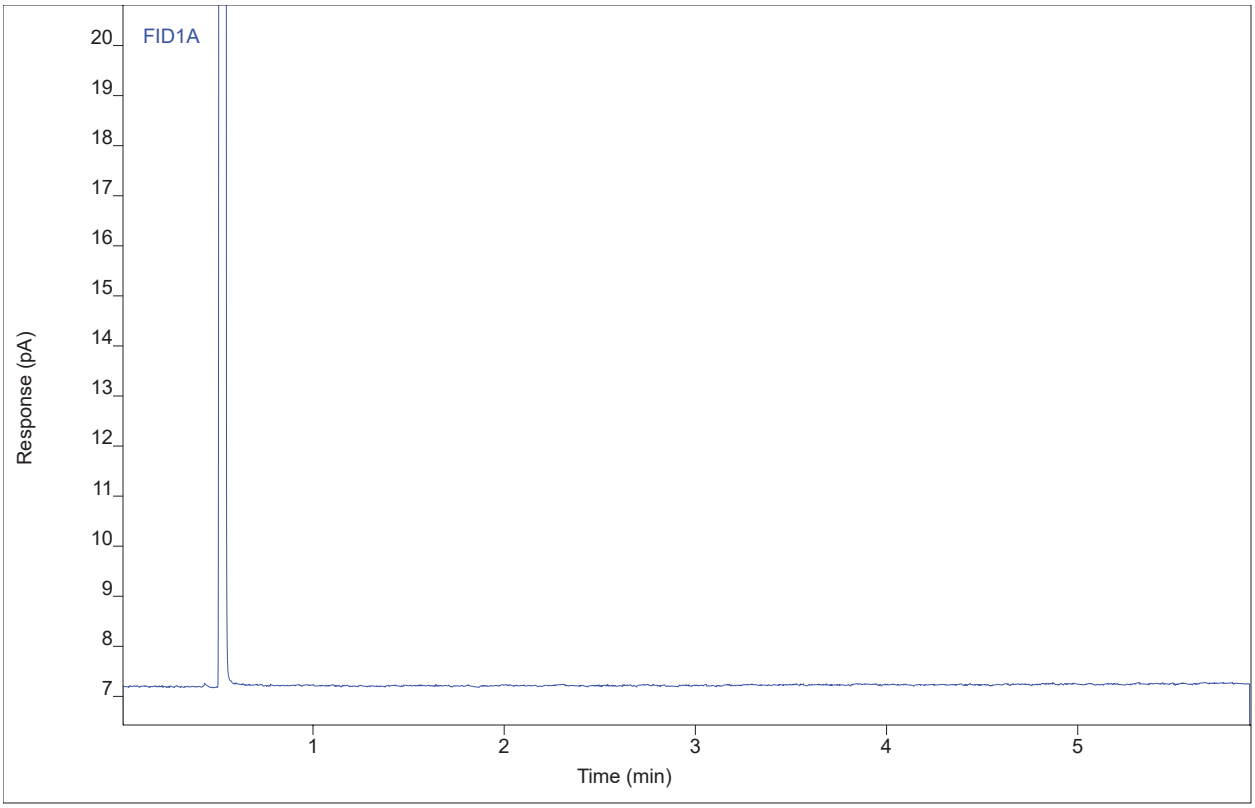
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.13814	1.14709	9.98654	1	9.98654	µg/mL
Toluene	BB	1.14	1.11570	1.29372	9.97815	1	9.97815	µg/mL
Ethylbenzene	BB	1.50	1.17571	1.69803	10.5054	1	10.5054	µg/mL
p-xylene	BV	1.54	1.05870	1.45111	9.65204	1	9.65204	µg/mL
m-xylene	VB	1.57	1.17205	1.50946	10.2517	1	10.2517	µg/mL
o-xylene	BB	1.78	1.03022	1.37777	9.30604	1	9.30604	µg/mL

Chromatogram Report

Sample Name	0123-099.R3-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	044F3201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 3:10 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 44
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



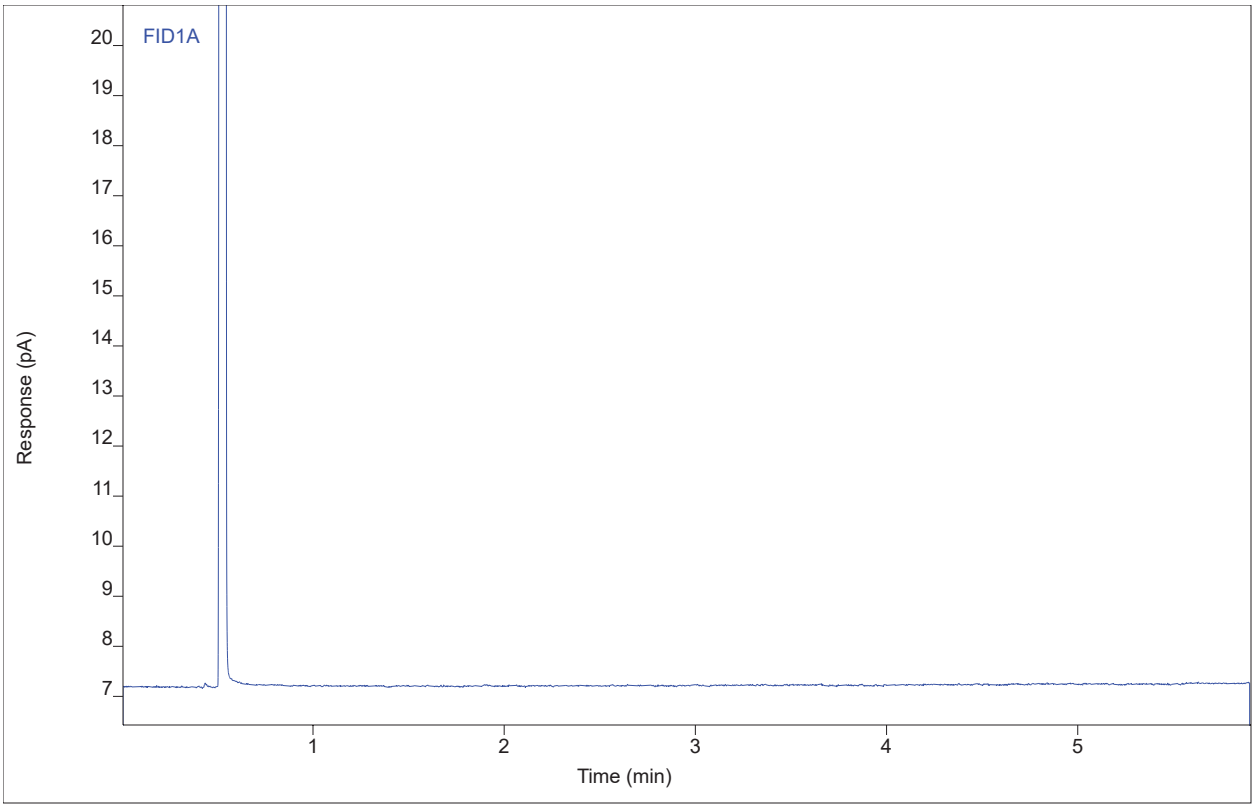
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	044F3202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 3:20 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 44
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



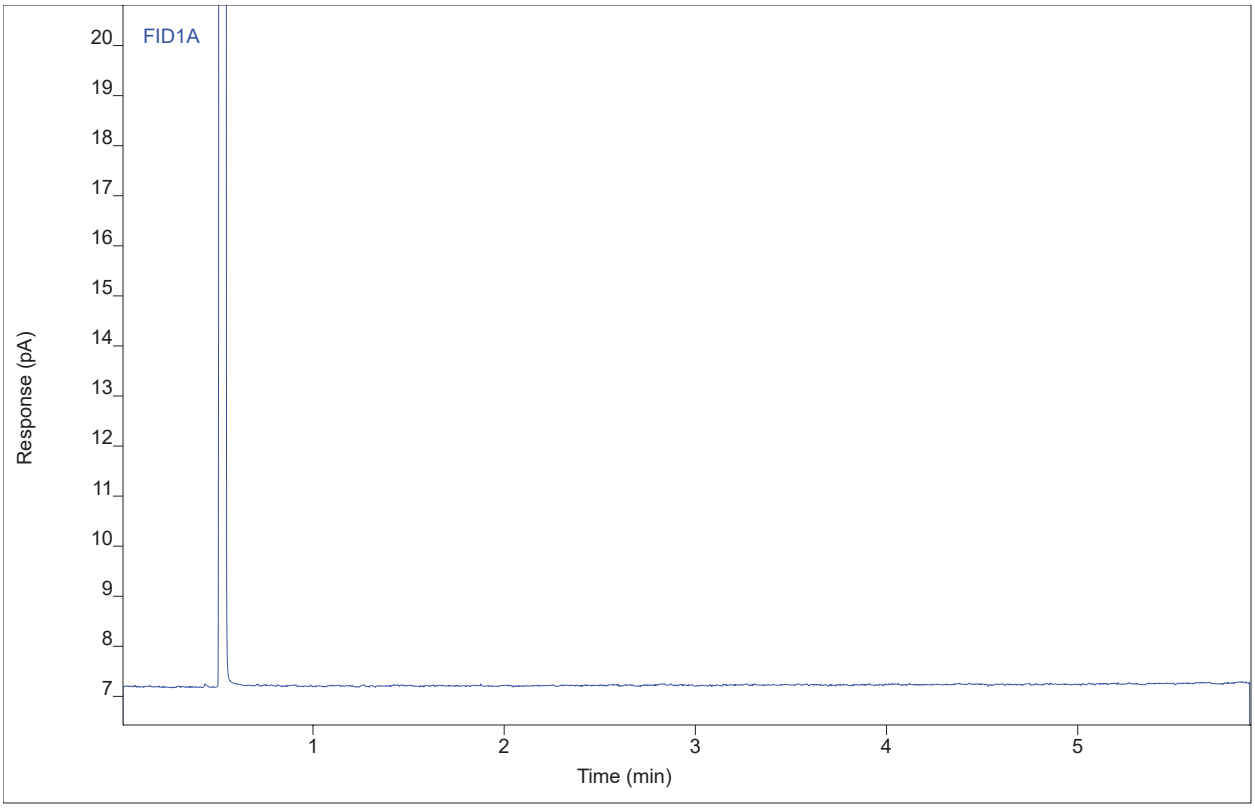
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R3-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	044F3203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 3:30 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 44
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



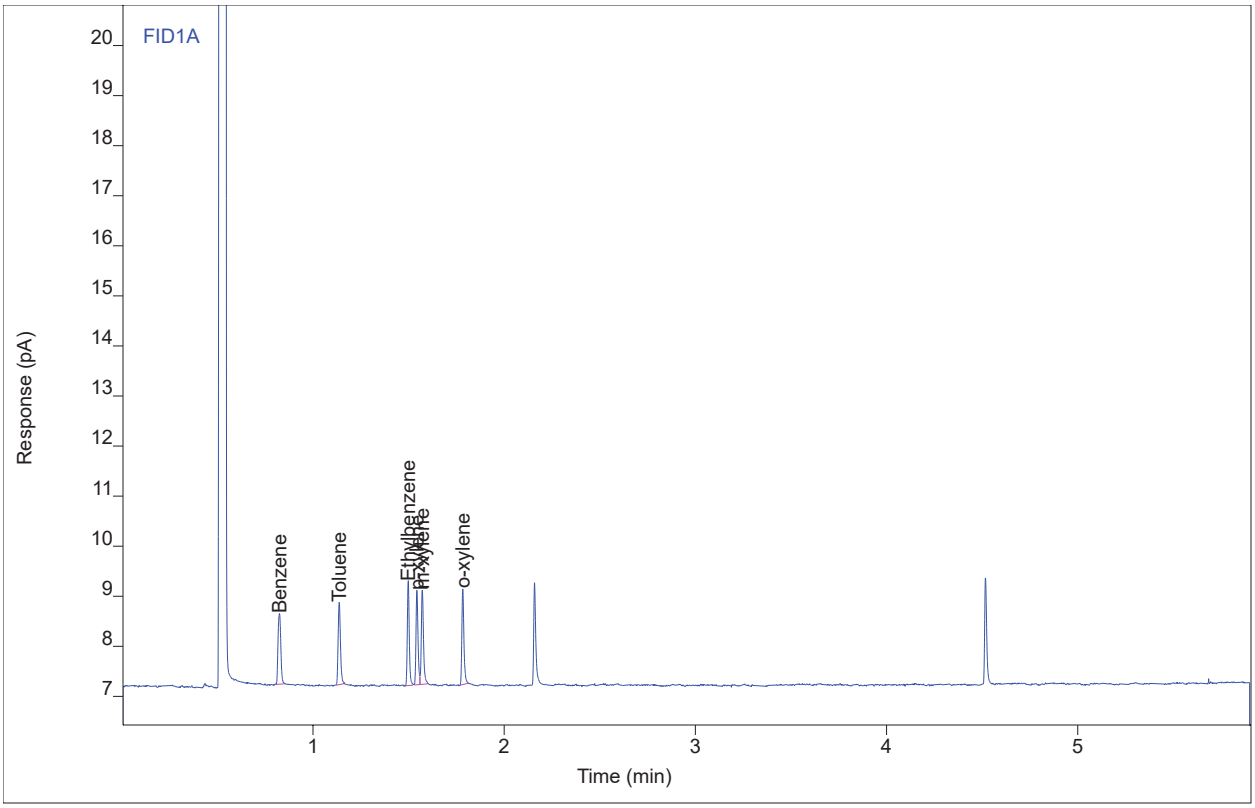
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	045F3301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 3:41 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 45
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



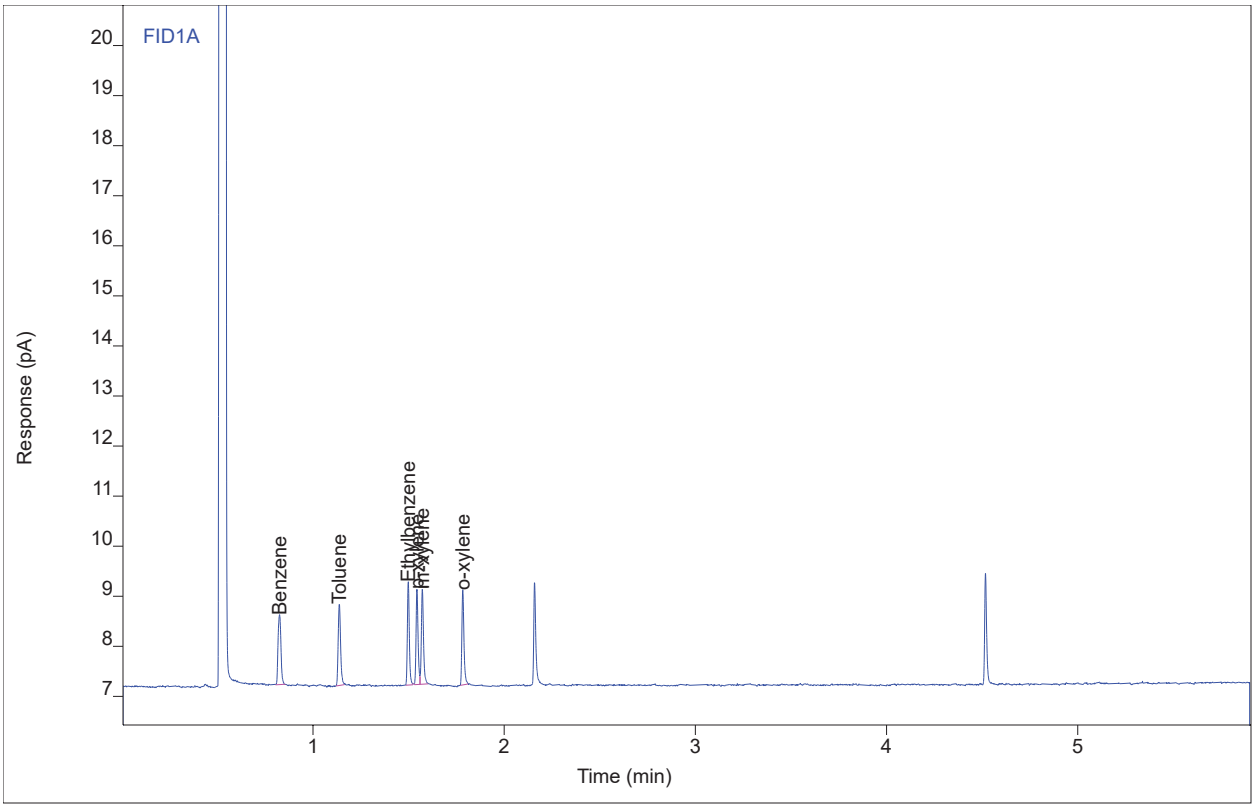
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.43003	1.41751	12.5423	1	12.5423	µg/mL
Toluene	BB	1.14	1.38662	1.64978	12.3416	1	12.3416	µg/mL
Ethylbenzene	BB	1.50	1.45962	2.09171	12.9608	1	12.9608	µg/mL
p-xylene	BV	1.54	1.37789	1.89666	12.4511	1	12.4511	µg/mL
m-xylene	VB	1.57	1.49615	1.89097	13.0086	1	13.0086	µg/mL
o-xylene	BB	1.78	1.44037	1.91429	12.8809	1	12.8809	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	045F3302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 3:51 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 45
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



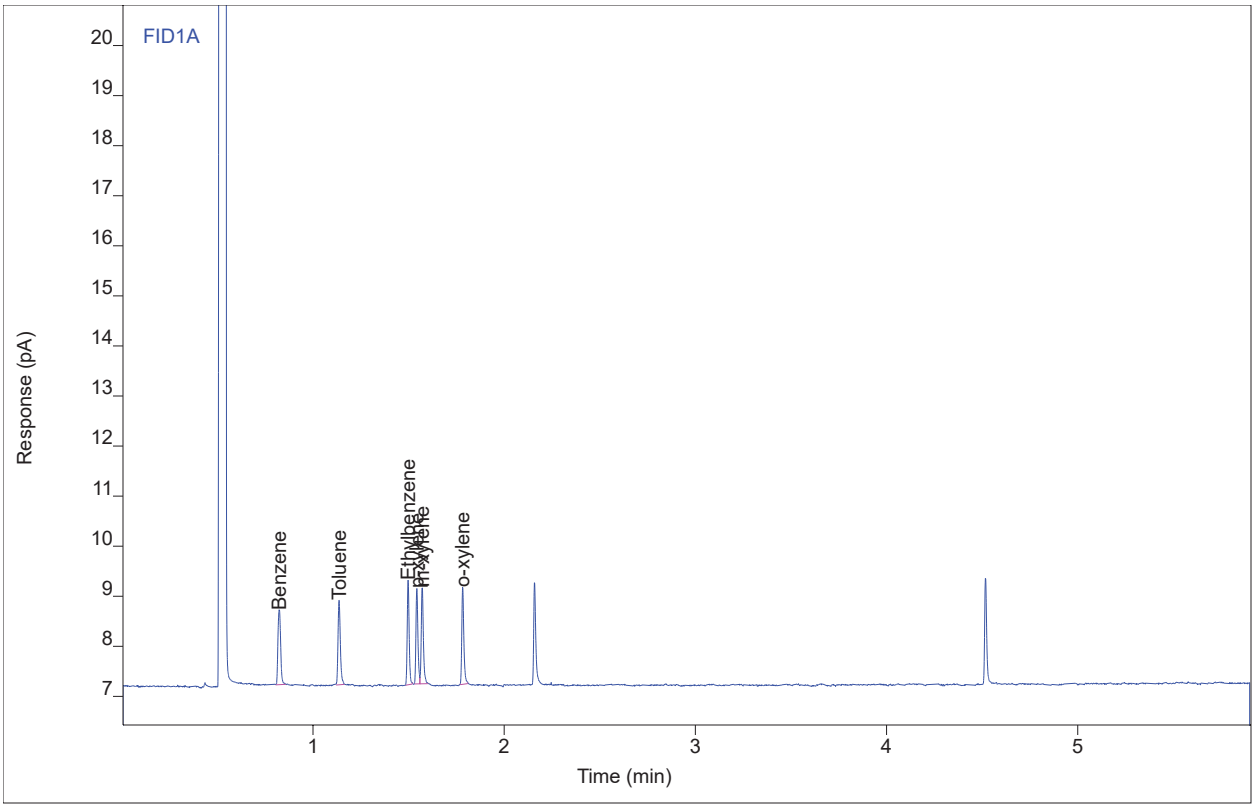
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	1.46413	1.39573	12.8409	1	12.8409	µg/mL
Toluene	BB	1.14	1.43610	1.62099	12.7731	1	12.7731	µg/mL
Ethylbenzene	BB	1.50	1.45397	2.05739	12.9120	1	12.9120	µg/mL
p-xylene	BV	1.54	1.39299	1.89997	12.5835	1	12.5835	µg/mL
m-xylene	VB	1.57	1.48752	1.90917	12.9352	1	12.9352	µg/mL
o-xylene	BB	1.78	1.43535	1.89746	12.8371	1	12.8371	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	045F3303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 4:01 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 45
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



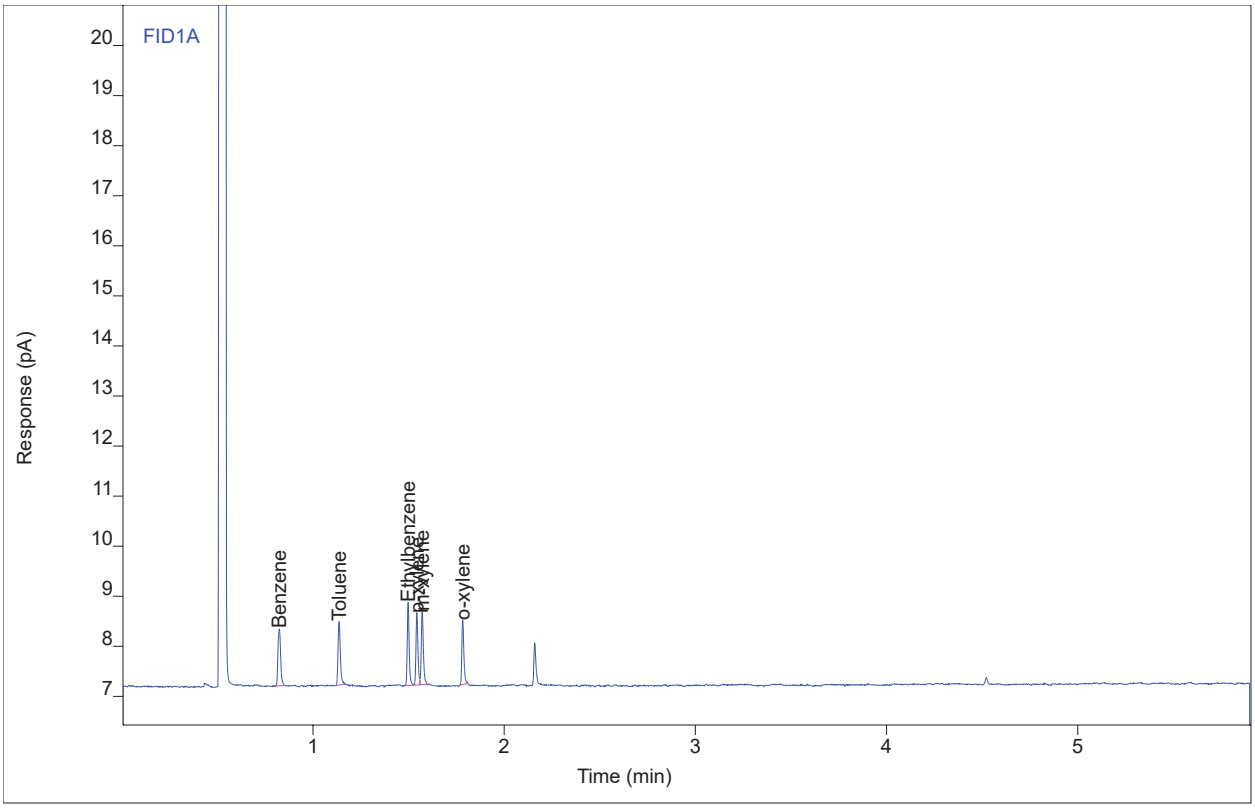
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.47988	1.49561	12.9788	1	12.9788	µg/mL
Toluene	BB	1.14	1.42891	1.69649	12.7105	1	12.7105	µg/mL
Ethylbenzene	BB	1.50	1.45576	2.09389	12.9275	1	12.9275	µg/mL
p-xylene	BV	1.54	1.37854	1.90508	12.4568	1	12.4568	µg/mL
m-xylene	VB	1.57	1.49792	1.92846	13.0237	1	13.0237	µg/mL
o-xylene	BB	1.78	1.44367	1.94244	12.9096	1	12.9096	µg/mL

Chromatogram Report

Sample Name	0123-099.R4-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	046F3401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 4:22 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 46
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



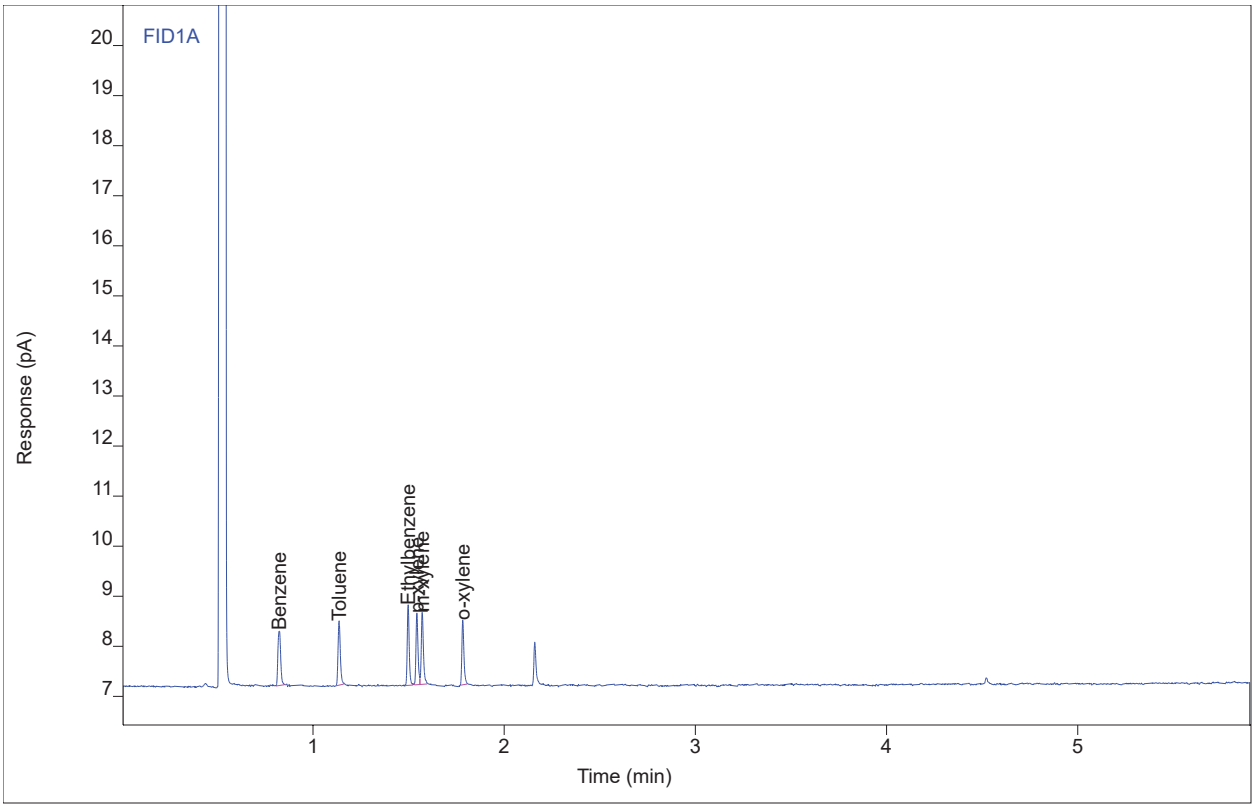
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11129	1.14055	9.75140	1	9.75140	µg/mL
Toluene	BB	1.14	1.07943	1.28271	9.66180	1	9.66180	µg/mL
Ethylbenzene	BB	1.50	1.15016	1.66709	10.2845	1	10.2845	µg/mL
p-xylene	BV	1.54	1.03637	1.44059	9.45615	1	9.45615	µg/mL
m-xylene	VB	1.57	1.12231	1.46009	9.82859	1	9.82859	µg/mL
o-xylene	BB	1.78	0.95613	1.29820	8.66034	1	8.66034	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	046F3402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 4:32 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 46
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



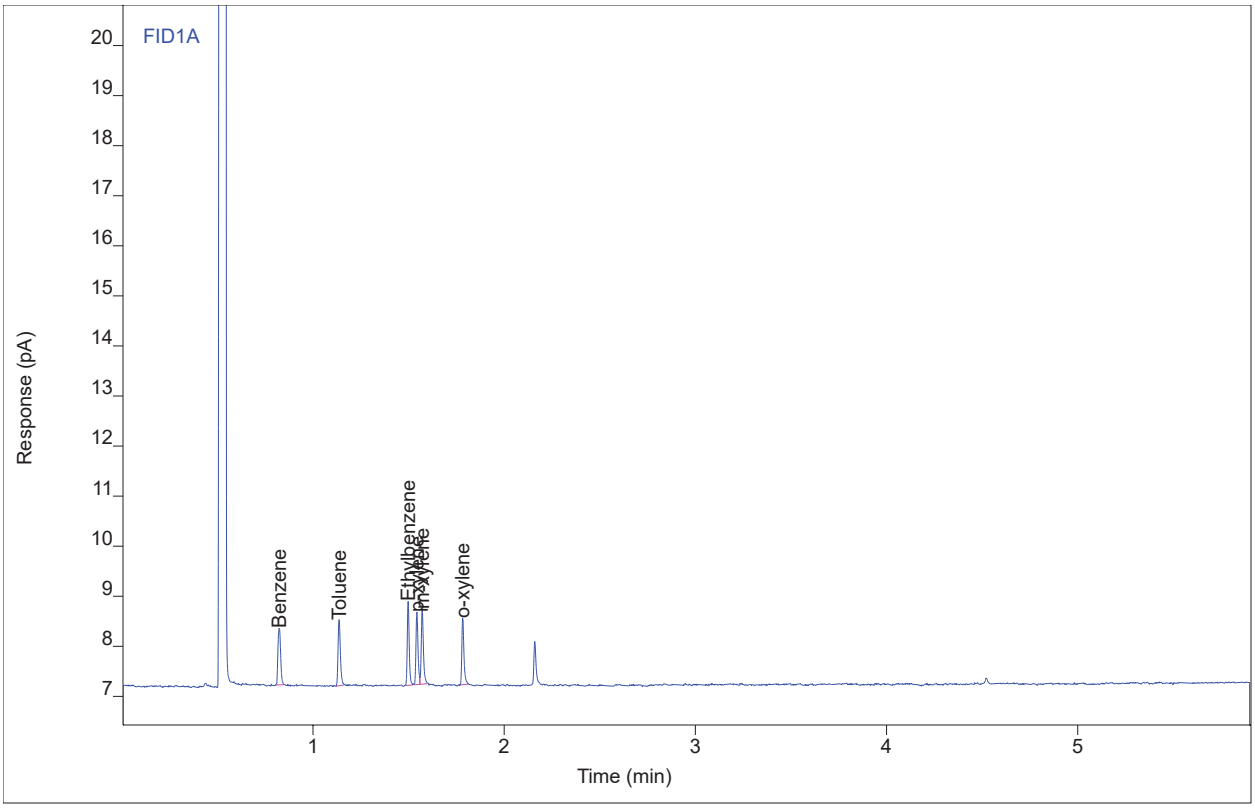
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.09697	1.10247	9.62608	1	9.62608	µg/mL
Toluene	BB	1.14	1.07025	1.28169	9.58173	1	9.58173	µg/mL
Ethylbenzene	BB	1.50	1.14979	1.61258	10.2813	1	10.2813	µg/mL
p-xylene	BV	1.54	1.05782	1.43716	9.64429	1	9.64429	µg/mL
m-xylene	VB	1.57	1.12720	1.43580	9.87025	1	9.87025	µg/mL
o-xylene	BB	1.78	0.96677	1.30483	8.75309	1	8.75309	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	046F3403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 4:43 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 46
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



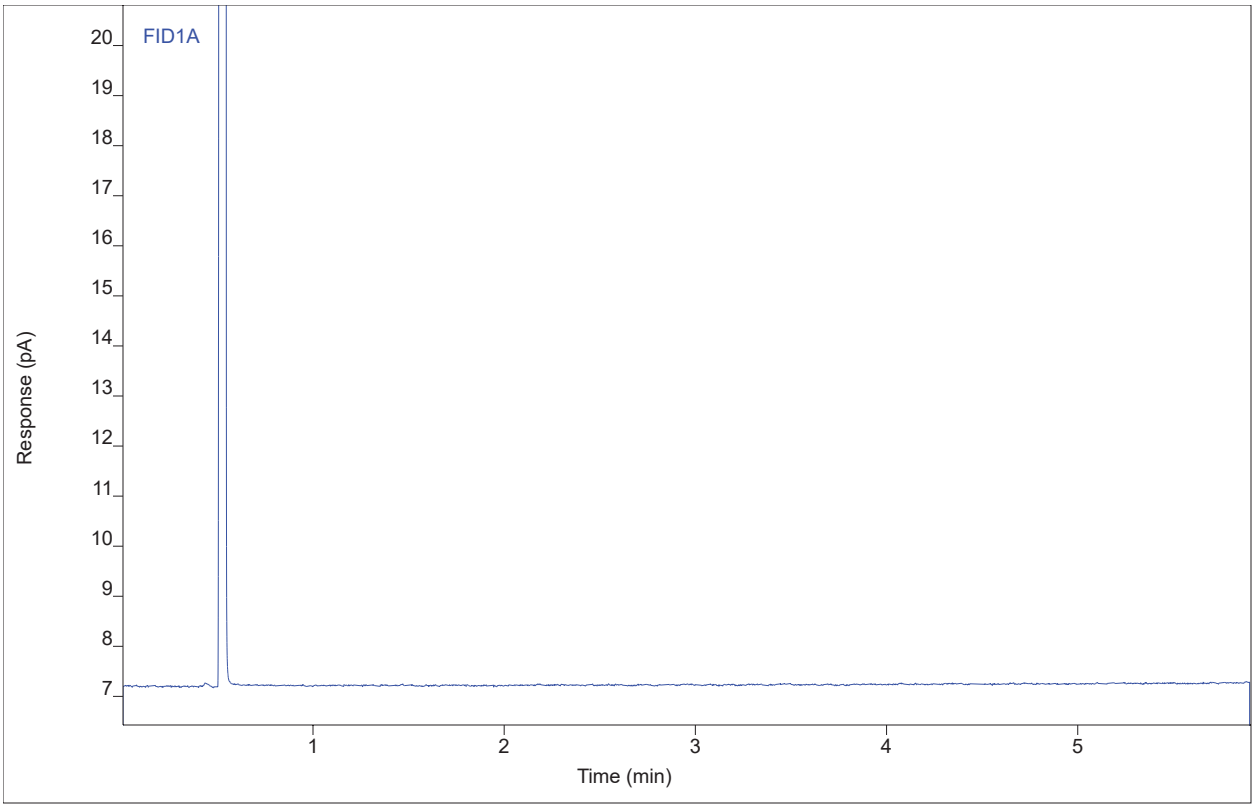
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10901	1.13955	9.73146	1	9.73146	µg/mL
Toluene	BB	1.14	1.12468	1.31854	10.0565	1	10.0565	µg/mL
Ethylbenzene	BB	1.50	1.17226	1.68217	10.4756	1	10.4756	µg/mL
p-xylene	BV	1.54	1.08377	1.45003	9.87187	1	9.87187	µg/mL
m-xylene	VB	1.57	1.18133	1.50366	10.3306	1	10.3306	µg/mL
o-xylene	BB	1.78	1.01772	1.32581	9.19714	1	9.19714	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	047F3501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 4:53 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 47
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



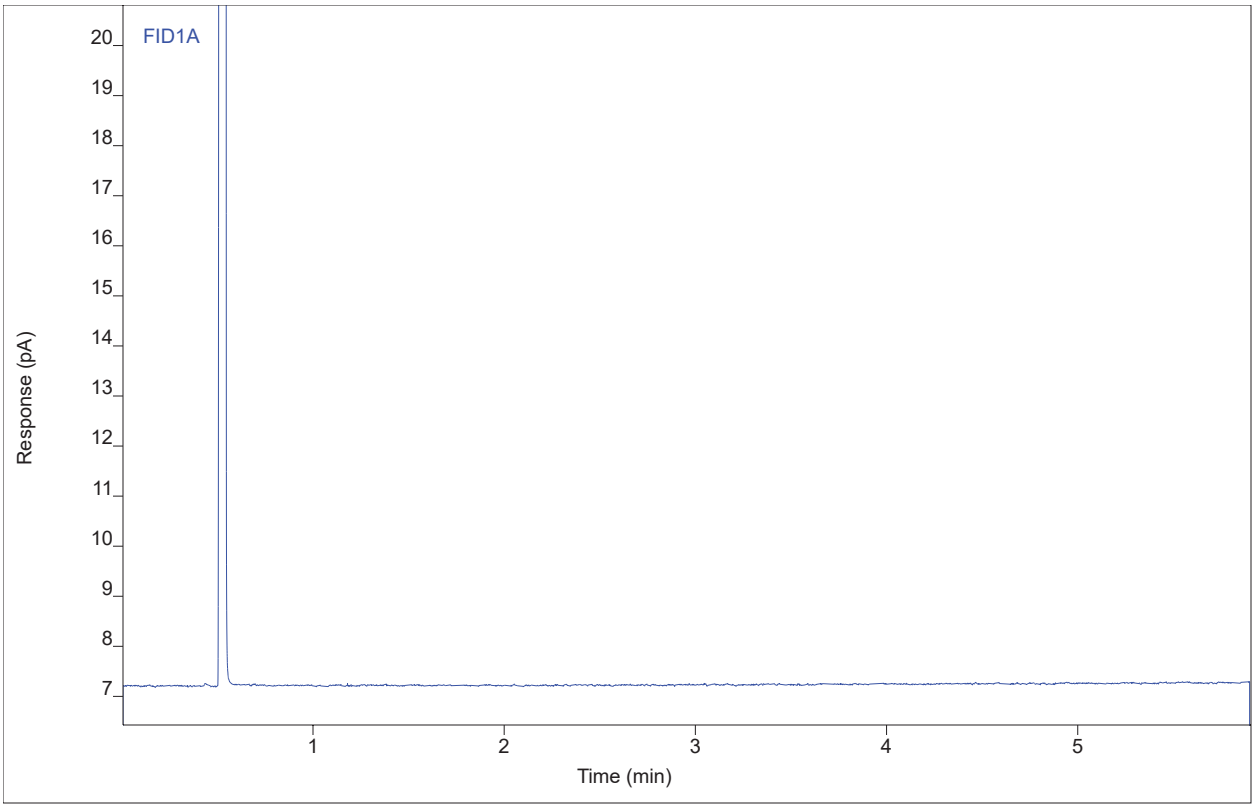
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	047F3502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:03 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 47
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



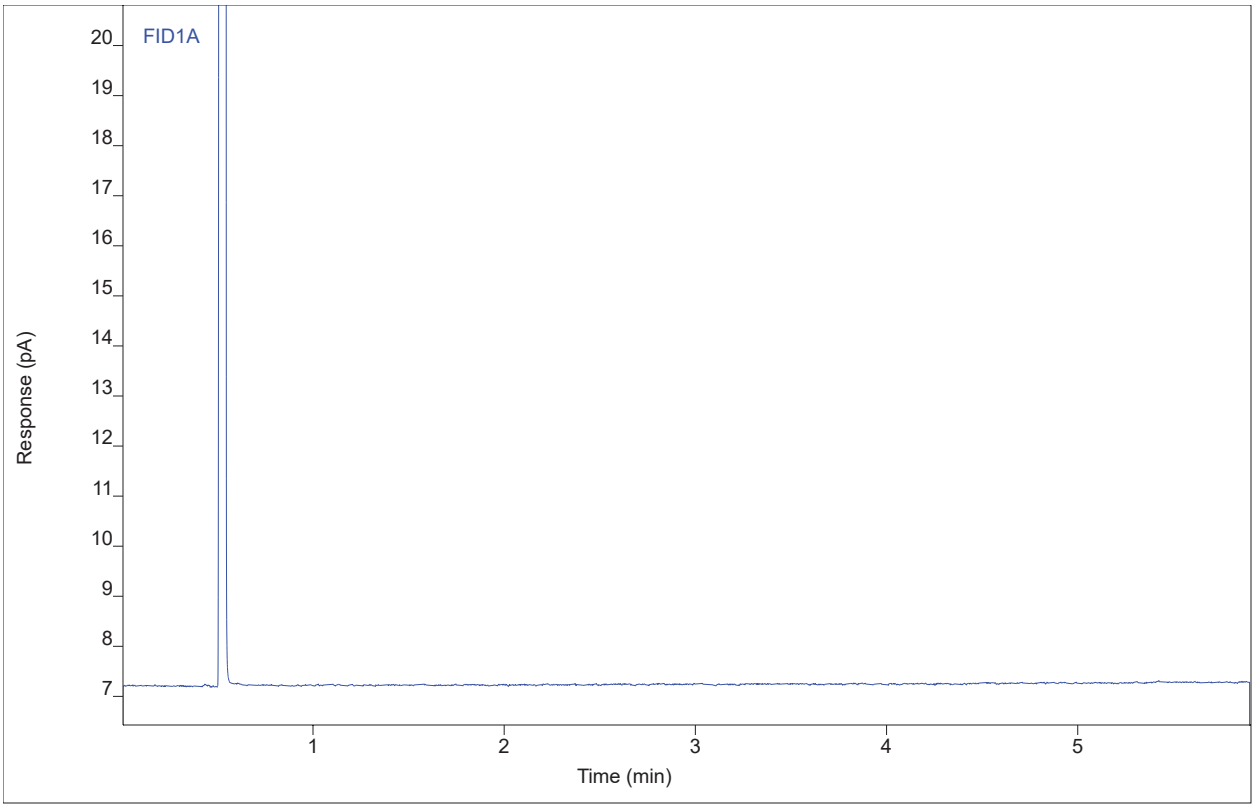
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R4-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	047F3503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:13 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 47
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



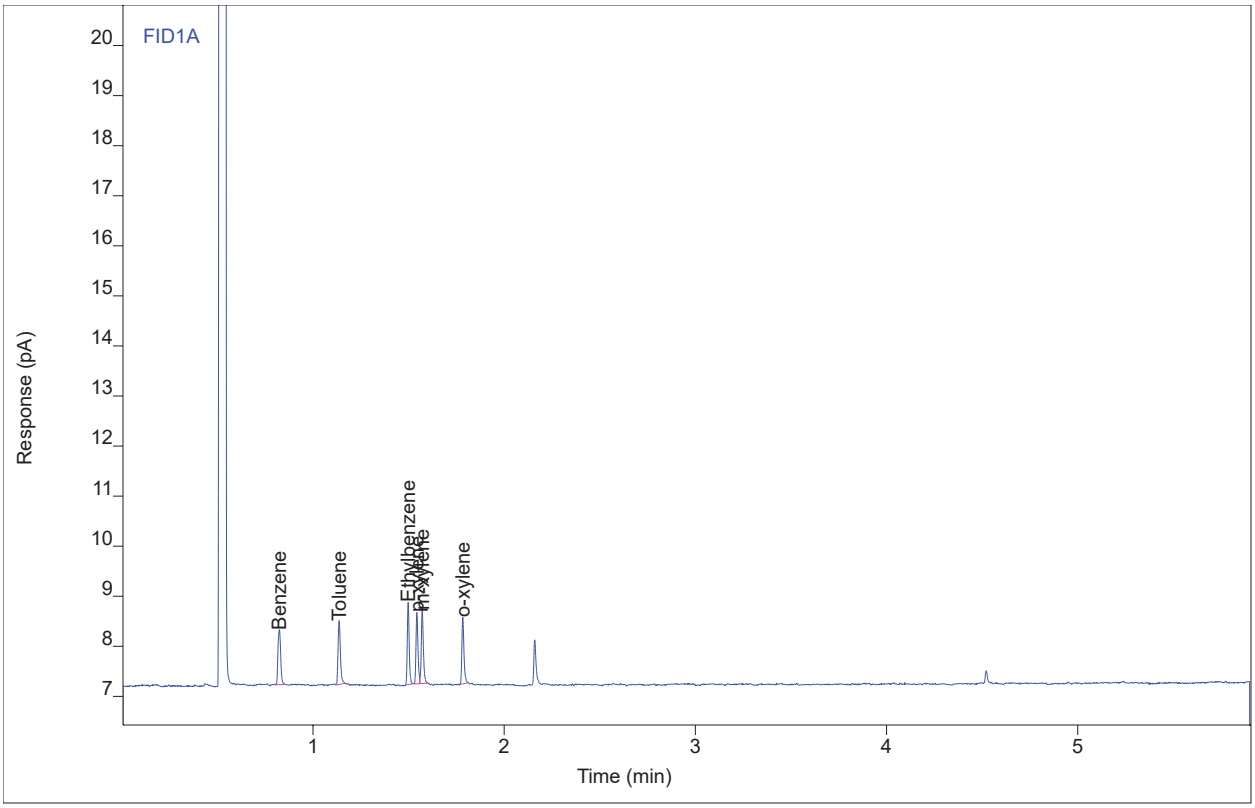
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	048F3601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:24 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 48
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



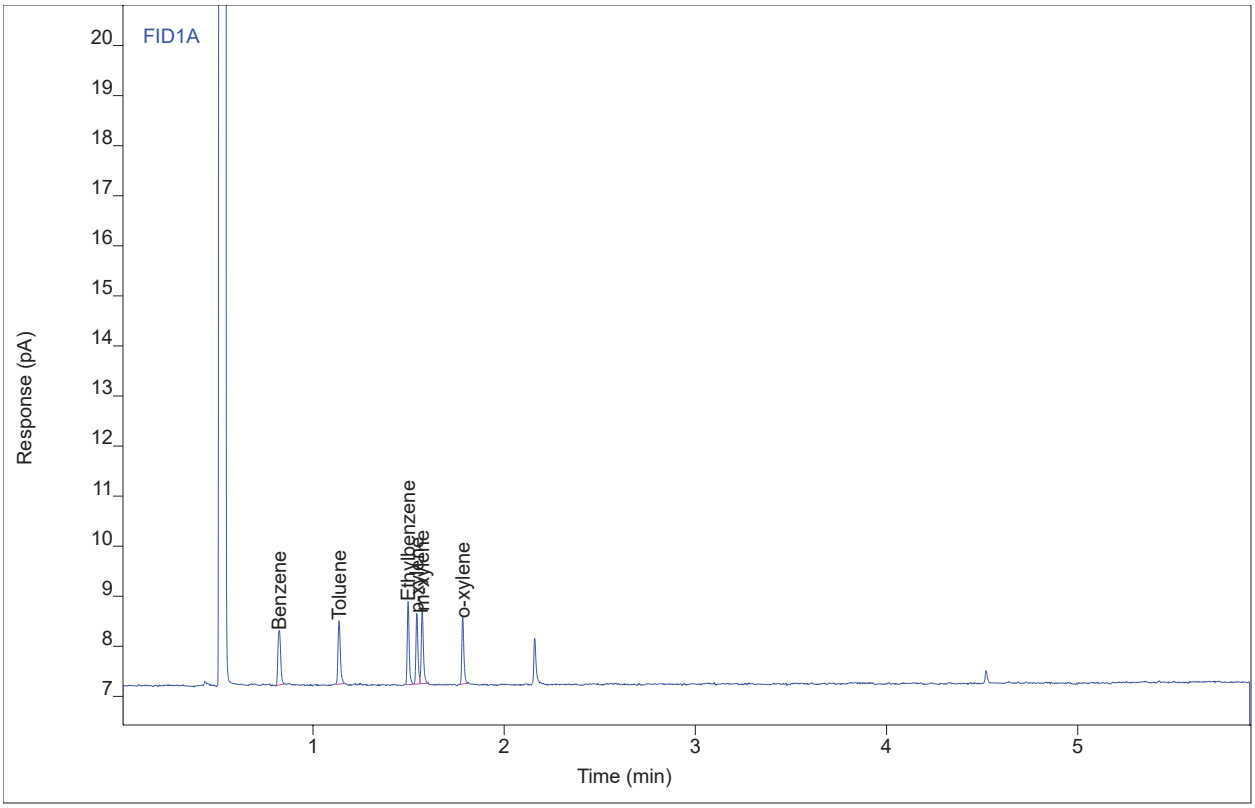
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.09078	1.09733	9.57184	1	9.57184	µg/mL
Toluene	BB	1.14	1.08759	1.27268	9.73295	1	9.73295	µg/mL
Ethylbenzene	BB	1.50	1.13606	1.65660	10.1625	1	10.1625	µg/mL
p-xylene	BV	1.54	1.03375	1.43340	9.43320	1	9.43320	µg/mL
m-xylene	VB	1.57	1.12294	1.46118	9.83396	1	9.83396	µg/mL
o-xylene	BB	1.78	1.01050	1.32919	9.13417	1	9.13417	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	048F3602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:34 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 48
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



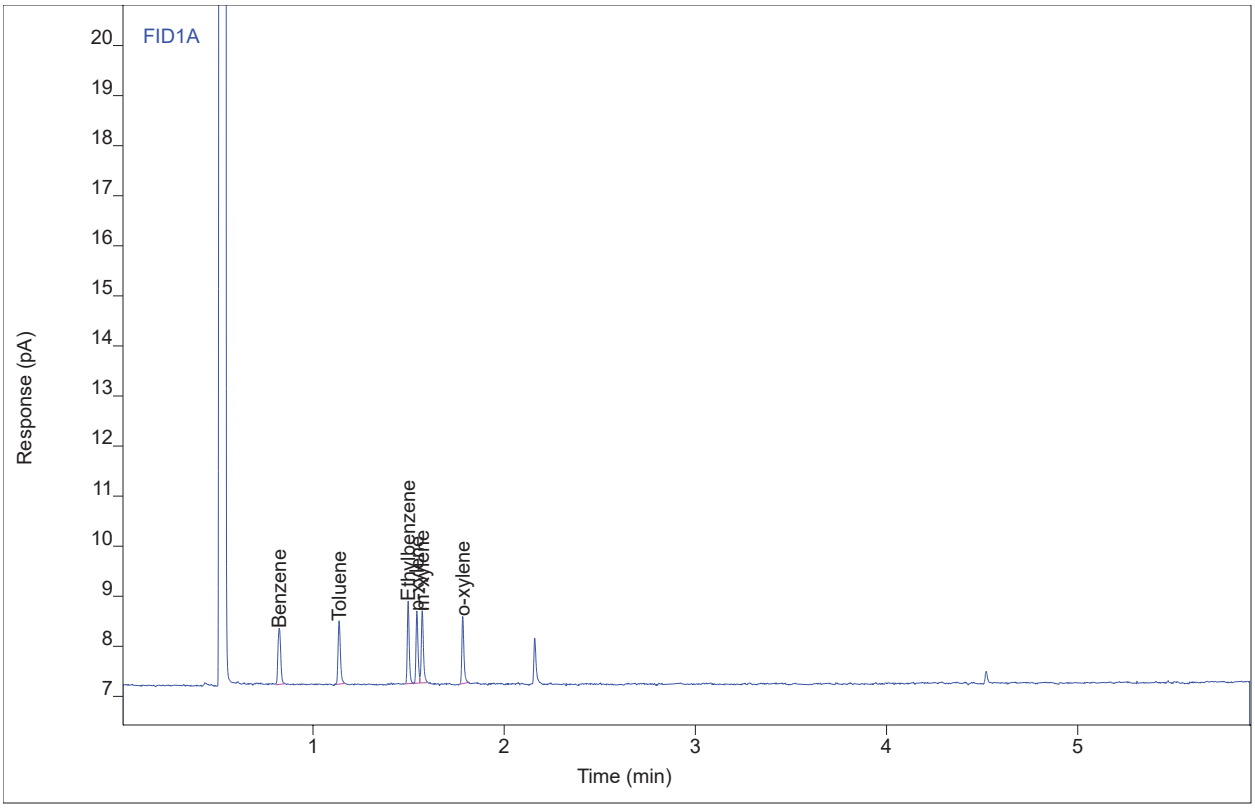
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10005	1.09839	9.65299	1	9.65299	µg/mL
Toluene	BB	1.14	1.08023	1.27378	9.66880	1	9.66880	µg/mL
Ethylbenzene	BB	1.50	1.16715	1.65964	10.4314	1	10.4314	µg/mL
p-xylene	BV	1.54	1.04319	1.42026	9.51595	1	9.51595	µg/mL
m-xylene	VB	1.57	1.13787	1.45715	9.96098	1	9.96098	µg/mL
o-xylene	BB	1.78	0.99361	1.32842	8.98695	1	8.98695	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	048F3603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:44 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 48
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



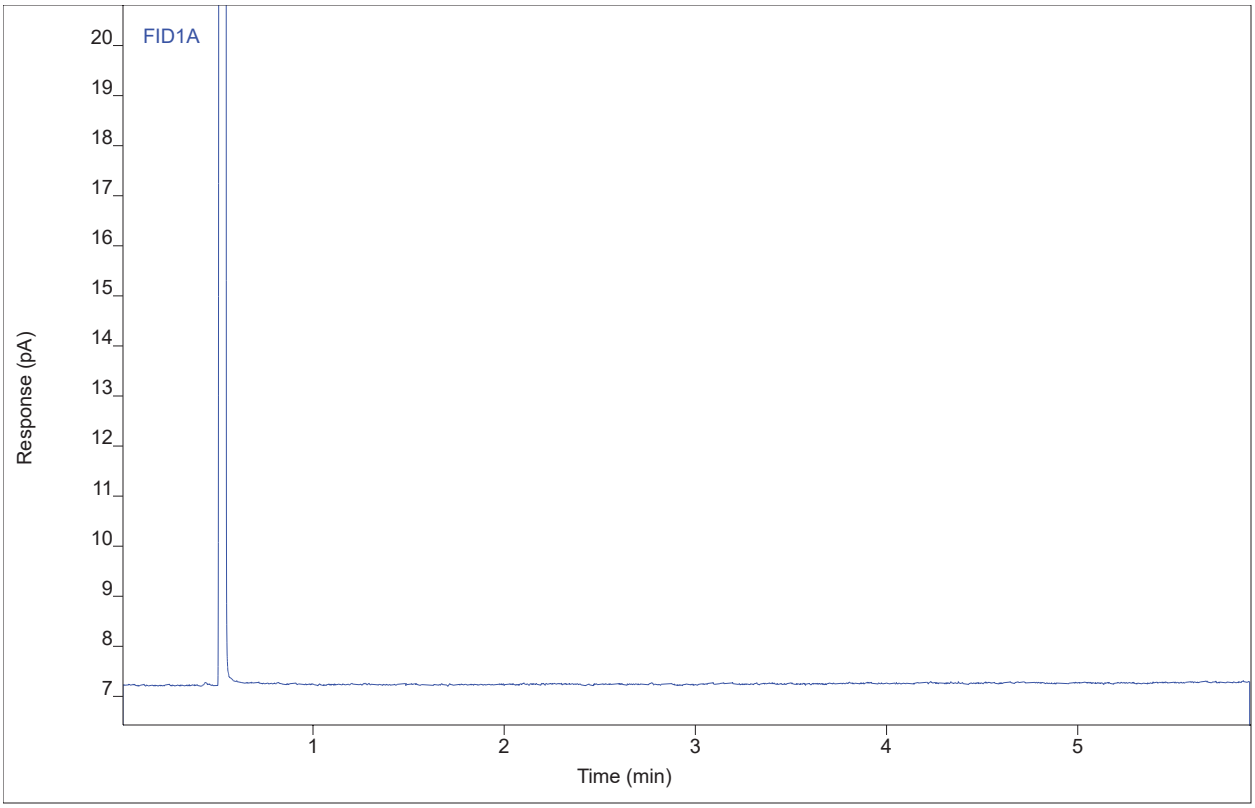
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.12519	1.12146	9.87314	1	9.87314	µg/mL
Toluene	BB	1.14	1.08653	1.26383	9.72372	1	9.72372	µg/mL
Ethylbenzene	BB	1.50	1.14223	1.65401	10.2158	1	10.2158	µg/mL
p-xylene	BV	1.54	1.03871	1.43608	9.47673	1	9.47673	µg/mL
m-xylene	VB	1.57	1.12811	1.44673	9.87798	1	9.87798	µg/mL
o-xylene	BB	1.78	1.00588	1.35136	9.09395	1	9.09395	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	049F3701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 5:55 AM
File Modified	2/24/2023 4:49 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 49
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



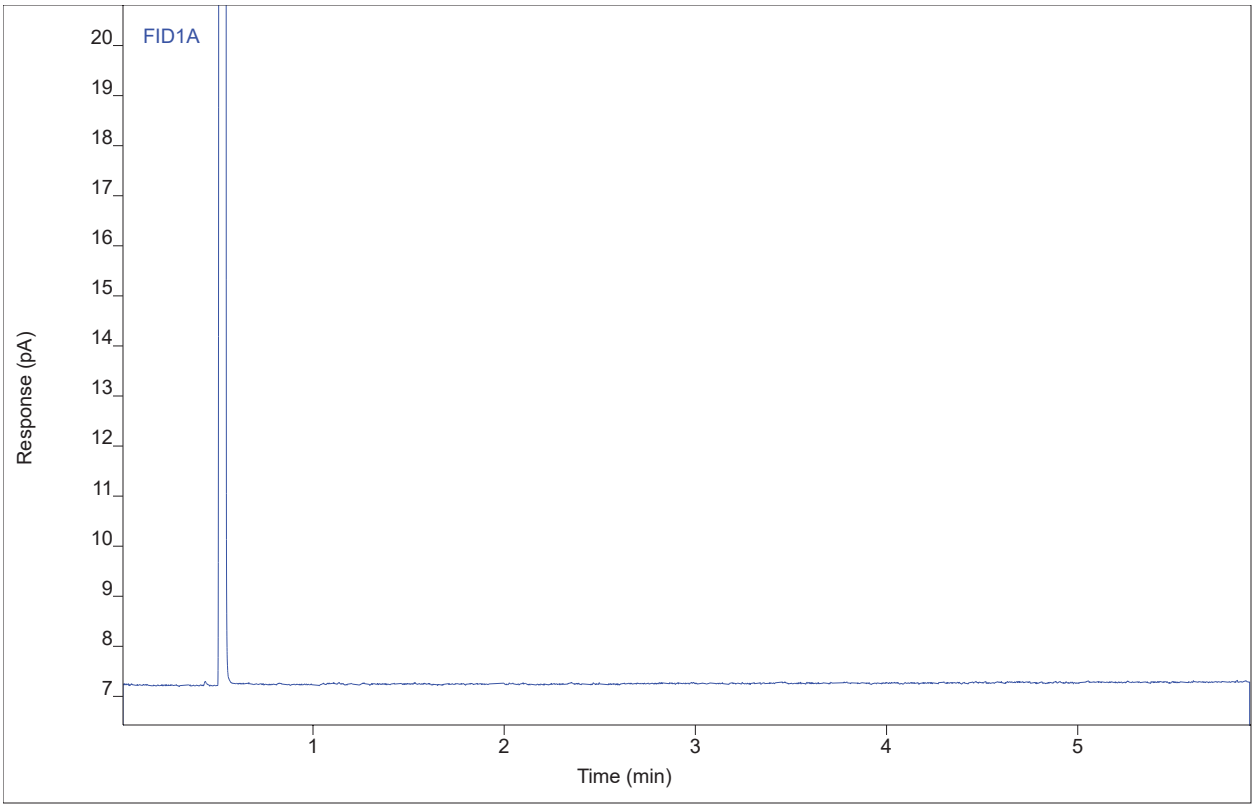
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	049F3702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:05 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 49
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



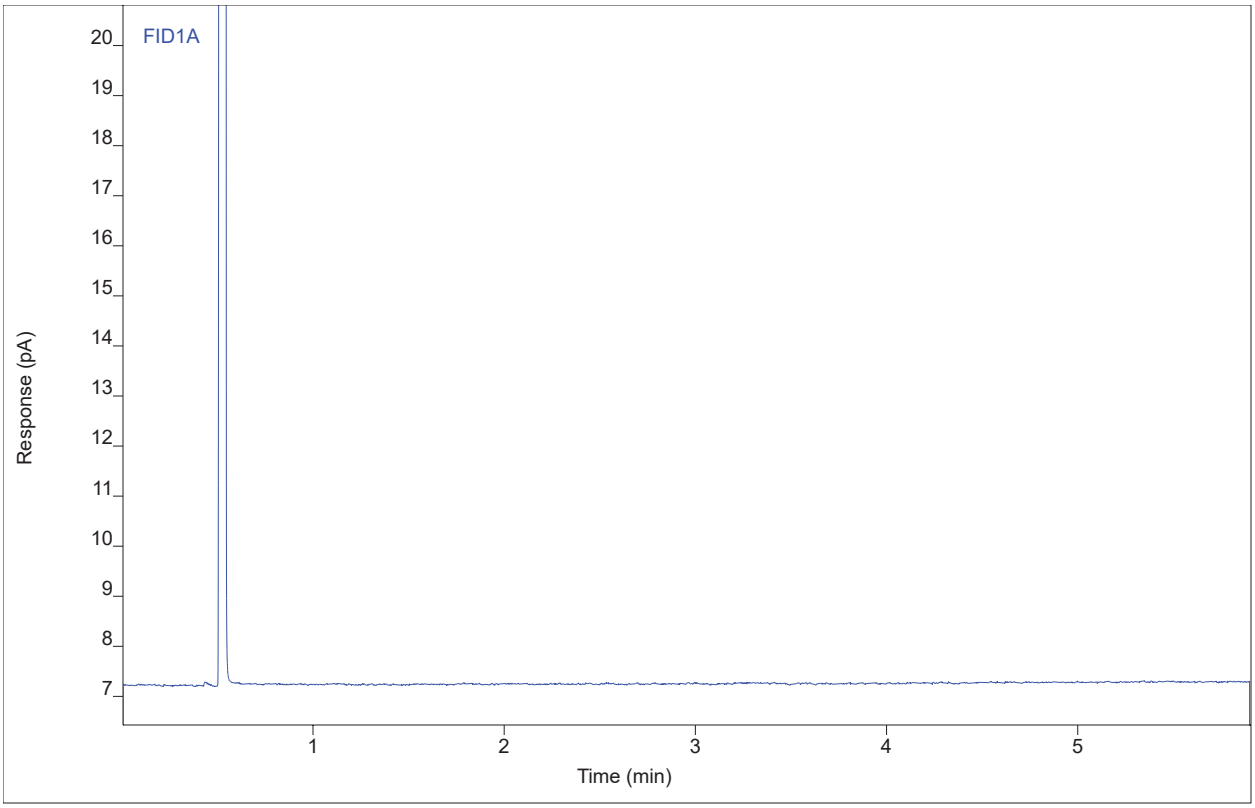
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R5-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	049F3703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:15 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 49
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



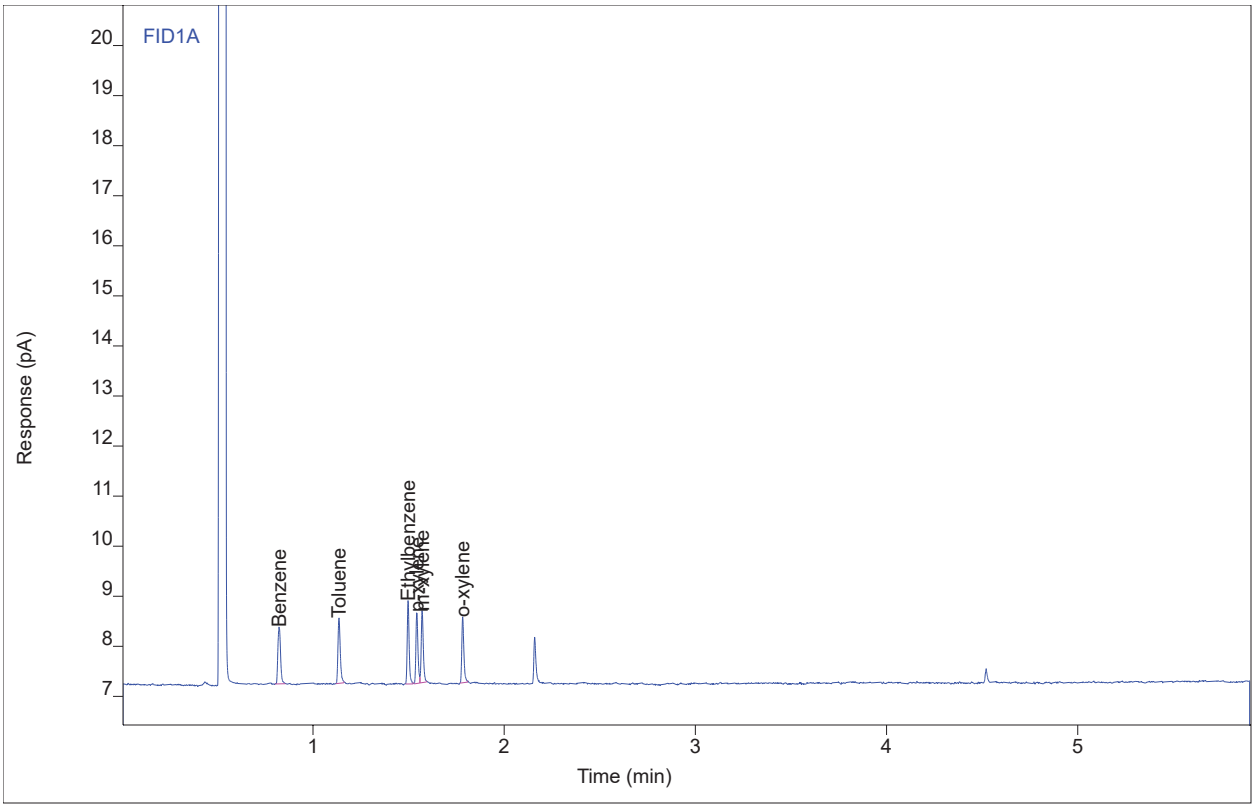
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	050F3801.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:26 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 50
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



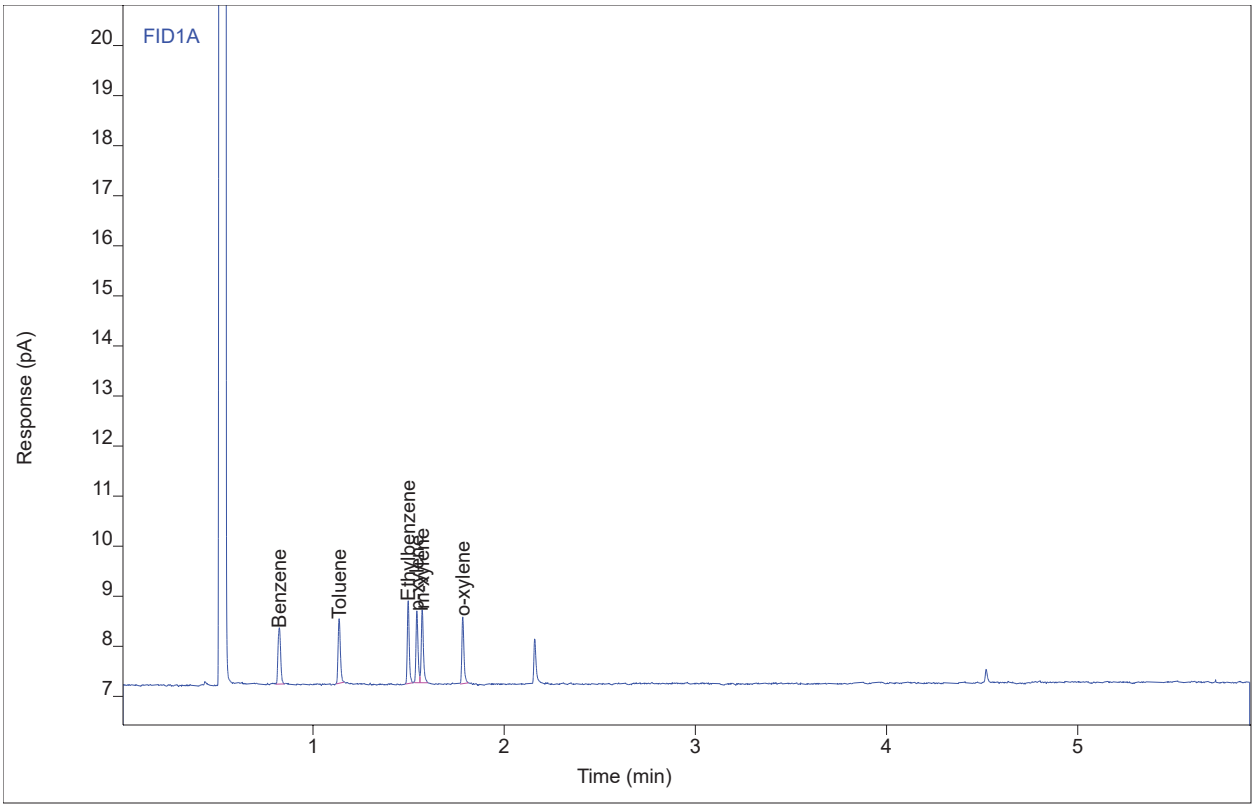
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.10832	1.13050	9.72541	1	9.72541	µg/mL
Toluene	BB	1.14	1.10630	1.30237	9.89616	1	9.89616	µg/mL
Ethylbenzene	BB	1.50	1.16341	1.65427	10.3990	1	10.3990	µg/mL
p-xylene	BV	1.54	1.05811	1.42083	9.64680	1	9.64680	µg/mL
m-xylene	VB	1.57	1.09629	1.43285	9.60733	1	9.60733	µg/mL
o-xylene	BB	1.78	0.99041	1.31577	8.95909	1	8.95909	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	050F3802.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:36 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 50
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



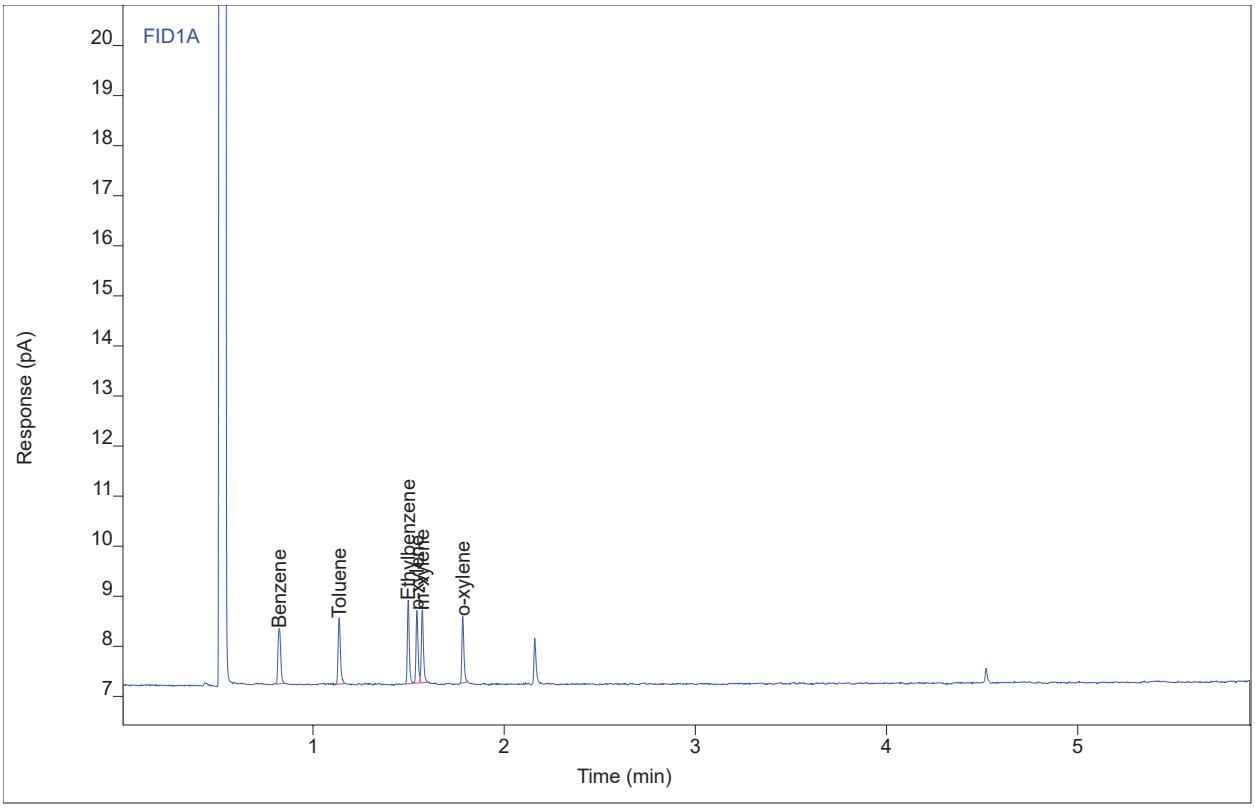
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.08360	1.13200	9.50901	1	9.50901	µg/mL
Toluene	BB	1.14	1.07749	1.29717	9.64489	1	9.64489	µg/mL
Ethylbenzene	BB	1.50	1.15140	1.65739	10.2951	1	10.2951	µg/mL
p-xylene	BV	1.54	1.05875	1.43302	9.65240	1	9.65240	µg/mL
m-xylene	VB	1.57	1.14417	1.47099	10.0146	1	10.0146	µg/mL
o-xylene	BB	1.78	1.01598	1.34433	9.18192	1	9.18192	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	050F3803.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:46 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 50
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



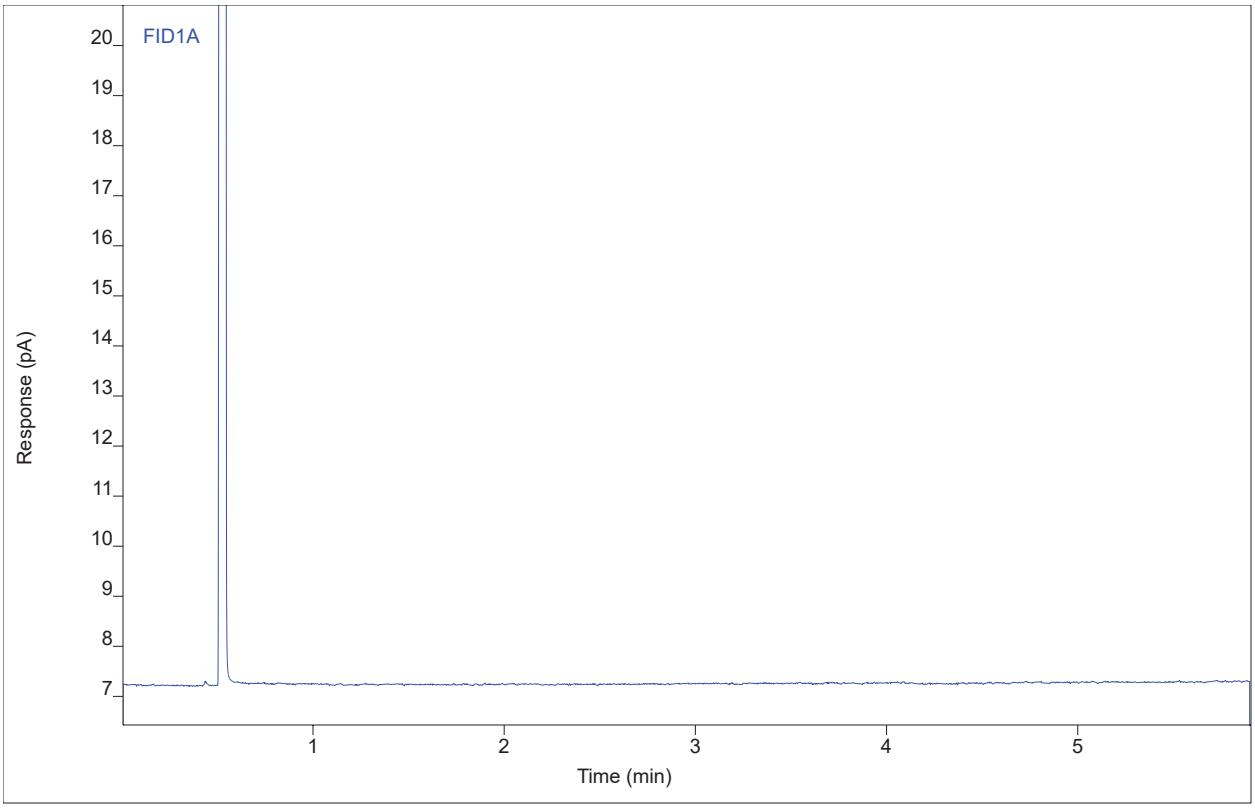
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.09976	1.11258	9.65045	1	9.65045	µg/mL
Toluene	BB	1.14	1.11912	1.32003	10.0080	1	10.0080	µg/mL
Ethylbenzene	BB	1.50	1.16509	1.66222	10.4136	1	10.4136	µg/mL
p-xylene	BV	1.54	1.05552	1.45122	9.62407	1	9.62407	µg/mL
m-xylene	VB	1.57	1.13129	1.46003	9.90504	1	9.90504	µg/mL
o-xylene	BB	1.78	0.97529	1.33017	8.82727	1	8.82727	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	051F3901.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 6:56 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 51
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



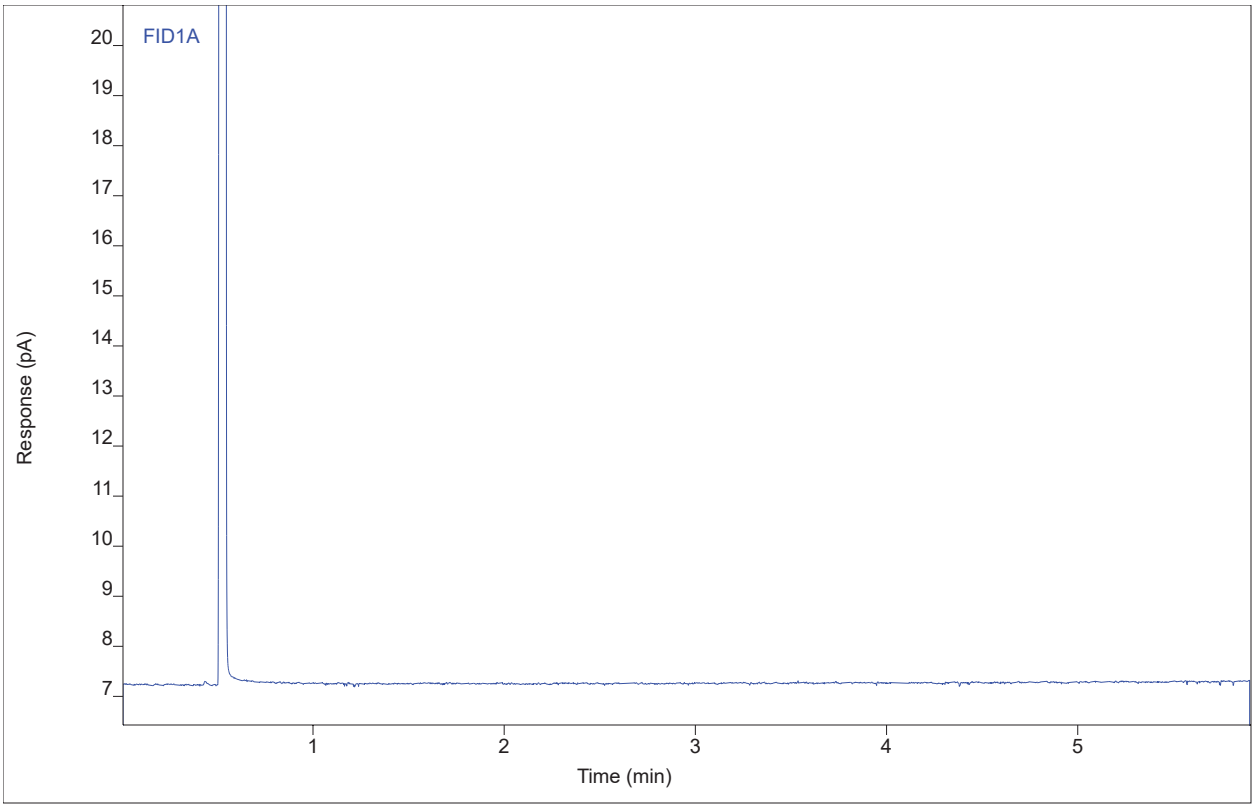
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	051F3902.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:07 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 51
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



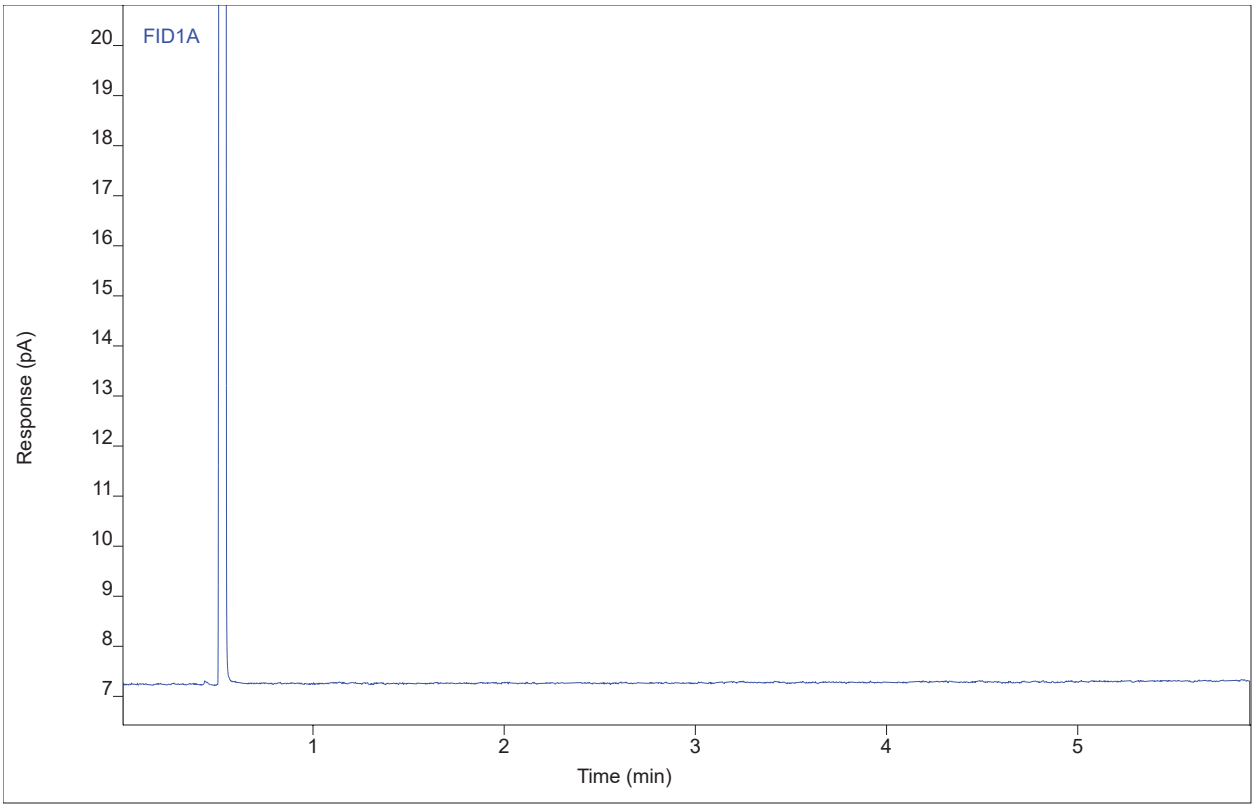
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R6-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	051F3903.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:17 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 51
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



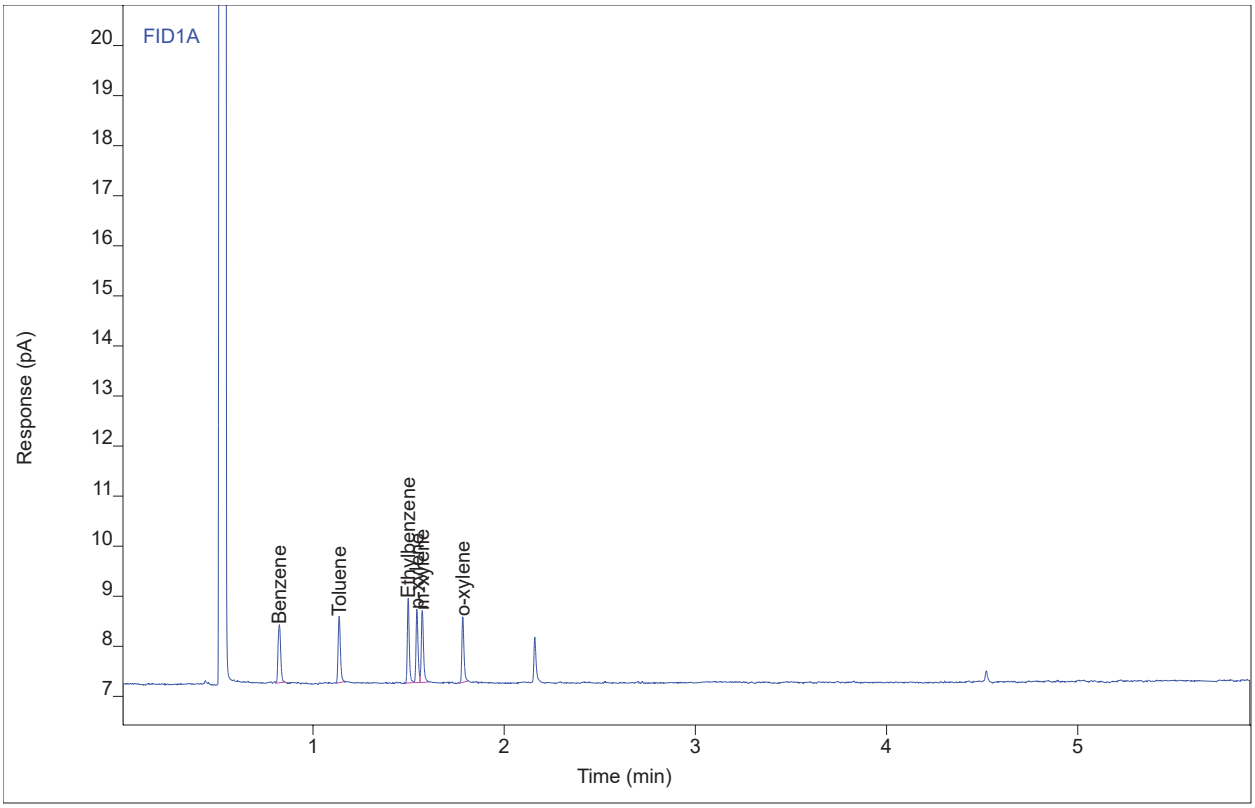
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	052F4001.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:27 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 52
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



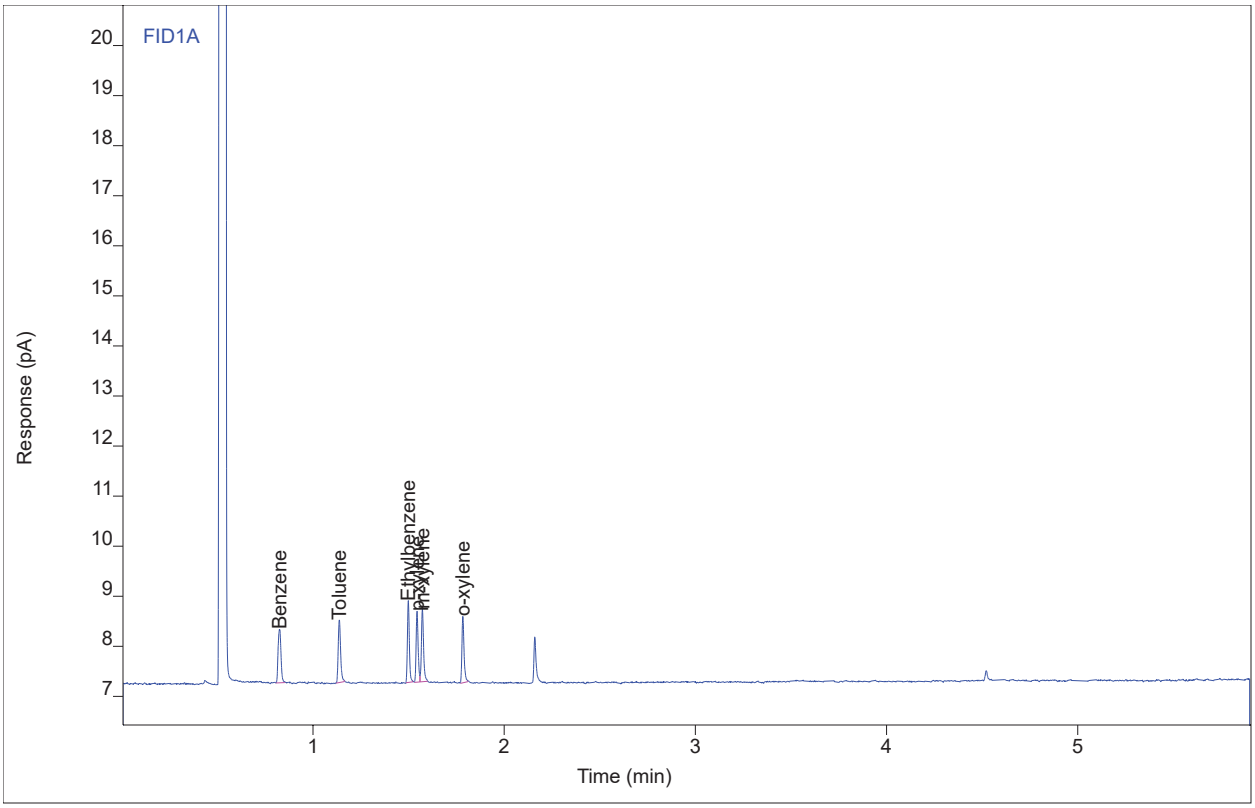
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.11380	1.16434	9.77338	1	9.77338	µg/mL
Toluene	BB	1.14	1.10897	1.32823	9.91951	1	9.91951	µg/mL
Ethylbenzene	BB	1.50	1.17660	1.68920	10.5131	1	10.5131	µg/mL
p-xylene	BV	1.54	1.08257	1.47231	9.86136	1	9.86136	µg/mL
m-xylene	VB	1.57	1.17161	1.45132	10.2480	1	10.2480	µg/mL
o-xylene	BB	1.78	1.00668	1.31826	9.10094	1	9.10094	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	052F4002.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:38 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 52
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



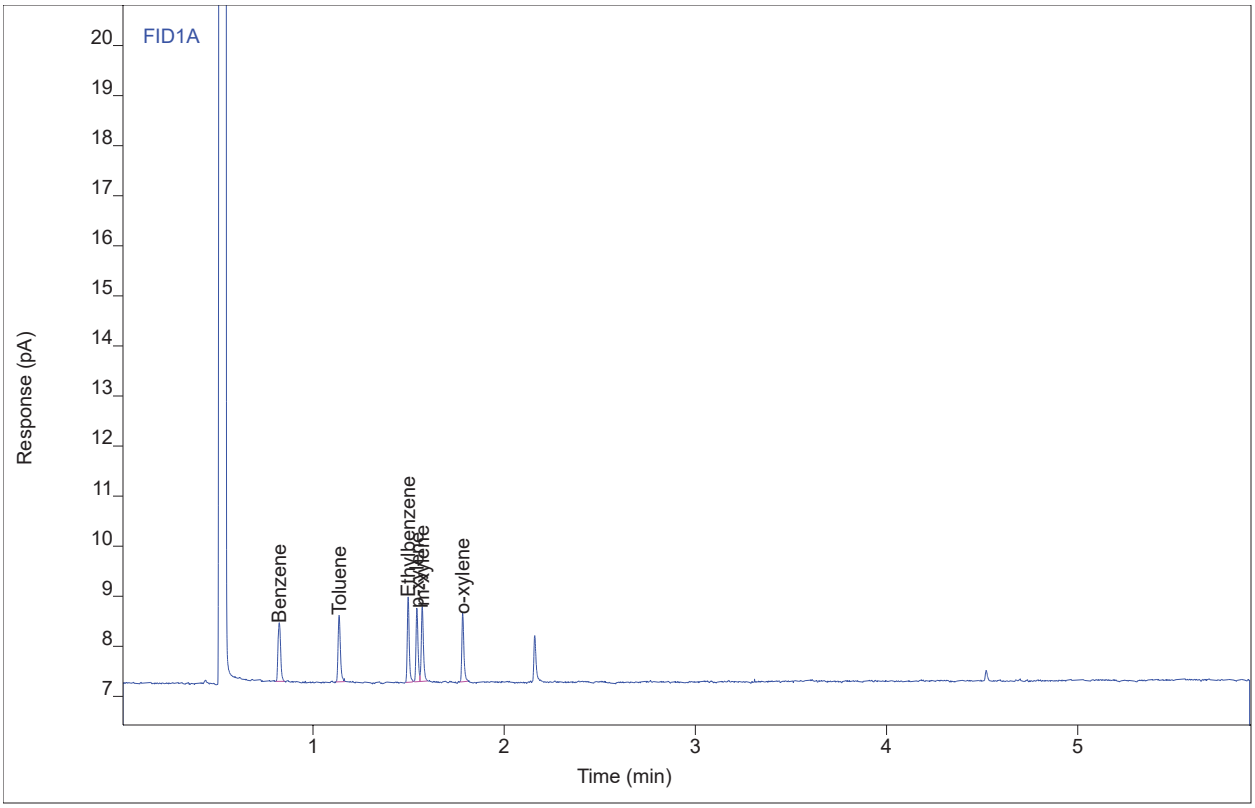
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.12339	1.07114	9.85736	1	9.85736	µg/mL
Toluene	BB	1.14	1.09521	1.25541	9.79948	1	9.79948	µg/mL
Ethylbenzene	BB	1.50	1.13260	1.63568	10.1325	1	10.1325	µg/mL
p-xylene	BV	1.54	1.03463	1.41532	9.44089	1	9.44089	µg/mL
m-xylene	VB	1.57	1.14077	1.44471	9.98569	1	9.98569	µg/mL
o-xylene	BB	1.78	1.03003	1.33123	9.30443	1	9.30443	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.FH
Sequence Name	LUCY1285 ver.1
Inj Data File	052F4003.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:48 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 52
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



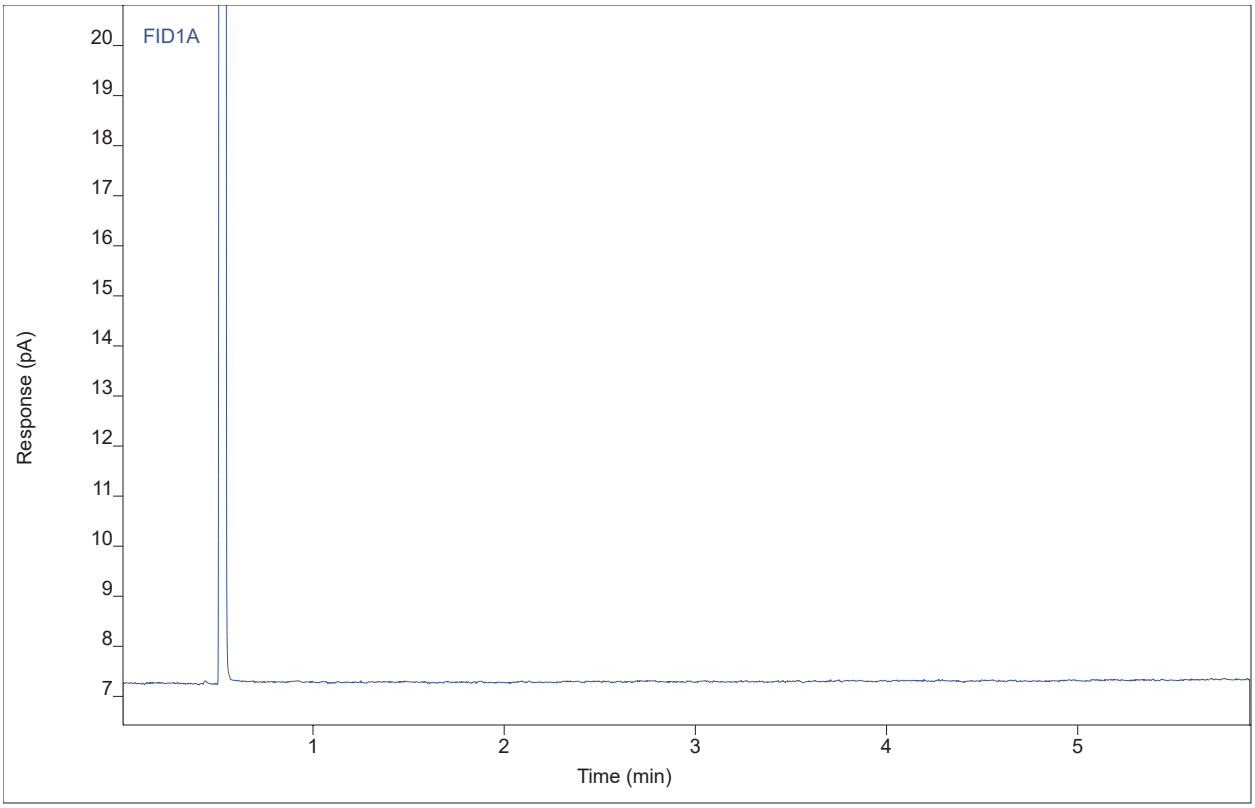
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.12571	1.17137	9.87770	1	9.87770	µg/mL
Toluene	BB	1.14	1.13330	1.33086	10.1317	1	10.1317	µg/mL
Ethylbenzene	BB	1.50	1.19886	1.70793	10.7056	1	10.7056	µg/mL
p-xylene	BV	1.54	1.07704	1.47719	9.81283	1	9.81283	µg/mL
m-xylene	VB	1.57	1.15927	1.49700	10.1430	1	10.1430	µg/mL
o-xylene	BB	1.78	1.02162	1.36116	9.23107	1	9.23107	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	053F4101.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 7:58 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 53
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



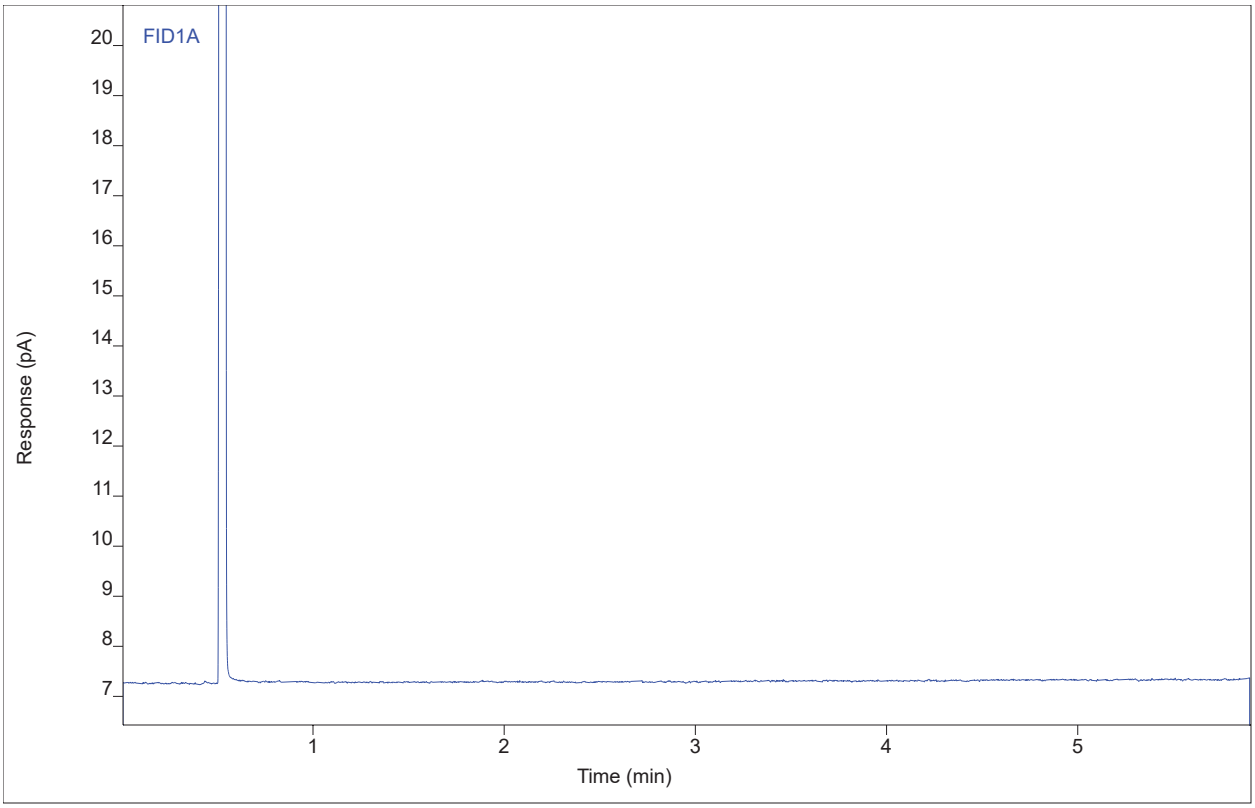
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	053F4102.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 8:09 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 53
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



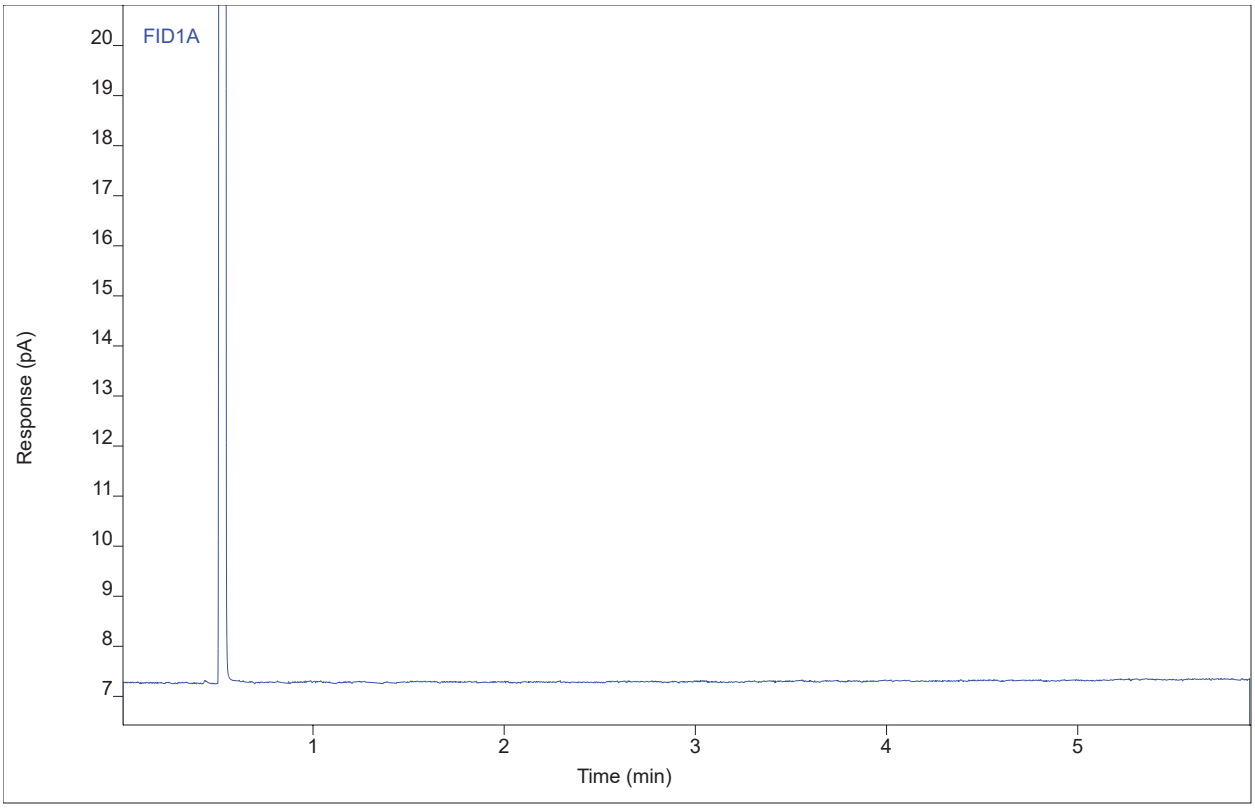
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Enthalpy Analytical

Sample Name	0123-099.R7-SPK.BH
Sequence Name	LUCY1285 ver.1
Inj Data File	053F4103.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 8:19 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Sample
Vial Number	Vial 53
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



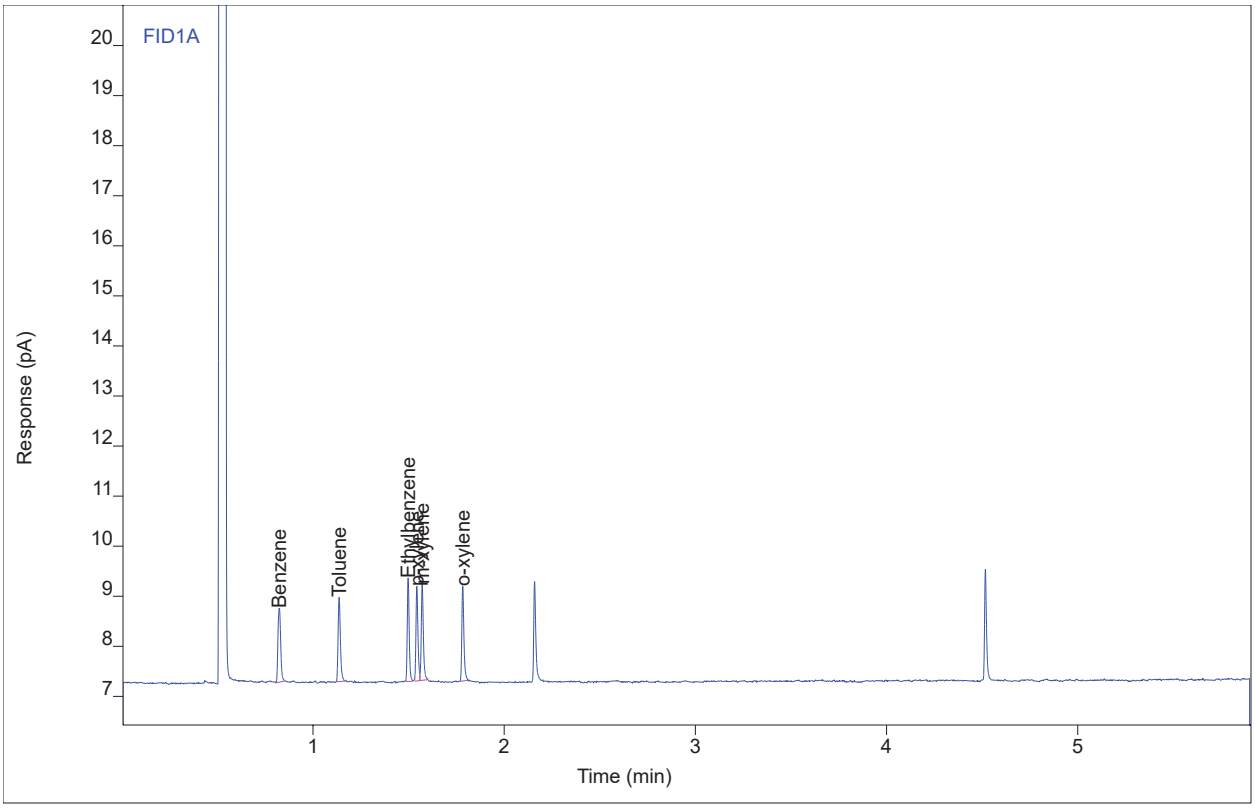
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(0.83)				1		
Toluene		(1.14)				1		
Ethylbenzene		(1.50)				1		
p-xylene		(1.54)				1		
m-xylene		(1.56)				1		
o-xylene		(1.79)				1		

Chromatogram Report

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	054F4201.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 8:29 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 54
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



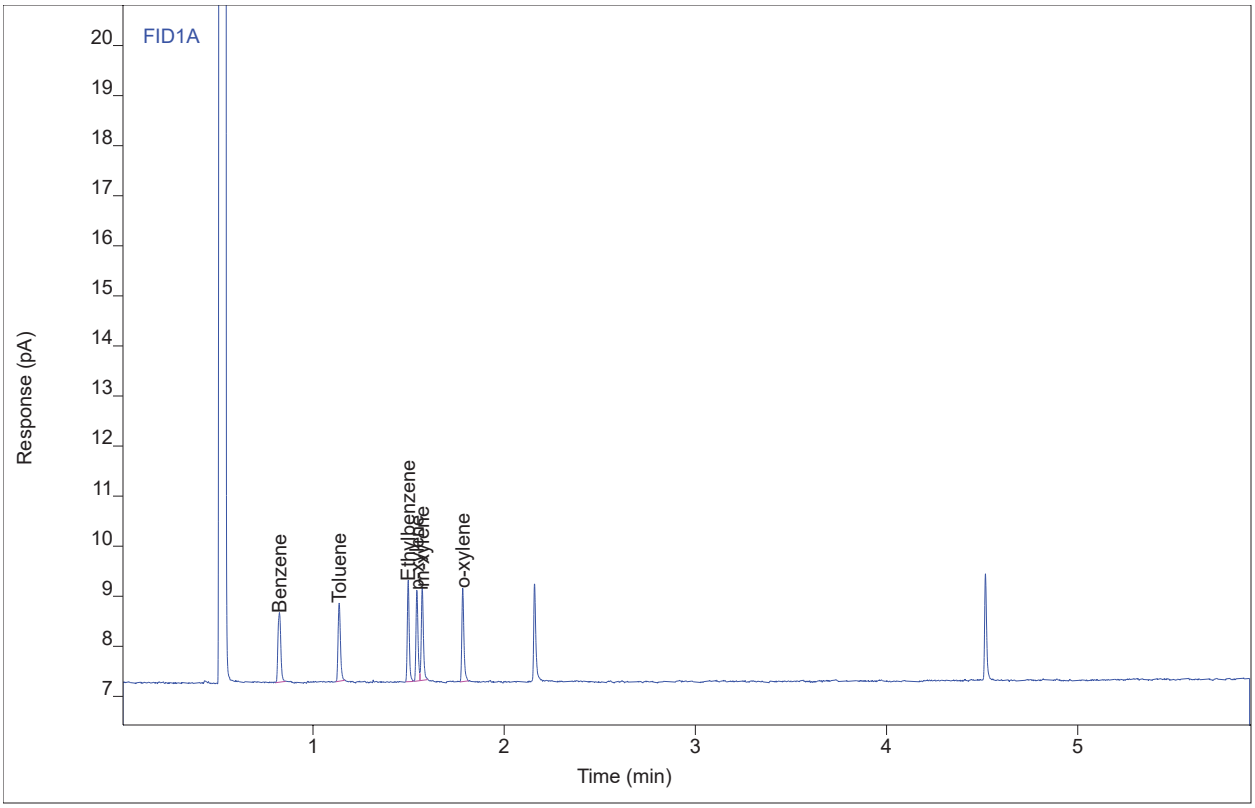
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.47106	1.48430	12.9016	1	12.9016	µg/mL
Toluene	BB	1.14	1.40652	1.69369	12.5151	1	12.5151	µg/mL
Ethylbenzene	BB	1.50	1.44710	2.07304	12.8526	1	12.8526	µg/mL
p-xylene	BV	1.54	1.37318	1.89290	12.4098	1	12.4098	µg/mL
m-xylene	VB	1.57	1.44501	1.91711	12.5736	1	12.5736	µg/mL
o-xylene	BB	1.78	1.43427	1.90822	12.8277	1	12.8277	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	054F4202.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 8:39 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 54
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



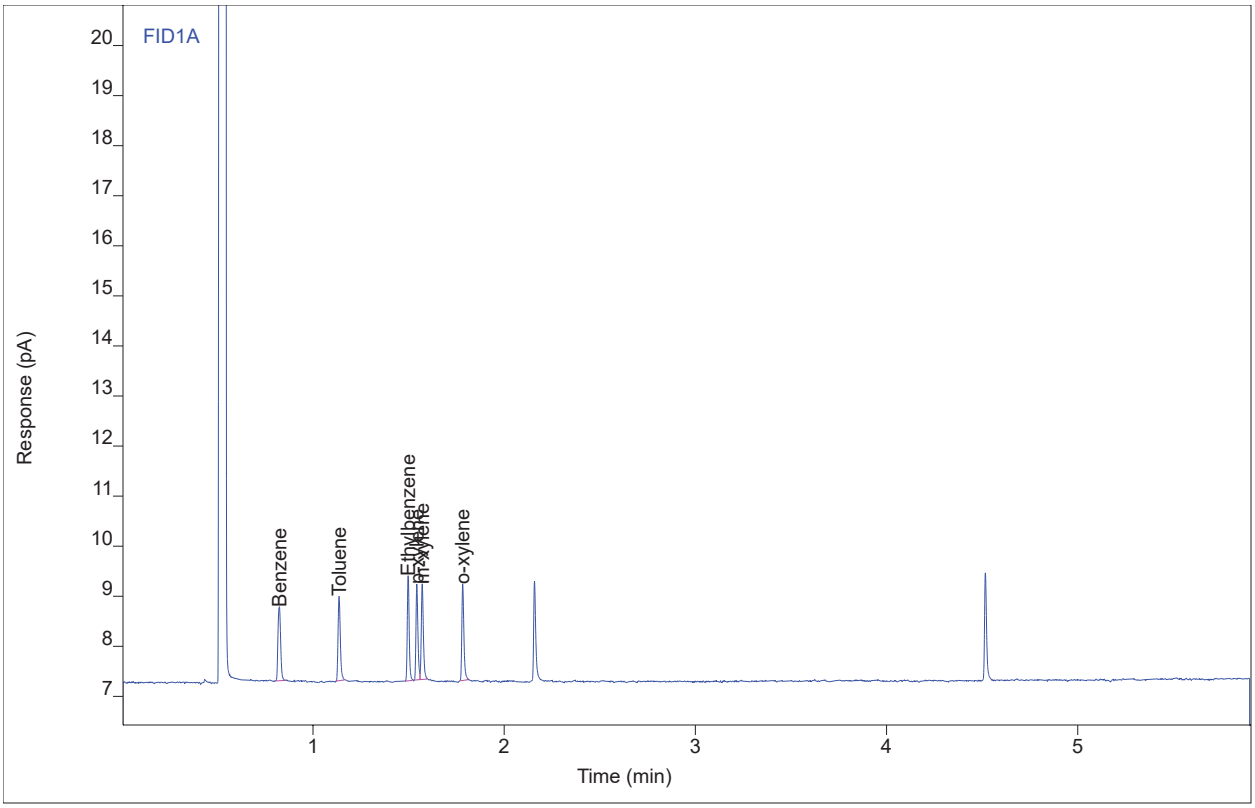
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.43831	1.39093	12.6148	1	12.6148	µg/mL
Toluene	BB	1.14	1.35659	1.56419	12.0796	1	12.0796	µg/mL
Ethylbenzene	BB	1.50	1.41552	2.01274	12.5795	1	12.5795	µg/mL
p-xylene	BV	1.54	1.33969	1.81601	12.1161	1	12.1161	µg/mL
m-xylene	VB	1.57	1.42479	1.86587	12.4016	1	12.4016	µg/mL
o-xylene	BB	1.78	1.41388	1.85925	12.6500	1	12.6500	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #3
Sequence Name	LUCY1285 ver.1
Inj Data File	054F4203.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 8:50 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 54
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



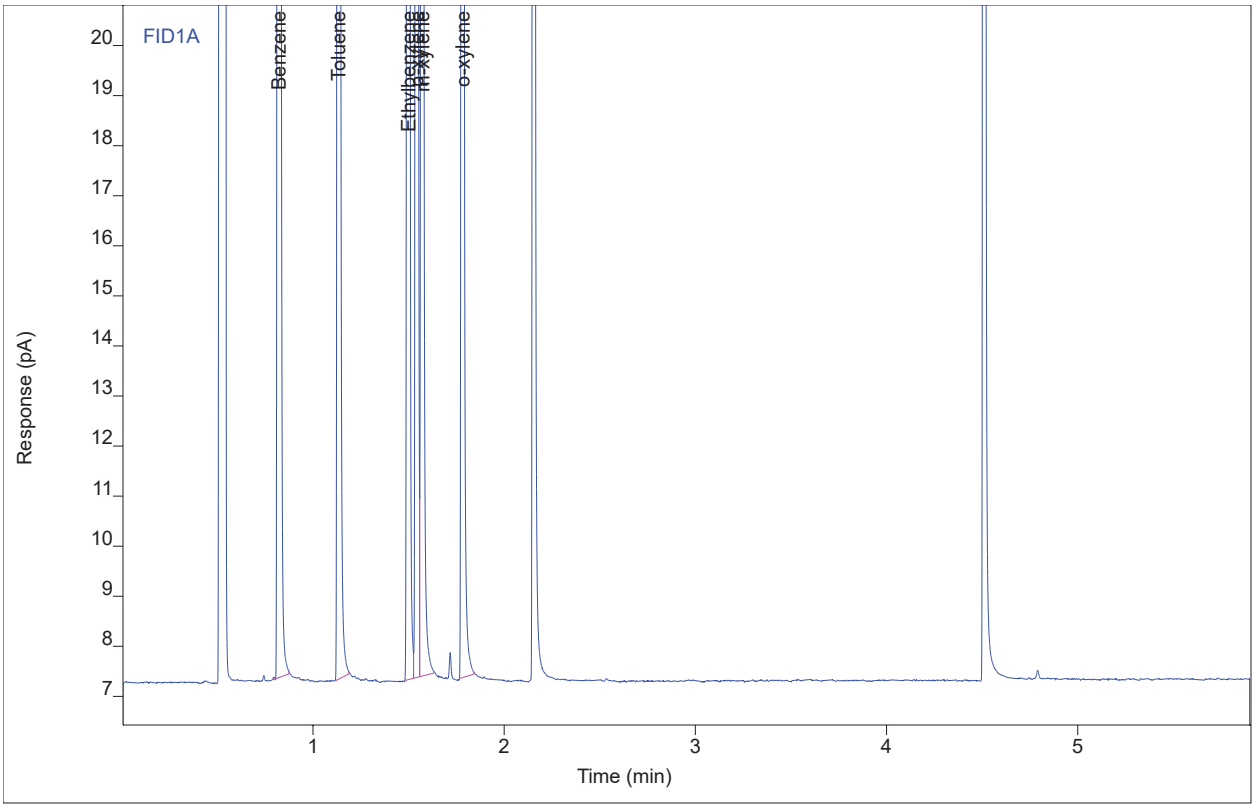
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	1.45418	1.48208	12.7537	1	12.7537	µg/mL
Toluene	BB	1.14	1.39063	1.67884	12.3765	1	12.3765	µg/mL
Ethylbenzene	BB	1.50	1.44704	2.10158	12.8521	1	12.8521	µg/mL
p-xylene	BV	1.54	1.35203	1.90694	12.2243	1	12.2243	µg/mL
m-xylene	VB	1.57	1.44867	1.91483	12.6047	1	12.6047	µg/mL
o-xylene	BB	1.78	1.44118	1.91977	12.8879	1	12.8879	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #6
Sequence Name	LUCY1285 ver.1
Inj Data File	055F4301.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 9:10 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 55
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



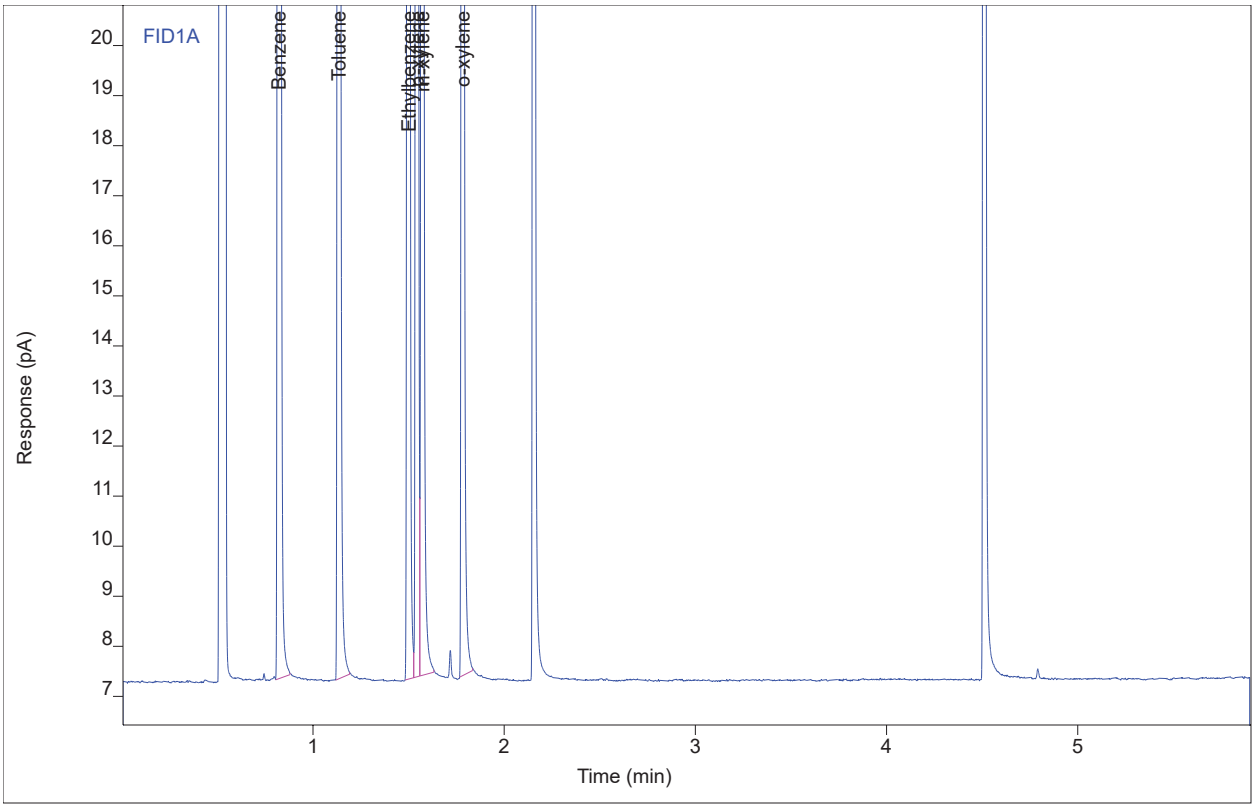
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	116.905	120.098	1023.63	1	1023.63	µg/mL
Toluene	BB	1.13	117.514	151.804	1025.37	1	1025.37	µg/mL
Ethylbenzene	BV	1.50	119.744	167.840	1035.97	1	1035.97	µg/mL
p-xylene	VV	1.54	117.956	174.440	1034.78	1	1034.78	µg/mL
m-xylene	VB	1.57	121.045	194.286	1029.93	1	1029.93	µg/mL
o-xylene	BB	1.78	121.712	190.618	1061.14	1	1061.14	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #6
Sequence Name	LUCY1285 ver.1
Inj Data File	055F4302.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 9:20 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 55
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



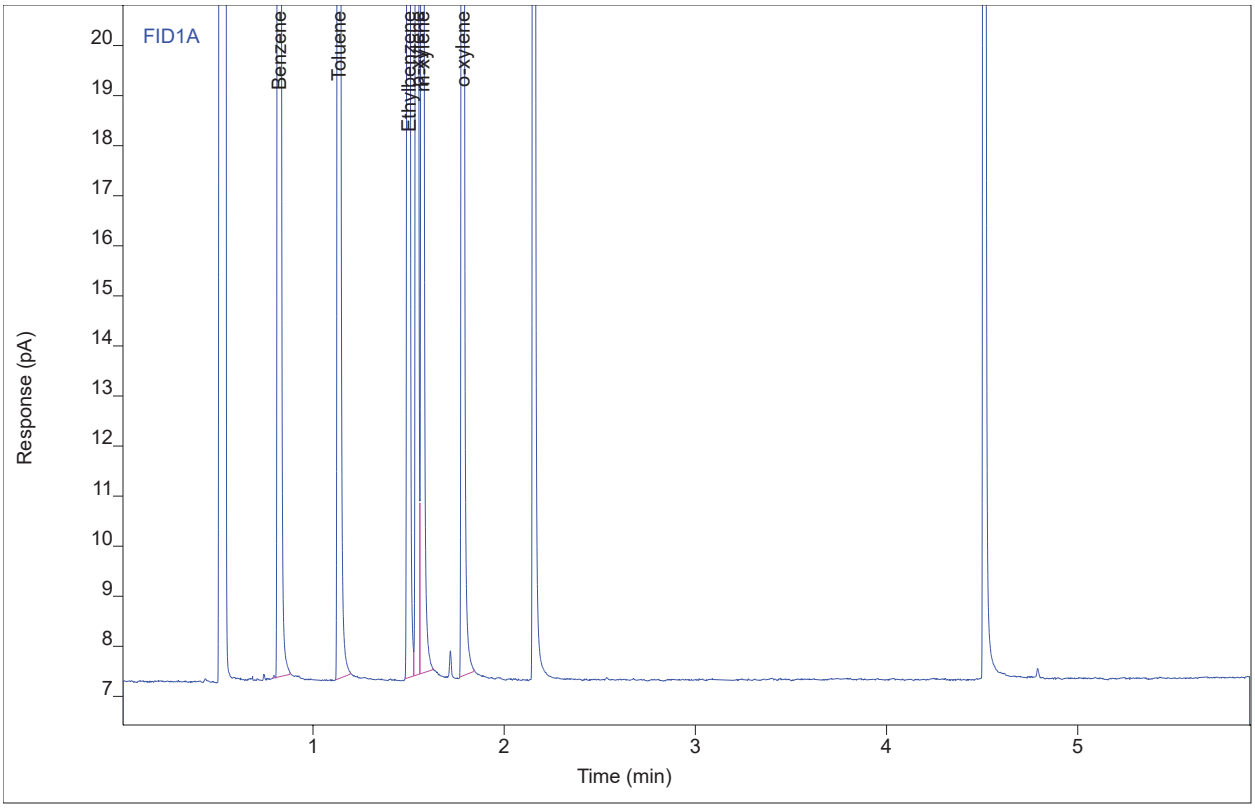
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	VB	0.82	119.577	124.351	1047.02	1	1047.02	µg/mL
Toluene	BB	1.14	120.391	158.022	1050.47	1	1050.47	µg/mL
Ethylbenzene	BV	1.50	122.748	174.129	1061.96	1	1061.96	µg/mL
p-xylene	VV	1.54	120.949	181.897	1061.03	1	1061.03	µg/mL
m-xylene	VB	1.57	124.116	197.392	1056.04	1	1056.04	µg/mL
o-xylene	BB	1.78	124.648	196.029	1086.74	1	1086.74	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #6
Sequence Name	LUCY1285 ver.1
Inj Data File	055F4303.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 9:31 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 55
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



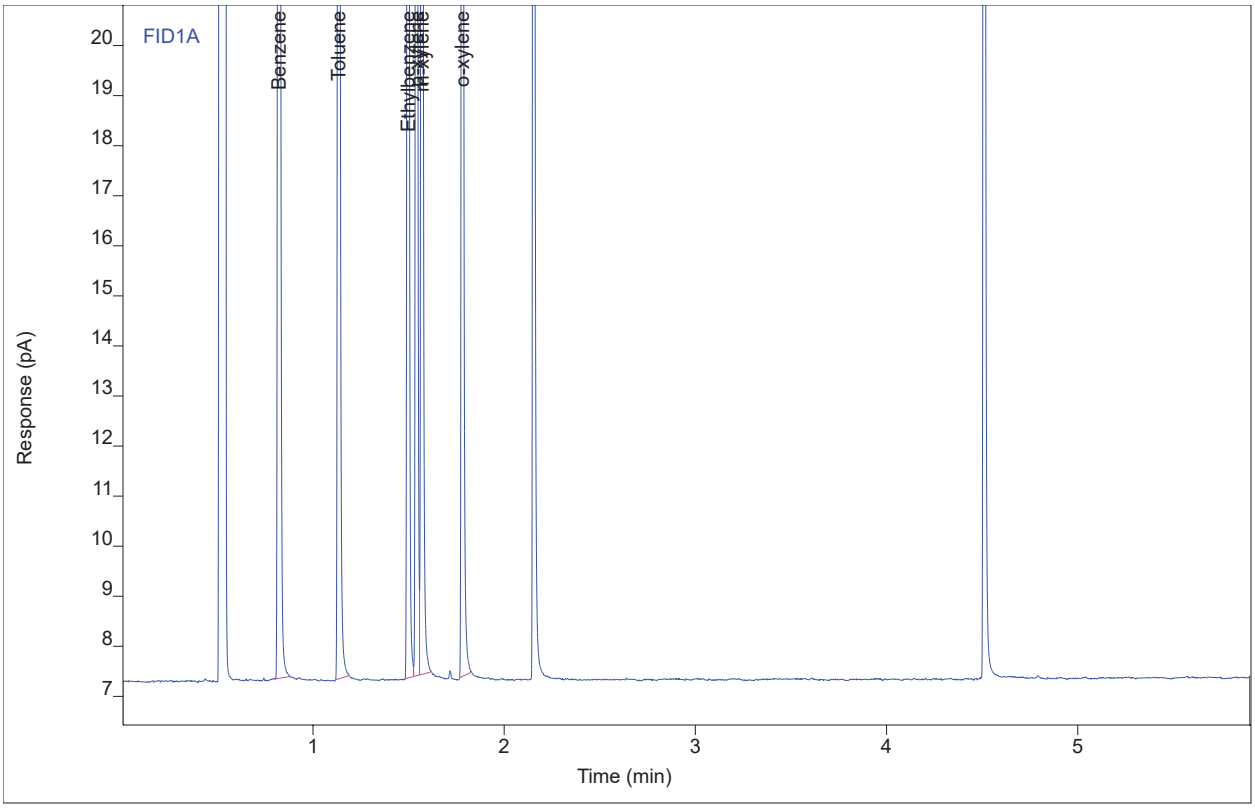
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	119.212	124.120	1043.83	1	1043.83	µg/mL
Toluene	BB	1.14	120.134	156.287	1048.23	1	1048.23	µg/mL
Ethylbenzene	BV	1.50	122.395	173.850	1058.90	1	1058.90	µg/mL
p-xylene	VV	1.54	120.613	180.893	1058.09	1	1058.09	µg/mL
m-xylene	VB	1.57	123.568	201.512	1051.39	1	1051.39	µg/mL
o-xylene	BB	1.78	124.445	197.937	1084.96	1	1084.96	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #5
Sequence Name	LUCY1285 ver.1
Inj Data File	056F4401.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 9:51 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 56
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



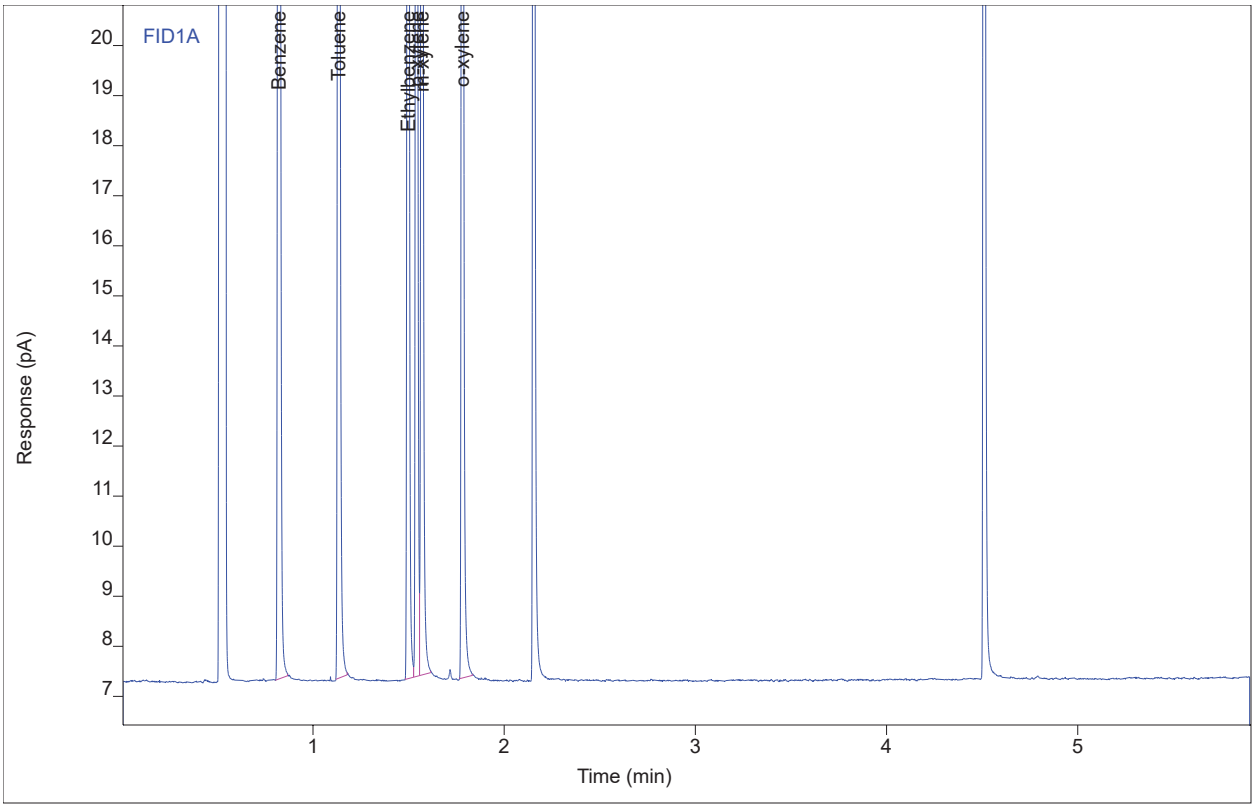
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	39.0863	40.3708	342.257	1	342.257	µg/mL
Toluene	BB	1.13	39.2242	50.6473	342.415	1	342.415	µg/mL
Ethylbenzene	BV	1.50	39.9606	62.1951	345.945	1	345.945	µg/mL
p-xylene	VV	1.54	39.2223	60.9300	344.328	1	344.328	µg/mL
m-xylene	VB	1.57	40.5523	62.0054	345.231	1	345.231	µg/mL
o-xylene	BB	1.78	40.4659	63.5746	353.020	1	353.020	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #5
Sequence Name	LUCY1285 ver.1
Inj Data File	056F4402.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 10:02 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 56
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



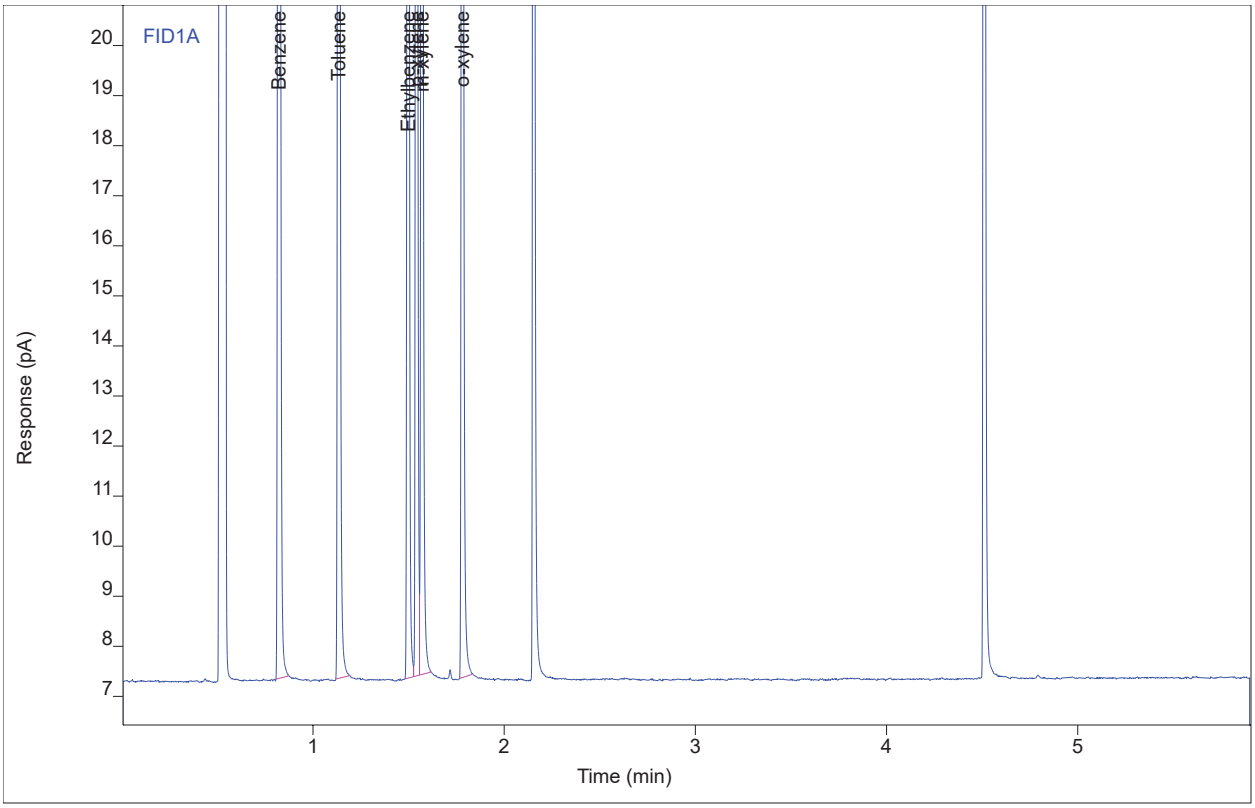
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	39.3768	41.4635	344.801	1	344.801	µg/mL
Toluene	BB	1.13	39.4347	51.1463	344.251	1	344.251	µg/mL
Ethylbenzene	BV	1.50	40.3116	62.5043	348.981	1	348.981	µg/mL
p-xylene	VV	1.54	39.5603	62.3190	347.292	1	347.292	µg/mL
m-xylene	VB	1.57	40.8966	62.6150	348.160	1	348.160	µg/mL
o-xylene	BB	1.78	40.9633	63.7054	357.354	1	357.354	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #5
Sequence Name	LUCY1285 ver.1
Inj Data File	056F4403.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 10:12 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 56
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



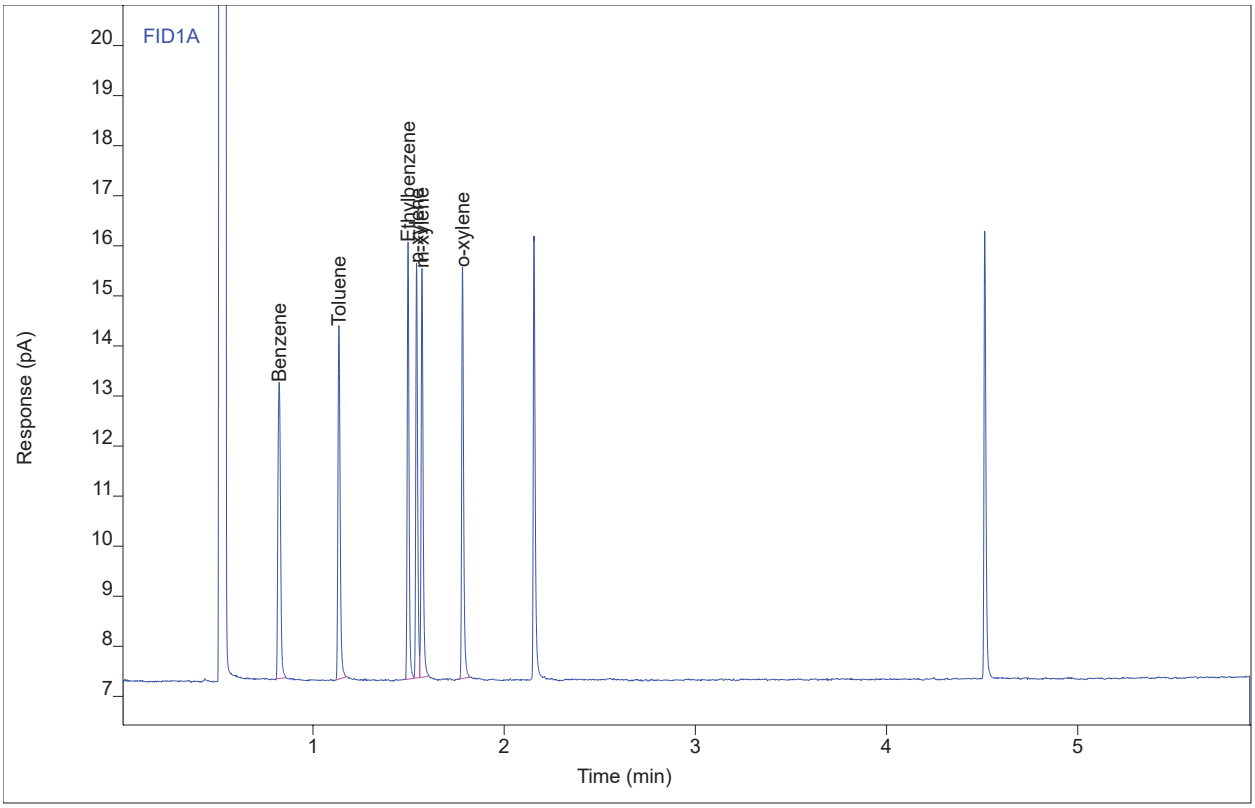
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	39.8353	42.2547	348.815	1	348.815	µg/mL
Toluene	BB	1.13	40.0622	52.7334	349.725	1	349.725	µg/mL
Ethylbenzene	BV	1.50	40.7937	63.5856	353.151	1	353.151	µg/mL
p-xylene	VV	1.54	40.0309	64.2173	351.419	1	351.419	µg/mL
m-xylene	VB	1.57	41.3226	63.6341	351.784	1	351.784	µg/mL
o-xylene	BB	1.78	41.4175	64.5237	361.313	1	361.313	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #4
Sequence Name	LUCY1285 ver.1
Inj Data File	057F4501.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 10:32 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 57
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



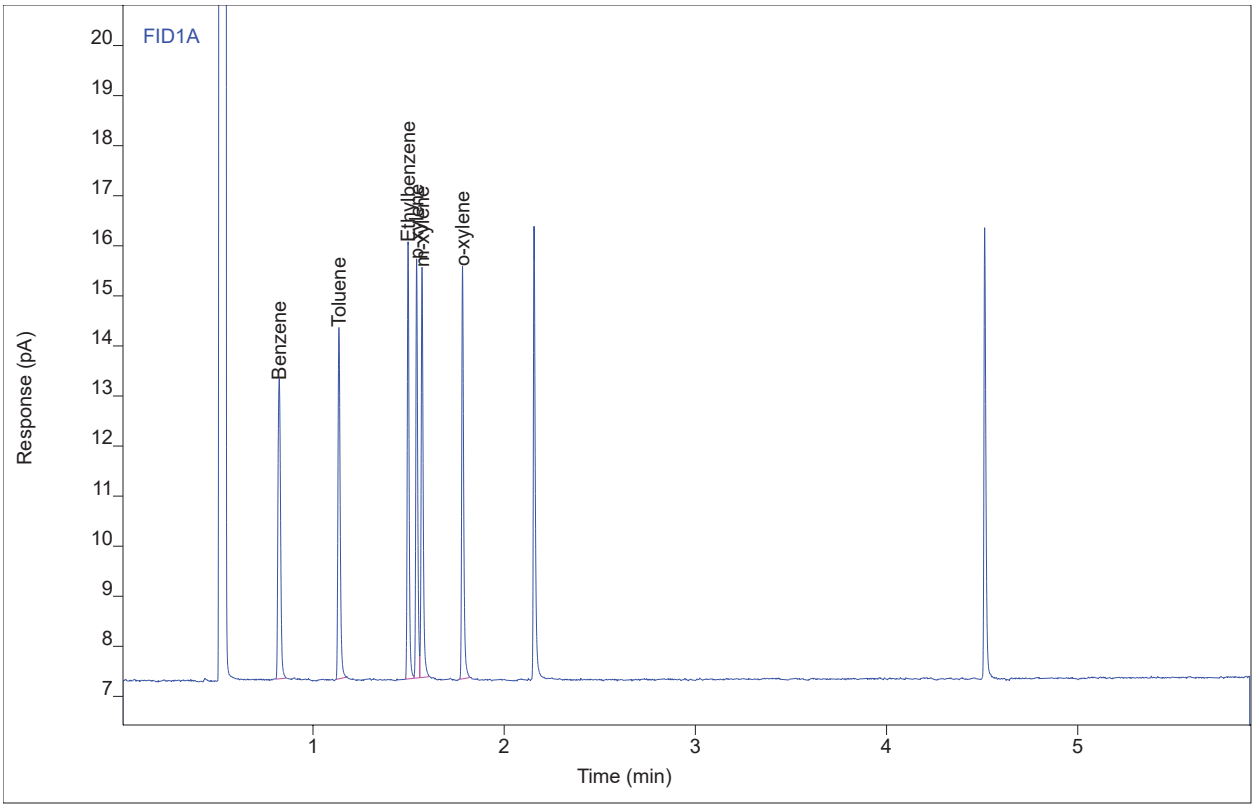
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	5.69788	5.92252	49.9111	1	49.9111	µg/mL
Toluene	BB	1.14	5.64500	7.05644	49.4892	1	49.4892	µg/mL
Ethylbenzene	BB	1.50	5.77297	8.73408	50.2659	1	50.2659	µg/mL
p-xylene	BV	1.54	5.56067	8.27639	49.1321	1	49.1321	µg/mL
m-xylene	VB	1.57	5.87616	8.17517	50.2663	1	50.2663	µg/mL
o-xylene	BB	1.78	5.77544	8.20428	50.6645	1	50.6645	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #4
Sequence Name	LUCY1285 ver.1
Inj Data File	057F4502.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 10:43 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 57
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



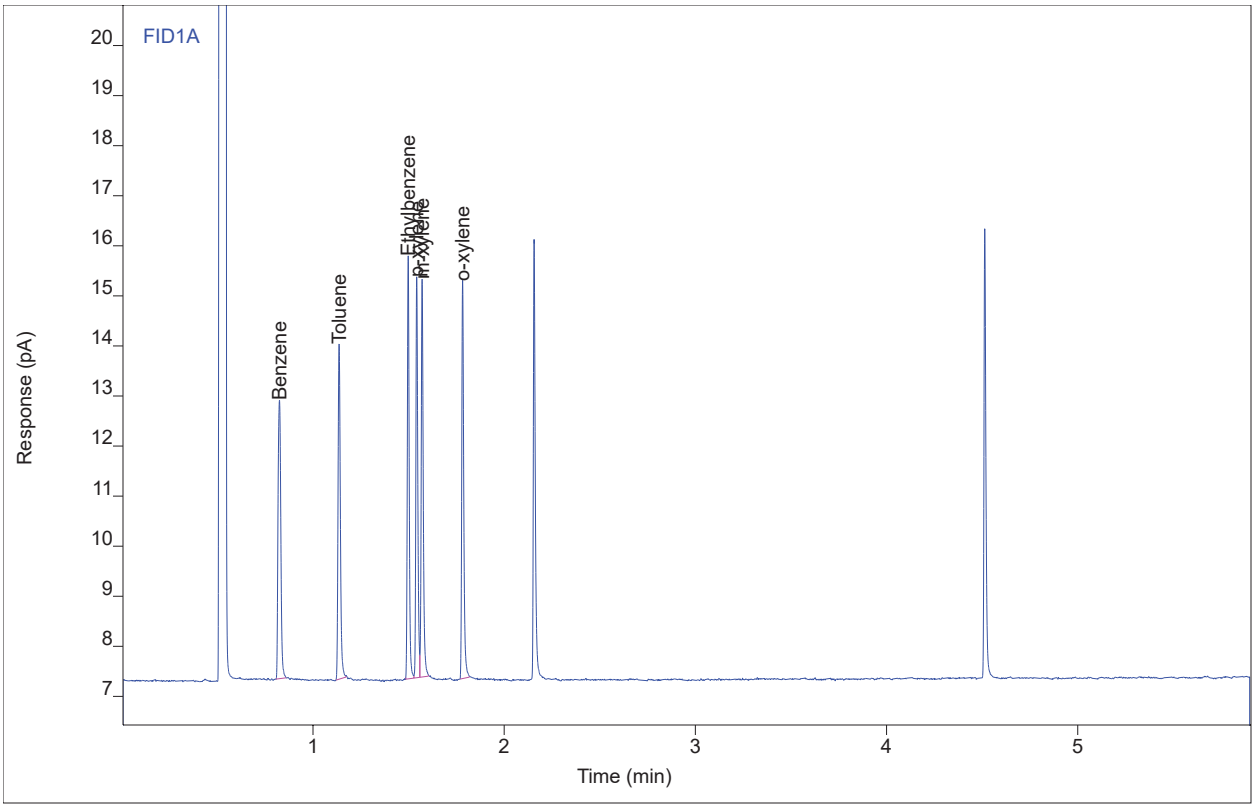
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	5.69685	5.98266	49.9022	1	49.9022	µg/mL
Toluene	BB	1.14	5.62516	7.00149	49.3161	1	49.3161	µg/mL
Ethylbenzene	BB	1.50	5.77241	8.73165	50.2610	1	50.2610	µg/mL
p-xylene	BV	1.54	5.58084	8.36645	49.3090	1	49.3090	µg/mL
m-xylene	VB	1.57	5.92401	8.16693	50.6733	1	50.6733	µg/mL
o-xylene	BB	1.78	5.78109	8.22587	50.7137	1	50.7137	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #4
Sequence Name	LUCY1285 ver.1
Inj Data File	057F4503.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 10:53 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 57
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



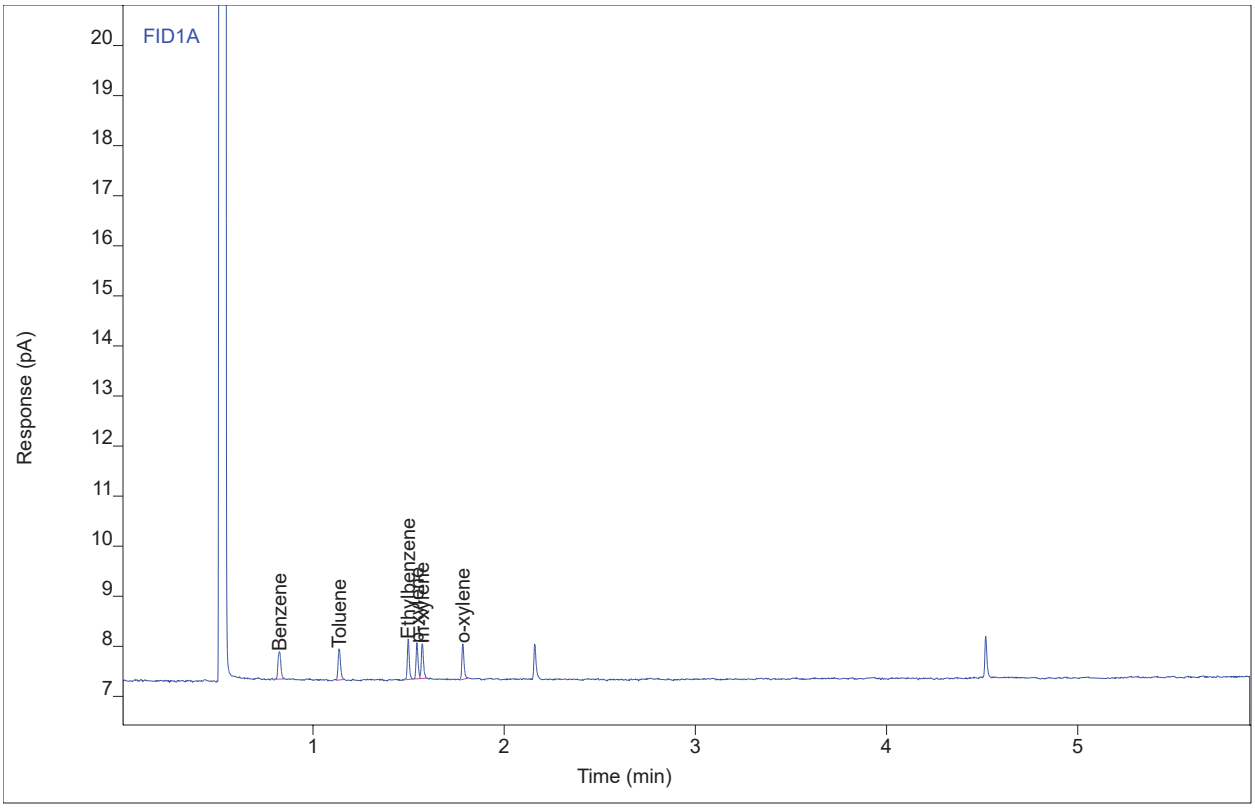
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	5.64229	5.56569	49.4244	1	49.4244	µg/mL
Toluene	BB	1.14	5.60717	6.69377	49.1592	1	49.1592	µg/mL
Ethylbenzene	BV	1.50	5.72241	8.43518	49.8286	1	49.8286	µg/mL
p-xylene	VV	1.54	5.52990	7.99804	48.8622	1	48.8622	µg/mL
m-xylene	VB	1.57	5.83982	7.94283	49.9571	1	49.9571	µg/mL
o-xylene	BB	1.78	5.71332	7.94293	50.1230	1	50.1230	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #2
Sequence Name	LUCY1285 ver.1
Inj Data File	058F4601.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 11:14 AM
File Modified	2/24/2023 4:50 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 58
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



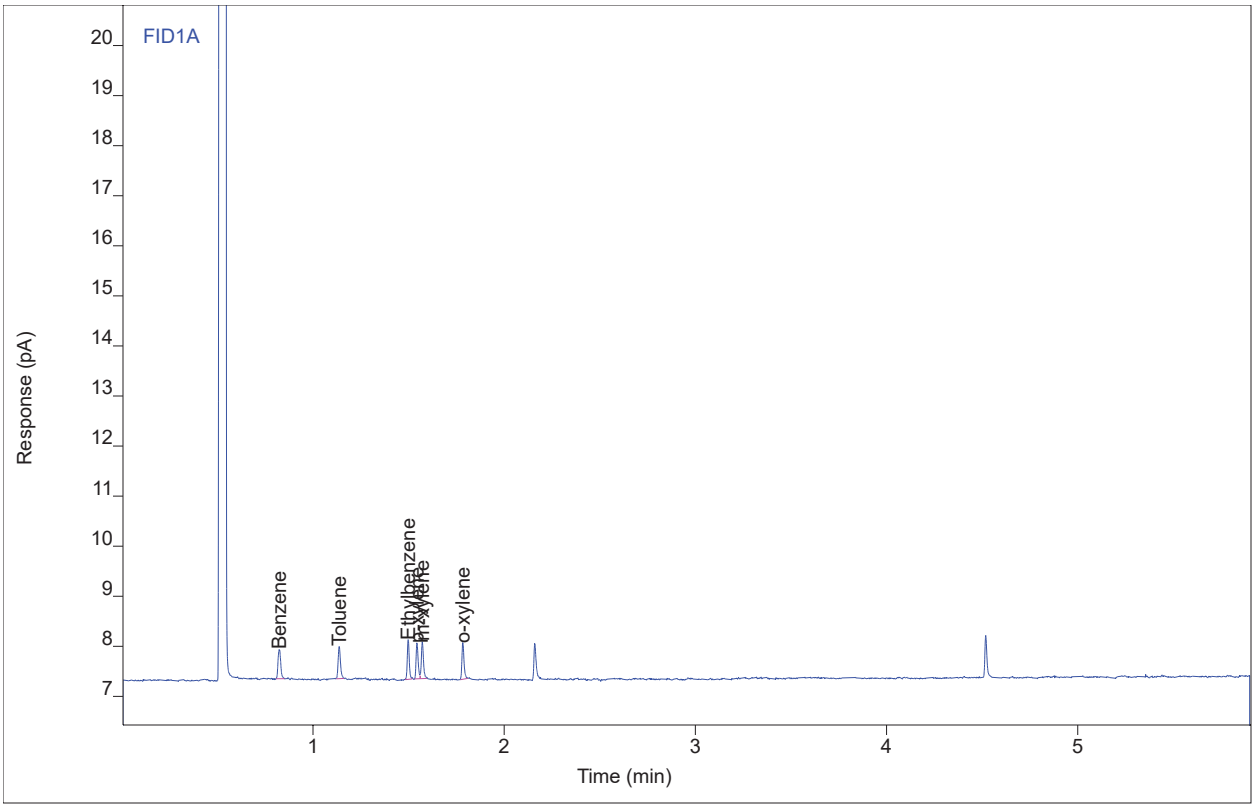
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	0.56782	0.55841	4.99283	1	4.99283	µg/mL
Toluene	BB	1.14	0.56479	0.62520	5.17239	1	5.17239	µg/mL
Ethylbenzene	BB	1.50	0.56331	0.80837	5.20891	1	5.20891	µg/mL
p-xylene	BV	1.54	0.52083	0.72199	4.93518	1	4.93518	µg/mL
m-xylene	VB	1.57	0.56061	0.70555	5.05067	1	5.05067	µg/mL
o-xylene	BB	1.78	0.55905	0.71532	5.19946	1	5.19946	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #2
Sequence Name	LUCY1285 ver.1
Inj Data File	058F4602.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 11:24 AM
File Modified	2/24/2023 4:51 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 58
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



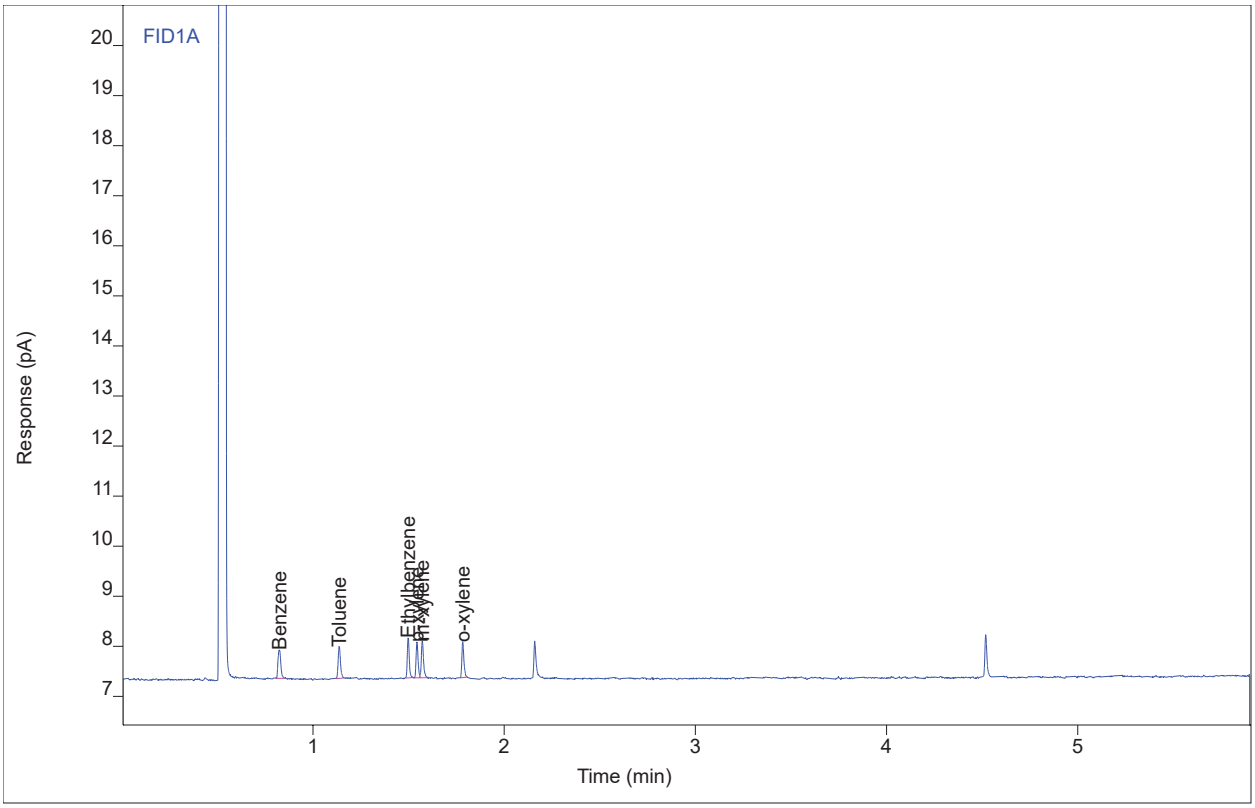
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	0.57411	0.58586	5.04795	1	5.04795	µg/mL
Toluene	BB	1.14	0.55151	0.64477	5.05653	1	5.05653	µg/mL
Ethylbenzene	BB	1.50	0.56467	0.79548	5.22074	1	5.22074	µg/mL
p-xylene	BV	1.54	0.54232	0.71987	5.12363	1	5.12363	µg/mL
m-xylene	VB	1.57	0.56699	0.73803	5.10494	1	5.10494	µg/mL
o-xylene	BB	1.78	0.56478	0.73138	5.24943	1	5.24943	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #2
Sequence Name	LUCY1285 ver.1
Inj Data File	058F4603.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 11:34 AM
File Modified	2/24/2023 4:51 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 58
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



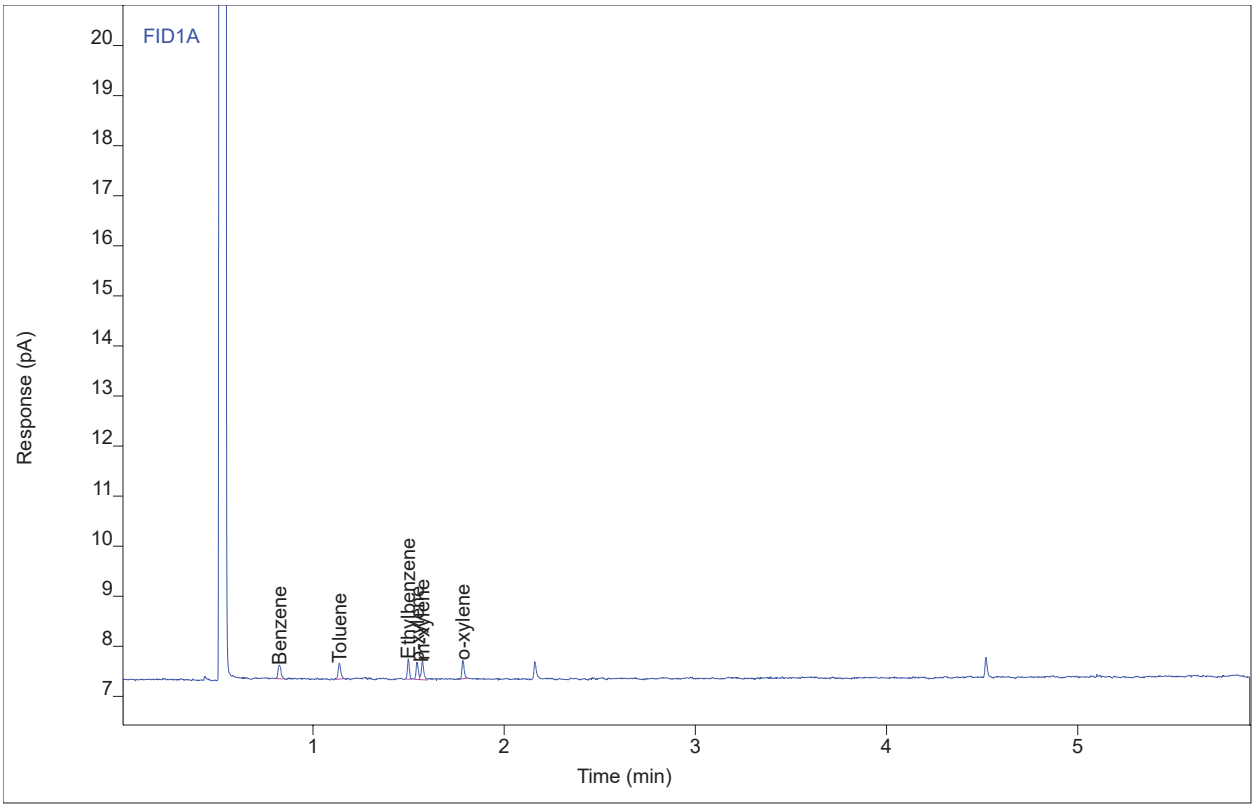
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	0.57946	0.57938	5.09480	1	5.09480	µg/mL
Toluene	BB	1.14	0.54335	0.63184	4.98532	1	4.98532	µg/mL
Ethylbenzene	BB	1.50	0.57261	0.80613	5.28940	1	5.28940	µg/mL
p-xylene	BV	1.54	0.51811	0.71220	4.91124	1	4.91124	µg/mL
m-xylene	VB	1.57	0.58829	0.74276	5.28609	1	5.28609	µg/mL
o-xylene	BB	1.78	0.53583	0.71584	4.99707	1	4.99707	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #1
Sequence Name	LUCY1285 ver.1
Inj Data File	059F4701.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 11:55 AM
File Modified	2/24/2023 4:51 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 59
Injection Volume	1
Injection	1 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



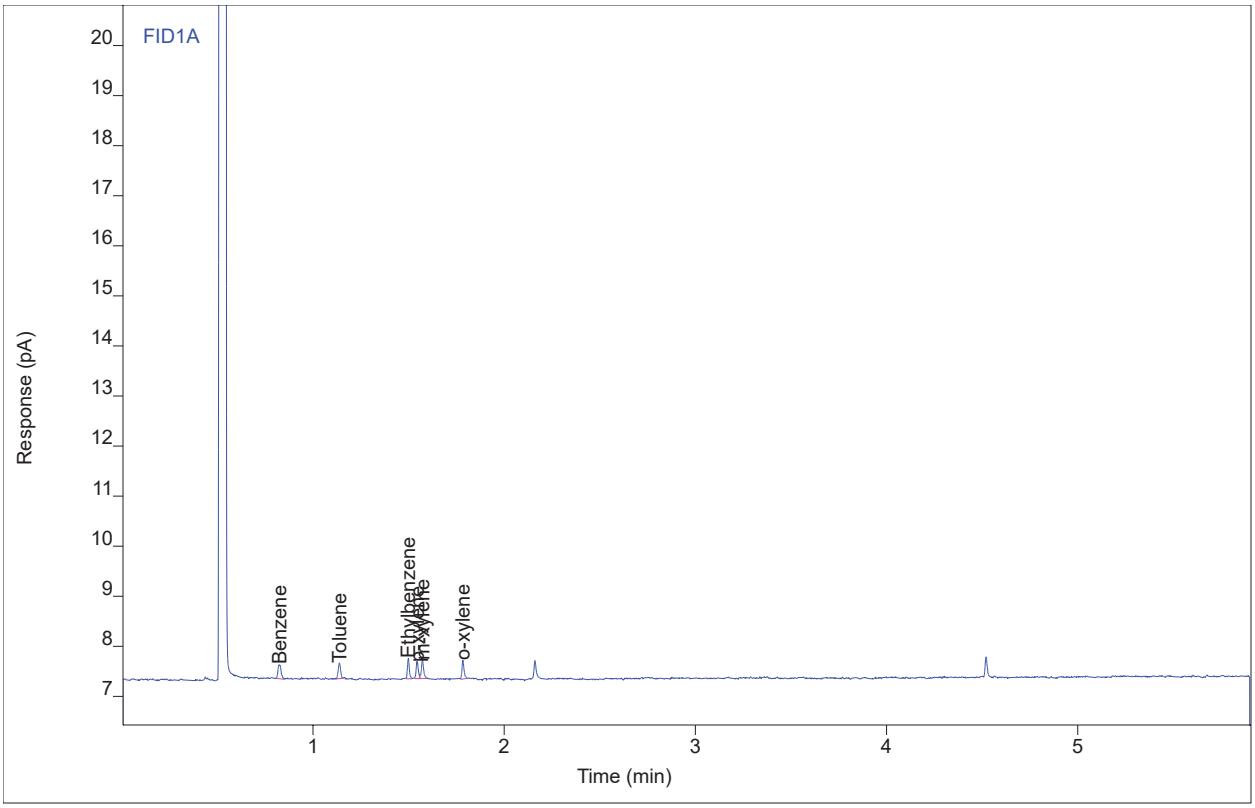
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.82	0.30470	0.28270	2.68896	1	2.68896	µg/mL
Toluene	BB	1.14	0.29621	0.33264	2.82940	1	2.82940	µg/mL
Ethylbenzene	BB	1.50	0.28014	0.40498	2.75990	1	2.75990	µg/mL
p-xylene	BV	1.54	0.27974	0.35692	2.82092	1	2.82092	µg/mL
m-xylene	VB	1.57	0.34429	0.39282	3.21056	1	3.21056	µg/mL
o-xylene	BB	1.78	0.29595	0.38078	2.90628	1	2.90628	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1858 #1
Sequence Name	LUCY1285 ver.1
Inj Data File	059F4702.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:05 PM
File Modified	2/24/2023 4:51 PM
Instrument	Lucy
Operator	Remington Heathcoat

Sample Type	Calibration
Vial Number	Vial 59
Injection Volume	1
Injection	2 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



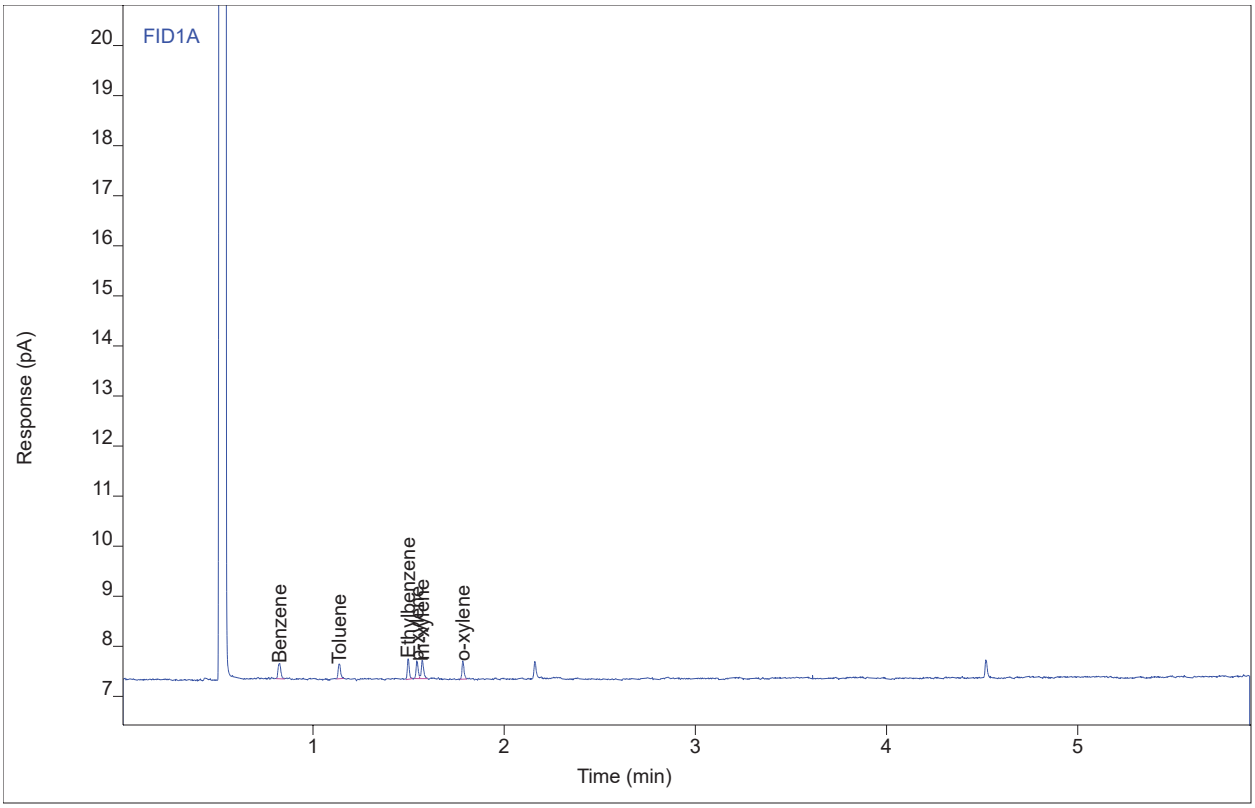
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BV	0.83	0.32758	0.29042	2.88934	1	2.88934	µg/mL
Toluene	BB	1.14	0.27254	0.32198	2.62291	1	2.62291	µg/mL
Ethylbenzene	BB	1.50	0.28157	0.41023	2.77225	1	2.77225	µg/mL
p-xylene	BV	1.55	0.27423	0.34203	2.77259	1	2.77259	µg/mL
m-xylene	VB	1.57	0.30894	0.36383	2.90983	1	2.90983	µg/mL
o-xylene	BB	1.78	0.28632	0.37978	2.82240	1	2.82240	µg/mL

Chromatogram Report

Sample Name	gcstds1858 #1
Sequence Name	LUCY1285 ver.1
Inj Data File	059F4703.D
File Location	GC/2023/Lucy/Quarter 1
Injection Date	2/24/2023 12:15 PM
File Modified	2/24/2023 4:51 PM
Instrument	Lucy
Operator	Remington Heathcoat

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 59
Injection Volume	1
Injection	3 of 4
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	2/24/2023 4:42 PM
Printed	2/27/2023 4:07 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.83	0.31203	0.30881	2.75320	1	2.75320	µg/mL
Toluene	BB	1.14	0.26213	0.29680	2.52629	1	2.52629	µg/mL
Ethylbenzene	BB	1.50	0.29210	0.41944	2.86334	1	2.86334	µg/mL
p-xylene	BV	1.54	0.26843	0.35007	2.72171	1	2.72171	µg/mL
m-xylene	VB	1.57	0.31842	0.37682	2.99055	1	2.99055	µg/mL
o-xylene	BB	1.78	0.27353	0.36683	2.71094	1	2.71094	µg/mL

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Calibration Table

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Calib. Data Modified : 5/25/2022 2:18:24 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.030 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.030 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref	Grp	Name
0.839	1	1	2.62990	3.03676e-1	8.66020			Benzene
		2	5.24671	5.77740e-1	9.08144			
		3	13.01962	1.44506	9.00972			
		4	50.21853	5.97076	8.41074			
		5	351.52968	40.85902	8.60348			
		6	1054.58904	118.04206	8.93401			
1.159	1	1	2.58827	2.73400e-1	9.46698			Toluene
		2	5.16366	5.52874e-1	9.33968			
		3	12.81353	1.37355	9.32878			
		4	49.42363	5.85994	8.43415			
		5	345.96540	40.54830	8.53218			
		6	1037.89620	117.22500	8.85388			
1.527	1	1	2.59114	2.61599e-1	9.90499			Ethylbenzene
		2	5.16939	5.60616e-1	9.22091			
		3	12.82775	1.39403	9.20195			
		4	49.47845	5.89846	8.38837			
		5	346.34916	40.57628	8.53575			
		6	1039.04748	117.14555	8.86971			
1.571	1	1	2.57141	2.56601e-1	10.02104			p-xylene
		2	5.13002	5.28384e-1	9.70888			
		3	12.73004	1.35546	9.39165			
		4	49.10160	5.75680	8.52932			
		5	343.71120	40.06167	8.57955			
		6	1031.13400	115.83009	8.90213			
1.600	1	1	2.58285	2.74564e-1	9.40709			m-xylene
		2	5.15285	5.61398e-1	9.17861			
		3	12.78671	1.42260	8.98825			
		4	49.32017	6.00772	8.20946			

Method C:\GC\2022\LUCY\METHODS\LUCY1153_F.M

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref Grp	Name
		5	345.24116	41.28479	8.36243		
		6	1035.72348	118.90386	8.71060		
1.813	1	1	2.62025	2.69230e-1	9.73237		o-xylene
		2	5.22746	5.47175e-1	9.55354		
		3	12.97185	1.37832	9.41134		
		4	50.03429	5.91974	8.45211		
		5	350.24000	41.21922	8.49701		
		6	1050.72000	119.20803	8.81417		
2.189	1	1	2.71721	2.71986e-1	9.99026		Styrene
		2	5.42090	5.81293e-1	9.32559		
		3	13.45185	1.43753	9.35762		
		4	51.88571	6.25356	8.29699		
		5	363.20000	43.39688	8.36927		
		6	1089.60000	125.44158	8.68612		
4.550	1	1	2.49400	2.71193e-1	9.19640		Naphthalene
		2	4.97500	5.99491e-1	8.29870		
		3	12.34600	1.41379	8.73253		
		4	47.61900	5.93897	8.01805		
		5	333.33300	41.23517	8.08371		
		6	1000.00000	118.98904	8.40414		

1 Warnings or Errors :

Warning : Overlapping peak time windows at 1.571 min, signal 1

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Peak Sum Table

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No Entries in table

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Calibration Curves

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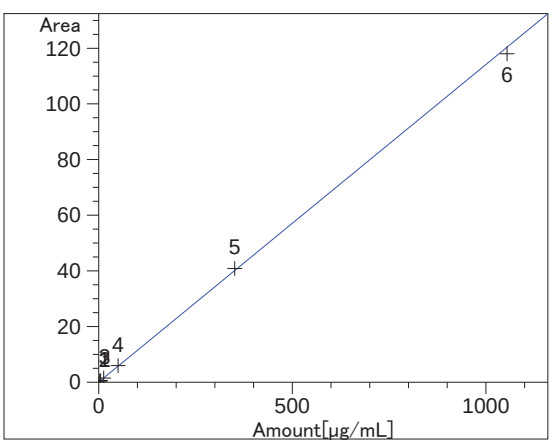
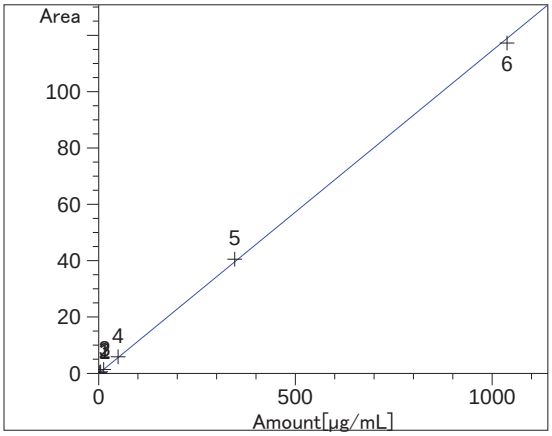
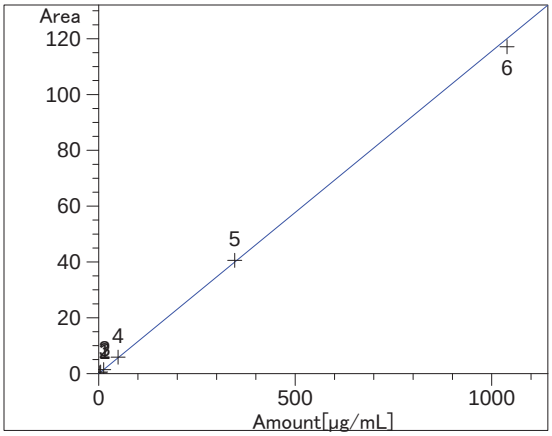


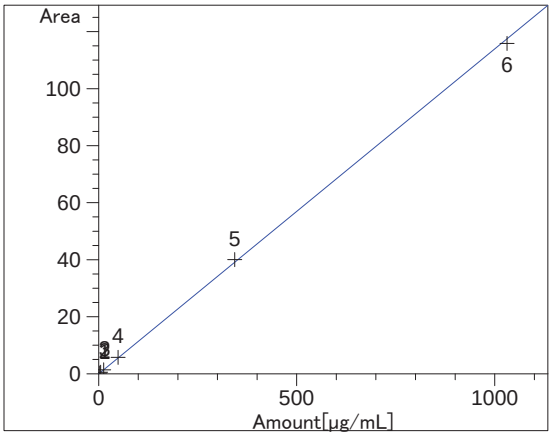
Benzene at exp. RT: 0.839
FID1 A,
Correlation: 0.99937
Residual Std. Dev.: 1.25715
Formula: y = mx + b
m: 1.14209e-1
b: -2.40667e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



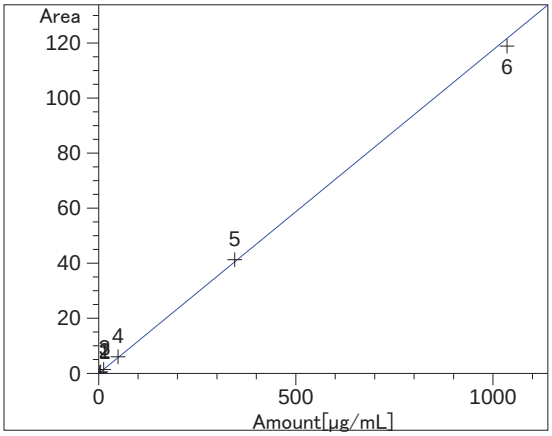
Toluene at exp. RT: 1.159
FID1 A,
Correlation: 0.99931
Residual Std. Dev.: 0.98369
Formula: y = mx + b
m: 1.14634e-1
b: -2.81375e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



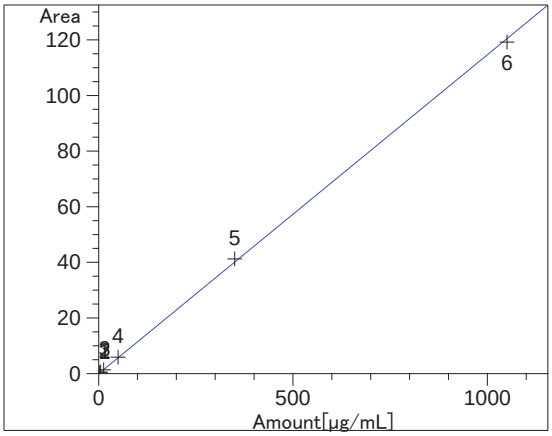
Ethylbenzene at exp. RT: 1.527
FID1 A,
Correlation: 0.99953
Residual Std. Dev.: 1.50834
Formula: y = mx + b
m: 1.15624e-1
b: -3.89674e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



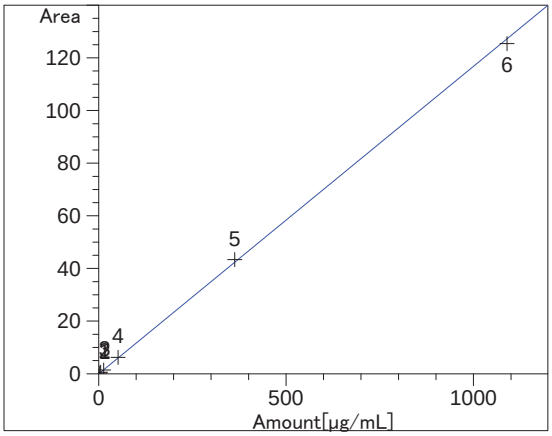
p-xylene at exp. RT: 1.571
FID1 A,
Correlation: 0.99939
Residual Std. Dev.: 0.97383
Formula: y = mx + b
m: 1.14031e-1
b: -4.19304e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21886e-006



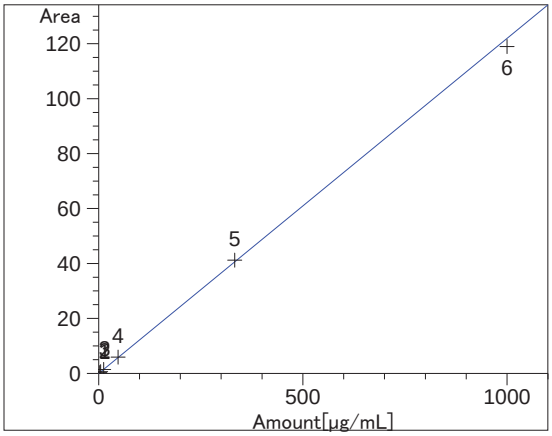
m-xylene at exp. RT: 1.600
FID1 A,
Correlation: 0.99942
Residual Std. Dev.: 1.46323
Formula: y = mx + b
m: 1.17560e-1
b: -3.31442e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



o-xylene at exp. RT: 1.813
FID1 A,
Correlation: 0.99921
Residual Std. Dev.: 0.85337
Formula: y = mx + b
m: 1.14734e-1
b: -3.75048e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



Styrene at exp. RT: 2.189
FID1 A,
Correlation: 0.99925
Residual Std. Dev.: 1.06376
Formula: y = mx + b
m: 1.16882e-1
b: -4.91851e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006




```
Naphthalene at exp. RT: 4.550
FID1 A,
Correlation:           0.99934
Residual Std. Dev.:    1.53990
Formula: y = mx + b
      m:      1.22038e-1
      b:     -2.97453e-2
      x: Amount
      y: Area
Calibration Level Weights:
    Level 1    : 1
    Level 2    : 0.251308
    Level 3    : 0.040808
    Level 4    : 0.002743
    Level 5    : 0.000056
    Level 6    : 6.22004e-006
```

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Calibration Table

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Calib. Data Modified : Monday, November 01, 2021 10:31:41 AM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.030 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.030 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A,

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref Grp	Name
0.853	1	1	2.62990	3.03676e-1	8.66020		Benzene
		2	5.24671	5.77740e-1	9.08144		
		3	13.01962	1.44506	9.00972		
		4	50.21853	5.97076	8.41074		
		5	351.52968	40.85902	8.60348		
		6	1054.58904	118.04206	8.93401		
1.178	1	1	2.58827	2.73400e-1	9.46698		Toluene
		2	5.16366	5.52874e-1	9.33968		
		3	12.81353	1.37355	9.32878		
		4	49.42363	5.85994	8.43415		
		5	345.96540	40.54830	8.53218		
		6	1037.89620	117.22500	8.85388		
1.552	1	1	2.59114	2.61599e-1	9.90499		Ethylbenzene
		2	5.16939	5.60616e-1	9.22091		
		3	12.82775	1.39403	9.20195		
		4	49.47845	5.89846	8.38837		
		5	346.34916	40.57628	8.53575		
		6	1039.04748	117.14555	8.86971		
1.597	1	1	2.57141	2.56601e-1	10.02104		p-xylene
		2	5.13002	5.28384e-1	9.70888		
		3	12.73004	1.35546	9.39165		
		4	49.10160	5.75680	8.52932		
		5	343.71120	40.06167	8.57955		
		6	1031.13400	115.83009	8.90213		
1.626	1	1	2.58285	2.74564e-1	9.40709		m-xylene
		2	5.15285	5.61398e-1	9.17861		
		3	12.78671	1.42260	8.98825		
		4	49.32017	6.00772	8.20946		

Method C:\GC\2021\LUCY\Q4\LUCY1068A\LUCY1068_F.M

RetTime [min]	Sig	Lvl	Amount [µg/mL]	Area	Amt/Area	Ref	Grp	Name
		5	345.24116	41.28479	8.36243			
		6	1035.72348	118.90386	8.71060			
1.842	1	1	2.62025	2.69230e-1	9.73237			o-xylene
		2	5.22746	5.47175e-1	9.55354			
		3	12.97185	1.37832	9.41134			
		4	50.03429	5.91974	8.45211			
		5	350.24000	41.21922	8.49701			
		6	1050.72000	119.20803	8.81417			
2.225	1	1	2.71721	2.71986e-1	9.99026			Styrene
		2	5.42090	5.81293e-1	9.32559			
		3	13.45185	1.43753	9.35762			
		4	51.88571	6.25356	8.29699			
		5	363.20000	43.39688	8.36927			
		6	1089.60000	125.44158	8.68612			
4.604	1	1	2.49400	2.71193e-1	9.19640			Naphthalene
		2	4.97500	5.99491e-1	8.29870			
		3	12.34600	1.41379	8.73253			
		4	47.61900	5.93897	8.01805			
		5	333.33300	41.23517	8.08371			
		6	1000.00000	118.98904	8.40414			

1 Warnings or Errors :

Warning : Overlapping peak time windows at 1.597 min, signal 1

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Peak Sum Table

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No Entries in table

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Calibration Curves

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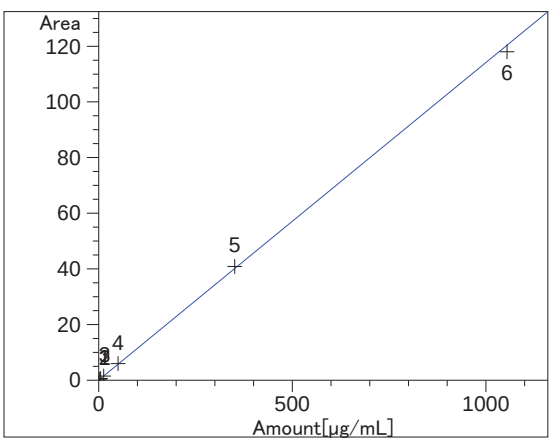
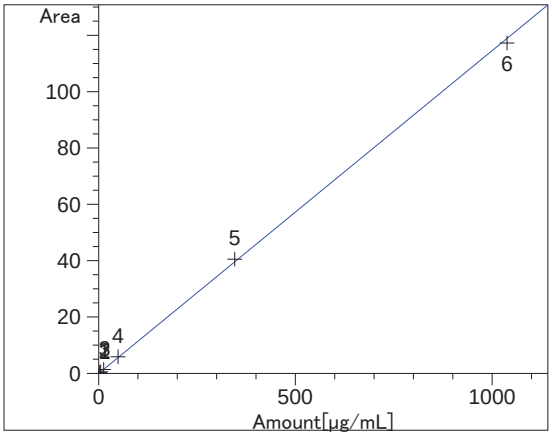
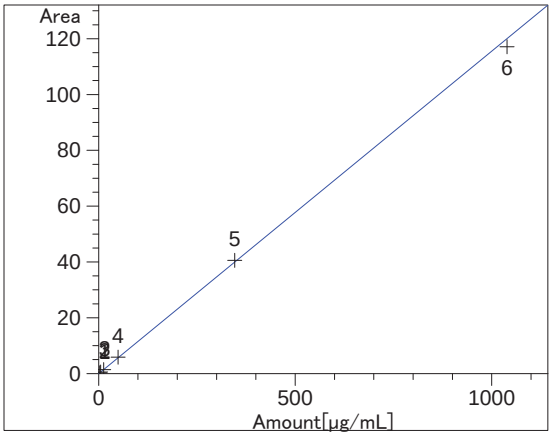


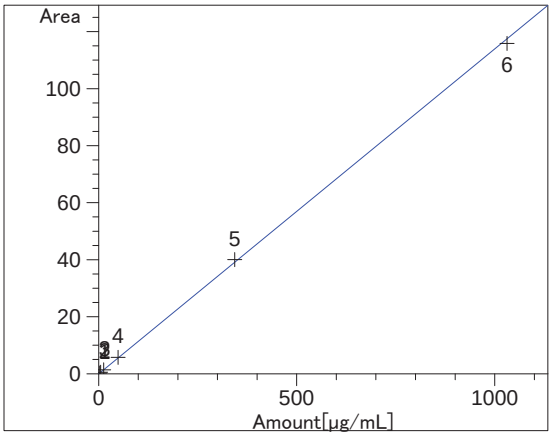
Benzene at exp. RT: 0.853
FID1 A,
Correlation: 0.99937
Residual Std. Dev.: 1.25715
Formula: y = mx + b
m: 1.14209e-1
b: -2.40667e-3
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



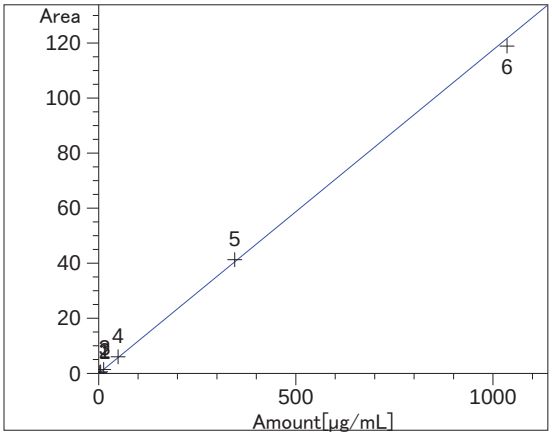
Toluene at exp. RT: 1.178
FID1 A,
Correlation: 0.99931
Residual Std. Dev.: 0.98369
Formula: y = mx + b
m: 1.14634e-1
b: -2.81375e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



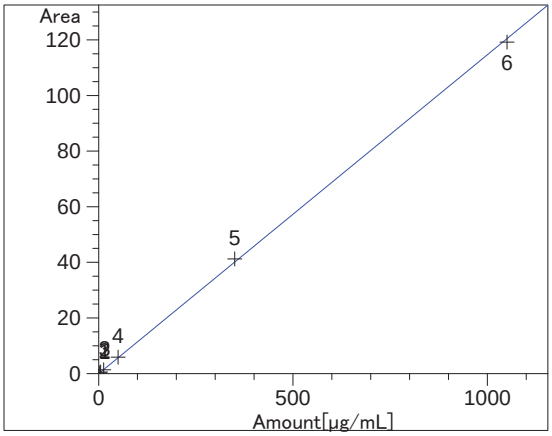
Ethylbenzene at exp. RT: 1.552
FID1 A,
Correlation: 0.99953
Residual Std. Dev.: 1.50834
Formula: y = mx + b
m: 1.15624e-1
b: -3.89674e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



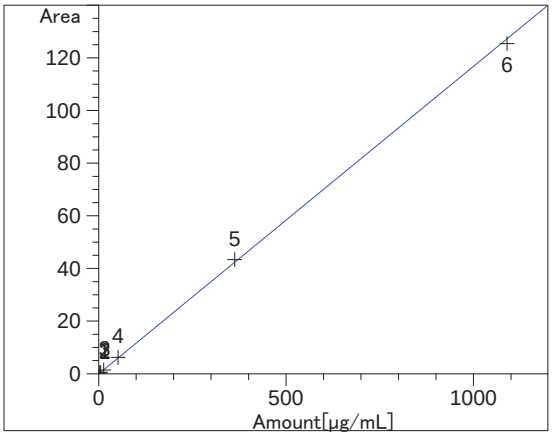
p-xylene at exp. RT: 1.597
FID1 A,
Correlation: 0.99939
Residual Std. Dev.: 0.97383
Formula: y = mx + b
m: 1.14031e-1
b: -4.19304e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21886e-006



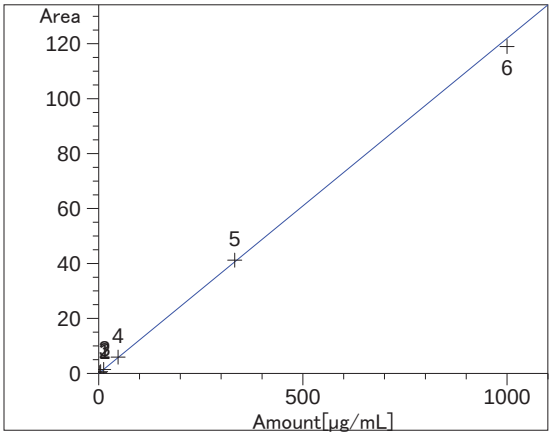
m-xylene at exp. RT: 1.626
FID1 A,
Correlation: 0.99942
Residual Std. Dev.: 1.46323
Formula: y = mx + b
m: 1.17560e-1
b: -3.31442e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



o-xylene at exp. RT: 1.842
FID1 A,
Correlation: 0.99921
Residual Std. Dev.: 0.85337
Formula: y = mx + b
m: 1.14734e-1
b: -3.75048e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006



Styrene at exp. RT: 2.225
FID1 A,
Correlation: 0.99925
Residual Std. Dev.: 1.06376
Formula: y = mx + b
m: 1.16882e-1
b: -4.91851e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.251248
Level 3 : 0.040802
Level 4 : 0.002743
Level 5 : 0.000056
Level 6 : 6.21887e-006




```
Naphthalene at exp. RT: 4.604
FID1 A,
Correlation:           0.99934
Residual Std. Dev.:    1.53990
Formula: y = mx + b
      m:      1.22038e-1
      b:     -2.97453e-2
      x: Amount
      y: Area
Calibration Level Weights:
    Level 1    : 1
    Level 2    : 0.251308
    Level 3    : 0.040808
    Level 4    : 0.002743
    Level 5    : 0.000056
    Level 6    : 6.22004e-006
```

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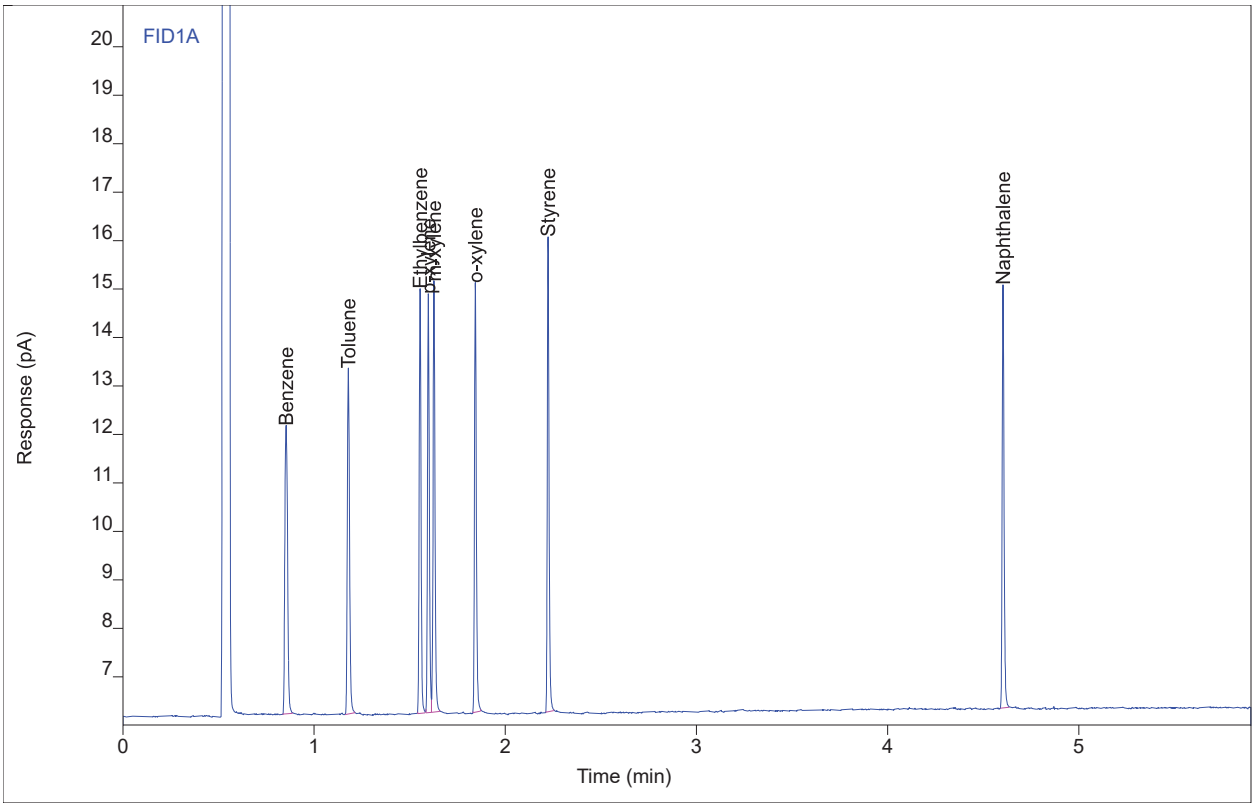
Chromatogram Report

Sample Name	GCstds1584 #4
Sequence Name	LUCY1068 ver.5
Inj Data File	001F0101.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 8:29 AM
File Modified	11/1/2021 10:52 AM
Instrument	Lucy
Operator	Kim Maturo

Enthalpy Analytical

Sample Type	Calibration
Vial Number	1
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



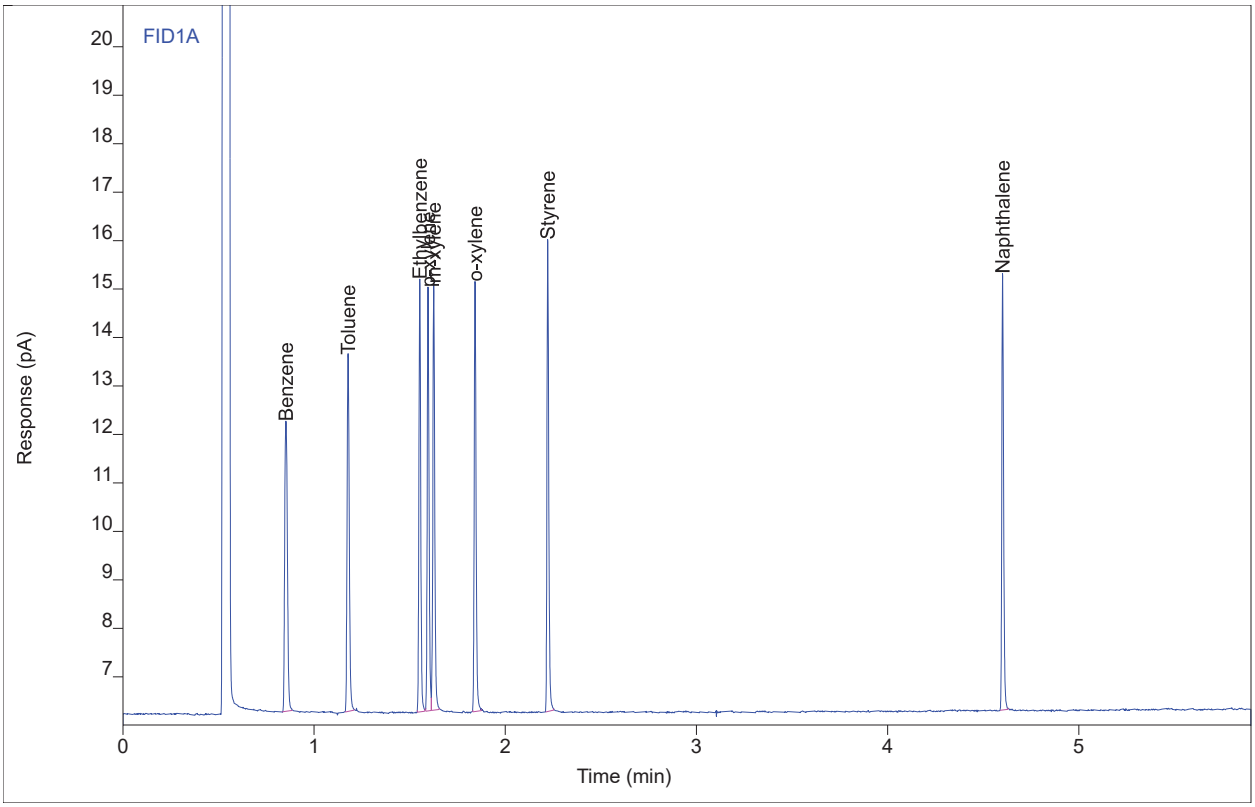
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	5.97167	5.93428	52.3085	1	52.3085	µg/mL
Toluene	BB	1.18	5.85374	7.12796	51.3101	1	51.3101	µg/mL
Ethylbenzene	BB	1.55	5.87622	8.75434	51.1589	1	51.1589	µg/mL
p-xylene	BV	1.60	5.74105	8.63323	50.7139	1	50.7139	µg/mL
m-xylene	VB	1.63	5.98719	8.90160	51.2107	1	51.2107	µg/mL
o-xylene	BB	1.84	5.89109	8.83829	51.6724	1	51.6724	µg/mL
Styrene	BB	2.22	6.21707	9.79608	53.6119	1	53.6119	µg/mL
Naphthalene	BB	4.60	5.91955	8.72752	48.7497	1	48.7497	µg/mL

Chromatogram Report

Sample Name	GCstds1584 #4
Sequence Name	LUCY1068 ver.5
Inj Data File	001F0102.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 8:40 AM
File Modified	11/1/2021 10:52 AM
Instrument	Lucy
Operator	Kim Maturo

Enthalpy Analytical

Sample Type	Calibration
Vial Number	1
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



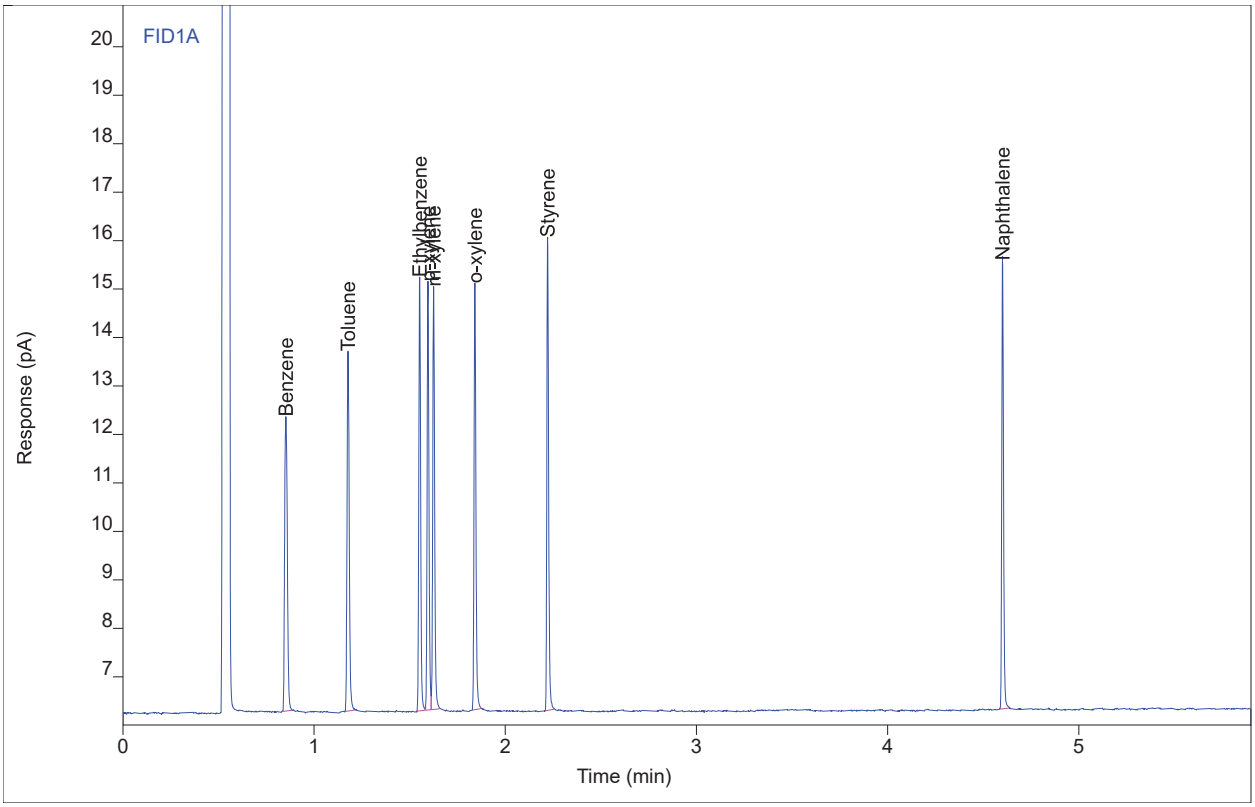
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	5.98490	5.98406	52.4243	1	52.4243	µg/mL
Toluene	BB	1.18	5.84608	7.37725	51.2433	1	51.2433	µg/mL
Ethylbenzene	BB	1.55	5.89880	8.92586	51.3542	1	51.3542	µg/mL
p-xylene	BV	1.60	5.75245	8.74265	50.8140	1	50.8140	µg/mL
m-xylene	VB	1.63	5.99696	8.80518	51.2938	1	51.2938	µg/mL
o-xylene	BB	1.84	5.93241	8.85723	52.0326	1	52.0326	µg/mL
Styrene	BB	2.22	6.25236	9.72167	53.9139	1	53.9139	µg/mL
Naphthalene	BB	4.60	5.91911	8.99577	48.7461	1	48.7461	µg/mL

Chromatogram Report

Sample Name	GCstds1584 #4
Sequence Name	LUCY1068 ver.5
Inj Data File	001F0103.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 8:50 AM
File Modified	11/1/2021 10:52 AM
Instrument	Lucy
Operator	Kim Maturo

Enthalpy Analytical

Sample Type	Calibration
Vial Number	1
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



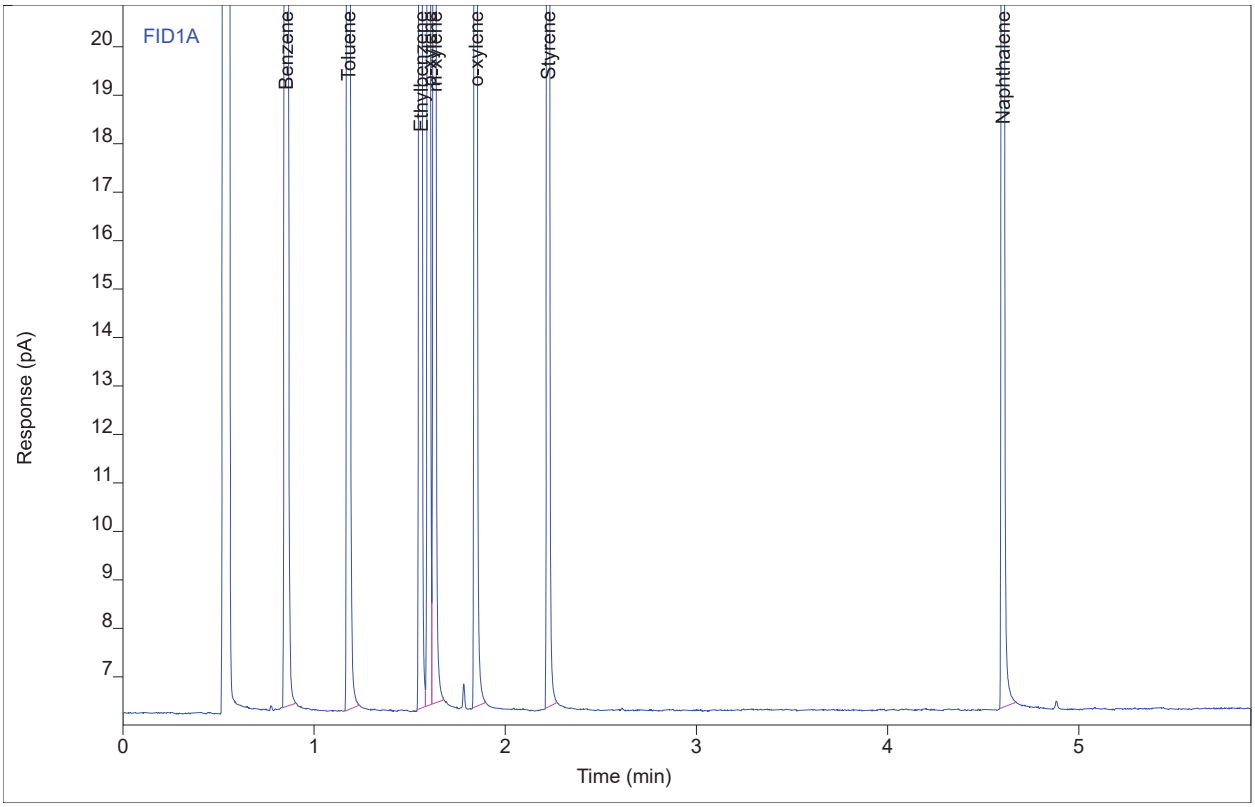
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	5.95571	6.08046	52.1687	1	52.1687	µg/mL
Toluene	BB	1.18	5.88000	7.41796	51.5392	1	51.5392	µg/mL
Ethylbenzene	BB	1.55	5.92036	8.94141	51.5406	1	51.5406	µg/mL
p-xylene	BV	1.60	5.77690	8.83845	51.0284	1	51.0284	µg/mL
m-xylene	VB	1.63	6.03902	8.71908	51.6515	1	51.6515	µg/mL
o-xylene	BB	1.84	5.93572	8.80585	52.0614	1	52.0614	µg/mL
Styrene	BB	2.22	6.29125	9.75890	54.2466	1	54.2466	µg/mL
Naphthalene	BB	4.60	5.97825	9.24134	49.2307	1	49.2307	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #6
Sequence Name	LUCY1068 ver.5
Inj Data File	066F0301.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:06 AM
File Modified	11/1/2021 10:52 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	66
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



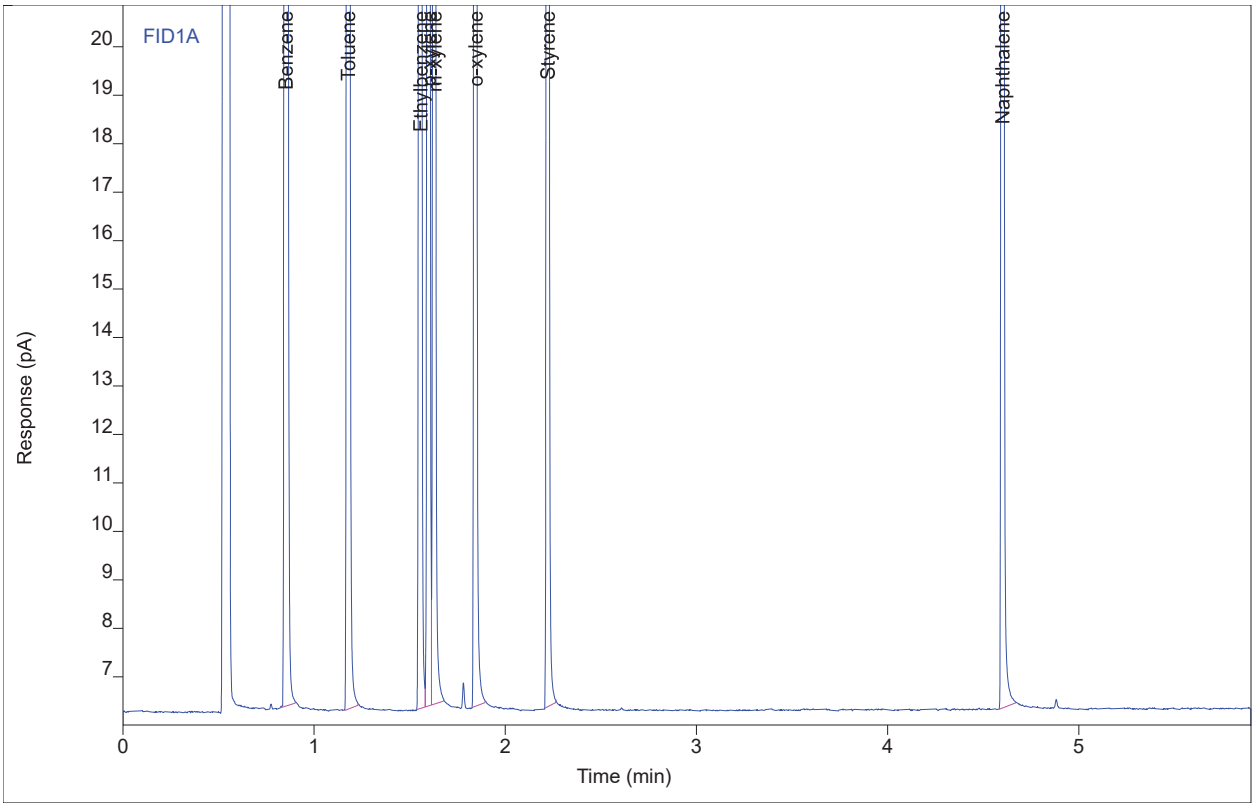
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	117.773	117.678	1031.23	1	1031.23	µg/mL
Toluene	BB	1.18	117.040	147.842	1021.23	1	1021.23	µg/mL
Ethylbenzene	BV	1.56	116.907	162.499	1011.43	1	1011.43	µg/mL
p-xylene	VV	1.60	115.608	169.965	1014.19	1	1014.19	µg/mL
m-xylene	VB	1.63	118.595	195.128	1009.08	1	1009.08	µg/mL
o-xylene	BB	1.85	118.965	185.375	1037.20	1	1037.20	µg/mL
Styrene	BB	2.22	125.214	206.751	1071.71	1	1071.71	µg/mL
Naphthalene	BB	4.60	118.584	184.587	971.949	1	971.949	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #6
Sequence Name	LUCY1068 ver.5
Inj Data File	066F0302.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:16 AM
File Modified	11/1/2021 10:52 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	66
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



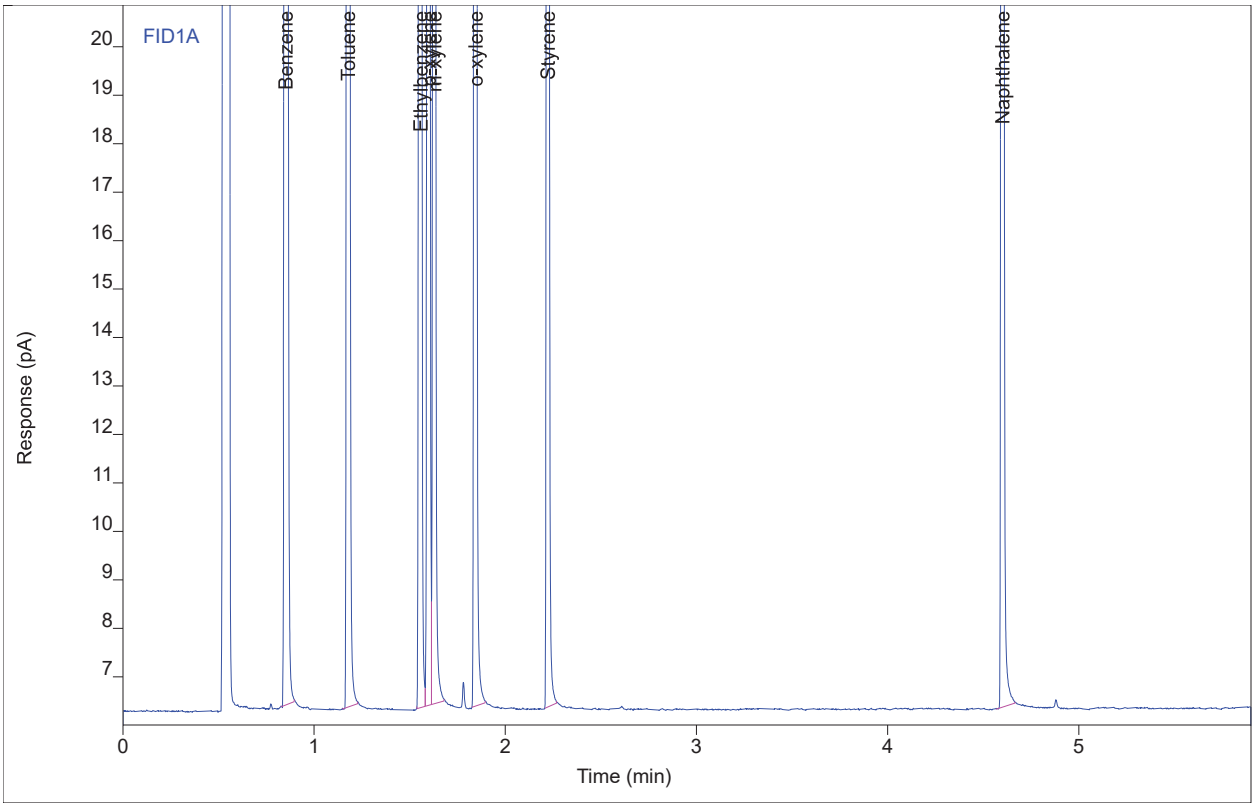
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	118.380	118.387	1036.55	1	1036.55	µg/mL
Toluene	BB	1.18	117.551	147.150	1025.69	1	1025.69	µg/mL
Ethylbenzene	BV	1.56	117.478	162.125	1016.37	1	1016.37	µg/mL
p-xylene	VV	1.60	116.133	173.105	1018.80	1	1018.80	µg/mL
m-xylene	VB	1.63	119.265	194.766	1014.78	1	1014.78	µg/mL
o-xylene	BB	1.84	119.533	189.227	1042.15	1	1042.15	µg/mL
Styrene	BB	2.22	125.759	209.574	1076.37	1	1076.37	µg/mL
Naphthalene	BB	4.60	119.404	186.118	978.667	1	978.667	µg/mL

Chromatogram Report

Sample Name	GCstds1584 #6
Sequence Name	LUCY1068 ver.5
Inj Data File	066F0303.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:27 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Enthalpy Analytical

Sample Type	Calibration
Vial Number	66
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



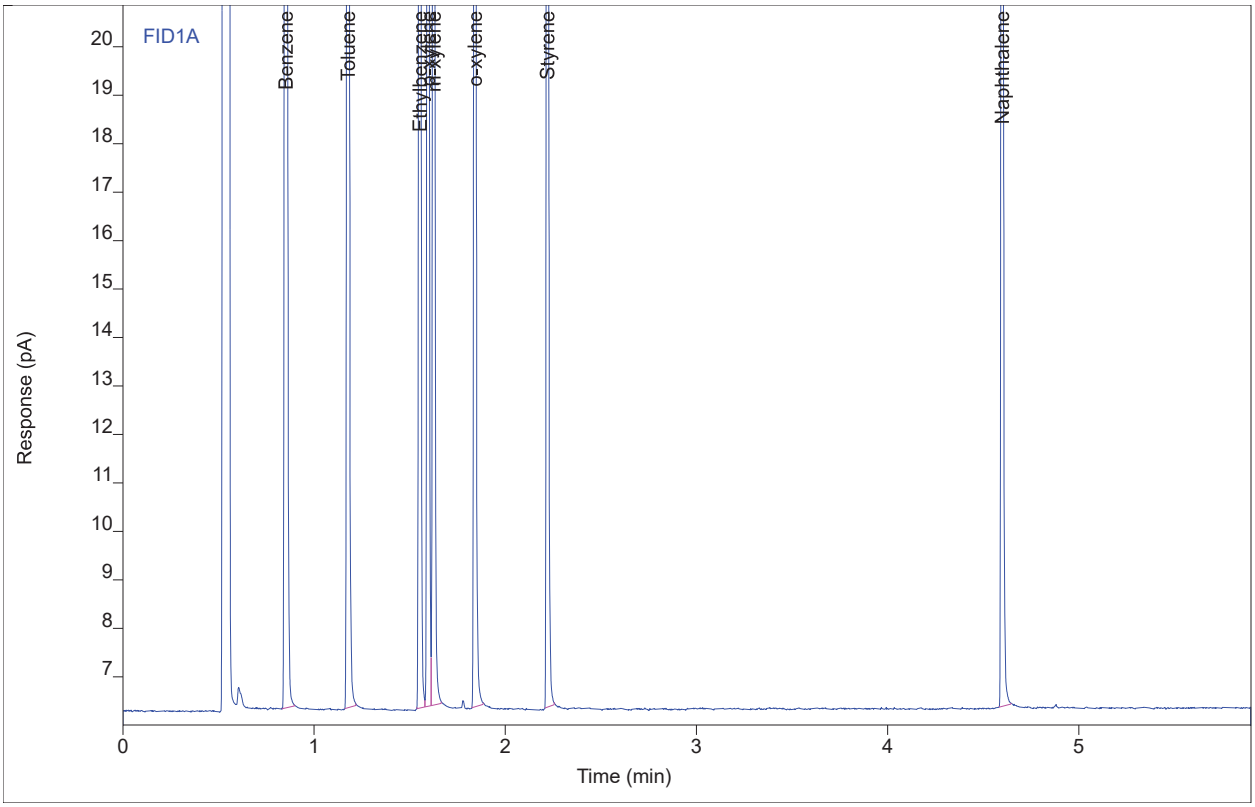
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	117.972	120.580	1032.98	1	1032.98	µg/mL
Toluene	BB	1.18	117.084	147.978	1021.62	1	1021.62	µg/mL
Ethylbenzene	BV	1.56	117.052	167.067	1012.69	1	1012.69	µg/mL
p-xylene	VV	1.60	115.749	174.880	1015.43	1	1015.43	µg/mL
m-xylene	VB	1.63	118.852	195.093	1011.27	1	1011.27	µg/mL
o-xylene	BB	1.85	119.126	186.456	1038.60	1	1038.60	µg/mL
Styrene	BB	2.22	125.352	208.174	1072.89	1	1072.89	µg/mL
Naphthalene	BB	4.60	118.978	176.518	975.175	1	975.175	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #5
Sequence Name	LUCY1068 ver.5
Inj Data File	065F0401.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:37 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	65
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



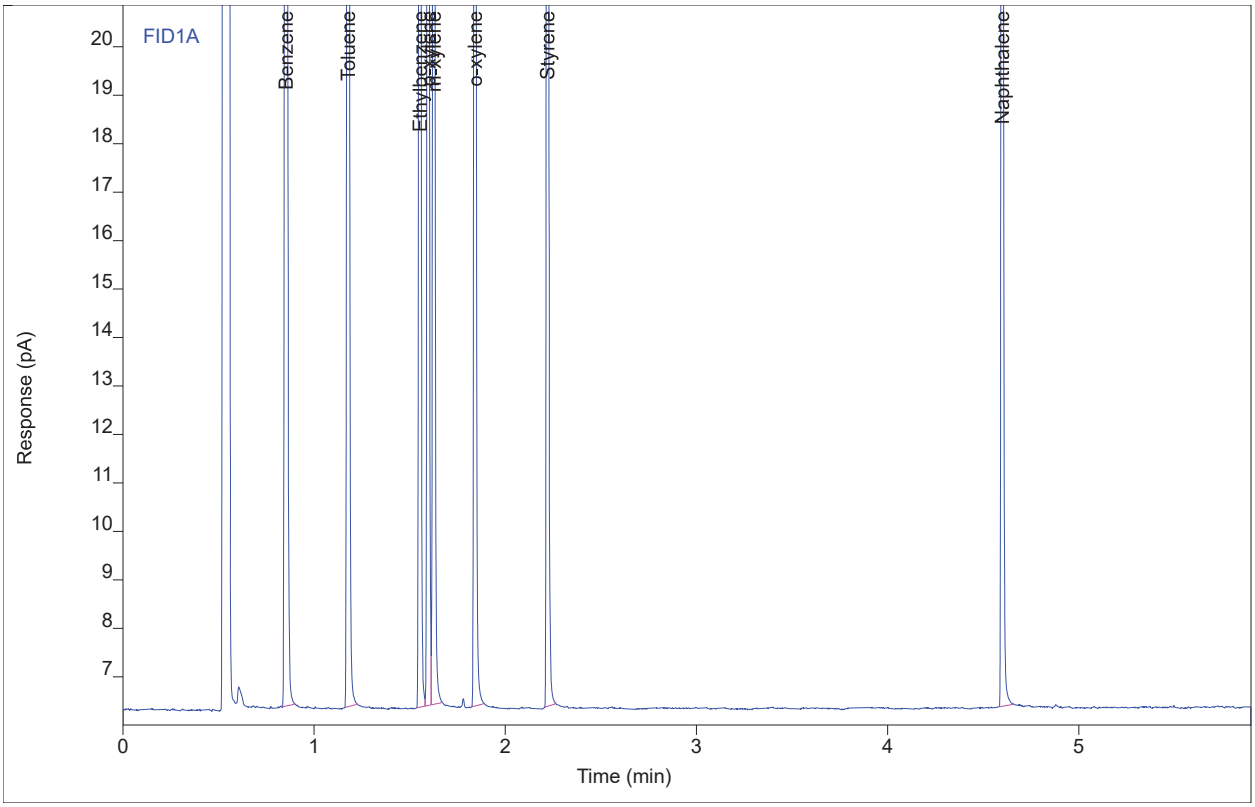
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	41.0218	42.0794	359.204	1	359.204	µg/mL
Toluene	BB	1.18	40.6670	52.7187	355.001	1	355.001	µg/mL
Ethylbenzene	BV	1.55	40.6767	62.6456	352.139	1	352.139	µg/mL
p-xylene	VV	1.60	40.1534	62.7970	352.494	1	352.494	µg/mL
m-xylene	VB	1.63	41.3771	66.2790	352.247	1	352.247	µg/mL
o-xylene	BB	1.84	41.3097	65.8425	360.374	1	360.374	µg/mL
Styrene	BB	2.22	43.4803	74.2582	372.423	1	372.423	µg/mL
Naphthalene	BB	4.60	41.3124	63.7992	338.766	1	338.766	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #5
Sequence Name	LUCY1068 ver.5
Inj Data File	065F0402.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:48 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	65
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



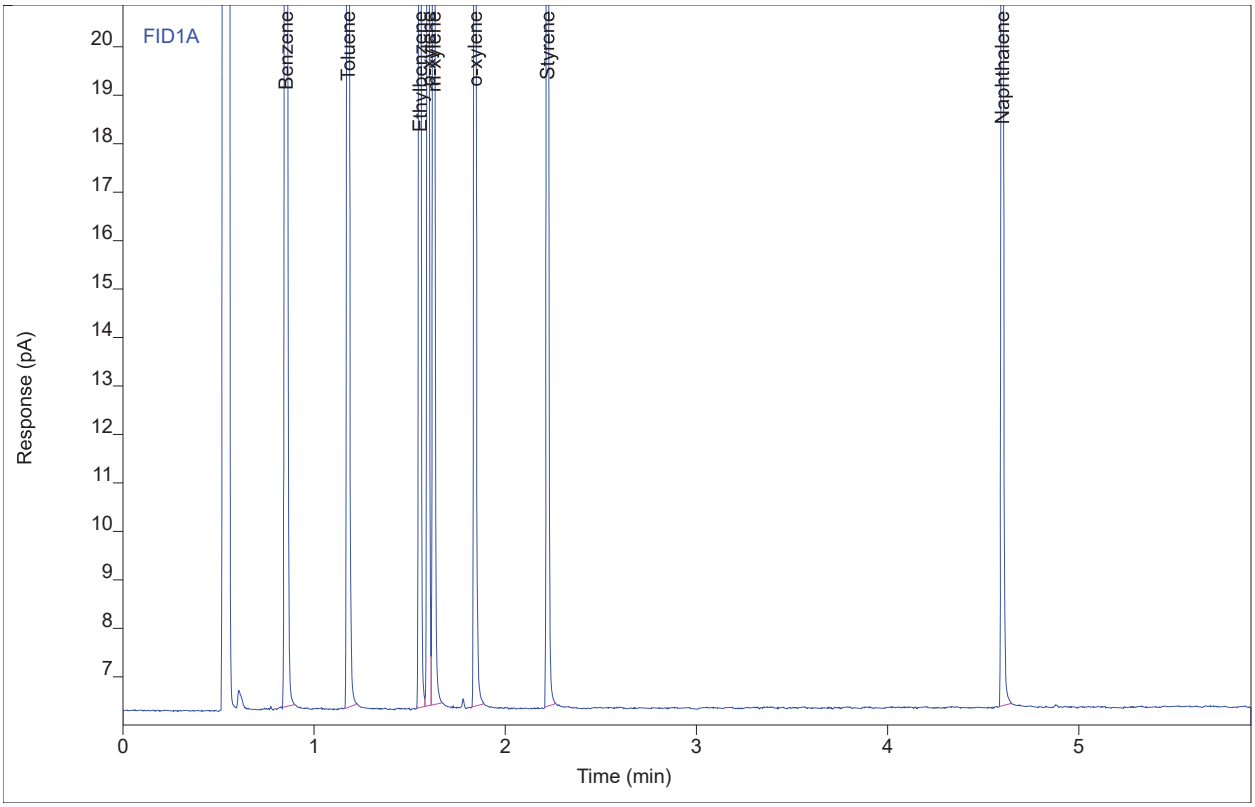
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	40.9204	41.6351	358.316	1	358.316	µg/mL
Toluene	BB	1.18	40.6120	52.4536	354.521	1	354.521	µg/mL
Ethylbenzene	BV	1.55	40.6420	62.4630	351.839	1	351.839	µg/mL
p-xylene	VV	1.60	40.1292	63.0744	352.282	1	352.282	µg/mL
m-xylene	VB	1.63	41.3789	66.3367	352.263	1	352.263	µg/mL
o-xylene	BB	1.84	41.3130	65.7210	360.403	1	360.403	µg/mL
Styrene	BB	2.22	43.4927	72.3592	372.530	1	372.530	µg/mL
Naphthalene	BB	4.60	41.3514	65.0235	339.085	1	339.085	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #5
Sequence Name	LUCY1068 ver.5
Inj Data File	065F0403.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 9:58 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	65
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM

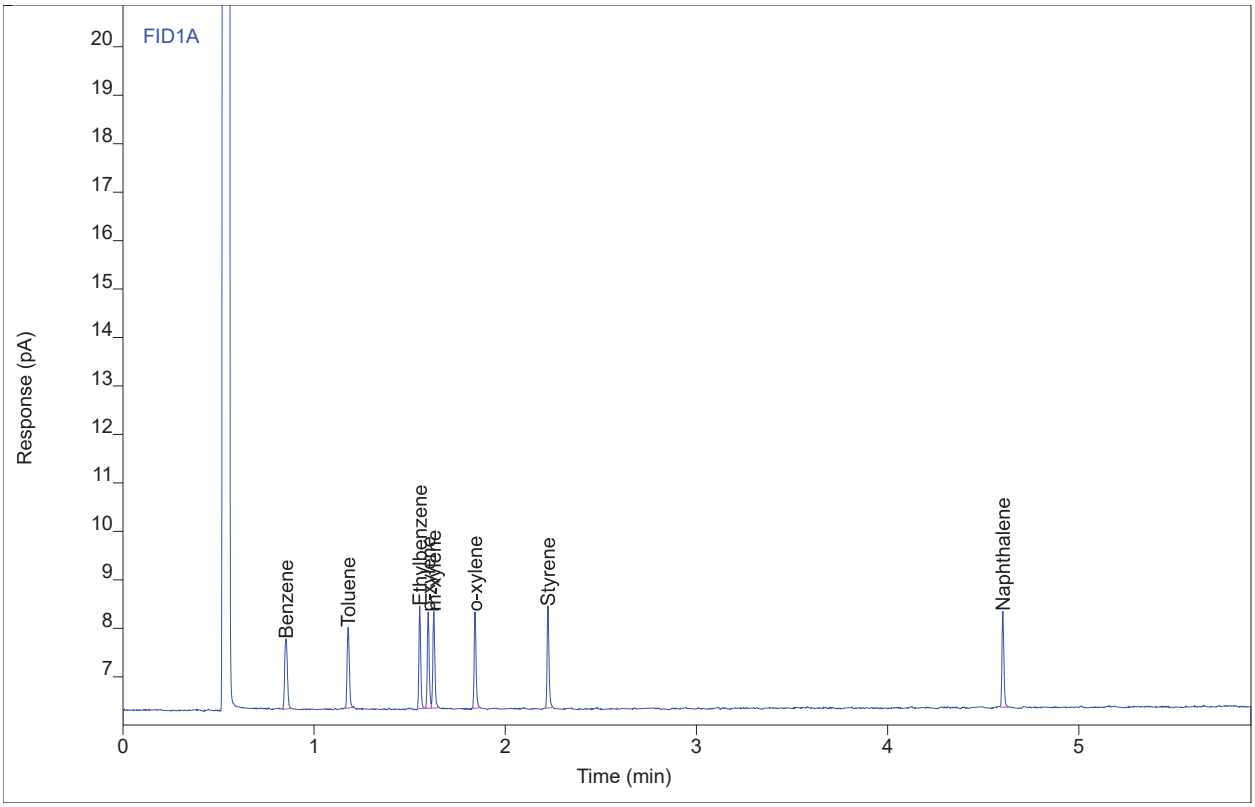


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	40.6349	40.3173	355.816	1	355.816	µg/mL
Toluene	BB	1.18	40.3658	50.8761	352.374	1	352.374	µg/mL
Ethylbenzene	BV	1.55	40.4101	61.5045	349.833	1	349.833	µg/mL
p-xylene	VV	1.60	39.9024	62.8464	350.292	1	350.292	µg/mL
m-xylene	VB	1.63	41.0984	64.2483	349.877	1	349.877	µg/mL
o-xylene	BB	1.84	41.0349	66.4226	357.979	1	357.979	µg/mL
Styrene	BB	2.22	43.2176	71.0376	370.176	1	370.176	µg/mL
Naphthalene	BB	4.60	41.0417	64.4149	336.547	1	336.547	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #3	Sample Type	Calibration
Sequence Name	LUCY1068 ver.5	Vial Number	63
Inj Data File	063F0501.D	Injection Volume	1
File Location	GC/2021/Lucy/Quarter 4	Injection	1 of 3
Injection Date	10/29/2021 10:08 AM	Acquisition Method	LUCY0301B.M
File Modified	11/1/2021 10:53 AM	Analysis Method	LUCY1068_F.M
Instrument	Lucy	Method Modified	11/1/2021 10:52 AM
Operator	Kim Maturo	Printed	11/1/2021 12:39 PM

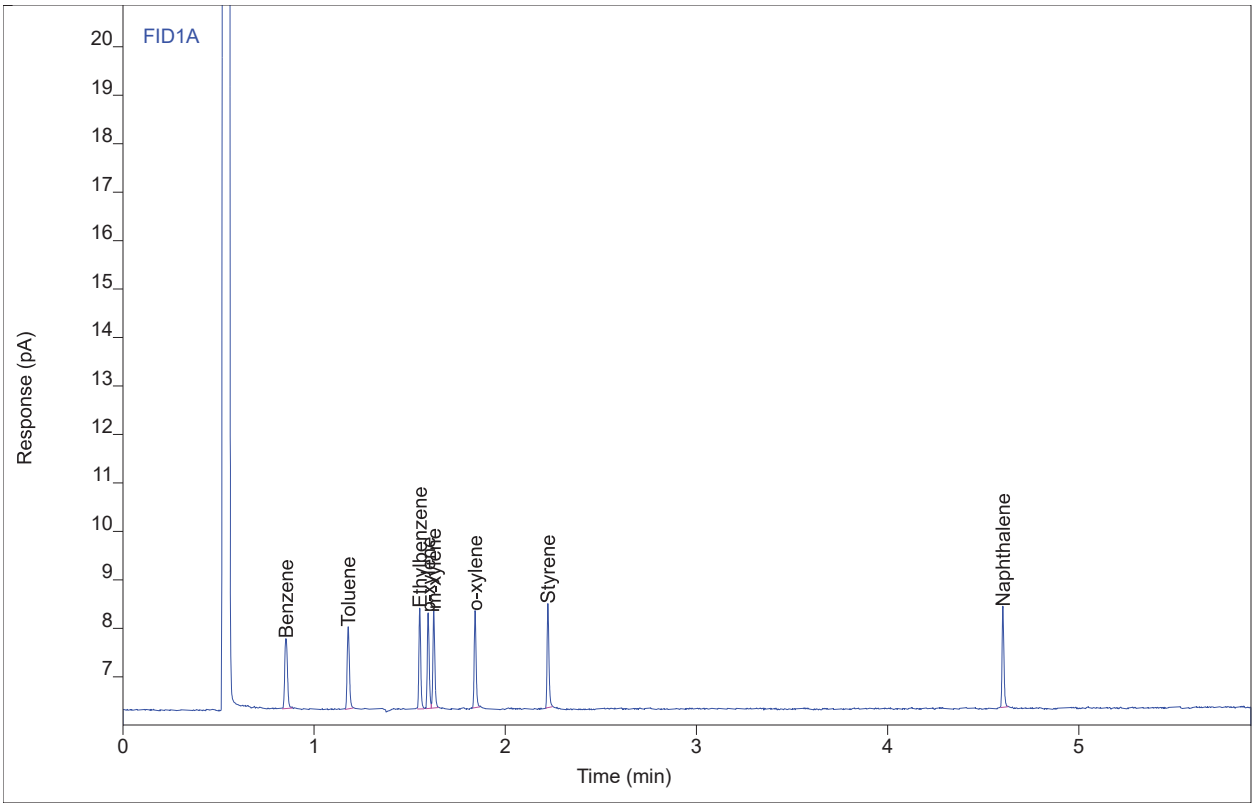


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.43873	1.45236	12.6184	1	12.6184	µg/mL
Toluene	BB	1.18	1.36988	1.67237	12.1955	1	12.1955	µg/mL
Ethylbenzene	BB	1.55	1.38300	2.12292	12.2982	1	12.2982	µg/mL
p-xylene	BV	1.60	1.35020	1.99304	12.2083	1	12.2083	µg/mL
m-xylene	VB	1.63	1.43463	2.00082	12.4853	1	12.4853	µg/mL
o-xylene	BB	1.84	1.37967	2.00178	12.3518	1	12.3518	µg/mL
Styrene	BB	2.22	1.42868	2.10343	12.6441	1	12.6441	µg/mL
Naphthalene	BB	4.60	1.41322	1.98572	11.8240	1	11.8240	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #3	Sample Type	Calibration
Sequence Name	LUCY1068 ver.5	Vial Number	63
Inj Data File	063F0502.D	Injection Volume	1
File Location	GC/2021/Lucy/Quarter 4	Injection	2 of 3
Injection Date	10/29/2021 10:19 AM	Acquisition Method	LUCY0301B.M
File Modified	11/1/2021 10:53 AM	Analysis Method	LUCY1068_F.M
Instrument	Lucy	Method Modified	11/1/2021 10:52 AM
Operator	Kim Maturo	Printed	11/1/2021 12:39 PM

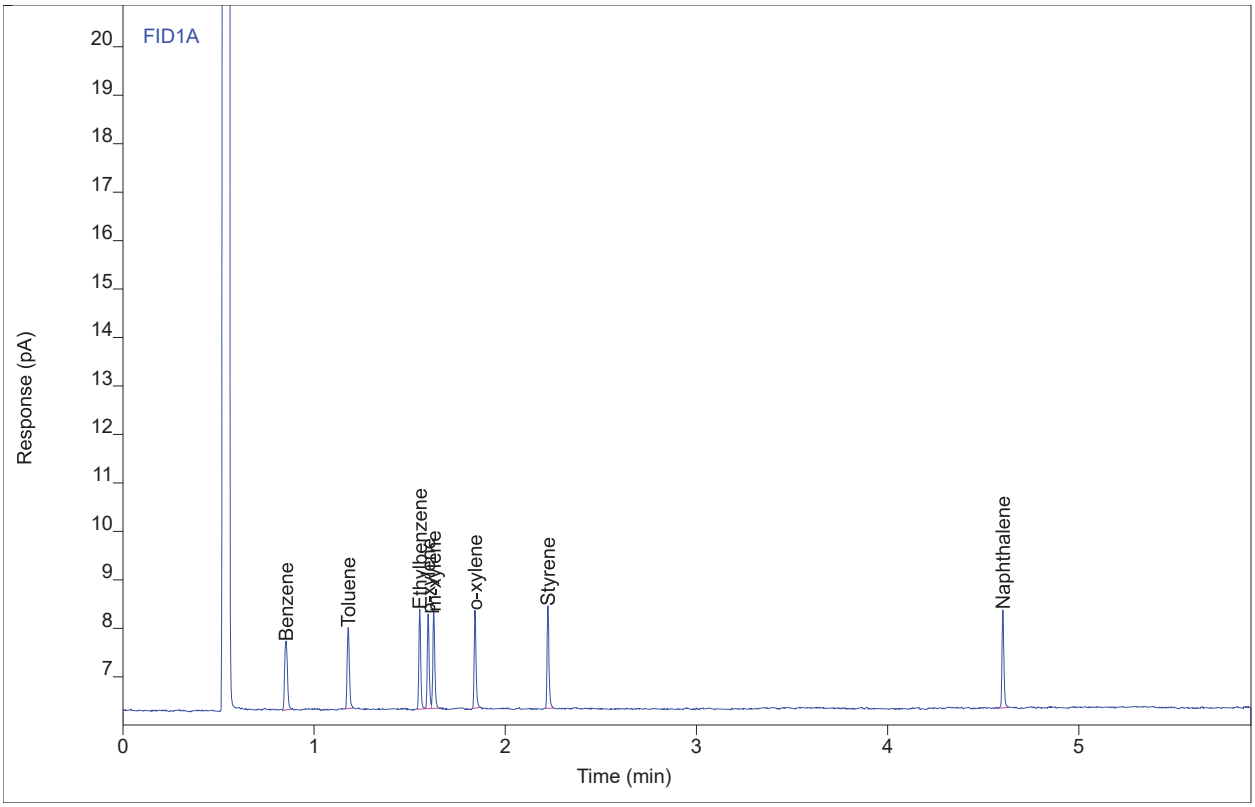


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.44266	1.44776	12.6529	1	12.6529	µg/mL
Toluene	BB	1.18	1.38619	1.69995	12.3378	1	12.3378	µg/mL
Ethylbenzene	BB	1.55	1.39714	2.08828	12.4205	1	12.4205	µg/mL
p-xylene	BV	1.60	1.36344	1.98029	12.3244	1	12.3244	µg/mL
m-xylene	VB	1.63	1.41800	2.03566	12.3438	1	12.3438	µg/mL
o-xylene	BB	1.84	1.37594	2.00102	12.3193	1	12.3193	µg/mL
Styrene	BB	2.22	1.43763	2.14828	12.7206	1	12.7206	µg/mL
Naphthalene	BB	4.60	1.40104	2.08423	11.7242	1	11.7242	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #3	Sample Type	Calibration
Sequence Name	LUCY1068 ver.5	Vial Number	63
Inj Data File	063F0503.D	Injection Volume	1
File Location	GC/2021/Lucy/Quarter 4	Injection	3 of 3
Injection Date	10/29/2021 10:29 AM	Acquisition Method	LUCY0301B.M
File Modified	11/1/2021 10:53 AM	Analysis Method	LUCY1068_F.M
Instrument	Lucy	Method Modified	11/1/2021 10:52 AM
Operator	Kim Maturo	Printed	11/1/2021 12:39 PM



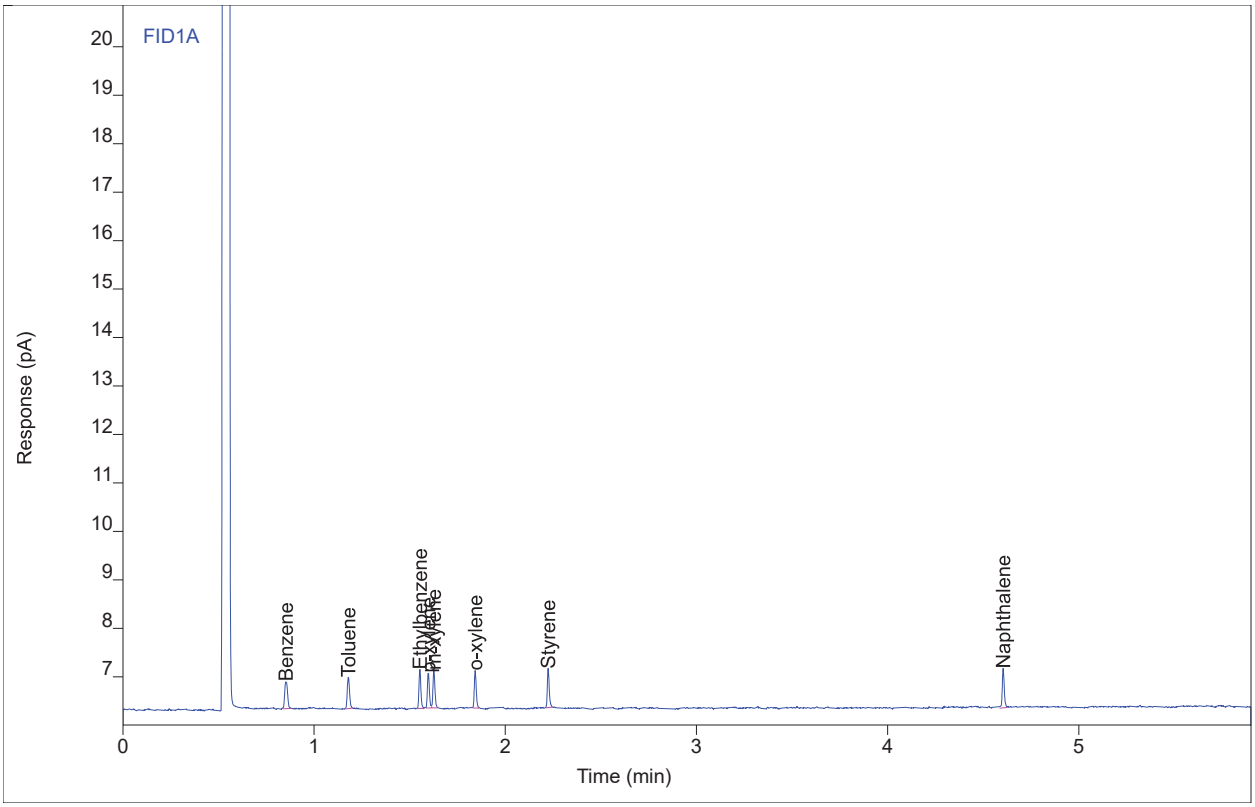
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.45381	1.42476	12.7505	1	12.7505	µg/mL
Toluene	BB	1.18	1.36457	1.68022	12.1492	1	12.1492	µg/mL
Ethylbenzene	BB	1.55	1.40193	2.05875	12.4619	1	12.4619	µg/mL
p-xylene	BV	1.60	1.35276	1.95709	12.2307	1	12.2307	µg/mL
m-xylene	VB	1.63	1.41517	1.99527	12.3198	1	12.3198	µg/mL
o-xylene	BB	1.84	1.37936	2.02308	12.3491	1	12.3491	µg/mL
Styrene	BB	2.22	1.44628	2.11060	12.7947	1	12.7947	µg/mL
Naphthalene	BB	4.60	1.42712	2.02801	11.9378	1	11.9378	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #2
Sequence Name	LUCY1068 ver.5
Inj Data File	062F0601.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 10:40 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	62
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



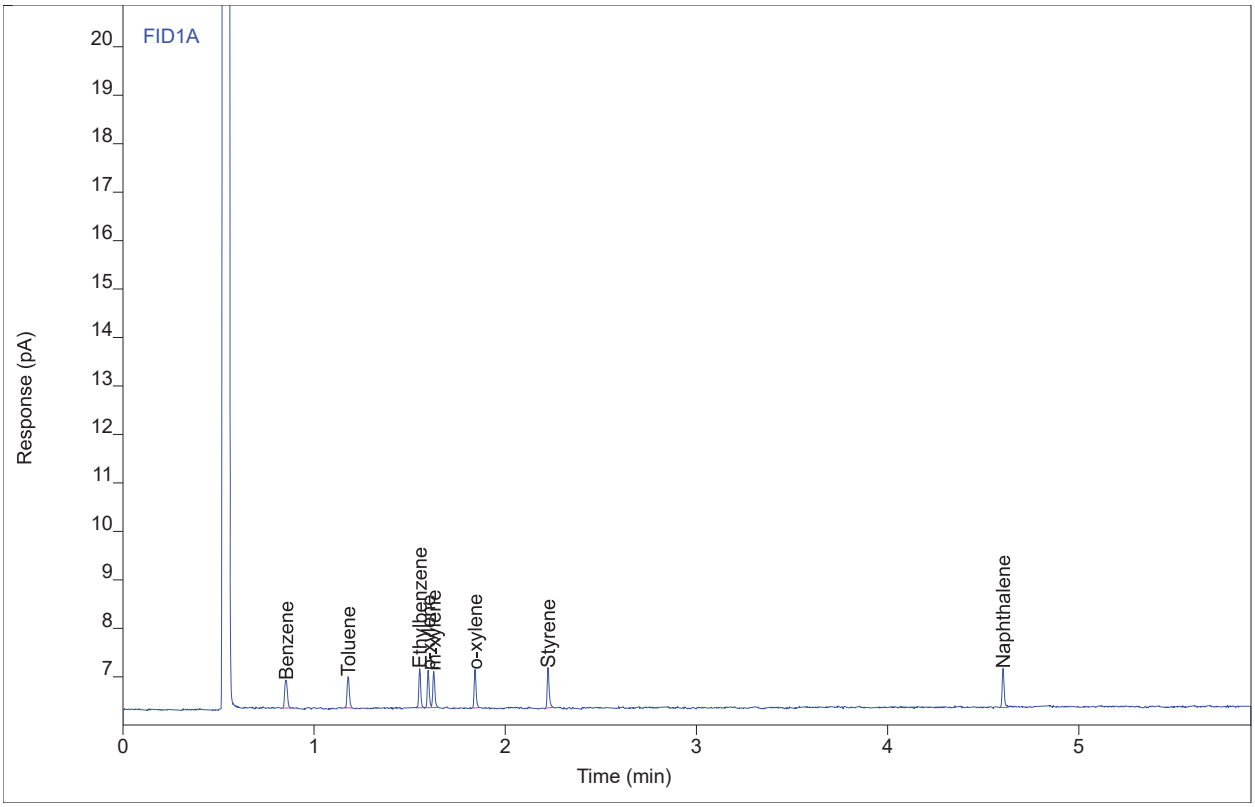
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.58552	0.56654	5.14780	1	5.14780	µg/mL
Toluene	BB	1.18	0.54925	0.65236	5.03678	1	5.03678	µg/mL
Ethylbenzene	BB	1.55	0.55894	0.80618	5.17110	1	5.17110	µg/mL
p-xylene	BV	1.60	0.52775	0.73234	4.99578	1	4.99578	µg/mL
m-xylene	VB	1.63	0.55761	0.78503	5.02516	1	5.02516	µg/mL
o-xylene	BB	1.84	0.54189	0.77344	5.04986	1	5.04986	µg/mL
Styrene	BB	2.22	0.56812	0.80793	5.28144	1	5.28144	µg/mL
Naphthalene	VV	4.60	0.59234	0.81369	5.09750	1	5.09750	µg/mL

Chromatogram Report

Sample Name	GCstds1584 #2
Sequence Name	LUCY1068 ver.5
Inj Data File	062F0602.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 10:50 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Enthalpy Analytical

Sample Type	Calibration
Vial Number	62
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.57774	0.58481	5.07969	1	5.07969	µg/mL
Toluene	BB	1.18	0.53535	0.65495	4.91553	1	4.91553	µg/mL
Ethylbenzene	BB	1.55	0.55415	0.82031	5.12969	1	5.12969	µg/mL
p-xylene	BV	1.60	0.53269	0.77171	5.03916	1	5.03916	µg/mL
m-xylene	VB	1.63	0.55291	0.76009	4.98513	1	4.98513	µg/mL
o-xylene	BB	1.84	0.54555	0.79069	5.08182	1	5.08182	µg/mL
Styrene	BB	2.22	0.58524	0.82367	5.42792	1	5.42792	µg/mL
Naphthalene	VB	4.60	0.59466	0.80994	5.11652	1	5.11652	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #2
Sequence Name	LUCY1068 ver.5
Inj Data File	062F0603.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 11:01 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	62
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
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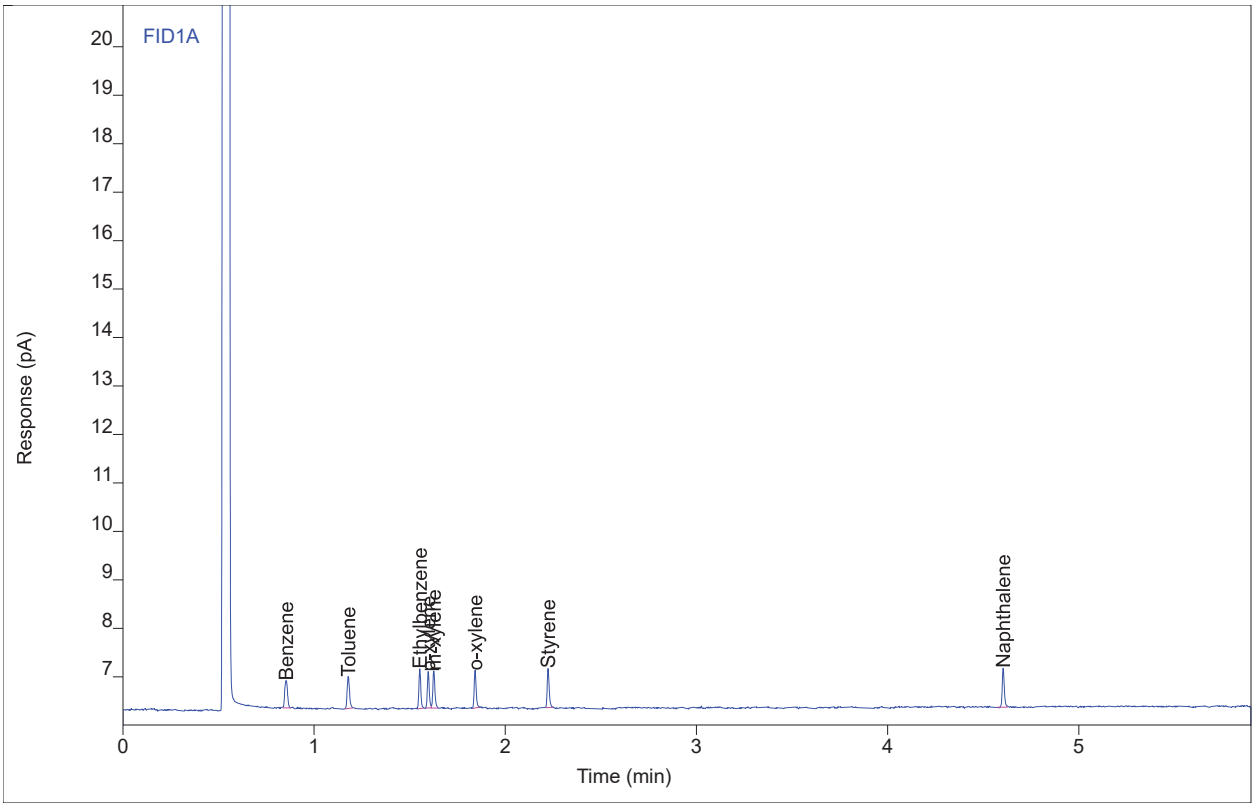


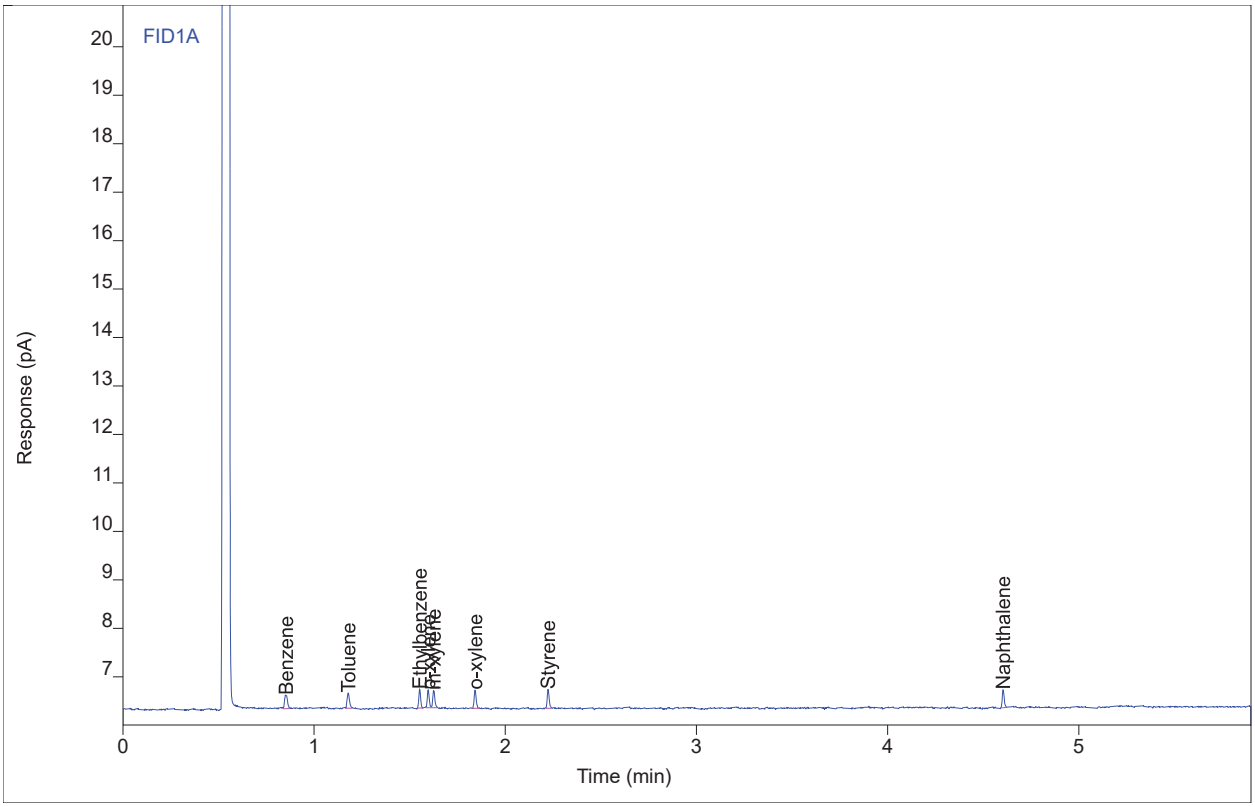
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.56996	0.57048	5.01163	1	5.01163	µg/mL
Toluene	BB	1.18	0.57403	0.65749	5.25292	1	5.25292	µg/mL
Ethylbenzene	BB	1.55	0.56876	0.82258	5.25611	1	5.25611	µg/mL
p-xylene	BV	1.60	0.52472	0.75367	4.96922	1	4.96922	µg/mL
m-xylene	VB	1.63	0.57367	0.77410	5.16174	1	5.16174	µg/mL
o-xylene	BB	1.84	0.55408	0.77609	5.15617	1	5.15617	µg/mL
Styrene	BB	2.22	0.59052	0.80708	5.47309	1	5.47309	µg/mL
Naphthalene	BB	4.60	0.61147	0.81230	5.25426	1	5.25426	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #1
Sequence Name	LUCY1068 ver.5
Inj Data File	061F0701.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 11:11 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	61
Injection Volume	1
Injection	1 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM

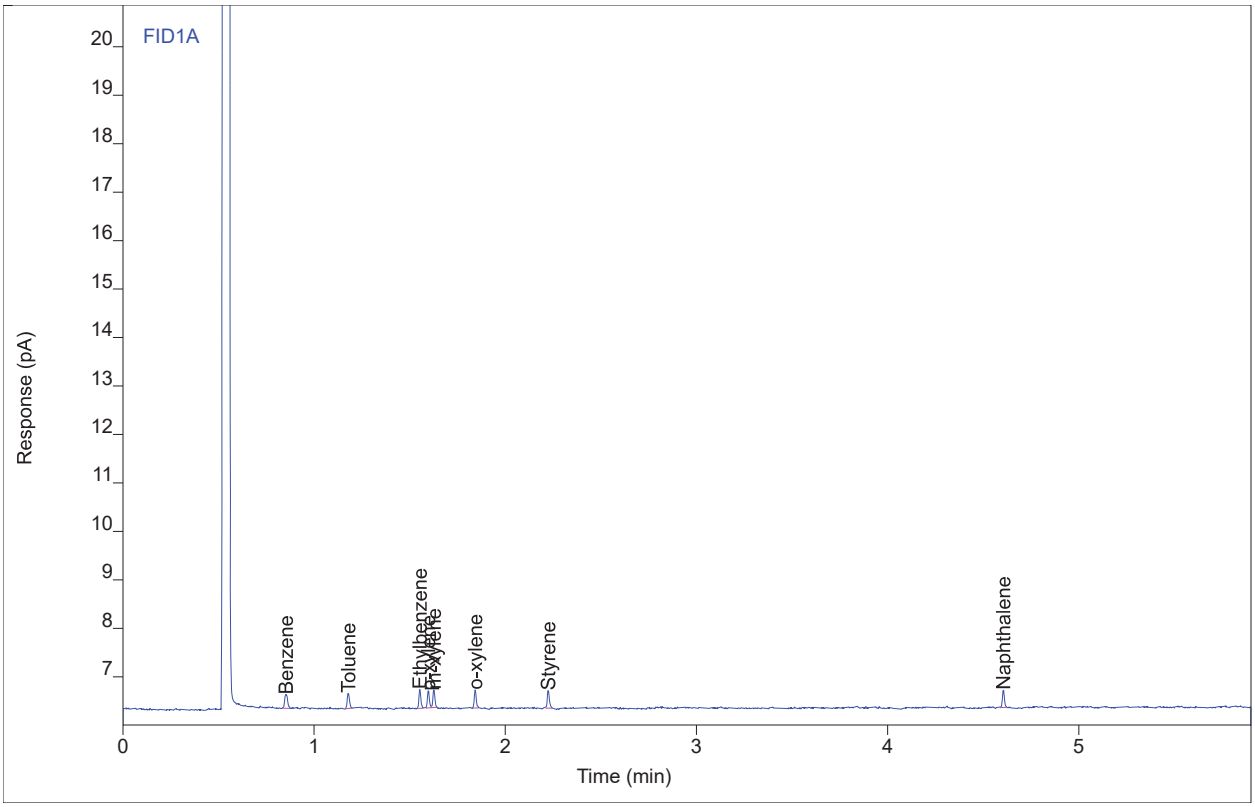


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	MM	0.85	0.29769	0.29116	2.62763	1	2.62763	µg/mL
Toluene	BB	1.18	0.27589	0.32837	2.65213	1	2.65213	µg/mL
Ethylbenzene	BB	1.55	0.26059	0.39063	2.59074	1	2.59074	µg/mL
p-xylene	BV	1.60	0.26000	0.37165	2.64781	1	2.64781	µg/mL
m-xylene	VB	1.63	0.27488	0.37244	2.62016	1	2.62016	µg/mL
o-xylene	BB	1.84	0.27870	0.38815	2.75602	1	2.75602	µg/mL
Styrene	BB	2.22	0.27559	0.39644	2.77862	1	2.77862	µg/mL
Naphthalene	MF	4.60	0.26683	0.37823	2.42330	1	2.42330	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #1	Sample Type	Calibration
Sequence Name	LUCY1068 ver.5	Vial Number	61
Inj Data File	061F0702.D	Injection Volume	1
File Location	GC/2021/Lucy/Quarter 4	Injection	2 of 3
Injection Date	10/29/2021 11:22 AM	Acquisition Method	LUCY0301B.M
File Modified	11/1/2021 10:53 AM	Analysis Method	LUCY1068_F.M
Instrument	Lucy	Method Modified	11/1/2021 10:52 AM
Operator	Kim Maturo	Printed	11/1/2021 12:39 PM



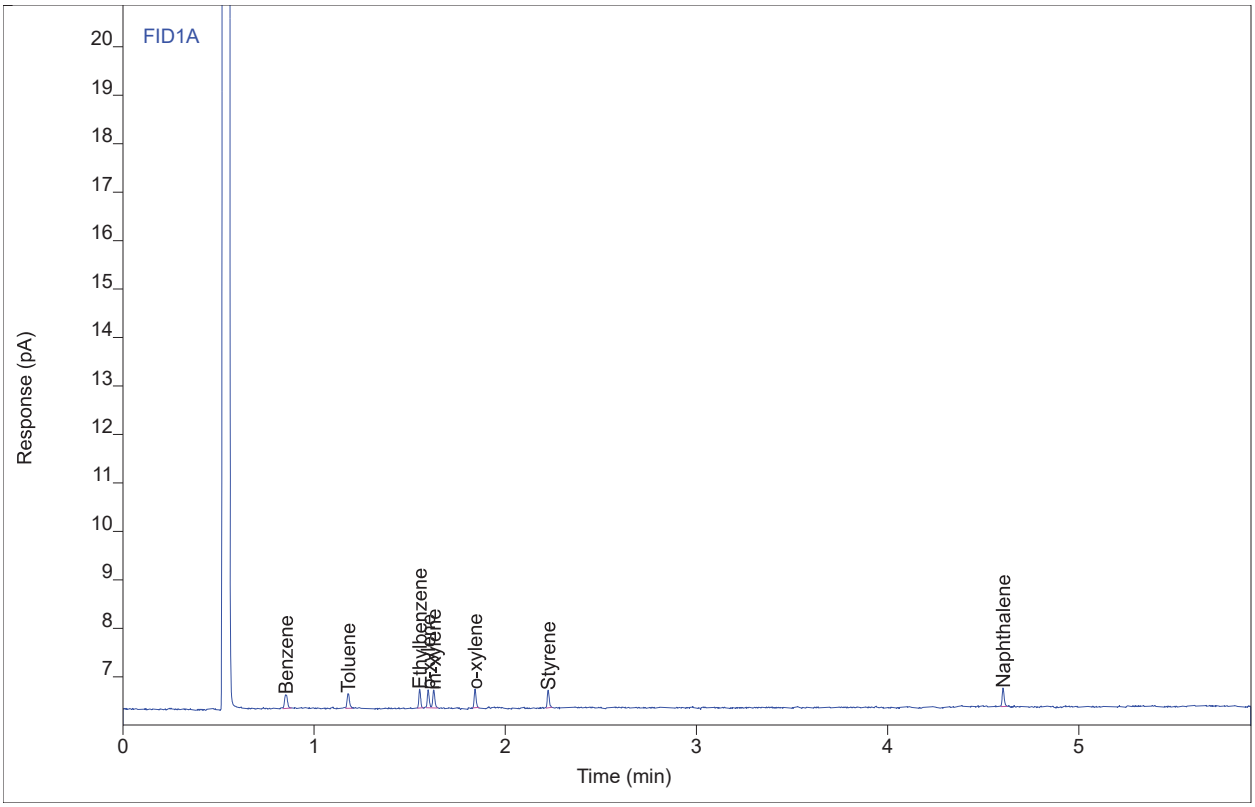
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	MM	0.85	0.31093	0.29215	2.74353	1	2.74353	µg/mL
Toluene	BB	1.18	0.26969	0.32310	2.59808	1	2.59808	µg/mL
Ethylbenzene	BB	1.55	0.27388	0.39068	2.70576	1	2.70576	µg/mL
p-xylene	MF	1.60	0.25481	0.35502	2.60224	1	2.60224	µg/mL
m-xylene	FM	1.63	0.27161	0.38054	2.59232	1	2.59232	µg/mL
o-xylene	BB	1.84	0.26527	0.37781	2.63893	1	2.63893	µg/mL
Styrene	BB	2.22	0.28182	0.37079	2.83197	1	2.83197	µg/mL
Naphthalene	MM	4.60	0.26803	0.36868	2.43422	1	2.43422	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1584 #1
Sequence Name	LUCY1068 ver.5
Inj Data File	061F0703.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 11:32 AM
File Modified	11/1/2021 10:53 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Calibration
Vial Number	61
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM

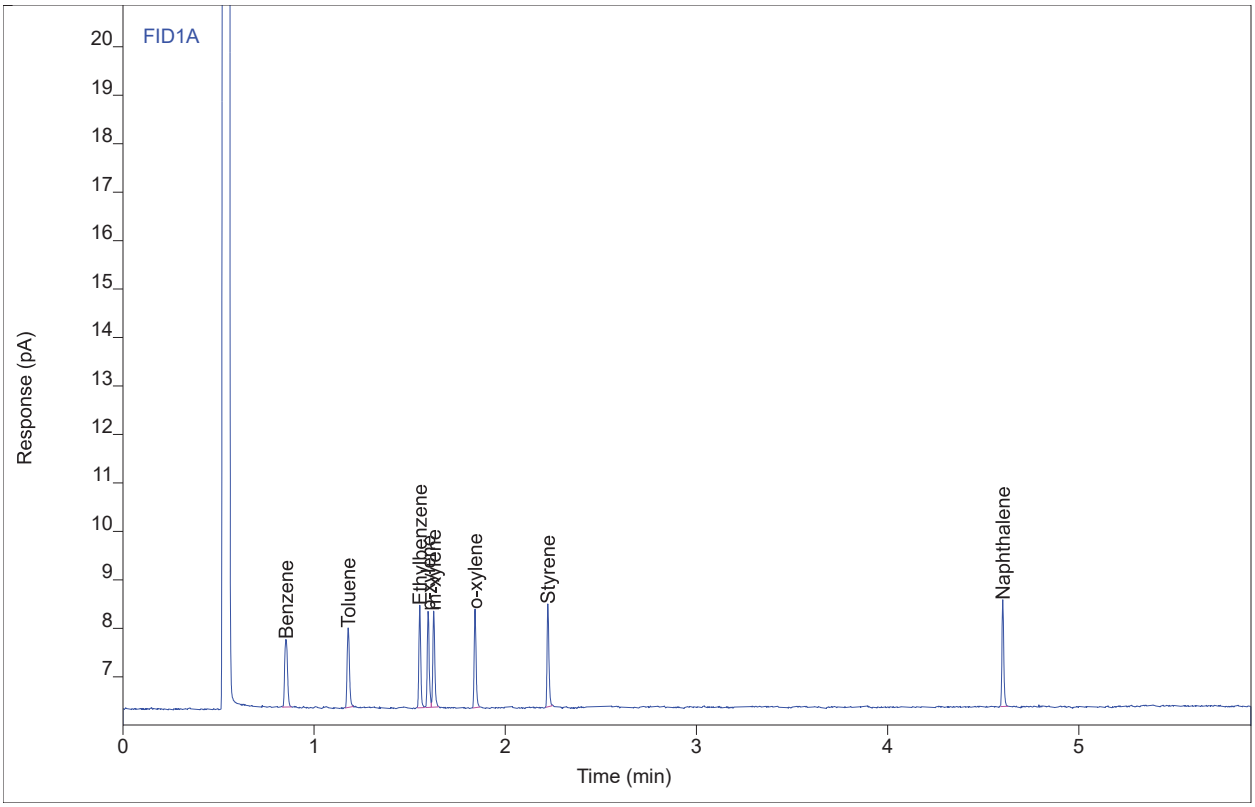


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.30241	0.29179	2.66892	1	2.66892	µg/mL
Toluene	BB	1.18	0.27462	0.31879	2.64111	1	2.64111	µg/mL
Ethylbenzene	BB	1.55	0.25032	0.39134	2.48868	1	2.48868	µg/mL
p-xylene	BV	1.60	0.25499	0.37274	2.60387	1	2.60387	µg/mL
m-xylene	VB	1.63	0.27720	0.37870	2.63989	1	2.63989	µg/mL
o-xylene	MM	1.84	0.26372	0.38462	2.62538	1	2.62538	µg/mL
Styrene	BB	2.22	0.25855	0.36729	2.61744	1	2.61744	µg/mL
Naphthalene	BB	4.60	0.27871	0.38785	2.52757	1	2.52757	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1550 #3	Sample Type	Control
Sequence Name	LUCY1068 ver.5	Vial Number	67
Inj Data File	067F0801.D	Injection Volume	1
File Location	GC/2021/Lucy/Quarter 4	Injection	1 of 3
Injection Date	10/29/2021 11:43 AM	Acquisition Method	LUCY0301B.M
File Modified	11/1/2021 10:54 AM	Analysis Method	LUCY1068_F.M
Instrument	Lucy	Method Modified	11/1/2021 10:52 AM
Operator	Kim Maturo	Printed	11/1/2021 12:39 PM



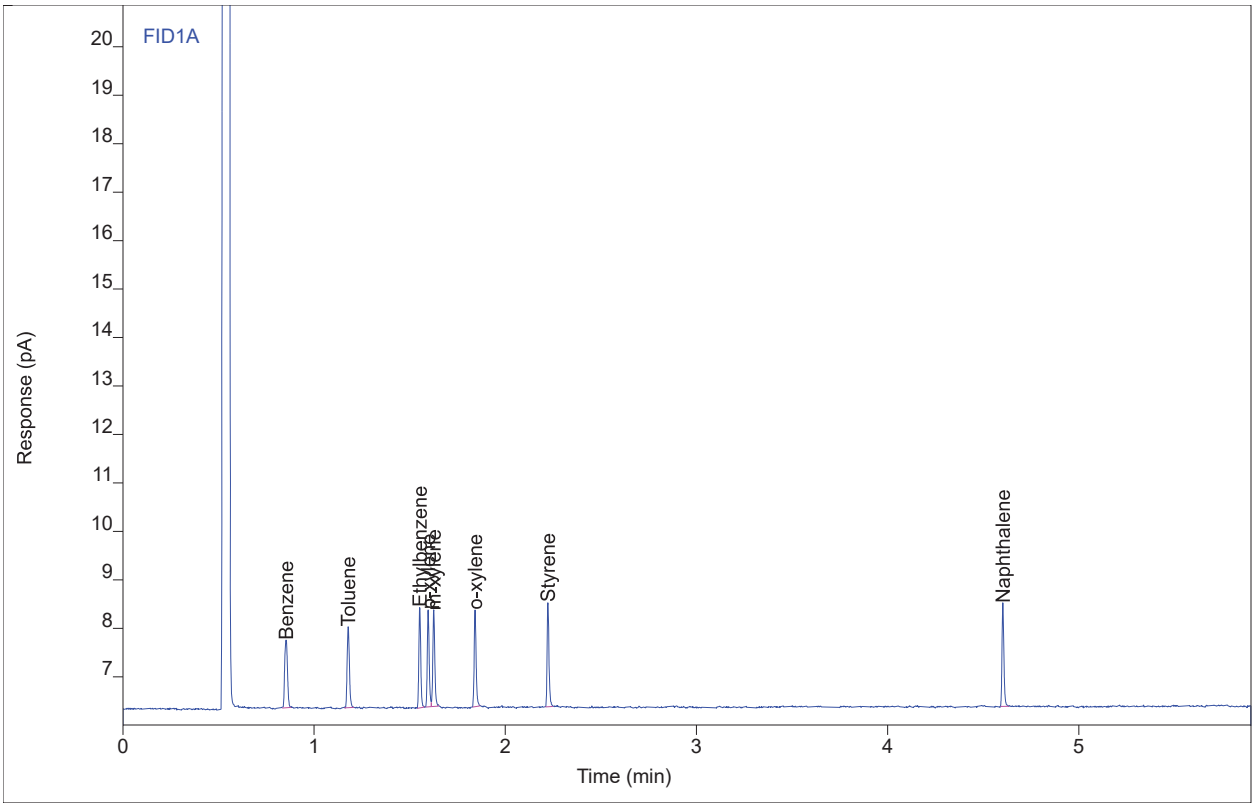
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.43508	1.40458	12.5865	1	12.5865	µg/mL
Toluene	BB	1.18	1.38966	1.64513	12.3680	1	12.3680	µg/mL
Ethylbenzene	BB	1.55	1.41830	2.12206	12.6035	1	12.6035	µg/mL
p-xylene	BV	1.60	1.39013	1.99070	12.5585	1	12.5585	µg/mL
m-xylene	VB	1.63	1.42515	1.99768	12.4047	1	12.4047	µg/mL
o-xylene	BB	1.84	1.41135	2.03404	12.6280	1	12.6280	µg/mL
Styrene	BB	2.22	1.42635	2.12925	12.6241	1	12.6241	µg/mL
Naphthalene	BB	4.60	1.47544	2.19970	12.3338	1	12.3338	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1550 #3
Sequence Name	LUCY1068 ver.5
Inj Data File	067F0802.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 11:53 AM
File Modified	11/1/2021 10:54 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Control
Vial Number	67
Injection Volume	1
Injection	2 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



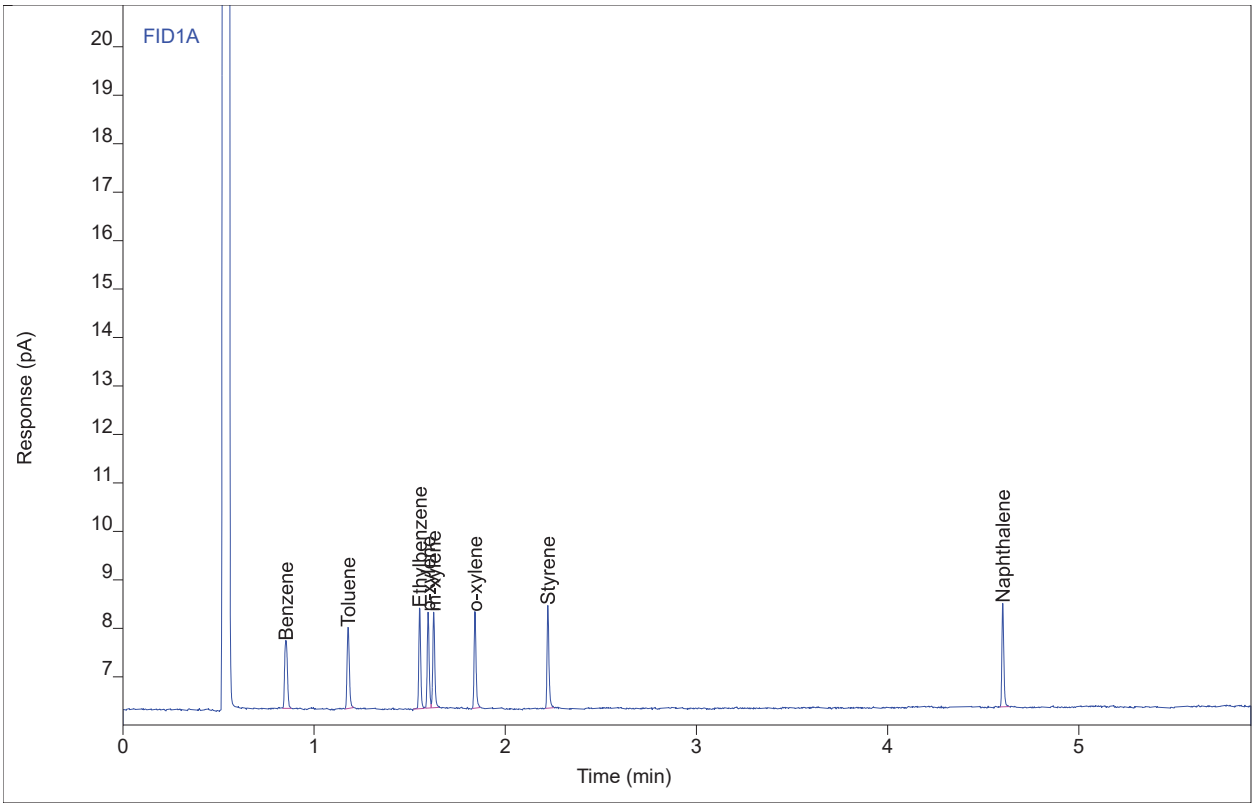
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.41083	1.40402	12.3741	1	12.3741	µg/mL
Toluene	BB	1.18	1.38479	1.67530	12.3256	1	12.3256	µg/mL
Ethylbenzene	BB	1.55	1.42248	2.08289	12.6397	1	12.6397	µg/mL
p-xylene	BV	1.60	1.37409	2.01341	12.4179	1	12.4179	µg/mL
m-xylene	VB	1.63	1.42234	1.98981	12.3807	1	12.3807	µg/mL
o-xylene	BB	1.84	1.41727	1.99874	12.6795	1	12.6795	µg/mL
Styrene	BB	2.22	1.45799	2.16083	12.8949	1	12.8949	µg/mL
Naphthalene	BB	4.60	1.49475	2.13981	12.4921	1	12.4921	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	GCstds1550 #3
Sequence Name	LUCY1068 ver.5
Inj Data File	067F0803.D
File Location	GC/2021/Lucy/Quarter 4
Injection Date	10/29/2021 12:04 PM
File Modified	11/1/2021 10:54 AM
Instrument	Lucy
Operator	Kim Maturo

Sample Type	Control
Vial Number	67
Injection Volume	1
Injection	3 of 3
Acquisition Method	LUCY0301B.M
Analysis Method	LUCY1068_F.M
Method Modified	11/1/2021 10:52 AM
Printed	11/1/2021 12:39 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	1.41705	1.39503	12.4287	1	12.4287	µg/mL
Toluene	BB	1.18	1.40827	1.67904	12.5304	1	12.5304	µg/mL
Ethylbenzene	BB	1.55	1.42055	2.09090	12.6230	1	12.6230	µg/mL
p-xylene	BV	1.60	1.38306	1.98956	12.4965	1	12.4965	µg/mL
m-xylene	VB	1.63	1.42509	1.98879	12.4042	1	12.4042	µg/mL
o-xylene	BB	1.84	1.42758	1.99435	12.7694	1	12.7694	µg/mL
Styrene	BB	2.22	1.47300	2.13177	13.0233	1	13.0233	µg/mL
Naphthalene	BB	4.60	1.48567	2.14130	12.4176	1	12.4176	µg/mL

1.00 validated 12/10/08 VR

TRC Report 508369

413 of 2048

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

Date Analyzed	5/25/22
Analyst	DDC
Date Reviewed	6/3/22
Reviewed By	KHB
Instrument	Lucy
Logbook Page	1134
Injector (F,R,NA)	F
Column	Stabilwax 10m x 0.10mm x 0.10um
Injector (F,R,NA)	
Column	
Job #(s)	0522-167
Applicable Method(s)	M18
Matrix	Extracts, Tubes
Solvent	CS2

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

Compound #	1	2	3	4	5	6	7	8
Compound Name	Benzene	Toluene	Ethylbenzene	p-Xylene	m-Xylene	o-Xylene	Styrene	Naphthalene
Notes (if needed)								
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Test Std Concentrations #1	2.59116	2.54629	2.63911	2.66506	2.74811	2.75465	2.75887	2.76673
#2	2.72845	2.63515	2.94348	2.64030	2.72142	2.66833	2.74680	2.65593
#3	2.72025	2.63210	2.66517	2.59162	2.60051	2.46236	2.72303	2.72792
#4	2.65888	2.71806	2.63831	2.57817	2.60974	2.58113	2.58489	2.57238
#5	2.55690	2.56824	2.85378	2.75312	2.67778	2.67296	2.71247	2.69115
#6	2.63391	2.45674	2.76671	2.71520	2.63799	2.48372	2.61939	2.76163
#7	2.46508	2.73757	2.60140	2.77931	2.77439	2.55358	2.51789	2.71593
#8	2.65398	2.76448	2.72949	2.63248	2.62687	2.63053	2.58375	2.65105
!! Remove extra zeros !! #9								
#10								
Standard Deviation	0.0872	0.1057	0.1193	0.0735	0.0664	0.0999	0.0904	0.0650
Student's T factor	2.998	2.998	2.998	2.998	2.998	2.998	2.998	2.998
Calculated MDL = StDev * t	0.261	0.317	0.358	0.220	0.199	0.299	0.271	0.195
Slope of Cal Curve	0.11421	0.11463	0.11562	0.11403	0.11756	0.11473	0.11688	0.12204
Integration Area Reject	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lowest Integratable Conc.	0.088	0.087	0.086	0.088	0.085	0.087	0.086	0.082
Concentration of Std	2.630	2.588	2.591	2.571	2.583	2.620	2.717	2.728
Lowest Part 136 App B value*	0.263	0.259	0.259	0.257	0.258	0.262	0.272	0.273
MDL value <1/10 Std Value?	**<1/10 Conc of Std**	Pass	Pass	**<1/10 Conc of Std**	**<1/10 Conc of Std**	Pass	**<1/10 Conc of Std**	**<1/10 Conc of Std**
MDL to Use	**0.26299**	**0.31695**	**0.35770**	**0.25714**	**0.25829**	**0.29939**	**0.27172**	**0.27282**

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

Location: OL Drawer: Lucy Analyst: DDL

Cabinet: 2022 Folder: Q2 Date: 5-23-22

Job #s	Describe Work Documented on This Page
0522-167	M18 (eng): BTXSN split precision liner Stabilwax 10m x 0.10mm x 0.10 um

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

C:\GC\2022\LUCY\SEQUENCE\LUCY1153.S Front Inlet

Line	Vial	SampleName	Method	Inj
1	vial 19	gcstds1704 #3	LUCY0301	3
2	vial 20	gcprep4743 #MB-EXT	LUCY0301	2
3	vial 21	gcprep4743 #MB-XAD	LUCY0301	2
4	vial 22	gcprep4743 #MB-747	LUCY0301	2
5	vial 23	gcprep4743 #LCS-EXT	LUCY0301	2
6	vial 24	gcprep4743 #LCS-XAD	LUCY0301	2
7	vial 25	0522-167.R1.EXT	LUCY0301	2
8	vial 26	0522-167.R2.EXT	LUCY0301	2
9	vial 27	0522-167.R2-LD.EXT	LUCY0301	2
10	vial 28	0522-167.R1.XADBH	LUCY0301	2
11	vial 29	0522-167.R2.XADBH	LUCY0301	2
12	vial 30	gcstds1704 #3	LUCY0301	3
13	vial 31	0522-167.R1.747BH	LUCY0301	2
14	vial 32	0522-167.R2.747BH	LUCY0301	2
15	vial 33	0522-167.R1.XADFH	LUCY0301	2
16	vial 34	0522-167.R1-LD.XADFH	LUCY0301	2
17	vial 35	0522-167.R2.XADFH	LUCY0301	2
18	vial 36	0522-167.R1.747FH	LUCY0301	2
19	vial 37	0522-167.R2.747FH	LUCY0301	2
20	vial 30	gcstds1704 #3	LUCY0301	3
21	vial -1	pause	PAUSE	1

DDL 5-25-22

DDL 5-25-22

C:\GC\2022\LUCY\SEQUENCE\LUCY1153A.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 38	gcstds1704 #1	LUCY0301	8	
2	vial -1	pause	PAUSE	1	

Previous MDL for BTEXSN expired. Since old MDL is locked to Lucy1068_F in SM, anew processing method was created (Lucy1153_F). Processing method is exactly the same but the new name will allow the new MDL to be assigned in SM. Use Lucy1153_F going forward. DDL 5-25-22

Reviewer's Initials & Date: 5/25/22

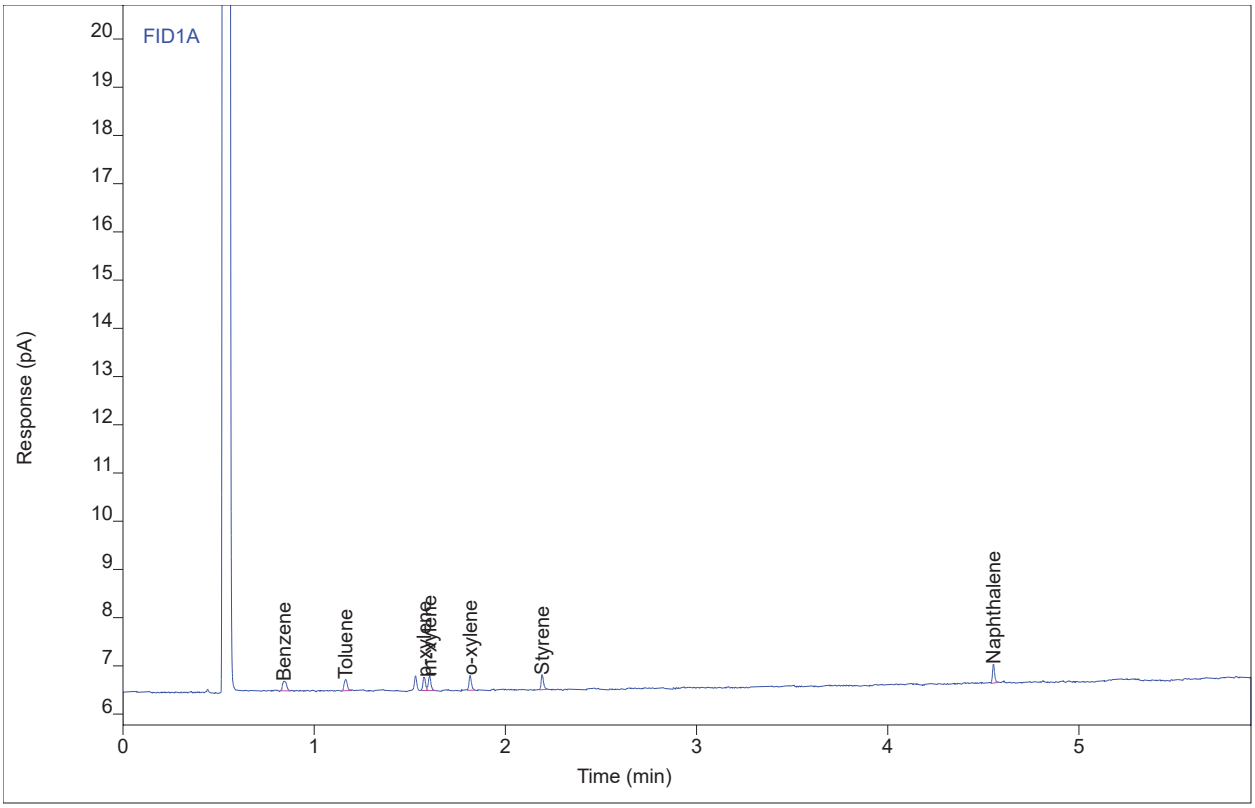
LUCY
1153

ENTHALPY ANALYTICAL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1	Sample Type	Calibration
Sequence Name	LUCY1153A ver.2	Vial Number	Vial 38
Inj Data File	038F0101.D	Injection Volume	1
File Location	GC/2022/Lucy/Quarter 2	Injection	1 of 8
Injection Date	5/25/2022 8:39 AM	Acquisition Method	LUCY0301.M
File Modified	5/25/2022 1:47 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	5/25/2022 12:12 PM
Operator	Daniel Clayton	Printed	5/25/2022 3:06 PM

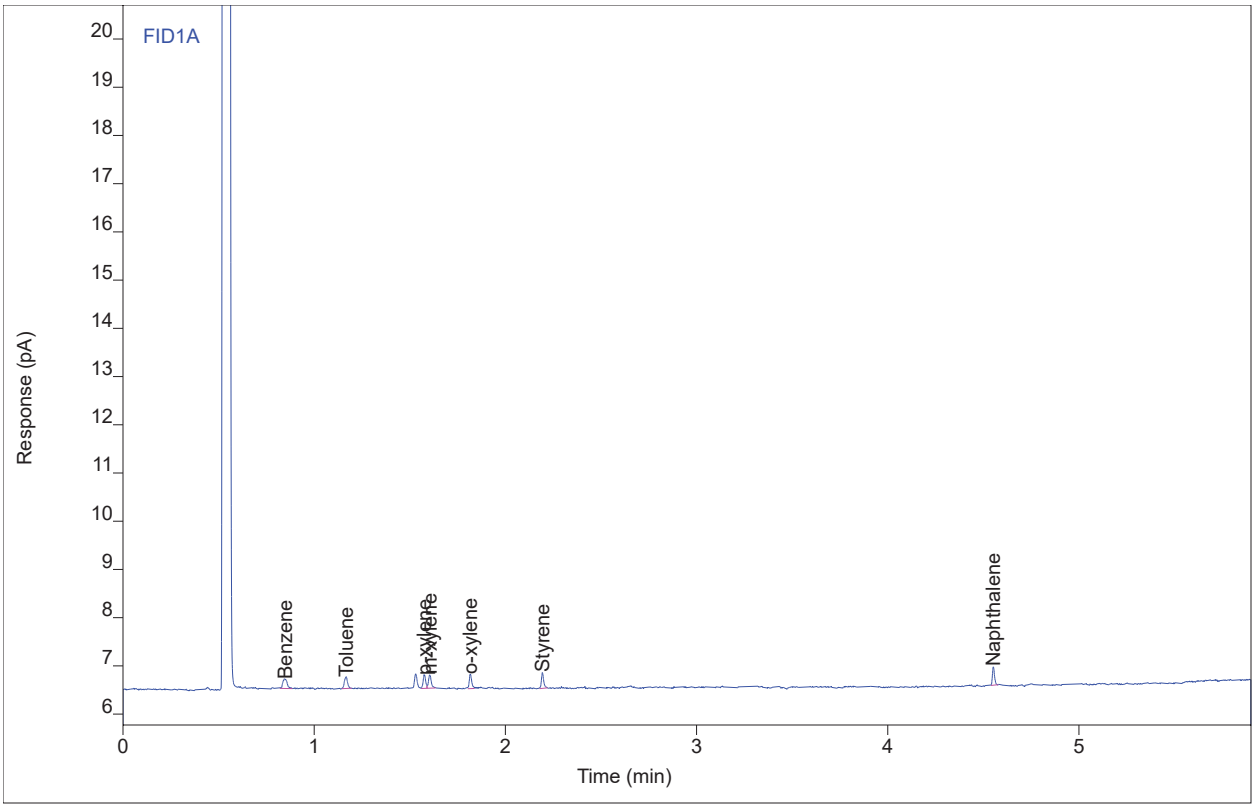


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.84	0.29356	0.20796	2.59116	1	2.59116	µg/mL
Toluene	BB	1.16	0.26421	0.23749	2.54629	1	2.54629	µg/mL
p-xylene	BV	1.58	0.26197	0.29191	2.66506	1	2.66506	µg/mL
m-xylene	VB	1.60	0.28992	0.30553	2.74811	1	2.74811	µg/mL
o-xylene	BB	1.82	0.27855	0.31291	2.75465	1	2.75465	µg/mL
Styrene	BB	2.19	0.27328	0.31714	2.75887	1	2.75887	µg/mL
Naphthalene	BB	4.55	0.30790	0.39795	2.76673	1	2.76673	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1	Sample Type	Calibration
Sequence Name	LUCY1153A ver.2	Vial Number	Vial 38
Inj Data File	038F0102.D	Injection Volume	1
File Location	GC/2022/Lucy/Quarter 2	Injection	2 of 8
Injection Date	5/25/2022 8:50 AM	Acquisition Method	LUCY0301.M
File Modified	5/25/2022 1:47 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	5/25/2022 12:12 PM
Operator	Daniel Clayton	Printed	5/25/2022 3:06 PM

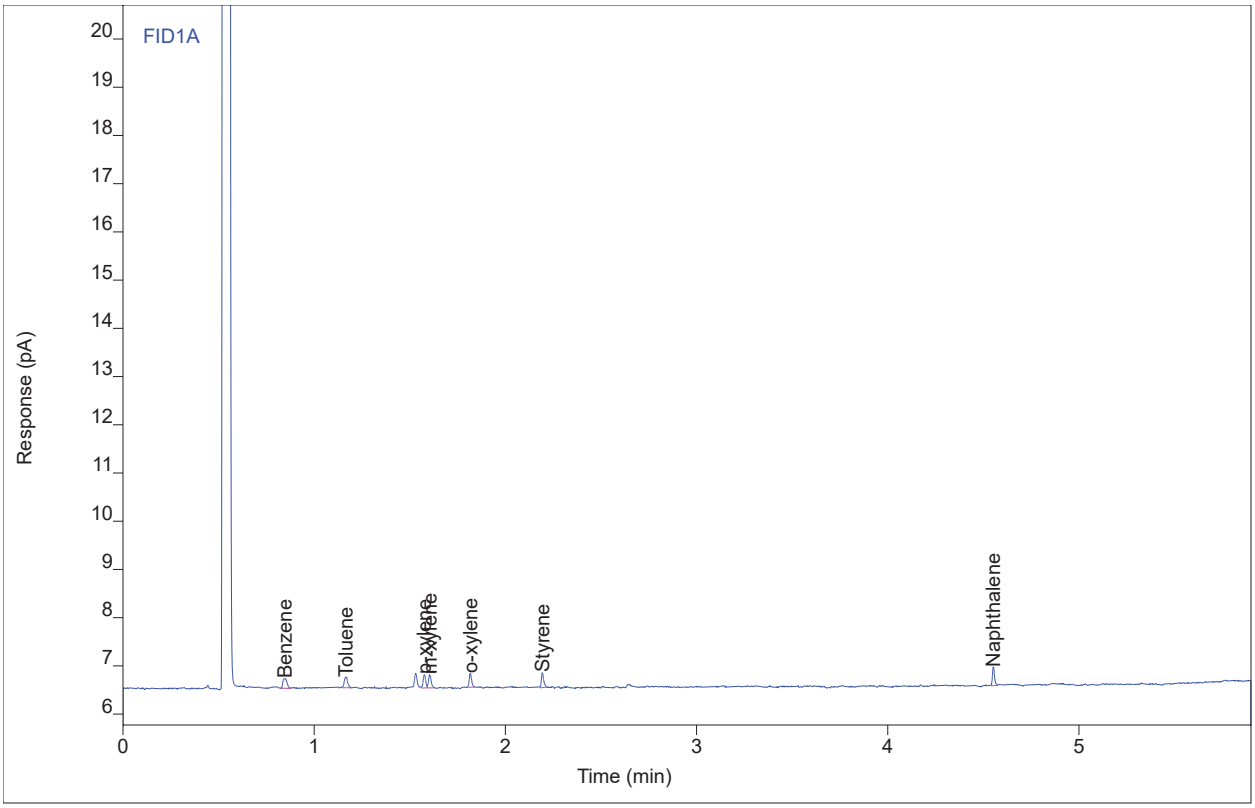


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.30921	0.19996	2.72845	1	2.72845	µg/mL
Toluene	BB	1.17	0.27394	0.24769	2.63515	1	2.63515	µg/mL
p-xylene	BV	1.58	0.25915	0.28596	2.64030	1	2.64030	µg/mL
m-xylene	VB	1.61	0.28679	0.28436	2.72142	1	2.72142	µg/mL
o-xylene	BB	1.82	0.26864	0.30674	2.66833	1	2.66833	µg/mL
Styrene	BB	2.19	0.27187	0.33389	2.74680	1	2.74680	µg/mL
Naphthalene	BB	4.55	0.29438	0.39288	2.65593	1	2.65593	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1	Sample Type	Calibration
Sequence Name	LUCY1153A ver.2	Vial Number	Vial 38
Inj Data File	038F0103.D	Injection Volume	1
File Location	GC/2022/Lucy/Quarter 2	Injection	3 of 8
Injection Date	5/25/2022 9:00 AM	Acquisition Method	LUCY0301.M
File Modified	5/25/2022 1:47 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	5/25/2022 12:12 PM
Operator	Daniel Clayton	Printed	5/25/2022 3:06 PM

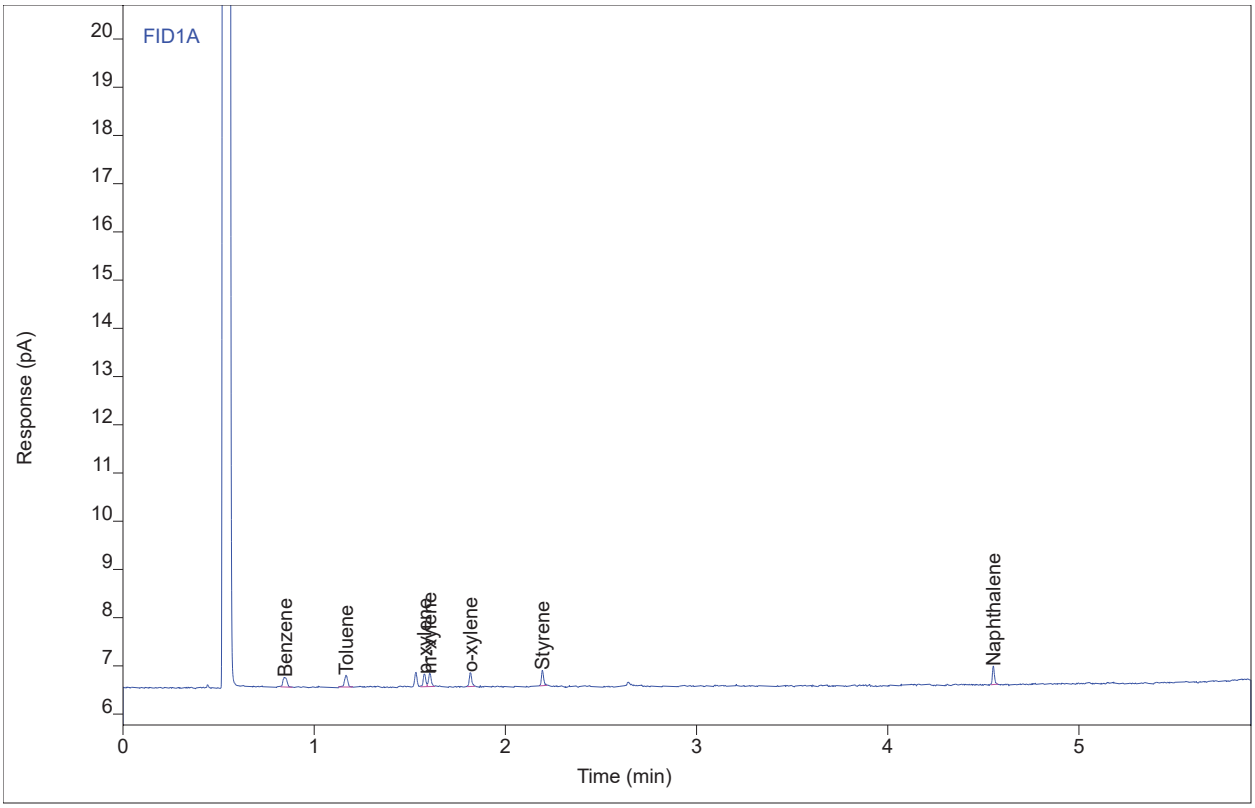


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.30827	0.20821	2.72025	1	2.72025	µg/mL
Toluene	BB	1.17	0.27359	0.23176	2.63210	1	2.63210	µg/mL
p-xylene	MF	1.58	0.25360	0.28734	2.59162	1	2.59162	µg/mL
m-xylene	FM	1.60	0.27257	0.28931	2.60051	1	2.60051	µg/mL
o-xylene	BB	1.82	0.24727	0.29688	2.46236	1	2.46236	µg/mL
Styrene	BB	2.19	0.26909	0.31516	2.72303	1	2.72303	µg/mL
Naphthalene	MM	4.55	0.30316	0.39995	2.72792	1	2.72792	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1	Sample Type	Calibration
Sequence Name	LUCY1153A ver.2	Vial Number	Vial 38
Inj Data File	038F0104.D	Injection Volume	1
File Location	GC/2022/Lucy/Quarter 2	Injection	4 of 8
Injection Date	5/25/2022 9:10 AM	Acquisition Method	LUCY0301.M
File Modified	5/25/2022 1:47 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	5/25/2022 12:12 PM
Operator	Daniel Clayton	Printed	5/25/2022 3:06 PM



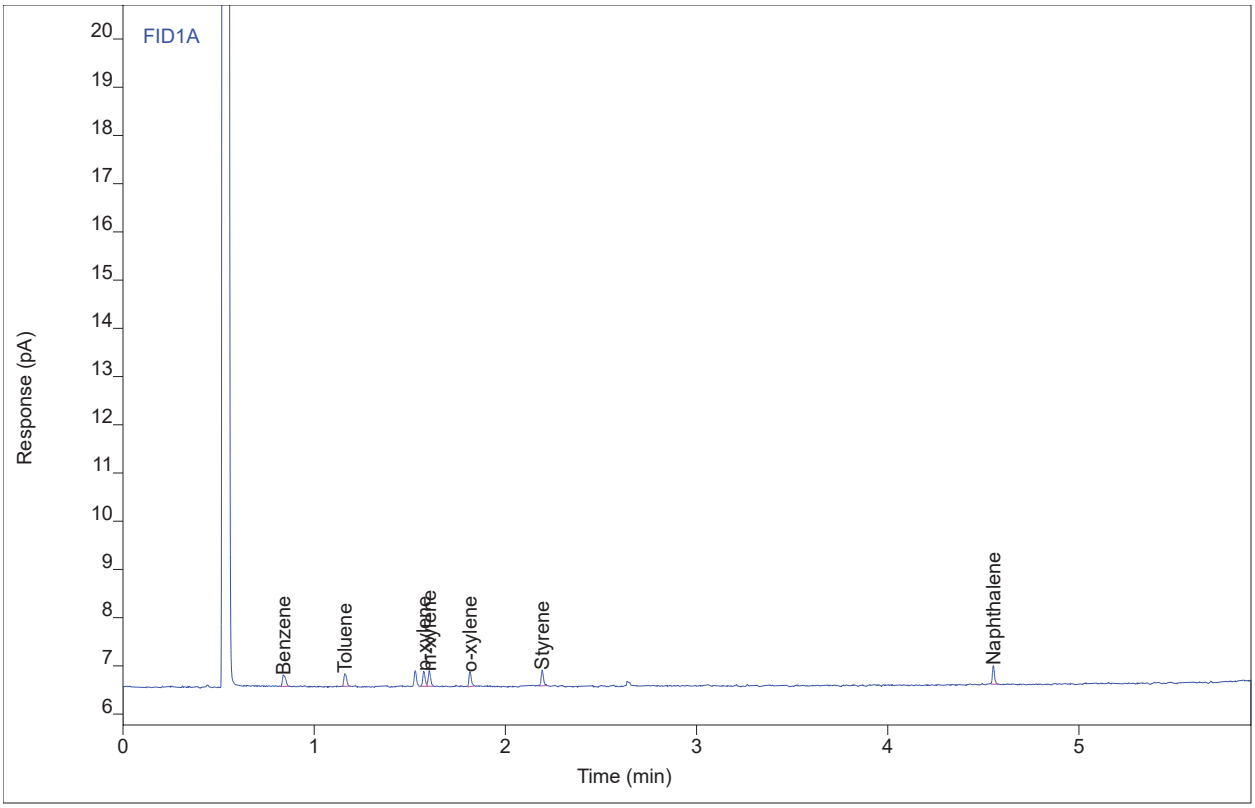
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.30126	0.20564	2.65888	1	2.65888	µg/mL
Toluene	BB	1.17	0.28344	0.25025	2.71806	1	2.71806	µg/mL
p-xylene	MF	1.58	0.25206	0.27766	2.57817	1	2.57817	µg/mL
m-xylene	FM	1.60	0.27366	0.29091	2.60974	1	2.60974	µg/mL
o-xylene	BB	1.82	0.25920	0.29512	2.58113	1	2.58113	µg/mL
Styrene	BB	2.19	0.25534	0.32301	2.58489	1	2.58489	µg/mL
Naphthalene	BB	4.55	0.28418	0.38172	2.57238	1	2.57238	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1
Sequence Name	LUCY1153A ver.2
Inj Data File	038F0105.D
File Location	GC/2022/Lucy/Quarter 2
Injection Date	5/25/2022 9:20 AM
File Modified	5/25/2022 1:47 PM
Instrument	Lucy
Operator	Daniel Clayton

Sample Type	Calibration
Vial Number	Vial 38
Injection Volume	1
Injection	5 of 8
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	5/25/2022 12:12 PM
Printed	5/25/2022 3:06 PM



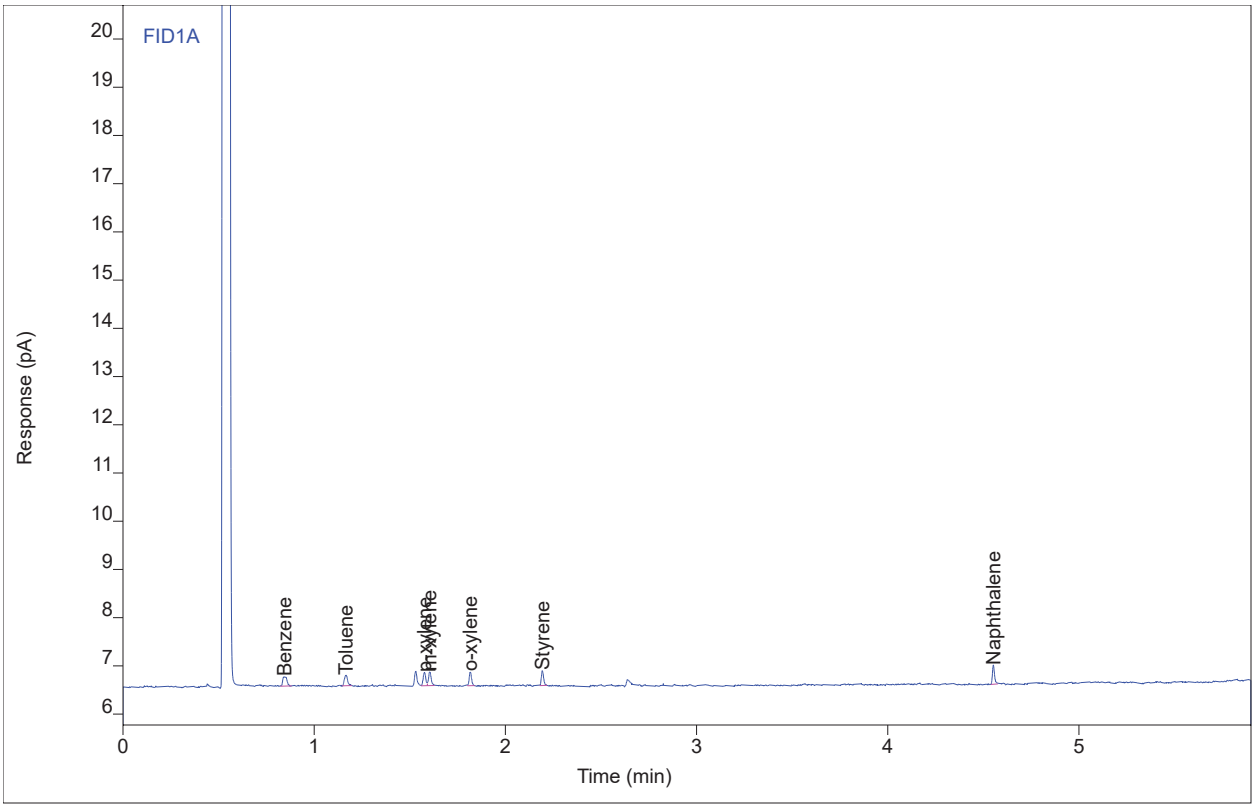
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.84	0.28968	0.23999	2.55690	1	2.55690	µg/mL
Toluene	BB	1.16	0.26649	0.26783	2.56824	1	2.56824	µg/mL
p-xylene	BV	1.57	0.27201	0.31390	2.75312	1	2.75312	µg/mL
m-xylene	VB	1.60	0.28166	0.31995	2.67778	1	2.67778	µg/mL
o-xylene	BB	1.81	0.26917	0.31397	2.67296	1	2.67296	µg/mL
Styrene	BB	2.19	0.26794	0.33519	2.71247	1	2.71247	µg/mL
Naphthalene	BB	4.55	0.29868	0.39618	2.69115	1	2.69115	µg/mL

Chromatogram Report

Sample Name	gcstds1704 #1
Sequence Name	LUCY1153A ver.2
Inj Data File	038F0106.D
File Location	GC/2022/Lucy/Quarter 2
Injection Date	5/25/2022 9:30 AM
File Modified	5/25/2022 1:47 PM
Instrument	Lucy
Operator	Daniel Clayton

Enthalpy Analytical

Sample Type	Calibration
Vial Number	Vial 38
Injection Volume	1
Injection	6 of 8
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	5/25/2022 12:12 PM
Printed	5/25/2022 3:06 PM



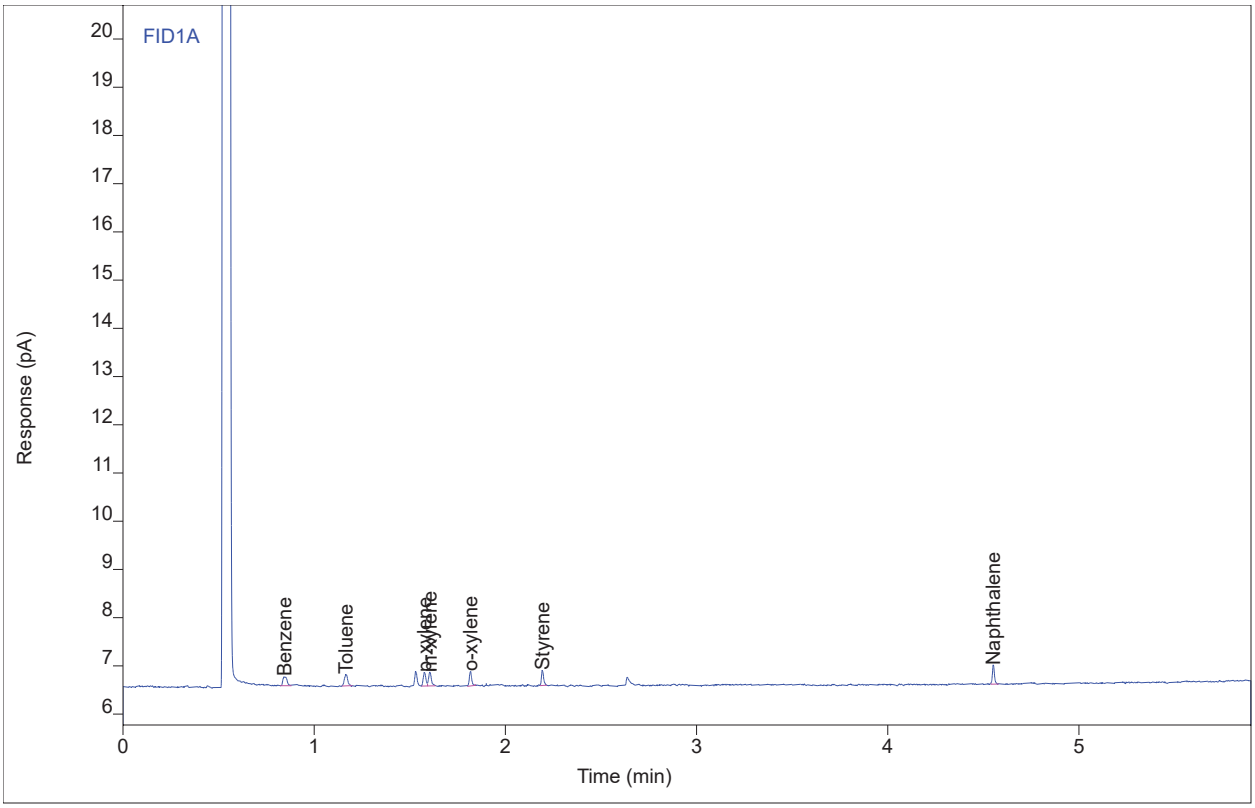
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.84	0.29841	0.20663	2.63391	1	2.63391	µg/mL
Toluene	BB	1.17	0.25492	0.22863	2.45674	1	2.45674	µg/mL
p-xylene	BV	1.58	0.26769	0.28509	2.71520	1	2.71520	µg/mL
m-xylene	VB	1.60	0.27698	0.29843	2.63799	1	2.63799	µg/mL
o-xylene	BB	1.82	0.24942	0.29703	2.48372	1	2.48372	µg/mL
Styrene	BB	2.19	0.25874	0.32247	2.61939	1	2.61939	µg/mL
Naphthalene	BB	4.55	0.30728	0.40219	2.76163	1	2.76163	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1
Sequence Name	LUCY1153A ver.2
Inj Data File	038F0107.D
File Location	GC/2022/Lucy/Quarter 2
Injection Date	5/25/2022 9:41 AM
File Modified	5/25/2022 1:47 PM
Instrument	Lucy
Operator	Daniel Clayton

Sample Type	Calibration
Vial Number	Vial 38
Injection Volume	1
Injection	7 of 8
Acquisition Method	LUCY0301.M
Analysis Method	LUCY1153_F.M
Method Modified	5/25/2022 12:12 PM
Printed	5/25/2022 3:06 PM

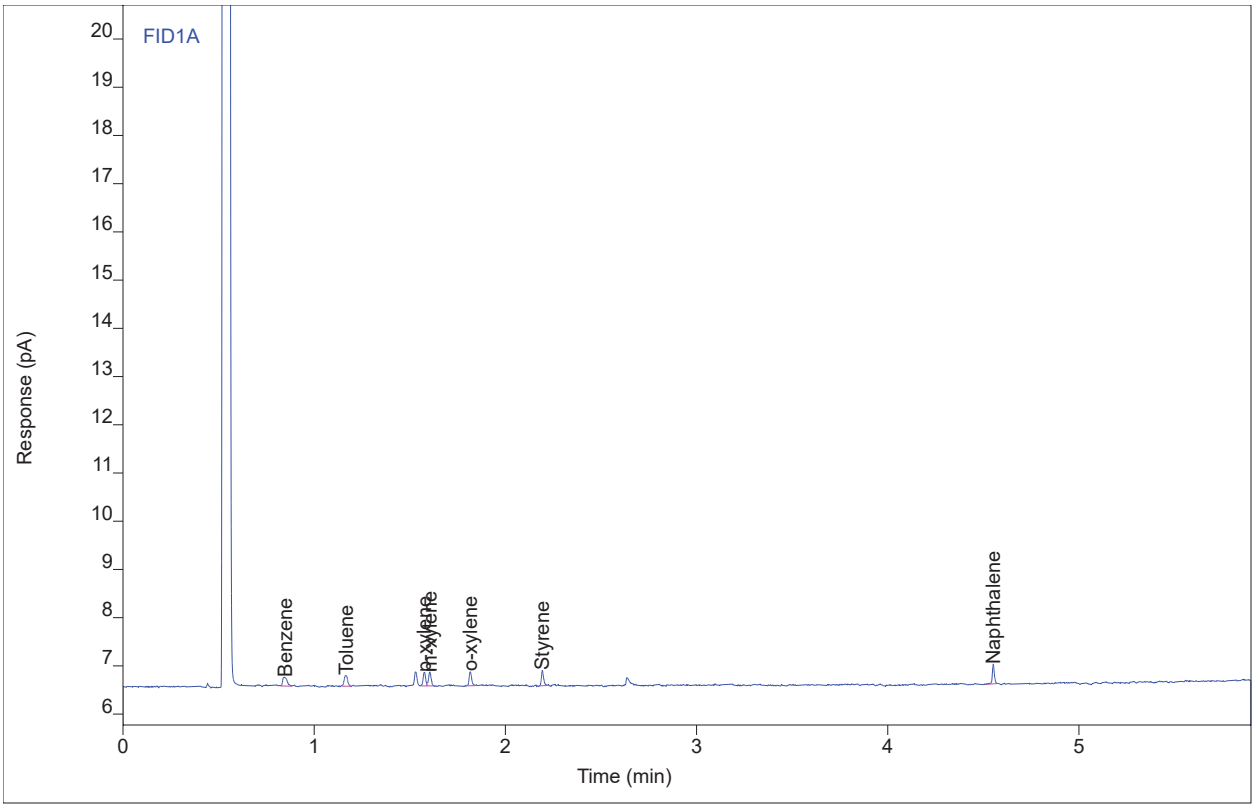


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.27928	0.19600	2.46508	1	2.46508	µg/mL
Toluene	BB	1.17	0.28568	0.25460	2.73757	1	2.73757	µg/mL
p-xylene	BV	1.58	0.27500	0.28914	2.77931	1	2.77931	µg/mL
m-xylene	VB	1.61	0.29301	0.28908	2.77439	1	2.77439	µg/mL
o-xylene	BB	1.82	0.25643	0.30484	2.55358	1	2.55358	µg/mL
Styrene	BB	2.19	0.24872	0.31720	2.51789	1	2.51789	µg/mL
Naphthalene	BB	4.55	0.30170	0.40615	2.71593	1	2.71593	µg/mL

Chromatogram Report

Enthalpy Analytical

Sample Name	gcstds1704 #1	Sample Type	Calibration
Sequence Name	LUCY1153A ver.2	Vial Number	Vial 38
Inj Data File	038F0108.D	Injection Volume	1
File Location	GC/2022/Lucy/Quarter 2	Injection	8 of 8
Injection Date	5/25/2022 9:51 AM	Acquisition Method	LUCY0301.M
File Modified	5/25/2022 1:47 PM	Analysis Method	LUCY1153_F.M
Instrument	Lucy	Method Modified	5/25/2022 12:12 PM
Operator	Daniel Clayton	Printed	5/25/2022 3:06 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	0.85	0.30070	0.19570	2.65398	1	2.65398	µg/mL
Toluene	BB	1.17	0.28877	0.24013	2.76448	1	2.76448	µg/mL
p-xylene	BV	1.58	0.25825	0.29433	2.63248	1	2.63248	µg/mL
m-xylene	VB	1.61	0.27567	0.29654	2.62687	1	2.62687	µg/mL
o-xylene	BB	1.82	0.26431	0.30198	2.63053	1	2.63053	µg/mL
Styrene	MM	2.19	0.25522	0.32131	2.58375	1	2.58375	µg/mL
Naphthalene	BB	4.55	0.29378	0.41072	2.65105	1	2.65105	µg/mL

Raw Data

ICP-MS Raw Data Coversheet

Instrument X/__

Doc. No.: RD05
Rev.:G
Effective Date: 08-05-22

Analyst(s):	KAH	Analysis Date(s):	2/28/23
EA Project #s:	0123-099		
Analytes:	Be, Cr, Mn, Co, Ni, As, Se, Cd, Sb, Pb		
Method:	6020	Smart Tune ID: ES-0804 Conc: 1 ppb Exp: 7/3/23	
		Internal Standard ID [1]: F0773 Conc: 10 ppm Exp: 2/23	
Diluent:	50 mL HNO3 (ID # 2238017 Exp: 9/24) diluted to 1000 mL with DI		
Calib. Blk/ICB/CCB:	Diluent		

[1] All samples and standards are spiked with 50µL of internal std. (pipette 127 exp 3/4/23)

Calibration Standards - Made from EA ID# [2]: 1:10 F0824 (Stock Concentration: 10ppm
EEKAH 2/28/23
Exp Date: 3/1/23) and brought up with Diluent

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
Standard 1	1	100 of Std 6	127 3/4/23	10	143 5/9/23	KAH	2/28/23	3/1/23
Standard 2	5	500 of Std 6	124					
Standard 3	10	1mL Std6	⊥					
Standard 4	50	50	127					
Standard 5	100	100	⊥					
No IS Std 6	100	100	⊥					

[2] 10ppm WS = 1mL of Standard 100ppm F0824 exp 7/25 (pipettes: 124, 143 exp 3/4/23 5/9/23) + 9mL Diluent

Secondary Standards - Made from EA ID#: F0814 (Stock Concentration: 10ppm
ExpDate: 11/23) and brought up with Diluent

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICV/CCV	50	50	127 3/4/23	10	143 5/9/23	KAH	2/28/23	3/1/23

ICS's- Made from Stock Std ICS-A ID#(F0796 Exp: 9/25)
& 50 ppb Metals Std ID#(F0814 Conc: 10ppm Exp: 11/23) brought up with Diluent

	Conc.	Amount WS (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICS-A	Multi	100	127 3/4/23	10	143 5/9/23	KAH	2/28/23	3/1/23
	Multi	100	⊥					
ICS-AB	50 ppb	50	⊥					

Post Dig Matrix Spike Samples - Diluted with Diluent (Metals Mix ID# F0814 Conc: 10ppm Exp: 11/23)

Sample ID	Dilution Factor of Field Sample	Aliquot of Sample (mL)	Final Conc. (ppb)	Amount of Spike Added (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
0123-099.1-1A	5	2	50	50	127 3/4/23	10	143 5/9/23	KAH
⊥ -2A	–	9.9	⊥	⊥	⊥	10	⊥	⊥
⊥ ⊥	20	0.5	⊥	⊥	⊥	10	⊥	⊥
						10		
						10		
						10		
						10		

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ICP-MS Raw Data Coversheet
Instrument X/__

Doc. No.: RD05
Rev.:G
Effective Date: 08-05-22

Sample Dilution Tracker - Diluted with Diluent						
Sample ID(s)	Dilution Factor of Sample	Aliquot of Sample (mL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
0123-099. LCS-1A	2	5	143 5/9/23	10	143 5/9/23	KAH
.LCS-2A	⊥	⊥	⊥	⊥	⊥	⊥
.(1-8)-1A	5	2	124 3/9/23	⊥	⊥	⊥
⊥ .(1,3-7)-2A	10	1	⊥	⊥	⊥	⊥

Comments:

Controlled Document
Confidential Business Information/Property of Enthalpy Analytical

		9 Be [tune 1]		52 Cr [tune 1]		55 Mn [tune 1]		59 Co [tune 1]		60 Ni [tune 1]		62 Ni [tune 1]		75 As [tune 1]		77 Se [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/28/2023 11:28	CalBlk	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/28/2023 11:32	1 ppb	1.0182	0.8042	1.0308	2.3604	1.0001	2.6322	1.0290	1.7461	0.9596	2.3980	1.0294	1.4069	0.9904	4.8688	1.0038	8.8273
2/28/2023 11:35	5 ppb	4.9759	3.5385	5.2618	0.4973	5.1893	1.5939	5.2193	0.8886	5.1400	1.9498	5.2365	3.3839	5.0751	3.1470	4.8760	5.3305
2/28/2023 11:38	10 ppb	10.4695	2.4398	10.3132	2.7028	10.2912	1.6979	10.4648	1.6773	10.1189	0.2910	10.0425	1.9484	9.8853	2.2713	9.8849	7.4993
2/28/2023 11:42	50 ppb	50.0199	2.1633	49.4170	1.2761	49.3724	1.1823	50.4948	3.7585	49.3771	1.6007	49.2218	1.1968	50.6314	1.1093	51.7781	1.6244
2/28/2023 11:45	100 ppb	99.9441	1.4532	100.2471	1.0520	100.2752	2.8410	99.6948	2.0538	100.2926	1.3118	100.3730	0.2772	99.6920	2.2619	99.1287	1.1929
2/28/2023 11:48	ICV	50.1163	2.6730	50.0246	1.0811	49.6436	0.9700	49.6612	0.3610	50.7464	0.4626	50.3057	1.7342	51.5363	1.1523	51.1428	0.6445
2/28/2023 11:51	ICB	0.3994	17.0901	0.4224	5.0850	0.4638	1.4998	0.4047	2.6000	0.3788	6.2063	0.3791	16.6596	0.4020	7.9880	0.4697	33.5224
2/28/2023 11:54	ICSA	0.1447	25.0549	0.4014	7.0949	0.1702	17.1497	0.2145	13.8833	0.4453	7.7734	0.5940	11.3143	0.4069	2.4010	1.5572	12.8470
2/28/2023 11:57	ICSAB	49.0068	0.1913	44.2383	1.0562	44.5279	2.7432	43.9930	1.9680	42.9422	2.5107	43.5602	1.8379	49.7668	1.8961	51.6239	1.2428
2/28/2023 13:34	ICV	49.1618	0.7430	51.7665	3.9334	53.4322	1.9288	52.1273	3.4106	51.3266	3.0083	50.8705	1.8183	48.0617	2.4769	48.0940	1.3350
2/28/2023 13:37	ICB	0.2001	6.0874	0.2223	11.2869	<0.000	N/A	0.2146	14.6678	0.1710	24.2460	0.1953	18.1665	0.1787	5.8714	0.2151	40.4222
2/28/2023 13:40	0123-099.LB-1A	0.0691	39.0191	0.3562	19.2436	0.1446	16.6657	0.1456	17.4007	0.2482	19.2107	0.1751	45.5823	1.8390	2.4439	0.2289	49.4472
2/28/2023 13:44	0123-099.LCS-1A 2X	47.8570	2.3277	50.7145	2.1205	51.1058	1.9906	49.9447	2.2329	49.2018	0.6229	50.1701	0.7863	47.5774	0.9221	48.8012	3.4408
2/28/2023 13:47	0123-099.1-1A 5X	0.2369	15.7652	7.9597	0.4138	7.6769	1.9663	0.9769	3.9652	15.7934	1.6438	15.5080	2.2527	0.9639	7.6323	1.5339	6.2524
2/28/2023 13:50	0123-099.1-1A MS 5X	45.9130	2.6470	55.6833	4.1543	56.9790	3.3228	47.7667	3.5968	61.8603	2.3963	61.3230	1.3124	46.0710	2.5068	45.4998	1.7016
2/28/2023 13:53	0123-099.2-1A 5X	0.1826	13.8117	3.4768	2.3368	4.2276	1.2582	0.7336	1.0866	5.6981	2.7695	5.6819	4.7586	0.5905	1.7712	0.9132	11.3649
2/28/2023 13:56	0123-099.2-1A DUP 5X	0.0725	34.6044	3.3646	2.3658	4.1162	2.8503	0.6430	7.6779	5.6071	2.9947	5.3300	5.2571	0.4805	3.0604	0.6860	2.4688
2/28/2023 13:59	0123-099.3-1A 5X	0.0395	15.8422	2.9769	0.8631	2.7358	1.6336	0.2403	2.1559	2.0703	0.7409	2.0823	7.7447	1.0461	7.4328	0.7467	15.3461
2/28/2023 14:02	0123-009.4-1A 5X	0.0187	15.4275	3.0259	0.2796	2.9818	1.5152	0.2490	2.9688	2.2829	1.9751	2.1463	7.3069	2.1540	3.4296	0.8514	21.0774
2/28/2023 14:06	CCV	49.8071	2.7228	48.5767	3.5528	49.7576	2.5480	49.5265	2.2889	48.2809	1.5593	49.3565	2.7570	47.8013	2.9560	49.9730	2.3039
2/28/2023 14:09	CCB	0.1951	3.1410	0.1656	5.9432	<0.000	N/A	0.1751	1.8926	0.1181	14.0712	0.0622	69.8784	0.1842	9.5861	0.1235	68.5700
2/28/2023 14:12	0123-099.5-1A 5X	0.0828	21.8113	3.1223	1.2704	3.0609	0.3310	0.2681	6.4167	2.0503	3.6271	1.9112	6.4679	0.8401	7.3423	0.9982	26.8825
2/28/2023 14:15	0123-099.6-1A 5X	0.0311	11.8378	2.7765	4.3304	2.2812	2.1018	0.1537	8.5790	1.3274	4.1398	1.3289	17.5552	2.0823	2.0698	0.8063	21.4290
2/28/2023 14:18	0123-099.7-1A 5X	0.0180	19.8209	3.1392	2.6375	4.1337	0.3402	0.2227	1.6122	1.8388	2.6230	1.8511	3.4499	1.2031	2.3557	0.9880	12.2633
2/28/2023 14:21	0123-099.8-1A 5X	0.0052	31.5863	1.4439	1.8088	0.6516	0.4145	0.0356	10.1352	0.7292	5.0899	0.6625	18.2465	0.2477	4.1938	0.0807	125.1311
2/28/2023 14:25	CCV	49.0907	2.0368	48.5991	1.0045	50.5605	1.6885	49.7019	1.7355	48.2856	1.1023	48.3630	0.2341	47.4666	1.6342	48.7095	2.3859
2/28/2023 14:28	CCB	0.2149	10.6767	0.1920	23.6121	<0.000	N/A	0.2127	12.3919	0.1259	32.5411	0.0414	134.5952	0.2034	13.4383	0.3004	1.8320
2/28/2023 14:49	0123-099.LB-2A	0.0099	61.9531	0.4118	5.3120	0.1163	13.5785	0.0096	29.0139	0.3447	4.5631	0.2822	16.4315	0.0255	18.5382	<0.000	N/A
2/28/2023 14:52	0123-099.LCS-2A 2X	47.7885	1.6553	48.0274	0.6876	49.7328	1.9598	48.8343	0.5051	47.7935	0.1008	47.1196	0.1497	45.5362	2.3920	46.6079	3.9256
2/28/2023 14:55	0123-099.1-2A	0.1407	42.0792	9.1645	2.9222	24.7693	1.2337	2.4560	3.2836	17.9297	1.6291	17.7485	3.7026	2.1670	5.4113	356.2568	1.7344
2/28/2023 14:58	0123-099.1-2A MS	48.3240	2.2674	52.7532	3.4283	68.3090	0.1547	45.2099	1.6833	59.5871	0.6293	59.6584	0.8156	79.7948	1.9487	479.6595	2.6638
2/28/2023 15:01	0123-099.2-2A	0.1812	18.0444	8.6043	2.7192	82.7185	3.9098	1.5277	1.2990	7.7619	1.4680	7.8603	1.0048	1.2805	1.6758	66.4175	3.1155
2/28/2023 15:04	0123-099.2-2A DUP	0.0672	14.3670	8.6260	4.3687	84.3769	1.8401	1.4026	3.2776	7.8668	3.4369	7.9473	2.2884	1.0814	4.5907	65.3223	7.7675
2/28/2023 15:08	0123-099.3-2A	0.0257	21.8992	6.0605	2.1993	35.0045	0.3681	0.4967	2.1219	6.1638	1.0880	6.2838	5.3093	2.8170	3.7982	396.0502	5.5122
2/28/2023 15:11	0123-099.4-2A	0.0226	26.2301	8.6317	3.2695	23.8398	2.9398	1.4113	4.7187	10.3056	5.1262	10.4116	1.4578	6.4226	1.5046	522.3692	1.9022
2/28/2023 15:14	CCV	50.1645	1.8996	49.0354	4.6973	50.3090	1.7850	50.4930	4.1320	49.3525	2.1655	49.5739	1.7281	49.1562	3.8660	52.5744	5.8740
2/28/2023 15:17	CCB	0.2477	16.1631	0.2525	11.2319	0.0701	40.9393	0.2354	11.1881	0.3269	9.3310	0.4094	20.5803	0.2409	17.0986	0.7475	10.4696
2/28/2023 15:20	0123-099.5-2A	0.0482	5.9192	6.4192	1.7273	19.4222	2.0182	0.5995	1.2472	5.8949	1.5408	6.2861	3.8734	1.3157	4.2766	184.8885	4.0326
2/28/2023 15:23	0123-099.6-2A	0.0367	1.9543	17.4507	3.1239	19.6174	2.1155	1.2171	1.5699	13.0440	1.5653	13.0181	1.0465	4.3397	4.0953	349.4044	3.4144
2/28/2023 15:27	0123-099.7-2A	0.0209	20.7483	9.1479	2.4782	17.3221	5.9243	0.5828	0.7071	12.2309	2.6539	12.0788	4.2821	2.2868	5.4400	271.7609	2.3000
2/28/2023 15:30	0123-099.8-2A	0.0072	16.3746	4.2329	0.4069	3.2350	1.1322	0.0479	6.3454	1.8531	2.9679	1.9304	2.3979	0.0516	37.3646	0.6254	18.2619
2/28/2023 15:33	CCV	49.5112	1.4391	49.9501	1.0125	50.6455	1.8251	50.4225	0.7474	50.0856	1.5887	49.2694	2.2731	48.7879	2.3276	48.0842	3.6085
2/28/2023 15:36	CCB	0.2259	16.7310	0.2339	16.5345	0.0006	8766.0293	0.2201	22.3177	0.2507	19.8008	0.2572	40.7103	0.2151	21.1369	0.3578	8.7278
2/28/2023 16:04	0123-099.1-2A 10X	0.0036	18.0867	1.0759	3.9149	2.5645	1.4786	0.2647	3.2984	2.1389	2.3048	2.1736	16.9117	0.1684	15.2249	22.0800	4.5770
2/28/2023 16:08	0123-099.1-2A MS 20X	50.2316	1.3823	50.0536	0.7062	52.5917	1.3230	50.2286	1.0148	50.9723	0.6181	49.8127	0.9840	50.2020	1.2381	68.1494	0.6240
2/28/2023 16:11	0123-099.3-2A 10X	0.2004	9.6608	0.8301	2.2030	3.9271	1.7606	0.2544	13.0588	0.9715	3.7546	1.0592	11.3834	0.4476	5.2445	24.2537	5.1713
2/28/2023 16:14	0123-099.4-2A 10X	0.0636	5.3211	1.0364	1.6979	2.4335	0.8720	0.2031	1.8915	1.3506	5.2048	1.3835	8.3957	0.5750	1.5139	32.2784	2.9820
2/28/2023 16:17	0123-099.5-2A 10X	0.0170	20.1607	0.7168	1.1335	1.9310	2.3631	0.0756	4.2474	0.8026	4.2650	0.7417	6.8402	0.1268	11.9394	11.2149	2.9455
2/28/2023 16:20	0123-099.6-2A 10X	0.0070	46.1970	1.8987	2.5672	1.8994	2.5378	0.1300	4.8589	1.5695	0.3624	1.6672	0.7111	0.3550	4.2411	21.8606	4.8851
2/28/2023 16:23	0123-099.7-2A 10X	0.0036	53.2956	0.9991	3.6445	1.6233	3.0744	0.0542	0.7821	1.4805	4.1764	1.4995	8.6279	0.1966	13.5711	18.5750	5.5174
2/28/2023 16:27	CCV	51.2176	0.9430	50.3773	3.7026	51.2860	4.4781	50.6815	1.9946	49.9638	1.9240	49.6708	2.4315	47.6182	0.5338	47.5916	1.6798
2/28/2023 16:30	CCB	0.2444	11.9707	0.2485	7.2819	0.0003	6678.0417	0.2438	10.3106	0.2297	7.8959	0.2566	24.5971	0.2435	4.1434	0.3490	24.7525

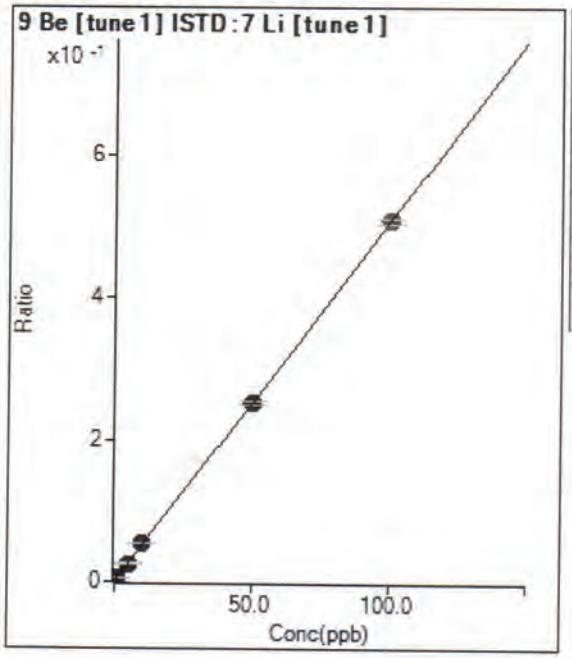
		78 Se [tune 1]		82 Se [tune 1]		111 Cd [tune 1]		114 Cd [tune 1]		121 Sb [tune 1]		123 Sb [tune 1]		206 Pb [tune 1]		207 Pb [tune 1]		208 Pb [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/28/2023 11:28	CalBlk	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/28/2023 11:32	1 ppb	0.9288	7.3759	0.9570	10.7730	0.9909	2.2038	0.9895	0.9338	1.0006	3.3734	1.0010	4.7483	1.0526	2.3037	1.0464	5.1468	1.0378	3.2328
2/28/2023 11:35	5 ppb	4.6895	6.3795	4.8240	14.1559	4.8782	0.7213	4.8991	0.8973	5.0008	1.5821	4.9068	3.8498	5.0390	2.1330	5.1127	1.2321	5.0906	1.6087
2/28/2023 11:38	10 ppb	10.2780	2.9420	9.7769	6.2383	9.9428	2.9326	10.0300	0.7421	9.9934	3.2220	9.8884	2.3382	10.2899	3.1476	10.2431	2.7055	10.2577	2.4003
2/28/2023 11:42	50 ppb	50.4493	0.9880	49.6955	1.6670	49.4041	1.5057	49.4814	2.3139	50.1555	0.7116	48.9135	1.0105	49.4382	2.1290	49.9994	2.5393	50.5598	1.8819
2/28/2023 11:45	100 ppb	99.7630	1.1780	100.1833	3.3840	100.3098	3.0165	100.2615	3.2866	99.9229	0.7656	100.5591	1.6608	100.2494	1.9944	99.9699	0.8081	99.6894	1.4948
2/28/2023 11:48	ICV	50.1839	3.0544	49.4780	1.2261	49.8493	1.1223	49.0074	0.5920	48.2067	2.1343	47.9387	2.9337	54.3007	2.7507	50.0433	0.7510	51.7227	0.7753
2/28/2023 11:51	ICB	0.0690	367.2467	0.5332	32.4760	0.4062	4.9846	0.4084	4.4307	0.3889	5.3446	0.3870	8.5662	0.4054	4.0992	0.3806	6.1531	0.3939	3.5195
2/28/2023 11:54	ICSA	0.3327	138.8383	<0.000	N/A	0.3460	7.1420	0.3028	9.6708	0.1888	12.6941	0.1794	19.5938	0.2021	13.4020	0.1853	21.0210	0.1926	16.1973
2/28/2023 11:57	ICSAB	48.9729	2.9420	47.3974	3.3952	49.9855	3.6243	49.5198	3.4599	46.3590	2.5311	46.1138	3.9190	53.1644	2.9173	48.4608	2.5271	50.5800	2.8472
2/28/2023 13:34	ICV	48.2453	4.4618	47.5833	2.4485	49.3781	1.1977	49.1662	3.9733	46.3452	2.3284	47.0286	0.8131	54.3821	2.2331	47.2642	2.9808	50.8724	1.6453
2/28/2023 13:37	ICB	0.2860	110.9650	0.0545	239.6580	0.1950	17.7780	0.2006	16.1704	0.1925	15.2915	0.2046	16.8781	0.2231	19.6326	0.2014	18.3438	0.2069	18.6121
2/28/2023 13:40	0123-099.LB-1A	<0.000	N/A	1.0780	15.4826	0.0621	46.4373	0.0964	19.5869	0.4476	14.0633	0.4351	19.4059	0.1324	23.9972	0.1228	22.0556	0.1248	24.0241
2/28/2023 13:44	0123-099.LCS-1A 2X	46.5317	3.0794	46.5316	0.7933	49.8249	1.8351	50.0052	0.8384	45.7346	1.1609	44.5485	1.8584	54.6656	1.0832	49.3905	1.6163	51.8503	1.3636
2/28/2023 13:47	0123-099.1-1A 5X	0.0564	538.3087	2.6069	7.6639	0.6144	10.9572	0.8411	6.1778	0.9313	5.4329	0.9400	5.4052	3.8470	2.0935	3.4683	1.3777	3.6484	1.9480
2/28/2023 13:50	0123-099.1-1A MS 5X	43.6929	1.5566	46.4371	3.7276	48.2811	3.2107	48.3256	0.3667	47.3179	1.0803	46.9748	2.2166	57.1536	2.6992	52.2810	1.7157	54.9430	1.3072
2/28/2023 13:53	0123-099.2-1A 5X	<0.000	N/A	1.6888	14.4071	1.4846	3.5433	1.5733	1.6982	0.5791	3.4797	0.5688	3.5854	1.5702	2.9517	1.4183	1.8125	1.4686	0.7355
2/28/2023 13:56	0123-099.2-1A DUP 5X	<0.000	N/A	1.2497	25.5185	1.4657	2.3047	1.4889	0.2982	0.4582	0.1932	0.4609	1.1934	1.4665	1.9298	1.3098	3.6975	1.3544	1.1066
2/28/2023 13:59	0123-099.3-1A 5X	<0.000	N/A	1.5536	28.3740	0.1922	12.8086	0.2896	2.6423	0.1852	4.5185	0.1808	6.0494	1.3224	1.3165	1.1923	2.6806	1.2299	0.8293
2/28/2023 14:02	0123-009.4-1A 5X	<0.000	N/A	2.0095	17.9801	0.3567	5.2801	0.4055	5.4872	0.1903	4.0982	0.1807	8.3509	1.6067	2.6293	1.4048	4.5099	1.4736	2.2206
2/28/2023 14:06	CCV	46.9044	3.0349	47.7314	0.9995	50.1181	2.5068	49.3693	1.6397	47.0940	2.5986	47.6388	2.7699	53.3182	1.9083	48.9799	1.1015	51.1444	1.0595
2/28/2023 14:09	CCB	<0.000	N/A	0.1398	147.7898	0.1967	13.8143	0.1787	7.5480	0.1649	13.4657	0.1636	8.3330	0.1892	10.9503	0.1929	12.1264	0.1876	8.5534
2/28/2023 14:12	0123-099.5-1A 5X	<0.000	N/A	1.7697	12.5398	0.2181	5.9102	0.5075	3.8234	0.3111	5.5180	0.3241	4.3198	1.5293	3.1252	1.3901	2.8492	1.4542	1.1212
2/28/2023 14:15	0123-099.6-1A 5X	<0.000	N/A	1.5599	32.7790	0.0887	20.7341	0.2849	2.1951	0.1835	2.5897	0.1811	1.0369	1.5729	4.5022	1.3645	4.0288	1.4400	2.9314
2/28/2023 14:18	0123-099.7-1A 5X	<0.000	N/A	1.5213	26.9329	0.1375	10.9653	0.3760	3.9223	0.1526	3.6446	0.1579	4.2343	1.7478	4.4076	1.6005	3.1088	1.6616	1.6654
2/28/2023 14:21	0123-099.8-1A 5X	<0.000	N/A	1.1351	9.3403	0.0189	25.0128	0.5480	1.9699	0.0836	5.8805	0.0799	8.1171	0.2177	3.6102	0.1605	11.2326	0.1813	7.7885
2/28/2023 14:25	CCV	48.3820	4.3439	47.1306	5.3763	48.8265	1.0582	48.7142	2.2469	47.4859	0.9310	46.8696	0.3984	52.3236	1.7974	48.3082	2.0312	51.1254	1.2885
2/28/2023 14:28	CCB	<0.000	N/A	0.0784	261.2523	0.2036	3.9107	0.2207	12.1987	0.1945	20.3337	0.2102	17.6709	0.2266	15.8675	0.2132	17.9089	0.2207	17.3375
2/28/2023 14:49	0123-099.LB-2A	<0.000	N/A	0.0362	1119.0507	0.0119	53.7825	0.3010	4.8626	0.0180	12.3274	0.0125	21.8331	0.0885	2.9785	0.0738	7.0162	0.0801	4.3065
2/28/2023 14:52	0123-099.LCS-2A 2X	44.9957	4.3216	46.0618	3.3366	47.6103	1.5438	47.2987	2.3567	44.8142	3.4613	43.9152	2.0940	54.7955	3.0849	48.5386	2.7270	51.1310	2.1648
2/28/2023 14:55	0123-099.1-2A	349.8786	1.7753	357.5294	1.7981	1.5121	3.6879	37.1453	2.8430	0.9327	4.3176	0.9152	4.7519	8.5096	2.4513	7.7754	1.5193	8.1669	1.9260
2/28/2023 14:58	0123-099.1-2A MS	480.5808	2.1350	483.4255	1.3025	48.0557	0.1658	84.0260	1.0077	45.2700	1.6808	44.5323	1.7403	61.6885	1.7257	56.0694	2.1035	59.1981	2.0426
2/28/2023 15:01	0123-099.2-2A	63.6648	2.3252	66.5351	3.8465	0.4627	14.1690	15.8015	1.6355	0.8699	5.6178	0.8203	5.6234	7.1644	2.0042	6.5532	0.8155	6.8332	1.3632
2/28/2023 15:04	0123-099.2-2A DUP	61.7559	2.4085	65.5872	3.2499	0.3521	4.4063	15.5298	1.3053	0.7653	1.0327	0.7483	0.6465	6.8718	1.0651	6.3417	2.3741	6.5918	1.8769
2/28/2023 15:08	0123-099.3-2A	382.6250	5.1759	394.2583	2.3822	0.2106	1.4802	14.7407	1.8587	0.6144	1.7050	0.5932	0.6753	5.1920	1.5984	4.7596	0.6310	4.9686	0.3944
2/28/2023 15:11	0123-099.4-2A	511.9641	2.4406	531.3633	0.6349	1.0049	1.9808	16.8859	2.0022	1.2364	1.3311	1.2417	3.2789	6.8069	3.4198	6.5042	4.1128	6.6198	3.1814
2/28/2023 15:14	CCV	50.5944	3.2269	50.2952	1.5966	48.5111	1.6484	48.4525	0.1903	46.2356	2.6449	45.6592	3.8143	53.2022	1.4576	48.1851	0.8766	50.9925	1.1071
2/28/2023 15:17	CCB	0.9402	50.7291	0.6336	67.3570	0.2270	3.8964	0.2633	8.2162	0.1878	10.6310	0.1894	7.5698	0.2602	16.4438	0.2286	10.4436	0.2430	12.9001
2/28/2023 15:20	0123-099.5-2A	179.0532	1.4878	182.3854	1.3981	0.3229	1.9383	11.4263	1.0220	0.9023	4.4852	0.8870	4.6927	5.0503	3.6825	4.7811	2.7498	4.9127	1.1904
2/28/2023 15:23	0123-099.6-2A	341.8789	2.7770	345.1887	1.5906	0.8161	6.7292	13.3378	2.4152	0.8330	2.1408	0.8044	5.1621	4.6216	1.5005	4.4834	1.1713	4.5821	0.8122
2/28/2023 15:27	0123-099.7-2A	265.9370	2.2768	273.7812	2.7831	0.3873	6.6489	12.6626	1.8326	0.5928	3.1287	0.5872	4.1317	4.5635	0.7805	4.2852	1.3134	4.4133	1.2257
2/28/2023 15:30	0123-099.8-2A	<0.000	N/A	0.2138	22.5956	0.0060	53.2259	16.9993	3.4872	0.0484	5.5540	0.0448	6.6876	0.9158	2.1853	0.8654	5.9733	0.8874	2.4759
2/28/2023 15:33	CCV	48.1790	2.9551	47.8168	3.6058	47.3325	0.6450	47.5074	0.3349	47.0442	3.1520	46.0833	2.5825	51.5574	1.6830	46.8902	0.2863	49.7489	1.2433
2/28/2023 15:36	CCB	0.1845	90.1454	0.3915	88.3170	0.2044	18.7795	0.2469	18.1368	0.1798	26.6967	0.1740	24.7731	0.2255	18.9804	0.2090	16.8786	0.2201	20.4277
2/28/2023 16:04	0123-099.1-2A 10X	21.3425	8.0311	21.8373	3.5008	0.1396	9.1292	3.8799	1.7178	0.0809	9.9075	0.0785	6.9306	0.8359	5.3063	0.7930	5.1345	0.8057	2.7149
2/28/2023 16:08	0123-099.1-2A MS 20X	67.2566	0.5677	66.4684	2.6425	48.7578	1.4860	49.6689	1.3482	47.2934	1.9518	45.4923	0.9203	53.3719	2.1131	48.6013	1.4608	51.3195	1.3913
2/28/2023 16:11	0123-099.3-2A 10X	23.5182	3.5915	25.1599	2.5643	0.2166	10.3334	1.7260	3.5411	0.2339	2.4898	0.2309	5.1588	0.7216	5.0806	0.7073	8.7315	0.7159	5.8959
2/28/2023 16:14	0123-099.4-2A 10X	32.1435	4.4702	32.7001	2.5512	0.1684	17.5672	1.7481	2.0026	0.1953	5.9047	0.2038	7.2186	0.7534	4.9535	0.7222	2.8009	0.7321	0.9558
2/28/2023 16:17	0123-099.5-2A 10X	10.7738	8.7396	11.1986	9.2218	0.0467	19.1125	1.1447	3.8974	0.1107	2.1665	0.1126	9.9263	0.5234	1.5364	0.4997	3.4631	0.5046	2.0533
2/28/2023 16:20	0123-099.6-2A 10X	20.7634	3.2929	21.2151	3.7423	0.0952	15.7342	1.3344	0.8796	0.0891	7.5253	0.0992	10.5164	0.4699	4.9359	0.4320	6.7405	0.4617	3.6878
2/28/2023 16:23	0123-099.7-2A 10X	17.2352	5.0723	17.4647	6.3326	0.0403	21.6300	1.2484	1.1294	0.0608	14.3025	0.0640	13.9528	0.4510	3.8862	0.4327	1.2589	0.4448	0.9729
2/28/2023 16:27	CCV	47.8243	2.5123	47.3028	3.1513	48.9434	1.4445	48.8624	1.1556	46.0545	1.3605	45.1881	0.4278	52.5184	0.6276	47.6795	0.8106	50.7042	0.4206
2/28/2023 16:30	CCB	0.5630	77.5882	0.0393	543.3468	0.2509	4.7076	0.2387	7.4221	0.1972	1.2597	0.1966	11.3437	0.2556	1.8777	0.2336	6.0367	0.2409	4.6349

		7 Li (ISTD) [tune 1]		72 Ge (ISTD) [tune 1]		89 Y (ISTD) [tune 1]		115 In (ISTD) [tune 1]		159 Tb (ISTD) [tune 1]		165 Ho (ISTD) [tune 1]		209 Bi (ISTD) [tune 1]	
Acq. Date-Time	Sample Name	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %
2/28/2023 11:28	CalBlk	2225538.90	100.00	720900.84	100.00	5089511.41	100.00	4570145.22	100.00	6257897.52	100.00	5920962.11	100.00	3489547.63	100.00
2/28/2023 11:32	1 ppb	2202925.69	98.98	709408.25	98.41	4912676.25	96.53	4555080.68	99.67	6224513.41	99.47	5931790.38	100.18	3453879.88	98.98
2/28/2023 11:35	5 ppb	2198792.83	98.80	714136.74	99.06	4948368.20	97.23	4629845.66	101.31	6199315.40	99.06	5824651.06	98.37	3487984.42	99.96
2/28/2023 11:38	10 ppb	2134922.63	95.93	715280.80	99.22	4962509.89	97.50	4555875.64	99.69	6335282.14	101.24	5941818.59	100.35	3531956.03	101.22
2/28/2023 11:42	50 ppb	2218487.58	99.68	736407.37	102.15	4990767.10	98.06	4527270.25	99.06	6292972.86	100.56	5824322.45	98.37	3548807.51	101.70
2/28/2023 11:45	100 ppb	2203170.57	98.99	717207.08	99.49	4998344.73	98.21	4569429.42	99.98	6134465.81	98.03	5722168.69	96.64	3505481.22	100.46
2/28/2023 11:48	ICV	2176587.73	97.80	746366.48	103.53	5002205.15	98.28	4609596.86	100.86	6402505.20	102.31	5915248.11	99.90	3498955.76	100.27
2/28/2023 11:51	ICB	2263265.08	101.70	725933.44	100.70	5155527.22	101.30	4631666.43	101.35	6603165.28	105.52	6021415.94	101.70	3599361.92	103.15
2/28/2023 11:54	ICSA	2019968.44	90.76	726361.18	100.76	4707414.96	92.49	4279197.45	93.63	5807474.72	92.80	5648556.80	95.40	3112303.91	89.19
2/28/2023 11:57	ICSAB	1900718.21	85.40	714681.65	99.14	4680457.48	91.96	4139102.02	90.57	5961803.42	95.27	5571130.73	94.09	3138735.60	89.95
2/28/2023 13:34	ICV	2120585.22	95.28	659643.89	91.50	4745043.52	93.23	4359328.99	95.39	6100797.46	97.49	5710611.92	96.45	3468737.83	99.40
2/28/2023 13:37	ICB	2033775.20	91.38	654240.45	90.75	4707167.94	92.49	4269794.15	93.43	5853919.76	93.54	5538660.44	93.54	3320516.52	95.16
2/28/2023 13:40	0123-099.LB-1A	2131922.47	95.79	702377.26	97.43	5206283.60	102.29	4890649.15	107.01	6817255.87	108.94	6450773.31	108.95	3706953.25	106.23
2/28/2023 13:44	0123-099.LCS-1A 2X	2142596.37	96.27	717826.55	99.57	5102691.16	100.26	4617376.50	101.03	6735223.79	107.63	6330220.10	106.91	3667800.43	105.11
2/28/2023 13:47	0123-099.1-1A 5X	2103278.36	94.51	679148.97	94.21	4882833.34	95.94	4373513.63	95.70	6204516.95	99.15	5777895.40	97.58	3491125.22	100.05
2/28/2023 13:50	0123-099.1-1A MS 5X	2106880.53	94.67	691193.91	95.88	4967955.85	97.61	4477101.65	97.96	6325646.41	101.08	5982374.30	101.04	3573704.67	102.41
2/28/2023 13:53	0123-099.2-1A 5X	2083226.41	93.61	697541.96	96.76	4959468.46	97.44	4499673.89	98.46	6413206.94	102.48	6073857.08	102.58	3604883.45	103.31
2/28/2023 13:56	0123-099.2-1A DUP 5X	2042030.66	91.75	689157.89	95.60	4967553.05	97.60	4325263.97	94.64	6370599.18	101.80	5811322.89	98.15	3552364.24	101.80
2/28/2023 13:59	0123-099.3-1A 5X	1983272.90	89.11	677685.18	94.01	4852002.51	95.33	4371303.76	95.65	6365610.75	101.72	5957246.57	100.61	3553482.86	101.83
2/28/2023 14:02	0123-009.4-1A 5X	1906493.96	85.66	653248.42	90.62	4823017.48	94.76	4304524.40	94.19	6197482.00	99.03	5922790.60	100.03	3415745.34	97.89
2/28/2023 14:06	CCV	1839460.32	82.65	620899.41	86.13	4400354.78	86.46	4038863.17	88.37	5658063.23	90.41	5385036.83	90.95	3264440.47	93.55
2/28/2023 14:09	CCB	1832000.82	82.32	613060.15	85.04	4350079.25	85.47	4060852.68	88.86	5715977.34	91.34	5450534.77	92.05	3318121.49	95.09
2/28/2023 14:12	0123-099.5-1A 5X	1934791.14	86.94	649278.09	90.06	4726300.67	92.86	4329694.56	94.74	6084084.02	97.22	5712454.65	96.48	3479192.92	99.70
2/28/2023 14:15	0123-099.6-1A 5X	1933576.81	86.88	657888.66	91.26	4760224.95	93.53	4343633.98	95.04	6281461.08	100.38	5925190.50	100.07	3541478.88	101.49
2/28/2023 14:18	0123-099.7-1A 5X	1917167.92	86.14	641475.98	88.98	4701305.88	92.37	4321481.40	94.56	6155812.26	98.37	5804951.62	98.04	3461323.18	99.19
2/28/2023 14:21	0123-099.8-1A 5X	1771630.74	79.60	617983.19	85.72	4505727.96	88.53	4180410.11	91.47	6037241.04	96.47	5720611.66	96.62	3333366.66	95.52
2/28/2023 14:25	CCV	1762436.45	79.19	583448.69	80.93	4217969.64	82.88	3941717.54	86.25	5436639.31	86.88	5124702.65	86.55	3202412.72	91.77
2/28/2023 14:28	CCB	1714342.46	77.03	579239.13	80.35	4139917.79	81.34	3879811.15	84.89	5468659.09	87.39	5230056.33	88.33	3143970.34	90.10
2/28/2023 14:49	0123-099.LB-2A	1905157.16	85.60	630083.27	87.40	4730719.98	92.95	4314064.30	94.40	6035194.52	96.44	5654699.40	95.50	3406265.44	97.61
2/28/2023 14:52	0123-099.LCS-2A 2X	1868584.09	83.96	632519.24	87.74	4591721.40	90.22	4208303.79	92.08	6018282.19	96.17	5627257.53	95.04	3286282.94	94.18
2/28/2023 14:55	0123-099.1-2A	1976303.19	88.80	734208.53	101.85	4680795.37	91.97	4200913.36	91.92	5956075.92	95.18	5543845.94	93.63	3182033.17	91.19
2/28/2023 14:58	0123-099.1-2A MS	1919759.86	86.26	714549.99	99.12	4390398.53	86.26	4026112.81	88.10	5732463.35	91.60	5334667.14	90.10	3127491.73	89.62
2/28/2023 15:01	0123-099.2-2A	1921015.01	86.32	693890.51	96.25	4573537.49	89.86	4111832.67	89.97	5889677.18	94.12	5549217.20	93.72	3121267.41	89.45
2/28/2023 15:04	0123-099.2-2A DUP	1949312.23	87.59	707509.59	98.14	4574486.41	89.88	4133121.31	90.44	5766757.02	92.15	5418907.15	91.52	3164149.09	90.68
2/28/2023 15:08	0123-099.3-2A	1905595.95	85.62	680659.45	94.42	4461080.45	87.65	4002719.74	87.58	5859306.08	93.63	5527903.59	93.36	3189146.67	91.39
2/28/2023 15:11	0123-099.4-2A	1848317.87	83.05	674326.54	93.54	4379545.33	86.05	3907726.87	85.51	5672204.25	90.64	5310525.13	89.69	3101389.85	88.88
2/28/2023 15:14	CCV	1845766.72	82.94	579559.66	80.39	4079348.01	80.15	3780796.16	82.73	5364669.43	85.73	4977436.01	84.06	3049817.13	87.40
2/28/2023 15:17	CCB	1791335.71	80.49	565282.44	78.41	4072381.22	80.02	3772539.37	82.55	5336117.44	85.27	4930466.18	83.27	3014479.27	86.39
2/28/2023 15:20	0123-099.5-2A	1786845.73	80.29	661508.53	91.76	4341695.66	85.31	3897722.08	85.29	5526303.30	88.31	5222027.99	88.20	3051968.40	87.46
2/28/2023 15:23	0123-099.6-2A	1807520.11	81.22	668847.61	92.78	4318663.56	84.85	3909151.17	85.54	5631429.88	89.99	5214999.56	88.08	3039491.16	87.10
2/28/2023 15:27	0123-099.7-2A	1762936.49	79.21	660151.20	91.57	4417810.83	86.80	3884607.62	85.00	5473576.56	87.47	5206585.57	87.93	3056901.93	87.60
2/28/2023 15:30	0123-099.8-2A	1999875.70	89.86	604141.72	83.80	4520714.51	88.82	4147426.97	90.75	6090450.96	97.32	5807737.27	98.09	3244692.00	92.98
2/28/2023 15:33	CCV	1807591.55	81.22	565135.90	78.39	4041095.46	79.40	3808262.73	83.33	5361741.76	85.68	4971136.33	83.96	3102809.68	88.92
2/28/2023 15:36	CCB	1817459.34	81.66	566055.08	78.52	4144220.01	81.43	3740882.19	81.85	5244250.63	83.80	4981007.34	84.12	2996724.25	85.88
2/28/2023 16:04	0123-099.1-2A 10X	1913759.58	85.99	598066.82	82.96	4316739.87	84.82	4001407.82	87.56	5723396.11	91.46	5408336.17	91.34	3159903.93	90.55
2/28/2023 16:08	0123-099.1-2A MS 20X	1822184.02	81.88	592974.03	82.25	4215162.10	82.82	3830296.56	83.81	5398622.08	86.27	5092218.03	86.00	3123791.57	89.52
2/28/2023 16:11	0123-099.3-2A 10X	1944822.18	87.39	625069.27	86.71	4493068.17	88.28	4150309.10	90.81	5876005.22	93.90	5600429.76	94.59	3295146.02	94.43
2/28/2023 16:14	0123-099.4-2A 10X	1866614.60	83.87	613987.00	85.17	4269089.93	83.88	3966103.61	86.78	5687297.41	90.88	5384451.19	90.94	3190423.10	91.43
2/28/2023 16:17	0123-099.5-2A 10X	1874492.51	84.23	608779.88	84.45	4324161.72	84.96	4097010.78	89.65	5580621.68	89.18	5336595.63	90.13	3194008.43	91.53
2/28/2023 16:20	0123-099.6-2A 10X	1856767.20	83.43	596690.64	82.77	4287650.83	84.24	3976126.78	87.00	5714215.05	91.31	5388593.98	91.01	3190207.94	91.42
2/28/2023 16:23	0123-099.7-2A 10X	1816877.67	81.64	612085.87	84.91	4181913.64	82.17	4023406.96	88.04	5503734.48	87.95	5248184.30	88.64	3123447.40	89.51
2/28/2023 16:27	CCV	1762201.75	79.18	562751.22	78.06	4121187.97	80.97	3772830.26	82.55	5312653.35	84.90	5019506.05	84.78	3023528.81	86.65
2/28/2023 16:30	CCB	1814163.25	81.52	575055.26	79.77	4049453.01	79.56	3739452.74	81.82	5301553.66	84.72	5015577.69	84.71	3009101.08	86.23

Calibration for 054SMPL.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\2023\0123-099 022823.b\
Analysis File: 0123-099 022823.batch.bin
DA Date-Time: 2/28/2023 4:30:26 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

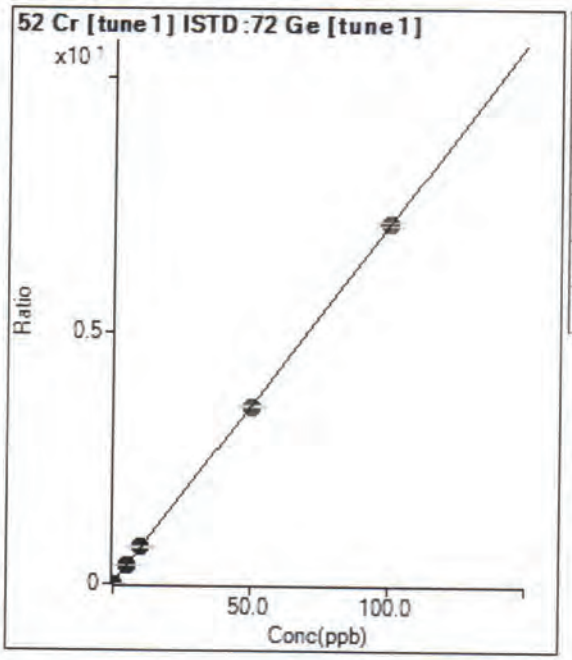
Level	Standard Data File	Sample Name	Acq. Date-Time
1	001CALB.d	CalBlk	2/28/2023 11:28:50 AM
2	002CALS.d	1 ppb	2/28/2023 11:32:19 AM
3	003CALS.d	5 ppb	2/28/2023 11:35:35 AM
4	004CALS.d	10 ppb	2/28/2023 11:38:49 AM
5	005CALS.d	50 ppb	2/28/2023 11:42:06 AM
6	006CALS.d	100 ppb	2/28/2023 11:45:18 AM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.37	0.0000	P	35.8
2	☐	1.000	1.018	11416.00	0.0052	P	0.8
3	☐	5.000	4.976	55528.18	0.0253	P	3.5
4	☐	10.000	10.469	113443.76	0.0531	P	2.4
5	☐	50.000	50.020	563083.75	0.2539	P	2.2
6	☐	100.000	99.944	1117358.44	0.5072	A	1.5

y = 0.0051 * x + 1.5051E-005
R = 1.0000
DL = 0.003185
BEC = 0.002966

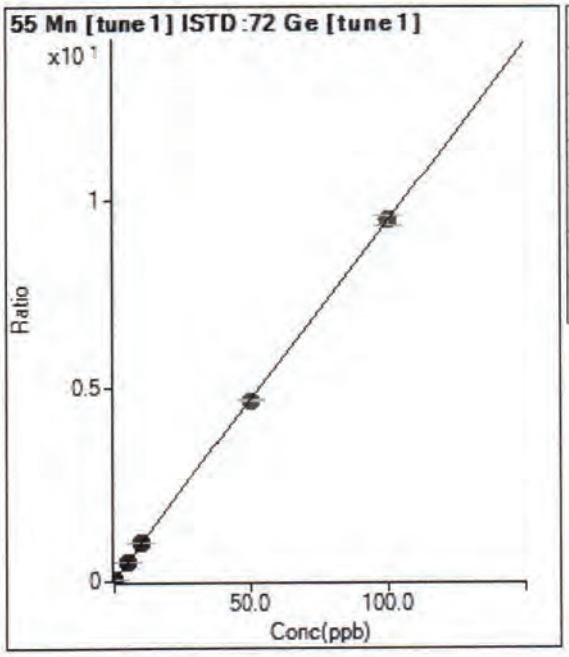
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8634.68	0.0120	P	2.9
2	☐			60624.10	0.0855	P	2.0
3	☐	5.000	5.262	276439.76	0.3871	P	0.5
4	☐	10.000	10.313	534467.76	0.7472	P	2.7
5	☐	50.000	49.417	2603408.73	3.5351	A	1.3
6	☐	100.000	100.247	5134574.76	7.1590	A	1.1

y = 0.0713 * x + 0.0120
R = 1.0000
DL = 0.01444
BEC = 0.168

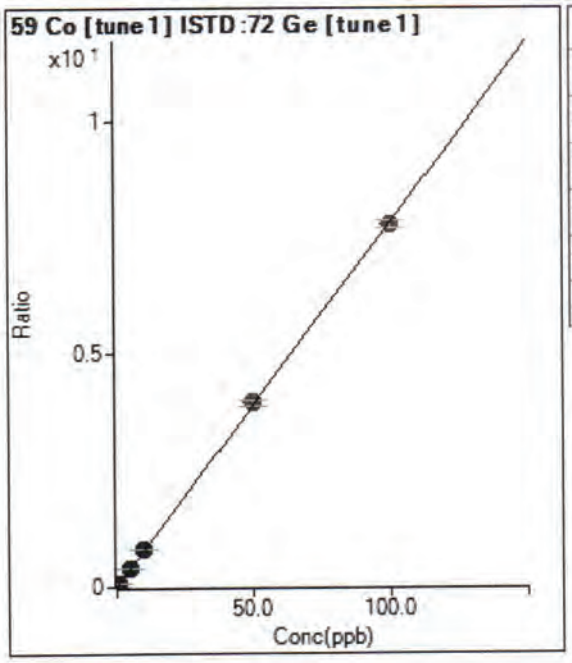
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23249.31	0.0323	P	3.2
2	☐			89640.19	0.1264	P	2.0
3	☐	5.000	5.189	371742.61	0.5206	P	1.5
4	☐	10.000	10.291	715828.15	1.0008	P	1.6
5	☐	50.000	49.372	3445550.56	4.6789	A	1.2
6	☐	100.000	100.275	6789806.65	9.4695	A	2.8

y = 0.0941 * x + 0.0323
R = 1.0000
DL = 0.03284
BEC = 0.3427

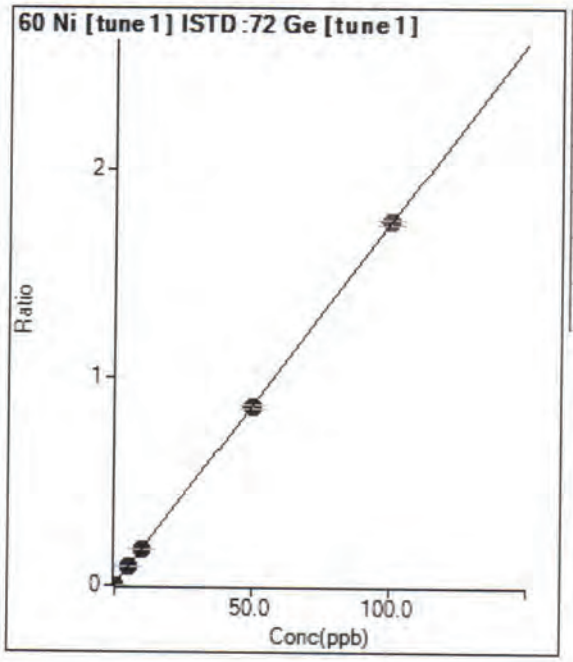
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	780.81	0.0011	P	10.0
2	☐	1.000	1.029	57759.42	0.0814	P	1.7
3	☐	5.000	5.219	291755.49	0.4086	P	0.9
4	☐	10.000	10.465	585176.72	0.8181	P	1.7
5	☐	50.000	50.495	2904368.51	3.9435	A	3.8
6	☐	100.000	99.695	5582302.58	7.7847	A	2.1

y = 0.0781 * x + 0.0011
R = 1.0000
DL = 0.004175
BEC = 0.01387

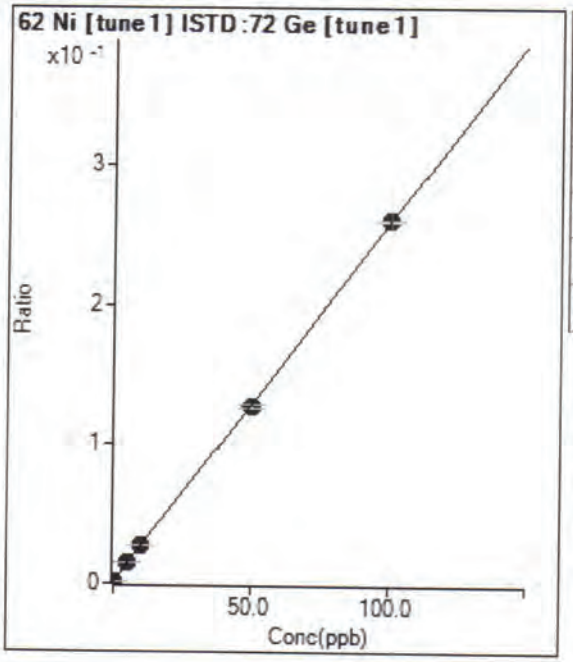
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1141.20	0.0016	P	6.8
2	☐			12945.69	0.0183	P	2.2
3	☐	5.000	5.140	64881.26	0.0909	P	1.9
4	☐	10.000	10.119	126850.18	0.1773	P	0.3
5	☐	50.000	49.377	632786.68	0.8592	P	1.6
6	☐	100.000	100.293	1250479.94	1.7436	A	1.3

y = 0.0174 * x + 0.0016
R = 1.0000
DL = 0.01863
BEC = 0.09113

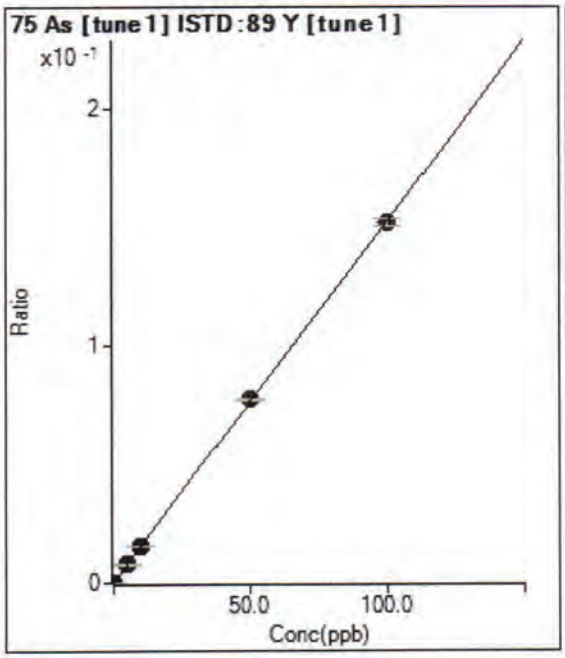
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	920.96	0.0013	P	8.5
2	☐			2786.43	0.0039	P	0.9
3	☐	5.000	5.236	10537.92	0.0148	P	3.1
4	☐	10.000	10.043	19409.63	0.0271	P	1.9
5	☐	50.000	49.222	94273.37	0.1280	P	1.2
6	☐	100.000	100.373	186266.82	0.2597	P	0.3

y = 0.0026 * x + 0.0013
R = 0.9999
DL = 0.1263
BEC = 0.4961

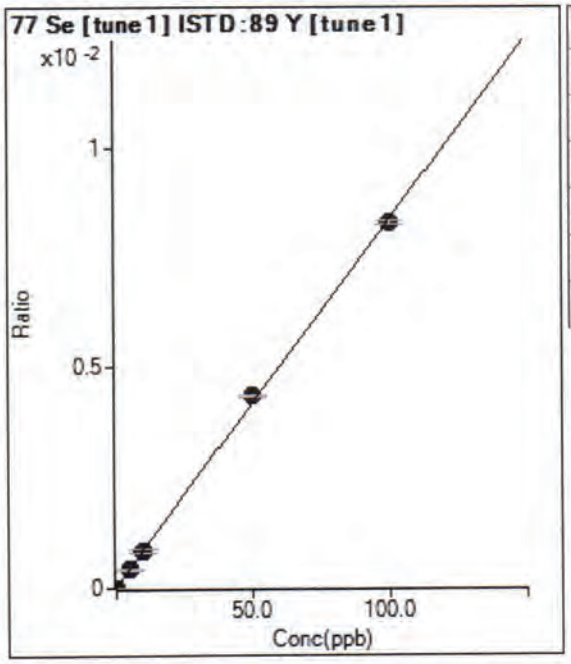
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.77	0.0000	P	22.0
2	☐			7536.30	0.0015	P	4.8
3	☐	5.000	5.075	38471.70	0.0078	P	3.1
4	☐	10.000	9.885	75043.62	0.0151	P	2.3
5	☐	50.000	50.631	386195.23	0.0774	P	1.1
6	☐	100.000	99.692	761339.77	0.1523	P	2.3

y = 0.0015 * x + 2.0993E-005
R = 1.0000
DL = 0.009082
BEC = 0.01374

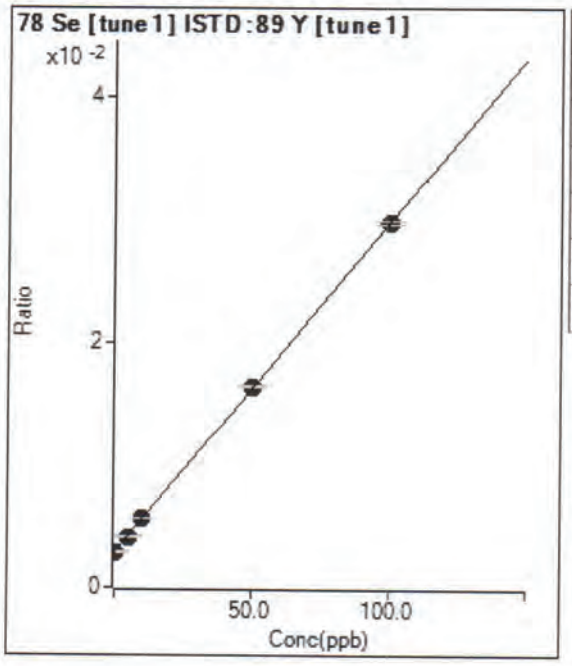
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.72	0.0000	P	21.2
2	☐			467.14	0.0001	P	7.8
3	☐	5.000	4.876	2072.25	0.0004	P	5.2
4	☐	10.000	9.885	4154.82	0.0008	P	7.4
5	☐	50.000	51.778	21655.36	0.0043	P	1.6
6	☐	100.000	99.129	41473.78	0.0083	P	1.2

y = 8.3597E-005 * x + 1.1157E-005
R = 0.9997
DL = 0.08486
BEC = 0.1335

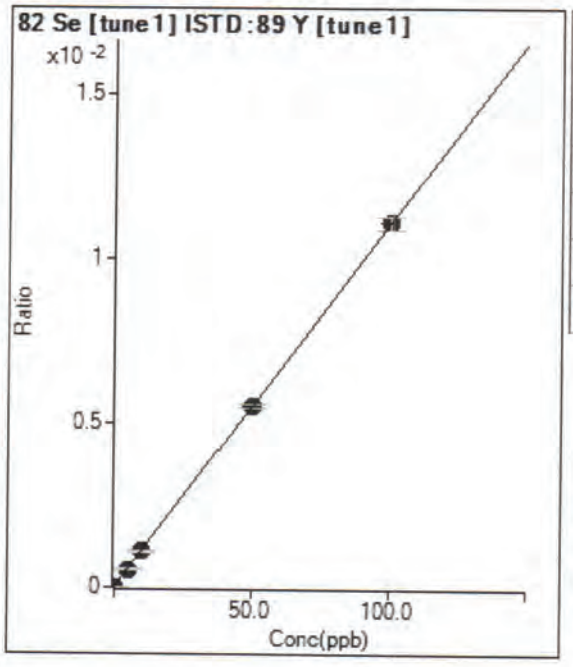
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14736.02	0.0029	P	3.3
2	☐			15450.85	0.0031	P	0.6
3	☐	5.000	4.690	20576.00	0.0042	P	1.9
4	☐	10.000	10.278	28093.41	0.0057	P	1.4
5	☐	50.000	50.449	82208.14	0.0165	P	0.8
6	☐	100.000	99.763	148667.07	0.0297	P	1.1

y = 2.6914E-004 * x + 0.0029
R = 1.0000
DL = 1.051
BEC = 10.76

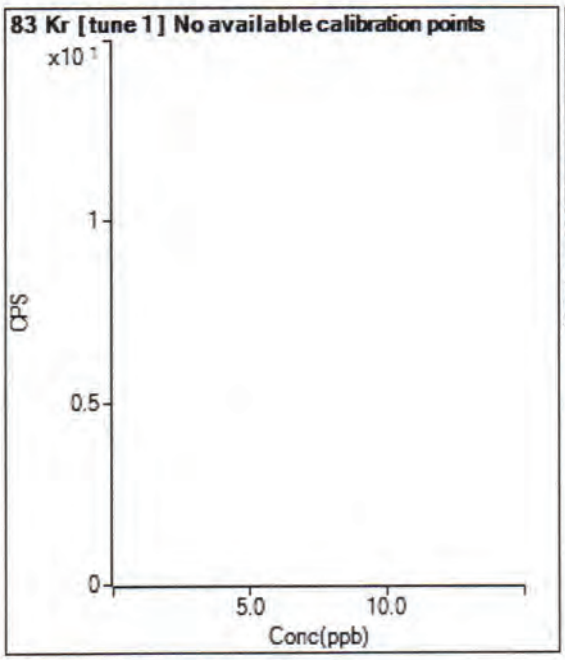
Weight: <None>
Min Conc: 0



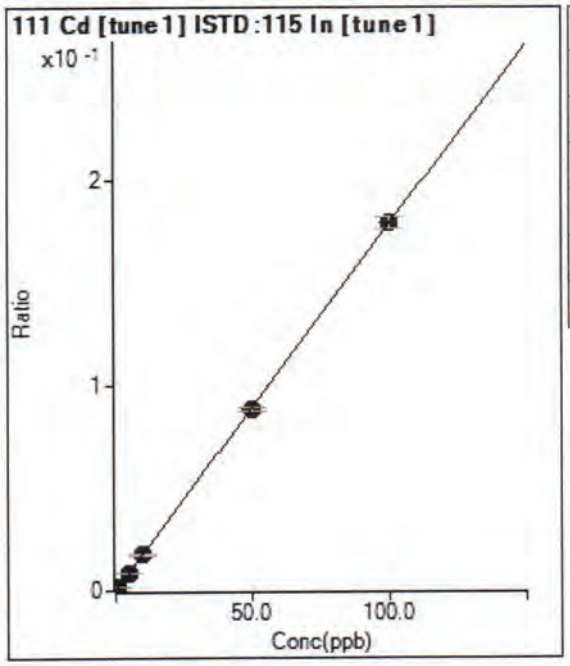
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.51	0.0000	P	122.8
2	☐			604.10	0.0001	P	9.3
3	☐	5.000	4.824	2722.87	0.0006	P	13.7
4	☐	10.000	9.777	5459.03	0.0011	P	6.1
5	☐	50.000	49.696	27551.68	0.0055	P	1.7
6	☐	100.000	100.183	55528.01	0.0111	P	3.4

y = 1.1075E-004 * x + 1.6955E-005
R = 1.0000
DL = 0.5639
BEC = 0.1531

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			457.14		P	21.0
2	☐			410.42		P	23.3
3	☐			457.14		P	19.1
4	☐			573.93		P	6.1
5	☐			587.27		P	27.1
6	☐			583.94		P	11.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.01	0.0000	P	100.7
2	☐	1.000	0.991	8057.20	0.0018	P	2.2
3	☐	5.000	4.878	40276.73	0.0087	P	0.7
4	☐	10.000	9.943	80752.71	0.0177	P	2.9
5	☐	50.000	49.404	398758.74	0.0881	P	1.5
6	☐	100.000	100.310	816885.14	0.1789	P	3.0

y = 0.0018 * x + 2.2027E-006

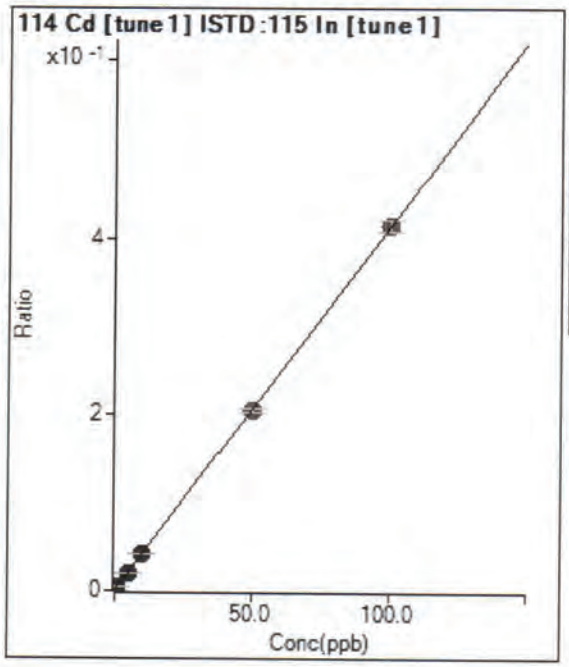
R = 1.0000

DL = 0.003734

BEC = 0.001235

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	128.19	0.0000	P	28.1
2	☐	1.000	0.989	18789.05	0.0041	P	0.9
3	☐	5.000	4.899	94035.75	0.0203	P	0.9
4	☐	10.000	10.030	189304.60	0.0416	P	0.7
5	☐	50.000	49.481	927443.00	0.2049	A	2.3
6	☐	100.000	100.261	1895691.15	0.4151	A	3.3

y = 0.0041 * x + 2.7998E-005

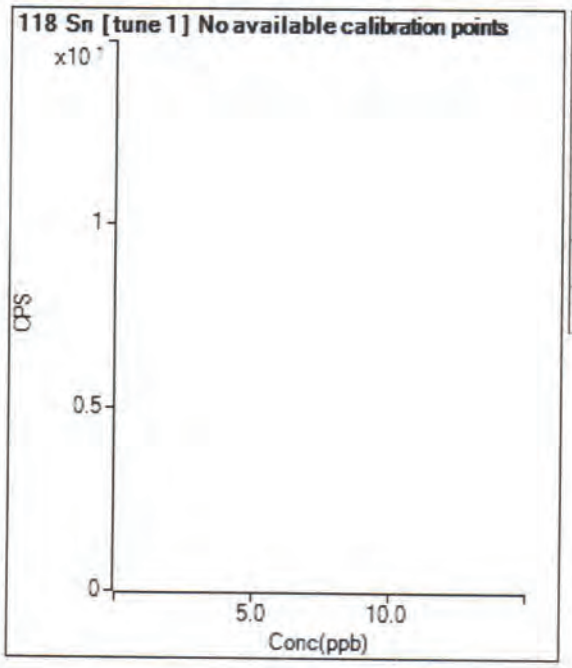
R = 1.0000

DL = 0.005699

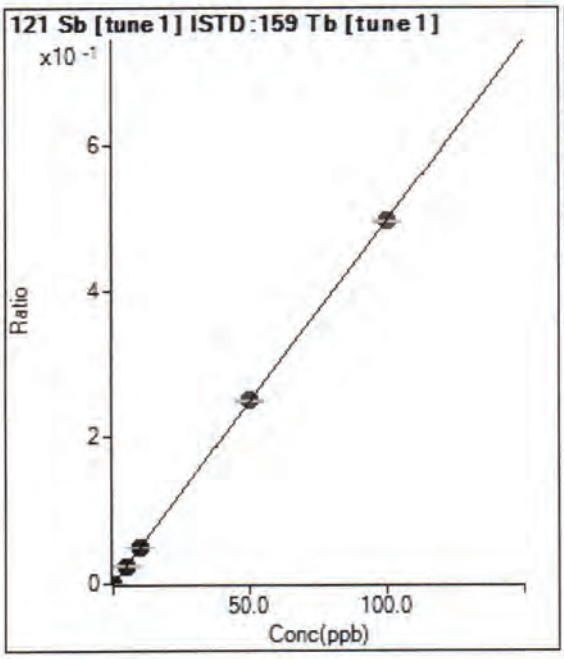
BEC = 0.006763

Weight: <None>

Min Conc: 0



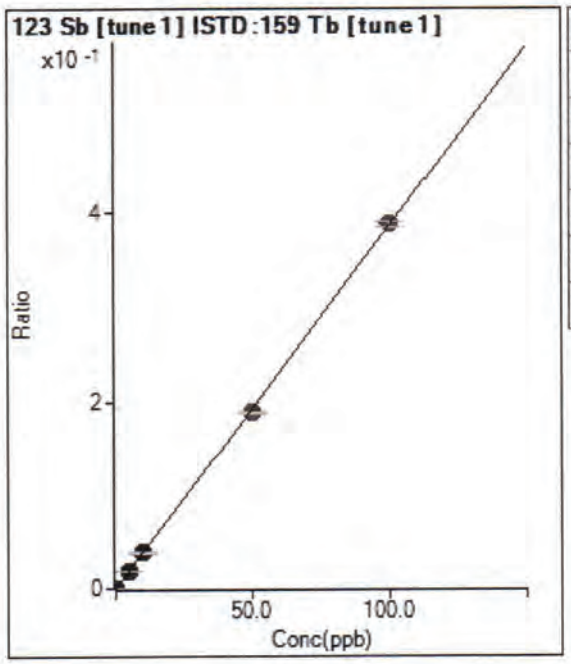
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1398.15		P	3.2
2	☐			1364.78		P	3.3
3	☐			1631.75		P	8.4
4	☐			16279.54		P	2.7
5	☐			1451.55		P	8.0
6	☐			1147.88		P	6.5



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	750.78	0.0001	P	10.1
2	☐			31645.59	0.0051	P	3.3
3	☐	5.000	5.001	154531.44	0.0249	P	1.6
4	☐	10.000	9.993	314750.42	0.0497	P	3.2
5	☐	50.000	50.155	1566824.49	0.2490	A	0.7
6	☐	100.000	99.923	3041860.66	0.4959	A	0.8

y = 0.0050 * x + 1.1994E-004
R = 1.0000
DL = 0.007325
BEC = 0.02417

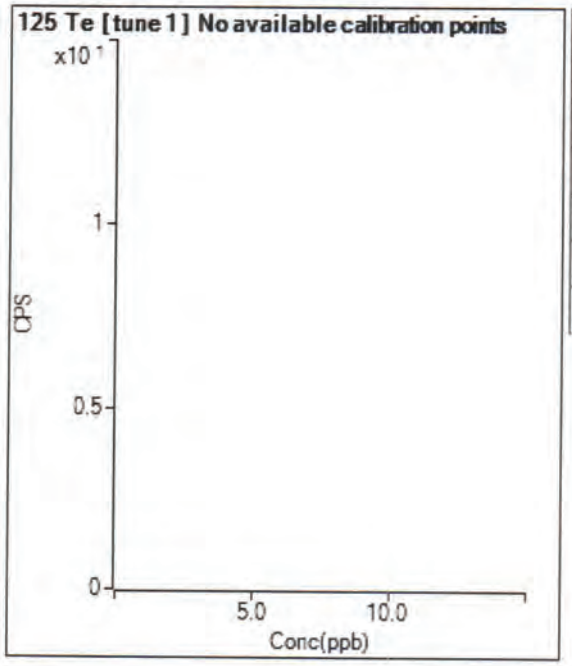
Weight: <None>
Min Conc: 0



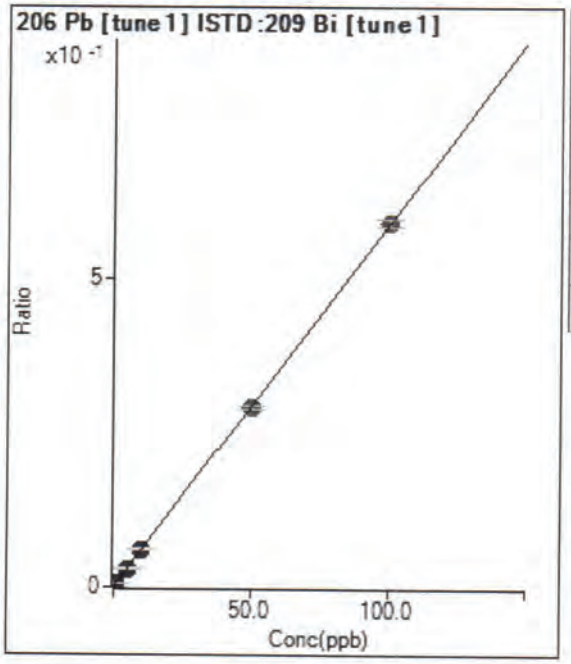
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	506.77	0.0001	P	23.1
2	☐			24499.40	0.0039	P	4.7
3	☐	5.000	4.907	117585.92	0.0190	P	3.8
4	☐	10.000	9.888	241683.50	0.0382	P	2.3
5	☐	50.000	48.914	1185884.42	0.1884	A	1.0
6	☐	100.000	100.559	2375787.49	0.3873	A	1.7

y = 0.0039 * x + 8.1079E-005
R = 0.9999
DL = 0.01459
BEC = 0.02105

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			3.34		P	173.2
2	☐			6.67		P	173.2
3	☐			10.01		P	100.0
4	☐			0.00		P	
5	☐			13.35		P	173.2
6	☐			43.38		P	66.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.81	0.0000	P	43.0
2	☐	1.000	1.053	21580.03	0.0063	P	2.3
3	☐	5.000	5.039	103786.14	0.0298	P	2.1
4	☐	10.000	10.290	214423.34	0.0607	P	3.1
5	☐	50.000	49.438	1034771.18	0.2916	A	2.1
6	☐	100.000	100.249	2072912.52	0.5913	A	2.0

y = 0.0059 * x + 4.2200E-005

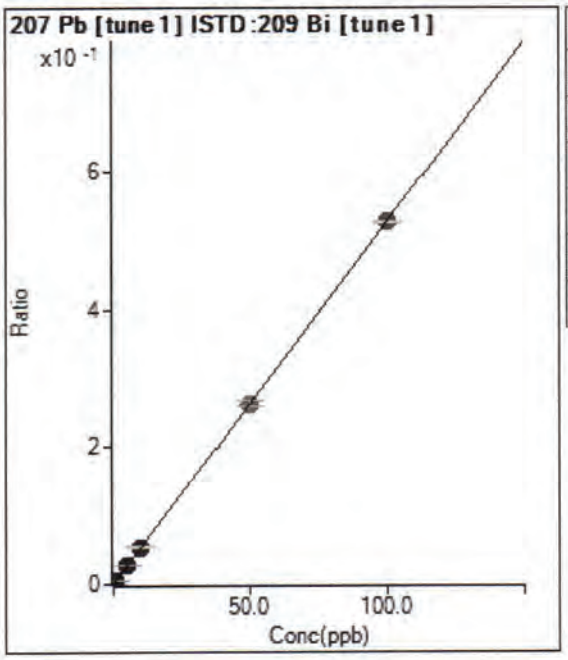
R = 1.0000

DL = 0.009226

BEC = 0.007155

Weight: <None>

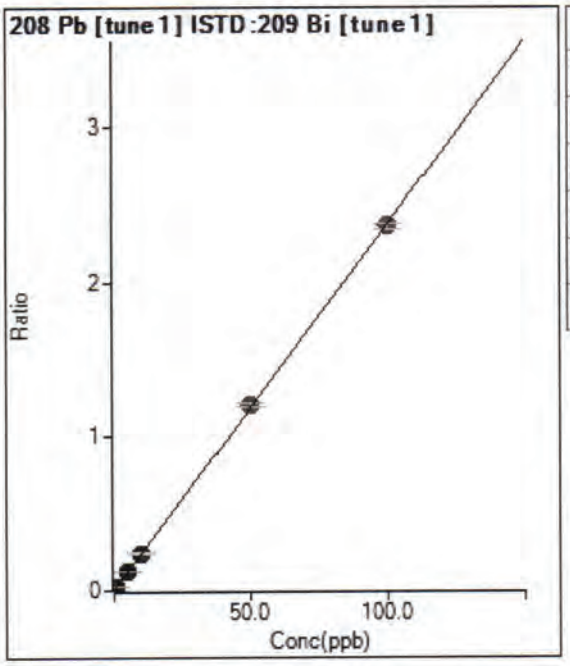
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	126.79	0.0000	P	25.1
2	☐	1.000	1.046	19140.26	0.0055	P	5.1
3	☐	5.000	5.113	94021.56	0.0270	P	1.2
4	☐	10.000	10.243	190565.44	0.0540	P	2.7
5	☐	50.000	49.999	934305.20	0.2633	M	2.5
6	☐	100.000	99.970	1845420.93	0.5265	A	0.8

y = 0.0053 * x + 3.6329E-005
R = 1.0000
DL = 0.005186
BEC = 0.006899

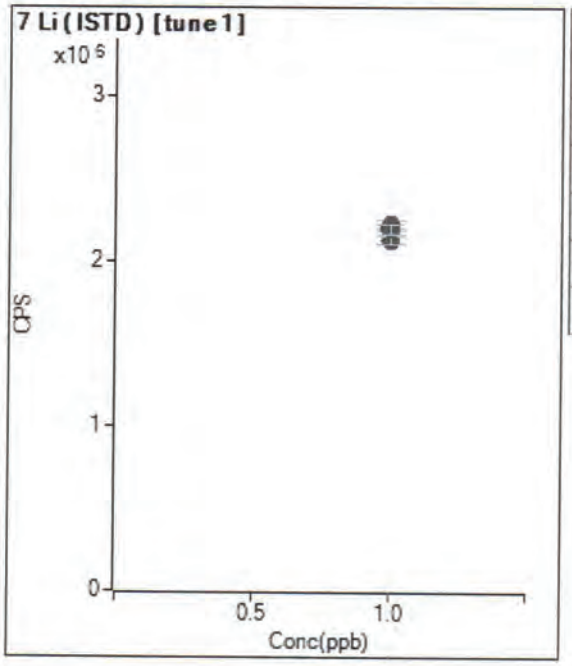
Weight: <None>
Min Conc: 0



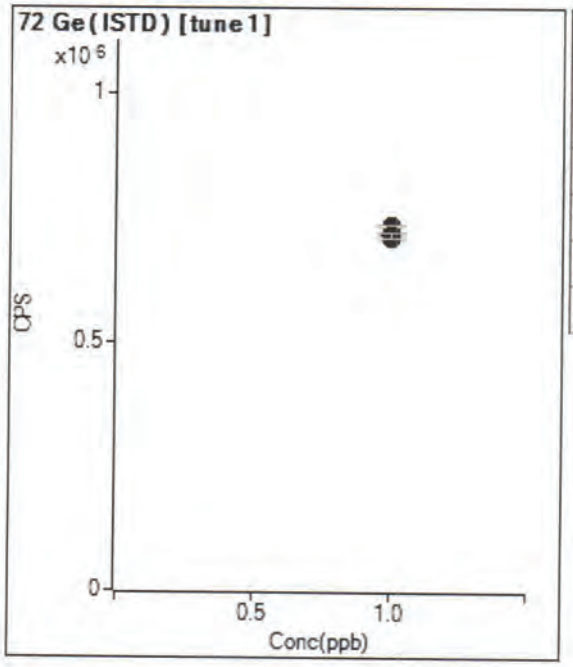
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	580.59	0.0002	P	19.4
2	☐	1.000	1.038	85607.42	0.0248	P	3.2
3	☐	5.000	5.091	421950.72	0.1210	P	1.6
4	☐	10.000	10.258	860185.59	0.2436	P	2.4
5	☐	50.000	50.560	4258692.67	1.2002	A	1.9
6	☐	100.000	99.689	8295226.23	2.3663	A	1.5

y = 0.0237 * x + 1.6639E-004
R = 1.0000
DL = 0.004081
BEC = 0.00701

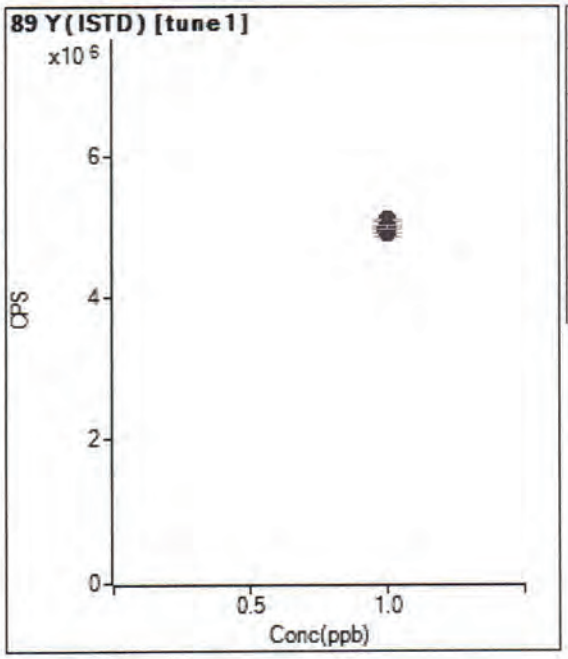
Weight: <None>
Min Conc: 0



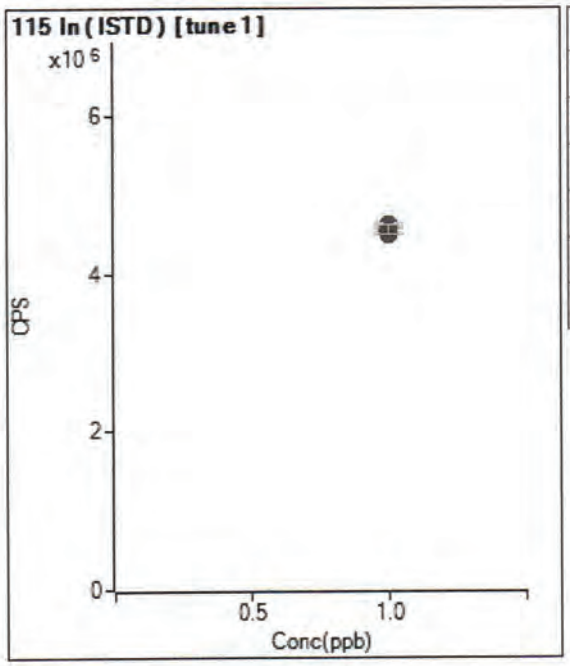
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2225538.90		A	2.0
2	☐	1.000		2202925.69		A	0.3
3	☐	1.000		2198792.83		A	2.3
4	☐	1.000		2134922.63		A	2.3
5	☐	1.000		2218487.58		A	1.2
6	☐	1.000		2203170.57		A	2.5



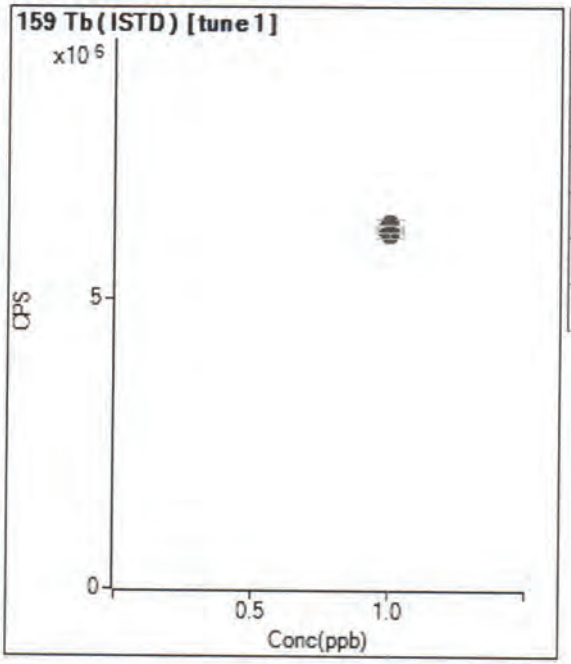
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		720900.84		P	0.2
2	☐	1.000		709408.25		P	1.0
3	☐	1.000		714136.74		P	1.8
4	☐	1.000		715280.80		P	0.3
5	☐	1.000		736407.37		P	0.6
6	☐	1.000		717207.08		P	1.6



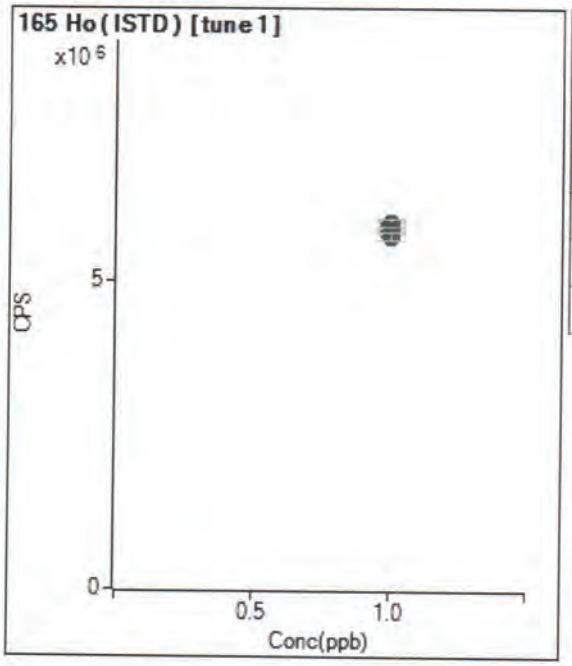
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5089511.41		A	0.8
2	☐	1.000		4912676.25		A	2.5
3	☐	1.000		4948368.20		A	1.9
4	☐	1.000		4962509.89		A	1.6
5	☐	1.000		4990767.10		A	1.5
6	☐	1.000		4998344.73		A	1.2



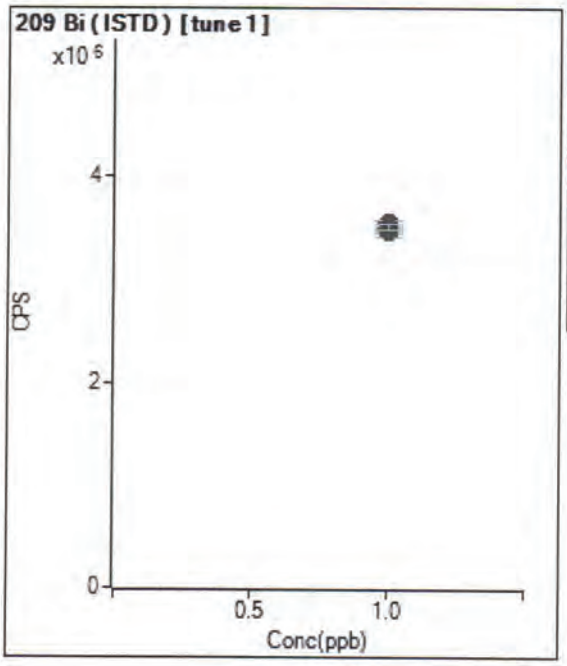
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4570145.22		A	1.1
2	☐	1.000		4555080.68		A	2.2
3	☐	1.000		4629845.66		A	1.1
4	☐	1.000		4555875.64		A	2.0
5	☐	1.000		4527270.25		A	1.0
6	☐	1.000		4569429.42		A	2.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6257897.52		A	1.0
2	☐	1.000		6224513.41		A	0.8
3	☐	1.000		6199315.40		A	2.1
4	☐	1.000		6335282.14		A	2.2
5	☐	1.000		6292972.86		A	0.2
6	☐	1.000		6134465.81		A	1.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5920962.11		A	1.4
2	☐	1.000		5931790.38		A	2.0
3	☐	1.000		5824651.06		A	0.6
4	☐	1.000		5941818.59		A	2.2
5	☐	1.000		5824322.45		A	1.9
6	☐	1.000		5722168.69		A	2.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3489547.63		A	2.7
2	☐	1.000		3453879.88		A	2.7
3	☐	1.000		3487984.42		A	1.6
4	☐	1.000		3531956.03		A	2.7
5	☐	1.000		3548807.51		A	1.3
6	☐	1.000		3505481.22		A	1.5

Location:_____ Drawer:_____ Analyst: KAH

Cabinet:_____ Folder:_____ Date: 2/28/23

Job #s	Describe Work Documented on This Page
0123-099	ICP-MS Analysis

IGIA-Analytical Sequence

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

N/A

Reviewer's Initials & Date:

ICPMS-X
page 161

ENTHALPY ANALYTICAL

161A

Acq. Date-Time	Sample Name
2/28/2023 11:28	CalBlk
2/28/2023 11:32	1 ppb
2/28/2023 11:35	5 ppb
2/28/2023 11:38	10 ppb
2/28/2023 11:42	50 ppb
2/28/2023 11:45	100 ppb
2/28/2023 11:48	ICV
2/28/2023 11:51	ICB
2/28/2023 11:54	ICSA
2/28/2023 11:57	ICSAB
2/28/2023 13:34	ICV
2/28/2023 13:37	ICB
2/28/2023 13:40	0123-099.LB-1A
2/28/2023 13:44	0123-099.LCS-1A 2X
2/28/2023 13:47	0123-099.1-1A 5X
2/28/2023 13:50	0123-099.1-1A MS 5X
2/28/2023 13:53	0123-099.2-1A 5X
2/28/2023 13:56	0123-099.2-1A DUP 5X
2/28/2023 13:59	0123-099.3-1A 5X
2/28/2023 14:02	0123-009.4-1A 5X
2/28/2023 14:06	CCV
2/28/2023 14:09	CCB
2/28/2023 14:12	0123-099.5-1A 5X
2/28/2023 14:15	0123-099.6-1A 5X
2/28/2023 14:18	0123-099.7-1A 5X
2/28/2023 14:21	0123-099.8-1A 5X
2/28/2023 14:25	CCV
2/28/2023 14:28	CCB
2/28/2023 14:49	0123-099.LB-2A
2/28/2023 14:52	0123-099.LCS-2A 2X
2/28/2023 14:55	0123-099.1-2A
2/28/2023 14:58	0123-099.1-2A MS
2/28/2023 15:01	0123-099.2-2A
2/28/2023 15:04	0123-099.2-2A DUP
2/28/2023 15:08	0123-099.3-2A
2/28/2023 15:11	0123-099.4-2A
2/28/2023 15:14	CCV
2/28/2023 15:17	CCB
2/28/2023 15:20	0123-099.5-2A
2/28/2023 15:23	0123-099.6-2A
2/28/2023 15:27	0123-099.7-2A
2/28/2023 15:30	0123-099.8-2A
2/28/2023 15:33	CCV
2/28/2023 15:36	CCB
2/28/2023 16:04	0123-099.1-2A 10X
2/28/2023 16:08	0123-099.1-2A MS 20X
2/28/2023 16:11	0123-099.3-2A 10X
2/28/2023 16:14	0123-099.4-2A 10X
2/28/2023 16:17	0123-099.5-2A 10X
2/28/2023 16:20	0123-099.6-2A 10X
2/28/2023 16:23	0123-099.7-2A 10X
2/28/2023 16:27	CCV
2/28/2023 16:30	CCB

1.00 validated 12/10/08 VR

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

TRC Report 508369

446 of 2048

Date Analyzed	2/3/23
Analyst	KAH
Date Reviewed	2/15/23
Reviewed By	AMC
Instrument	X - FRONT HALF (-1A)
Logbook Page	
Injector (F,R,NA)	
Column	
Injector (F,R,NA)	
Column	
Job #(s)	
Applicable Method(s)	29, 6020
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

Compound #	1		2		3		4		5		6		7	
Compound Name	Be 9		V 51		Cr 52		Mn 55		Co 59		Ni 60		Ni 62	
Notes (if needed)														
Units		ppb		ppb		ppb		ppb		ppb		ppb		ppb
Test Std Concentrations	#1	1.02000	#1	5.06110	#1	5.28980	#1	5.03060	#1	1.09550	#1	4.98750	#1	4.88670
	#2	0.97600	#2	5.25530	#2	5.62950	#2	5.13720	#2	1.10220	#2	5.10580	#2	4.86630
	#3	1.00780	#3	5.23730	#3	5.39820	#3	8.67000	#3	1.11020	#3	5.60630	#3	5.39220
	#4	0.99290	#4	5.19850	#4	5.25870	#4	4.95930	#4	1.05580	#4	5.21400	#4	5.23630
	#5	0.98220	#5	4.93330	#5	5.19150	#5	4.92090	#5	1.01610	#5	4.95910	#5	4.82170
	#6	1.07090	#6	4.97690	#6	5.20480	#6	4.94730	#6	1.02980	#6	4.99240	#6	4.89490
	#7	0.95370	#7	5.07940	#7	5.25950	#7	5.07750	#7	1.07650	#7	5.18480	#7	4.97500
	#8	0.98400	#8	5.14340	#8	5.36300	#8	4.94470	#8	1.02430	#8	5.32370	#8	5.24080
!! Remove extra zeros !!	#9		#9		#9		#9		#9		#9		#9	
	#10		#10		#10		#10		#10		#10		#10	
Standard Deviation		0.0355		0.1186		0.1423		1.2988		0.0375		0.2170		0.2170
Student's T factor		2.998		2.998		2.998		2.998		2.998		2.998		2.998
Calculated MDL = StDev * t		0.106		0.356		0.427		3.894		0.112		0.651		0.650
Concentration of Std		1.000		5.000		5.000		5.000		1.000		5.000		5.000
Lowest Part 136 App B value*		0.100		0.500		0.500		0.500		0.100		0.500		0.500
MDL value <1/10 Std Value?		Pass		**<1/10 Conc of Std**		**<1/10 Conc of Std**		Pass		Pass		Pass		Pass
MDL to Use		**0.10636**		**0.50000**		**0.50000**		**3.89389**		**0.11246**		**0.65051**		**0.65045**
	100.1%	2.3%	103.7%	2.1%	108.8%	3.2%	125.6%	33.0%	110.3%	0.7%	104.7%	6.3%	101.0%	5.9%
								Reprep LOQ.						

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

	8	9	10	11	12	13	14	15	
	Cu 63	Cu 65	Zn 66	Zn 68	As 75	Se 77	Se 78	Se 82	
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
#1	4.96040	5.06950			6.13670	4.96360	4.33920	5.36710	#1
#2	5.26170	5.28120			6.23660	5.21630	4.65430	5.45310	#2
#3	5.18940	5.24810			5.72080	5.53940	4.48170	5.50840	#3
#4	5.21950	5.13870			5.19440	5.40480	4.55390	5.10280	#4
#5	4.93760	5.02380			5.29240	5.03490	4.09110	5.46890	#5
#6	4.79220	4.89580			4.98980	5.22280	4.35280	5.20410	#6
#7	5.01150	4.92170			4.85660	5.21800	4.31850	4.94080	#7
#8	4.87970	4.98790			4.78090	4.98600	4.26740	5.22130	#8
#9									#9
#10									#10
	0.1723	0.1426	#DIV/0!	#DIV/0!	0.5665	0.2025	0.1765	0.2003	
	2.998	2.998	0.000	0.000	2.998	2.998	2.998	2.998	
	0.517	0.427	#DIV/0!	#DIV/0!	1.698	0.607	0.529	0.601	
	5.000	5.000	20.000	20.000	5.000	5.000	5.000	5.000	
	0.500	0.500	2.000	2.000	0.500	0.500	0.500	0.500	
	Pass	**<1/10 Conc of Std**	#DIV/0!	#DIV/0!	Pass	Pass	Pass	Pass	
	0.51660	**0.50000**	**#DIV/0!**	**#DIV/0!**	**1.69827**	**0.60722**	**0.52920**	**0.60064**	
	102.7% 3.1%	104.0% 2.2%			120.6% 4.5%	104.8% 5.5%	89.8% 3.5%	108.9% 1.3%	108.4%

LB is > 5, set LOQ @ 10
until lab repreps.
AMC 2/15/23

16		17		18		19
Ag 107		Ag 109		Cd 111		Cd 114
ppb		ppb		ppb		ppb
1.13220	#1	1.12130	#1	1.12520	#1	1.06210
1.06810	#2	1.09970	#2	1.04910	#2	1.05560
1.05170	#3	1.03280	#3	1.03310	#3	1.00280
1.07130	#4	1.05060	#4	1.05780	#4	0.99920
1.00550	#5	1.04290	#5	1.03840	#5	0.99810
1.05460	#6	1.04310	#6	1.06410	#6	1.01360
1.00480	#7	1.00790	#7	1.01430	#7	1.00050
1.00020	#8	1.00160	#8	1.02180	#8	1.02520
	#9		#9		#9	
	#10		#10		#10	
0.0448		0.0415		0.0346		0.0259
2.998		2.998		2.998		2.998
0.134		0.124		0.104		0.078
1.000		1.000		1.000		1.000
0.100		0.100		0.100		0.100
Pass		Pass		Pass		**<1/10 Conc of Std**
0.13431		**0.12445**		**0.10388**		**0.10000**
3.9%	108.5%	4.3%	106.9%	4.6%	104.0%	3.1%

1.00 validated 12/10/08 VR

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

TRC Report 508369

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Date Analyzed	2/3/23
Analyst	KAH
Date Reviewed	2/15/23
Reviewed By	AMC
Instrument	X - FRONT HALF (-1A)
Logbook Page	
Injector (F,R,NA)	
Column	
Injector (F,R,NA)	
Column	
Job #(s)	
Applicable Method(s)	29, 6020
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

Compound #	1	2	3	4	5	6	7	8
Compound Name	Sb 121	Sb 123	Ba 137	Ba 138	Tl 205	Pb 206	Pb 207	Pb 208
Notes (if needed)								
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Test Std Concentrations #1	5.05780	5.07690	5.58040	5.49650	1.04010	1.02500	1.04420	1.03110
#2	5.05900	5.11320			1.01920	1.05990	1.05200	1.03600
#3	5.06410	5.02960	7.44750	7.45390	1.02780	1.01090	1.03100	1.01520
#4	5.11230	5.07050	6.57850	6.47340	1.02590	1.02810	1.00320	1.01840
#5	4.92970	4.87120	5.83830	5.72030	1.03550	1.04620	1.03860	1.02670
#6	5.10130	5.20220	5.19820	5.11530	0.99720	1.01340	1.03200	1.01280
#7	4.82560	4.82020	5.18390	5.14260	1.00030	1.00960	1.01110	0.99800
#8	4.82790	4.82970	5.11040	5.09790	1.01260	1.01790	1.03890	1.01630
!! Remove extra zeros !! #9								
#10								
Standard Deviation	0.1188	0.1431	0.8728	0.8832	0.0156	0.0181	0.0165	0.0119
Student's T factor	2.998	2.998	3.143	3.143	2.998	2.998	2.998	2.998
Calculated MDL = StDev * t	0.356	0.429	2.743	2.776	0.047	0.054	0.049	0.036
Concentration of Std	5.000	5.000	5.000	5.000	1.000	1.000	1.000	1.000
Lowest Part 136 App B value*	0.500	0.500	0.500	0.500	0.100	0.100	0.100	0.100
MDL value <1/10 Std Value?	**<1/10 Conc of Std**	**<1/10 Conc of Std**	Pass	Pass	**<1/10 Conc of Std**	**<1/10 Conc of Std**	**<1/10 Conc of Std**	**<1/10 Conc of Std**
MDL to Use	**0.50000**	**0.50000**	**2.74332**	**2.77577**	**0.10000**	**0.10000**	**0.10000**	**0.10000**
LOQ / / / Average & RSD	101.2% 0.066%	101.5% 0.826%	130.3% 20.268%	129.5% 21.375%	102.9% 1.021%	103.2% 2.444%	104.2% 1.018%	102.7% 1.058%

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

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Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

Date Analyzed	2/16/23
Analyst	KAH
Date Reviewed	2/17/23
Reviewed By	AMC
Instrument	X - FRONT HALF (-1A) Mn, Zn, As and Ba
Logbook Page	
Injector (F,R,NA)	
Column	
Injector (F,R,NA)	
Column	
Job #(s)	
Applicable Method(s)	29, 6020
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

Compound #	1		2		3		4		5		6		7	
Compound Name	Mn 55		Zn 66		Zn 68		As 75		Ba 137		Ba 138			
Notes (if needed)														
Units		ppb		ppb		ppb		ppb		ppb		ppb		ppb
Test Std Concentrations	#1	5.94800	#1	22.97600	#1	22.54320	#1	6.60140	#1	5.40050	#1	5.44880	#1	
	#2	5.16610	#2	21.34400	#2	21.36380	#2	5.92600	#2	5.17660	#2	5.15070	#2	
	#3	5.38520	#3	22.03740	#3	21.67540	#3	5.53960	#3	4.97090	#3	4.96540	#3	
	#4	5.24670	#4	21.77570	#4	21.40630	#4	5.58670	#4	5.24530	#4	5.20270	#4	
	#5	5.28200	#5	20.71230	#5	20.98820	#5	5.56040	#5	4.99040	#5	4.99270	#5	
	#6	5.26610	#6	23.77680	#6	23.89830	#6	5.63090	#6	5.29010	#6	5.49510	#6	
	#7	5.10420	#7	21.44840	#7	21.14110	#7	5.08630	#7	4.98650	#7	4.88180	#7	
	#8	5.18530	#8	23.87300	#8	23.68320	#8	5.36910	#8	outlier	#8	outlier	#8	
!! Remove extra zeros !!	#9		#9		#9		#9		#9		#9		#9	
	#10		#10		#10		#10		#10		#10		#10	
Standard Deviation		0.2664		1.1705		1.1523		0.4474		0.1715		0.2383		#DIV/0!
Student's T factor		2.998		2.998		2.998		2.998		3.143		3.143		0.000
Calculated MDL = StDev * t		0.799		3.509		3.455		1.341		0.539		0.749		#DIV/0!
Concentration of Std		5.000		20.000		20.000		5.000		5.000		5.000		
Lowest Part 136 App B value*		0.500		2.000		2.000		0.500		0.500		0.500		0.000
MDL value <1/10 Std Value?		Pass		Pass		Pass		Pass		Pass		Pass		#DIV/0!
MDL to Use		**0.79859**		**3.50907**		**3.45461**		**1.34138**		**0.53896**		**0.74908**		**#DIV/0!**
LOQ / Avg Conc & RSD	110.0%	7.3%	110.6%	3.7%	109.3%	2.8%	120.4%	8.9%	103.7%	4.1%	103.8%	4.7%	#DIV/0!	#DIV/0!

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.

1.00 validated 12/10/08 VR

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

TRC Report 508369

Date Analyzed	2/3/23
Analyst	KAH
Date Reviewed	2/15/23
Reviewed By	AMC
Instrument	X - BACK HALF (-2A)
Logbook Page	
Injector (F,R,NA)	
Column	
Injector (F,R,NA)	
Column	
Job #(s)	
Applicable Method(s)	29 6020
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

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Compound #	1		2		3		4		5		6		7	
Compound Name	Be 9		V 51		Cr 52		Mn 55		Co 59		Ni 60		Ni 62	
Notes (if needed)														
Units		ppb		ppb		ppb		ppb		ppb		ppb		ppb
Test Std Concentrations	#1	1.07330	#1	5.05310	#1	5.50890	#1	5.08570	#1	1.12600	#1	5.07000	#1	4.90930
	#2	0.99300	#2	4.90240	#2	5.17020	#2	4.98140	#2	1.01980	#2	4.81520	#2	4.79630
	#3	0.97240	#3	4.92540	#3	5.23980	#3	5.08350	#3	1.03340	#3	4.90040	#3	5.05720
	#4	0.93980	#4	5.03690	#4	5.35280	#4	5.06750	#4	0.98300	#4	4.98790	#4	5.05540
	#5	0.90980	#5	5.11360	#5	5.32910	#5	5.54170	#5	0.98200	#5	4.94460	#5	4.92750
	#6	0.90850	#6	5.10670	#6	5.22510	#6	5.01410	#6	0.96630	#6	4.98470	#6	4.97990
	#7	0.94100	#7	5.11540	#7	5.22530	#7	4.87210	#7	0.99610	#7	5.00530	#7	4.82680
	#8	0.93910	#8	4.97600	#8	5.32650	#8	5.07250	#8	0.98020	#8	5.03320	#8	4.93770
!! Remove extra zeros !!	#9		#9		#9		#9		#9		#9		#9	
	#10		#10		#10		#10		#10		#10		#10	
Standard Deviation		0.0541		0.0852		0.1066		0.1964		0.0515		0.0803		0.0949
Student's T factor		2.998		2.998		2.998		2.998		2.998		2.998		2.998
Calculated MDL = StDev * t		0.162		0.256		0.320		0.589		0.155		0.241		0.285
Concentration of Std		1.000		5.000		5.000		5.000		1.000		5.000		5.000
Lowest Part 136 App B value*		0.100		0.500		0.500		0.500		0.100		0.500		0.500
MDL value <1/10 Std Value?		Pass		**<1/10 Conc of Std**		**<1/10 Conc of Std**		Pass		Pass		**<1/10 Conc of Std**		**<1/10 Conc of Std**
MDL to Use		**0.16207**		**0.50000**		**0.50000**		**0.58873**		**0.15453**		**0.50000**		**0.50000**
LOQ / / AVERAGE & RSD	101.3%	5.26%	99.2%	1.64%	106.1%	3.37%	101.0%	1.18%	106.0%	5.45%	98.6%	2.63%	98.4%	2.66%

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

1.00 validated 12/10/08 VR

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	8	9	10	11	12	13	14	15	
	Cu 63	Cu 65	Zn 66	Zn 68	As 75	Se 77	Se 78	Se 82	
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
#1	4.95160	5.06260	20.67570	20.40220	4.77280	4.84810	4.20750	4.80130	#1
#2	4.88770	4.78540	20.21670	20.18220	4.67230	4.28760	4.04800	4.91300	#2
#3	4.83.66	4.86160	19.68340	19.89950	4.62070	4.69190	4.19570	4.75460	#3
#4	4.87860	4.98630	20.45300	19.96850	4.74540	4.87330	4.15760	4.95220	#4
#5	5.02820	5.07780	33.94130	33.08090	4.74380	4.71780	4.27370	4.62390	#5
#6	4.96500	4.89190	20.92690	20.74360	4.77180	4.20030	3.97480	5.20820	#6
#7	4.81170	4.83920	20.21990	20.07780	4.68530	4.43680	4.22100	4.79230	#7
#8	4.97150	4.97030	22.63020	22.43950	4.81000	4.83650	4.33670	4.97760	#8
#9									#9
#10									#10
	0.0724	0.1065	4.7669	4.5130	0.0628	0.2666	0.1171	0.1768	
	3.143	2.998	2.998	2.998	2.998	2.998	2.998	2.998	
	0.228	0.319	14.291	13.530	0.188	0.799	0.351	0.530	
	5.000	5.000	20.000	20.000	5.000	5.000	5.000	5.000	
	0.500	0.500	2.000	2.000	0.500	0.500	0.500	0.500	
	<1/10 Conc of Std	**<1/10 Conc of Std**	Pass	Pass	**<1/10 Conc of Std**	Pass	**<1/10 Conc of Std**	Pass	
	0.50000	**0.50000**	**14.29113**	**13.52999**	**0.50000**	**0.79918**	**0.50000**	**0.52992**	
98.4%	0.92%	98.1% 2.92%	101.0% 2.46%	100.8% 1.25%	93.8% 1.65%	92.2% 6.28%	83.0% 2.14%	96.5% 1.69%	107.8%

16		17		18		19
Ag 107		Ag 109		Cd 111		Cd 114
ppb		ppb		ppb		ppb
1.15640	#1	1.13140	#1	1.18030	#1	1.15320
1.07970	#2	1.08800	#2	1.08460	#2	1.07310
0.99800	#3	0.99550	#3	1.03040	#3	1.04340
1.00950	#4	1.01730	#4	0.98690	#4	0.98180
0.98640	#5	1.00090	#5	0.99970	#5	0.98840
1.02770	#6	1.00450	#6	1.06550	#6	0.99820
1.00180	#7	1.01050	#7	0.99200	#7	1.00150
1.01340	#8	1.01380	#8	1.02700	#8	0.97670
	#9		#9		#9	
	#10		#10		#10	
0.0570		0.0494		0.0644		0.0608
2.998		2.998		2.998		2.998
0.171		0.148		0.193		0.182
1.000		1.000		1.000		1.000
0.100		0.100		0.100		0.100
Pass		Pass		Pass		Pass
0.17085		**0.14808**		**0.19318**		**0.18223**
7.35%	107.2%	6.48%	109.8%	6.91%	109.0%	5.21%

1.00 validated 12/10/08 VR

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

TRC Report 508369

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Date Analyzed	2/3/23
Analyst	KAH
Date Reviewed	2/15/23
Reviewed By	AMC
Instrument	X - BACK HALF (-2A)
Logbook Page	
Injector (F,R,NA)	
Column	
Injector (F,R,NA)	
Column	
Job #(s)	
Applicable Method(s)	29, 6020
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

Compound #	1	2	3	4	5	6	7	8
Compound Name	Sb 121	Sb 123	Ba 137	Ba 138	Tl 205	Pb 206	Pb 207	Pb 208
Notes (if needed)								
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Test Std Concentrations #1	4.95090	4.87810	5.31240	5.22330	1.14670	1.14530	1.16820	1.14010
#2	4.83370	4.90380	5.30310	5.29670	1.08190	1.08180	1.08060	1.07990
#3	4.80560	4.76980	4.90620	4.87040	1.00770	0.98270	0.98070	0.99430
#4	4.81720	4.87910	4.79670	4.78960	1.00690	0.98860	0.99050	0.97490
#5	4.73740	4.79890	4.78880	4.79020	0.95720	1.04030	0.99660	1.01630
#6	5.14090	5.10260	4.85670	4.87580	1.00300	0.97500	0.95910	0.96330
#7	4.81550	4.71390	4.78570	4.81400	0.98160	1.00580	0.97750	0.97300
#8	4.80400	4.79460	4.89050	4.93130	1.00150	0.99550	1.01610	0.99460
!! Remove extra zeros !! #9								
#10								
Standard Deviation	0.1269	0.1188	0.2225	0.1989	0.0611	0.0595	0.0698	0.0618
Student's T factor	2.998	2.998	2.998	2.998	2.998	2.998	2.998	2.998
Calculated MDL = StDev * t	0.380	0.356	0.667	0.596	0.183	0.178	0.209	0.185
Concentration of Std	5.000	5.000	5.000	5.000	1.000	1.000	1.000	1.000
Lowest Part 136 App B value*	0.500	0.500	0.500	0.500	0.100	0.100	0.100	0.100
MDL value <1/10 Std Value?	**<1/10 Conc of Std**	**<1/10 Conc of Std**	Pass	Pass	Pass	Pass	Pass	Pass
MDL to Use	**0.50000**	**0.50000**	**0.66697**	**0.59620**	**0.18331**	**0.17829**	**0.20930**	**0.18522**
LOQ / / AVERAGE & RSD	97.3% 1.58%	97.0% 1.58%	103.5% 4.48%	102.6% 4.44%	107.9% 6.45%	107.0% 7.66%	107.7% 8.72%	107.1% 6.84%

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

Analyst: LMP Date: 2/2/23

Job #s	Describe Work Documented on This Page
MS LOQ.1-8 MALCDOC.1-4	M29 prep

Supplies, Ancillary Equipment Serial #s, Lot #s, Etc

NA

1340A = M29 FH prep sheet
1340B = M29 BH prep sheet

Preparation of LOQ working standard M2 2/2/23 added

Element	Stock ID	exp date	Vol. spiked (mL)	final conc. (ppm)
Be	F0734	6/30/27	0.1	1
Cr	F0583	4/30/26	0.5	5
Mn	F0731	10/31/27	0.5	5
Co	F0728	6/30/27	0.1	1
Cu	F0789	5/31/29	0.5	5
Ni	F0729	5/31/25	0.5	5
Zn	F0703	4/30/26	2.0	20
As	F0695	4/30/27	0.5	5
Se	F0645	12/31/25	0.5	5
Ag	F0798	~~12/23/~~ ① 4/1/23	0.1	1
Cd	F0730	3/31/28	0.1	1
Sb	F0820	8/2/23	0.5	5
Ba	F0769	4/30/25	0.5	5
Tl	F0816	5/9/23	0.1	1
① ~~Zn~~ Pb	F0802	6/30/29	① ~~2.0~~ 0.1	1
V	F0457	9/30/23	0.5	5

① M2 2/2/23 EE

0.1mL spike used pipet 127 next cal due 3/4/23
0.5+2mL spikes used pipet 124 next cal due 3/4/23
Final volume 100mL with 5% HNO_3

Reviewer's Initials & Date:

Metals Prep

ENTHALPY ANALYTICAL

METHOD 29 METALS PREP SHEET

FRONT HALF SAMPLES

DAY 1	Date: 2/2/23	Analyst(s): LMP / MAL	DAY 3	Date:	Analyst(s):
DAY 2	Date: 2/3/23	Analyst(s): LMP	DAY 4	Date:	Analyst(s):

Ves. #	Reagents	ID#:	Expiration Date:	Sample ID		Final Volume (mL)
1	HNO_3: 6 mL	22330073	8/24	LOQ.1	-1	100
2	HF: 4 mL	SCA 2118048	4/25	.2	-1	↓
3	Support Equipment			.3	-1	↓
4		ID#:	Expiration Date:	.4	-1	↓
5	Ag vessels used? YES / NOT NEEDED			.5	-1	↓
6	Cleaning Cycle Completed? YES / NO			.6	-1	↓
7	Micro. #	6, 7	N/A	.7	-1	↓
8				.8	-1	↓
9	Hotplate #	8	N/A	MAL CDOC.1	-1	↓
10				.2	-1	↓
11	HF Pipette	130	3/3/23	.3	-1	↓
12				.4	-1	↓
	HNO_3 Pipette	↓	↓		-1	
					-1	
	Digitube	J553470-2258	N/A		-1	
					-1	
	Comments:				-1	
					-1	
					-1	
					-1	

Front Half Quality Control

Ves. #	QC	ID:	Expiraton:	Stock Conc. (ppm)	Prepped Conc. (ppb)	Amount Added (mL)	Pip ID:	Pip Exp:
13	Lab Blank-1	--	--	--	--	--	--	--
14	LCS-1	F0814	10/28/23	10	100	1.0	124	3/4/23

List additional LCS's below as needed. For example: Ag, LCS-High

METHOD 29 METALS PREP SHEET

BACK HALF SAMPLES

DAY 1	Date: 2/2/23	Analyst(s): LMP/MAL	DAY 3	Date:	Analyst(s):
DAY 2	Date: 2/3/23	Analyst(s): LMP	DAY 4	Date:	Analyst(s):

Reagents	ID#:	Expiration Date:	Sample ID		Final Volume (mL)
1:1 HNO3: 30mL	ES-0795	6/19/23	LOQ. 1	-2A	100
H2O2: 1mL	613262206	11/30/23	. 2	-2A	
			. 3	-2A	
Support Equipment	**ID#:**	**Expiration Date:**	. 4	-2A	
Hotplate #	10	N/A	. 5	-2A	
			. 6	-2A	
1:1 HNO3 Pipette	J553470-2258	NA	. 7	-2A	
			. 8	-2A	
H2O2 Pipette	125	3/1/23		-2A	
				-2A	
Hg Aliquot Removed (mL) (-2B)	NA			-2A	
				-2A	
Digitube	J553470-2258	N/A		-2A	
				-2A	
Comments:				-2A	
				-2A	
				-2A	
				-2A	
				-2A	
				-2A	

Back Half Quality Control

QC	ID:	Expiraton:	Stock Conc. (ppm)	Prepped Conc. (ppb)	Amount Added (mL)	Pip ID:	Pip Exp:
Lab Blank-2A	--	--	--	--	--	--	--
LCS-2A	F0763	2/24	100	100	0.10	127	3/4/23

List additional LCS's below as needed. For example: Ag, LCS-High

ICP-MS Raw Data Coversheet

Instrument X/__

Doc. No.: RD05
Rev.:G
Effective Date: 08-05-22

Analyst(s):	KAH	Analysis Date(s):	2/3/23
EA Project #s:	LOQ Study		
Analytes:	All M29 + V		
Method:	6020	Smart Tune ID: ES-0804 Conc: 1ppb Exp: 7/3/23	
		Internal Standard ID [1]: F0773 Conc: 10 ppm Exp: 2/23	
Diluent:	50 mL HNO3 (ID # 2230073 Exp: 8/24) diluted to 1000 mL with DI		
Calib. Blk/ICB/CCB:	Diluent		

[1] All samples and standards are spiked with 50µL of internal std. (pipette 127 exp 3/4/23)

Calibration Standards - Made from EA ID#[2]: 1:10 F0763 **(Stock Concentration:** 10ppm **Exp Date:** 2/4/23 **) and brought up with Diluent**

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
Standard 1	1	100 of Std 6	127 3/4/23	10	143 2/9/23	KAH	2/3/23	2/4/23
Standard 2	5	500 of Std 6	124					
Standard 3	20	2mL Std6	⊥					
Standard 4	50	50	127					
Standard 5	100	100						
No IS Std 6	100	100	⊥					

[2] 10ppm WS = 1mL of Standard 100ppm F0763 exp 2/24 (pipettes: 124, 143 exp 3/4/23 2/9/23) + 9mL Diluent

Secondary Standards - Made from EA ID#: F0814 + (3) **(Stock Concentration:** 10ppm **ExpDate:** 11/23 / 2/4/23 **) and brought up with Diluent**

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICV/CCV	50	50+50	127 3/4/23	10	143 2/9/23	KAH	2/3/23	2/4/23

(3) 10ppm V: 100µL F0457 (1000ppm 9/23) w/ 127 3/4/23 → 10mL w/diluent 143 2/9/23 KAH 2/3/23

ICS's- Made from Stock Std ICS-A ID#(F0786 **Exp:** 8/23 **)**
& 50 ppb Metals Std ID#((2) 1:10 F0763 **Conc:** 10ppm **Exp:** 2/4/23 **) brought up with Diluent**

	Conc.	Amount WS (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICS-A	Multi	100	127 3/4/23	10	143 2/9/23	KAH	2/3/23	2/4/23
	Multi	100						
ICS-AB	50 ppb	50	⊥					

Post Dig Matrix Spike Samples - Diluted with Diluent (Metals Mix ID#_____ Conc:_____ Exp:_____)

Sample ID	Dilution Factor of Field Sample	Aliquot of Sample (mL)	Final Conc. (ppb)	Amount of Spike Added (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
						10		
						10		
						10		
						10		
						10		
						10		
						10		

ICP-MS Raw Data Coversheet

Instrument X/__

Doc. No.: RD05
Rev.:G
Effective Date: 08-05-22

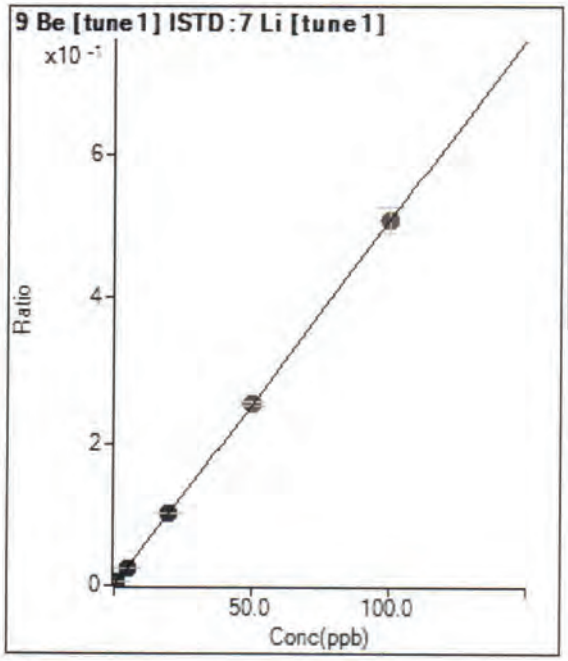
Sample Dilution Tracker - Diluted with Diluent						
Sample ID(s)	Dilution Factor of Sample	Aliquot of Sample (mL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
LCS - 1A	2	5	143 2/9/23	10	143 2/9/23	KAH
1 -2A	1	1	1	1	1	1

Comments:

Calibration for 034SMPL.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\2023\LOQ MAL FH IDOC 020323.b\
Analysis File: LOQ MAL FH IDOC 020323.batch.bin
DA Date-Time: 2/3/2023 3:55:01 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

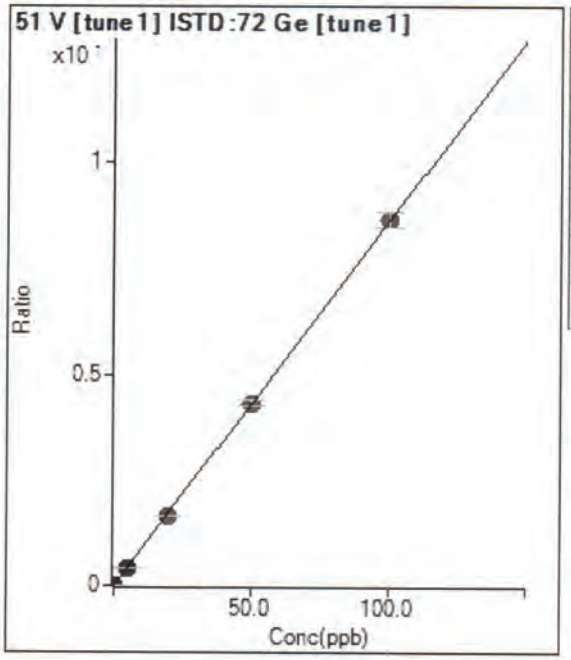
Level	Standard Data File	Sample Name	Acq. Date-Time
1	001CALB.d	CAL BLK	2/3/2023 1:17:15 PM
2	002CALS.d	1 PPB	2/3/2023 1:20:57 PM
3	003CALS.d	5 PPB	2/3/2023 1:24:19 PM
4	004CALS.d	20 PPB	2/3/2023 1:27:40 PM
5	005CALS.d	50 PPB	2/3/2023 1:31:03 PM
6	006CALS.d	100 PPB	2/3/2023 1:34:18 PM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.16	0.0001	P	10.7
2	☐	1.000	1.007	15316.91	0.0052	P	3.9
3	☐	5.000	4.863	78963.69	0.0248	P	1.5
4	☐	20.000	20.197	310003.37	0.1027	P	1.1
5	☐	50.000	50.238	809189.97	0.2553	A	1.6
6	☐	100.000	99.849	1614321.80	0.5073	A	7.3

y = 0.0051 * x + 5.0182E-005
R = 1.0000
DL = 0.003161
BEC = 0.009878

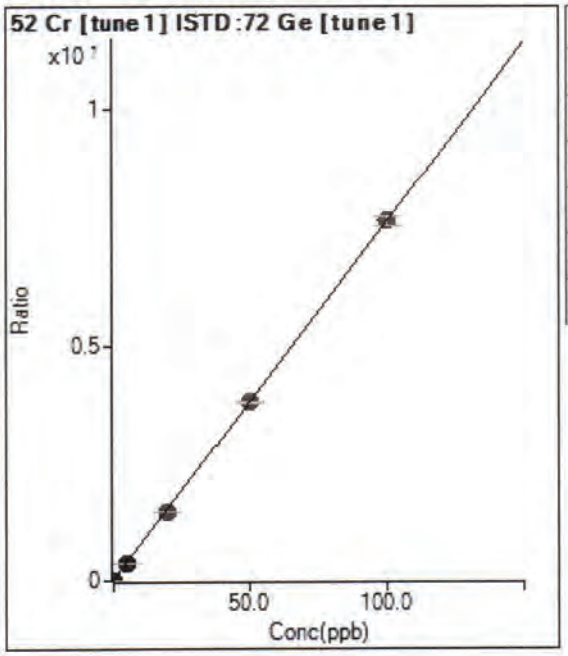
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.87	0.0005	P	14.0
2	☐			80701.88	0.0865	P	3.5
3	☐	5.000	4.729	387904.65	0.4082	P	4.3
4	☐	20.000	19.299	1621181.09	1.6642	A	0.4
5	☐	50.000	50.044	4066701.56	4.3148	A	2.6
6	☐	100.000	100.132	8018636.16	8.6328	A	4.3

y = 0.0862 * x + 5.3372E-004
R = 1.0000
DL = 0.002603
BEC = 0.006191

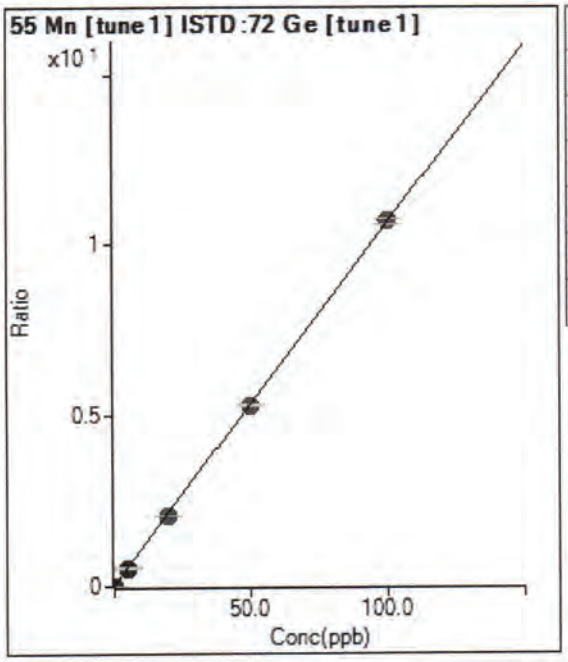
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10414.38	0.0106	P	5.9
2	☐			79829.30	0.0856	P	3.1
3	☐	5.000	4.691	349621.02	0.3679	P	3.7
4	☐	20.000	19.082	1425963.45	1.4639	A	1.7
5	☐	50.000	49.797	3584520.23	3.8032	A	1.1
6	☐	100.000	100.300	7107043.25	7.6495	A	2.7

y = 0.0762 * x + 0.0106
R = 1.0000
DL = 0.02439
BEC = 0.1387

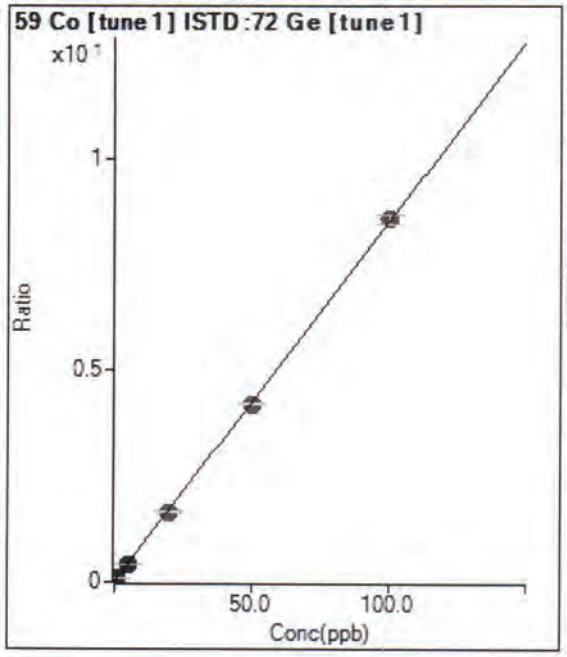
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24773.44	0.0251	P	5.6
2	☐			120656.47	0.1293	P	0.3
3	☐	5.000	4.804	507734.27	0.5342	P	3.7
4	☐	20.000	19.077	1993468.88	2.0464	A	1.1
5	☐	50.000	49.626	4980861.68	5.2831	A	1.9
6	☐	100.000	100.381	9906928.25	10.6608	A	1.7

y = 0.1060 * x + 0.0251
R = 0.9999
DL = 0.03988
BEC = 0.2372

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2753.06	0.0028	P	5.5
2	☐	1.000	0.996	81776.60	0.0877	P	2.6
3	☐	5.000	4.795	390926.73	0.4113	P	3.4
4	☐	20.000	19.221	1597941.96	1.6404	A	3.1
5	☐	50.000	49.253	3958491.45	4.1989	A	0.5
6	☐	100.000	100.540	7961397.32	8.5683	A	2.5

y = 0.0852 * x + 0.0028

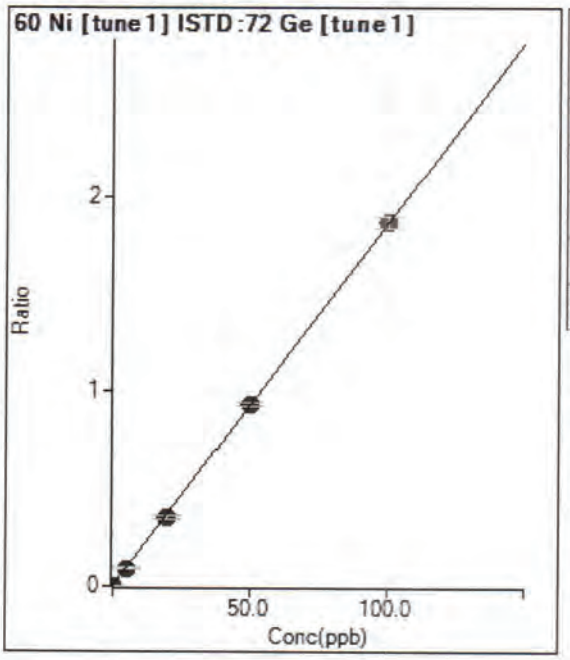
R = 0.9999

DL = 0.005423

BEC = 0.03277

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4118.09	0.0042	P	3.4
2	☐			21043.65	0.0226	P	5.0
3	☐	5.000	4.818	89255.84	0.0939	P	1.9
4	☐	20.000	18.844	345743.60	0.3550	P	4.9
5	☐	50.000	49.877	878939.39	0.9326	P	1.7
6	☐	100.000	100.302	1738894.81	1.8713	A	3.3

y = 0.0186 * x + 0.0042

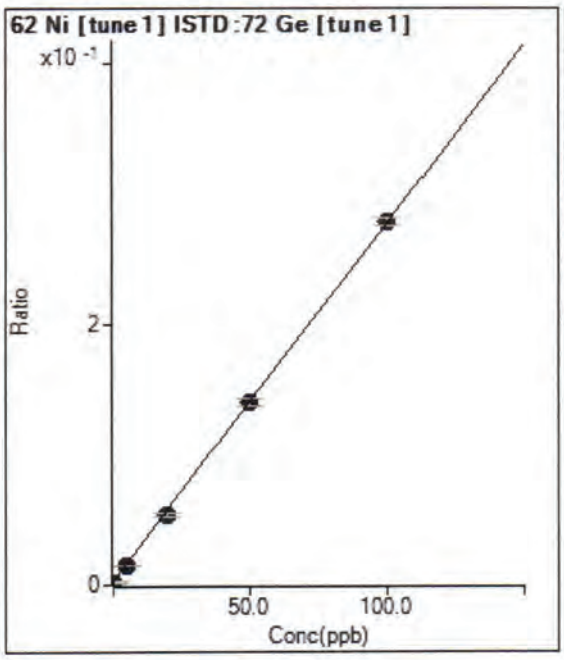
R = 0.9999

DL = 0.02316

BEC = 0.2246

Weight: <None>

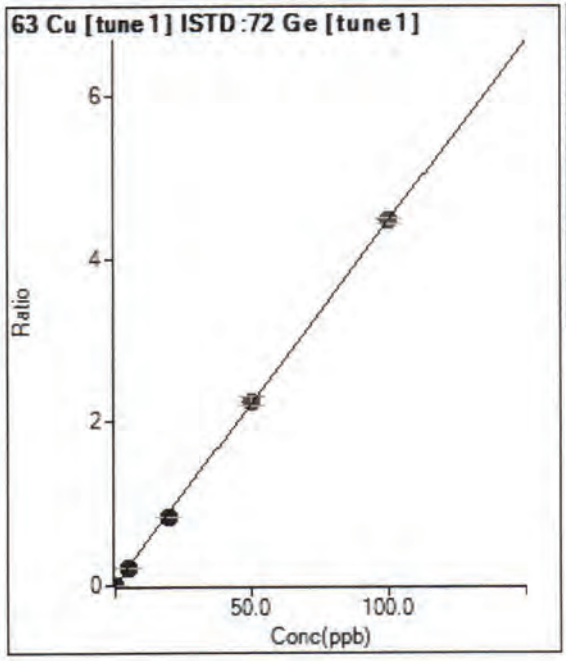
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2135.66	0.0022	P	10.5
2	☐			4498.60	0.0048	P	11.5
3	☐	5.000	4.607	14107.97	0.0149	P	6.5
4	☐	20.000	18.552	51881.53	0.0533	P	5.8
5	☐	50.000	49.738	131082.99	0.1392	P	4.6
6	☐	100.000	100.440	259084.64	0.2788	P	2.3

y = 0.0028 * x + 0.0022
R = 0.9999
DL = 0.2483
BEC = 0.785

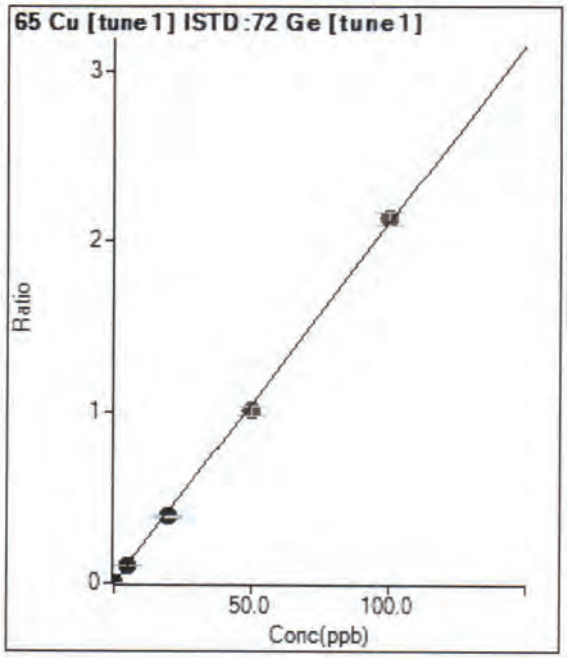
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3160.23	0.0032	P	4.7
2	☐			43929.58	0.0471	P	3.1
3	☐	5.000	4.823	207244.43	0.2181	P	4.5
4	☐	20.000	18.364	800199.92	0.8215	P	1.4
5	☐	50.000	50.565	2125379.31	2.2563	A	4.4
6	☐	100.000	100.053	4145714.48	4.4613	A	1.4

y = 0.0446 * x + 0.0032
R = 0.9998
DL = 0.01008
BEC = 0.07192

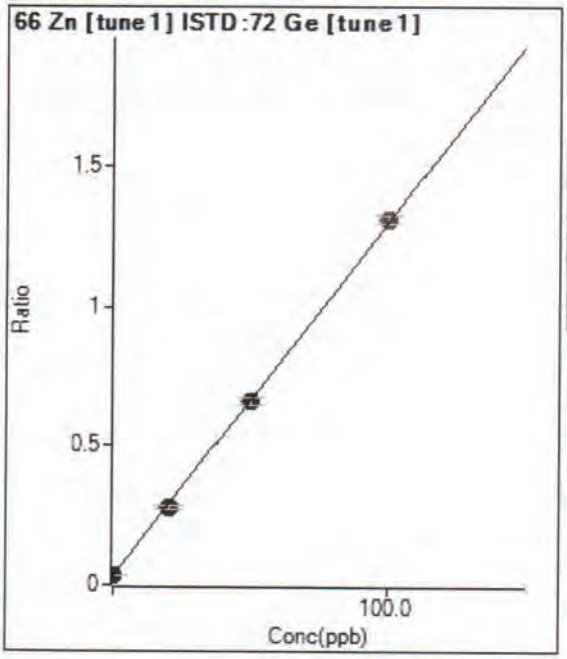
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1438.19	0.0015	P	7.3
2	☐			20652.80	0.0221	P	4.1
3	☐	5.000	4.682	94973.12	0.0999	P	2.6
4	☐	20.000	18.622	382700.16	0.3929	P	3.0
5	☐	50.000	48.134	954273.05	1.0133	A	5.7
6	☐	100.000	101.225	1978304.16	2.1293	A	3.5

y = 0.0210 * x + 0.0015
R = 0.9996
DL = 0.01523
BEC = 0.06951

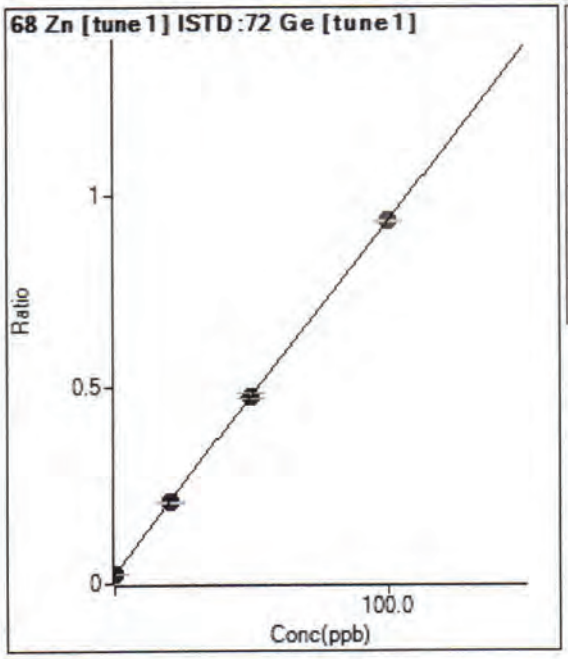
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34788.21	0.0353	P	0.8
2	☐			41416.13	0.0444	P	3.5
3	☐			83699.99	0.0881	P	3.5
4	☐	20.000	19.147	271158.70	0.2784	P	3.3
5	☐	50.000	49.294	622698.31	0.6611	P	4.9
6	☐	100.000	100.524	1218684.22	1.3116	A	2.0

y = 0.0127 * x + 0.0353
R = 0.9999
DL = 0.07068
BEC = 2.782

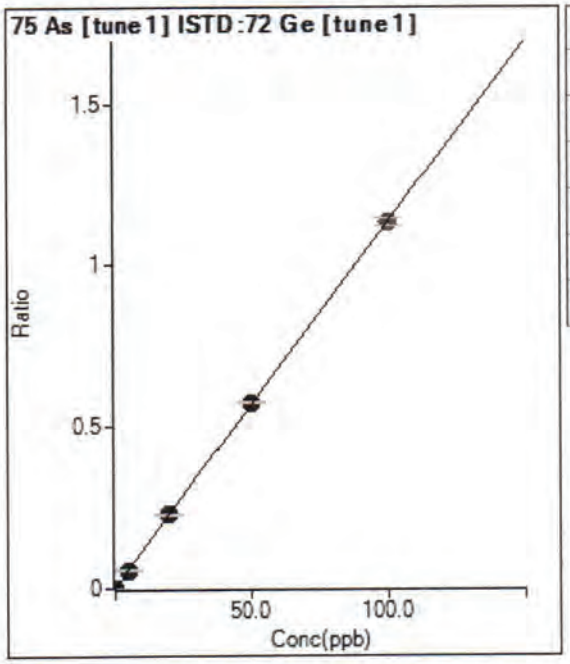
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25201.49	0.0256	P	0.3
2	☐			30423.69	0.0326	P	0.7
3	☐			62147.34	0.0654	P	2.0
4	☐	20.000	19.930	201411.55	0.2068	P	1.5
5	☐	50.000	49.704	449856.62	0.4774	P	2.9
6	☐	100.000	100.162	870022.94	0.9361	A	0.7

y = 0.0091 * x + 0.0256
R = 1.0000
DL = 0.02815
BEC = 2.814

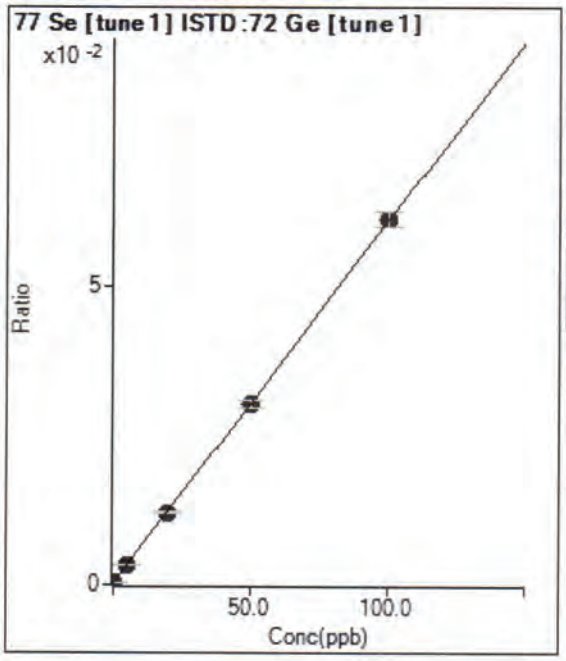
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	724.08	0.0007	P	7.3
2	☐			10962.08	0.0117	P	6.5
3	☐	5.000	4.921	53663.96	0.0564	P	2.2
4	☐	20.000	19.809	219178.69	0.2250	P	1.5
5	☐	50.000	50.424	538669.91	0.5716	P	1.7
6	☐	100.000	99.830	1050797.71	1.1309	A	2.1

y = 0.0113 * x + 7.3371E-004
R = 1.0000
DL = 0.01421
BEC = 0.06481

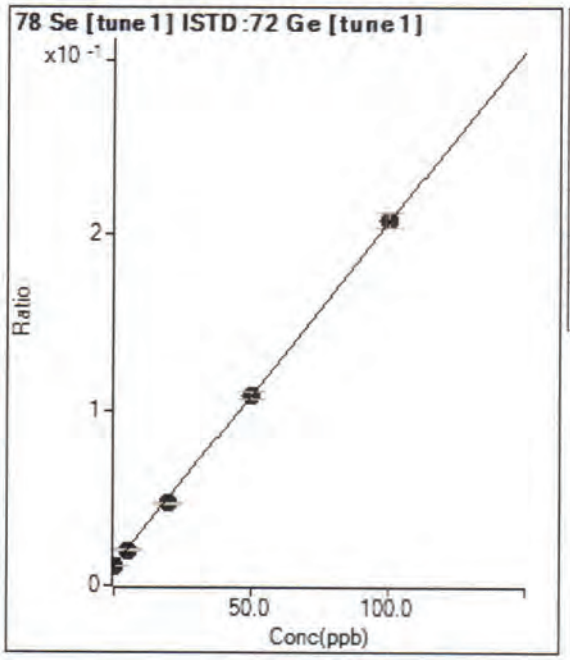
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	243.58	0.0002	P	30.6
2	☐			830.87	0.0009	P	9.0
3	☐	5.000	4.865	3046.74	0.0032	P	4.6
4	☐	20.000	19.561	11826.95	0.0121	P	2.5
5	☐	50.000	49.561	28635.24	0.0304	P	4.5
6	☐	100.000	100.314	56870.72	0.0612	P	4.3

y = 6.0787E-004 * x + 2.4923E-004
R = 1.0000
DL = 0.3763
BEC = 0.41

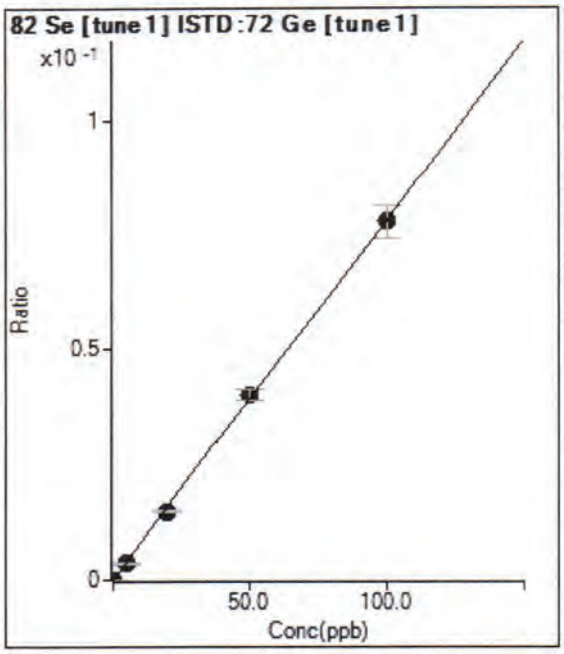
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11018.83	0.0112	P	3.0
2	☐			12114.16	0.0130	P	1.7
3	☐	5.000	4.576	19135.79	0.0202	P	8.0
4	☐	20.000	18.269	45778.02	0.0470	P	2.5
5	☐	50.000	49.996	102843.24	0.1092	P	3.6
6	☐	100.000	100.370	193095.76	0.2079	P	4.2

y = 0.0020 * x + 0.0112
R = 0.9998
DL = 0.5138
BEC = 5.71

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-108.36	-0.0001	P	-24.9
2	☐			789.96	0.0008	P	7.2
3	☐	5.000	4.602	3329.51	0.0035	P	5.5
4	☐	20.000	18.781	14247.69	0.0146	P	3.2
5	☐	50.000	50.745	37388.24	0.0397	P	6.5
6	☐	100.000	99.891	72672.38	0.0783	P	9.0

y = 7.8468E-004 * x - 1.1047E-004

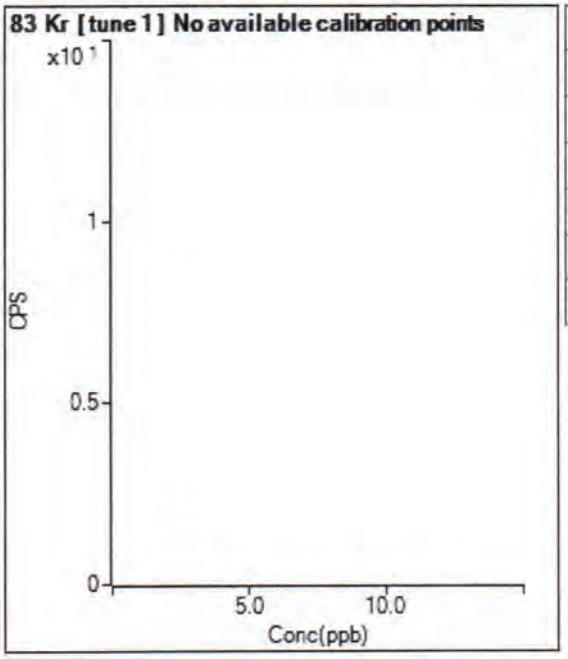
R = 0.9999

DL = 0.1051

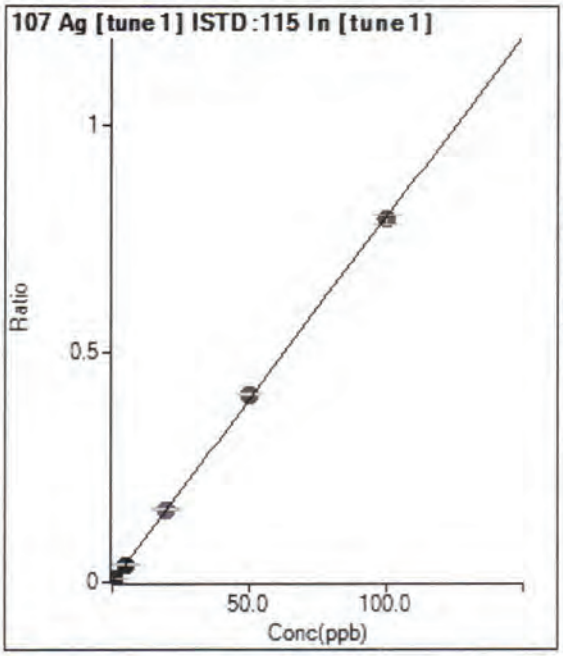
BEC = -0.1408

Weight: <None>

Min Conc: 0



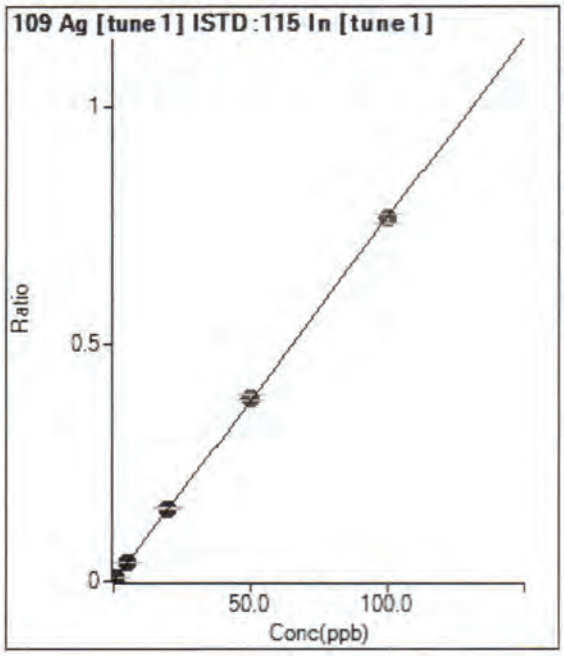
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			627.31		P	7.2
2	☐			540.56		P	4.9
3	☐			563.91		P	14.8
4	☐			593.95		P	12.0
5	☐			707.40		P	24.4
6	☐			880.92		P	7.5



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.63	0.0000	P	5.5
2	☐	1.000	0.994	48099.99	0.0080	P	0.3
3	☐	5.000	4.994	237121.11	0.0400	P	3.9
4	☐	20.000	20.218	949506.68	0.1617	M	1.9
5	☐	50.000	51.274	2476520.68	0.4100	A	1.7
6	☐	100.000	99.320	4890881.02	0.7941	A	2.3

y = 0.0080 * x + 4.7176E-005
R = 0.9999
DL = 0.0009749
BEC = 0.005901

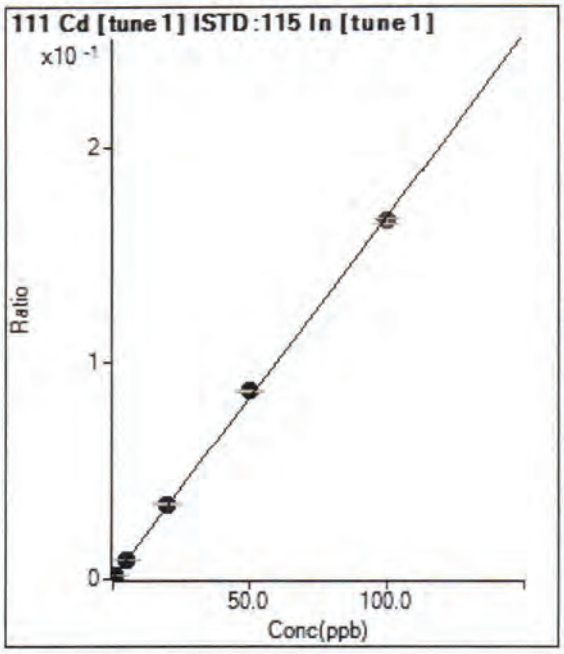
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.96	0.0000	P	10.8
2	☐	1.000	0.980	45381.55	0.0075	P	4.0
3	☐	5.000	5.048	229178.69	0.0386	P	1.3
4	☐	20.000	20.179	905508.33	0.1542	P	3.6
5	☐	50.000	50.756	2342841.40	0.3878	A	3.2
6	☐	100.000	99.584	4684584.99	0.7609	A	2.4

y = 0.0076 * x + 4.7848E-005
R = 1.0000
DL = 0.002023
BEC = 0.006262

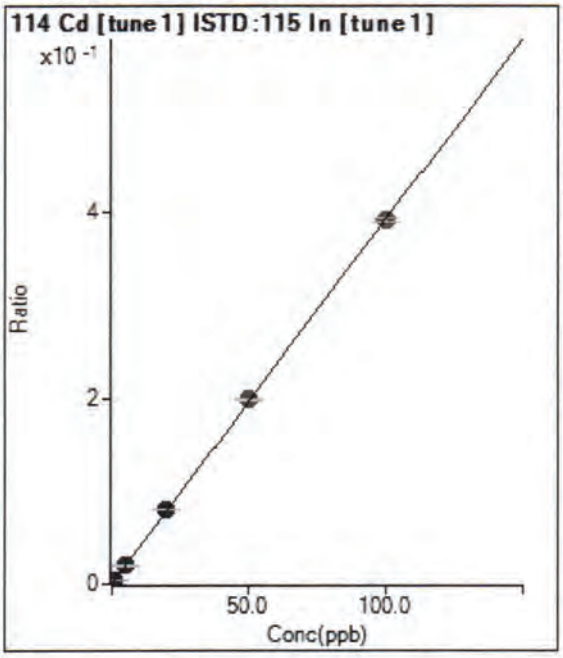
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.14	0.0000	P	5.5
2	☐	1.000	1.028	10508.02	0.0017	P	4.2
3	☐	5.000	5.206	51861.05	0.0087	P	5.9
4	☐	20.000	20.585	202695.14	0.0345	P	2.9
5	☐	50.000	51.775	524184.22	0.0868	P	1.6
6	☐	100.000	98.985	1021375.73	0.1659	A	1.7

y = 0.0017 * x + 2.3199E-005
R = 0.9997
DL = 0.0023
BEC = 0.01384

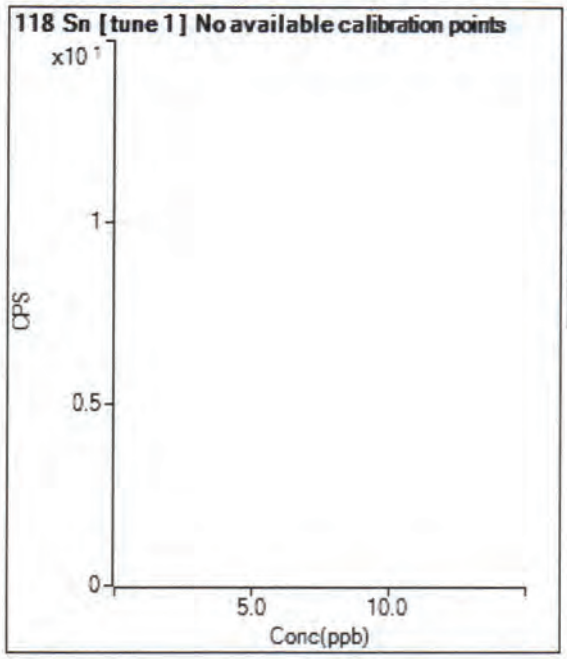
Weight: <None>
Min Conc: 0



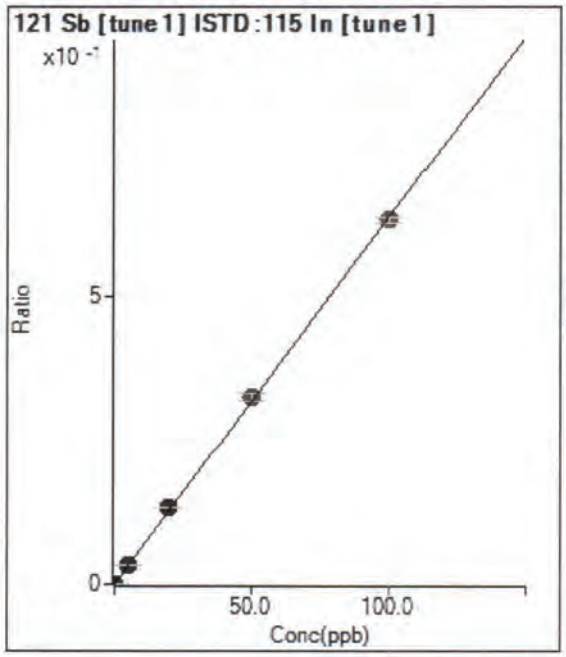
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	268.64	0.0000	P	17.7
2	☐	1.000	1.012	24212.97	0.0040	P	2.2
3	☐	5.000	5.037	117827.27	0.0198	P	2.3
4	☐	20.000	20.387	470892.19	0.0802	P	0.4
5	☐	50.000	50.617	1201609.87	0.1990	A	1.1
6	☐	100.000	99.612	2411201.93	0.3916	A	1.2

y = 0.0039 * x + 4.4743E-005
R = 1.0000
DL = 0.006048
BEC = 0.01138

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			3243.67		P	7.1
2	☐			2813.14		P	7.8
3	☐			3143.55		P	3.1
4	☐			2746.39		P	3.0
5	☐			4632.14		P	4.2
6	☐			2846.50		P	1.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	977.69	0.0002	P	8.4
2	☐			39905.81	0.0066	P	0.7
3	☐	5.000	5.071	193360.30	0.0326	P	1.1
4	☐	20.000	20.930	786627.82	0.1339	P	0.9
5	☐	50.000	51.137	1974307.11	0.3270	A	4.4
6	☐	100.000	99.242	3906476.84	0.6345	A	1.6

y = 0.0064 * x + 1.6251E-004

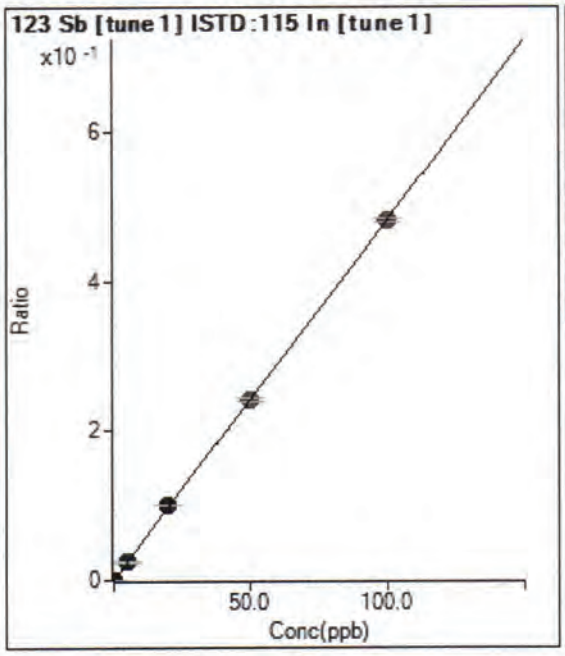
R = 0.9998

DL = 0.006422

BEC = 0.02542

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	694.05	0.0001	P	3.8
2	☐			30157.07	0.0050	P	1.7
3	☐	5.000	5.028	144482.46	0.0243	P	3.2
4	☐	20.000	20.763	588378.21	0.1002	P	0.8
5	☐	50.000	49.834	1450766.62	0.2403	A	2.3
6	☐	100.000	99.929	2966317.68	0.4817	A	1.0

y = 0.0048 * x + 1.1495E-004

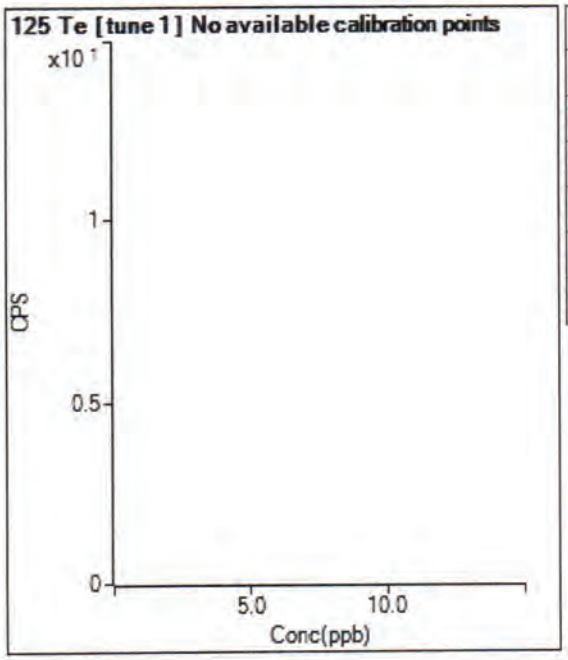
R = 1.0000

DL = 0.002703

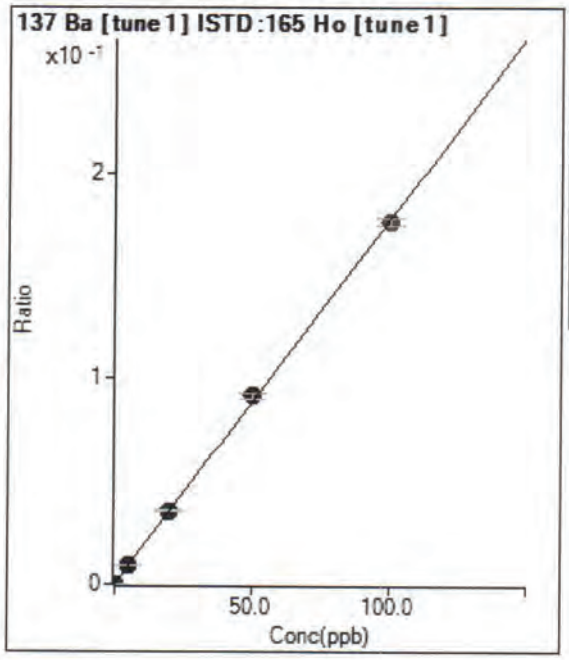
BEC = 0.02385

Weight: <None>

Min Conc: 0



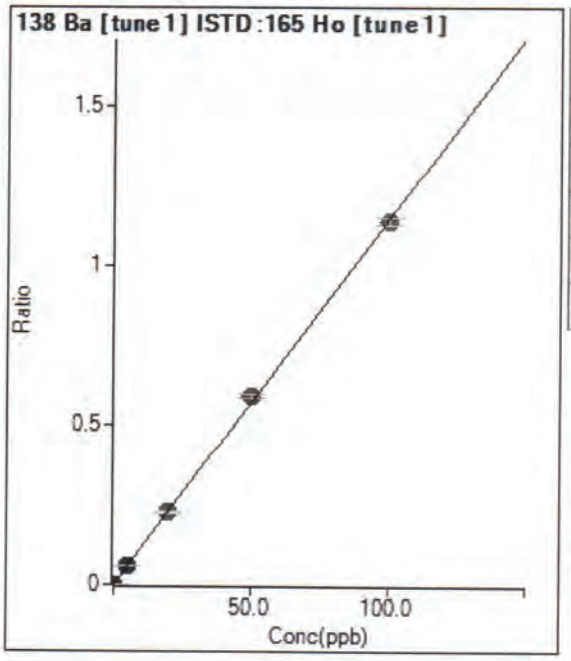
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			0.00		P	
2	☐			3.34		P	173.2
3	☐			13.35		P	114.6
4	☐			13.35		P	43.3
5	☐			3.34		P	173.2
6	☐			20.02		P	50.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	597.29	0.0001	P	11.7
2	☐			13998.14	0.0019	P	5.5
3	☐	5.000	5.084	65821.48	0.0091	P	2.8
4	☐	20.000	20.159	266585.80	0.0359	P	4.0
5	☐	50.000	51.403	683869.63	0.0915	P	3.2
6	☐	100.000	99.262	1345986.07	0.1766	A	2.2

y = 0.0018 * x + 7.7440E-005
R = 0.9998
DL = 0.01527
BEC = 0.04355

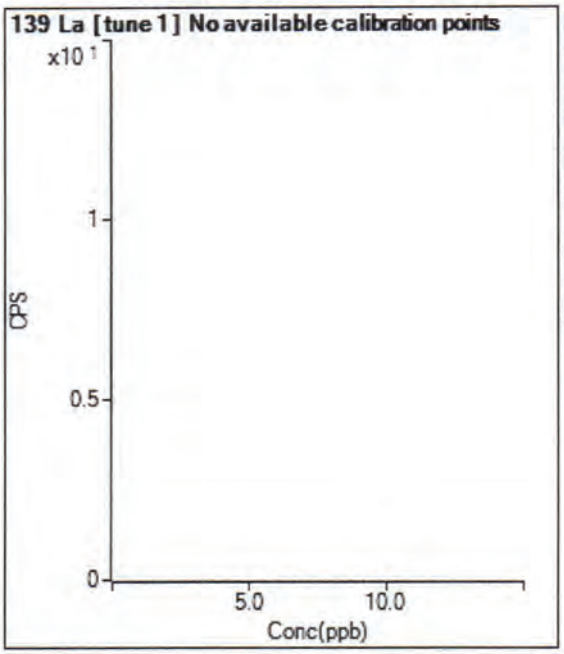
Weight: <None>
Min Conc: 0



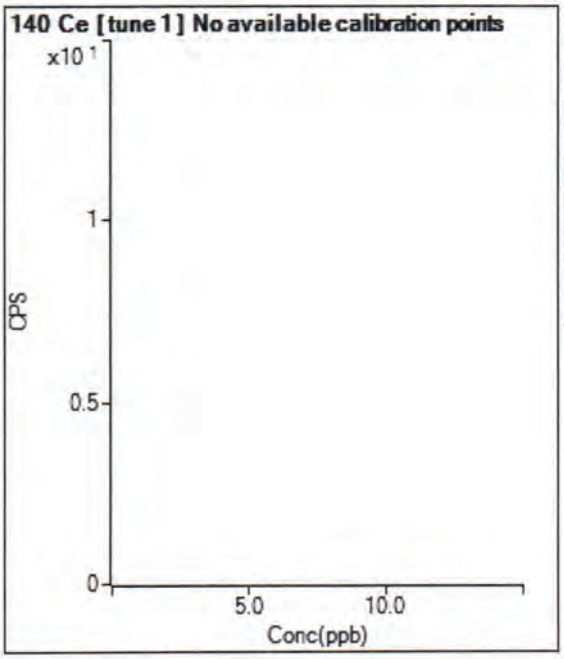
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3506.28	0.0005	P	4.0
2	☐			89401.57	0.0119	P	6.8
3	☐	5.000	5.184	431371.94	0.0598	P	1.6
4	☐	20.000	19.733	1678582.56	0.2262	A	3.2
5	☐	50.000	51.560	4412724.43	0.5902	A	2.2
6	☐	100.000	99.264	8656778.88	1.1359	A	2.1

y = 0.0114 * x + 4.5739E-004
R = 0.9998
DL = 0.004788
BEC = 0.03999

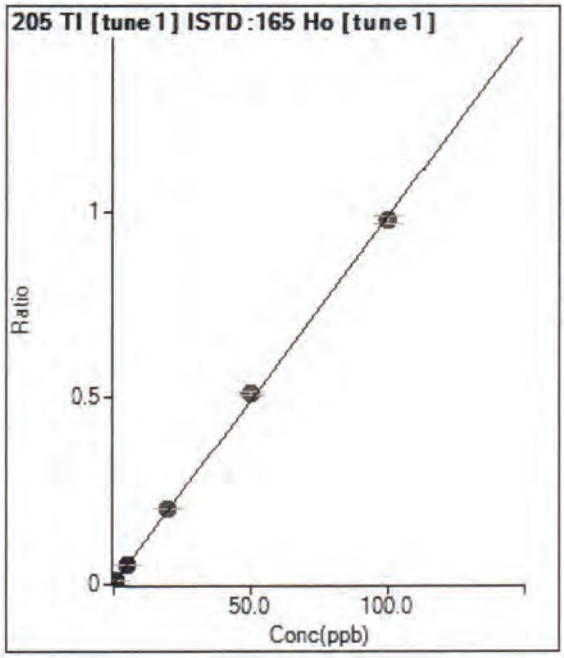
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			93.43		P	6.2
2	☐			76.74		P	15.1
3	☐			150.15		P	24.0
4	☐			246.92		P	11.7
5	☐			633.99		P	10.3
6	☐			1084.48		P	5.9



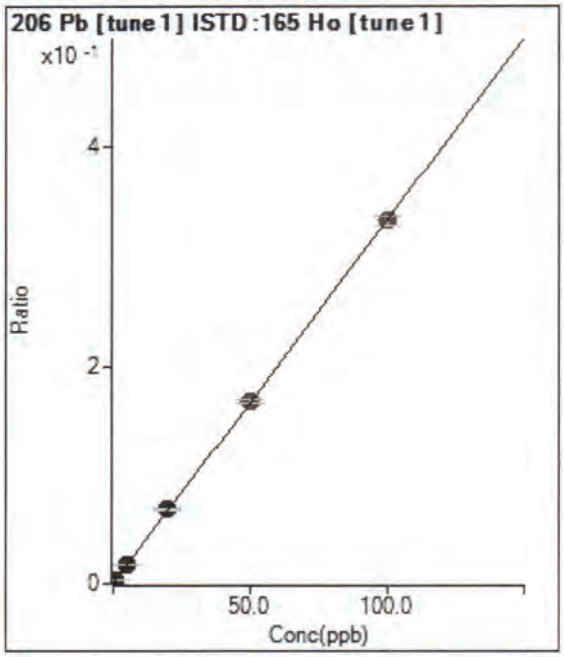
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			340.35		P	25.1
2	☐			276.95		P	29.0
3	☐			233.57		P	10.8
4	☐			200.20		P	8.7
5	☐			300.31		P	20.3
6	☐			276.95		P	19.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1177.91	0.0002	P	10.9
2	☐	1.000	1.001	75377.29	0.0100	P	2.8
3	☐	5.000	5.065	361306.12	0.0500	P	1.7
4	☐	20.000	20.419	1495460.54	0.2013	A	0.5
5	☐	50.000	51.857	3820335.38	0.5109	A	1.7
6	☐	100.000	98.984	7430534.96	0.9751	A	2.1

y = 0.0098 * x + 1.5415E-004
R = 0.9997
DL = 0.005118
BEC = 0.01565

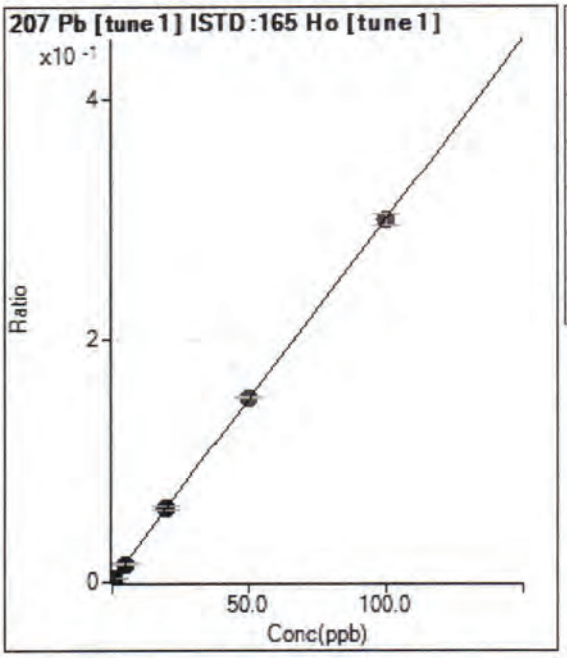
Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1081.14	0.0001	P	8.3
2	☐	1.000	0.993	25915.60	0.0034	P	5.9
3	☐	5.000	5.032	122007.30	0.0169	P	1.1
4	☐	20.000	20.465	507216.98	0.0683	P	1.5
5	☐	50.000	50.168	1250852.62	0.1672	A	1.9
6	☐	100.000	99.822	2534280.18	0.3326	A	2.5

y = 0.0033 * x + 1.4111E-004
R = 1.0000
DL = 0.01052
BEC = 0.04237

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	900.94	0.0001	P	8.9
2	☐	1.000	0.961	22559.41	0.0030	P	2.5
3	☐	5.000	4.957	108120.19	0.0150	P	1.7
4	☐	20.000	20.093	447822.67	0.0603	P	4.0
5	☐	50.000	50.408	1130686.34	0.1512	A	1.7
6	☐	100.000	99.780	2279376.01	0.2992	A	3.2

y = 0.0030 * x + 1.1712E-004

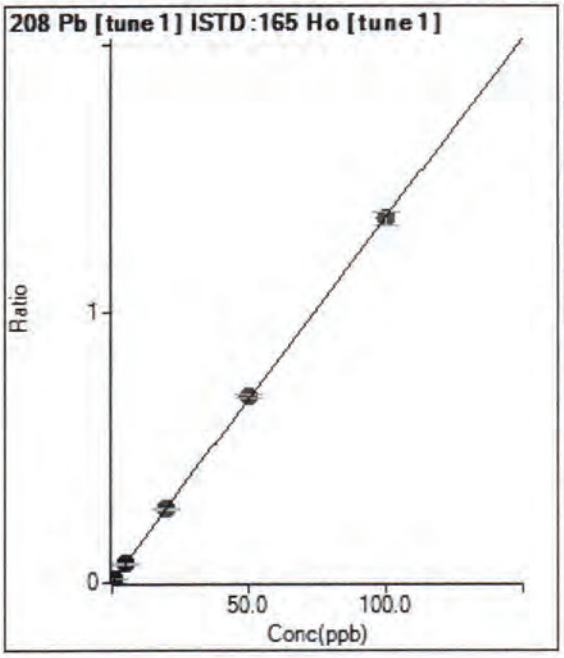
R = 1.0000

DL = 0.01043

BEC = 0.03907

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4224.54	0.0006	P	8.3
2	☐	1.000	0.960	101765.84	0.0135	P	4.4
3	☐	5.000	5.014	493519.96	0.0684	P	2.1
4	☐	20.000	19.833	1994956.12	0.2688	A	3.3
5	☐	50.000	50.750	5136034.53	0.6869	A	1.5
6	☐	100.000	99.658	10270967.01	1.3483	A	3.6

y = 0.0135 * x + 5.5171E-004

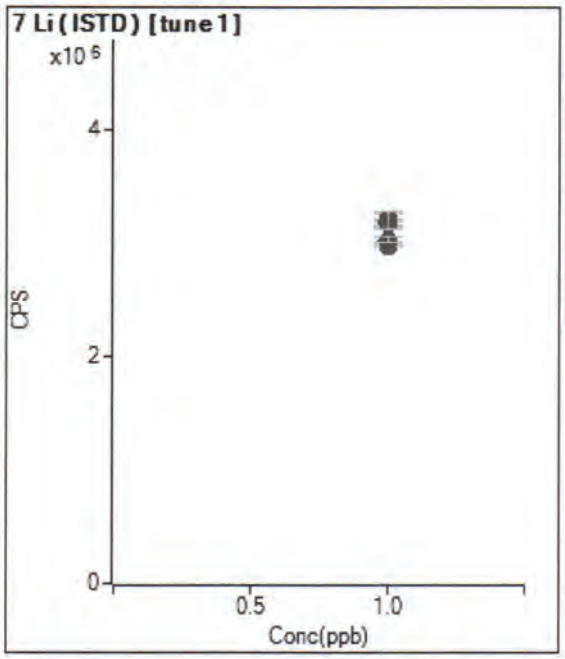
R = 1.0000

DL = 0.01017

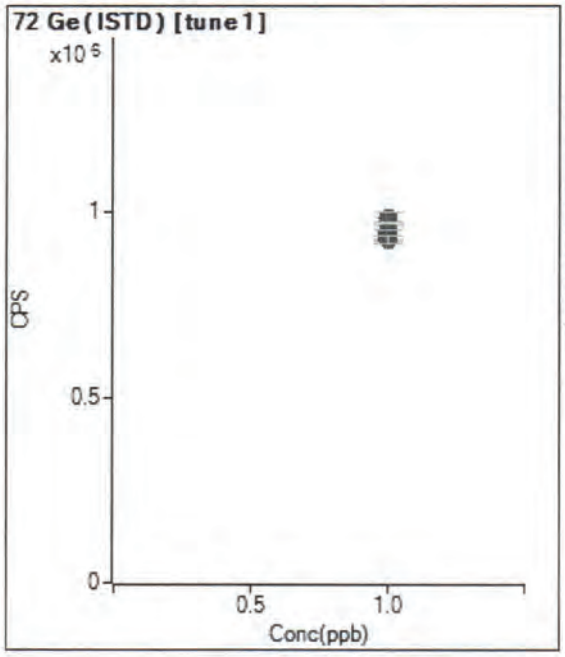
BEC = 0.0408

Weight: <None>

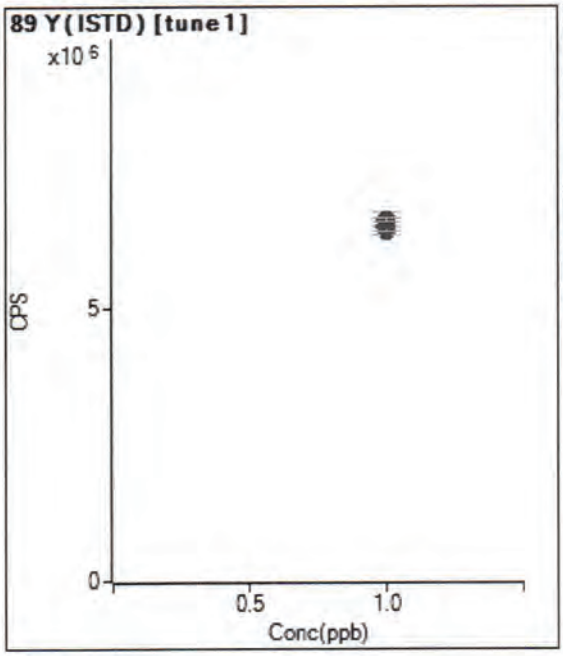
Min Conc: 0



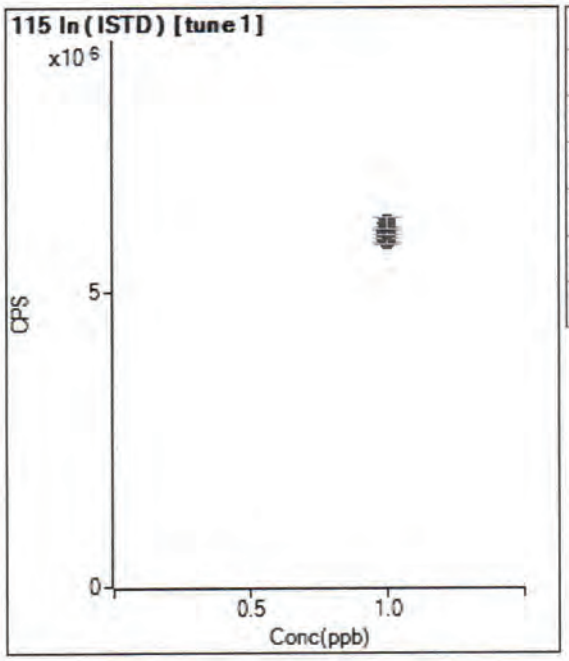
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3192463.75		A	3.8
2	☐	1.000		2966195.73		A	0.4
3	☐	1.000		3190010.52		A	0.4
4	☐	1.000		3020031.59		A	1.2
5	☐	1.000		3170237.44		A	1.9
6	☐	1.000		3189276.56		A	4.7



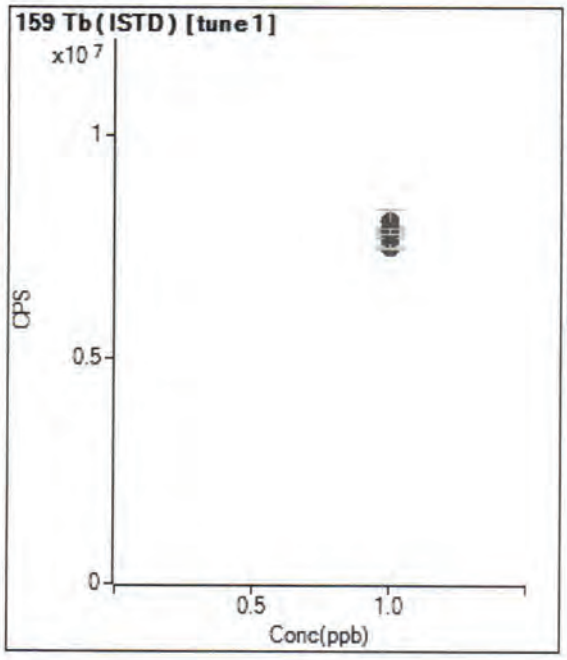
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		985053.55		A	3.8
2	☐	1.000		932925.50		A	1.8
3	☐	1.000		951311.62		A	4.2
4	☐	1.000		974141.14		A	0.9
5	☐	1.000		942677.37		A	2.7
6	☐	1.000		929433.47		A	2.2



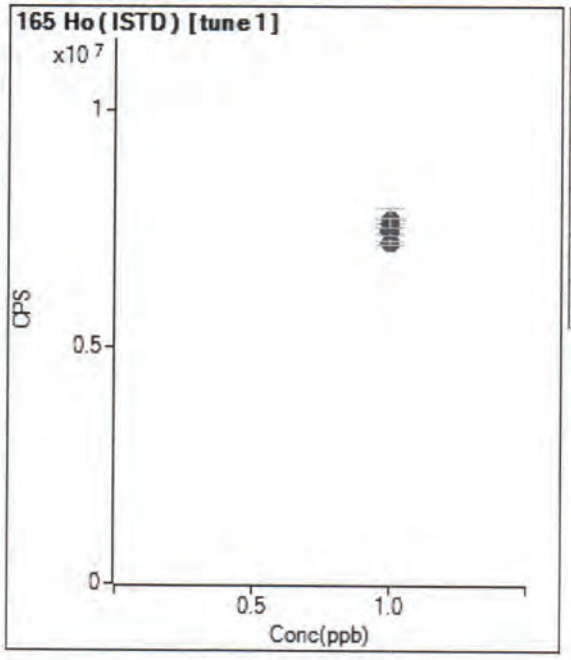
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6589730.69		A	5.7
2	☐	1.000		6431916.95		A	2.8
3	☐	1.000		6416481.10		A	2.1
4	☐	1.000		6479084.74		A	1.5
5	☐	1.000		6533526.27		A	4.1
6	☐	1.000		6616146.49		A	1.0



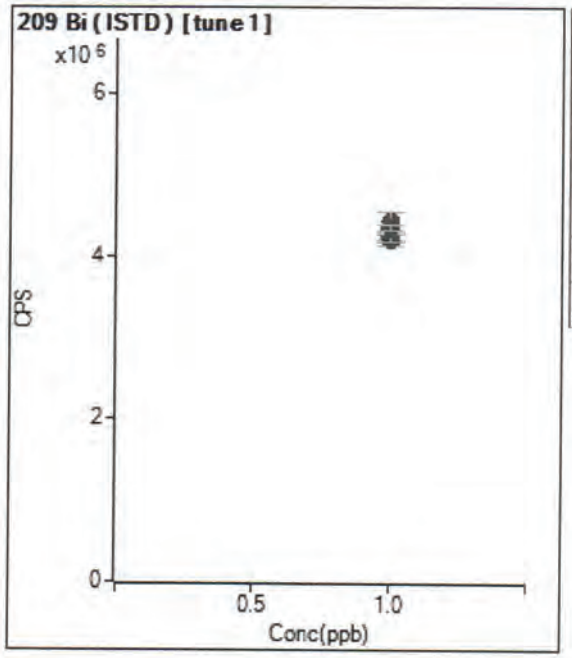
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6028461.51		A	7.5
2	☐	1.000		6018228.41		A	1.3
3	☐	1.000		5936977.21		A	3.6
4	☐	1.000		5873458.59		A	1.6
5	☐	1.000		6039303.56		A	1.7
6	☐	1.000		6158894.07		A	3.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8095462.21		A	6.5
2	☐	1.000		7875911.52		A	2.9
3	☐	1.000		7521362.55		A	1.2
4	☐	1.000		7710399.40		A	5.2
5	☐	1.000		7800498.25		A	2.1
6	☐	1.000		7875746.20		A	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7679610.23		A	6.9
2	☐	1.000		7529872.47		A	4.4
3	☐	1.000		7220213.76		A	1.2
4	☐	1.000		7429667.22		A	4.9
5	☐	1.000		7479671.13		A	3.1
6	☐	1.000		7623055.86		A	2.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4442782.94		A	5.4
2	☐	1.000		4225000.53		A	3.6
3	☐	1.000		4264724.16		A	2.9
4	☐	1.000		4235674.38		A	1.9
5	☐	1.000		4355269.70		A	2.6
6	☐	1.000		4370279.71		A	1.6

		9 Be [tune 1]		51 V [tune 1]		52 Cr [tune 1]		55 Mn [tune 1]		59 Co [tune 1]		60 Ni [tune 1]		62 Ni [tune 1]		63 Cu [tune 1]		65 Cu [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/3/2023 13:17	CAL BLK	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/3/2023 13:20	1 PPB	1.0065	3.9105	0.9976	3.5237	0.9852	3.5913	0.9834	0.3948	0.9962	2.6966	0.9872	6.1664	0.9678	20.8440	0.9852	3.3317	0.9840	4.3965
2/3/2023 13:24	5 PPB	4.8627	1.4871	4.7288	4.3387	4.6914	3.8607	4.8045	3.8784	4.7953	3.4667	4.8181	2.0230	4.6069	7.5817	4.8233	4.5576	4.6822	2.6053
2/3/2023 13:27	20 PPB	20.1966	1.1401	19.2986	0.4182	19.0824	1.7567	19.0774	1.1589	19.2212	3.0590	18.8442	4.9328	18.5518	6.0185	18.3642	1.3617	18.6221	3.0074
2/3/2023 13:31	50 PPB	50.2377	1.6058	50.0440	2.6353	49.7975	1.0778	49.6258	1.9092	49.2527	0.5379	49.8774	1.7111	49.7383	4.6551	50.5654	4.4253	48.1336	5.7056
2/3/2023 13:34	100 PPB	99.8487	7.2887	100.1318	4.2573	100.3002	2.7318	100.3814	1.7089	100.5397	2.4881	100.3016	3.2574	100.4401	2.3049	100.0533	1.4283	101.2247	3.4984
2/3/2023 13:37	ICV	48.4981	3.9625	51.4628	4.0636	49.2375	1.5613	47.4295	1.3179	47.9931	2.1694	49.0066	2.6989	49.3817	1.6095	48.3672	1.3507	47.3525	2.5433
2/3/2023 13:40	ICB	0.3697	29.7011	0.3495	24.0461	0.3351	24.8353	5.7320	0.9602	0.3172	22.9656	0.2997	17.7492	0.2615	21.8734	0.3252	21.7378	0.3168	23.5879
2/3/2023 13:43	ICSA	0.0605	7.1455	0.2004	4.3179	0.2853	5.9868	0.1337	6.7891	0.1071	6.7821	0.1718	11.0539	0.3653	21.2458	0.2429	4.1745	0.3424	3.9213
2/3/2023 13:47	ICSAB	49.5776	1.3355	47.1887	4.4605	46.7597	3.8345	45.3573	5.4703	44.2931	2.9049	44.2042	3.6085	45.1168	2.8198	43.6136	1.8622	42.5862	0.5112
2/3/2023 14:11	LB-1A	0.0205	12.4520	0.0898	7.7211	0.1763	12.9715	0.0147	48.9997	0.0590	15.2869	0.0878	20.9982	0.0303	232.6779	0.1904	9.7667	0.3278	2.6223
2/3/2023 14:14	LCS-1A 2X	48.6171	1.9267	49.8267	3.0608	49.3313	3.9251	48.3762	3.6970	46.8917	3.1610	47.6534	1.9560	48.5138	1.9252	48.3221	2.7680	47.2756	5.2419
2/3/2023 14:17	LOQ1-1A	1.0120	1.7288	5.0611	4.3088	5.2898	3.7824	5.0306	6.5806	1.0955	6.1866	4.9875	6.8871	4.8867	8.9272	4.9604	8.7746	5.0695	8.8964
2/3/2023 14:20	LOQ2-1A	0.9760	4.4013	5.2553	4.3475	5.6295	1.2556	5.1372	1.0185	1.1022	4.8991	5.1058	1.0260	4.8663	2.3401	5.2617	0.9921	5.2812	1.4550
2/3/2023 14:24	LOQ3-1A	1.0078	6.8605	5.2373	4.3638	5.3982	3.0137	8.6700	0.6810	1.1102	1.2364	5.6063	2.0722	5.3922	4.5412	5.1894	4.2106	5.2481	4.1230
2/3/2023 14:27	LOQ4-1A	0.9929	2.6831	5.1985	3.4497	5.2587	2.3272	4.9593	1.1431	1.0558	2.3139	5.2140	2.6580	5.2363	2.1329	5.2195	2.5110	5.1387	0.2211
2/3/2023 14:30	LOQ5-1A	0.9822	4.8502	4.9333	6.9659	5.1915	4.2946	4.9209	3.0377	1.0161	4.7830	4.9591	5.6130	4.8217	4.0719	4.9376	5.3033	5.0238	2.2370
2/3/2023 14:33	LOQ6-1A	1.0709	5.1801	4.9769	4.8983	5.2048	3.4490	4.9473	3.1944	1.0298	1.0727	4.9924	2.2271	4.8949	6.6525	4.7922	3.0674	4.8958	6.0873
2/3/2023 14:36	LOQ7-1A	0.9537	5.6912	5.0794	3.1876	5.2595	5.6813	5.0775	3.4224	1.0765	6.9335	5.1848	6.7490	4.9750	2.3843	5.0115	4.3613	4.9217	2.0906
2/3/2023 14:40	LOQ8-1A	0.9840	5.6107	5.1434	1.4662	5.3630	2.7229	4.9447	4.4768	1.0243	2.6865	5.3237	4.6953	5.2408	5.8659	4.8797	5.1867	4.9879	5.6207
2/3/2023 14:43	CCV	48.8269	2.5154	50.0731	4.6381	48.8807	3.0013	47.4517	4.3707	46.5492	6.2637	46.8332	4.6722	47.2534	3.2179	47.7972	3.4136	47.2217	3.3830
2/3/2023 14:46	CCB	0.2903	0.2541	0.3063	3.7359	0.3058	4.0374	5.8786	0.4635	0.2620	7.0526	0.3100	7.3992	0.1894	36.1816	0.2700	9.6921	0.2665	1.3304
2/3/2023 15:19	LB-2A	0.0067	12.7315	0.0049	22.3128	0.0898	6.9000	0.1405	8.3805	<0.000	N/A	0.3786	5.8761	0.4480	6.3740	0.1069	10.3143	0.1090	10.6569
2/3/2023 15:22	LCS-2A 2X	49.4702	2.3150	49.0474	3.5123	49.5784	4.2799	49.3639	3.4356	49.3275	3.0677	48.6587	0.8806	48.2789	2.5937	48.4377	2.9393	49.0141	5.1452
2/3/2023 15:25	LOQ1-2A	1.0733	5.0508	5.0531	1.8841	5.5089	0.5841	5.0857	1.3243	1.1260	2.2754	5.0700	2.4841	4.9093	6.7332	4.9516	3.2693	5.0626	4.6145
2/3/2023 15:28	LOQ2-2A	0.9930	2.2424	4.9024	4.9180	5.1702	3.0718	4.9814	3.1155	1.0198	3.8760	4.8152	2.2469	4.7963	4.9212	4.8877	2.5614	4.7854	3.3172
2/3/2023 15:32	LOQ3-2A	0.9724	1.9636	4.9254	4.5062	5.2398	6.9255	5.0835	4.1861	1.0334	2.9632	4.9004	5.7451	5.0572	8.4855	4.8366	4.0193	4.8616	5.2787
2/3/2023 15:35	LOQ4-2A	0.9398	1.7078	5.0369	2.9131	5.3528	2.5221	5.0675	0.4053	0.9830	1.8525	4.9879	0.8218	5.0554	2.9168	4.8786	2.0272	4.9863	3.1514
2/3/2023 15:38	LOQ5-2A	0.9098	1.3072	5.1136	3.2987	5.3291	2.3285	5.5417	2.7829	0.9820	4.2003	4.9446	1.3143	4.9275	1.7778	5.0282	0.8574	5.0778	0.8197
2/3/2023 15:41	LOQ6-2A	0.9085	4.1331	5.1067	5.2268	5.2251	5.6370	5.0141	4.7006	0.9663	4.6343	4.9847	3.1857	4.9799	4.6450	4.9650	2.1255	4.8919	6.2583
2/3/2023 15:45	LOQ7-2A	0.9410	1.6358	5.1154	8.4326	5.2253	5.0925	4.8721	6.0308	0.9961	3.4977	5.0053	4.4008	4.8268	2.2111	4.8117	3.5363	4.8392	2.3440
2/3/2023 15:48	LOQ8-2A	0.9391	0.8911	4.9760	1.9715	5.3265	2.9748	5.0725	2.3561	0.9802	0.7540	5.0332	1.7506	4.9377	0.6681	4.9715	3.1879	4.9703	4.5611
2/3/2023 15:51	CCV	48.7933	0.6413	50.1711	4.8547	48.3233	7.7611	46.6667	5.6469	45.5795	3.3218	47.9488	2.2307	47.7328	0.9843	47.9557	2.2734	47.1930	3.2068
2/3/2023 15:54	CCB	0.2789	23.0292	0.2945	21.3691	0.2763	17.3883	5.7987	1.1260	0.2489	13.7149	0.3295	15.3475	0.3203	29.0574	0.2586	14.6503	0.2652	17.6400

DNV Zn FH data KAH 2/6/23

		66 Zn [tune 1]		68 Zn [tune 1]		75 As [tune 1]		77 Se [tune 1]		78 Se [tune 1]		82 Se [tune 1]		107 Ag [tune 1]		109 Ag [tune 1]		111 Cd [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/3/2023 13:17	CAL BLK	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/3/2023 13:20	1 PPB	0.7166	17.2590	0.7732	3.1411	0.9727	6.8965	1.0562	12.4486	0.9173	12.4452	1.2201	6.3267	0.9937	0.2810	0.9804	4.0494	1.0278	4.2200
2/3/2023 13:24	5 PPB	4.1537	5.8990	4.3760	3.3356	4.9207	2.1841	4.8648	4.9400	4.5758	17.9092	4.6025	5.3507	4.9941	3.8930	5.0476	1.2673	5.2061	5.9425
2/3/2023 13:27	20 PPB	19.1474	3.8016	19.9297	1.7628	19.8092	1.5332	19.5612	2.5680	18.2688	3.3422	18.7814	3.1484	20.2178	1.9475	20.1794	3.6032	20.5845	2.9162
2/3/2023 13:31	50 PPB	49.2936	5.2273	49.7045	3.0812	50.4244	1.6761	49.5612	4.5259	49.9957	3.9808	50.7448	6.5143	51.2737	1.7331	50.7560	3.1655	51.7747	1.5870
2/3/2023 13:34	100 PPB	100.5237	2.0492	100.1618	0.7465	99.8299	2.0685	100.3139	4.3498	100.3696	4.4335	99.8912	9.0004	99.3199	2.3162	99.5839	2.4454	98.9852	1.6518
2/3/2023 13:37	ICV	48.4100	3.3161	49.0565	1.3966	49.9623	0.4693	48.6450	5.5002	48.0777	1.7748	48.2024	2.6042	51.9293	3.1706	52.3954	4.8921	51.5765	3.0177
2/3/2023 13:40	ICB	<0.000	N/A	<0.000	N/A	0.3684	13.0354	0.4562	33.6056	0.1079	253.7028	0.4249	55.6958	0.3635	18.7655	0.3598	21.8391	0.3415	15.6482
2/3/2023 13:43	ICSA	1.4984	8.6089	1.3122	8.9801	0.2478	5.0457	0.9857	22.5234	0.0034	8928.1364	0.1169	125.7748	0.0551	11.0232	0.0517	11.5833	0.3106	2.9491
2/3/2023 13:47	ICSAB	47.4690	0.3335	47.6560	1.0201	48.1990	0.8708	48.8029	3.5188	47.4431	3.7584	47.4553	5.9727	46.1033	1.0346	44.5843	5.2536	51.2539	1.9414
2/3/2023 14:11	LB-1A	3.8629	7.4088	3.7716	3.1609	6.5595	5.1884	0.1668	81.3274	<0.000	N/A	0.3522	48.2134	0.0361	17.7650	0.0371	30.5262	0.0146	60.9151
2/3/2023 14:14	LCS-1A 2X	65.7083	1.2461	65.6021	1.6092	48.3122	1.0216	49.7136	0.8972	46.4627	3.9181	46.2235	3.4620	50.1110	2.8711	50.9229	2.2839	50.0531	0.7924
2/3/2023 14:17	LOQ1-1A	25.2781	6.6356	24.6536	6.5982	6.1367	2.6470	4.9636	3.3552	4.3392	4.5571	5.3671	3.5468	1.1322	6.6088	1.1213	3.9864	1.1252	2.4645
2/3/2023 14:20	LOQ2-1A	23.8915	1.2389	23.8572	1.1419	6.2366	0.4609	5.2163	6.7217	4.6543	8.6693	5.4531	4.0794	1.0681	1.6439	1.0997	3.7355	1.0491	8.2149
2/3/2023 14:24	LOQ3-1A	34.5499	2.2016	34.1864	3.4586	5.7208	2.1161	5.5394	9.5719	4.4817	7.0715	5.5084	6.8930	1.0517	2.0262	1.0328	1.7575	1.0331	4.3848
2/3/2023 14:27	LOQ4-1A	26.1518	1.9558	25.7614	2.0865	5.1944	2.5766	5.4048	0.4478	4.5539	10.2164	5.1028	3.7330	1.0713	3.6466	1.0506	2.5719	1.0578	6.7678
2/3/2023 14:30	LOQ5-1A	28.0934	1.9813	27.5115	3.2319	5.2924	3.3124	5.0349	7.2633	4.0911	8.3113	5.4689	4.0704	1.0055	2.8126	1.0429	2.5722	1.0384	0.7677
2/3/2023 14:33	LOQ6-1A	30.5506	4.3282	29.8721	2.6263	4.9898	2.9689	5.2228	5.9573	4.3528	11.0854	5.2041	7.2330	1.0546	5.2287	1.0431	7.2217	1.0641	5.9999
2/3/2023 14:36	LOQ7-1A	24.3819	3.8704	23.9482	2.3735	4.8566	1.6555	5.2180	3.4706	4.3185	16.7777	4.9408	2.1754	1.0048	2.2977	1.0079	2.5003	1.0143	3.5387
2/3/2023 14:40	LOQ8-1A	45.0634	4.3103	44.0453	2.2182	4.7809	3.1812	4.9860	6.5689	4.2674	15.6798	5.2213	3.4681	1.0002	3.1753	1.0016	2.4398	1.0218	3.3214
2/3/2023 14:43	CCV	47.2627	3.8927	48.6422	4.0506	48.4182	3.1620	47.6653	2.4650	46.6361	3.5080	46.7715	4.8500	51.2173	2.6618	50.8126	1.2322	51.5609	1.2697
2/3/2023 14:46	CCB	<0.000	N/A	<0.000	N/A	0.2817	12.3747	0.1725	34.8779	0.1212	103.4999	0.3924	77.1478	0.2829	2.5695	0.2793	5.5244	0.2921	11.3733
2/3/2023 15:19	LB-2A	2.3844	6.1155	2.3594	1.3191	<0.000	N/A	<0.000	N/A	<0.000	N/A	0.0753	136.4187	0.0050	38.0633	0.0047	26.7071	0.0064	98.8298
2/3/2023 15:22	LCS-2A 2X	49.1629	2.5538	50.4635	1.7649	49.0419	1.6531	48.6070	3.0209	47.6409	3.0120	48.5911	2.9691	52.0339	3.1664	51.8753	5.0631	50.6239	1.4362
2/3/2023 15:25	LOQ1-2A	20.6757	3.4530	20.4022	2.8947	4.7728	1.1745	4.8481	2.4246	4.2075	4.5739	4.8013	0.5332	1.1564	8.1365	1.1314	9.4045	1.1803	8.3990
2/3/2023 15:28	LOQ2-2A	20.2167	3.5872	20.1822	2.0972	4.6723	4.8340	4.2876	2.3918	4.0480	10.3749	4.9130	10.5645	1.0797	3.5311	1.0880	2.2400	1.0846	4.3126
2/3/2023 15:32	LOQ3-2A	19.6834	4.3839	19.8995	3.0258	4.6207	4.6725	4.6919	4.1026	4.1957	15.3685	4.7546	12.1397	0.9980	2.0666	0.9955	3.2624	1.0304	5.3667
2/3/2023 15:35	LOQ4-2A	20.4530	3.1984	19.9685	1.7785	4.7454	1.4072	4.8733	3.9656	4.1576	10.2798	4.9522	6.1271	1.0095	4.0687	1.0173	2.6680	0.9869	5.7425
2/3/2023 15:38	LOQ5-2A	33.9413	2.4238	33.0809	2.8065	4.7438	3.2181	4.7178	5.1765	4.2737	5.5499	4.6239	4.1105	0.9864	3.9994	1.0009	2.4502	0.9997	5.5121
2/3/2023 15:41	LOQ6-2A	20.9269	5.1438	20.7436	4.0320	4.7718	5.5588	4.2003	4.5948	3.9748	9.8374	5.2082	9.9825	1.0277	2.2206	1.0045	4.0103	1.0655	6.5163
2/3/2023 15:45	LOQ7-2A	20.2199	2.6113	20.0778	3.2460	4.6853	2.9750	4.4368	7.2780	4.2210	10.5710	4.7923	5.6050	1.0018	2.4740	1.0105	3.2527	0.9920	1.0548
2/3/2023 15:48	LOQ8-2A	22.6302	1.7213	22.4395	0.7680	4.8100	2.4131	4.8365	2.8096	4.3367	5.6011	4.9776	3.1128	1.0134	4.1861	1.0138	2.3231	1.0270	8.2147
2/3/2023 15:51	CCV	47.6521	3.1076	48.3315	1.7601	48.2779	2.8220	47.5660	4.1661	46.3668	3.5596	46.5836	0.8400	51.3078	3.5487	51.1602	5.3655	51.4480	2.5810
2/3/2023 15:54	CCB	<0.000	N/A	<0.000	N/A	0.2499	12.7627	0.0880	97.7389	0.3033	84.8562	0.5123	18.1597	0.2608	11.4296	0.2561	14.2257	0.2620	17.5324

		114 Cd [tune 1]		121 Sb [tune 1]		123 Sb [tune 1]		137 Ba [tune 1]		138 Ba [tune 1]		205 Tl [tune 1]		206 Pb [tune 1]		207 Pb [tune 1]		208 Pb [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/3/2023 13:17	CAL BLK	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/3/2023 13:20	1 PPB	1.0121	2.2102	1.0120	0.7436	1.0159	1.7485	1.0033	5.7755	0.9999	7.1201	1.0014	2.8632	0.9927	6.1182	0.9612	2.6443	0.9599	4.6036
2/3/2023 13:24	5 PPB	5.0369	2.3177	5.0714	1.1201	5.0276	3.1757	5.0840	2.8434	5.1840	1.6119	5.0654	1.6774	5.0317	1.1521	4.9574	1.7593	5.0142	2.1498
2/3/2023 13:27	20 PPB	20.3865	0.3686	20.9298	0.8683	20.7632	0.8263	20.1592	4.0490	19.7326	3.1962	20.4187	0.5237	20.4646	1.4803	20.0928	4.0502	19.8326	3.2741
2/3/2023 13:31	50 PPB	50.6172	1.0800	51.1372	4.3534	49.8336	2.2993	51.4030	3.2493	51.5603	2.2107	51.8572	1.7010	50.1677	1.9229	50.4079	1.7499	50.7504	1.4826
2/3/2023 13:34	100 PPB	99.6121	1.2003	99.2419	1.6377	99.9292	1.0291	99.2625	2.2399	99.2641	2.0657	98.9844	2.0617	99.8217	2.5462	99.7800	3.1736	99.6580	3.5631
2/3/2023 13:37	ICV	49.6553	2.7169	48.7249	3.3946	49.1612	3.2683	50.0374	2.1338	49.8393	3.4047	50.6193	1.5516	52.9749	3.4981	46.8479	2.5554	49.7337	0.6312
2/3/2023 13:40	ICB	0.3459	21.1079	0.2906	24.3462	0.3021	15.9964	0.3281	22.0784	0.3153	24.0953	0.3337	26.1871	0.3400	31.9003	0.3155	28.2393	0.3200	31.1159
2/3/2023 13:43	ICSA	0.2386	1.5095	0.0727	3.3894	0.0655	8.0169	0.1189	16.8564	0.1236	3.7738	0.0664	5.0922	0.0876	1.6936	0.0911	16.4086	0.0885	7.8476
2/3/2023 13:47	ICSAB	49.2193	1.5222	51.8103	4.6458	51.6227	3.8181	49.2758	2.0714	48.3363	3.3596	48.9209	0.8457	46.7521	2.9647	45.5559	2.6572	46.2803	2.9014
2/3/2023 14:11	LB-1A	0.0147	45.9840	0.2898	11.4904	0.2804	13.1874	0.1205	7.5003	0.1159	7.9678	0.0103	70.4839	0.0055	36.1854	0.0010	514.1002	0.0017	163.1657
2/3/2023 14:14	LCS-1A 2X	49.3692	1.3681	48.6198	2.5680	48.9609	1.4460	47.8059	4.7146	47.8192	1.6859	50.1927	1.1442	53.2784	0.1608	49.1981	1.9812	51.1747	1.9038
2/3/2023 14:17	LOQ1-1A	1.0621	4.0783	5.0578	1.4669	5.0769	2.0713	5.5804	2.8938	5.4965	1.1140	1.0401	2.7858	1.0250	2.0650	1.0442	3.7084	1.0311	3.6478
2/3/2023 14:20	LOQ2-1A	1.0556	2.1765	5.0590	3.2639	5.1132	2.3031	12.0209	3.8438	12.1963	5.6408	1.0192	0.8839	1.0599	4.9459	1.0520	1.5119	1.0360	1.9101
2/3/2023 14:24	LOQ3-1A	1.0028	2.3599	5.0641	4.6639	5.0296	3.8130	7.4475	1.4776	7.4539	2.0056	1.0278	0.2349	1.0109	0.6354	1.0310	4.5085	1.0152	2.5453
2/3/2023 14:27	LOQ4-1A	0.9992	5.0289	5.1123	5.2277	5.0705	3.8678	6.5785	4.9396	6.4734	3.9076	1.0259	3.9726	1.0281	1.2699	1.0032	1.2217	1.0184	1.3432
2/3/2023 14:30	LOQ5-1A	0.9981	5.2693	4.9297	1.7069	4.8712	5.2211	5.8383	7.0051	5.7203	6.0657	1.0355	2.5897	1.0462	1.6290	1.0386	3.7050	1.0267	0.7978
2/3/2023 14:33	LOQ6-1A	1.0136	3.3482	5.1013	1.1909	5.2022	2.3277	5.1982	5.4366	5.1153	5.9023	0.9972	2.2235	1.0134	6.4053	1.0320	9.2947	1.0128	7.3548
2/3/2023 14:36	LOQ7-1A	1.0005	1.8745	4.8256	3.1459	4.8202	4.0748	5.1839	4.0934	5.1426	4.4561	1.0003	3.7299	1.0096	3.7640	1.0111	5.3636	0.9980	4.8676
2/3/2023 14:40	LOQ8-1A	1.0252	3.2604	4.8279	1.1736	4.8297	4.3419	5.1104	0.7647	5.0979	4.6675	1.0126	5.1335	1.0179	5.0191	1.0389	5.2789	1.0163	4.3833
2/3/2023 14:43	CCV	50.1139	2.5185	49.7615	5.8034	49.7251	3.0579	48.2758	1.0904	47.2274	1.2002	50.1589	0.6237	51.2185	1.3450	47.2190	0.4214	49.8378	0.6474
2/3/2023 14:46	CCB	0.2768	6.7960	0.2909	9.1034	0.2942	11.4735	0.2612	5.8596	0.2629	10.0004	0.2798	7.2178	0.2883	1.5602	0.2474	9.4645	0.2641	4.5922
2/3/2023 15:19	LB-2A	<0.000	N/A	<0.000	N/A	0.0002	143.6364	0.0183	18.7683	0.0308	8.9983	<0.000	N/A	<0.000	N/A	<0.000	N/A	<0.000	N/A
2/3/2023 15:22	LCS-2A 2X	50.0316	2.3321	51.0634	3.5878	51.4455	0.2118	51.6714	6.8031	52.1740	7.2955	52.9776	1.0197	50.3741	3.3975	51.4327	2.4221	52.0128	1.9328
2/3/2023 15:25	LOQ1-2A	1.1532	2.9968	4.9509	2.3740	4.8781	5.2656	5.3124	2.6597	5.2233	4.0368	1.1467	2.3370	1.1453	4.0514	1.1682	6.2479	1.1401	4.5240
2/3/2023 15:28	LOQ2-2A	1.0731	1.9102	4.8337	2.4674	4.9038	3.0122	5.3031	2.5044	5.2967	0.9439	1.0819	2.6829	1.0818	2.3104	1.0806	2.9397	1.0799	1.4206
2/3/2023 15:32	LOQ3-2A	1.0434	9.7502	4.8056	3.3506	4.7698	2.8304	4.9062	0.7136	4.8704	2.2310	1.0077	2.8193	0.9827	1.1141	0.9807	2.4109	0.9943	1.6157
2/3/2023 15:35	LOQ4-2A	0.9818	2.5915	4.8172	2.2985	4.8791	2.0819	4.7967	5.8748	4.7896	7.0087	1.0069	1.9940	0.9886	5.5318	0.9905	3.5168	0.9749	2.8518
2/3/2023 15:38	LOQ5-2A	0.9884	4.4253	4.7374	2.1614	4.7989	2.1308	4.7888	2.2818	4.7902	3.0000	0.9572	1.7656	1.0403	1.3391	0.9966	5.0472	1.0163	2.2805
2/3/2023 15:41	LOQ6-2A	0.9982	2.7658	5.1409	1.7333	5.1026	2.5376	4.8567	2.9982	4.8758	1.8075	1.0030	2.0287	0.9750	3.4335	0.9591	2.9940	0.9633	3.0266
2/3/2023 15:45	LOQ7-2A	1.0015	2.4013	4.8155	2.5856	4.7139	1.4357	4.7857	5.3797	4.8140	2.9034	0.9816	1.5459	1.0058	1.3458	0.9775	3.5618	0.9730	2.2526
2/3/2023 15:48	LOQ8-2A	0.9767	2.7901	4.8040	4.1714	4.7946	1.2923	4.8905	2.0813	4.9313	3.6978	1.0015	2.3855	0.9955	1.6158	1.0161	3.0888	0.9946	3.4210
2/3/2023 15:51	CCV	49.7461	4.0742	49.8475	3.7102	49.0949	2.0489	47.1250	1.9529	45.7037	2.1187	48.7715	2.1938	49.9434	2.0710	45.0568	2.3078	47.7722	0.3874
2/3/2023 15:54	CCB	0.2662	15.0488	0.2240	17.5982	0.2196	13.8194	0.2605	15.2929	0.2579	15.0845	0.2626	15.2973	0.2711	17.8405	0.2401	9.0491	0.2586	14.9412

		7 Li (ISTD) [tune 1]		72 Ge (ISTD) [tune 1]		89 Y (ISTD) [tune 1]		115 In (ISTD) [tune 1]		159 Tb (ISTD) [tune 1]		165 Ho (ISTD) [tune 1]		209 Bi (ISTD) [tune 1]	
Acq. Date-Time	Sample Name	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %
2/3/2023 13:17	CAL BLK	3192463.75	100.00	985053.55	100.00	6589730.69	100.00	6028461.51	100.00	8095462.21	100.00	7679610.23	100.00	4442782.94	100.00
2/3/2023 13:20	1 PPB	2966195.73	92.91	932925.50	94.71	6431916.95	97.61	6018228.41	99.83	7875911.52	97.29	7529872.47	98.05	4225000.53	95.10
2/3/2023 13:24	5 PPB	3190010.52	99.92	951311.62	96.57	6416481.10	97.37	5936977.21	98.48	7521362.55	92.91	7220213.76	94.02	4264724.16	95.99
2/3/2023 13:27	20 PPB	3020031.59	94.60	974141.14	98.89	6479084.74	98.32	5873458.59	97.43	7710399.40	95.24	7429667.22	96.75	4235674.38	95.34
2/3/2023 13:31	50 PPB	3170237.44	99.30	942677.37	95.70	6533526.27	99.15	6039303.56	100.18	7800498.25	96.36	7479671.13	97.40	4355269.70	98.03
2/3/2023 13:34	100 PPB	3189276.56	99.90	929433.47	94.35	6616146.49	100.40	6158894.07	102.16	7875746.20	97.29	7623055.86	99.26	4370279.71	98.37
2/3/2023 13:37	ICV	2945374.26	92.26	886042.59	89.95	6044829.51	91.73	5556684.97	92.17	7164919.57	88.51	6866980.17	89.42	3955334.75	89.03
2/3/2023 13:40	ICB	3087413.01	96.71	975514.20	99.03	6605499.64	100.24	6088602.02	101.00	7937585.90	98.05	7521011.53	97.93	4355967.06	98.05
2/3/2023 13:43	ICSA	2895690.09	90.70	944194.20	95.85	6291176.84	95.47	5703290.28	94.61	7539250.08	93.13	7160969.10	93.25	3863515.64	86.96
2/3/2023 13:47	ICSAB	2892062.59	90.59	910798.98	92.46	6032322.68	91.54	5513011.10	91.45	7271042.30	89.82	6998357.96	91.13	3811374.63	85.79
2/3/2023 14:11	LB-1A	3000950.53	94.00	979160.03	99.40	7029705.03	106.68	6626232.52	109.92	8830008.76	109.07	8383447.89	109.17	4754704.27	107.02
2/3/2023 14:14	LCS-1A 2X	2920055.16	91.47	956220.07	97.07	6680249.13	101.37	6285119.15	104.26	8322047.59	102.80	7888015.13	102.71	4512784.50	101.58
2/3/2023 14:17	LOQ1-1A	3086762.96	96.69	979301.69	99.42	7153718.47	108.56	6288716.50	104.32	8772753.38	108.37	8234470.01	107.23	4643751.09	104.52
2/3/2023 14:20	LOQ2-1A	3004682.83	94.12	940631.73	95.49	6902249.04	104.74	6217581.61	103.14	8613764.92	106.40	8244714.11	107.36	4619856.21	103.99
2/3/2023 14:24	LOQ3-1A	2928767.49	91.74	926346.88	94.04	7101095.38	107.76	6394821.98	106.08	8371306.11	103.41	8051462.27	104.84	4398950.51	99.01
2/3/2023 14:27	LOQ4-1A	3026626.13	94.81	958313.61	97.29	6947445.79	105.43	6309505.26	104.66	8557982.89	105.71	8022888.75	104.47	4592459.07	103.37
2/3/2023 14:30	LOQ5-1A	3086207.32	96.67	990562.05	100.56	7229051.03	109.70	6479247.10	107.48	8304821.51	102.59	7986776.60	104.00	4524595.32	101.84
2/3/2023 14:33	LOQ6-1A	2833917.70	88.77	972492.63	98.72	6926554.85	105.11	6311375.70	104.69	8638010.78	106.70	8232099.00	107.19	4596734.70	103.47
2/3/2023 14:36	LOQ7-1A	3090401.00	96.80	962995.38	97.76	6927082.31	105.12	6753899.72	112.03	8680489.77	107.23	8330753.90	108.48	4802948.72	108.11
2/3/2023 14:40	LOQ8-1A	3042331.31	95.30	961908.18	97.65	6776097.94	102.83	6589827.46	109.31	8329623.60	102.89	7970529.05	103.79	4476866.40	100.77
2/3/2023 14:43	CCV	2708989.02	84.86	893122.10	90.67	6148937.53	93.31	5601259.69	92.91	7432901.86	91.82	7146150.22	93.05	4083011.31	91.90
2/3/2023 14:46	CCB	2827574.85	88.57	895319.00	90.89	6188012.64	93.90	5794861.44	96.13	7432225.56	91.81	7368689.94	95.95	4081449.64	91.87
2/3/2023 15:19	LB-2A	3128678.44	98.00	927000.70	94.11	6589244.90	99.99	5801988.57	96.24	7967047.81	98.41	7676023.36	99.95	4260857.84	95.91
2/3/2023 15:22	LCS-2A 2X	3040811.15	95.25	911980.35	92.58	6378766.30	96.80	5930815.91	98.38	7651821.29	94.52	7252434.94	94.44	4188021.21	94.27
2/3/2023 15:25	LOQ1-2A	3328799.15	104.27	982586.21	99.75	6866838.47	104.21	6368393.52	105.64	8299891.06	102.53	7922105.89	103.16	4379786.09	98.58
2/3/2023 15:28	LOQ2-2A	3230804.10	101.20	969139.77	98.38	6701945.20	101.70	6153236.26	102.07	7912994.33	97.75	7518458.20	97.90	4355633.60	98.04
2/3/2023 15:32	LOQ3-2A	3284860.27	102.89	953217.66	96.77	6719435.40	101.97	6256594.22	103.78	8267272.76	102.12	7719142.26	100.51	4380392.68	98.60
2/3/2023 15:35	LOQ4-2A	3242892.36	101.58	932811.72	94.70	6534248.18	99.16	6076622.81	100.80	7929018.01	97.94	7733140.11	100.70	4342564.24	97.74
2/3/2023 15:38	LOQ5-2A	3163286.48	99.09	912994.63	92.68	6474850.98	98.26	6003407.83	99.58	8124398.02	100.36	7734827.27	100.72	4223211.40	95.06
2/3/2023 15:41	LOQ6-2A	3153085.45	98.77	919434.90	93.34	6580860.73	99.87	5885942.17	97.64	7968385.60	98.43	7541134.67	98.20	4138336.21	93.15
2/3/2023 15:45	LOQ7-2A	3259845.15	102.11	957125.58	97.16	6778721.40	102.87	6205870.88	102.94	8136934.20	100.51	7868803.95	102.46	4364776.13	98.24
2/3/2023 15:48	LOQ8-2A	3350543.19	104.95	934367.32	94.85	6807191.54	103.30	6087591.75	100.98	7940877.83	98.09	7610425.68	99.10	4257810.37	95.84
2/3/2023 15:51	CCV	2903165.28	90.94	874075.50	88.73	6031128.78	91.52	5546052.96	92.00	7496274.92	92.60	7179678.65	93.49	3987932.43	89.76
2/3/2023 15:54	CCB	2946852.53	92.31	869436.99	88.26	6030670.77	91.52	5716990.57	94.83	7072640.98	87.37	6772808.92	88.19	3968222.20	89.32

ICP-MS Raw Data Coversheet

Instrument X/__

Doc. No.: RD05
Rev.:G
Effective Date: 08-05-22

Analyst(s):	KAH	Analysis Date(s):	2/16/23
EA Project #s:	M29 6020 X LOQs		
Analytes:	As, Mn, Zn, Ba		EE KAH 2/16/23
Method:	6020	Smart Tune ID: ES-0804	Conc: ~~10ppm~~ 1ppb Exp: 7/3/23
		Internal Standard ID[1]: F0773	Conc: 10 ppm Exp: 2/23
Diluent:	50 mL HNO3 (ID # 22380017 Exp: 9/24) diluted to 1000 mL with DI		
Calib. Blk/ICB/CCB:	Diluent		

[1] All samples and standards are spiked with 50µL of internal std. (pipette 127 exp 3/4/23)

Calibration Standards - Made from EA ID#[2]: 1:10 F0824 (Stock Concentration: 10ppm Exp Date: 2/17/23) and brought up with Diluent

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
Standard 1	~~1~~ 5 (3)	~~100~~ of Std 6	124 3/4/23	10	141 3/4/23	KAH	2/16/23	2/17/23
Standard 2	~~5~~ 10	~~500~~ of Std 6						
Standard 3	20	2mL Std6						
Standard 4	50	50	127					
Standard 5	100	100						
No IS Std 6	100	100						

[2] 10ppm WS = 1mL of Standard 100ppm F0824 exp 7/25 (pipettes: 124, 141 exp 3/4/23) + 9mL Diluent

Secondary Standards - Made from EA ID#: F0814 (Stock Concentration: 10ppm ExpDate: 11/23) and brought up with Diluent

	Final Conc. (ppb)	Amount (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICV/CCV	50	50	127 3/4/23	10	141 3/4/23	KAH	2/16/23	2/17/23

ICS's- Made from Stock Std ICS-A ID#(F0786 Exp: 9/25) & 50 ppb Metals Std ID#(F0814 Conc: 10ppm Exp: 11/23) brought up with Diluent

	Conc.	Amount WS (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst	Date	Exp. Date
ICS-A	Multi	100	127 3/4/23	10	141 3/4/23	KAH	2/16/23	2/17/23
	Multi	100						
ICS-AB	50 ppb	50						

Post Dig Matrix Spike Samples - Diluted with Diluent (Metals Mix ID#_____ Conc:_____ Exp:_____)

Sample ID	Dilution Factor of Field Sample	Aliquot of Sample (mL)	Final Conc. (ppb)	Amount of Spike Added (µL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
						10		
						10		
						10		
						10		
						10		
						10		
						10		

(3) 5ppb 500 µL Std6
10ppb 1mL Std6 KAH ~~2/9~~ 2/16/23 EE KAH 2/16/23

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Instrument (X) __

Doc. No.: RD05
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Sample Dilution Tracker - Diluted with Diluent						
Sample ID(s)	Dilution Factor of Sample	Aliquot of Sample (mL)	Pipette # & Exp:	Final Vol (mL)	Pipette # & Exp:	Analyst
LCS-1	2	5	141 3/4/23	10	141 3/4/23	KAH

Comments:

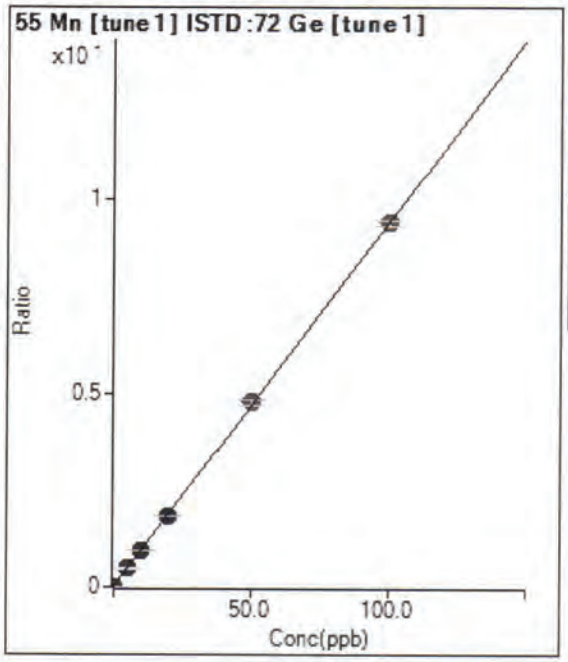
		55 Mn [tune 1]		66 Zn [tune 1]		68 Zn [tune 1]		75 As [tune 1]		137 Ba [tune 1]		138 Ba [tune 1]	
Acq. Date-Time	Sample Name	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD	Conc. [ppb]	Conc. RSD
2/16/2023 14:14	CAL BLK	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A	0.0000	N/A
2/16/2023 14:17	5 PPB	4.9627	2.6817	4.6663	1.3884	4.5814	4.5973	4.6939	1.5824	4.8264	3.6332	4.7508	3.5943
2/16/2023 14:20	10 PPB	10.0068	1.9238	9.9468	4.7553	9.6326	5.3567	9.7236	1.8757	9.5850	3.1201	9.6143	1.1507
2/16/2023 14:23	20 PPB	19.4146	1.5472	20.2086	1.6566	20.1351	2.1697	20.0668	0.9059	19.1407	3.6546	19.3028	1.9194
2/16/2023 14:26	50 PPB	50.4978	2.1817	50.0270	1.8103	49.4470	0.8017	49.7705	0.9302	49.4909	1.0722	48.8829	2.0232
2/16/2023 14:29	100 PPB	99.8694	1.4027	99.9448	1.5750	100.2495	2.9652	100.1443	1.9096	100.4766	1.5843	100.7490	3.9512
2/16/2023 15:12	ICV	50.3902	0.9720	49.7309	3.9383	50.2926	0.2352	50.4107	3.0667	48.5621	3.6998	48.6098	1.5864
2/16/2023 15:15	ICB	0.2365	10.2227	<0.000	N/A	<0.000	N/A	0.2526	8.0246	0.1970	9.6994	0.2197	8.0640
2/16/2023 15:18	ICSA	0.2401	13.3435	2.3564	4.1687	2.0928	6.9325	0.4312	4.3133	0.1932	20.5841	0.2078	11.2861
2/16/2023 15:21	ICSAB	49.1888	2.8105	52.1901	1.8027	51.3700	1.9522	51.8181	1.5367	49.3129	2.7093	50.0345	3.9418
2/16/2023 15:27	LB-1	0.3502	8.6982	3.2950	7.7310	3.1409	5.0149	7.4196	3.9204	1.0985	2.0213	1.0906	3.3538
2/16/2023 15:30	LCS-1	52.9262	1.3568	53.0764	3.3200	53.1767	1.2085	53.4225	3.0370	53.0435	1.6448	53.0752	1.8554
2/16/2023 15:33	LOQ1-1	5.9480	2.1350	22.9760	2.4107	22.5432	1.0552	6.6014	4.5264	5.4005	0.0617	5.4488	3.7420
2/16/2023 15:36	LOQ2-1	5.1661	3.6439	21.3440	1.4135	21.3638	5.5831	5.9260	5.8898	5.1766	1.0484	5.1507	0.8421
2/16/2023 15:39	LOQ3-1	5.3852	1.5991	22.0374	2.6334	21.6754	1.9302	5.5396	5.6065	4.9709	1.9314	4.9654	2.0292
2/16/2023 15:42	LOQ4-1	5.2467	2.8438	21.7757	1.7535	21.4063	2.6742	5.5867	2.5579	5.2453	3.9683	5.2027	2.8508
2/16/2023 15:46	LOQ5-1	5.2820	3.7171	20.7123	2.8328	20.9882	3.4788	5.5604	3.8335	4.9904	0.4753	4.9927	2.2198
2/16/2023 15:49	LOQ6-1	5.2661	1.2616	23.7768	1.5895	23.8983	0.7627	5.6309	2.1591	5.2901	3.6649	5.4951	1.0479
2/16/2023 15:52	LOQ7-1	5.1042	1.8694	21.4484	1.5465	21.1411	2.3542	5.0863	1.3547	4.9865	1.0618	4.8818	2.9204
2/16/2023 15:55	LOQ8-1	5.1853	1.9751	217.3869	3.2392	213.1079	2.4172	5.3691	4.4130	8.9091	3.1486	8.9534	3.8298
2/16/2023 15:58	CCV	50.1454	0.7375	51.5490	1.8598	51.6782	0.7520	50.9102	2.0518	49.7551	3.6363	50.5881	2.0927
2/16/2023 16:05	CCB	0.2424	18.5524	0.0371	349.2504	0.0574	133.8759	0.4653	12.8697	0.2211	8.6426	0.2060	14.4440
2/16/2023 16:10	LB-1 RP	0.1964	8.8379	2.7433	2.2169	2.5615	5.6244	1.1538	8.4668	0.9733	4.2392	0.9616	4.4076
2/16/2023 16:13	LOQ8-1 RP	5.2032	0.4838	23.8730	2.7269	23.6832	1.7922	5.2859	3.2440	8.5695	4.2223	8.6736	3.0566
2/16/2023 16:16	CCV	49.4981	4.4051	49.8243	1.0245	50.5082	1.2605	51.2277	1.9818	49.0456	1.6145	49.5437	3.2345
2/16/2023 16:20	CCB	0.3117	17.6938	<0.000	N/A	<0.000	N/A	0.5256	6.1337	0.3125	31.0339	0.2805	20.3016

		72 Ge (ISTD) [tune 1]		89 Y (ISTD) [tune 1]		115 In (ISTD) [tune 1]		159 Tb (ISTD) [tune 1]	
Acq. Date-Time	Sample Name	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %	CPS	ISTD Recovery %
2/16/2023 14:14	CAL BLK	185583.60	100.00	1207247.56	100.00	1095157.77	100.00	1407278.44	100.00
2/16/2023 14:17	5 PPB	187245.48	100.90	1213521.98	100.52	1087668.50	99.32	1437748.65	102.17
2/16/2023 14:20	10 PPB	181347.08	97.72	1161336.40	96.20	1056166.72	96.44	1412340.89	100.36
2/16/2023 14:23	20 PPB	184352.94	99.34	1156870.76	95.83	1066004.00	97.34	1387827.15	98.62
2/16/2023 14:26	50 PPB	183462.51	98.86	1161144.70	96.18	1049804.22	95.86	1406473.39	99.94
2/16/2023 14:29	100 PPB	185681.29	100.05	1155138.30	95.68	1034012.21	94.42	1406563.49	99.95
2/16/2023 15:12	ICV	186928.92	100.72	1163128.48	96.35	1039347.71	94.90	1361429.89	96.74
2/16/2023 15:15	ICB	179193.25	96.56	1162764.41	96.32	1045780.77	95.49	1337127.40	95.02
2/16/2023 15:18	ICSA	177364.67	95.57	1096982.79	90.87	982567.38	89.72	1278643.17	90.86
2/16/2023 15:21	ICSAB	177597.28	95.70	1098148.59	90.96	980248.58	89.51	1326343.80	94.25
2/16/2023 15:27	LB-1	192460.67	103.71	1242944.25	102.96	1166708.03	106.53	1554062.11	110.43
2/16/2023 15:30	LCS-1	181553.04	97.83	1192266.89	98.76	1067663.23	97.49	1470402.12	104.49
2/16/2023 15:33	LOQ1-1	188333.08	101.48	1215515.84	100.68	1120559.16	102.32	1558988.11	110.78
2/16/2023 15:36	LOQ2-1	191755.76	103.33	1201443.76	99.52	1123505.86	102.59	1519539.25	107.98
2/16/2023 15:39	LOQ3-1	191230.26	103.04	1237448.34	102.50	1143154.12	104.38	1580165.81	112.29
2/16/2023 15:42	LOQ4-1	186916.31	100.72	1193391.59	98.85	1117882.00	102.07	1522254.68	108.17
2/16/2023 15:46	LOQ5-1	187094.73	100.81	1226067.27	101.56	1128726.60	103.07	1554962.72	110.49
2/16/2023 15:49	LOQ6-1	185462.01	99.93	1222554.40	101.27	1116484.33	101.95	1520890.12	108.07
2/16/2023 15:52	LOQ7-1	187212.61	100.88	1234181.78	102.23	1144935.91	104.55	1541835.84	109.56
2/16/2023 15:55	LOQ8-1	192408.76	103.68	1212377.87	100.42	1110550.32	101.41	1576249.55	112.01
2/16/2023 15:58	CCV	180599.38	97.31	1138266.36	94.29	1038980.13	94.87	1402147.78	99.64
2/16/2023 16:05	CCB	176106.79	94.89	1114443.43	92.31	1029862.61	94.04	1347961.85	95.79
2/16/2023 16:10	LB-1 RP	187973.90	101.29	1210377.78	100.26	1112087.72	101.55	1524588.04	108.34
2/16/2023 16:13	LOQ8-1 RP	192833.02	103.91	1237486.69	102.50	1141648.98	104.25	1524779.10	108.35
2/16/2023 16:16	CCV	181092.58	97.58	1144266.57	94.78	1038742.96	94.85	1384272.30	98.37
2/16/2023 16:20	CCB	176396.99	95.05	1122747.69	93.00	1016062.50	92.78	1379605.58	98.03

Calibration for 026SMPL.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\2023\As, Zn, Mn, Ba LOQ RR 021623.b\
Analysis File: As, Zn, Mn, Ba LOQ RR 021623.batch.bin
DA Date-Time: 2/16/2023 4:20:52 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	001CALB.d	CAL BLK	2/16/2023 2:14:08 PM
2	002CALS.d	5 PPB	2/16/2023 2:17:16 PM
3	003CALS.d	10 PPB	2/16/2023 2:20:26 PM
4	004CALS.d	20 PPB	2/16/2023 2:23:35 PM
5	005CALS.d	50 PPB	2/16/2023 2:26:46 PM
6	006CALS.d	100 PPB	2/16/2023 2:29:55 PM



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2405.97	0.0130	P	8.5
2	☐	5.000	4.963	89744.45	0.4794	P	2.6
3	☐	10.000	10.007	172863.93	0.9534	P	1.9
4	☐	20.000	19.415	338683.37	1.8375	P	1.5
5	☐	50.000	50.498	873138.86	4.7586	A	2.2
6	☐	100.000	99.869	1745213.35	9.3983	A	1.4

y = 0.0940 * x + 0.0130

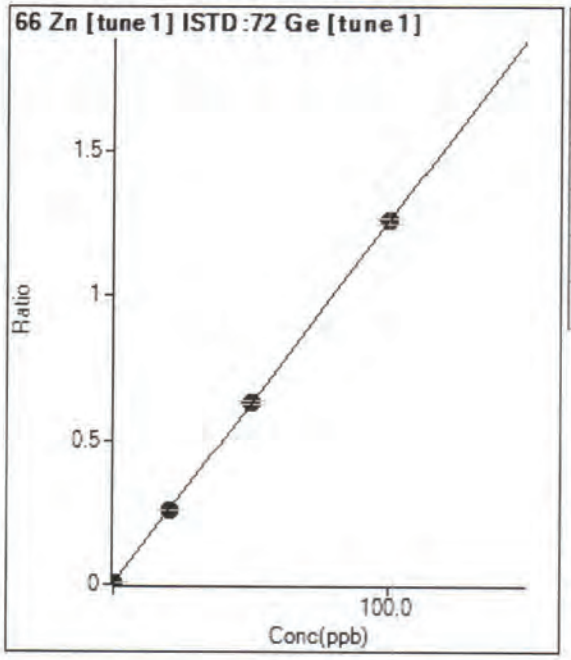
R = 1.0000

DL = 0.03502

BEC = 0.1381

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1458.21	0.0079	P	6.7
2	☐			12414.69	0.0663	P	1.2
3	☐			24011.46	0.1324	P	4.5
4	☐	20.000	20.209	48094.18	0.2609	P	1.6
5	☐	50.000	50.027	116368.10	0.6344	P	1.8
6	☐	100.000	99.945	233850.12	1.2595	P	1.6

y = 0.0125 * x + 0.0079

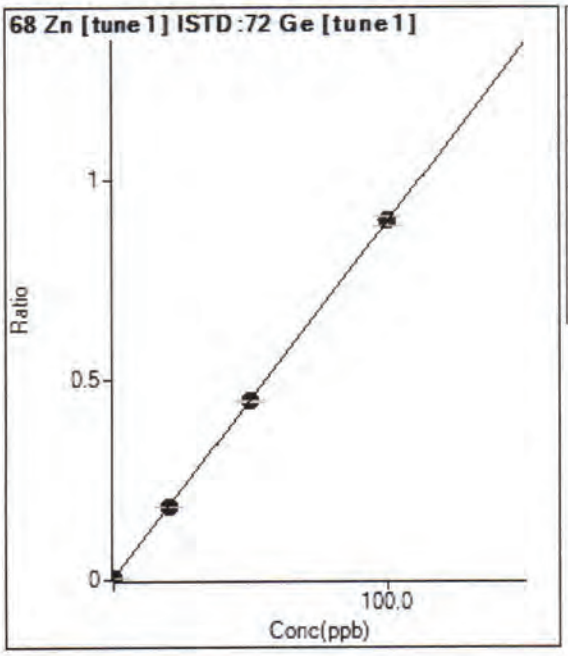
R = 1.0000

DL = 0.1257

BEC = 0.6279

Weight: <None>

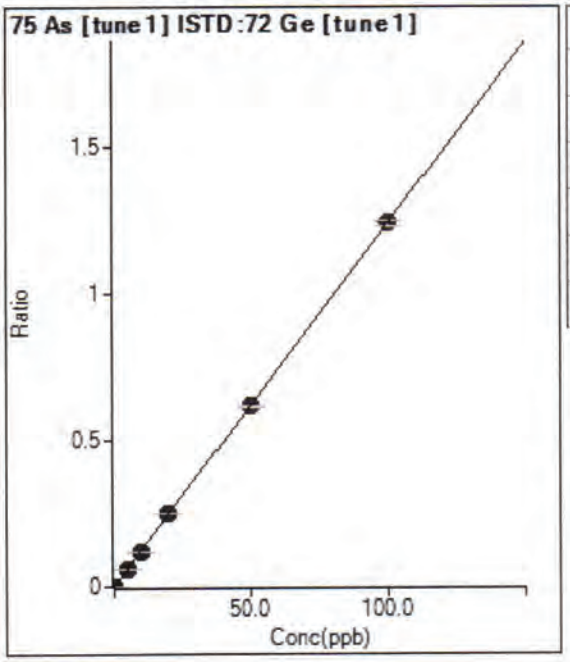
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1294.70	0.0070	P	2.0
2	☐			8925.19	0.0477	P	3.9
3	☐			16776.99	0.0925	P	5.0
4	☐	20.000	20.135	34266.41	0.1858	P	2.1
5	☐	50.000	49.447	81874.63	0.4462	P	0.8
6	☐	100.000	100.249	166633.48	0.8975	P	2.9

y = 0.0089 * x + 0.0070
R = 1.0000
DL = 0.04681
BEC = 0.7856

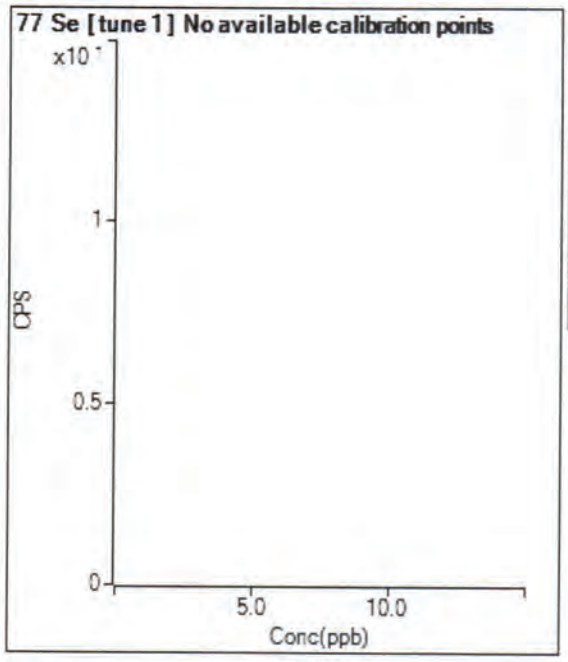
Weight: <None>
Min Conc: 0



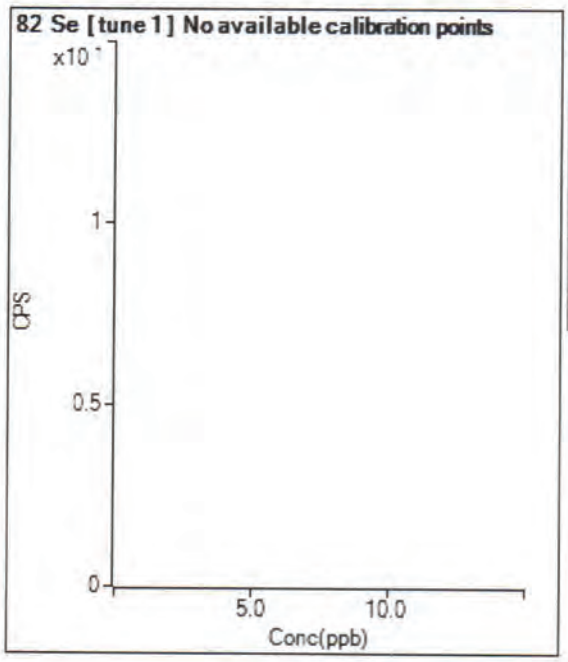
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.01	0.0001	P	100.8
2	☐	5.000	4.694	10905.28	0.0582	P	1.6
3	☐	10.000	9.724	21862.61	0.1206	P	1.9
4	☐	20.000	20.067	45858.42	0.2488	P	0.9
5	☐	50.000	49.770	113174.58	0.6170	P	0.9
6	☐	100.000	100.144	230473.32	1.2413	P	1.9

y = 0.0124 * x + 5.3526E-005
R = 1.0000
DL = 0.01306
BEC = 0.004318

Weight: <None>
Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			20.02		P	50.0
2	☐			597.29		P	14.3
3	☐			977.69		P	12.0
4	☐			2055.56		P	2.0
5	☐			5503.30		P	2.0
6	☐			10698.28		P	2.3



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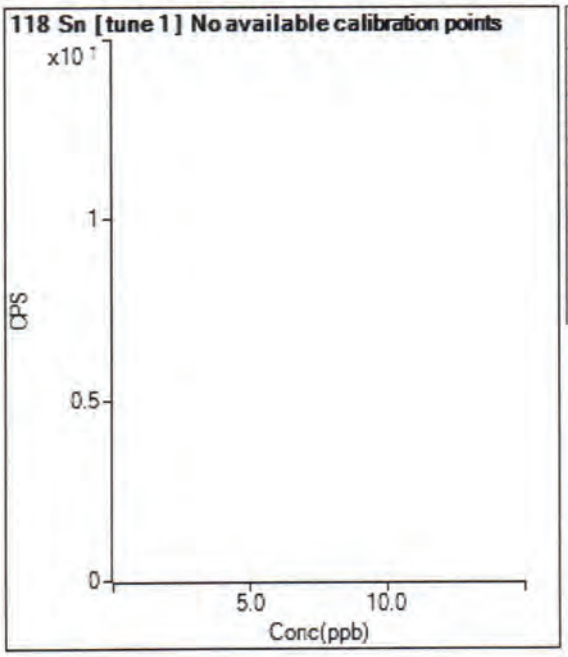
1	☐			186.85		P	11.2
2	☐			870.91		P	18.1
3	☐			1401.49		P	7.1
4	☐			2909.92		P	5.5
5	☐			6938.76		P	4.0
6	☐			13814.14		P	2.6



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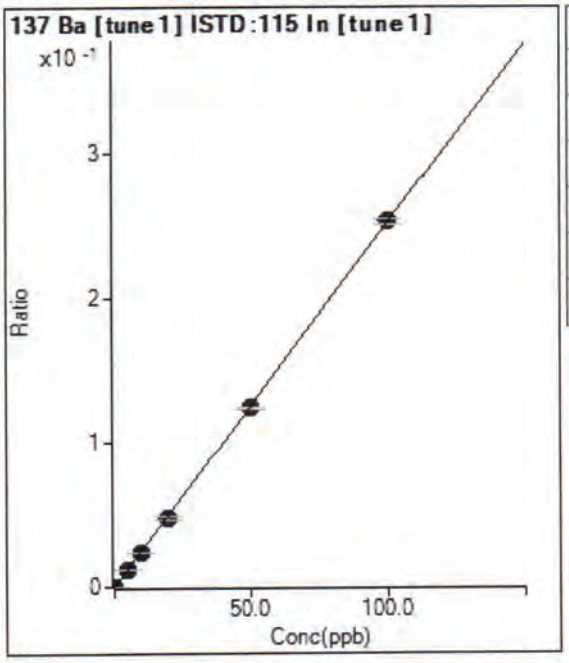
1	☐			123.46		P	30.7
2	☐			90.09		P	19.2
3	☐			353.70		P	8.6
4	☐			180.18		P	20.0
5	☐			80.08		P	21.7
6	☐			86.75		P	24.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.01	0.0000	P	100.1
2	☐	5.000	4.826	13193.15	0.0121	P	3.6
3	☐	10.000	9.585	25446.69	0.0241	P	3.1
4	☐	20.000	19.141	51259.72	0.0481	P	3.7
5	☐	50.000	49.491	130561.54	0.1244	P	1.1
6	☐	100.000	100.477	261034.64	0.2525	P	1.6

y = 0.0025 * x + 9.0807E-006

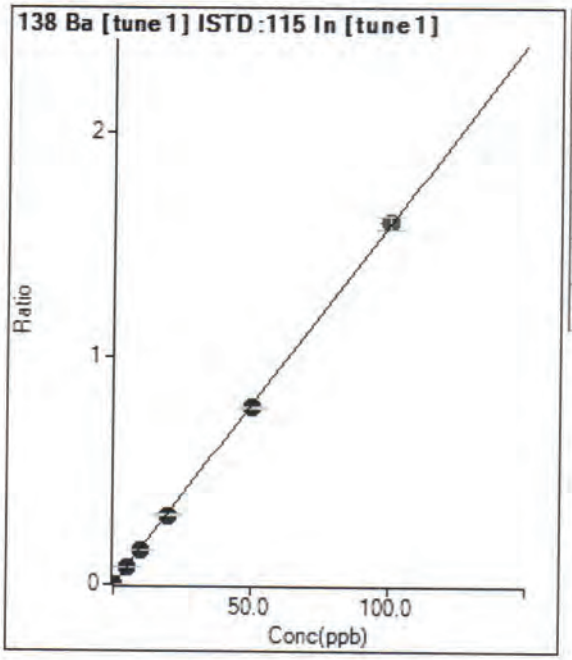
R = 0.9999

DL = 0.01085

BEC = 0.003614

Weight: <None>

Min Conc: 0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	41.0
2	☐	5.000	4.751	82244.91	0.0757	P	3.6
3	☐	10.000	9.614	161615.51	0.1530	P	1.2
4	☐	20.000	19.303	327351.15	0.3072	P	1.9
5	☐	50.000	48.883	816426.60	0.7777	P	2.0
6	☐	100.000	100.749	1657025.18	1.6028	A	4.0

y = 0.0159 * x + 8.7970E-005

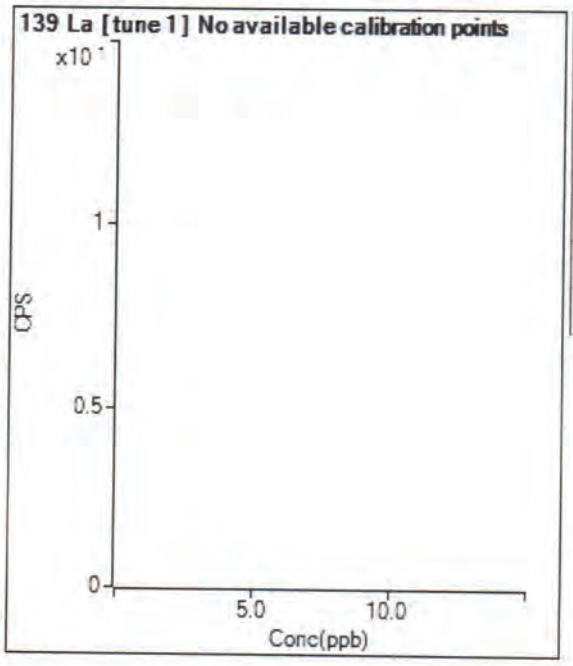
R = 0.9999

DL = 0.006809

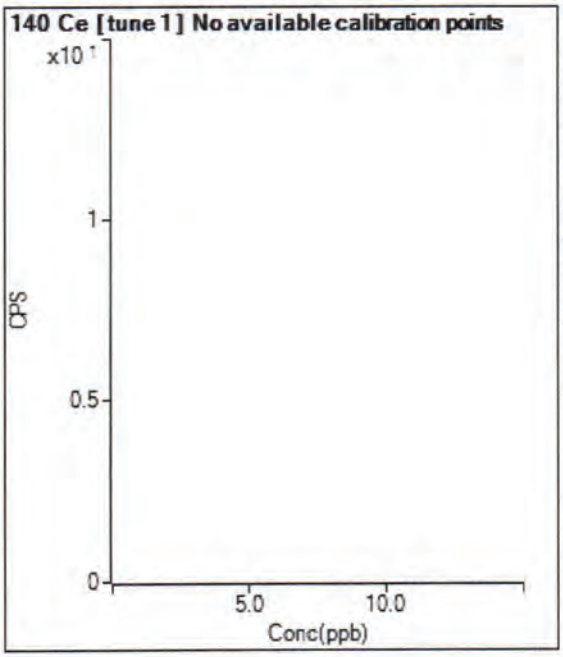
BEC = 0.00553

Weight: <None>

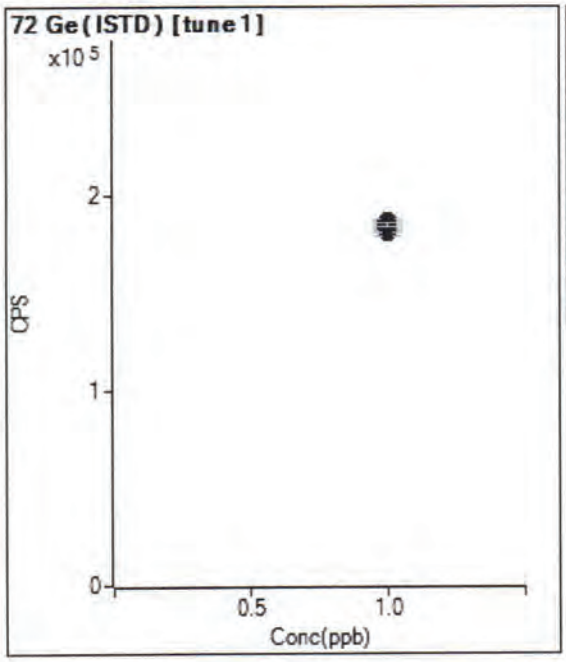
Min Conc: 0



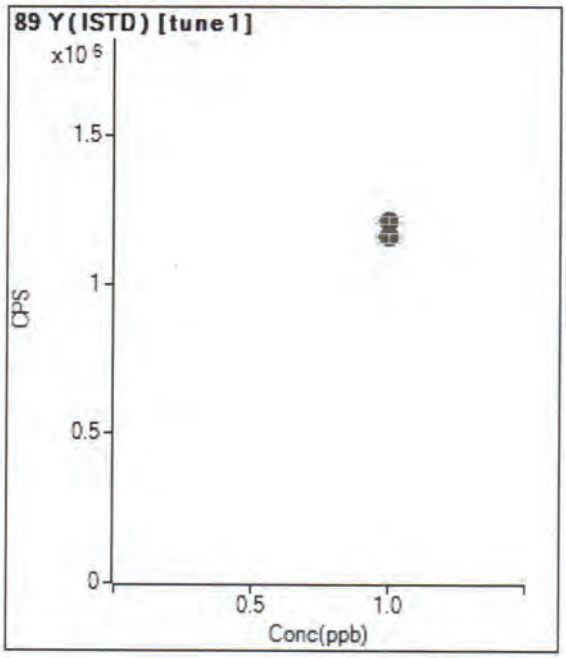
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			23.36		P	49.5
2	☐			23.36		P	24.7
3	☐			30.03		P	66.7
4	☐			40.04		P	25.0
5	☐			106.77		P	23.6
6	☐			180.18		P	41.9



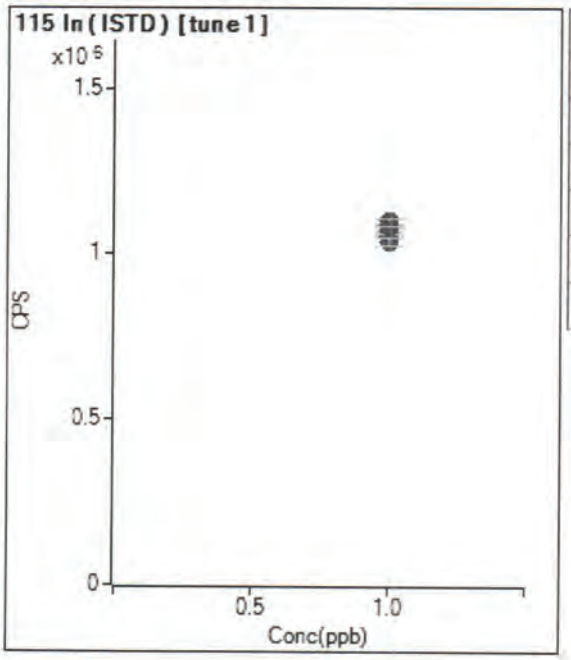
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			23.36		P	24.7
2	☐			43.38		P	70.5
3	☐			46.71		P	49.5
4	☐			50.05		P	69.3
5	☐			66.73		P	52.7
6	☐			60.06		P	44.1



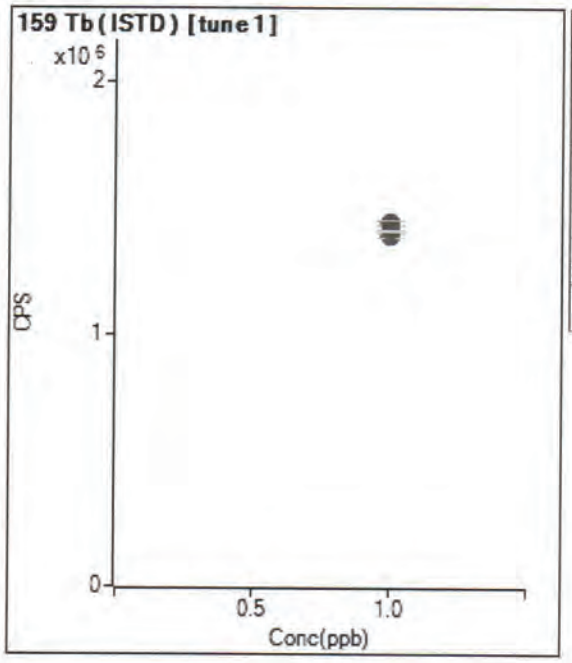
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		185583.60		P	2.4
2	☐	1.000		187245.48		P	1.0
3	☐	1.000		181347.08		P	1.4
4	☐	1.000		184352.94		P	2.1
5	☐	1.000		183462.51		P	2.1
6	☐	1.000		185681.29		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1207247.56		A	0.4
2	☐	1.000		1213521.98		A	2.0
3	☐	1.000		1161336.40		A	0.9
4	☐	1.000		1156870.76		A	0.9
5	☐	1.000		1161144.70		A	1.5
6	☐	1.000		1155138.30		A	2.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1095157.77		A	1.3
2	☐	1.000		1087668.50		A	2.8
3	☐	1.000		1056166.72		A	1.4
4	☐	1.000		1066004.00		A	2.0
5	☐	1.000		1049804.22		A	1.1
6	☐	1.000		1034012.21		A	1.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1407278.44		A	3.4
2	☐	1.000		1437748.65		A	1.8
3	☐	1.000		1412340.89		A	2.2
4	☐	1.000		1387827.15		A	1.2
5	☐	1.000		1406473.39		A	0.3
6	☐	1.000		1406563.49		A	0.3

Raw Data

Analyst: LMP Date: 2/20/23

Job #s	Describe Work Documented on This Page
0223-098 ①~~0223~~ 099 0123-	M29 Hg Analysis

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

NA

①EE
LMP
2/20/23

1369A = CVAA Std prep log

1369B = M29 Hg prep sheet

2x: 5mL of sample (pip: 141 exp: 3/4/23) and
5mL of blank (pip: 141 exp: 3/4/23)

5x: 2mL of sample (pip: 134 exp: 5/9/23) and
8mL of blank (pip: 141 exp: 3/4/23)

Reviewer's Initials & Date:

Metals Prep

ENTHALPY ANALYTICAL

1369A

CVAA Standard Preparation Log *Stds must be prepared fresh daily

EA Std ID#Hg (Job #-1, 2, 3, etc.)	Std/Reagent Name	Conc.	Stock Standard/Reagent	Conc.	EA ID# & Exp Date	Amount Added	Final Volume (mL) & Diluent	Pipette & Exp Date	Analyst	Date	Exp. Date
				Primary Intermediate Standard							
1	Primary Int. Std.	1000 ppb	Hg Standard	1000 ppm	F0764 / 4/28/23	0.10 mL	100 / DI	133 / 5/9/23	LMP	2/20/23	2/21/23
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Secondary Intermediate Standard							
2	Secondary Int. Std.	1000 ppb	Hg Standard (2nd Source)	1000 ppm	F0752 / 4/28/23	0.10 mL	100 / DI	133 / 5/9/23			
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Primary Working Standard				141 EE LMP 2/20/23			
3	Primary Working Std.	50 ppb	Primary Int. Std.	1000 ppb	1 / 2/21/23	5.0 mL	100 / DI	~~134~~ / 3/4/23	LMP		
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Secondary Working Standard							
4	Secondary Working Std.	50 ppb	Secondary Int. Std.	1000 ppb	2 / 2/21/23	5.0 mL	100 / DI	141 / 3/4/23			
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			

EE LMP 2/20/23
① 22Ø380017
LMP 2/20/23

TRC Report 508369
500 of 2048

1369B

ENTHALPY ANALYTICAL

Method 29 Hg Prepsheet

Job Nos: 0223-098, ~~0223~~ 0123 099

Prep Date(s): 2/20/23

Analyst(s) LMP

Instrument: WaH jr

Calibration Standards and QC

Spike Used	Calibration Standard	Spike Amount (mL)	Pip & Exp	Final Vol. (mL)
--	Calibration Blank	--	N/A	50
1st WS	Standard 1 - 0.1 ppb	0.1	133 5/9/23	50
1st WS	Standard 2 - 1.0 ppb	1.0	134	50
1st WS	Standard 3 - 2.0 ppb	2.0	⊥ ⊥	50
1st WS	Standard 4 - 5.0 ppb	5.0	141 3/4/23	50
1st WS	Standard 5 - 10 ppb	10.0	⊥	50
2nd WS	ICV/CCV - 5.0 ppb	5.0	⊥	50
--	ICB/CCB	--	N/A	50

Temp (°C): 93.5 Hotplate # 3

1st WS ID: 3 Exp Date: 2/21/23

2nd WS ID: 4 Exp Date: ⊥

H2SO4 ID: 22200059 Exp Date: 8/25

HNO3 ID: 22380017 Exp Date: 9/24

KMnO4 ID: ES-0837 Exp Date: 8/17/23

K2S2O8 ID: ES-0828 Exp Date: 8/8/23

HAS ID: ES-0836 Exp Date: 8/17/23

SnCl2 ID: ES-0838 Exp Date: 2/27/23

H2SO4 Pip & Exp: 139 3/8/23 HNO3 Pip & Exp: 139 3/8/23

KMnO4 Pip & Exp: ⊥ K2S2O8 Pip & Exp: ⊥

HAS Pip & Exp: ⊥ Digitube ID: J506384-4932

LCS Pip & Exp: 141 3/4/23 MS Pip & Exp: 141 3/4/23

Samples

Sample ID	Aliquot Volume (mL)	Final Vol. (mL)
① 0123 ~~0223~~-099.1-3A	10	50
⊥ .2 ⊥	⊥	50
⊥ .3 ⊥	⊥	50
⊥ .4 ⊥	⊥	50
⊥ .5 ⊥	⊥	50
⊥ .6 ⊥	⊥	50
⊥ .7 ⊥	⊥	50
⊥ .8 ⊥	⊥	50
0223-098.1-3B	⊥	50
⊥ .2 ⊥	⊥	50
⊥ .3 ⊥	⊥	50
⊥ .4 ⊥	⊥	50
⊥ .5 ⊥	⊥	50
⊥ .6 ⊥	⊥	50
⊥ .7 ⊥	⊥	50
⊥ .8 ⊥	⊥	50
		50
		50
		50
		50

Digestion Time

Start: 8:52am Finish: 10:52am

Quality Control

QC Sample	Sample ID	Aliq. Vol. (mL)	Final Vol. (mL)	Spike ID	ID Exp Date	Stock Conc	Volume Added (mL)
MB	N/A	20	50	N/A	N/A	N/A	N/A
LCS	N/A	20	50	3	2/21/23	50 ppb	5.0
MS	① 0123 ~~0223~~-099.1-3A	10	50	⊥	⊥	⊥	⊥
Duplicate	⊥ -2 ⊥	⊥	50	N/A	N/A	N/A	N/A

② 2/20/23

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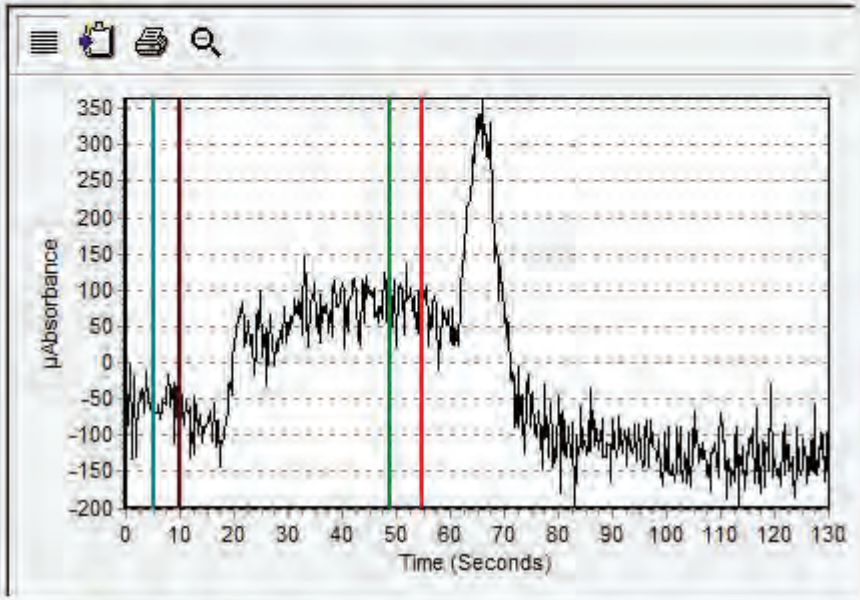
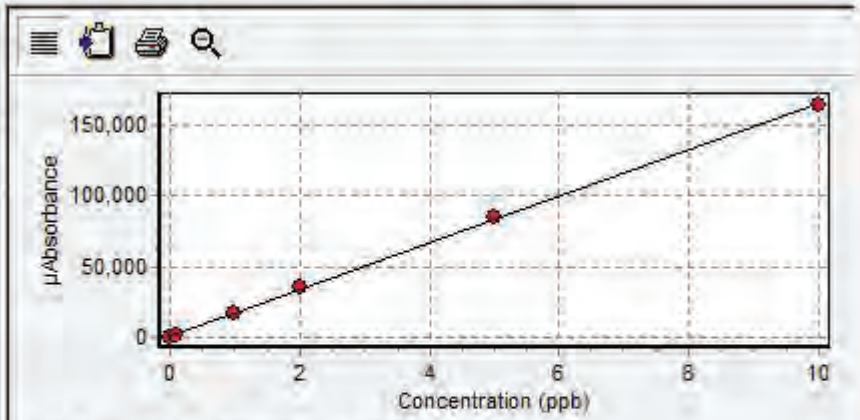
CETAC QuickTrace Mercury Analysis System - 0123-099 & 0223-098 022023

File Edit View Log Analyze Options Window Help

Analysis

Tube	Sample Label	Conc ppb	µAbs	Flag	%RSD Abs
1:1	LB	-0.043	300.36		2.8
1:2	LCS	4.970	82742.20		1.1
1:3	0123-099.1-3A	0.349	6748.35		1.2
1:4	0123-099.1-3A MS	5.310	88179.93		1.6
1:5	0123-099.2-3A	0.555	10122.60		1.2
1:6	0123-099.2-3A DUP	0.556	10147.83		1.1
1:7	0123-099.3-3A	1.060	18409.04		1.1
1:8	0123-099.4-3A	0.945	16542.40		1.3
1:9	0123-099.5-3A	0.486	8995.21		1.1
1:10	0123-099.6-3A	0.787	13945.84		1.3
S:7	CCV	4.810	80013.51		0.5
S:8	CCB	-0.052	158.40		5.8
1:11	0123-099.7-3A	0.417	7865.10		1.0
1:12	0123-099.8-3A	-0.046	245.23		6.3
1:13	0223-098.1-3B	17.300	285539.72	0	1.0





Calibration Coeffs: 16431.651x + 1008.849, R2: 0.99970

```
2/20/2023 12:47:33 AM   Worksheet Saved
2/20/2023 12:47:33 AM   Sample 'CCB' measured. Conc.: -5.2700E-002 ppb (not diln. corr
2/20/2023 12:45:12 AM   QC Sample 'CCV' recovery was measured at  97.34 percent
2/20/2023 12:45:12 AM   Sample 'CCV' measured. Conc.:  4.870 ppb (not diln. corrected)
2/20/2023 12:42:52 AM   Sample '0223-098.7-3B 5X' measured. Conc.:  2.850 ppb (not di
2/20/2023 12:40:34 AM   Sample '0223-098.3-3B 5X' measured. Conc.:  3.520 ppb (not di
2/20/2023 12:38:16 AM   Sample '0223-098.2-3B 2X' measured. Conc.:  5.440 ppb (not di
2/20/2023 12:35:58 AM   Sample '0223-098.1-3B 5X' measured. Conc.:  3.740 ppb (not di
2/20/2023 12:33:40 AM   Sample 'CCB' measured. Conc.: -5.1300E-002 ppb (not diln. corr
2/20/2023 12:31:20 AM   QC Sample 'CCV' recovery was measured at  93.00 percent
2/20/2023 12:31:20 AM   Sample 'CCV' measured. Conc.:  4.650 ppb (not diln. corrected)
2/20/2023 12:28:51 AM   Worksheet Saved
```

0123-099_0223-098 022023

Analysis Complete | Idle

Sample ID	Time Stamp	Sample Type	Average Conc.	%RSD Conc.	Conc. Units
Cal Blank - 0 ug/mL	2/20/2023 10:18	Standard	0	0	ppb
Std. 1 - 0.1ug/mL	2/20/2023 10:21	Standard	0.1	0	ppb
Std. 2 - 1.0 ug/mL	2/20/2023 10:23	Standard	1	0	ppb
Std. 3 - 2.0 ug/mL	2/20/2023 10:25	Standard	2	0	ppb
Std. 4 - 5.0 ug/mL	2/20/2023 10:28	Standard	5	0	ppb
Std. 5 - 10.0 ug/mL	2/20/2023 10:30	Standard	10	0	ppb
ICV	2/20/2023 10:32	ICV	5.01	0.001	ppb
ICB	2/20/2023 10:35	ICB	-0.053	0	ppb
LB	2/20/2023 10:37	Unknown	-0.043	0.001	ppb
LCS	2/20/2023 10:39	Unknown	4.97	0.001	ppb
0123-099.1-3A	2/20/2023 10:41	Unknown	0.349	0.001	ppb
0123-099.1-3A MS	2/20/2023 10:44	Unknown	5.31	0.002	ppb
0123-099.2-3A	2/20/2023 10:46	Unknown	0.555	0.001	ppb
0123-099.2-3A DUP	2/20/2023 10:48	Unknown	0.556	0.001	ppb
0123-099.3-3A	2/20/2023 10:50	Unknown	1.06	0.001	ppb
0123-099.4-3A	2/20/2023 10:53	Unknown	0.945	0.001	ppb
0123-099.5-3A	2/20/2023 10:55	Unknown	0.486	0.001	ppb
0123-099.6-3A	2/20/2023 10:57	Unknown	0.787	0.001	ppb
CCV	2/20/2023 11:00	CCV	4.81	0.001	ppb
CCB	2/20/2023 11:02	CCB	-0.052	0.001	ppb
0123-099.7-3A	2/20/2023 11:04	Unknown	0.417	0.001	ppb
0123-099.8-3A	2/20/2023 11:07	Unknown	-0.046	0.002	ppb
0223-098.1-3B	2/20/2023 11:09	Unknown	17.3	0.001	ppb
0223-098.2-3B	2/20/2023 11:11	Unknown	10.6	0.001	ppb
0223-098.3-3B	2/20/2023 11:13	Unknown	16.1	0.001	ppb
0223-098.4-3B	2/20/2023 11:19	Unknown	-0.004	0.015	ppb
0223-098.5-3B	2/20/2023 11:21	Unknown	4.41	0.001	ppb
0223-098.6-3B	2/20/2023 0:23	Unknown	5.64	0.001	ppb
0223-098.7-3B	2/20/2023 0:26	Unknown	14	0.001	ppb
0223-098.8-3B	2/20/2023 0:28	Unknown	-0.039	0.002	ppb
CCV	2/20/2023 0:31	CCV	4.65	0.002	ppb
CCB	2/20/2023 0:33	CCB	-0.051	0.002	ppb
0223-098.1-3B 5X	2/20/2023 0:35	Unknown	3.74	0.001	ppb
0223-098.2-3B 2X	2/20/2023 0:38	Unknown	5.44	0.001	ppb
0223-098.3-3B 5X	2/20/2023 0:40	Unknown	3.52	0.001	ppb
0223-098.7-3B 5X	2/20/2023 0:42	Unknown	2.85	0.002	ppb
CCV	2/20/2023 0:45	CCV	4.87	0.001	ppb
CCB	2/20/2023 0:47	CCB	-0.053	0.002	ppb

Analyst: LMP Date: 2/21/23

Job #s	Describe Work Documented on This Page
0123-099	M29 Hg Analysis

1372A= CVAH std prep log

1372B= M29 Hg prep sheet

Supplies, Ancillary Equipment Serial #s, Lot #s, Etc

NA

Reviewer's Initials & Date:

Metals Prep

ENTHALPY ANALYTICAL

1372A

CVAA Standard Preparation Log *Stds must be prepared fresh daily

EA Std ID#Hg (Job #-1, 2, 3, etc.)	Std/Reagent Name	Conc.	Stock Standard/Reagent	Conc.	EA ID# & Exp Date	Amount Added	Final Volume (mL) & Diluent	Pipette & Exp Date	Analyst	Date	Exp. Date
				Primary Intermediate Standard							
1	Primary Int. Std.	1000 ppb	Hg Standard	1000 ppm	F0764 / 4/28/23	0.10 mL	100 / DI	133 / 5/9/23	LMP	2/21/23	2/22/23
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Secondary Intermediate Standard							
2	Secondary Int. Std.	1000 ppb	Hg Standard (2nd Source)	1000 ppm	F0752 / 4/28/23	0.10 mL	100 / DI	133 / 5/9/23			
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Primary Working Standard							
3	Primary Working Std.	50 ppb	Primary Int. Std.	1000 ppb	1 / 2/22/23	5.0 mL	100 / DI	141 / 3/4/23			
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			
				Secondary Working Standard							
4	Secondary Working Std.	50 ppb	Secondary Int. Std.	1000 ppb	2 / 2/22/23	5.0 mL	100 / DI	141 / 3/4/23			
"	"	"	HNO3	67-70%	① / 9/24	0.5 mL	"	134 / 5/9/23			

①22380017
LMP 2/21/23

1372B

ENTHALPY ANALYTICAL

Method 29 Hg Prepsheet

Job Nos: 0123-099

Prep Date(s): 2/21/23

Analyst(s) LMP

Instrument: wait jr

Calibration Standards and QC

Spike Used	Calibration Standard	Spike Amount (mL)	Pip & Exp	Final Vol. (mL)
--	Calibration Blank	--	N/A	50
1st WS	Standard 1 - 0.1 ppb	0.1	133 5/9/23	50
1st WS	Standard 2 - 1.0 ppb	1.0	134	50
1st WS	Standard 3 - 2.0 ppb	2.0	⊥ ⊥	50
1st WS	Standard 4 - 5.0 ppb	5.0	141 3/4/23	50
1st WS	Standard 5 - 10 ppb	10.0	⊥	50
2nd WS	ICV/CCV - 5.0 ppb	5.0	⊥	50
--	ICB/CCB	--	N/A	50

Temp (°C): 95.9 Hotplate # 3

1st WS ID: 3 Exp Date: 2/22/23

2nd WS ID: 4 Exp Date: ⊥

H2SO4 ID: 22200059 Exp Date: 8/25

HNO3 ID: 22380017 Exp Date: 9/24

KMnO4 ID: ES-0837 Exp Date: 8/17/23

K2S2O8 ID: ES-0828 Exp Date: 8/8/23

HAS ID: ES-0836 Exp Date: 8/17/23

SnCl2 ID: ES-0838 Exp Date: 2/27/23

H2SO4 Pip & Exp: 139 3/8/23 HNO3 Pip & Exp: 139 3/8/23

KMnO4 Pip & Exp: ⊥ K2S2O8 Pip & Exp: ⊥

HAS Pip & Exp: ⊥ Digitube ID: J506384-4932

LCS Pip & Exp: 141 3/4/23 MS Pip & Exp: 141 3/4/23

Samples

Sample ID	Aliquot Volume (mL)	Final Vol. (mL)
0123-099.1-2B	5.0	50
.2	⊥	50
.3	⊥	50
.4	⊥	50
.5	⊥	50
.6	⊥	50
.7	⊥	50
.8 ⊥	⊥	50
.1-3B	10	50
.2	⊥	50
.3	⊥	50
.4	⊥	50
.5	⊥	50
.6	⊥	50
.7	⊥	50
.8 ⊥	⊥	50
		50
		50
		50
		50

Digestion Time

Start: 8:28am Finish: 10:28am

Quality Control

QC Sample	Sample ID	Aliq. Vol. (mL)	Final Vol. (mL)	Spike ID	ID Exp Date	Stock Conc	Volume Added (mL)
MB	N/A	20	50	N/A	N/A	N/A	N/A
LCS	N/A	20	50	3	2/22/23	50ppb	5.0
MS	0123-099.1-2B	5.0	50	⊥	⊥	⊥	⊥
Duplicate	⊥ .2 ⊥	⊥	50	N/A	N/A	N/A	N/A

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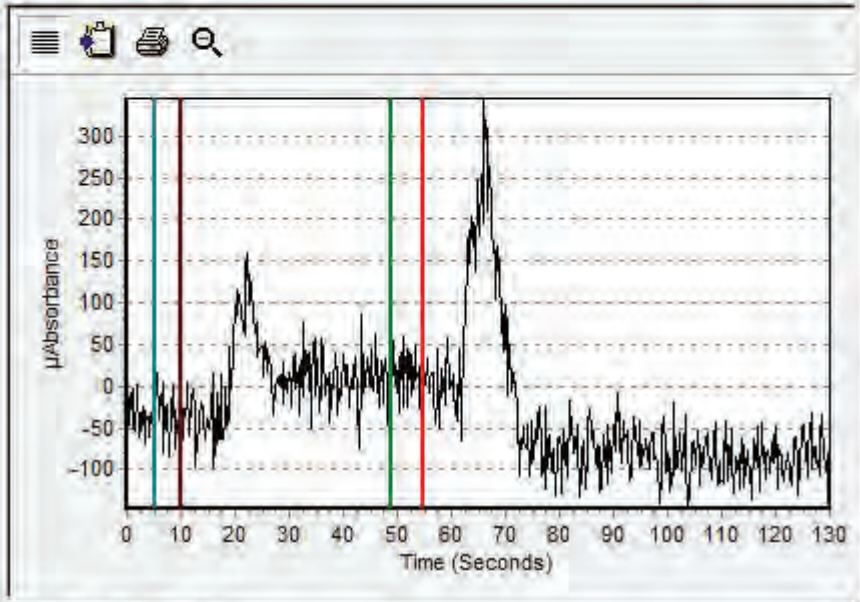
CETAC QuickTrace Mercury Analysis System - 0123-099 022123

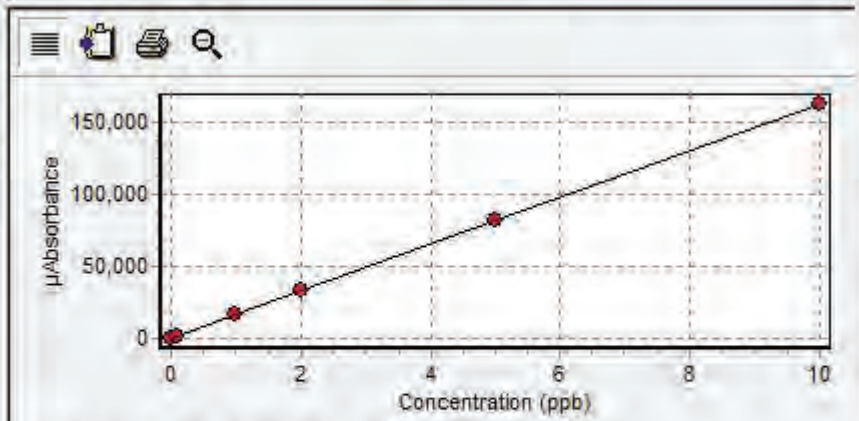
File Edit View Log Analyze Options Window Help

Analysis

Tube	Sample Label	Conc ppb	µAbs	Flag	%RSD Abs
S:4	Std. 3 - 2.0 ug/mL	2.000	33176.58		1.0
S:5	Std. 4 - 5.0 ug/mL	5.000	81912.12		1.7
S:6	Std. 5 - 10.0 ug/mL	10.000	162107.58		1.0
S:7	ICV	4.910	79994.75		1.2
S:8	ICB	-0.029	-22.51		42.0
1:1	0123-099.LB	-0.019	130.38		14.5
1:2	0123-099.LCS	4.890	79649.56		1.2
1:3	0123-099.1-2B	1.560	25680.27		1.3
1:4	0123-099.1-2B MS	6.320	102897.33		1.0
1:5	0123-099.2-2B	0.718	12079.74		1.3
1:6	0123-099.2-2B DUP	0.767	12865.41		1.1
1:7	0123-099.3-2B	2.170	35562.98		1.1
1:8	0123-099.4-2B	1.860	30551.45		1.4
1:9	0123-099.5-2B	0.976	16255.14		1.3
1:10	0123-099.6-2B	1.670	27496.90		1.1

```
2/21/2023 11:08:27 AM   Worksheet Saved
2/21/2023 11:08:26 AM   Sample 'CCB' measured. Conc.: -2.4300E-002 ppb (not diln. corr
2/21/2023 11:06:06 AM   QC Sample 'CCV' recovery was measured at  94.87 percent
2/21/2023 11:06:06 AM   Sample 'CCV' measured. Conc.:  4.740 ppb (not diln. corrected)
2/21/2023 11:03:46 AM   Sample '0123-099.8-3B' measured. Conc.: -2.1100E-002 ppb (nc
2/21/2023 11:01:29 AM   Sample '0123-099.7-3B' measured. Conc.: 9.6700E-002 ppb (not
2/21/2023 10:59:12 AM   Sample '0123-099.6-3B' measured. Conc.:  0.113 ppb (not diln.
2/21/2023 10:56:55 AM   Sample '0123-099.5-3B' measured. Conc.:  0.101 ppb (not diln.
2/21/2023 10:54:39 AM   Sample '0123-099.4-3B' measured. Conc.: 1.2600E-002 ppb (not
2/21/2023 10:52:23 AM   Sample '0123-099.3-3B' measured. Conc.: 1.6800E-002 ppb (not
2/21/2023 10:50:07 AM   Sample '0123-099.2-3B' measured. Conc.: 4.5400E-002 ppb (not
2/21/2023 10:47:52 AM   Sample '0123-099.1-3B' measured. Conc.: 1.0600E-002 ppb (not
```





Calibration Coeffs: 16198.845x + 442.744, R2: 0.99996

0123-099 022123

Analysis Complete | Idle

Sample ID	Time Stamp	Sample Type	Average Conc.	%RSD Conc.	Conc. Units
Cal Blank - 0 ug/mL	2/21/2023 9:57	Standard	0	0	ppb
Std. 1 - 0.1ug/mL	2/21/2023 9:59	Standard	0.1	0	ppb
Std. 2 - 1.0 ug/mL	2/21/2023 10:01	Standard	1	0	ppb
Std. 3 - 2.0 ug/mL	2/21/2023 10:04	Standard	2	0	ppb
Std. 4 - 5.0 ug/mL	2/21/2023 10:06	Standard	5	0	ppb
Std. 5 - 10.0 ug/mL	2/21/2023 10:08	Standard	10	0	ppb
ICV	2/21/2023 10:11	ICV	4.91	0.001	ppb
ICB	2/21/2023 10:13	ICB	-0.029	0.002	ppb
0123-099.LB	2/21/2023 10:15	Unknown	-0.019	0.006	ppb
0123-099.LCS	2/21/2023 10:18	Unknown	4.89	0.001	ppb
0123-099.1-2B	2/21/2023 10:20	Unknown	1.56	0.001	ppb
0123-099.1-2B MS	2/21/2023 10:22	Unknown	6.32	0.001	ppb
0123-099.2-2B	2/21/2023 10:24	Unknown	0.718	0.001	ppb
0123-099.2-2B DUP	2/21/2023 10:27	Unknown	0.767	0.001	ppb
0123-099.3-2B	2/21/2023 10:29	Unknown	2.17	0.001	ppb
0123-099.4-2B	2/21/2023 10:31	Unknown	1.86	0.001	ppb
0123-099.5-2B	2/21/2023 10:34	Unknown	0.976	0.001	ppb
0123-099.6-2B	2/21/2023 10:36	Unknown	1.67	0.001	ppb
CCV	2/21/2023 10:38	CCV	4.79	0.001	ppb
CCB	2/21/2023 10:41	CCB	-0.025	0.004	ppb
0123-099.7-2B	2/21/2023 10:43	Unknown	1.41	0.002	ppb
0123-099.8-2B	2/21/2023 10:45	Unknown	-0.022	0.003	ppb
0123-099.1-3B	2/21/2023 10:47	Unknown	0.011	0.011	ppb
0123-099.2-3B	2/21/2023 10:50	Unknown	0.045	0.002	ppb
0123-099.3-3B	2/21/2023 10:52	Unknown	0.017	0.004	ppb
0123-099.4-3B	2/21/2023 10:54	Unknown	0.013	0.009	ppb
0123-099.5-3B	2/21/2023 10:56	Unknown	0.101	0.002	ppb
0123-099.6-3B	2/21/2023 10:59	Unknown	0.113	0.001	ppb
0123-099.7-3B	2/21/2023 11:01	Unknown	0.097	0.002	ppb
0123-099.8-3B	2/21/2023 11:03	Unknown	-0.021	0.005	ppb
CCV	2/21/2023 11:06	CCV	4.74	0.001	ppb
CCB	2/21/2023 11:08	CCB	-0.024	0.002	ppb

Analyst: LMP Date: 2/27/23

Job #s	Describe Work Documented on This Page
0123-099	M29 Hg Analysis

1379A = CVAA Std prep log
1379B = M29 Hg prep sheet

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

NA

LMP 2/27/23

Reviewer's Initials & Date:

Metals Prep

ENTHALPY ANALYTICAL

1379A

CVAA Standard Preparation Log *Stds must be prepared fresh daily

EA Std ID#Hg (Lab #-1, 2, 3, etc.)	Std/Reagent Name	Conc.	Stock Standard/Reagent	Conc.	EA ID# & Exp Date	Amount Added	Final Volume (mL) & Diluent	Pipette & Exp Date	Analyst	Date	Exp. Date
				Primary Intermediate Standard							
1	Primary Int. Std.	1000 ppb	Hg Standard	1000 ppm	F0764 4/28/23	0.10 mL	100 DI	133 5/9/23	LMP	2/27/23	2/28/23
"	"	"	HNO3	67-70%	① 9/24	0.5 mL	"	134 5/9/23			
				Secondary Intermediate Standard							
2	Secondary Int. Std.	1000 ppb	Hg Standard (2nd Source)	1000 ppm	F0752 4/28/23	0.10 mL	100 DI	133 5/9/23			
"	"	"	HNO3	67-70%	① 9/24	0.5 mL	"	134 5/9/23			
				Primary Working Standard							
3	Primary Working Std.	50 ppb	Primary Int. Std.	1000 ppb	1 2/28/23	5.0 mL	100 DI	141 3/4/23			
"	"	"	HNO3	67-70%	① 9/24	0.5 mL	"	134 5/9/23			
				Secondary Working Standard				EE LMP 2/27/23			
4	Secondary Working Std.	50 ppb	Secondary Int. Std.	1000 ppb	2 2/28/23	5.0 mL	100 DI	141 3/4/23			
"	"	"	HNO3	67-70%	① 9/24	0.5 mL	"	134 5/9/23			

①22380017
LMP 2/27/23

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1379B

ENTHALPY ANALYTICAL

Method 29 Hg Prepsheet

Job Nos: 0123-099

Prep Date(s): 2/27/23

Analyst(s) LMP

Instrument: Walt jr

Calibration Standards and QC

Spike Used	Calibration Standard	Spike Amount (mL)	Pip & Exp	Final Vol. (mL)
--	Calibration Blank	--	N/A	50
1st WS	Standard 1 - 0.1 ppb	0.1	133 5/9/23	50
1st WS	Standard 2 - 1.0 ppb	1.0	134 ↓	50
1st WS	Standard 3 - 2.0 ppb	2.0	↓ ↓	50
1st WS	Standard 4 - 5.0 ppb	5.0	141 3/4/23	50
1st WS	Standard 5 - 10 ppb	10.0	↓	50
2nd WS	ICV/CCV - 5.0 ppb	5.0	↓	50
--	ICB/CCB	--	N/A	50

Temp (°C): 95.8 Hotplate # 3

1st WS ID: 3 Exp Date: 2/28/23

2nd WS ID: 4 Exp Date: ↓

H2SO4 ID: 62252 Exp Date: 10/24

HNO3 ID: 22380017 Exp Date: 9/24

KMnO4 ID: ES-0837 Exp Date: 8/17/23

K2S2O8 ID: ES-0828 Exp Date: 8/8/23

HAS ID: ES-0836 Exp Date: 8/17/23

SnCl2 ID: ES-0838 Exp Date: 2/27/23

H2SO4 Pip & Exp: 139 3/8/23 HNO3 Pip & Exp: 139 3/8/23

KMnO4 Pip & Exp: ↓ K2S2O8 Pip & Exp: ↓

HAS Pip & Exp: ↓ Digitube ID: J506384-4932

LCS Pip & Exp: 141 3/4/23 MS Pip & Exp: 141 3/4/23

Samples

Sample ID	Aliquot Volume (mL)	Final Vol. (mL)
0123-099.1-1B	10	50 ①
.2	↓	50
.3	↓	50
.4	↓	50
.5	↓	50
.6	↓	50
.7	↓	50
.8 ↓	↓	50
.1-3C	↓	50
.2	↓	50
.3	↓	50
.4	↓	50
.5	↓	50
.6	↓	50
.7	↓	50
↓ .8 ↓	↓	50
		50
		50
		50
		50

Digestion Time

Start: 7:10am Finish: 9:10 am

Quality Control

QC Sample	Sample ID	Aliq. Vol. (mL)	Final Vol. (mL)	Spike ID	ID Exp Date	Stock Conc	Volume Added (mL)
MB	N/A	20	50	N/A	N/A	N/A	N/A
LCS	N/A	20	50	3	2/28/23	50 ppb	5.0
MS	0123-099.1-1B	10	50	↓	↓	↓	↓
Duplicate	↓ .2 ↓	↓	50	N/A	N/A	N/A	N/A

① Samples were filtered before analysis
LMP 2/27/23

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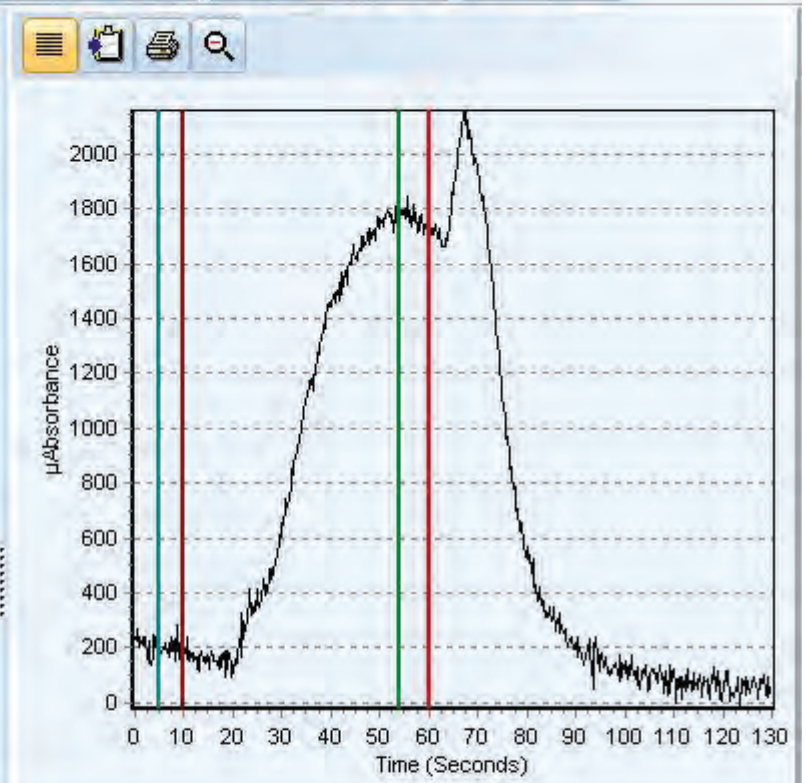
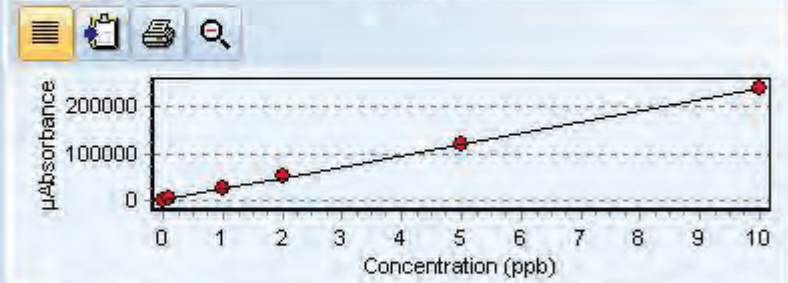
Leeman QuickTrace Mercury Analysis System - 0123-099 022723

File Edit View Log Analyze Options Window Help

Tube	Sample Label	Conc (ppb)	µAbs	%RSD	Flag	%Residual
1:14	0123-099.2-3C	3.590	86068.6	0.60		
1:15	0123-099.3-3C	1.820	44319.5	0.81		
1:16	0123-099.4-3C	1.560	38224.6	0.97		
1:17	0123-099.5-3C	2.900	69866.7	0.94		
1:18	0123-099.6-3C	1.670	40864.8	0.75		
1:19	0123-099.7-3C	2.320	56216.3	0.96		
1:20	0123-099.8-3C	-0.007	1544.6	13.59		
S:7	CCV	4.940	117545.3	0.79		
S:8	CCB	-0.005	1577.4	16.85		
7	0123-099.3-1B Missed tube	0.015	2056.6	3.65		
8	0123-099.4-1B Missed tube	0.011	1951.1	5.04		
9	0123-099.5-1B Missed tube	-0.006	1557.9	7.99		
10	0123-099.6-1B Missed tube	0.035	2517.5	2.19		
S:7	CCV	4.960	118038.8	0.93		
S:8	CCB	-0.006	1569.6	18.33		



2/27/2023 11:14 AM	Sample '0123-099.4-1B Missed tube' measured. Conc.: 1.0500E-002 ppb (not diln. correcte
2/27/2023 11:11 AM	Sample '0123-099.3-1B Missed tube' measured. Conc.: 1.5000E-002 ppb (not diln. correcte
2/27/2023 11:09 AM	Sample 'CCB' measured. Conc.: -5.4400E-003 ppb (not diln. corrected)
2/27/2023 11:07 AM	QC Sample 'CCV'. Recovery was measured at 98.71 percent
2/27/2023 11:07 AM	Sample 'CCV' measured. Conc.: 4.940 ppb (not diln. corrected)
2/27/2023 11:05 AM	Sample '0123-099.8-3C' measured. Conc.: -6.8400E-003 ppb (not diln. corrected)
2/27/2023 11:02 AM	Sample '0123-099.7-3C' measured. Conc.: 2.320 ppb (not diln. corrected)
2/27/2023 11:00 AM	Sample '0123-099.6-3C' measured. Conc.: 1.670 ppb (not diln. corrected)



Calibration Coeffs: 23471.12163x + 1705.131, R2: 0.99978, RSE: 5.57%

0123-099 022723

Export Complete Idle

Sample ID	Time Stamp	Sample Type	Dil. Conc.	Average Conc	%RSD Conc.	Conc. Units
Cal Blank - 0 ug/mL	2/27/2023 9:45	Standard	0	0	0	ppb
Std. 1 - 0.1ug/mL	2/27/2023 9:47	Standard	0.1	0.1	0	ppb
Std. 2 - 1.0 ug/mL	2/27/2023 9:49	Standard	1	1	0	ppb
Std. 3 - 2.0 ug/mL	2/27/2023 9:52	Standard	2	2	0	ppb
Std. 4 - 5.0 ug/mL	2/27/2023 9:54	Standard	5	5	0	ppb
Std. 5 - 10.0 ug/mL	2/27/2023 9:56	Standard	10	10	0	ppb
ICV	2/27/2023 9:59	ICV	5.01	5.01	0	ppb
ICB	2/27/2023 10:01	ICB	-0.006	-0.006	0	ppb
0123-099.LB	2/27/2023 10:03	Unknown	-0.035	-0.035	0	ppb
0123-099.LCS	2/27/2023 10:05	Unknown	4.97	4.97	0	ppb
0123-099.1-1B	2/27/2023 10:08	Unknown	0.005	0.005	0	ppb
0123-099.1-1B MS	2/27/2023 10:10	Unknown	4.81	4.81	0	ppb
0123-099.2-1B	2/27/2023 10:12	Unknown	-0.018	-0.018	0	ppb
0123-099.2-1B DUP	2/27/2023 10:15	Unknown	0.011	0.011	0	ppb
0123-099.3-1B	2/27/2023 10:17	Unknown	-0.05	-0.05	0	ppb
0123-099.4-1B	2/27/2023 10:19	Unknown	-0.054	-0.054	0	ppb
0123-099.5-1B	2/27/2023 10:21	Unknown	-0.058	-0.058	0	ppb
0123-099.6-1B	2/27/2023 10:24	Unknown	-0.057	-0.057	0	ppb
(1) CCV	2/27/2023 10:26	CCV	-0.059	-0.059	0	ppb
CCV	2/27/2023 10:33	CCV	4.92	4.92	0	ppb
CCB	2/27/2023 10:38	CCB	-0.011	-0.011	0	ppb
0123-099.7-1B	2/27/2023 10:40	Unknown	0.002	0.002	0	ppb
0123-099.8-1B	2/27/2023 10:46	Unknown	-0.041	-0.041	0	ppb
0123-099.1-3C	2/27/2023 10:49	Unknown	1.78	1.78	0	ppb
0123-099.2-3C	2/27/2023 10:51	Unknown	3.59	3.59	0	ppb
0123-099.3-3C	2/27/2023 10:53	Unknown	1.82	1.82	0	ppb
0123-099.4-3C	2/27/2023 10:55	Unknown	1.56	1.56	0	ppb
0123-099.5-3C	2/27/2023 10:58	Unknown	2.9	2.9	0	ppb
0123-099.6-3C	2/27/2023 11:00	Unknown	1.67	1.67	0	ppb
0123-099.7-3C	2/27/2023 11:02	Unknown	2.32	2.32	0	ppb
0123-099.8-3C	2/27/2023 11:05	Unknown	-0.007	-0.007	0	ppb
CCV	2/27/2023 11:07	CCV	4.94	4.94	0	ppb
CCB	2/27/2023 11:09	CCB	-0.005	-0.005	0	ppb
0123-099.3-1B Missed tube	2/27/2023 11:11	Unknown	0.015	0.015	0	ppb
0123-099.4-1B Missed tube	2/27/2023 11:14	Unknown	0.011	0.011	0	ppb
0123-099.5-1B Missed tube	2/27/2023 11:16	Unknown	-0.006	-0.006	0	ppb
0123-099.6-1B Missed tube	2/27/2023 11:18	Unknown	0.035	0.035	0	ppb
CCV	2/27/2023 11:21	CCV	4.96	4.96	0	ppb
CCB	2/27/2023 11:23	CCB	-0.006	-0.006	0	ppb

(1) Autosampler tube missed the CCV tube LMP 2/27/23

Location:_____ Drawer:_____ Analyst: LMP

Cabinet:_____ Folder:_____ Date: 2/20/23

Job #s	Describe Work Documented on This Page
0223-098 0123-099	M29 Hg Analysis

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

NA

Walt jr 199A = Analytical Sequence

Reviewer's Initials & Date:

Walt Jr.
page 199

ENTHALPY ANALYTICAL

Waltjr 199A

Sample ID	Time Stamp	Sample Type
Cal Blank - 0 ug/mL	2/20/2023 10:18	Standard
Std. 1 - 0.1ug/mL	2/20/2023 10:21	Standard
Std. 2 - 1.0 ug/mL	2/20/2023 10:23	Standard
Std. 3 - 2.0 ug/mL	2/20/2023 10:25	Standard
Std. 4 - 5.0 ug/mL	2/20/2023 10:28	Standard
Std. 5 - 10.0 ug/mL	2/20/2023 10:30	Standard
ICV	2/20/2023 10:32	ICV
ICB	2/20/2023 10:35	ICB
LB	2/20/2023 10:37	Unknown
LCS	2/20/2023 10:39	Unknown
0123-099.1-3A	2/20/2023 10:41	Unknown
0123-099.1-3A MS	2/20/2023 10:44	Unknown
0123-099.2-3A	2/20/2023 10:46	Unknown
0123-099.2-3A DUP	2/20/2023 10:48	Unknown
0123-099.3-3A	2/20/2023 10:50	Unknown
0123-099.4-3A	2/20/2023 10:53	Unknown
0123-099.5-3A	2/20/2023 10:55	Unknown
0123-099.6-3A	2/20/2023 10:57	Unknown
CCV	2/20/2023 11:00	CCV
CCB	2/20/2023 11:02	CCB
0123-099.7-3A	2/20/2023 11:04	Unknown
0123-099.8-3A	2/20/2023 11:07	Unknown
0223-098.1-3B	2/20/2023 11:09	Unknown
0223-098.2-3B	2/20/2023 11:11	Unknown
0223-098.3-3B	2/20/2023 11:13	Unknown
0223-098.4-3B	2/20/2023 11:19	Unknown
0223-098.5-3B	2/20/2023 11:21	Unknown
0223-098.6-3B	2/20/2023 0:23	Unknown
0223-098.7-3B	2/20/2023 0:26	Unknown
0223-098.8-3B	2/20/2023 0:28	Unknown
CCV	2/20/2023 0:31	CCV
CCB	2/20/2023 0:33	CCB
0223-098.1-3B 5X	2/20/2023 0:35	Unknown
0223-098.2-3B 2X	2/20/2023 0:38	Unknown
0223-098.3-3B 5X	2/20/2023 0:40	Unknown
0223-098.7-3B 5X	2/20/2023 0:42	Unknown
CCV	2/20/2023 0:45	CCV
CCB	2/20/2023 0:47	CCB

Location:_____ Drawer:_____ Analyst: LMP

Cabinet:_____ Folder:_____ Date: 2/21/23

Job #s	Describe Work Documented on This Page
0123-099	M29 Hg Analysis

Walt jr 202A= Analytical Sequence

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

NA

Reviewer's Initials & Date:

Walt Jr.
page 202

ENTHALPY ANALYTICAL

walt jr 202A

Sample ID	Time Stamp	Sample Type
Cal Blank - 0 ug/mL	2/21/2023 9:57	Standard
Std. 1 - 0.1ug/mL	2/21/2023 9:59	Standard
Std. 2 - 1.0 ug/mL	2/21/2023 10:01	Standard
Std. 3 - 2.0 ug/mL	2/21/2023 10:04	Standard
Std. 4 - 5.0 ug/mL	2/21/2023 10:06	Standard
Std. 5 - 10.0 ug/mL	2/21/2023 10:08	Standard
ICV	2/21/2023 10:11	ICV
ICB	2/21/2023 10:13	ICB
0123-099.LB	2/21/2023 10:15	Unknown
0123-099.LCS	2/21/2023 10:18	Unknown
0123-099.1-2B	2/21/2023 10:20	Unknown
0123-099.1-2B MS	2/21/2023 10:22	Unknown
0123-099.2-2B	2/21/2023 10:24	Unknown
0123-099.2-2B DUP	2/21/2023 10:27	Unknown
0123-099.3-2B	2/21/2023 10:29	Unknown
0123-099.4-2B	2/21/2023 10:31	Unknown
0123-099.5-2B	2/21/2023 10:34	Unknown
0123-099.6-2B	2/21/2023 10:36	Unknown
CCV	2/21/2023 10:38	CCV
CCB	2/21/2023 10:41	CCB
0123-099.7-2B	2/21/2023 10:43	Unknown
0123-099.8-2B	2/21/2023 10:45	Unknown
0123-099.1-3B	2/21/2023 10:47	Unknown
0123-099.2-3B	2/21/2023 10:50	Unknown
0123-099.3-3B	2/21/2023 10:52	Unknown
0123-099.4-3B	2/21/2023 10:54	Unknown
0123-099.5-3B	2/21/2023 10:56	Unknown
0123-099.6-3B	2/21/2023 10:59	Unknown
0123-099.7-3B	2/21/2023 11:01	Unknown
0123-099.8-3B	2/21/2023 11:03	Unknown
CCV	2/21/2023 11:06	CCV
CCB	2/21/2023 11:08	CCB

Location:_____ Drawer:_____ Analyst: LMP

Cabinet:_____ Folder:_____ Date: 2/27/23

Job #s	Describe Work Documented on This Page
0123-099 0223-176	M29 Hg Analysis

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

NA

walt jr 201A = Analytical Sequence
1 201B 2

Reviewer's Initials & Date:

Walt Jr.
page 201

ENTHALPY ANALYTICAL

walt jr 201A

Sample ID	Time Stamp	Sample Type
Cal Blank - 0 ug/mL	2/27/2023 9:45	Standard
Std. 1 - 0.1ug/mL	2/27/2023 9:47	Standard
Std. 2 - 1.0 ug/mL	2/27/2023 9:49	Standard
Std. 3 - 2.0 ug/mL	2/27/2023 9:52	Standard
Std. 4 - 5.0 ug/mL	2/27/2023 9:54	Standard
Std. 5 - 10.0 ug/mL	2/27/2023 9:56	Standard
ICV	2/27/2023 9:59	ICV
ICB	2/27/2023 10:01	ICB
0123-099.LB	2/27/2023 10:03	Unknown
0123-099.LCS	2/27/2023 10:05	Unknown
0123-099.1-1B	2/27/2023 10:08	Unknown
0123-099.1-1B MS	2/27/2023 10:10	Unknown
0123-099.2-1B	2/27/2023 10:12	Unknown
0123-099.2-1B DUP	2/27/2023 10:15	Unknown
0123-099.3-1B	2/27/2023 10:17	Unknown
0123-099.4-1B	2/27/2023 10:19	Unknown
0123-099.5-1B	2/27/2023 10:21	Unknown
0123-099.6-1B	2/27/2023 10:24	Unknown
CCV	2/27/2023 10:26	CCV
CCV	2/27/2023 10:33	CCV
CCB	2/27/2023 10:38	CCB
0123-099.7-1B	2/27/2023 10:40	Unknown
0123-099.8-1B	2/27/2023 10:46	Unknown
0123-099.1-3C	2/27/2023 10:49	Unknown
0123-099.2-3C	2/27/2023 10:51	Unknown
0123-099.3-3C	2/27/2023 10:53	Unknown
0123-099.4-3C	2/27/2023 10:55	Unknown
0123-099.5-3C	2/27/2023 10:58	Unknown
0123-099.6-3C	2/27/2023 11:00	Unknown
0123-099.7-3C	2/27/2023 11:02	Unknown
0123-099.8-3C	2/27/2023 11:05	Unknown
CCV	2/27/2023 11:07	CCV
CCB	2/27/2023 11:09	CCB
0123-099.3-1B Missed tube	2/27/2023 11:11	Unknown
0123-099.4-1B Missed tube	2/27/2023 11:14	Unknown
0123-099.5-1B Missed tube	2/27/2023 11:16	Unknown
0123-099.6-1B Missed tube	2/27/2023 11:18	Unknown
CCV	2/27/2023 11:21	CCV
CCB	2/27/2023 11:23	CCB

1.00 validated 12/10/08 VR

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

TRC Report 508369

Date Analyzed	8/5/22
Analyst	R Burnette
Date Reviewed	8/15/22
Reviewed By	AMC
Instrument	Walt Jr
Logbook Page	Metals Prep 1015
Injector (F,R,NA)	NA
Column	NA
Injector (F,R,NA)	NA
Column	NA
Job #(s)	
Applicable Method(s)	7470 & EPA Method 29 & EPA Method 101A
Matrix	
Solvent	

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev * Student's t-value

t-value =	3.143	N=7	Degrees of Freedom = 6
t-value =	2.998	N=8	Degrees of Freedom = 7
t-value =	2.896	N=9	Degrees of Freedom = 8
t-value =	2.821	N=10	Degrees of Freedom = 9

520 of 2048

Compound #	1	2	3	4	5	6	7
Compound Name	Hg						
Notes (if needed)							
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Test Std Concentrations	#1 0.10300	#1 0.00000	#1 0.00000	#1 0.00000	#1 0.00000	#1 0.00000	#1 0.00000
	#2 0.10200	#2 0.00000	#2 0.00000	#2 0.00000	#2 0.00000	#2 0.00000	#2 0.00000
	#3 0.08500	#3 0.00000	#3 0.00000	#3 0.00000	#3 0.00000	#3 0.00000	#3 0.00000
	#4 0.09800	#4 0.00000	#4 0.00000	#4 0.00000	#4 0.00000	#4 0.00000	#4 0.00000
	#5 0.11100	#5 0.00000	#5 0.00000	#5 0.00000	#5 0.00000	#5 0.00000	#5 0.00000
	#6 0.12600	#6 0.00000	#6 0.00000	#6 0.00000	#6 0.00000	#6 0.00000	#6 0.00000
	#7 0.12000	#7 0.00000	#7 0.00000	#7 0.00000	#7 0.00000	#7 0.00000	#7 0.00000
	#8 0.10900	#8 0.00000	#8 0.00000	#8 0.00000	#8 0.00000	#8 0.00000	#8 0.00000
!! Remove extra zeros !!	#9	#9 0.00000	#9 0.00000	#9 0.00000	#9 0.00000	#9 0.00000	#9 0.00000
	#10	#10 0.00000	#10 0.00000	#10 0.00000	#10 0.00000	#10 0.00000	#10 0.00000
Standard Deviation	0.0128	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Student's T factor	2.998	2.821	2.821	2.821	2.821	2.821	2.821
Calculated MDL = StDev * t	0.039	0.000	0.000	0.000	0.000	0.000	0.000
Slope of Cal Curve	0.99989	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Integration Area Reject	0	0	0	0	0	0	0
Lowest Integratable Conc.	0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Concentration of Std	0.100	0.000	0.000	0.000	0.000	0.000	0.000
Lowest Part 136 App B value*	0.010	0.000	0.000	0.000	0.000	0.000	0.000
MDL value <1/10 Std Value?	Pass	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
MDL to Use	**0.03852**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**

USE 0.050 due to noise

*40 CFR Part 136 Appendix B, a common detection limit guidance, indicates that the MDL can not be <1/10th the standard used to set the MDL.
MDL to use is the maximum of the Calculated MDL, lowest integratable concentration and the Lowest Part 136 B value.

1015B

Analyst: RAB Date: 8/5/22

Job #s	Describe Work Documented on This Page
0722-161, MDL Study	M29 Hg Prep

Supplies, Ancillary Equipment
Serial #s, Lot #s, Etc

N/A

1015 A: CVAA Standard Preparation Log

1015 B: Method 29 Hg Prepsheet

Reviewer's Initials & Date:

ENTHALPY ANALYTICAL

CVAA Standard Preparation Log *Stds must be prepared fresh daily

EA Std ID#Hg (Hg #-1, 2, 3, etc.)	Std/Reagent Name	Conc.	Stock Standard/Reagent	Conc.	EA ID# & Exp Date	Amount Added	Final Volume (mL) & Diluent	Pipette & Exp Date	Analyst	Date	Exp. Date
					Primary Intermediate Standard						
1	Primary Int. Std.	1000 ppb	Hg Standard	1000 ppm	F0784 / 10/1/23	0.10 mL	100 / DI	133 / 9/7/22	RAB	8/5/22	8/6/22
"	"	"	HNO3	67-70%	SCA2089036 / 3-24	0.5 mL	"	134 / 9/7/22			
					Secondary Intermediate Standard						
2	Secondary Int. Std.	1000 ppb	Hg Standard (2nd Source)	1000 ppm	F0764 / 4/28/23	0.10 mL	100 / DI	133 / 9/7/22			
"	"	"	HNO3	67-70%	SCA2089036 / 3-24	0.5 mL	"	134 / 9/7/22			
					Primary Working Standard						
3	Primary Working Std.	50 ppb	Primary Int. Std.	1000 ppb	1 / 8/6/22	5.0 mL	100 / DI	141 / 9/6/22			
"	"	"	HNO3	67-70%	SCA2089036 / 3-24	0.5 mL	"	134 / 9/7/22			
					Secondary Working Standard						
4	Secondary Working Std.	50 ppb	Secondary Int. Std.	1000 ppb	2 / 8/6/22	5.0 mL	100 / DI	141 / 9/6/22			
"	"	"	HNO3	67-70%	SCA2089036 / 3-24	0.5 mL	"	134 / 9/7/22			

ENTHALPY ANALYTICAL

Method 29 Hg Prepsheet

Job Nos: 0722-161, MDL Study

Prep Date(s): 8/5/22

Analyst(s) RAB

Instrument: Walt Jr.

Calibration Standards and QC

Spike Used	Calibration Standard	Spike Amount (mL)	Pip & Exp	Final Vol. (mL)
--	Calibration Blank	--		50
1st WS	Standard 1 - 0.1 ppb	0.1	133 9/7/22	50
1st WS	Standard 2 - 1.0 ppb	1.0	134 9/7/22	50
1st WS	Standard 3 - 2.0 ppb	2.0	⊥	50
1st WS	Standard 4 - 5.0 ppb	5.0	141 9/6/22	50
1st WS	Standard 5 - 10 ppb	10.0	⊥	50
2nd WS	ICV/CCV - 5.0 ppb	5.0	⊥	50
--	ICB/CCB	--		50

Temp (°C): 95.1 Hotplate # 3

1st WS ID: 3 Exp Date: 8/6/22

2nd WS ID: 4 Exp Date: 8/6/22

H2SO4 ID: SCA 1349977 Exp Date: ~~6/24~~ ②

HNO3 ID: SCA 2089036 Exp Date: 3-24

KMnO4 ID: ES-0689 Exp Date: 2/3/23

K2S2O8 ID: ~~ES-0689~~ ③ Exp Date: ~~2/3/23~~ ④

HAS ID: ES-0675 Exp Date: 1/19/23

SnCl2 ID: ES-0688 Exp Date: 8/7/22

H2SO4 Pip & Exp: 139 9/7/22 HNO3 Pip & Exp: 139 9/7/22

KMnO4 Pip & Exp: ⊥ K2S2O8 Pip & Exp: ⊥

HAS Pip & Exp: ⊥ Digitube ID: J S 37215-2104

LCS Pip & Exp: 141 9/6/22 MS Pip & Exp: 141 9/6/22

Samples

Sample ID	Aliquot Volume (mL)	Final Vol. (mL)
0722-161.1-1B	10.0	50
.2	⊥	50
.3	⊥	50
.4	⊥	50
MDL.1	0.1 ①	50
.2	⊥	50
.3	⊥	50
.4	⊥	50
.5	⊥	50
.6	⊥	50
.7	⊥	50
.8	⊥	50
		50
		50
		50
		50
		50
		50
		50
		50
		50

Digestion Time

Start: 9:57 AM Finish: 11:57 AM

Quality Control

QC Sample	Sample ID	Aliq. Vol. (mL)	Final Vol. (mL)	Spike ID	ID Exp Date	Stock Conc	Volume Added (mL)
MB	N/A	20	50	N/A	N/A	N/A	N/A
LCS	N/A	20	50	3	8/6/22	50 ppb	5.0
MS	0722-161.1-1B	10.0	50	⊥	⊥	⊥	⊥
Duplicate	⊥ .2 ⊥	⊥	50	N/A	N/A	N/A	N/A

① 0.1 mL of WS1
② EE 6-24 RAB 8/5/22
③ EE ES-0683 RAB 8/5/22
④ EE 2/1/23 RAB 8/5/22

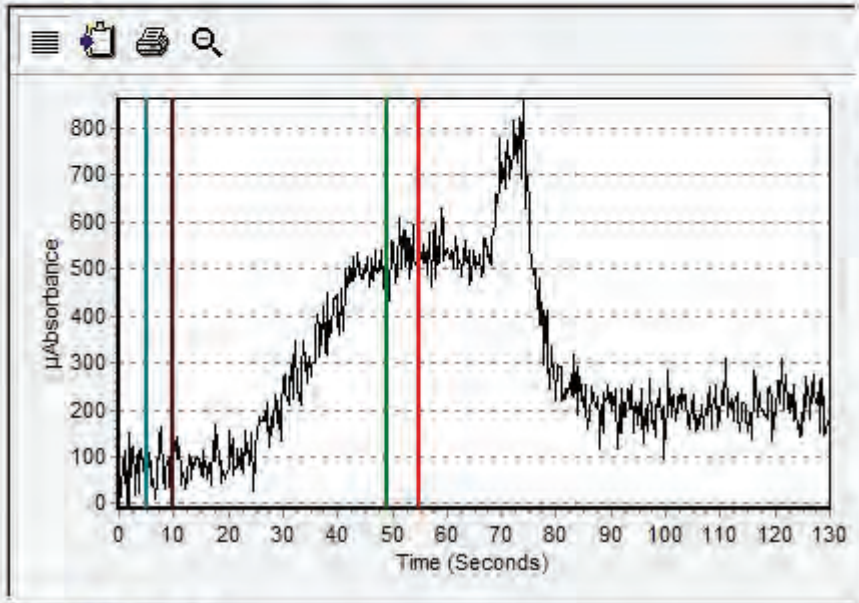
Sample ID	Time Stamp	Sample Type	Average Conc.	%RSD Conc.	Conc. Units
Cal Blank - 0 ug/mL	8/5/2022 12:42	Standard	0	0	ppb
Std. 1 - 0.1ug/mL	8/5/2022 12:45	Standard	0.1	0	ppb
Std. 2 - 1.0 ug/mL	8/5/2022 12:47	Standard	1	0	ppb
Std. 3 - 2.0 ug/mL	8/5/2022 12:49	Standard	2	0	ppb
Std. 4 - 5.0 ug/mL	8/5/2022 12:51	Standard	5	0	ppb
Std. 5 - 10.0 ug/mL	8/5/2022 12:54	Standard	10	0	ppb
ICV	8/5/2022 12:56	ICV	5.12	0.001	ppb
ICB	8/5/2022 12:58	ICB	0.011	0.014	ppb
0722-161.LB	8/5/2022 13:01	Unknown	0	0.79	ppb
0722-161.LCS	8/5/2022 13:03	Unknown	5.01	0.001	ppb
MDL.1	8/5/2022 13:05	Unknown	0.103	0.001	ppb
MDL.2	8/5/2022 13:08	Unknown	0.102	0.001	ppb
MDL.3	8/5/2022 13:10	Unknown	0.085	0.002	ppb
MDL.4	8/5/2022 13:12	Unknown	0.098	0.001	ppb
MDL.5	8/5/2022 13:14	Unknown	0.111	0.002	ppb
MDL.6	8/5/2022 13:17	Unknown	0.126	0.001	ppb
MDL.7	8/5/2022 13:19	Unknown	0.12	0.001	ppb
MDL.8	8/5/2022 13:21	Unknown	0.109	0.002	ppb
CCV	8/5/2022 13:24	CCV	5.43	0.001	ppb
CCB	8/5/2022 13:26	CCB	-0.002	0.04	ppb
0722-161.1-1B	8/5/2022 13:28	Unknown	0.035	0.006	ppb
0722-161.1-1B MS	8/5/2022 13:31	Unknown	4.86	0.001	ppb
0722-161.2-1B	8/5/2022 13:33	Unknown	0.057	0.002	ppb
0722-161.2-1B DUP	8/5/2022 13:35	Unknown	0.063	0.002	ppb
0722-161.3-1B	8/5/2022 13:37	Unknown	0.011	0.006	ppb
0722-161.4-1B	8/5/2022 13:40	Unknown	0.036	0.002	ppb
CCV	8/5/2022 13:42	CCV	4.65	0.001	ppb
CCB	8/5/2022 13:44	CCB	0.01	0.005	ppb

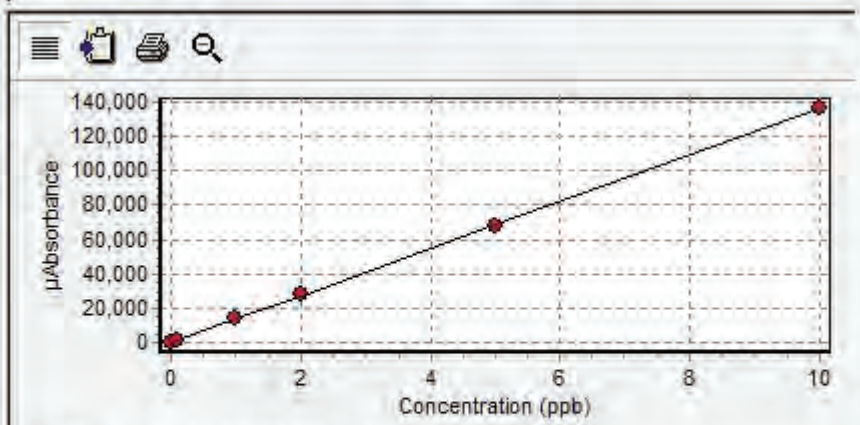
CETAC QuickTrace Mercury Analysis System - 0722-161 MDLs 080522B

File Edit View Log Analyze Options Window Help

Analysis

Tube	Sample Label	Conc ppb	µAbs	Flag	%RSD Abs
1:8	MDL.6	0.126	2033.18		0.6
1:9	MDL.7	0.120	1950.14		1.0
1:10	MDL.8	0.109	1807.27		1.7
S:7	CCV	5.430	74077.57		0.5
S:8	CCB	-0.002	293.35		4.0
1:11	0722-161.1-1B	0.035	793.29		3.7
1:12	0722-161.1-1B MS	4.860	66267.06		1.1
1:13	0722-161.2-1B	0.057	1102.79		1.4
1:14	0722-161.2-1B DUP	0.063	1170.92		1.7
1:15	0722-161.3-1B	0.011	471.68		1.9
1:16	0722-161.4-1B	0.036	807.84		1.2
S:7	CCV	4.650	63482.34		1.2
S:8	CCB	0.010	460.20		1.4





Calibration Coeffs: 13577.635x + 322.857, R2: 0.99989

8/5/2022 1:44:48 PM	Worksheet Saved
8/5/2022 1:44:48 PM	Sample 'CCB' measured. Conc.: 1.0100E-002 ppb (not diln. correc
8/5/2022 1:42:28 PM	QC Sample 'CCV' recovery was measured at 93.03 percent
8/5/2022 1:42:28 PM	Sample 'CCV' measured. Conc.: 4.650 ppb (not diln. corrected)
8/5/2022 1:40:08 PM	Sample '0722-161.4-1B' measured. Conc.: 3.5700E-002 ppb (not
8/5/2022 1:37:52 PM	Sample '0722-161.3-1B' measured. Conc.: 1.1000E-002 ppb (not
8/5/2022 1:35:36 PM	Sample '0722-161.2-1B DUP' measured. Conc.: 6.2500E-002 ppb
8/5/2022 1:33:21 PM	Sample '0722-161.2-1B' measured. Conc.: 5.7400E-002 ppb (not
8/5/2022 1:31:05 PM	Sample '0722-161.1-1B MS' measured. Conc.: 4.860 ppb (not dil
8/5/2022 1:28:47 PM	Sample '0722-161.1-1B' measured. Conc.: 3.4600E-002 ppb (not
8/5/2022 1:26:28 PM	Sample 'CCB' measured. Conc.: -2.1700E-003 ppb (not diln. corre
8/5/2022 1:24:08 PM	QC Sample 'CCV' recovery was measured at 108.64 percent

0722-161 MDLs 080522B

Analysis Complete | Idle

Walk Jc Pg 117A JJS 8/5/22

Sample ID	Time Stamp	Sample Type
Cal Blank - 0 ug/mL	8/5/2022 12:42:51 PM	Standard
Std. 1 - 0.1ug/mL	8/5/2022 12:45:07 PM	Standard
Std. 2 - 1.0 ug/mL	8/5/2022 12:47:24 PM	Standard
Std. 3 - 2.0 ug/mL	8/5/2022 12:49:41 PM	Standard
Std. 4 - 5.0 ug/mL	8/5/2022 12:51:59 PM	Standard
Std. 5 - 10.0 ug/mL	8/5/2022 12:54:19 PM	Standard
ICV	8/5/2022 12:56:38 PM	ICV
ICB	8/5/2022 12:58:59 PM	ICB
0722-161.LB	8/5/2022 1:01:14 PM	Unknown
0722-161.LCS	8/5/2022 1:03:30 PM	Unknown
MDL.1	8/5/2022 1:05:46 PM	Unknown
MDL.2	8/5/2022 1:08:03 PM	Unknown
MDL.3	8/5/2022 1:10:20 PM	Unknown
MDL.4	8/5/2022 1:12:37 PM	Unknown
MDL.5	8/5/2022 1:14:54 PM	Unknown
MDL.6	8/5/2022 1:17:12 PM	Unknown
MDL.7	8/5/2022 1:19:30 PM	Unknown
MDL.8	8/5/2022 1:21:48 PM	Unknown
CCV	8/5/2022 1:24:08 PM	CCV
CCB	8/5/2022 1:26:28 PM	CCB
0722-161.1-1B	8/5/2022 1:28:47 PM	Unknown
0722-161.1-1B MS	8/5/2022 1:31:05 PM	Unknown
0722-161.2-1B	8/5/2022 1:33:21 PM	Unknown
0722-161.2-1B DUP	8/5/2022 1:35:36 PM	Unknown
0722-161.3-1B	8/5/2022 1:37:52 PM	Unknown
0722-161.4-1B	8/5/2022 1:40:08 PM	Unknown
CCV	8/5/2022 1:42:28 PM	CCV
CCB	8/5/2022 1:44:48 PM	CCB

This Is The Last Page Of This Report.

OTM-46 Lab Analysis

Project#:	508369	Unit ID:	HRSG
Company:	Primary Energy	Location:	Main Stack
Plant:	Cokenergy Facility	Test Date(s):	February 2 through 6, 2023

* If "<" preceeds a Run value, subsequent calculations were conducted using the detection limit

Laboratory Results

Analytes	Run 1 (pg)	Run 2 (pg)	Run 3 (pg)	Run 4 (pg)	Reagent Blank (pg)
2,3,7,8-TCDD	< 3.70	< 3.70	< 3.06	< 2.80	< 2.57
1,2,3,7,8-PeCDD	< 3.68	< 3.98	< 3.33	< 3.06	< 2.31
1,2,3,4,7,8-HxCDD	< 4.53	< 5.68	< 4.04	< 3.39	< 3.03
1,2,3,6,7,8-HxCDD	< 4.21	< 5.39	< 3.41	< 3.14	< 2.74
1,2,3,7,8,9-HxCDD	< 5.03	< 5.84	< 3.88	< 3.33	< 3.19
1,2,3,4,6,7,8-HpCDD	42.1	39.3	12.7	16.8	12.3
OCDD	149.0	151.0	11.5	< 6.36	< 7.66
2,3,7,8 -TCDF	< 5.00	8.25	< 2.11	< 2.42	< 1.16
1,2,3,7,8-PeCDF	< 25.00	4.64	< 2.48	< 2.21	< 1.52
2,3,4,7,8-PeCDF	2.00	5.16	< 2.51	< 2.28	< 1.66
1,2,3,4,7,8-HxCDF	4.26	2.79	2.07	< 1.90	< 1.63
1,2,3,6,7,8-HxCDF	2.61	3.79	2.27	1.40	< 1.76
2,3,4,6,7,8-HxCDF	2.61	3.61	1.82	< 2.21	< 1.91
1,2,3,7,8,9-HxCDF	1.22	< 3.92	< 2.86	< 2.54	1.98
1,2,3,4,6,7,8-HpCDF	5.93	8.52	4.19	2.53	< 1.63
1,2,3,4,7,8,9-HpCDF	< 25.00	< 4.76	< 3.90	< 2.87	< 1.96
OCDF	< 50.00	< 7.17	< 5.38	< 5.11	< 3.45

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OTM-46 Lab Analysis

Project#:	508369	Unit ID:	HRSG
Company:	Primary Energy	Location:	Main Stack
Plant:	Cokenergy Facility	Test Date(s):	February 7 through 9, 2023

* If "<" preceeds a Run value, subsequent calculations were conducted using the detection limit

Laboratory Results

Analytes	Run 5 (pg)	Run 6 (pg)	Run 7 (pg)	- (pg)	Reagent Blank (pg)
2,3,7,8-TCDD	< 6.47	< 1.77	< 2.72	-	< 2.57
1,2,3,7,8-PeCDD	< 10.0	< 2.37	< 3.62	-	< 2.31
1,2,3,4,7,8-HxCDD	< 10.4	2.64	< 3.55	-	< 3.03
1,2,3,6,7,8-HxCDD	< 9.56	< 2.74	< 3.52	-	< 2.74
1,2,3,7,8,9-HxCDD	< 10.5	2.76	< 3.80	-	< 3.19
1,2,3,4,6,7,8-HpCDD	15.7	16.5	16.1	-	12.3
OCDD	< 20.00	< 7.47	3.18	-	< 7.66
2,3,7,8 -TCDF	< 6.04	< 1.34	< 1.86	-	< 1.16
1,2,3,7,8-PeCDF	< 7.56	< 1.85	< 2.68	-	< 1.52
2,3,4,7,8-PeCDF	< 7.33	< 1.95	< 3.01	-	< 1.66
1,2,3,4,7,8-HxCDF	< 6.33	1.84	< 2.12	-	< 1.63
1,2,3,6,7,8-HxCDF	< 7.14	< 1.65	< 2.34	-	< 1.76
2,3,4,6,7,8-HxCDF	< 7.32	2.04	< 2.37	-	< 1.91
1,2,3,7,8,9-HxCDF	< 8.79	1.44	2.62	-	1.98
1,2,3,4,6,7,8-HpCDF	< 11.0	3.34	3.56	-	< 1.63
1,2,3,4,7,8,9-HpCDF	< 14.2	< 2.27	< 3.07	-	< 1.96
OCDF	< 21.5	< 3.84	< 5.26	-	< 3.45

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Method 23 Toxic Equivalency Average Results Summary

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Analytes	Toxic Equivalency Factor (TEF)*	Adjusted Concentration (ug/dscm)
2,3,7,8-TCDD	1.0	7.96E-07
1,2,3,7,8-PeCDD	1.0	9.90E-07
1,2,3,4,7,8-HxCDD	0.1	1.13E-07
1,2,3,6,7,8-HxCDD	0.1	1.05E-07
1,2,3,7,8,9-HxCDD	0.1	1.16E-07
1,2,3,4,6,7,8-HpCDD	0.01	5.19E-08
OCDD	0.0003	3.39E-09
2,3,7,8 -TCDF	0.1	8.86E-08
1,2,3,7,8-PeCDF	0.03	4.52E-08
2,3,4,7,8-PeCDF	0.3	2.40E-07
1,2,3,4,7,8-HxCDF	0.1	7.00E-08
1,2,3,6,7,8-HxCDF	0.1	6.99E-08
2,3,4,6,7,8-HxCDF	0.1	7.24E-08
1,2,3,7,8,9-HxCDF	0.1	7.73E-08
1,2,3,4,6,7,8-HpCDF	0.01	1.28E-08
1,2,3,4,7,8,9-HpCDF	0.01	1.83E-08
OCDF	0.0003	9.58E-10
Toxic Equivalency Quotient (TEQ) Adjusted Total		**2.87E-06**

*Toxic Equivalency Factors (TEF) from: The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Method 23 Toxic Equivalency Average Results Summary

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Analytes	Toxic Equivalency Factor (TEF)*	Adjusted Emission Rate (ug/dscm at 7% O2)
2,3,7,8-TCDD	1.0	1.23E-06
1,2,3,7,8-PeCDD	1.0	1.52E-06
1,2,3,4,7,8-HxCDD	0.1	1.73E-07
1,2,3,6,7,8-HxCDD	0.1	1.62E-07
1,2,3,7,8,9-HxCDD	0.1	1.78E-07
1,2,3,4,6,7,8-HpCDD	0.01	7.90E-08
OCDD	0.0003	5.06E-09
2,3,7,8 -TCDF	0.1	1.36E-07
1,2,3,7,8-PeCDF	0.03	6.69E-08
2,3,4,7,8-PeCDF	0.3	3.69E-07
1,2,3,4,7,8-HxCDF	0.1	1.07E-07
1,2,3,6,7,8-HxCDF	0.1	1.07E-07
2,3,4,6,7,8-HxCDF	0.1	1.11E-07
1,2,3,7,8,9-HxCDF	0.1	1.20E-07
1,2,3,4,6,7,8-HpCDF	0.01	1.97E-08
1,2,3,4,7,8,9-HpCDF	0.01	2.73E-08
OCDF	0.0003	1.42E-09
Toxic Equivalency Quotient (TEQ) Adjusted Total		**4.41E-06**

*Toxic Equivalency Factors (TEF) from: The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Method 23 Toxic Equivalency Average Results Summary

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Analytes	Toxic Equivalency Factor (TEF)*	Adjusted Emission Rate (lb/hr)
2,3,7,8-TCDD	1.0	2.27E-09
1,2,3,7,8-PeCDD	1.0	2.81E-09
1,2,3,4,7,8-HxCDD	0.1	3.20E-10
1,2,3,6,7,8-HxCDD	0.1	2.99E-10
1,2,3,7,8,9-HxCDD	0.1	3.29E-10
1,2,3,4,6,7,8-HpCDD	0.01	1.49E-10
OCDD	0.0003	9.78E-12
2,3,7,8 -TCDF	0.1	2.53E-10
1,2,3,7,8-PeCDF	0.03	1.30E-10
2,3,4,7,8-PeCDF	0.3	6.80E-10
1,2,3,4,7,8-HxCDF	0.1	1.99E-10
1,2,3,6,7,8-HxCDF	0.1	1.98E-10
2,3,4,6,7,8-HxCDF	0.1	2.05E-10
1,2,3,7,8,9-HxCDF	0.1	2.19E-10
1,2,3,4,6,7,8-HpCDF	0.01	3.65E-11
1,2,3,4,7,8,9-HpCDF	0.01	5.25E-11
OCDF	0.0003	2.76E-12
Toxic Equivalency Quotient (TEQ) Adjusted Total		**8.16E-09**

*Toxic Equivalency Factors (TEF) from: The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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OTM-46 Lab Analysis

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 2 through 6, 2023**

* If "<" preceeds a Run value, subsequent calculations were conducted using a value of 0.0
* If "<" preceeds a Blank value, subsequent calculations were conducted using a value of 0.0

Laboratory Results

Compound	Run 1 (ug)	Run 2 (ug)	Run 3 (ug)	Run 4 (ug)		Reagent Blank (ug)
Naphthalene	1.470	1.510	1.560	1.350	<	1.070
2-Methyl-naphthalene	0.418	0.374	0.416	0.328	<	0.0715
Acenaphthylene	0.011	0.006	0.008	0.007	<	0.00113
Acenaphthene	0.013	0.015	0.015	0.012	<	0.00178
Fluorene	0.055	0.054	0.044	0.049	<	0.00482
Phenanthrene	0.416	0.517	0.364	0.464	<	0.0144
Anthracene	0.025	0.024	0.018	0.018	<	0.00138
Fluoranthene	0.151	0.279	0.208	0.323	<	0.01190
Pyrene	0.119	0.256	0.192	0.770	<	0.047
Benzo(a)Anthracene	0.031	0.032	0.026	0.021	<	0.000637
Chrysene	0.058	0.062	0.047	0.034	<	0.00138
Benzo(b)Fluoranthene	0.072	0.068	0.047	0.029	<	0.00149
Benzo(k)Fluoranthene	0.019	0.016	0.014	0.007	<	0.000379
Benzo(e)Pyrene	0.045	0.079	0.060	0.036	<	0.00166
Benzo(a)Pyrene	0.017	0.035	0.028	0.019	<	0.000767
Perylene	0.004	0.004	0.003	0.002	<	0.000227
Indeno(123-cd)Pyrene	0.027	0.046	0.035	0.014	<	0.000755
Benzo(ghi)Perylene	0.074	0.274	0.207	0.086	<	0.00485
Dibenzo(a,h)Anthracene	0.006	0.006	0.005	0.003	<	0.000206
	-	-	-	-		-

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OTM-46 Lab Analysis

Project#:	**508369**	Unit ID:	**HRSG**
Company:	**Primary Energy**	Location:	**Main Stack**
Plant:	**Cokenergy Facility**	Test Date(s):	**February 7 through 9, 2023**

* If "<" preceeds a Run value, subsequent calculations were conducted using a value of 0.0
* If "<" preceeds a Blank value, subsequent calculations were conducted using a value of 0.0

Laboratory Results

Compound	Run 5 (ug)	Run 6 (ug)	Run 7 (ug)	- (ug)		Reagent Blank (ug)
Naphthalene	1.490	2.000	1.430	-	<	1.070
2-Methyl-naphthalene	0.451	0.490	0.465	-	<	0.0715
Acenaphthylene	0.010	0.009	0.013	-	<	0.00113
Acenaphthene	0.012	0.014	0.013	-	<	0.00178
Fluorene	0.046	0.050	0.043	-	<	0.00482
Phenanthrene	0.304	0.268	0.360	-	<	0.0144
Anthracene	0.016	0.015	0.012	-	<	0.00138
Fluoranthene	0.148	0.129	0.140	-	<	0.0119
Pyrene	0.139	0.129	0.128	-	<	0.047
Benzo(a)Anthracene	0.017	0.016	0.011	-	<	0.000637
Chrysene	0.038	0.032	0.025	-	<	0.00138
Benzo(b)Fluoranthene	0.032	0.030	0.022	-	<	0.00149
Benzo(k)Fluoranthene	0.008	0.006	0.006	-	<	0.000379
Benzo(e)Pyrene	0.028	0.027	0.027	-	<	0.00166
Benzo(a)Pyrene	0.012	0.011	0.011	-	<	0.000767
Perylene	0.001	0.001	0.001	-	<	0.000227
Indeno(123-cd)Pyrene	0.013	0.012	0.015	-	<	0.000755
Benzo(ghi)Perylene	0.068	0.068	0.087	-	<	0.00485
Dibenzo(a,h)Anthracene	0.003	0.003	0.002	-	<	0.000206
	-	-	-	-		-

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TRC Environmental Corporation - Burr Ridge

7521 Brush Hill Road
Burr Ridge, IL 60527

Cokenergy

Client Project: Primary Energy-508369
Samples Received: 2/20/2023

Analytical Report
0123-704

OTM-46
PCDD/PCDF + PAH

Report Issue Date: 3/20/2023

I certify that to the best of my knowledge all analytical data presented in this report have been checked for completeness, accuracy, errors and legibility in addition to having been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s). This analytical report was prepared in Portable Document Format (.PDF) and contains __1264_____ pages. This report shall not be reproduced except in full without approval of the laboratory. This will provide assurance that parts of the report are not taken out of context.

Signature:

Laura Boivin, QA Associate II

Amendments:

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Summary of Results

ENTHALPY
ANALYTICAL

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge

Client Project: Primary Energy-508369 Site: Cokenergy

Summary

	Compound	CAS	HRSG-STACK-OTM46-1 pg	HRSG-STACK-OTM46-2 pg	HRSG-STACK-OTM46-3 pg
TCDD	2378-TCDD (S)	1746-01-6	ND U	ND U	ND U
PeCDD	12378-PeCDD (S)	40321-76-4	ND U	ND U	ND U
HxCDD	123478-HxCDD (S)	39227-28-6	ND U	ND U	ND U
	123678-HxCDD (S)	57653-85-7	ND U	ND U	ND U
	123789-HxCDD (S)	19408-74-3	ND U	ND U	ND U
HpCDD	1234678-HpCDD (S)	35822-46-9	42.1 B	39.3 B	12.7 JB-EMPC
OCDD	OCDD (S)	3268-87-9	149	151	11.5 J-EMPC
TCDF	2378-TCDF (S)	51207-31-9	ND U	8.25	ND U
PeCDF	12378-PeCDF (S)	57117-41-6	ND U	4.64 J-EMPC	ND U
	23478-PeCDF (S)	57117-31-4	2.00 L-EMPC	5.16 J-EMPC	ND U
HxCDF	123478-HxCDF (S)	70648-26-9	4.26 J	2.79 L-EMPC	2.07 L-EMPC
	123678-HxCDF (S)	57117-44-9	2.61 L-EMPC	3.79 J	2.27 L
	234678-HxCDF (S)	60851-34-5	2.61 L-EMPC	3.61 L	1.82 L
	123789-HxCDF (S)	72918-21-9	1.22 L-EMPC	ND U	ND U
HpCDF	1234678-HpCDF (S)	67562-39-4	5.93 J	8.52 J	4.19 J
	1234789-HpCDF (S)	55673-89-7	ND U	ND U	ND U
OCDF	OCDF (S)	39001-02-0	ND U	ND U	ND U

TCDD group total	41903-57-5	ND	3.41	3.23
PeCDD group total	36088-22-9	ND	3.95	1.34
HxCDD group total	34465-46-8	3.18	5.58	3.67
HpCDD group total	37871-00-4	69.1	58.8	17.4
OCDD group total		149	151	11.5
TCDF group total	55722-27-5	6.51	15.8	ND
PeCDF group total	30402-15-4	3.82	23.2	ND
HxCDF group total	55684-94-1	10.7	17.7	11.0
HpCDF group total	38998-75-3	7.59	12.1	4.19
OCDF group total		ND	ND	ND

TEQ	ITEQ (ND=0; EMPC=0)	1.06	2.19	0.451
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)	6.24	7.25	4.47
	ITEQ (ND=EDL EMPC=EDL)	11.4	12.3	8.49
	ITEQ (ND=0; EMPC=EMPC)	2.70	5.29	0.797
	ITEQ (ND=1/2EDL; EMPC=EMPC)	6.42	9.20	4.69
	ITEQ (ND=EDL; EMPC=EMPC)	10.1	13.1	8.58
	WTEQ (ND=0; EMPC=0)	0.951	2.09	0.451
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)	6.63	7.74	5.02
	WTEQ (ND=EDL EMPC=EDL)	12.3	13.4	9.60
	WTEQ (ND=0; EMPC=EMPC)	2.20	4.05	0.789
	WTEQ (ND=1/2EDL; EMPC=EMPC)	6.80	8.96	5.23
	WTEQ (ND=EDL; EMPC=EMPC)	11.4	13.9	9.68

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge

Client Project: Primary Energy-508369 Site: Cokenergy

Summary

	Compound	CAS	HRSG-STACK-OTM46-4 pg	HRSG-STACK-OTM46-5 pg	HRSG-STACK-OTM46-6 pg
TCDD	2378-TCDD (S)	1746-01-6	ND U	ND U	ND U
PeCDD	12378-PeCDD (S)	40321-76-4	ND U	ND U	ND U
HxCDD	123478-HxCDD (S)	39227-28-6	ND U	ND U	2.64 L-EMPC
	123678-HxCDD (S)	57653-85-7	ND U	ND U	ND U
	123789-HxCDD (S)	19408-74-3	ND U	ND U	2.76 L
HpCDD	1234678-HpCDD (S)	35822-46-9	16.8 JB	15.7 JB-EMPC	16.5 JB
OCDD	OCDD (S)	3268-87-9	ND U	ND U	ND U
TCDF	2378-TCDF (S)	51207-31-9	ND U	ND U	ND U
PeCDF	12378-PeCDF (S)	57117-41-6	ND U	ND U	ND U
	23478-PeCDF (S)	57117-31-4	ND U	ND U	ND U
HxCDF	123478-HxCDF (S)	70648-26-9	ND U	ND U	1.84 L
	123678-HxCDF (S)	57117-44-9	1.40 L	ND U	ND U
	234678-HxCDF (S)	60851-34-5	ND U	ND U	2.04 L-EMPC
	123789-HxCDF (S)	72918-21-9	ND U	ND U	1.44 L-EMPC
HpCDF	1234678-HpCDF (S)	67562-39-4	2.53 L	ND U	3.34 J
	1234789-HpCDF (S)	55673-89-7	ND U	ND U	ND U
OCDF	OCDF (S)	39001-02-0	ND U	ND U	ND U

TCDD group total	41903-57-5	3.05	ND	2.38
PeCDD group total	36088-22-9	ND	ND	ND
HxCDD group total	34465-46-8	ND	ND	5.40
HpCDD group total	37871-00-4	21.1	15.7	20.7
OCDD group total		ND	ND	ND
TCDF group total	55722-27-5	ND	ND	ND
PeCDF group total	30402-15-4	ND	ND	ND
HxCDF group total	55684-94-1	1.40	ND	7.58
HpCDF group total	38998-75-3	2.53	ND	3.34
OCDF group total		ND	ND	ND

TEQ	ITEQ (ND=0; EMPC=0)	0.333	0	0.658
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)	4.09	11.3	3.31
	ITEQ (ND=EDL EMPC=EDL)	7.84	22.6	5.97
	ITEQ (ND=0; EMPC=EMPC)	0.333	0.157	1.27
	ITEQ (ND=1/2EDL; EMPC=EMPC)	4.09	11.4	3.59
	ITEQ (ND=EDL; EMPC=EMPC)	7.84	22.6	5.90
	WTEQ (ND=0; EMPC=0)	0.333	0	0.658
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)	4.60	13.0	3.69
	WTEQ (ND=EDL EMPC=EDL)	8.87	25.9	6.72
	WTEQ (ND=0; EMPC=EMPC)	0.333	0.157	1.27
	WTEQ (ND=1/2EDL; EMPC=EMPC)	4.60	13.1	3.96
	WTEQ (ND=EDL; EMPC=EMPC)	8.87	26.0	6.65

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge

Client Project: Primary Energy-508369 Site: Cokenergy

Summary

	Compound	CAS	HRSG-STACK-OTM46-7 pg	HRSG-STACK-OTM46-Blank pg	HRSG-STACK-OTM46-Field train proof Blank pg
TCDD	2378-TCDD (S)	1746-01-6	ND U	ND U	ND U
PeCDD	12378-PeCDD (S)	40321-76-4	ND U	ND U	ND U
HxCDD	123478-HxCDD (S)	39227-28-6	ND U	ND U	3.98 L
	123678-HxCDD (S)	57653-85-7	ND U	ND U	ND U
	123789-HxCDD (S)	19408-74-3	ND U	ND U	1.54 L-EMPC
HpCDD	1234678-HpCDD (S)	35822-46-9	16.1 JB	12.3 JB	12.9 JB
OCDD	OCDD (S)	3268-87-9	3.18 L-EMPC	ND U	ND U
TCDF	2378-TCDF (S)	51207-31-9	ND U	ND U	ND U
PeCDF	12378-PeCDF (S)	57117-41-6	ND U	ND U	2.08 L-EMPC
	23478-PeCDF (S)	57117-31-4	ND U	ND U	ND U
HxCDF	123478-HxCDF (S)	70648-26-9	ND U	ND U	1.54 L
	123678-HxCDF (S)	57117-44-9	ND U	ND U	ND U
	234678-HxCDF (S)	60851-34-5	ND U	ND U	1.60 L-EMPC
	123789-HxCDF (S)	72918-21-9	2.62 L	1.98 L-EMPC	ND U
HpCDF	1234678-HpCDF (S)	67562-39-4	3.56 J	ND U	2.46 L-EMPC
	1234789-HpCDF (S)	55673-89-7	ND U	ND U	ND U
OCDF	OCDF (S)	39001-02-0	ND U	ND U	ND U

TCDD group total	41903-57-5	ND	ND	ND
PeCDD group total	36088-22-9	ND	ND	ND
HxCDD group total	34465-46-8	ND	ND	5.52
HpCDD group total	37871-00-4	16.1	12.3	15.1
OCDD group total		3.18	ND	ND
TCDF group total	55722-27-5	ND	ND	7.26
PeCDF group total	30402-15-4	1.02	ND	2.08
HxCDF group total	55684-94-1	4.48	1.98	5.88
HpCDF group total	38998-75-3	3.56	ND	2.46
OCDF group total		ND	ND	ND

TEQ	ITEQ (ND=0; EMPC=0)	0.459	0.123	0.681
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)	4.55	3.34	4.07
	ITEQ (ND=EDL EMPC=EDL)	8.63	6.56	7.46
	ITEQ (ND=0; EMPC=EMPC)	0.462	0.321	1.12
	ITEQ (ND=1/2EDL; EMPC=EMPC)	4.55	3.44	4.17
	ITEQ (ND=EDL; EMPC=EMPC)	8.63	6.55	7.21
	WTEQ (ND=0; EMPC=0)	0.459	0.123	0.681
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)	5.12	3.73	4.47
	WTEQ (ND=EDL EMPC=EDL)	9.78	7.35	8.25
	WTEQ (ND=0; EMPC=EMPC)	0.460	0.321	1.08
	WTEQ (ND=1/2EDL; EMPC=EMPC)	5.12	3.83	4.55
	WTEQ (ND=EDL; EMPC=EMPC)	9.78	7.34	8.01

ENTHALPY ANALYTICAL

Summary of Results

EU Job#: 0123-704

Client Project ID: Primary Energy-50869

OTM-46

Analyte	HRSG-STACK-OTM46-1 ng		HRSG-STACK-OTM46-2 ng		HRSG-STACK-OTM46-3 ng		HRSG-STACK-OTM46-4 ng		HRSG-STACK-OTM46-5 ng	
Naphthalene	1470	EB	1510	EB	1560	EB	1350	EB	1490	EB
2-Methyl-naphthalene	418	EB	374	EB	416	EB	328	EB	451	EB
Acenaphthylene	10.7		6.05		8.26		6.97		9.74	
Acenaphthene	13.0		15.1		14.5		11.5		12.1	
Fluorene	55.4		53.5		43.7		49.3		45.7	
Phenanthrene	416	E	517	E	364	E	464	E	304	E
Anthracene	24.7		24.1		17.7		17.8		16.3	
Fluoranthene	151	E	279	E	208	E	323	E	148	E
Pyrene	119	EB	256	E	192	E	770	E	139	EB
Benzo(a)Anthracene	31.2		31.8		25.9		21.4		17.2	
Chrysene	57.7		61.8		46.8		33.9		38.1	
Benzo(b)Fluoranthene	71.5		67.5		47.2		29.1		32.0	
Benzo(k)Fluoranthene	19.2		16.4		14.0		7.08		7.87	
Benzo(e)Pyrene	45.3		79.1		60.0		35.9		28.4	
Benzo(a)Pyrene	17.1		34.8		27.6		19.2		11.7	
Perylene	3.61		4.16		3.07		2.03		1.38	
Indeno(123-cd)Pyrene	27.1		45.5		34.7		13.5		13.4	
Benzo(ghi)Perylene	73.6		274	E	207	E	85.8		68.2	
Dibenzo(a,h)Anthracene	6.02		5.95		4.62		2.67		3.32	

ENTHALPY ANALYTICAL

Summary of Results

EU Job#: 0123-704

Client Project ID: Primary Energy-50869

OTM-46

Analyte	HRSG-STACK-OTM46-6 ng		HRSG-STACK-OTM46-7 ng		HRSG-STACK-OTM46-Blank ng		HRSG-STACK-OTM46-Field train proof Blank ng	
Naphthalene	2000	EB	1430	EB	1070	EB	1050	EB
2-Methyl-naphthalene	490	EB	465	EB	71.5	B	47.5	B
Acenaphthylene	8.94		12.5		1.13	B	1.02	B
Acenaphthene	14.3		12.6		1.78	B	1.66	B
Fluorene	49.6		42.9		4.82	B	5.13	B
Phenanthrene	268	E	360	E	14.4	B	88.0	
Anthracene	15.3		12.3		1.38	B	1.94	B
Fluoranthene	129	E	140	E	11.9	B	120	E
Pyrene	129	EB	128	EB	47.0	B	150	EB
Benzo(a)Anthracene	15.6		11.0		0.637	JB	2.89	B
Chrysene	32.0		24.5		1.38	B	9.87	B
Benzo(b)Fluoranthene	29.8		21.9		1.49	B	13.4	
Benzo(k)Fluoranthene	6.00		5.50		0.379	JB	2.96	B
Benzo(e)Pyrene	26.9		26.6		1.66	B	38.8	
Benzo(a)Pyrene	11.1		10.9		0.767	JB	20.5	
Perylene	1.33		1.09		0.227	J	1.70	
Indeno(123-cd)Pyrene	12.3		14.7		0.755	JB	24.4	
Benzo(ghi)Perylene	67.9		87.1		4.85	B	221	E
Dibenzo(a,h)Anthracene	2.96		2.35		0.206	J	ND	U

Detailed Results

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-001-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-1	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-07 22:57	Split Factor	2
Sampling Date	2023-02-02 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	3.78			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	3.68			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	4.53			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	4.21			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	5.03			U
HpCDD	1234678-HpCDD (S)	35822-46-9	1.05	42.1	42.1	25.0	7.10			B
OCDD	OCDD (S)	3268-87-9	3.73	149	149	50.0	17.6			
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	2.53			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	3.30			U
	23478-PeCDF (S)	57117-31-4	0.05	2.00	2.00	25.0	3.85			L-EMPC
HxCDF	123478-HxCDF (S)	70648-26-9	0.11	4.26	4.26	25.0	2.70			J
	123678-HxCDF (S)	57117-44-9	0.07	2.61	2.61	25.0	3.10			L-EMPC
	234678-HxCDF (S)	60851-34-5	0.07	2.61	2.61	25.0	3.10			L-EMPC
	123789-HxCDF (S)	72918-21-9	0.03	1.22	1.22	25.0	3.73			L-EMPC
HpCDF	1234678-HpCDF (S)	67562-39-4	0.15	5.93	5.93	25.0	2.39			J
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	2.90			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	5.48			U
ES	13C-2378-TCDD (ES)	76523-40-5	48.95	1958			8.37	20-130%	48.9%	
	13C-12378-PeCDD (ES)	109719-79-1	47.62	1905			10.7	20-130%	47.6%	
	13C-123478-HxCDD (ES)	109719-80-4	61.29	2452			12.7	20-130%	61.3%	
	13C-123678-HxCDD (ES)	109719-81-5	71.97	2879			13.4	20-130%	72.0%	
	13C-123789-HxCDD (ES)	109719-82-6	61.28	2451			11.9	20-130%	61.3%	
	13C-1234678-HpCDD (ES)	109719-83-7	67.78	2711			18.4	20-130%	67.8%	
	13C-OCDD (ES)	114423-97-1	138.76	5550			11.1	20-130%	69.4%	
	13C-2378-TCDF (ES)	89059-46-1	45.10	1804			11.3	20-130%	45.1%	
	13C-12378-PeCDF (ES)	109719-77-9	48.09	1924			9.37	20-130%	48.1%	
	13C-23478-PeCDF (ES)	116843-02-8	46.32	1853			9.71	20-130%	46.3%	
	13C-123478-HxCDF (ES)	114423-98-2	69.63	2785			18.7	20-130%	69.6%	
	13C-123678-HxCDF (ES)	116843-03-9	64.13	2565			15.5	20-130%	64.1%	
	13C-234678-HxCDF (ES)	116843-05-1	63.70	2548			17.1	20-130%	63.7%	
	13C-123789-HxCDF (ES)	116843-04-0	66.71	2669			18.7	20-130%	66.7%	
	13C-1234678-HpCDF (ES)	109719-84-8	69.50	2780			22.2	20-130%	69.5%	
	13C-1234789-HpCDF (ES)	109719-94-0	73.10	2924			24.7	20-130%	73.1%	
	13C-OCDF (ES)	109719-78-0	165.16	6606			13.6	20-130%	82.6%	
SS	37Cl-2378-TCDD (SS)		36.16	1446			2.10	70-130%	90.4%	
	13C-12347-PeCDD (SS)		83.96	3358			22.3	70-130%	84.0%	
	13C-12346-PeCDF (SS)		92.26	3690			18.1	70-130%	92.3%	
	13C-123469-HxCDF (SS)		94.50	3780			33.1	70-130%	94.5%	
	13C-1234689-HpCDF (SS)		105.94	4237			47.1	70-130%	105.9%	
AS	13C-1368-TCDD (AS)		47.36	1895			7.63	20-130%	47.4%	
	13C-1368-TCDF (AS)		48.62	1945			10.2	20-130%	48.6%	

TCDD group total:		41903-57-5	ND	ND			3.78			
PeCDD group total:		36088-22-9	ND	ND			3.68			
HxCDD group total:		34465-46-8	0.08	3.18			4.59			
HpCDD group total:		37871-00-4	1.73	69.1			7.10			
OCDD group total:			3.73	149			17.6			
TCDF group total:		55722-27-5	0.16	6.51			2.53			
PeCDF group total:		30402-15-4	0.10	3.82			3.57			
HxCDF group total:		55684-94-1	0.27	10.7			3.16			
HpCDF group total:		38998-75-3	0.19	7.59			2.65			
OCDF group total:			ND	ND			5.48			

TEQ	ITEQ (ND=0; EMPC=0)			1.06						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			6.24						
	ITEQ (ND=EDL EMPC=EDL)			11.4						
	ITEQ (ND=0; EMPC=EMPC)			2.70						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			6.42						
	ITEQ (ND=EDL; EMPC=EMPC)			10.1						
	WTEQ (ND=0; EMPC=0)			0.951						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			6.63						
	WTEQ (ND=EDL EMPC=EDL)			12.3						
	WTEQ (ND=0; EMPC=EMPC)			2.20						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			6.80						
	WTEQ (ND=EDL; EMPC=EMPC)			11.4						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-002-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-2	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-07 23:48	Split Factor	2
Sampling Date	2023-02-04 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	3.70			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	3.98			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	5.68			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	5.39			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	5.84			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.98	39.3	39.3	25.0	6.60			B
OCDD	OCDD (S)	3268-87-9	3.78	151	151	50.0	14.6			
TCDF	2378-TCDF (S)	51207-31-9	0.21	8.25	8.25	5.00	2.77			
PeCDF	12378-PeCDF (S)	57117-41-6	0.12	4.64	4.64	25.0	3.33			J-EMPC
	23478-PeCDF (S)	57117-31-4	0.13	5.16	5.16	25.0	3.65			J-EMPC
HxCDF	123478-HxCDF (S)	70648-26-9	0.07	2.79	2.79	25.0	2.90			L-EMPC
	123678-HxCDF (S)	57117-44-9	0.09	3.79	3.79	25.0	3.30			J
	234678-HxCDF (S)	60851-34-5	0.09	3.61	3.61	25.0	3.50			L
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	3.92			U
HpCDF	1234678-HpCDF (S)	67562-39-4	0.21	8.52	8.52	25.0	3.91			J
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	4.76			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	7.17			U
ES	13C-2378-TCDD (ES)	76523-40-5	67.67	2707			12.8	20-130%	67.7%	
	13C-12378-PeCDD (ES)	109719-79-1	69.59	2784			15.6	20-130%	69.6%	
	13C-123478-HxCDD (ES)	109719-80-4	77.59	3103			23.5	20-130%	77.6%	
	13C-123678-HxCDD (ES)	109719-81-5	90.99	3640			25.0	20-130%	91.0%	
	13C-123789-HxCDD (ES)	109719-82-6	78.47	3139			22.1	20-130%	78.5%	
	13C-1234678-HpCDD (ES)	109719-83-7	93.57	3743			25.6	20-130%	93.6%	
	13C-OCDD (ES)	114423-97-1	179.75	7190			27.1	20-130%	89.9%	
	13C-2378-TCDF (ES)	89059-46-1	61.47	2459			15.6	20-130%	61.5%	
	13C-12378-PeCDF (ES)	109719-77-9	68.67	2747			19.1	20-130%	68.7%	
	13C-23478-PeCDF (ES)	116843-02-8	64.51	2580			19.8	20-130%	64.5%	
	13C-123478-HxCDF (ES)	114423-98-2	91.98	3679			36.0	20-130%	92.0%	
	13C-123678-HxCDF (ES)	116843-03-9	84.94	3397			29.9	20-130%	84.9%	
	13C-234678-HxCDF (ES)	116843-05-1	83.81	3353			32.9	20-130%	83.8%	
	13C-123789-HxCDF (ES)	116843-04-0	88.80	3552			36.0	20-130%	88.8%	
	13C-1234678-HpCDF (ES)	109719-84-8	93.90	3756			38.8	20-130%	93.9%	
	13C-1234789-HpCDF (ES)	109719-94-0	99.10	3964			43.0	20-130%	99.1%	
	13C-OCDF (ES)	109719-78-0	216.42	8657			20.6	20-130%	108.2%	
SS	37Cl-2378-TCDD (SS)		35.39	1416			2.54	70-130%	88.5%	
	13C-12347-PeCDD (SS)		82.66	3306			22.2	70-130%	82.7%	
	13C-12346-PeCDF (SS)		93.11	3724			25.1	70-130%	93.1%	
	13C-123469-HxCDF (SS)		93.00	3720			43.2	70-130%	93.0%	
	13C-1234689-HpCDF (SS)		99.96	3998			56.8	70-130%	100.0%	
AS	13C-1368-TCDD (AS)		66.36	2655			11.7	20-130%	66.4%	
	13C-1368-TCDF (AS)		64.36	2574			14.2	20-130%	64.4%	

TCDD group total:		41903-57-5	0.09	3.41			3.70			
PeCDD group total:		36088-22-9	0.10	3.95			3.98			
HxCDD group total:		34465-46-8	0.14	5.58			5.64			
HpCDD group total:		37871-00-4	1.47	58.8			6.60			
OCDD group total:			3.78	151			14.6			
TCDF group total:		55722-27-5	0.39	15.8			2.77			
PeCDF group total:		30402-15-4	0.58	23.2			3.49			
HxCDF group total:		55684-94-1	0.44	17.7			3.41			
HpCDF group total:		38998-75-3	0.30	12.1			4.34			
OCDF group total:			ND	ND			7.17			

TEQ	ITEQ (ND=0; EMPC=0)			2.19						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			7.25						
	ITEQ (ND=EDL EMPC=EDL)			12.3						
	ITEQ (ND=0; EMPC=EMPC)			5.29						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			9.20						
	ITEQ (ND=EDL; EMPC=EMPC)			13.1						
	WTEQ (ND=0; EMPC=0)			2.09						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			7.74						
	WTEQ (ND=EDL EMPC=EDL)			13.4						
	WTEQ (ND=0; EMPC=EMPC)			4.05						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			8.96						
	WTEQ (ND=EDL; EMPC=EMPC)			13.9						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-003-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-3	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 00:39	Split Factor	2
Sampling Date	2023-02-05 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	3.06			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	3.33			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	4.04			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	3.41			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	3.88			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.32	12.7	12.7	25.0	5.35			JB-EMPC
OCDD	OCDD (S)	3268-87-9	0.29	11.5	11.5	50.0	7.85			J-EMPC
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	2.11			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	2.48			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	2.51			U
HxCDF	123478-HxCDF (S)	70648-26-9	0.05	2.07	2.07	25.0	2.02			L-EMPC
	123678-HxCDF (S)	57117-44-9	0.06	2.27	2.27	25.0	2.33			L
	234678-HxCDF (S)	60851-34-5	0.05	1.82	1.82	25.0	2.34			L
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	2.86			U
HpCDF	1234678-HpCDF (S)	67562-39-4	0.10	4.19	4.19	25.0	3.04			J
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	3.90			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	5.38			U
ES	13C-2378-TCDD (ES)	76523-40-5	76.29	3052			12.3	20-130%	76.3%	
	13C-12378-PeCDD (ES)	109719-79-1	72.73	2909			20.7	20-130%	72.7%	
	13C-123478-HxCDD (ES)	109719-80-4	91.00	3640			18.7	20-130%	91.0%	
	13C-123678-HxCDD (ES)	109719-81-5	103.38	4135			19.8	20-130%	103.4%	
	13C-123789-HxCDD (ES)	109719-82-6	94.18	3767			17.6	20-130%	94.2%	
	13C-1234678-HpCDD (ES)	109719-83-7	103.34	4134			24.1	20-130%	103.3%	
	13C-OCDD (ES)	114423-97-1	202.10	8084			22.0	20-130%	101.1%	
	13C-2378-TCDF (ES)	89059-46-1	68.14	2725			14.7	20-130%	68.1%	
	13C-12378-PeCDF (ES)	109719-77-9	70.99	2840			14.0	20-130%	71.0%	
	13C-23478-PeCDF (ES)	116843-02-8	70.24	2809			14.5	20-130%	70.2%	
	13C-123478-HxCDF (ES)	114423-98-2	106.94	4278			33.3	20-130%	106.9%	
	13C-123678-HxCDF (ES)	116843-03-9	95.74	3830			27.7	20-130%	95.7%	
	13C-234678-HxCDF (ES)	116843-05-1	95.76	3830			30.4	20-130%	95.8%	
	13C-123789-HxCDF (ES)	116843-04-0	102.75	4110			33.3	20-130%	102.8%	
	13C-1234678-HpCDF (ES)	109719-84-8	104.84	4194			35.5	20-130%	104.8%	
	13C-1234789-HpCDF (ES)	109719-94-0	106.02	4241			39.4	20-130%	106.0%	
	13C-OCDF (ES)	109719-78-0	236.82	9473			18.6	20-130%	118.4%	
SS	37Cl-2378-TCDD (SS)		34.02	1361			2.46	70-130%	85.1%	
	13C-12347-PeCDD (SS)		83.34	3333			27.8	70-130%	83.3%	
	13C-12346-PeCDF (SS)		91.84	3674			18.2	70-130%	91.8%	
	13C-123469-HxCDF (SS)		95.98	3839			36.7	70-130%	96.0%	
	13C-1234689-HpCDF (SS)		100.24	4010			48.1	70-130%	100.2%	
AS	13C-1368-TCDD (AS)		68.92	2757			11.2	20-130%	68.9%	
	13C-1368-TCDF (AS)		70.59	2823			13.3	20-130%	70.6%	

TCDD group total:		41903-57-5	0.08	3.23			3.06			
PeCDD group total:		36088-22-9	0.03	1.34			3.33			
HxCDD group total:		34465-46-8	0.09	3.67			3.78			
HpCDD group total:		37871-00-4	0.44	17.4			5.35			
OCDD group total:			0.29	11.5			7.85			
TCDF group total:		55722-27-5	ND	ND			2.11			
PeCDF group total:		30402-15-4	ND	ND			2.50			
HxCDF group total:		55684-94-1	0.28	11.0			2.39			
HpCDF group total:		38998-75-3	0.10	4.19			3.47			
OCDF group total:			ND	ND			5.38			

TEQ	ITEQ (ND=0; EMPC=0)			0.451						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			4.47						
	ITEQ (ND=EDL EMPC=EDL)			8.49						
	ITEQ (ND=0; EMPC=EMPC)			0.797						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			4.69						
	ITEQ (ND=EDL; EMPC=EMPC)			8.58						
	WTEQ (ND=0; EMPC=0)			0.451						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			5.02						
	WTEQ (ND=EDL EMPC=EDL)			9.60						
	WTEQ (ND=0; EMPC=EMPC)			0.789						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			5.23						
	WTEQ (ND=EDL; EMPC=EMPC)			9.68						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-004-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-4	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 01:31	Split Factor	2
Sampling Date	2023-02-06 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	2.80			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	3.06			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	3.39			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	3.14			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	3.33			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.42	16.8	16.8	25.0	4.26			JB
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	6.36			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	2.42			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	2.21			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	2.28			U
HxCDF	123478-HxCDF (S)	70648-26-9	ND	ND	ND	25.0	1.90			U
	123678-HxCDF (S)	57117-44-9	0.03	1.40	1.40	25.0	2.06			L
	234678-HxCDF (S)	60851-34-5	ND	ND	ND	25.0	2.21			U
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	2.54			U
HpCDF	1234678-HpCDF (S)	67562-39-4	0.06	2.53	2.53	25.0	2.35			L
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	2.87			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	5.11			U
ES	13C-2378-TCDD (ES)	76523-40-5	67.24	2689			9.31	20-130%	67.2%	
	13C-12378-PeCDD (ES)	109719-79-1	68.31	2732			10.00	20-130%	68.3%	
	13C-123478-HxCDD (ES)	109719-80-4	73.36	2934			18.5	20-130%	73.4%	
	13C-123678-HxCDD (ES)	109719-81-5	86.50	3460			19.6	20-130%	86.5%	
	13C-123789-HxCDD (ES)	109719-82-6	75.96	3038			17.4	20-130%	76.0%	
	13C-1234678-HpCDD (ES)	109719-83-7	88.82	3553			20.7	20-130%	88.8%	
	13C-OCDD (ES)	114423-97-1	164.85	6594			16.0	20-130%	82.4%	
	13C-2378-TCDF (ES)	89059-46-1	61.82	2473			11.9	20-130%	61.8%	
	13C-12378-PeCDF (ES)	109719-77-9	65.02	2601			11.9	20-130%	65.0%	
	13C-23478-PeCDF (ES)	116843-02-8	65.79	2632			12.4	20-130%	65.8%	
	13C-123478-HxCDF (ES)	114423-98-2	89.39	3576			24.4	20-130%	89.4%	
	13C-123678-HxCDF (ES)	116843-03-9	80.73	3229			20.3	20-130%	80.7%	
	13C-234678-HxCDF (ES)	116843-05-1	79.85	3194			22.3	20-130%	79.8%	
	13C-123789-HxCDF (ES)	116843-04-0	85.39	3416			24.5	20-130%	85.4%	
	13C-1234678-HpCDF (ES)	109719-84-8	85.47	3419			26.8	20-130%	85.5%	
	13C-1234789-HpCDF (ES)	109719-94-0	89.90	3596			29.7	20-130%	89.9%	
	13C-OCDF (ES)	109719-78-0	195.45	7818			15.0	20-130%	97.7%	
SS	37Cl-2378-TCDD (SS)		35.80	1432			1.72	70-130%	89.5%	
	13C-12347-PeCDD (SS)		85.14	3406			14.4	70-130%	85.1%	
	13C-12346-PeCDF (SS)		97.39	3896			16.3	70-130%	97.4%	
	13C-123469-HxCDF (SS)		95.01	3800			29.8	70-130%	95.0%	
	13C-1234689-HpCDF (SS)		105.28	4211			42.9	70-130%	105.3%	
AS	13C-1368-TCDD (AS)		66.11	2645			8.49	20-130%	66.1%	
	13C-1368-TCDF (AS)		65.36	2615			10.8	20-130%	65.4%	

TCDD group total:		41903-57-5	0.08	3.05			2.80			
PeCDD group total:		36088-22-9	ND	ND			3.06			
HxCDD group total:		34465-46-8	ND	ND			3.29			
HpCDD group total:		37871-00-4	0.53	21.1			4.26			
OCDD group total:			ND	ND			6.36			
TCDF group total:		55722-27-5	ND	ND			2.42			
PeCDF group total:		30402-15-4	ND	ND			2.24			
HxCDF group total:		55684-94-1	0.03	1.40			2.18			
HpCDF group total:		38998-75-3	0.06	2.53			2.61			
OCDF group total:			ND	ND			5.11			

TEQ	ITEQ (ND=0; EMPC=0)			0.333						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			4.09						
	ITEQ (ND=EDL EMPC=EDL)			7.84						
	ITEQ (ND=0; EMPC=EMPC)			0.333						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			4.09						
	ITEQ (ND=EDL; EMPC=EMPC)			7.84						
	WTEQ (ND=0; EMPC=0)			0.333						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			4.60						
	WTEQ (ND=EDL EMPC=EDL)			8.87						
	WTEQ (ND=0; EMPC=EMPC)			0.333						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			4.60						
	WTEQ (ND=EDL; EMPC=EMPC)			8.87						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-005-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-5	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-10 21:00	Split Factor	4
Sampling Date	2023-02-07 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	6.47	6.47			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	10.0			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	10.4			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	9.56			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	10.5			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.20	15.7	15.7	25.0	13.7			JB-EMPC
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	30.0			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	6.04	6.04			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	7.56			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	7.33			U
HxCDF	123478-HxCDF (S)	70648-26-9	ND	ND	ND	25.0	6.33			U
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	7.14			U
	234678-HxCDF (S)	60851-34-5	ND	ND	ND	25.0	7.32			U
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	8.79			U
HpCDF	1234678-HpCDF (S)	67562-39-4	ND	ND	ND	25.0	11.0			U
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	14.2			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	21.5			U
ES	13C-2378-TCDD (ES)	76523-40-5	29.71	2377			14.2	20-130%	59.4%	
	13C-12378-PeCDD (ES)	109719-79-1	27.70	2216			12.2	20-130%	55.4%	
	13C-123478-HxCDD (ES)	109719-80-4	34.25	2740			24.7	20-130%	68.5%	
	13C-123678-HxCDD (ES)	109719-81-5	39.10	3128			26.2	20-130%	78.2%	
	13C-123789-HxCDD (ES)	109719-82-6	36.21	2897			23.3	20-130%	72.4%	
	13C-1234678-HpCDD (ES)	109719-83-7	35.21	2817			25.3	20-130%	70.4%	
	13C-OCDD (ES)	114423-97-1	74.15	5932			21.3	20-130%	74.1%	
	13C-2378-TCDF (ES)	89059-46-1	28.03	2243			18.2	20-130%	56.1%	
	13C-12378-PeCDF (ES)	109719-77-9	24.83	1986			16.7	20-130%	49.7%	
	13C-23478-PeCDF (ES)	116843-02-8	27.29	2183			17.3	20-130%	54.6%	
	13C-123478-HxCDF (ES)	114423-98-2	38.30	3064			37.3	20-130%	76.6%	
	13C-123678-HxCDF (ES)	116843-03-9	32.50	2600			31.0	20-130%	65.0%	
	13C-234678-HxCDF (ES)	116843-05-1	32.88	2630			34.1	20-130%	65.8%	
	13C-123789-HxCDF (ES)	116843-04-0	34.40	2752			37.3	20-130%	68.8%	
	13C-1234678-HpCDF (ES)	109719-84-8	36.47	2917			37.4	20-130%	72.9%	
	13C-1234789-HpCDF (ES)	109719-94-0	38.45	3076			41.4	20-130%	76.9%	
	13C-OCDF (ES)	109719-78-0	87.17	6973			17.0	20-130%	87.2%	
SS	37Cl-2378-TCDD (SS)		18.51	1481			6.39	70-130%	92.5%	
	13C-12347-PeCDD (SS)		45.21	3617			22.4	70-130%	90.4%	
	13C-12346-PeCDF (SS)		53.74	4299			31.1	70-130%	107.5%	
	13C-123469-HxCDF (SS)		51.76	4140			56.5	70-130%	103.5%	
	13C-1234689-HpCDF (SS)		53.32	4266			70.9	70-130%	106.6%	
AS	13C-1368-TCDD (AS)		28.58	2287			13.0	20-130%	57.2%	
	13C-1368-TCDF (AS)		30.36	2428			16.6	20-130%	60.7%	

TCDD group total:		41903-57-5	ND	ND			6.47			
PeCDD group total:		36088-22-9	ND	ND			10.0			
HxCDD group total:		34465-46-8	ND	ND			10.1			
HpCDD group total:		37871-00-4	0.20	15.7			13.7			
OCDD group total:			ND	ND			30.0			
TCDF group total:		55722-27-5	ND	ND			6.04			
PeCDF group total:		30402-15-4	ND	ND			7.44			
HxCDF group total:		55684-94-1	ND	ND			7.39			
HpCDF group total:		38998-75-3	ND	ND			12.6			
OCDF group total:			ND	ND			21.5			

TEQ	ITEQ (ND=0; EMPC=0)		0						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)		11.3						
	ITEQ (ND=EDL EMPC=EDL)		22.6						
	ITEQ (ND=0; EMPC=EMPC)		0.157						
	ITEQ (ND=1/2EDL; EMPC=EMPC)		11.4						
	ITEQ (ND=EDL; EMPC=EMPC)		22.6						
	WTEQ (ND=0; EMPC=0)		0						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)		13.0						
	WTEQ (ND=EDL EMPC=EDL)		25.9						
	WTEQ (ND=0; EMPC=EMPC)		0.157						
	WTEQ (ND=1/2EDL; EMPC=EMPC)		13.1						
	WTEQ (ND=EDL; EMPC=EMPC)		26.0						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-006-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-6	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 06:48	Split Factor	2
Sampling Date	2023-02-08 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	1.77			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	2.37			U
HxCDD	123478-HxCDD (S)	39227-28-6	0.07	2.64	2.64	25.0	2.89			L-EMPC
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	2.74			U
	123789-HxCDD (S)	19408-74-3	0.07	2.76	2.76	25.0	3.10			L
HpCDD	1234678-HpCDD (S)	35822-46-9	0.41	16.5	16.5	25.0	2.45			JB
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	7.47			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	1.34			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	1.85			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	1.95			U
HxCDF	123478-HxCDF (S)	70648-26-9	0.05	1.84	1.84	25.0	1.53			L
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	1.65			U
	234678-HxCDF (S)	60851-34-5	0.05	2.04	2.04	25.0	1.80			L-EMPC
	123789-HxCDF (S)	72918-21-9	0.04	1.44	1.44	25.0	2.06			L-EMPC
HpCDF	1234678-HpCDF (S)	67562-39-4	0.08	3.34	3.34	25.0	1.84			J
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	2.27			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	3.84			U
ES	13C-2378-TCDD (ES)	76523-40-5	69.90	2796			6.69	20-130%	69.9%	
	13C-12378-PeCDD (ES)	109719-79-1	67.65	2706			10.9	20-130%	67.6%	
	13C-123478-HxCDD (ES)	109719-80-4	78.94	3158			20.0	20-130%	78.9%	
	13C-123678-HxCDD (ES)	109719-81-5	94.80	3792			21.2	20-130%	94.8%	
	13C-123789-HxCDD (ES)	109719-82-6	79.17	3167			18.8	20-130%	79.2%	
	13C-1234678-HpCDD (ES)	109719-83-7	98.86	3954			20.8	20-130%	98.9%	
	13C-OCDD (ES)	114423-97-1	180.32	7213			14.2	20-130%	90.2%	
	13C-2378-TCDF (ES)	89059-46-1	64.35	2574			8.43	20-130%	64.4%	
	13C-12378-PeCDF (ES)	109719-77-9	66.88	2675			10.7	20-130%	66.9%	
	13C-23478-PeCDF (ES)	116843-02-8	65.92	2637			11.0	20-130%	65.9%	
	13C-123478-HxCDF (ES)	114423-98-2	96.20	3848			23.1	20-130%	96.2%	
	13C-123678-HxCDF (ES)	116843-03-9	88.84	3554			19.2	20-130%	88.8%	
	13C-234678-HxCDF (ES)	116843-05-1	89.84	3594			21.2	20-130%	89.8%	
	13C-123789-HxCDF (ES)	116843-04-0	91.44	3657			23.2	20-130%	91.4%	
	13C-1234678-HpCDF (ES)	109719-84-8	99.82	3993			27.6	20-130%	99.8%	
	13C-1234789-HpCDF (ES)	109719-94-0	103.08	4123			30.6	20-130%	103.1%	
	13C-OCDF (ES)	109719-78-0	222.29	8892			17.3	20-130%	111.1%	
SS	37Cl-2378-TCDD (SS)		40.61	1625			2.26	70-130%	101.5%	
	13C-12347-PeCDD (SS)		95.18	3807			16.8	70-130%	95.2%	
	13C-12346-PeCDF (SS)		103.81	4152			14.6	70-130%	103.8%	
	13C-123469-HxCDF (SS)		107.93	4317			25.1	70-130%	107.9%	
	13C-1234689-HpCDF (SS)		118.81	4753			36.2	70-130%	118.8%	
AS	13C-1368-TCDD (AS)		69.25	2770			6.09	20-130%	69.3%	
	13C-1368-TCDF (AS)		69.63	2785			7.66	20-130%	69.6%	

TCDD group total:		41903-57-5	0.06	2.38			1.77			
PeCDD group total:		36088-22-9	ND	ND			2.37			
HxCDD group total:		34465-46-8	0.14	5.40			2.91			
HpCDD group total:		37871-00-4	0.52	20.7			2.45			
OCDD group total:			ND	ND			7.47			
TCDF group total:		55722-27-5	ND	ND			1.34			
PeCDF group total:		30402-15-4	ND	ND			1.90			
HxCDF group total:		55684-94-1	0.19	7.58			1.76			
HpCDF group total:		38998-75-3	0.08	3.34			2.05			
OCDF group total:			ND	ND			3.84			

TEQ	ITEQ (ND=0; EMPC=0)			0.658						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			3.31						
	ITEQ (ND=EDL EMPC=EDL)			5.97						
	ITEQ (ND=0; EMPC=EMPC)			1.27						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			3.59						
	ITEQ (ND=EDL; EMPC=EMPC)			5.90						
	WTEQ (ND=0; EMPC=0)			0.658						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			3.69						
	WTEQ (ND=EDL EMPC=EDL)			6.72						
	WTEQ (ND=0; EMPC=EMPC)			1.27						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			3.96						
	WTEQ (ND=EDL; EMPC=EMPC)			6.65						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-007-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-7	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 07:39	Split Factor	2
Sampling Date	2023-02-09 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	2.72			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	3.62			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	3.55			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	3.52			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	3.80			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.40	16.1	16.1	25.0	5.25			JB
OCDD	OCDD (S)	3268-87-9	0.08	3.18	3.18	50.0	9.06			L-EMPC
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	1.86			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	2.68			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	3.01			U
HxCDF	123478-HxCDF (S)	70648-26-9	ND	ND	ND	25.0	2.12			U
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	2.34			U
	234678-HxCDF (S)	60851-34-5	ND	ND	ND	25.0	2.37			U
	123789-HxCDF (S)	72918-21-9	0.07	2.62	2.62	25.0	2.89			L
HpCDF	1234678-HpCDF (S)	67562-39-4	0.09	3.56	3.56	25.0	2.45			J
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	3.07			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	5.26			U
ES	13C-2378-TCDD (ES)	76523-40-5	58.68	2347			7.93	20-130%	58.7%	
	13C-12378-PeCDD (ES)	109719-79-1	55.49	2219			11.4	20-130%	55.5%	
	13C-123478-HxCDD (ES)	109719-80-4	66.01	2641			14.1	20-130%	66.0%	
	13C-123678-HxCDD (ES)	109719-81-5	76.58	3063			15.0	20-130%	76.6%	
	13C-123789-HxCDD (ES)	109719-82-6	68.85	2754			13.3	20-130%	68.9%	
	13C-1234678-HpCDD (ES)	109719-83-7	80.87	3235			18.2	20-130%	80.9%	
	13C-OCDD (ES)	114423-97-1	152.55	6102			15.4	20-130%	76.3%	
	13C-2378-TCDF (ES)	89059-46-1	52.88	2115			11.3	20-130%	52.9%	
	13C-12378-PeCDF (ES)	109719-77-9	55.63	2225			11.2	20-130%	55.6%	
	13C-23478-PeCDF (ES)	116843-02-8	53.37	2135			11.6	20-130%	53.4%	
	13C-123478-HxCDF (ES)	114423-98-2	81.38	3255			23.5	20-130%	81.4%	
	13C-123678-HxCDF (ES)	116843-03-9	75.61	3024			19.5	20-130%	75.6%	
	13C-234678-HxCDF (ES)	116843-05-1	74.27	2971			21.5	20-130%	74.3%	
	13C-123789-HxCDF (ES)	116843-04-0	77.93	3117			23.5	20-130%	77.9%	
	13C-1234678-HpCDF (ES)	109719-84-8	82.44	3298			27.2	20-130%	82.4%	
	13C-1234789-HpCDF (ES)	109719-94-0	86.23	3449			30.2	20-130%	86.2%	
	13C-OCDF (ES)	109719-78-0	188.53	7541			16.0	20-130%	94.3%	
SS	37Cl-2378-TCDD (SS)		35.29	1412			1.97	70-130%	88.2%	
	13C-12347-PeCDD (SS)		83.29	3331			22.1	70-130%	83.3%	
	13C-12346-PeCDF (SS)		92.39	3696			19.4	70-130%	92.4%	
	13C-123469-HxCDF (SS)		95.09	3804			32.3	70-130%	95.1%	
	13C-1234689-HpCDF (SS)		103.71	4149			48.7	70-130%	103.7%	
AS	13C-1368-TCDD (AS)		56.56	2262			7.23	20-130%	56.6%	
	13C-1368-TCDF (AS)		55.29	2211			10.2	20-130%	55.3%	

TCDD group total:		41903-57-5	ND	ND			2.72			
PeCDD group total:		36088-22-9	ND	ND			3.62			
HxCDD group total:		34465-46-8	ND	ND			3.62			
HpCDD group total:		37871-00-4	0.40	16.1			5.25			
OCDD group total:			0.08	3.18			9.06			
TCDF group total:		55722-27-5	ND	ND			1.86			
PeCDF group total:		30402-15-4	0.03	1.02			2.84			
HxCDF group total:		55684-94-1	0.11	4.48			2.43			
HpCDF group total:		38998-75-3	0.09	3.56			2.76			
OCDF group total:			ND	ND			5.26			

TEQ	ITEQ (ND=0; EMPC=0)			0.459						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			4.55						
	ITEQ (ND=EDL EMPC=EDL)			8.63						
	ITEQ (ND=0; EMPC=EMPC)			0.462						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			4.55						
	ITEQ (ND=EDL; EMPC=EMPC)			8.63						
	WTEQ (ND=0; EMPC=0)			0.459						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			5.12						
	WTEQ (ND=EDL EMPC=EDL)			9.78						
	WTEQ (ND=0; EMPC=EMPC)			0.460						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			5.12						
	WTEQ (ND=EDL; EMPC=EMPC)			9.78						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-008-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-Blank	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 08:30	Split Factor	2
Sampling Date	2023-02-09 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	2.57			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	2.31			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	3.03			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	2.74			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	3.19			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.31	12.3	12.3	25.0	4.22			JB
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	7.66			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	1.16			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	1.52			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	1.66			U
HxCDF	123478-HxCDF (S)	70648-26-9	ND	ND	ND	25.0	1.63			U
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	1.76			U
	234678-HxCDF (S)	60851-34-5	ND	ND	ND	25.0	1.91			U
	123789-HxCDF (S)	72918-21-9	0.05	1.98	1.98	25.0	2.09			L-EMPC
HpCDF	1234678-HpCDF (S)	67562-39-4	ND	ND	ND	25.0	1.63			U
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	1.96			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	3.45			U
ES	13C-2378-TCDD (ES)	76523-40-5	55.83	2233			9.62	20-130%	55.8%	
	13C-12378-PeCDD (ES)	109719-79-1	54.60	2184			12.4	20-130%	54.6%	
	13C-123478-HxCDD (ES)	109719-80-4	64.61	2584			15.9	20-130%	64.6%	
	13C-123678-HxCDD (ES)	109719-81-5	82.73	3309			16.8	20-130%	82.7%	
	13C-123789-HxCDD (ES)	109719-82-6	69.06	2763			14.9	20-130%	69.1%	
	13C-1234678-HpCDD (ES)	109719-83-7	80.36	3214			16.5	20-130%	80.4%	
	13C-OCDD (ES)	114423-97-1	155.30	6212			15.8	20-130%	77.6%	
	13C-2378-TCDF (ES)	89059-46-1	48.19	1928			8.36	20-130%	48.2%	
	13C-12378-PeCDF (ES)	109719-77-9	52.04	2082			11.2	20-130%	52.0%	
	13C-23478-PeCDF (ES)	116843-02-8	48.32	1933			11.6	20-130%	48.3%	
	13C-123478-HxCDF (ES)	114423-98-2	80.36	3214			25.3	20-130%	80.4%	
	13C-123678-HxCDF (ES)	116843-03-9	73.63	2945			21.0	20-130%	73.6%	
	13C-234678-HxCDF (ES)	116843-05-1	70.08	2803			23.1	20-130%	70.1%	
	13C-123789-HxCDF (ES)	116843-04-0	75.37	3015			25.3	20-130%	75.4%	
	13C-1234678-HpCDF (ES)	109719-84-8	83.12	3325			33.8	20-130%	83.1%	
	13C-1234789-HpCDF (ES)	109719-94-0	88.46	3539			37.5	20-130%	88.5%	
	13C-OCDF (ES)	109719-78-0	194.74	7789			15.2	20-130%	97.4%	
SS	37Cl-2378-TCDD (SS)		36.10	1444			3.15	70-130%	90.3%	
	13C-12347-PeCDD (SS)		82.82	3313			22.6	70-130%	82.8%	
	13C-12346-PeCDF (SS)		92.56	3702			22.0	70-130%	92.6%	
	13C-123469-HxCDF (SS)		98.03	3921			34.7	70-130%	98.0%	
	13C-1234689-HpCDF (SS)		103.66	4146			56.4	70-130%	103.7%	
AS	13C-1368-TCDD (AS)		54.55	2182			8.77	20-130%	54.6%	
	13C-1368-TCDF (AS)		53.94	2158			7.60	20-130%	53.9%	

TCDD group total:		41903-57-5	ND	ND			2.57			
PeCDD group total:		36088-22-9	ND	ND			2.31			
HxCDD group total:		34465-46-8	ND	ND			2.99			
HpCDD group total:		37871-00-4	0.31	12.3			4.22			
OCDD group total:			ND	ND			7.66			
TCDF group total:		55722-27-5	ND	ND			1.16			
PeCDF group total:		30402-15-4	ND	ND			1.59			
HxCDF group total:		55684-94-1	0.05	1.98			1.85			
HpCDF group total:		38998-75-3	ND	ND			1.80			
OCDF group total:			ND	ND			3.45			

TEQ	ITEQ (ND=0; EMPC=0)			0.123						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			3.34						
	ITEQ (ND=EDL EMPC=EDL)			6.56						
	ITEQ (ND=0; EMPC=EMPC)			0.321						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			3.44						
	ITEQ (ND=EDL; EMPC=EMPC)			6.55						
	WTEQ (ND=0; EMPC=0)			0.123						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			3.73						
	WTEQ (ND=EDL EMPC=EDL)			7.35						
	WTEQ (ND=0; EMPC=EMPC)			0.321						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			3.83						
	WTEQ (ND=EDL; EMPC=EMPC)			7.34						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	0123-704-009-1	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	HRSG-STACK-OTM46-Field train proof Blank	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-08 09:22	Split Factor	2
Sampling Date	2023-02-06 00:00	Analyst	bahager	Method Code	WM-001
Received Date	2023-02-20 16:50	Instrument	Gandalf	Sample Type	Sample

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	2.16			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	2.89			U
HxCDD	123478-HxCDD (S)	39227-28-6	0.10	3.98	3.98	25.0	3.07			L
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	2.77			U
	123789-HxCDD (S)	19408-74-3	0.04	1.54	1.54	25.0	3.21			L-EMPC
HpCDD	1234678-HpCDD (S)	35822-46-9	0.32	12.9	12.9	25.0	3.79			JB
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	7.65			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	2.10			U
PeCDF	12378-PeCDF (S)	57117-41-6	0.05	2.08	2.08	25.0	2.75			L-EMPC
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	2.95			U
HxCDF	123478-HxCDF (S)	70648-26-9	0.04	1.54	1.54	25.0	1.89			L
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	2.08			U
	234678-HxCDF (S)	60851-34-5	0.04	1.60	1.60	25.0	2.19			L-EMPC
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	2.69			U
HpCDF	1234678-HpCDF (S)	67562-39-4	0.06	2.46	2.46	25.0	2.13			L-EMPC
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	2.69			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	3.94			U
ES	13C-2378-TCDD (ES)	76523-40-5	77.19	3088			11.1	20-130%	77.2%	
	13C-12378-PeCDD (ES)	109719-79-1	74.63	2985			12.8	20-130%	74.6%	
	13C-123478-HxCDD (ES)	109719-80-4	95.86	3834			21.4	20-130%	95.9%	
	13C-123678-HxCDD (ES)	109719-81-5	109.74	4389			22.7	20-130%	109.7%	
	13C-123789-HxCDD (ES)	109719-82-6	95.38	3815			20.1	20-130%	95.4%	
	13C-1234678-HpCDD (ES)	109719-83-7	121.25	4850			19.1	20-130%	121.3%	
	13C-OCDD (ES)	114423-97-1	219.89	8796			19.3	20-130%	109.9%	
	13C-2378-TCDF (ES)	89059-46-1	68.57	2743			12.0	20-130%	68.6%	
	13C-12378-PeCDF (ES)	109719-77-9	75.13	3005			15.4	20-130%	75.1%	
	13C-23478-PeCDF (ES)	116843-02-8	72.41	2896			15.9	20-130%	72.4%	
	13C-123478-HxCDF (ES)	114423-98-2	112.75	4510			34.7	20-130%	112.7%	
	13C-123678-HxCDF (ES)	116843-03-9	103.53	4141			28.9	20-130%	103.5%	
	13C-234678-HxCDF (ES)	116843-05-1	102.03	4081			31.7	20-130%	102.0%	
	13C-123789-HxCDF (ES)	116843-04-0	106.82	4273			34.8	20-130%	106.8%	
	13C-1234678-HpCDF (ES)	109719-84-8	120.37	4815			32.3	20-130%	120.4%	
	13C-1234789-HpCDF (ES)	109719-94-0	119.86	4794			35.8	20-130%	119.9%	
	13C-OCDF (ES)	109719-78-0	261.85	10474			24.2	20-130%	130.9%	
SS	37Cl-2378-TCDD (SS)		35.36	1414			1.52	70-130%	88.4%	
	13C-12347-PeCDD (SS)		83.47	3339			18.0	70-130%	83.5%	
	13C-12346-PeCDF (SS)		91.49	3660			19.3	70-130%	91.5%	
	13C-123469-HxCDF (SS)		92.58	3703			34.7	70-130%	92.6%	
	13C-1234689-HpCDF (SS)		98.55	3942			38.8	70-130%	98.5%	
AS	13C-1368-TCDD (AS)		73.90	2956			10.1	20-130%	73.9%	
	13C-1368-TCDF (AS)		75.49	3020			10.9	20-130%	75.5%	

TCDD group total:		41903-57-5	ND	ND			2.16			
PeCDD group total:		36088-22-9	ND	ND			2.89			
HxCDD group total:		34465-46-8	0.14	5.52			3.02			
HpCDD group total:		37871-00-4	0.38	15.1			3.79			
OCDD group total:			ND	ND			7.65			
TCDF group total:		55722-27-5	0.18	7.26			2.10			
PeCDF group total:		30402-15-4	0.05	2.08			2.85			
HxCDF group total:		55684-94-1	0.15	5.88			2.21			
HpCDF group total:		38998-75-3	0.06	2.46			2.41			
OCDF group total:			ND	ND			3.94			

TEQ	ITEQ (ND=0; EMPC=0)			0.681						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			4.07						
	ITEQ (ND=EDL EMPC=EDL)			7.46						
	ITEQ (ND=0; EMPC=EMPC)			1.12						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			4.17						
	ITEQ (ND=EDL; EMPC=EMPC)			7.21						
	WTEQ (ND=0; EMPC=0)			0.681						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			4.47						
	WTEQ (ND=EDL EMPC=EDL)			8.25						
	WTEQ (ND=0; EMPC=EMPC)			1.08						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			4.55						
	WTEQ (ND=EDL; EMPC=EMPC)			8.01						

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-1						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-1	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**02-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-001-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**7:23:44**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limit (%)	Recovery (%)	Flags
Naphthalene	1470	57.2		EB	ES Naphthalene	20-130	81.6	
2-Methyl-naphthalene	418	0.169		EB	ES 2-Methyl-naphthalene	20-130	82.3	
Acenaphthylene	10.7	1.09			ES Acenaphthylene	20-130	68.1	
Acenaphthene	13.0	0.533			ES Acenaphthene	20-130	69.0	
Fluorene	55.4	0.119			ES Fluorene	20-130	71.7	
Phenanthrene	416	0.0329		E	ES Phenanthrene	20-130	70.6	
Anthracene	24.7	0.0500			ES Anthracene	20-130	67.7	
Fluoranthene	151	0.279		E	ES Fluoranthene	20-130	81.0	
Pyrene	119	0.276		EB	ES Pyrene	20-130	79.9	
Benzo(a)Anthracene	31.2	0.244			ES Benzo(a)Anthracene	20-130	70.5	
Chrysene	57.7	0.233			ES Chrysene	20-130	64.2	
Benzo(b)Fluoranthene	71.5	0.145			ES Benzo(b)Fluoranthene	20-130	55.1	
Benzo(k)Fluoranthene	19.2	0.155			ES Benzo(k)Fluoranthene	20-130	60.0	
Benzo(e)Pyrene	45.3	0.157			ES Benzo(e)Pyrene	20-130	57.7	
Benzo(a)Pyrene	17.1	0.221			ES Benzo(a)Pyrene	20-130	65.5	
Perylene	3.61	0.207			ES Perylene	20-130	92.2	
Indeno(123-cd)Pyrene	27.1	0.379			ES Indeno(123-cd)Pyrene	20-130	59.2	
Benzo(ghi)Perylene	73.6	0.372			ES Benzo(ghi)Perylene	20-130	55.8	
Dibenzo(a,h)Anthracene	6.02	0.327			ES Dibenzo(a,h)Anthracene	20-130	58.6	
					Standard	**Limit (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	89.7	
					SS Terphenyl	70-130	100	
					AS Anthracene	20-130	93.8	
Total PAHs	**3030**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-2						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-2	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**04-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-002-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**8:05:35**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limit (%)	Recovery (%)	Flags
Naphthalene	1510	0.750		EB	ES Naphthalene	20-130	53.9	
2-Methyl-naphthalene	374	0.163		EB	ES 2-Methyl-naphthalene	20-130	80.4	
Acenaphthylene	6.05	3.64			ES Acenaphthylene	20-130	72.4	
Acenaphthene	15.1	2.05			ES Acenaphthene	20-130	68.3	
Fluorene	53.5	0.536			ES Fluorene	20-130	70.5	
Phenanthrene	517	0.677		E	ES Phenanthrene	20-130	71.0	
Anthracene	24.1	0.877			ES Anthracene	20-130	68.5	
Fluoranthene	279	2.75		E	ES Fluoranthene	20-130	77.2	
Pyrene	256	2.67		E	ES Pyrene	20-130	75.3	
Benzo(a)Anthracene	31.8	0.186			ES Benzo(a)Anthracene	20-130	70.7	
Chrysene	61.8	0.187			ES Chrysene	20-130	61.8	
Benzo(b)Fluoranthene	67.5	0.160			ES Benzo(b)Fluoranthene	20-130	51.5	
Benzo(k)Fluoranthene	16.4	0.174			ES Benzo(k)Fluoranthene	20-130	57.7	
Benzo(e)Pyrene	79.1	0.174			ES Benzo(e)Pyrene	20-130	53.6	
Benzo(a)Pyrene	34.8	0.237			ES Benzo(a)Pyrene	20-130	56.9	
Perylene	4.16	0.225			ES Perylene	20-130	85.7	
Indeno(123-cd)Pyrene	45.5	0.538			ES Indeno(123-cd)Pyrene	20-130	55.4	
Benzo(ghi)Perylene	274	0.538		E	ES Benzo(ghi)Perylene	20-130	49.5	
Dibenzo(a,h)Anthracene	5.95	0.462			ES Indeno(123-cd)Pyrene	20-130	50.4	
					Standard	**Limit (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	95.1	
					SS Terphenyl	70-130	78.9	
					AS Anthracene	20-130	95.7	
Total PAHs	**3660**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-3						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-3	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**05-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-003-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**8:47:31**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limit (%)	Recovery (%)	Flags
Naphthalene	1560	6.56		EB	ES Naphthalene	20-130	28.9	
2-Methyl-naphthalene	416	0.0904		EB	ES 2-Methyl-naphthalene	20-130	61.3	
Acenaphthylene	8.26	0.593			ES Acenaphthylene	20-130	59.9	
Acenaphthene	14.5	0.329			ES Acenaphthene	20-130	56.7	
Fluorene	43.7	0.253			ES Fluorene	20-130	61.0	
Phenanthrene	364	0.325		E	ES Phenanthrene	20-130	66.1	
Anthracene	17.7	0.489			ES Anthracene	20-130	66.6	
Fluoranthene	208	0.408		E	ES Fluoranthene	20-130	63.2	
Pyrene	192	0.403		E	ES Pyrene	20-130	64.3	
Benzo(a)Anthracene	25.9	0.144			ES Benzo(a)Anthracene	20-130	66.0	
Chrysene	46.8	0.145			ES Chrysene	20-130	57.6	
Benzo(b)Fluoranthene	47.2	0.134			ES Benzo(b)Fluoranthene	20-130	44.1	
Benzo(k)Fluoranthene	14.0	0.134			ES Benzo(k)Fluoranthene	20-130	46.6	
Benzo(e)Pyrene	60.0	0.141			ES Benzo(e)Pyrene	20-130	43.2	
Benzo(a)Pyrene	27.6	0.195			ES Benzo(a)Pyrene	20-130	47.6	
Perylene	3.07	0.171			ES Perylene	20-130	73.2	
Indeno(123-cd)Pyrene	34.7	0.366			ES Indeno(123-cd)Pyrene	20-130	61.7	
Benzo(ghi)Perylene	207	0.349		E	ES Benzo(ghi)Perylene	20-130	55.9	
Dibenzo(a,h)Anthracene	4.62	0.295			ES Indeno(123-cd)Pyrene	20-130	55.6	
					Standard	**Limit (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	95.6	
					SS Terphenyl	70-130	83.0	
					AS Anthracene	20-130	91.4	
Total PAHs	**3300**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-4						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-4	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**06-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-004-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**9:29:30**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	1350	29.2		EB	ES Naphthalene	20-130	58.7	
2-Methyl-naphthalene	328	0.125		EB	ES 2-Methyl-naphthalene	20-130	85.5	
Acenaphthylene	6.97	1.68			ES Acenaphthylene	20-130	81.9	
Acenaphthene	11.5	1.41			ES Acenaphthene	20-130	76.5	
Fluorene	49.3	0.149			ES Fluorene	20-130	80.6	
Phenanthrene	464	0.605		E	ES Phenanthrene	20-130	85.5	
Anthracene	17.8	0.829			ES Anthracene	20-130	86.1	
Fluoranthene	323	0.364		E	ES Fluoranthene	20-130	87.0	
Pyrene	770	0.383		E	ES Pyrene	20-130	84.8	
Benzo(a)Anthracene	21.4	0.168			ES Benzo(a)Anthracene	20-130	85.2	
Chrysene	33.9	0.166			ES Chrysene	20-130	73.8	
Benzo(b)Fluoranthene	29.1	0.130			ES Benzo(b)Fluoranthene	20-130	59.4	
Benzo(k)Fluoranthene	7.08	0.136			ES Benzo(k)Fluoranthene	20-130	63.7	
Benzo(e)Pyrene	35.9	0.142			ES Benzo(e)Pyrene	20-130	58.6	
Benzo(a)Pyrene	19.2	0.185			ES Benzo(a)Pyrene	20-130	62.5	
Perylene	2.03	0.171			ES Perylene	20-130	99.9	
Indeno(123-cd)Pyrene	13.5	0.384			ES Indeno(123-cd)Pyrene	20-130	69.0	
Benzo(ghi)Perylene	85.8	0.385			ES Benzo(ghi)Perylene	20-130	60.5	
Dibenzo(a,h)Anthracene	2.67	0.398			ES Indeno(123-cd)Pyrene	20-130	63.4	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	96.4	
					SS Terphenyl	70-130	82.0	
					AS Anthracene	20-130	112	
Total PAHs	**3570**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-5						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-5	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**07-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-005-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**10:11:29**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	1490	5.76		EB	ES Naphthalene	20-130	32.0	
2-Methyl-naphthalene	451	0.0720		EB	ES 2-Methyl-naphthalene	20-130	65.6	
Acenaphthylene	9.74	0.665			ES Acenaphthylene	20-130	66.1	
Acenaphthene	12.1	1.33			ES Acenaphthene	20-130	60.9	
Fluorene	45.7	0.260			ES Fluorene	20-130	68.5	
Phenanthrene	304	0.0599		E	ES Phenanthrene	20-130	74.5	
Anthracene	16.3	0.0766			ES Anthracene	20-130	74.9	
Fluoranthene	148	0.203		E	ES Fluoranthene	20-130	77.4	
Pyrene	139	0.202		EB	ES Pyrene	20-130	75.7	
Benzo(a)Anthracene	17.2	0.210			ES Benzo(a)Anthracene	20-130	80.7	
Chrysene	38.1	0.208			ES Chrysene	20-130	69.6	
Benzo(b)Fluoranthene	32.0	0.119			ES Benzo(b)Fluoranthene	20-130	46.7	
Benzo(k)Fluoranthene	7.87	0.116			ES Benzo(k)Fluoranthene	20-130	54.4	
Benzo(e)Pyrene	28.4	0.122			ES Benzo(e)Pyrene	20-130	50.5	
Benzo(a)Pyrene	11.7	0.158			ES Benzo(a)Pyrene	20-130	55.9	
Perylene	1.38	0.142			ES Perylene	20-130	88.6	
Indeno(123-cd)Pyrene	13.4	0.994			ES Indeno(123-cd)Pyrene	20-130	66.7	
Benzo(ghi)Perylene	68.2	0.998			ES Benzo(ghi)Perylene	20-130	60.5	
Dibenzo(a,h)Anthracene	3.32	0.281			ES Indeno(123-cd)Pyrene	20-130	63.0	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	100	
					SS Terphenyl	70-130	87.4	
					AS Anthracene	20-130	103	
Total PAHs	**2830**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-6						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-6	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**08-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-006-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**13:43:03**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	2000	7.16		EB	ES Naphthalene	20-130	27.5	
2-Methyl-naphthalene	490	0.0636		EB	ES 2-Methyl-naphthalene	20-130	63.5	
Acenaphthylene	8.94	1.67			ES Acenaphthylene	20-130	61.1	
Acenaphthene	14.3	0.647			ES Acenaphthene	20-130	59.3	
Fluorene	49.6	0.636			ES Fluorene	20-130	65.1	
Phenanthrene	268	0.0383		E	ES Phenanthrene	20-130	67.1	
Anthracene	15.3	0.0467			ES Anthracene	20-130	69.6	
Fluoranthene	129	0.300		E	ES Fluoranthene	20-130	73.8	
Pyrene	129	0.293		EB	ES Pyrene	20-130	71.3	
Benzo(a)Anthracene	15.6	0.174			ES Benzo(a)Anthracene	20-130	80.1	
Chrysene	32.0	0.180			ES Chrysene	20-130	71.1	
Benzo(b)Fluoranthene	29.8	0.105			ES Benzo(b)Fluoranthene	20-130	47.6	
Benzo(k)Fluoranthene	6.00	0.101			ES Benzo(k)Fluoranthene	20-130	58.2	
Benzo(e)Pyrene	26.9	0.108			ES Benzo(e)Pyrene	20-130	52.3	
Benzo(a)Pyrene	11.1	0.147			ES Benzo(a)Pyrene	20-130	56.5	
Perylene	1.33	0.132			ES Perylene	20-130	87.6	
Indeno(123-cd)Pyrene	12.3	0.306			ES Indeno(123-cd)Pyrene	20-130	68.1	
Benzo(ghi)Perylene	67.9	0.308			ES Benzo(ghi)Perylene	20-130	60.5	
Dibenzo(a,h)Anthracene	2.96	0.276			ES Indeno(123-cd)Pyrene	20-130	61.8	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	108	
					SS Terphenyl	70-130	95.3	
					AS Anthracene	20-130	105	
Total PAHs	**3310**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-7						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-7	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**09-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-007-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**14:25:01**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	1430	1.47		EB	ES Naphthalene	20-130	37.9	
2-Methyl-naphthalene	465	0.0650		EB	ES 2-Methyl-naphthalene	20-130	89.3	
Acenaphthylene	12.5	1.11			ES Acenaphthylene	20-130	86.6	
Acenaphthene	12.6	0.273			ES Acenaphthene	20-130	80.1	
Fluorene	42.9	6.01			ES Fluorene	20-130	86.8	
Phenanthrene	360	0.214		E	ES Phenanthrene	20-130	96.1	
Anthracene	12.3	0.280			ES Anthracene	20-130	99.3	
Fluoranthene	140	0.205		E	ES Fluoranthene	20-130	91.5	
Pyrene	128	0.203		EB	ES Pyrene	20-130	88.0	
Benzo(a)Anthracene	11.0	0.152			ES Benzo(a)Anthracene	20-130	97.0	
Chrysene	24.5	0.161			ES Chrysene	20-130	84.9	
Benzo(b)Fluoranthene	21.9	0.106			ES Benzo(b)Fluoranthene	20-130	53.3	
Benzo(k)Fluoranthene	5.50	0.0912			ES Benzo(k)Fluoranthene	20-130	64.9	
Benzo(e)Pyrene	26.6	0.0957			ES Benzo(e)Pyrene	20-130	62.9	
Benzo(a)Pyrene	10.9	0.129			ES Benzo(a)Pyrene	20-130	68.1	
Perylene	1.09	0.113			ES Perylene	20-130	111	
Indeno(123-cd)Pyrene	14.7	0.265			ES Indeno(123-cd)Pyrene	20-130	81.6	
Benzo(ghi)Perylene	87.1	0.264			ES Benzo(ghi)Perylene	20-130	70.5	
Dibenzo(a,h)Anthracene	2.35	0.305			ES Indeno(123-cd)Pyrene	20-130	73.1	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	94.6	
					SS Terphenyl	70-130	89.4	
					AS Anthracene	20-130	127	
Total PAHs	**2810**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-Blank						OTM-46
Client Details						
Client Sample ID:	HRSG-STACK-OTM46-Blank	**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869	**Sample Collection Date:**	**09-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details						
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**	
Lab Sample ID:	**0123-704-008-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**	
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**	
				Time Analyzed:	**15:06:58**	

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	1070	0.223		EB	ES Naphthalene	20-130	55.5	
2-Methyl-naphthalene	71.5	0.0959		B	ES 2-Methyl-naphthalene	20-130	84.9	
Acenaphthylene	1.13	0.494		B	ES Acenaphthylene	20-130	83.6	
Acenaphthene	1.78	0.168		B	ES Acenaphthene	20-130	79.5	
Fluorene	4.82	0.239		B	ES Fluorene	20-130	86.8	
Phenanthrene	14.4	0.645		B	ES Phenanthrene	20-130	93.6	
Anthracene	1.38	0.871		B	ES Anthracene	20-130	90.9	
Fluoranthene	11.9	0.133		B	ES Fluoranthene	20-130	90.3	
Pyrene	47.0	0.143		B	ES Pyrene	20-130	88.0	
Benzo(a)Anthracene	0.637	0.0854		JB	ES Benzo(a)Anthracene	20-130	84.9	
Chrysene	1.38	0.0794		B	ES Chrysene	20-130	75.9	
Benzo(b)Fluoranthene	1.49	0.0715		B	ES Benzo(b)Fluoranthene	20-130	67.0	
Benzo(k)Fluoranthene	0.379	0.0764		JB	ES Benzo(k)Fluoranthene	20-130	68.4	
Benzo(e)Pyrene	1.66	0.0811		B	ES Benzo(e)Pyrene	20-130	64.3	
Benzo(a)Pyrene	0.767	0.106		JB	ES Benzo(a)Pyrene	20-130	67.7	
Perylene	0.227	0.104		J	ES Perylene	20-130	103	
Indeno(123-cd)Pyrene	0.755	0.169		JB	ES Indeno(123-cd)Pyrene	20-130	74.1	
Benzo(ghi)Perylene	4.85	0.173		B	ES Benzo(ghi)Perylene	20-130	63.3	
Dibenzo(a,h)Anthracene	0.206	0.162		J	ES Indeno(123-cd)Pyrene	20-130	68.0	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	101	
					SS Terphenyl	70-130	80.2	
					AS Anthracene	20-130	127	
Total PAHs	**1230**							

ENTHALPY ANALYTICAL

HRSG-STACK-OTM46-Field train proof Blank								OTM-46
Client Details								
Client Sample ID:	HRSG-STACK-OTM46-Field train proof Blank			**Client Name:**	**TRC Environmental Corporation - Burr Ridge**			
Client Project ID:	Primary Energy-50869			**Sample Collection Date:**	**06-Feb-23**		**RRFs:**	**ICAL**
Lab/Sample Details								
Lab Job #:	**0123-704**	**Matrix:**	**AIR**	**Date Received:**	**20-Feb-23**			
Lab Sample ID:	**0123-704-009-1**	**Weight/Volume:**	**1**	**Date Extracted:**	**27-Feb-23**			
QC Batch #:	**14784**	**Split Factor:**	**4**	**Date Analyzed:**	**09-Mar-23**			
				Time Analyzed:	**15:48:56**			

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	1050	0.172		EB	ES Naphthalene	20-130	53.3	
2-Methyl-naphthalene	47.5	0.0862		B	ES 2-Methyl-naphthalene	20-130	68.8	
Acenaphthylene	1.02	0.299		B	ES Acenaphthylene	20-130	64.0	
Acenaphthene	1.66	0.280		B	ES Acenaphthene	20-130	61.8	
Fluorene	5.13	0.227		B	ES Fluorene	20-130	66.7	
Phenanthrene	88.0	0.370			ES Phenanthrene	20-130	69.3	
Anthracene	1.94	0.477		B	ES Anthracene	20-130	67.7	
Fluoranthene	120	0.158		E	ES Fluoranthene	20-130	70.0	
Pyrene	150	0.155		EB	ES Pyrene	20-130	69.3	
Benzo(a)Anthracene	2.89	0.0813		B	ES Benzo(a)Anthracene	20-130	69.1	
Chrysene	9.87	0.0830		B	ES Chrysene	20-130	60.1	
Benzo(b)Fluoranthene	13.4	0.0731			ES Benzo(b)Fluoranthene	20-130	51.6	
Benzo(k)Fluoranthene	2.96	0.0789		B	ES Benzo(k)Fluoranthene	20-130	52.8	
Benzo(e)Pyrene	38.8	0.0838			ES Benzo(e)Pyrene	20-130	48.8	
Benzo(a)Pyrene	20.5	0.114			ES Benzo(a)Pyrene	20-130	54.5	
Perylene	1.70	0.107			ES Perylene	20-130	81.9	
Indeno(123-cd)Pyrene	24.4	0.212			ES Indeno(123-cd)Pyrene	20-130	60.1	
Benzo(ghi)Perylene	221	0.214		E	ES Benzo(ghi)Perylene	20-130	51.2	
Dibenzo(a,h)Anthracene	ND	0.299		U	ES Indeno(123-cd)Pyrene	20-130	54.2	
					Standard	**Limits (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	99.7	
					SS Terphenyl	70-130	77.4	
					AS Anthracene	20-130	93.6	
Total PAHs	**1800**							

QC Data

ENTHALPY
ANALYTICAL

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	MB-14784-DF	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	MB-14784-DF	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.02
Matrix	Air	Analysis Date	2023-03-07 22:05	Split Factor	2
Sampling Date		Analyst	bahager	Method Code	WM-001
Received Date		Instrument	Gandalf	Sample Type	Blank

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	ND	ND	ND	5.00	3.20			U
PeCDD	12378-PeCDD (S)	40321-76-4	ND	ND	ND	25.0	2.36			U
HxCDD	123478-HxCDD (S)	39227-28-6	ND	ND	ND	25.0	3.49			U
	123678-HxCDD (S)	57653-85-7	ND	ND	ND	25.0	3.25			U
	123789-HxCDD (S)	19408-74-3	ND	ND	ND	25.0	3.51			U
HpCDD	1234678-HpCDD (S)	35822-46-9	0.29	11.6	11.6	25.0	4.30			J
OCDD	OCDD (S)	3268-87-9	ND	ND	ND	50.0	6.96			U
TCDF	2378-TCDF (S)	51207-31-9	ND	ND	ND	5.00	1.39			U
PeCDF	12378-PeCDF (S)	57117-41-6	ND	ND	ND	25.0	1.76			U
	23478-PeCDF (S)	57117-31-4	ND	ND	ND	25.0	2.01			U
HxCDF	123478-HxCDF (S)	70648-26-9	ND	ND	ND	25.0	2.16			U
	123678-HxCDF (S)	57117-44-9	ND	ND	ND	25.0	2.25			U
	234678-HxCDF (S)	60851-34-5	ND	ND	ND	25.0	2.51			U
	123789-HxCDF (S)	72918-21-9	ND	ND	ND	25.0	2.89			U
HpCDF	1234678-HpCDF (S)	67562-39-4	ND	ND	ND	25.0	1.80			U
	1234789-HpCDF (S)	55673-89-7	ND	ND	ND	25.0	2.40			U
OCDF	OCDF (S)	39001-02-0	ND	ND	ND	50.0	5.31			U
ES	13C-2378-TCDD (ES)	76523-40-5	61.50	2460			9.43	20-130%	61.5%	
	13C-12378-PeCDD (ES)	109719-79-1	60.54	2421			10.7	20-130%	60.5%	
	13C-123478-HxCDD (ES)	109719-80-4	75.43	3017			20.1	20-130%	75.4%	
	13C-123678-HxCDD (ES)	109719-81-5	87.15	3486			21.3	20-130%	87.1%	
	13C-123789-HxCDD (ES)	109719-82-6	79.07	3163			18.9	20-130%	79.1%	
	13C-1234678-HpCDD (ES)	109719-83-7	93.19	3728			18.8	20-130%	93.2%	
	13C-OCDD (ES)	114423-97-1	176.08	7043			16.8	20-130%	88.0%	
	13C-2378-TCDF (ES)	89059-46-1	54.98	2199			12.0	20-130%	55.0%	
	13C-12378-PeCDF (ES)	109719-77-9	60.67	2427			12.8	20-130%	60.7%	
	13C-23478-PeCDF (ES)	116843-02-8	57.44	2297			13.3	20-130%	57.4%	
	13C-123478-HxCDF (ES)	114423-98-2	90.34	3614			20.9	20-130%	90.3%	
	13C-123678-HxCDF (ES)	116843-03-9	83.71	3348			17.4	20-130%	83.7%	
	13C-234678-HxCDF (ES)	116843-05-1	84.99	3400			19.2	20-130%	85.0%	
	13C-123789-HxCDF (ES)	116843-04-0	87.06	3482			21.0	20-130%	87.1%	
	13C-1234678-HpCDF (ES)	109719-84-8	91.71	3668			31.5	20-130%	91.7%	
	13C-1234789-HpCDF (ES)	109719-94-0	94.51	3780			35.0	20-130%	94.5%	
	13C-OCDF (ES)	109719-78-0	210.52	8421			18.1	20-130%	105.3%	
SS	37Cl-2378-TCDD (SS)		36.08	1443			2.76	70-130%	90.2%	
	13C-12347-PeCDD (SS)		85.16	3407			17.6	70-130%	85.2%	
	13C-12346-PeCDF (SS)		92.57	3703			21.1	70-130%	92.6%	
	13C-123469-HxCDF (SS)		95.73	3829			24.0	70-130%	95.7%	
	13C-1234689-HpCDF (SS)		105.29	4212			44.6	70-130%	105.3%	
AS	13C-1368-TCDD (AS)		61.75	2470			8.60	20-130%	61.8%	
	13C-1368-TCDF (AS)		62.41	2496			10.9	20-130%	62.4%	

TCDD group total:		41903-57-5	ND	ND			3.20			
PeCDD group total:		36088-22-9	ND	ND			2.36			
HxCDD group total:		34465-46-8	ND	ND			3.42			
HpCDD group total:		37871-00-4	0.29	11.6			4.30			
OCDD group total:			ND	ND			6.96			
TCDF group total:		55722-27-5	ND	ND			1.39			
PeCDF group total:		30402-15-4	ND	ND			1.89			
HxCDF group total:		55684-94-1	ND	ND			2.45			
HpCDF group total:		38998-75-3	ND	ND			2.10			
OCDF group total:			ND	ND			5.31			

TEQ	ITEQ (ND=0; EMPC=0)			0.116						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			3.95						
	ITEQ (ND=EDL EMPC=EDL)			7.79						
	ITEQ (ND=0; EMPC=EMPC)			0.116						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			3.95						
	ITEQ (ND=EDL; EMPC=EMPC)			7.79						
	WTEQ (ND=0; EMPC=0)			0.116						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			4.32						
	WTEQ (ND=EDL EMPC=EDL)			8.52						
	WTEQ (ND=0; EMPC=EMPC)			0.116						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			4.32						
	WTEQ (ND=EDL; EMPC=EMPC)			8.52						

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge Client Project: Primary Energy-508369 Site: Cokenergy

Enthalpy ID	BCS-14784-DF	Prep Batch	EU14784	Sample Vol (mL)	N/A
Sample Name	BCS-14784-DF	Prep Date	2023-02-27 16:00	Extract Vol (mL)	0.04
Matrix	Air	Analysis Date	2023-03-07 20:23	Split Factor	1
Sampling Date		Analyst	bahager	Method Code	WM-001
Received Date		Instrument	Gandalf	Sample Type	Control

	Compound	CAS	Extract Concentration pg/uL	Sample Concentration pg	Formatted Result pg	LOQ pg	EDL pg	Recovery Limits	Recovery	Flags
TCDD	2378-TCDD (S)	1746-01-6	10.51	420	420	10.0	5.66	70-130%	105.1%	
PeCDD	12378-PeCDD (S)	40321-76-4	56.93	2277	2280	50.0	11.2	70-130%	113.9%	
HxCDD	123478-HxCDD (S)	39227-28-6	58.67	2347	2350	50.0	14.6	70-130%	117.3%	
	123678-HxCDD (S)	57653-85-7	53.01	2121	2120	50.0	14.2	70-130%	106.0%	
	123789-HxCDD (S)	19408-74-3	53.72	2149	2150	50.0	15.6	70-130%	107.4%	
HpCDD	1234678-HpCDD (S)	35822-46-9	53.11	2124	2120	50.0	22.7	70-130%	106.2%	
OCDD	OCDD (S)	3268-87-9	109.29	4371	4370	100	30.7	70-130%	109.3%	
TCDF	2378-TCDF (S)	51207-31-9	10.18	407	407	10.0	4.34	70-130%	101.8%	
PeCDF	12378-PeCDF (S)	57117-41-6	50.27	2011	2010	50.0	13.0	70-130%	100.5%	
	23478-PeCDF (S)	57117-31-4	51.30	2052	2050	50.0	14.7	70-130%	102.6%	
HxCDF	123478-HxCDF (S)	70648-26-9	51.47	2059	2060	50.0	15.1	70-130%	102.9%	
	123678-HxCDF (S)	57117-44-9	56.17	2247	2250	50.0	15.2	70-130%	112.3%	
	234678-HxCDF (S)	60851-34-5	55.17	2207	2210	50.0	16.9	70-130%	110.3%	
	123789-HxCDF (S)	72918-21-9	54.57	2183	2180	50.0	18.7	70-130%	109.1%	
HpCDF	1234678-HpCDF (S)	67562-39-4	53.15	2126	2130	50.0	18.1	70-130%	106.3%	
	1234789-HpCDF (S)	55673-89-7	52.88	2115	2120	50.0	23.7	70-130%	105.8%	
OCDF	OCDF (S)	39001-02-0	89.66	3586	3590	100	18.5	70-130%	89.7%	
ES	13C-2378-TCDD (ES)	76523-40-5	77.29	3092			17.8	20-130%	77.3%	
	13C-12378-PeCDD (ES)	109719-79-1	75.07	3003			17.0	20-130%	75.1%	
	13C-123478-HxCDD (ES)	109719-80-4	98.29	3932			22.8	20-130%	98.3%	
	13C-123678-HxCDD (ES)	109719-81-5	115.44	4618			24.1	20-130%	115.4%	
	13C-123789-HxCDD (ES)	109719-82-6	103.31	4132			21.4	20-130%	103.3%	
	13C-1234678-HpCDD (ES)	109719-83-7	119.63	4785			27.4	20-130%	119.6%	
	13C-OCDD (ES)	114423-97-1	249.70	9988			20.5	20-130%	124.9%	
	13C-2378-TCDF (ES)	89059-46-1	70.78	2831			24.0	20-130%	70.8%	
	13C-12378-PeCDF (ES)	109719-77-9	72.88	2915			17.0	20-130%	72.9%	
	13C-23478-PeCDF (ES)	116843-02-8	74.14	2966			17.6	20-130%	74.1%	
	13C-123478-HxCDF (ES)	114423-98-2	118.18	4727			48.2	20-130%	118.2%	
	13C-123678-HxCDF (ES)	116843-03-9	108.35	4334			40.1	20-130%	108.4%	
	13C-234678-HxCDF (ES)	116843-05-1	112.15	4486			44.1	20-130%	112.2%	
	13C-123789-HxCDF (ES)	116843-04-0	120.05	4802			48.3	20-130%	120.1%	
	13C-1234678-HpCDF (ES)	109719-84-8	122.50	4900			39.0	20-130%	122.5%	
	13C-1234789-HpCDF (ES)	109719-94-0	125.37	5015			43.3	20-130%	125.4%	
	13C-OCDF (ES)	109719-78-0	294.60	11784			20.8	20-130%	147.3%	Q
SS	37Cl-2378-TCDD (SS)		51.40	2056			3.07	70-130%	128.5%	
	13C-12347-PeCDD (SS)		79.31	3173			20.9	70-130%	79.3%	
	13C-12346-PeCDF (SS)		86.28	3451			18.9	70-130%	86.3%	
	13C-123469-HxCDF (SS)		85.66	3427			49.1	70-130%	85.7%	
	13C-1234689-HpCDF (SS)		94.57	3783			48.6	70-130%	94.6%	
AS	13C-1368-TCDD (AS)		73.86	2955			16.2	20-130%	73.9%	
	13C-1368-TCDF (AS)		76.53	3061			21.8	20-130%	76.5%	

TCDD group total:		41903-57-5	42.35	1694			5.66			
PeCDD group total:		36088-22-9	178.29	7131			11.2			
HxCDD group total:		34465-46-8	234.94	9397			14.8			
HpCDD group total:		37871-00-4	119.69	4788			22.7			
OCDD group total:			109.29	4371			30.7			
TCDF group total:		55722-27-5	44.63	1785			4.34			
PeCDF group total:		30402-15-4	159.90	6396			13.8			
HxCDF group total:		55684-94-1	327.87	13115			16.5			
HpCDF group total:		38998-75-3	106.03	4241			20.9			
OCDF group total:			89.66	3586			18.5			

TEQ	ITEQ (ND=0; EMPC=0)			4329						
	ITEQ (ND=1/2EDL;EMPC=1/2EDL)			4329						
	ITEQ (ND=EDL EMPC=EDL)			4329						
	ITEQ (ND=0; EMPC=EMPC)			4329						
	ITEQ (ND=1/2EDL; EMPC=EMPC)			4329						
	ITEQ (ND=EDL; EMPC=EMPC)			4329						
	WTEQ (ND=0; EMPC=0)			5011						
	WTEQ (ND=1/2EDL;EMPC=1/2EDL)			5011						
	WTEQ (ND=EDL EMPC=EDL)			5011						
	WTEQ (ND=0; EMPC=EMPC)			5011						
	WTEQ (ND=1/2EDL; EMPC=EMPC)			5011						
	WTEQ (ND=EDL; EMPC=EMPC)			5011						

ENTHALPY ANALYTICAL

Batch Control Spike — OTM-46

RRFs: ICAL

Lab/Sample Details

		Matrix:	AIR	Date Received:	NA
Lab Sample ID:	BCS-14784-PAH	Weight/Volume:	1	Date Extracted:	NA
QC Batch #:	14784	Spike Amt (ng):	40	Date Analyzed:	09-Mar-23
				Time Analyzed:	5:19:58

Analyte	Conc. (ng)	Limits (%)	Recovery (%)	Flags	Standard	Limits (%)	Recovery (%)	Flags
Naphthalene	37.6	70-130	94.0		ES Naphthalene	20-130	105	
2-Methyl-naphthalene	40.1	70-130	100		ES 2-Methyl-naphthalene	20-130	101	
Acenaphthylene	41.5	70-130	104		ES Acenaphthylene	20-130	66.4	
Acenaphthene	38.1	70-130	95.3		ES Acenaphthene	20-130	69.2	
Fluorene	43.7	70-130	109		ES Fluorene	20-130	68.5	
Phenanthrene	39.6	70-130	99.0		ES Phenanthrene	20-130	63.3	
Anthracene	47.2	70-130	118		ES Anthracene	20-130	60.9	
Fluoranthene	41.1	70-130	103		ES Fluoranthene	20-130	103	
Pyrene	41.2	70-130	103		ES Pyrene	20-130	97.5	
Benzo(a)Anthracene	42.8	70-130	107		ES Benzo(a)Anthracene	20-130	79.0	
Chrysene	42.3	70-130	106		ES Chrysene	20-130	73.8	
Benzo(b)Fluoranthene	35.6	70-130	89.1		ES Benzo(b)Fluoranthene	20-130	62.6	
Benzo(k)Fluoranthene	37.7	70-130	94.3		ES Benzo(k)Fluoranthene	20-130	62.2	
Benzo(e)Pyrene	36.4	70-130	91.1		ES Benzo(e)Pyrene	20-130	59.7	
Benzo(a)Pyrene	38.7	70-130	96.7		ES Benzo(a)Pyrene	20-130	62.3	
Perylene	33.1	70-130	82.7		ES Perylene	20-130	106	
Indeno(123-cd)Pyrene	40.3	70-130	101		ES Indeno(123-cd)Pyrene	20-130	62.0	
Benzo(ghi)Perylene	40.0	70-130	100.0		ES Benzo(ghi)Perylene	20-130	56.9	
Dibenzo(a,h)Anthracene	40.6	70-130	102		ES Dibenzo(a,h)Anthracene	50-150	59.4	
					Standard	**Limit (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	94.8	
					SS Terphenyl	70-130	70.9	
					AS Anthracene	20-130	92.0	
Total PAHs	**758**							

ENTHALPY ANALYTICAL

Method Blank	OTM-46

RRFs: ICAL

Lab/Sample Details

		Matrix:	AIR		
Lab Sample ID:	MB-14784-PAH	Weight/Volume:	1	Date Extracted:	27-Feb-23
QC Batch #:	14784	Split Factor:	4	Date Analyzed:	09-Mar-23
				Time Analyzed:	6:41:53

Analyte	Conc. (ng)	EDL (ng)		Qualifiers	Standard	Limit (%)	Recovery (%)	Flags
Naphthalene	1210	0.255		E	ES Naphthalene	20-130	86.2	
2-Methyl-naphthalene	90.9	0.0720			ES 2-Methyl-naphthalene	20-130	84.4	
Acenaphthylene	0.329	0.124		J	ES Acenaphthylene	20-130	63.4	
Acenaphthene	0.425	0.0942		J	ES Acenaphthene	20-130	63.3	
Fluorene	3.46	0.0814			ES Fluorene	20-130	65.2	
Phenanthrene	4.09	0.0476			ES Phenanthrene	20-130	59.1	
Anthracene	0.469	0.0726		J	ES Anthracene	20-130	53.4	
Fluoranthene	5.06	0.157			ES Fluoranthene	20-130	71.9	
Pyrene	17.0	0.168			ES Pyrene	20-130	70.0	
Benzo(a)Anthracene	0.800	0.112		J	ES Benzo(a)Anthracene	20-130	59.5	
Chrysene	1.03	0.114			ES Chrysene	20-130	53.3	
Benzo(b)Fluoranthene	1.18	0.151			ES Benzo(b)Fluoranthene	20-130	50.2	
Benzo(k)Fluoranthene	0.354	0.157		J	ES Benzo(k)Fluoranthene	20-130	56.6	
Benzo(e)Pyrene	1.47	0.152			ES Benzo(e)Pyrene	20-130	54.0	
Benzo(a)Pyrene	0.612	0.219		J	ES Benzo(a)Pyrene	20-130	59.9	
Perylene	ND	0.224		U	ES Perylene	20-130	79.0	
Indeno(123-cd)Pyrene	0.566	0.199		J	ES Indeno(123-cd)Pyrene	20-130	43.4	
Benzo(ghi)Perylene	2.56	0.193			ES Benzo(ghi)Perylene	20-130	45.7	
Dibenzo(a,h)Anthracene	ND	0.205		U	ES Indeno(123-cd)Pyrene	20-130	44.5	
					Standard	**Limit (%)**	**Recovery (%)**	**Flags**
					SS Fluorene	70-130	98.5	
					SS Terphenyl	70-130	73.4	
					AS Anthracene	20-130	72.6	
Total PAHs	**1340**							

Narrative Summary

ENTHALPY
ANALYTICAL

Enthalpy Analytical Narrative Summary

Company	TRC Environmental Corporation – Burr Ridge
Job#	0123-704 OTM-46 (PCDD/PCDF+PAH)
Client Project	Primary Energy - 508369 Site: Cokenergy

Custody	Summer Banning of Enthalpy Analytical Wilmington received the samples (via courier) on February 20, 2023 in two coolers at 2.8°C and 3.6°C and three boxes at 15.6°C, 16.2°C, and 10.5°C. All samples were received in good condition. Prior to, during, and after analysis, the samples were stored in the laboratory with access only by authorized personnel of Enthalpy Analytical, LLC.
Analysis	The samples were analyzed by EPA OTM-46 for PCDD/PCDF and PAH compounds using Agilent Technologies Model# 6890 High-Resolution GC/ Waters High-Resolution Mass-Spectrometer (HRGC/HRMS "Gandalf"). Each sample consisted of 1 XAD trap, filter, 1 bottle of combined front half and back half rinses, and 1-2 bottle(s) of combined impinger contents and rinses. After sampling by the client, the laboratory spiked the samples with Extraction Standard (ES), then Soxhlet extracted with hexane followed by toluene. After solvent exchange, each extract was spiked with Alternate Standard (AS). The extracts were divided into four parts. One quarter was used for the modified PAH analysis, two quarters (1/2) were used for the PCDD/PCDF analysis, and one quarter was archived. Cleanup procedures were performed on the remaining quarter(s) of each extract for PAH and PCDD/PCDF analysis. Each final sample extract was transferred to an autosampler vial and spiked with Injection Standard (JS), prior to instrumentation.
Calibration	For OTM-46 analyses, initial calibration RSD acceptance criterion for all target analytes meets 20% or less. The RSD acceptance criterion for isotopically-labeled standards meets 35% or less. These criteria allow for the best compromise between calibrated concentration range and method error. The internal calibration verification (ICV) and continuing calibration (concal) met method criteria.
QC Notes	The HRMS system displayed mass resolving power of at least 10,000 during the analysis for PCDD/PCDF and 8,000 for PAH. The PAH Batch Control Spike (BCS) sample met method criteria. Except where noted below, the PCDD/PCDF BCS met method criteria. ES-OCDF fell above method control limits in BCS-14784-DF. This analyte was not detected in the samples; therefore, the data is reportable without adverse impact.

	Analyte(s) were detected in MB-14784-PAH above LOQ. With the exception of Naphthalene, which is ubiquitous, any of these analyte(s) detected in the samples with less than 10 times the amount detected in the method blank (MB) were notated with a B qualifier and may be biased high. Insufficient sample remained for re-extraction. Analyte(s) were detected in MB-14784-DF at less than LOQ with the exception of Naphthalene which is ubiquitous. Any of these analyte(s) detected in the samples with less than 10 times the amount detected in MB were notated with a B qualifier and are reported with no adverse impact. GC Resolution parameters were met for PAH analyses. GC resolution parameters were met for TCDD and slightly elevated for TCDF. 2378-TCDF met method recovery criteria in the BCS and was not-detected in the MB. 2378-TCDF was detected above LOQ in sample HRSG-STACK-OTM46-2 and is reported without adverse impact. The samples were extracted within the 30-day from collection holding time and analyzed within the 40-day from extraction to analysis holding time required by the method.
Reporting Notes	ES was not detected in the initial analysis of the PCDD/PCDF extract for sample HRSG-STACK-OTM46-5 and confirmed upon reinjection. After completing the PAH analysis, the extract for this sample was solvent exchanged and analyzed for PCDD/PCDF successfully. An aliquot of each sample extract was treated to a dilution factor of ten and analyzed for PAH levels. Results indicated that samples should be analyzed without dilution. These results are provided in the report. An analyte concentration that exceeds the instrument's calibration range is flagged with an "E" in the "Qualifiers" column on the sample the report pages. This condition does not imply additional measurement uncertainty. The PCDD/PCDF TEQ was calculated and reported using I-TEF and WHO-2005 TEF, calculated by multiplying the concentration for each 2,3,7,8-substituted PCDD/F by its toxic equivalency factor (TEF). The Totals and Detection Limits have been included in the report. The TEQ is reported with and without EMPCs included. Additionally, the TEQ may be reported with non-detects treated as having a concentration of zero, a concentration of one-half the EDL, and/or a concentration equal to the EDL. Due to unavailability of some isotopically labeled standards specified in OTM-46 for PCDD/PCDF, certain individual labeled standards used were different than those specified in the method. However, the same categories of standards as presented in the method were represented.

The PCDD/PCDF analysis uses a DB-5MS or DB-Dioxin column to provide sufficient separation of the 2,3,7,8-tetrachlorinated dioxins and furans allowing for reliable and accurate results, indistinguishable from those obtained using a confirmation column. Confirmatory analysis is not performed. This approach is consistent with that in EPA methods 1613B and 8290A.

PCDD/F extracts are stored at room temperature rather than under refrigerated or freezing conditions because they are created and stored in tetradecane. In tetradecane, PCDD/F extracts are viable for years because they undergo almost no evaporation, and PCDD/Fs do not undergo any chemical degradation in this solvent.

GENERAL: Some labeled standards in the samples fell outside the limits for ES recoveries, notated with a V or Q qualifier. Because the target analytes are quantified based on their ratio to the labeled standards and undergo the same losses as the labeled standards, low or high recoveries do not cause any change to those ratios or result in any additional error in the measurement of the target analytes. Therefore, the data are considered acceptable.

The results for all field, trip, proof, and method blanks will be reported to allow assessment of non-detect results and positive results comparable to those in blanks and may represent positive results created by contamination. We will not report the EDL as the highest of these results, due to limitations in our LIMS systems.

A laboratory method blank is analyzed once in a sequence, rather than every 12 hours. However, a solvent blank is analyzed at least once every 12 hours to monitor for instrument carryover as distinguished from contamination introduced during sample preparation.

The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical, LLC in Wilmington NC is unaccredited for OTM-46. However, Enthalpy is accredited by the Louisiana Department of Environmental Quality to the 2009 TNI Standard under certificate number 05075 for M23.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC - Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the amount in the sample.
- Cxx – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group ('xx') are shown with the number of the lowest IUPAC co-eluter.
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve). For HRMS data, this condition does not imply additional measurement uncertainty. For LC-MS/MS data, these values should be considered as having measurement uncertainty higher than values within the calibration range.
- EDL – Estimated Detection Level: The EDL is unique to isotope dilution methods and reflects the conditions of analysis at the time of analysis, including the equipment used. Where the MDL is a static value, the EDL is a dynamic value.
- EMPC – Estimated Maximum Possible Concentration: EMPC is specific to Dioxin/Furan tests to indicate the determined ion-abundance ratio was outside the allowed theoretical range (usually due to being near the detection limit, although it can very rarely be caused by a co-eluting interference). The EMPC concentration is adjusted to reflect the value at the theoretical ion-abundance ratio.
- IR – The ion ratio between the primary and secondary ions was observed to be outside the method criteria. The analyte concentration may be inaccurate due to interference.
- J – The analyte has a concentration below the minimum calibration level (LOQ value) but greater than the LOD. These values should be considered as having measurement uncertainty higher than values within the calibration range
- L - Indicates that an analyte has a concentration below the Minimum Detection Limit (MDL). The reported concentration is not recommended for regulatory use as the analyte signal may have a signal-to-noise ratio less than the criteria deemed necessary to be considered a detected analyte.
- LOD – Limit of Detection: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOD. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the minimum detection limit (MDL). The LOD is adjusted for sample weight or volume.
- LOQ – Limit of Quantitation: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOQ. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the reporting limit (RL). The LOQ is adjusted for sample weight or volume.

- <LOD() – Analyte was not found at a concentration high enough to be reported as detected. It is reported as less than the LOD, and the LOD is given in the parentheses.
- <LOQ() – Analyte was not found at a concentration high enough to be reported as above the QSM-defined LOQ or TNI defined Reporting Limit. It is reported as less than the LOQ, and the LOQ is given in the parentheses.
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable due to issues observed in sample preparation or analysis.
- PR – The associated congener(s) is(are) poorly resolved.
- QI – Indicates the presence of a quantitative interference.
- RL – Reporting Limit. Lowest reportable value. The level is higher than the MDL.
- SI – Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected.
- V / Q – The labeled standard recovery is not within method control limits.
- X – Indicates the result is from re-injection/repeat/second-column analysis.

Lab Identifiers/ Data Attributes

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Dilution Data. Result was obtained from the analysis of a dilution. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- R – Indicates a re-extraction of the sample.
- RJ – Indicates a reinjection of the sample extract.

- S – Indicates a sample split. The number that follows the "S" indicates the split factor.
- SAT – Indicates an analyte saturated the detector.

Sample Custody

ENTHALPY
ANALYTICAL

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0123-704

Chain of Custody Record

COPY

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-01	HRSG-STACK-M5/29-1-1	2/2/2023	240MIN	1	X	X				Filter
	369-02	HRSG-STACK-M5/29-1-2	2/2/2023	240MIN	1	X	X				Acetone PW
	369-03	HRSG-STACK-M5/29-1-3	2/2/2023	240MIN	1		X				HNO3 PW
	369-04	HRSG-STACK-M5/29-1-4/A-C	2/2/2023	240MIN	3		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-05	HRSG-STACK-M5/29-1-5A	2/2/2023	240MIN	1		X				4 IMPINGER
	369-06	HRSG-STACK-M5/29-1-5B	2/2/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-07	HRSG-STACK-M5/29-1-5C	2/2/2023	240MIN	1		X				8N HCL
	369-08	HRSG-STACK-OTM46-1-1	2/2/2023	240MIN	1			X			Filter
	369-09	HRSG-STACK-OTM46-1-2	2/2/2023	240MIN	1			X			Toluene/Acetone
	369-10	HRSG-STACK-OTM46-1-3	2/2/2023	240MIN	2			X			Impinger Water
	369-11	HRSG-STACK-OTM-1-XAD	2/2/2023	240MIN	1			X			XAD Trap 0123-704-00G

see attachment for login info Jmm 2-21-23

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1734	Gayle Swanson	2:35
Lab: Enthalpy Analytical		Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	Alyssa Mmillen	02.17.23
Phone: 919-850-4392		Conor Benson WJC2	17:00		073

Special Instructions: 1.8°C Raytek 2, good condition
Amm3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ: 02.20.23 @ 0900 Amm3
RECD 2-20-23 1400 James Evans 4.2° T12 RELQ' 2-20-23 James Evans 16:50
recd 2/20/23 16:50 [signature] 2.8° T11

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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Chain of Custody Record

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Page 2 of 8

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-12	HRSG-STACK-M5/29-2-1	2/4/2023	240MIN	1	X	X				Filter
	369-13	HRSG-STACK-M5/29-2-2	2/4/2023	240MIN	1	X	X				Acetone PW
	369-14	HRSG-STACK-M5/29-2-3	2/4/2023	240MIN	1		X				HNO3 PW
	369-15	HRSG-STACK-M5/29-2-4	2/4/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-16	HRSG-STACK-M5/29-2-5A	2/4/2023	240MIN	1		X				4 IMPINGER
	369-17	HRSG-STACK-M5/29-2-5B	2/4/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-18	HRSG-STACK-M5/29-2-5C	2/4/2023	240MIN	1		X				8N HCL
	369-19	HRSG-STACK-OTM46-2-1	2/4/2023	240MIN	1			X			Filter
	369-20	HRSG-STACK-OTM46-2-2	2/4/2023	240MIN	1			X			Toluene/Acetone
	369-21	HRSG-STACK-OTM46-2-3	2/4/2023	240MIN	1			X			Impinger Water
	369-22	HRSG-STACK-OTM-2-XAD	2/4/2023	240MIN	1			X			XAD Trap 0123-704-00H

See attachment for login info JMM 2-21-23

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	[signature]	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:38
Lab: Enthalpy Analytical		[signature]	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	[signature]	02-17-23
Phone: 919-850-4392		Conor Benson WJC2	17:00		0730

Special Instructions: 1.8°C Raylok 2, good condition
AMM3 02-17-23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ: 02.20.23 @ 0900 AMM3
RECD 2-20-23 1400 Jame Evan 4.2° T12 RELQ 2-20-23 Jame Evan 16:50
recd: 2120123 16:50 [signature] 2.8° T11

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Revised: 04/25/2019

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0123-704 **Chain of Custody Record**

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Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-23	HRSG-STACK-M5/29-3-1	2/5/2023	240MIN	1	X	X				Filter
	369-24	HRSG-STACK-M5/29-3-2	2/5/2023	240MIN	1	X	X				Acetone PW
	369-25	HRSG-STACK-M5/29-3-3	2/5/2023	240MIN	1		X				HNO3 PW
	369-26	HRSG-STACK-M5/29-3-4	2/5/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-27	HRSG-STACK-M5/29-3-5A	2/5/2023	240MIN	1		X				4 IMPINGER
	369-28	HRSG-STACK-M5/29-3-5B	2/5/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-29	HRSG-STACK-M5/29-3-5C	2/5/2023	240MIN	1		X				8N HCL
	369-30	HRSG-STACK-OTM46-3-1	2/5/2023	240MIN	1			X			Filter
	369-31	HRSG-STACK-OTM46-3-2	2/5/2023	240MIN	1			X			Toluene/Acetone
	369-32	HRSG-STACK-OTM46-3-3	2/5/2023	240MIN	1			X			Impinger Water
	369-33	HRSG-STACK-OTM-3-XAD	2/5/2023	240MIN	1			X			XAD Trap 0123-704-00H

See attachment for login info gmm 2-21-23

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	[signature]	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:30
Lab: Enthalpy Analytical		[signature]	2/15/23	[signature]	2/15/23 3.5°C
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature] WIC2	2/16/23	[signature]	02.17.23
Phone: 919-850-4392		Conor Benson	17:00		0730

Special Instructions: 1.8°C Raytek 2 good condition
Amm3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ 02-20-23 Amm3 @0900
RECD 2-20-23 James Evan 1400 4.2° T12 RELQ 2-20-23 James Evan 16:50
recd 2/20/23 16:50 [signature] 2.8°T11

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Revised: 04/25/2019

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0123-704 **Chain of Custody Record**

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Page 4 of 8

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-34	HRSG-STACK-M5/29-4-1	2/6/2023	240MIN	1	X	X				Filter
	369-35	HRSG-STACK-M5/29-4-2	2/6/2023	240MIN	1	X	X				Acetone PW
	369-36	HRSG-STACK-M5/29-4-3	2/6/2023	240MIN	1		X				HNO3 PW
	369-37	HRSG-STACK-M5/29-4-4	2/6/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-38	HRSG-STACK-M5/29-4-5A	2/6/2023	240MIN	1		X				4 IMPINGER
	369-39	HRSG-STACK-M5/29-4-5B	2/6/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-40	HRSG-STACK-M5/29-4-5C	2/6/2023	240MIN	1		X				8N HCL
	369-41	HRSG-STACK-OTM46-4-1	2/6/2023	240MIN	1			X			Filter
	369-42	HRSG-STACK-OTM46-4-2	2/6/2023	240MIN	1			X			Toluene/Acetone
	369-43	HRSG-STACK-OTM46-4-3	2/6/2023	240MIN	1			X			Impinger Water
	369-44	HRSG-STACK-OTM-4-XAD	2/6/2023	240MIN	1			X			XAD Trap 0123-704-00H

See attachment for login info JMM 2-21-23

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:34
Lab: Enthalpy Analytical		Gayle Swan	2/15/23	[signature]	2/15/23
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	Alyssa M Miller	02.17-23
Phone: 919-850-4392		Conor Benson	17:00		

3.5°C

Special Instructions: 1.8°C Raytek 2, good condition AMM 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ 02.20-23 @ 0900 AMM3

RECD 2-20-23 1400 James Evan 4.2° T12 RELQ 2-20-23 James Evan 16:50

recd 2120123 16:50 [signature] 2.8° T11

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Revised: 04/25/2019

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0123-704 **Chain of Custody Record**

Page 5 of 8

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Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-45	HRSG-STACK-M5/29-5-1	2/7/2023	240MIN	1	X	X				Filter
	369-46	HRSG-STACK-M5/29-5-2	2/7/2023	240MIN	1	X	X				Acetone PW
	369-47	HRSG-STACK-M5/29-5-3	2/7/2023	240MIN	1		X				HNO3 PW
	369-48	HRSG-STACK-M5/29-5-4	2/7/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-49	HRSG-STACK-M5/29-5-5A	2/7/2023	240MIN	1		X				4 IMPINGER
	369-50	HRSG-STACK-M5/29-5-5B	2/7/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-51	HRSG-STACK-M5/29-5-5C	2/7/2023	240MIN	1		X				8N HCL
	369-52	HRSG-STACK-OTM46-5-1	2/7/2023	240MIN	1			X			Filter
	369-53	HRSG-STACK-OTM46-5-2	2/7/2023	240MIN	1			X			Toluene/Acetone
	369-54	HRSG-STACK-OTM46-5-3	2/7/2023	240MIN	1			X			Impinger Water
	369-55	HRSG-STACK-OTM-5-XAD	2/7/2023	240MIN	1			X			XAD Trap 0123-704-00H

see attachment for login info gmm 2-21-23

TAT: Standard Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by: Shipped On:		[signature]	2-13-23	Gayle Swanson	2/13/23
Ship To Attn:		Gavin Lewis	1324	Gayle Swanson	2:30
Lab: Enthalpy Analytical		Gayle Swanson	2/15/23	[signature]	2/15/23
Address: 800 Capitola Drive Ste. 1 Durham, NC 27713		Gayle Swanson	1:20	Conor Benson	1:20
		[signature]	2/16/23	[signature]	02-17-23
Phone: 919-850-4392		Conor Benson WJC2	17:00		0730

3.5°C

Special Instructions: 1.8°C Raytek 2, good condition Amm3 02.17-23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ 02.20-23 @ 0900 Amm3

RELQ 2-20-23 @ 1400 Jamar Evans 4.2° TIZ RELQ 2-20-23 Jamar Evans 16:50

recd 2/20/23 16:50 [signature] 2.8 TIL

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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0123-704 Chain of Custody Record

Project Name: Primary Energy
Site Name: Cokenergy
Project No.: 508369

TRC Contact: Gavin Lewis T: 312-533-2025
Email: glewis@trccompanies.com
Sampling System Prepared by: Gavin Lewis
Samples Recovered by: Gavin Lewis

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-56	HRSG-STACK-M5/29-6-1	2/8/2023	240MIN	1	X	X				Filter
	369-57	HRSG-STACK-M5/29-6-2	2/8/2023	240MIN	1	X	X				Acetone PW
	369-58	HRSG-STACK-M5/29-6-3	2/8/2023	240MIN	1		X				HNO3 PW
	369-59	HRSG-STACK-M5/29-6-4	2/8/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-60	HRSG-STACK-M5/29-6-5A	2/8/2023	240MIN	1		X				4 IMPINGER
	369-61	HRSG-STACK-M5/29-6-5B	2/8/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-62	HRSG-STACK-M5/29-6-5C	2/8/2023	240MIN	1		X				8N HCL
	369-63	HRSG-STACK-OTM46-6-1	2/8/2023	240MIN	1			X			Filter
	369-64	HRSG-STACK-OTM46-6-2	2/8/2023	240MIN	1			X			Toluene/Acetone
	369-65	HRSG-STACK-OTM46-6-3	2/8/2023	240MIN	1			X			Impinger Water
	369-66	HRSG-STACK-OTM-6-XAD	2/8/2023	240MIN	1			X			XAD Trap 0123-704-00F

See attachment for login info gmm 2-21-23

TAT: Standard Need By Date:
Shipped by: Shipped On:
Ship To Attn:
Lab:
Address:
Phone:

Project Remarks:

Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
[signature]	2-13-23	[signature]	2/13/23
Gavin Lewis	1324	Gayle Swanson	8:35
[signature]	2/15/23	[signature]	2/15/23
Gayle Swanson	1:20	Conor Benson	1:20
[signature] WTC	2/16/23 17:00	[signature]	02.17.23 0730

3.5°C

Special Instructions: 1.8°C Rcvd ok, agreed condition AMMM3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ 02.20.23 @ 0900 AMMM3

RECD 2-20-23 @ 1400 Jamie Evans 4.2° TIZ RELQ' Jamie Evans 2-20-23 16:50

recd 2/20/23 16:50 [signature] 2.8° TIL

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

0123-704

Chain of Custody Record

COPY

Project Name: Primary Energy	TRC Contact: Gavin Lewis	T: 312-533-2025	
	Email: glewis@trccompanies.com		
Site Name: Cokenergy	Sampling System Prepared by: Gavin Lewis		
Project No.: 508369	Samples Recovered by: Gavin Lewis		

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-67	HRSG-STACK-M5/29-1-1	2/9/2023	240MIN	1	X	X				Filter
	369-68	HRSG-STACK-M5/29-1-2	2/9/2023	240MIN	1	X	X				Acetone PW
	369-69	HRSG-STACK-M5/29-1-3	2/9/2023	240MIN	1		X				HNO3 PW
	369-70	HRSG-STACK-M5/29-1-4	2/9/2023	240MIN	1		X				1,2&3 IMPINGERS (HNO3/H2O2
	369-71	HRSG-STACK-M5/29-1-5A	2/9/2023	240MIN	1		X				4 IMPINGER
	369-72	HRSG-STACK-M5/29-1-5B	2/9/2023	240MIN	1		X				5&6 IMPINGER (KMnO4)
	369-73	HRSG-STACK-M5/29-1-5C	2/9/2023	240MIN	1		X				8N HCL
	369-74	HRSG-STACK-OTM46-1-1	2/9/2023	240MIN	1			X			Filter
	369-75	HRSG-STACK-OTM46-1-2	2/9/2023	240MIN	1			X			Toluene/Acetone
	369-76	HRSG-STACK-OTM46-1-3	2/9/2023	240MIN	1			X			Impinger Water
	369-77	HRSG-STACK-OTM-1-XAD	2/9/2023	240MIN	1			X			XAD Trap 0123-704-00H

See attachment for login info 7 Amm3
2-21-23 02.17.23

TAT: Standard	Need By Date:	Project Remarks:	Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Shipped by:	Shipped On:		[signature]	2-13-23	Gayle Swan	2/13/23
Ship To Attn:			Gavin Lewis	1324	Gayle Swanson	2:35
Lab:			Gayle Swan	2/15/23	[signature]	2/15/23 3.5°C
Address:			Gayle Swanson	1:20	Conor Benson	1:20
			[signature] W#2	2/16/23	[signature]	02.17.23
Phone:			Conor Benson	17:00		0730

Special Instructions: 1.8°C Raytek 2, good condition
Amm3 02.17.23

TRC Environmental Corporation

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

RLQ 02.20.23 @ 0900 Amm3
RECD 2-20-23 @ 1400 James Evans 4.2° T12 RELQ' 2-20-23 James Evans 16:50
recd 2/20/23 16:50 [signature] 2.8° T11

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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TRC

0123-704

Chain of Custody Record

Project Name: Primary Energy
Site Name: Cokenergy
Project No.: 508369

TRC Contact: Gavin Lewis T: 312-533-2025
Email: glewis@trccompanies.com
Sampling System Prepared by: Gavin Lewis
Samples Recovered by: Gavin Lewis

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	M5	M29	OTM-46			Comments:
	369-78	HRSG-STACK-M5/29-Blank-12	2/9/2023		1	X	X				Filter Blank
	369-79	HRSG-STACK-M5/29-Blank-7	2/9/2023		1	X	X				Acetone Blank
	369-80	HRSG-STACK-M5/29-Blank-8A	2/9/2023		1		X				0.1 N HNO3 Blank
	369-81	HRSG-STACK-M5/29-1=Blank-8B	2/9/2023		1		X				Water Blank
	369-82	HRSG-STACK-M5/29-Blank-9	2/9/2023		1		X				5% HNO3/10% H2O2 Blank
	369-83	HRSG-STACK-M5/29-Blank-10	2/9/2023		1		X				Acidified KMnO4 Blank
	369-84	HRSG-STACK-M5/29-Blank-11	2/9/2023		1		X				8N HCL Blank
	369-85	HRSG-STACK-OTM46-Blank	2/9/2023		1			X			Toluene
	369-86	HRSG-STACK-OTM46-Blank	2/9/2023		1			X			XAD-0123-704-00E
	369-87	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Filter Blank
	369-88	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Acetone & Toluene
	369-89	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						Imps and rinses
	369-90	HRSG-STACK-OTM46-Field train proof Blank	2/6/2023		1						XAD-0123-704-00J

TAT: Standard Need By Date:
Shipped by: Shipped On:
Ship To Attn:
Lab:
Address:
Phone:

Project Remarks:

Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
Gavin Lewis	2-13-23 1324	Gaye Swanson	2/13/23 2:35
Gaye Swanson	2/15/23 1:20	Conor Benson	2/15/23 1:20 3.5°C
Conor Benson WJE2	2/16/23 17:00	Alyssa Mmiell	02-17-23 0720

Special Instructions:
1.8°C Reytek 2, good condition
See attachment for login info mm Amm3 02-17-23
2-21-23

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation

RLQ 02-20-23 @ 0900 Amm3

RECO 2-20-23 @ 1400 Jama Evan 4.2° TR RELQ Jamar Evan 2-20-23 16:50
recd 2/20/23 16:50 Sam Berg 2.8 TR

AM-EMT-60 Rev. No: 10
Revised: 04/25/2019

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Attachment 1
0123-704 login info

~~R~~ Fee jmm
2-21-23

Cooler 1: traps, 2.8°C T11, on ice, no seals, good condition, courier

Cooler 2: traps, 3.6°C T11, on ice, no seals, good condition, courier

box 1: Solvents, 15.6°C T11, ambient, broken custody seal checked in durham office, good condition, courier

box 2: Solvents, 16.2°C T11, ambient, broken custody seal checked in Durham office, good condition, courier

box 3: Filters, 10.5°C T11, ambient, no seals, good condition, courier

jmm 2-21-23

Benchsheets

ENTHALPY
ANALYTICAL

√ HA 3/2/23 for 2/27/23

Matrix: Air	Batch #: 14784			Extraction Cycle Times	
Extraction Type:		Init.	Date	Start: 4:00 Stop: 9:00 Start Date: 02.27.23 Hex	
☑ SDS ☐ SPE ☐ Liq-Liq ☐ SEP	Extraction	NM	2/27/23	Start: 4:00 Stop: 9:30 Start Date: 2/28/23 Tol	
☑ PCDD/F ☐ PCB ☑ PAH	Clean Up	NM	3/2/23	Start: 12:30 Stop: 1:30 Start Date: 3/1/23 Hex	
☐ Other: OTM-46	Transfer	NM	3/2/23	Split: (1/2) (1/4)	Final Volume: 20,100 µL

Lab Sample ID	QC Type	Wt. (g) / Vol. (mL)	Extr. Pos.#	Observations		Cl
0123-704_14784_001	--------	—	6	6,524 ml	—	0.0
0123-704_14784_002	--------	—	7	825.4 ml	—	0.0
0123-704_14784_003	--------	—	8	777.4	—	0.0
0123-704_14784_004	--------	—	9	804.5	—	0.0
0123-704_14784_005	--------	—	10	835.9	—	0.0
0123-704_14784_006	--------	—	11	836.3	—	0.0
0123-704_14784_007	--------	—	12	854.4	—	0.0
0123-704_14784_008	--------	—	13	—	—	—
0123-704_14784_009	--------	—	14	281.0	—	0.0
MB_14784_DF/PAH	--------	—	5		—	
~~LCS_14784_DF/PAH~~	--------	—	—		—	
BCS_~~147784~~ 14784_DF	--------	—	—		—	
BCS_14784_PAH	--------	—	—		—	

NM 2/27/28

MS Parent Sample (if used)

Supply IDs			Supply IDs (Continued)			Equipment IDs	
Item	Supplier	Lot/Prep ID	Item	Supplier	Lot/ Prep ID	Balance	—
Toluene	Fisher	214476	Cl Strips	Scientific	11232101-BB	Pipettes	P7
Acid Silica	—	EUPrep 2-133-8	pH Strips	—	—		
Base Silica	—	EUPrep 2-132-4	Sox filter	Millipore	0000162140		
Silica	Acros	A0417464	Glass wool	PYREX	3400214449		
Florisil	Sigma	153034	—	—			
Hexane	Fisher	216212	Comments:				
CH_2Cl_2	Fisher	220752	EE NM 2/27/23				
Tetradecane	(A) ~~STBK~~ Sigma	STBK2282	(B) EE NM 3/1/23				2/27/23
Na_2SO_4	Merck	S207WE-20					
$AgNO_3$	Sigma	EUPrep MKL0443					
Hydromatrix	—	—					
H2SO4	—	—					

3-3-23

0123-704 DF AP

Spike Profile Sheet

Batch#: 14784

ENTHALPY ANALYTICAL

Comments: * New BCS Made 2/27/23 for both DF & PAH
EE 2/27/23
EE 3/2/23

NOTE: ALL Ax STANDARDS SOLUTIONS ARE ONLY SPIKED INTO BCS, LCS, OPR AND/OR MS/MSD

PCDD/F

ES: 40 µL @ ~~40~~ 100 pg/ul	Ax-A: 40 µL @ 10 pg/ul	Ax-B: 40 µL @ 10 pg/ul	AS: 40 µL @ 100 pg/uL
ID: SID 0850	ID: SID AR51	ID: SID AK50	ID: SID AU51
Exp.: 4/1/32	Exp.: Aug 2030	Exp.: Oct 2025	Exp.: 2/21/24
Spiker:	Spiker:	Spiker:	Spiker:
Witness: Date: 2/27/23	Witness: Date: 2/27/23	Witness: Date: 2/27/23	Witness: OK Date: 3/2/23
CS: µL @	JS: 20 µL @ 100 pg/ul	CS: 40 µL @ 40 pg/ul	µL @
ID:	ID: SID AR34	ID: SID AR32	ID:
Exp.: 2/27/23	Exp.: 7/6/2023	Exp.: 8/06/23	Exp.:
Spiker:	Spiker: 3/2/23	Spiker:	Spiker: 2/27/23
Witness: Date:	Witness: OK Date: 7/6/	Witness: – Date: 2/27/23	Witness: Date:

PCB

ES: µL @	Ax1668/209: µL @		CS: µL @
ID:	ID:		ID:
Exp.:	Exp.:		Exp.:
Spiker:	Spiker:		Spiker:
Witness: Date:	Witness: Date:		Witness: Date:
JS: 20 µL @ 100 pg/ul	FS: µL @	: µL @	
ID: SID AR39	ID:	ID:	
Exp.: 7/6/2023	Exp.:	Exp.:	
Spiker: JM	Spiker:	Spiker:	
Witness: BCW Date: 3/10/23	Witness: Date:	Witness: Date:	

N/A

PAH

ES: 80 µL @ 500 pg/ul	Ax: 80 µL @ 500 pg/ul	AS: 80 µL @ 500 pg/ul	CS: 80 µL @ 500 pg/ul
ID: SID AR50	ID: SID ~~AU16~~ AU16	ID: SID AU18	ID: SID AT57
Exp.: 6/22/23	Exp.: 2/1/25	Exp.: 2/1/25	Exp.: 12/5/23
Spiker:	Spiker:	Spiker:	Spiker:
Witness: Date: 2/27/23	Witness: Date: 2/27/23	Witness: OK Date: 3/2/23	Witness: – Date: 2/27/23
JS: 80 µL @ 125 pg/ul	: µL @		
ID: SID AT54	ID: 2/27/23		
Exp.: 6/24/23	Exp.:		
Spiker:	Spiker:		
Witness: OK Date: 3/2/23	Witness: Date:		

D/F JS's TD (20ul) added to PAH vials blown down to 20ul per BV & R.A. bcw 3/10/23

3-3-23

14784 AP

Air Sample Fraction Observations				ENTHALPY ANALYTICAL
Extraction Prep:		Init.	Date	
		AD	2/27/23	

Lab Sample ID	XAD	Filter(s)	Rinses	Glasswool	Other
0123-704-001	Wh, M, S	Wh, D Gy dots	PM, Clear	Wh, M	–
0123-704-002	Wh, M, S	Wh, D Gy dots	Clear	Wh, M	–
0123-704-003	Wh, M, S	Wh, D Gy dot	Clear	Wh, M	–
0123-704-004	Wh, M, S	Wh, D, Gy dot	Clear	Wh M	–
0123-704-005	Wh, M, S	Wh, D, Gy dots	Clear	Wh, M	–
0123-704-006	Wh, M, S	Wh D, Gy dots	Clear	Wh M	–
0123-704-007	Wh, M, S	Wh, D, Gy dots	Clear	Wh, M	–
0123-704-008	Wh, F		Clear	Wh, D	–
0123-704-009	Wh, F	Wh, W	Clear	Wh, D	–
		AD	3/2/23		

COMMON OBSERVATION ABBREVIATIONS		Comments:
B = BULLSEYE		
BE = BEIGE		
BK = BLACK		
C = CLEAN		
D = DRY		
F = FREE FLOWING		
GY = GREY		
M = MOIST		
PM = PARTICULATES		
S = STICKY		
W = WET		
WH = WHITE		
YW = YELLOW		

3-3-23

123-704_00MB
TRC Environmental
Prep Date:01.17.23
DF PAH

2/27/23

0123-704 DF AP

Sequence

	File Name	Sample ID	File Text	Inlet File	MS File	Bottle	User	Inject Volume
1	G07032301B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
2	G07032302B	OPR-14789-DF	OPR-14789-DF	EU_Dioxin_Def	EU_Dioxin_Def2	17	JM	1.000000
3	G07032303B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
4	G07032304B	0223-785-001-1	0223-785-001-1	EU_Dioxin_Def	EU_Dioxin_Def2	18	JM	1.000000
5	G07032305B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
6	G07032306B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
7	G07032307B	OPR-14792-DF	OPR-14792-DF	EU_Dioxin_Def	EU_Dioxin_Def2	3	JM	1.000000
8	G07032308B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
9	G07032309B	MB-14792-DF	MB-14792-DF	EU_Dioxin_Def	EU_Dioxin_Def2	4	JM	1.000000
10	G07032310B	0223-819-001-1	0223-819-001-1	EU_Dioxin_Def	EU_Dioxin_Def2	5	JM	1.000000
11	G07032311B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
12	G07032312B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
13	G07032313B	BCS-14784-DF	BCS-14784-DF	EU_Dioxin_Def	EU_Dioxin_Def2	6	JM	1.000000
14	G07032314B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
15	G07032315B	MB-14784-DF	MB-14784-DF	EU_Dioxin_Def	EU_Dioxin_Def2	7	JM	1.000000
16	G07032316B	0123-704-001-1	0123-704-001-1	EU_Dioxin_Def	EU_Dioxin_Def2	8	JM	1.000000
17	G07032317B	0123-704-002-1	0123-704-002-1	EU_Dioxin_Def	EU_Dioxin_Def2	9	JM	1.000000
18	G07032318B	0123-704-003-1	0123-704-003-1	EU_Dioxin_Def	EU_Dioxin_Def2	10	JM	1.000000
19	G07032319B	0123-704-004-1	0123-704-004-1	EU_Dioxin_Def	EU_Dioxin_Def2	11	JM	1.000000
20	G07032320B	0123-704-005-1	0123-704-005-1	EU_Dioxin_Def	EU_Dioxin_Def2	12	JM	1.000000
21	G07032321B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
22	G07032322B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
23	G07032323B	BCS-14784-DF	BCS-14784-DF	EU_Dioxin_Def	EU_Dioxin_Def2	6	JM	1.000000
24	G07032324B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
25	G07032325B	0123-704-006-1	0123-704-006-1	EU_Dioxin_Def	EU_Dioxin_Def2	13	JM	1.000000
26	G07032326B	0123-704-007-1	0123-704-007-1	EU_Dioxin_Def	EU_Dioxin_Def2	14	JM	1.000000
27	G07032327B	0123-704-008-1	0123-704-008-1	EU_Dioxin_Def	EU_Dioxin_Def2	15	JM	1.000000
28	G07032328B	0123-704-009-1	0123-704-009-1	EU_Dioxin_Def	EU_Dioxin_Def2	16	JM	1.000000
29	G07032329B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
30	G07032330B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000

Process	Process Options	Quan Reference	Sample Type	Ax (pg/ul) (Conc_A)
---	---	---	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40

ES (pg/ul) (Conc_B)	37Cl CS/SS (pg/ul) (Conc_C)	CS/SS (pg/ul) (Conc_D)	AS (pg/ul) (Conc_E)	JS (pg/ul) (Conc_F)
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	50
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	50
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100

Ext. Vol (uL) (USER_FACTOR_1)	Sp.Wt/Vol (g/mL) User Divisor 1
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
2.000000	0.000000
0.000000	0.000000
0.000000	0.000000

	File Name	Sample ID	File Text	Inlet File	MS File	Bottle	User	Inject Volume
1	G10032301B	0123-704-005-1	0123-704-005-1	EU_Dioxin_Def	EU_Dioxin_Def2	3	JM	1.000000
2	G10032302B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
3	G10032303B	OPR-14821-DF	OPR-14821-DF	EU_Dioxin_Def	EU_Dioxin_Def2	4	JM	1.000000
4	G10032304B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
5	G10032305B	MB-14821-DF	MB-14821-DF	EU_Dioxin_Def	EU_Dioxin_Def2	5	JM	1.000000
6	G10032306B	0223-803-001-2	0223-803-001-2	EU_Dioxin_Def	EU_Dioxin_Def2	6	JM	1.000000
7	G10032307B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
8	G10032308B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000
9	G10032309B	BCS-14784-DF	BCS-14784-DF	EU_Dioxin_Def	EU_Dioxin_Def2	7	JM	1.000000
10	G10032310B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
11	G10032311B	0123-704-005-1	0123-704-005-1	EU_Dioxin_Def	EU_Dioxin_Def2	8	JM	1.000000
12	G10032312B	Solvent Blank	Solvent Blank	EU_Dioxin_Def	EU_Dioxin_Def2	1	JM	1.000000
13	G10032313B	SID AH70	CS4	EU_Dioxin_Def	EU_Dioxin_Def2	2	JM	1.000000

Process	Process Options	Quan Reference	Sample Type	Ax (pg/ul) (Conc_A)
---	---	---	Analyte	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40
---	---	---	Recovery	10
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\DF_resolution.dat	REF	QC	40

ES (pg/ul) (Conc_B)	37Cl CS/SS (pg/ul) (Conc_C)	CS/SS (pg/ul) (Conc_D)	AS (pg/ul) (Conc_E)	JS (pg/ul) (Conc_F)
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	100
100	40	100	100	50
100	40	100	100	100
50	20	50	50	100
100	40	100	100	100
100	40	100	100	100

Ext. Vol (uL) (USER_FACTOR_1)	Sp.Wt/Vol (g/mL) User Divisor 1
2.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
4.000000	0.000000
0.000000	0.000000
0.000000	0.000000

	File Name	Sample ID	File Text	Inlet File	MS File	Bottle	User	Inject Volume
1	G08032301B	SIDAF41	CS4	EU_PAH_Def	EU_PAH_Def	2	bah	1.000000
2	G08032302B	BCS-14784-PAH	BCS-14784-PAH	EU_PAH_Def	EU_PAH_Def	3	bah	1.000000
3	G08032303B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
4	G08032304B	MB-14784-PAH	MB-14784-PAH	EU_PAH_Def	EU_PAH_Def	4	bah	1.000000
5	G08032305B	0123-704-001-1	0123-704-001-1 (D10)	EU_PAH_Def	EU_PAH_Def	5	bah	1.000000
6	G08032306B	0123-704-002-1	0123-704-002-1 (D10)	EU_PAH_Def	EU_PAH_Def	6	bah	1.000000
7	G08032307B	0123-704-003-1	0123-704-003-1 (D10)	EU_PAH_Def	EU_PAH_Def	7	bah	1.000000
8	G08032308B	0123-704-004-1	0123-704-004-1 (D10)	EU_PAH_Def	EU_PAH_Def	8	bah	1.000000
9	G08032309B	0123-704-005-1	0123-704-005-1 (D10)	EU_PAH_Def	EU_PAH_Def	9	bah	1.000000
10	G08032310B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
11	G08032311B	SIDAF41	CS4	EU_PAH_Def	EU_PAH_Def	2	bah	1.000000
12	G08032312B	BCS-14784-PAH	BCS-14784-PAH	EU_PAH_Def	EU_PAH_Def	3	bah	1.000000
13	G08032313B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
14	G08032314B	0123-704-006-1	0123-704-006-1 (D10)	EU_PAH_Def	EU_PAH_Def	10	bah	1.000000
15	G08032315B	0123-704-007-1	0123-704-007-1 (D10)	EU_PAH_Def	EU_PAH_Def	11	bah	1.000000
16	G08032316B	0123-704-008-1	0123-704-008-1 (D10)	EU_PAH_Def	EU_PAH_Def	12	bah	1.000000
17	G08032317B	0123-704-009-1	0123-704-009-1 (D10)	EU_PAH_Def	EU_PAH_Def	13	bah	1.000000
18	G08032318B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
19	G08032319B	SIDAF41	CS4	EU_PAH_Def	EU_PAH_Def	2	bah	1.000000
20	G08032320B	BCS-14784-PAH	BCS-14784-PAH	EU_PAH_Def	EU_PAH_Def	3	bah	1.000000
21	G08032321B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
22	G08032322B	MB-14784-PAH	MB-14784-PAH	EU_PAH_Def	EU_PAH_Def	4	bah	1.000000
23	G08032323B	0123-704-001-1	0123-704-001-1	EU_PAH_Def	EU_PAH_Def	14	bah	1.000000
24	G08032324B	0123-704-002-1	0123-704-002-1	EU_PAH_Def	EU_PAH_Def	15	bah	1.000000
25	G08032325B	0123-704-003-1	0123-704-003-1	EU_PAH_Def	EU_PAH_Def	16	bah	1.000000
26	G08032326B	0123-704-004-1	0123-704-004-1	EU_PAH_Def	EU_PAH_Def	17	bah	1.000000
27	G08032327B	0123-704-005-1	0123-704-005-1	EU_PAH_Def	EU_PAH_Def	18	bah	1.000000
28	G08032328B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
29	G08032329B	SIDAF41	CS4	EU_PAH_Def	EU_PAH_Def	2	bah	1.000000
30	G08032330B	BCS-14784-PAH	BCS-14784-PAH	EU_PAH_Def	EU_PAH_Def	3	bah	1.000000
31	G08032331B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
32	G08032332B	0123-704-006-1	0123-704-006-1	EU_PAH_Def	EU_PAH_Def	19	bah	1.000000
33	G08032333B	0123-704-007-1	0123-704-007-1	EU_PAH_Def	EU_PAH_Def	20	bah	1.000000
34	G08032334B	0123-704-008-1	0123-704-008-1	EU_PAH_Def	EU_PAH_Def	21	bah	1.000000
35	G08032335B	0123-704-009-1	0123-704-009-1	EU_PAH_Def	EU_PAH_Def	22	bah	1.000000
36	G08032336B	Solvent Blank	Nonane	EU_PAH_Def	EU_PAH_Def	1	bah	1.000000
37	G08032337B	SIDAF41	CS4	EU_PAH_Def	EU_PAH_Def	2	bah	1.000000

Process	Process Options	Quan Reference	Sample Type	Ax (pg/ul) (Conc_A)
ResolutionCheck	C:\masslynx\autospec\PAH_resolution.dat	REF	QC	500
---	---	---	Recovery	400
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\PAH_resolution.dat	REF	QC	500
---	---	---	Recovery	400
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\PAH_resolution.dat	REF	QC	500
---	---	---	Recovery	400
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\PAH_resolution.dat	REF	QC	500
---	---	---	Recovery	400
---	---	---	Blank	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Analyte	---
---	---	---	Blank	---
ResolutionCheck	C:\masslynx\autospec\PAH_resolution.dat	REF	QC	500

ES (pg/ul) (Conc_B)	37Cl CS/SS (pg/ul) (Conc_C)	CS/SS (pg/ul) (Conc_D)	AS (pg/ul) (Conc_E)	JS (pg/ul) (Conc_F)
100	---	100	100	100
400	---	400	400	100
---	---	---	---	---
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
---	---	---	---	---
100	---	100	100	100
400	---	400	400	100
---	---	---	---	---
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
---	---	---	---	---
100	---	100	100	100
400	---	400	400	100
---	---	---	---	---
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
---	---	---	---	---
100	---	100	100	100
400	---	400	400	100
---	---	---	---	---
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
100	---	100	100	100
---	---	---	---	---
100	---	100	100	100

Ext. Vol (uL) (USER_FACTOR_1)	Sp.Wt/Vol (g/mL) User Divisor 1
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
0.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
4.000000	0.000000
0.000000	0.000000
0.000000	0.000000

Concals

Enthalpy Analytical

Job No.: 0123-704-1 OTM-46

TRC Environmental Corporation - Burr Ridge

Client Project: Primary Energy-508369 Site: Cokenergy

Concals

TCDD	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	2378-TCDD (S)	1746-01-6	20%	41	3.4%	43	7.2%	42	6.1%	40	1.0%	42	5.6%
PeCDD	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	12378-PeCDD (S)	40321-76-4	20%	221	10.7%	219	9.4%	221	10.7%	213	6.5%	225	12.4%
HxCDD	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	123478-HxCDD (S)	39227-28-6	20%	213	6.4%	220	10.1%	219	9.4%	210	5.2%	214	7.0%
	123678-HxCDD (S)	57653-85-7	20%	217	8.5%	222	10.9%	217	8.7%	210	5.2%	214	6.9%
	123789-HxCDD (S)	19408-74-3	20%	219	9.7%	216	8.1%	219	9.3%	209	4.3%	202	1.2%
HpCDD	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	1234678-HpCDD (S)	35822-46-9	20%	214	6.9%	211	5.6%	211	5.5%	220	9.8%	219	9.4%
OCDD	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	OCDD (S)	3268-87-9	20%	428	7.0%	427	6.7%	434	8.6%	414	3.6%	415	3.7%
TCDF	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	2378-TCDF (S)	51207-31-9	20%	39	-1.4%	37	-7.1%	40	-0.7%	42	5.8%	43	7.3%
PeCDF	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	12378-PeCDF (S)	57117-41-6	20%	204	2.1%	205	2.6%	207	3.6%	216	8.2%	218	9.2%
	23478-PeCDF (S)	57117-31-4	20%	201	0.3%	200	0.1%	202	0.9%	210	4.9%	212	6.0%
HxCDF	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	123478-HxCDF (S)	70648-26-9	20%	211	5.4%	211	5.5%	213	6.6%	216	8.0%	210	5.0%
	123678-HxCDF (S)	57117-44-9	20%	215	7.4%	218	9.2%	218	9.2%	209	4.6%	209	4.7%
	234678-HxCDF (S)	60851-34-5	20%	213	6.4%	214	7.1%	219	9.4%	212	6.1%	207	3.3%
	123789-HxCDF (S)	72918-21-9	20%	211	5.4%	211	5.5%	213	6.3%	205	2.5%	214	6.9%
HpCDF	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	1234678-HpCDF (S)	67562-39-4	20%	200	0.2%	197	-1.6%	201	0.4%	211	5.5%	209	4.5%
	1234789-HpCDF (S)	55673-89-7	20%	208	3.8%	207	3.3%	206	3.1%	206	3.2%	201	0.7%
OCDF	Compound	CAS	Dev Limit	SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL		SID AH70 CS4 pg/uL	
	OCDF (S)	39001-02-0	20%	384	-3.9%	392	-2.1%	392	-2.1%	405	1.2%	416	4.1%
ES	Compound	CAS	Dev Limit	SID AH70 G07032312B Area		SID AH70 G07032322B Area		SID AH70 G07032330B Area		SID AH70 G10032308B Area		SID AH70 G10032313B Area	
	13C-2378-TCDD (ES)	76523-40-5	30%	670499	-5.8%	632825	-4.0%	635306	-3.9%	171319	-6.4%	182467	-7.2%
	13C-12378-PeCDD (ES)	109719-79-1	30%	829304	-0.9%	835743	3.7%	823335	3.0%	213651	-2.5%	224901	-4.1%
	13C-123478-HxCDD (ES)	109719-80-4	30%	711316	2.9%	646278	-1.0%	646224	-4.2%	176083	7.4%	186689	3.5%
	13C-123678-HxCDD (ES)	109719-81-5	30%	643976	0.6%	603682	-2.6%	636213	1.6%	166061	7.5%	174300	0.5%
	13C-123789-HxCDD (ES)	109719-82-6	30%	726747	-0.4%	704314	0.2%	696239	-2.4%	176477	2.0%	196626	1.4%
	13C-1234678-HpCDD (ES)	109719-83-7	30%	644839	15.6%	600198	14.2%	625516	13.7%	148584	11.9%	165410	11.9%
	13C-OCDD (ES)	114423-97-1	30%	1027030	23.5%	965970	23.3%	960458	18.4%	231128	18.2%	253886	15.5%
	13C-2378-TCDF (ES)	89059-46-1	30%	1000283	-0.5%	924429	0.8%	972147	0.0%	278871	-3.1%	291917	-2.4%
	13C-12378-PeCDF (ES)	109719-77-9	30%	1262915	1.8%	1240422	8.3%	1218690	2.1%	336967	-3.9%	351032	-5.1%
	13C-23478-PeCDF (ES)	116843-02-8	30%	1220158	1.3%	1186024	8.4%	1204798	1.7%	322739	-4.9%	335508	-4.4%
	13C-123478-HxCDF (ES)	114423-98-2	30%	499019	3.7%	477861	4.6%	482673	2.9%	118994	3.6%	132369	4.7%
	13C-123678-HxCDF (ES)	116843-03-9	30%	600528	3.7%	576016	3.3%	569368	0.4%	145295	4.9%	154459	2.9%
	13C-234678-HxCDF (ES)	116843-05-1	30%	554134	5.7%	519057	5.6%	535377	3.6%	132405	7.2%	143502	4.6%
	13C-123789-HxCDF (ES)	116843-04-0	30%	504805	5.0%	493455	5.4%	478199	3.2%	121493	5.0%	125627	-0.2%
	13C-1234678-HpCDF (ES)	109719-84-8	30%	431275	23.0%	426001	25.2%	419370	21.0%	104560	24.6%	113959	22.1%
	13C-1234789-HpCDF (ES)	109719-94-0	30%	368318	16.7%	360941	17.7%	381796	14.9%	87966	19.9%	96745	16.6%
	13C-OCDF (ES)	109719-78-0	30%	1257341	24.4%	1157375	21.4%	1169107	19.3%	303605	25.8%	317789	20.4%
SS	Compound	CAS	Dev Limit	SID AH70 G07032312B Area		SID AH70 G07032322B Area		SID AH70 G07032330B Area		SID AH70 G10032308B Area		SID AH70 G10032313B Area	
	37Cl-2378-TCDD (SS)		30%	733497	0.9%	722500	4.0%	732137	5.4%	193618	3.5%	204751	3.2%
	13C-12347-PeCDD (SS)		30%	925739	4.1%	868758	0.2%	880684	2.2%	234819	3.1%	242557	1.8%
	13C-12346-PeCDF (SS)		30%	1235430	-5.9%	1217360	-5.7%	1203878	-6.1%	332735	-5.3%	349689	-4.3%
	13C-123469-HxCDF (SS)		30%	499441	-8.3%	487103	-6.3%	496870	-6.0%	121108	-6.8%	131251	-6.9%
	13C-1234689-HpCDF (SS)		30%	391481	-5.9%	390985	-6.4%	373669	-6.4%	98477	-3.3%	104202	-5.4%
AS	Compound	CAS	Dev Limit	SID AH70 G07032312B Area		SID AH70 G07032322B Area		SID AH70 G07032330B Area		SID AH70 G10032308B Area		SID AH70 G10032313B Area	
	13C-1368-TCDD (AS)		30%	789037	0.8%	745995	1.8%	730663	1.0%	204304	0.6%	215470	0.9%
	13C-1368-TCDF (AS)		30%	1146340	2.9%	1081241	5.9%	1096631	1.8%	313122	0.8%	338524	2.2%

Continuing Calibration OTM-46

	CS4-A	CS4-B			
Concentration (pg/µL)	**500**	**500**			
Standard ID	**SIDAF41**	**SIDAF41**			
Acquisition Date	**09-Mar-23**	**09-Mar-23**			
Acquisition Time	**4:34:27**	**11:35:25**			
Analyte	**RRF**	**RRF**	**ICAL RRFs**	**PD (CS3-A v. ICAL)**	**PD (CS3-B v. ICAL)**
Naphthalene	1.02	1.04	1.12	-8.9	-7.1
2-Methyl-naphthalene	0.98	0.92	1.03	-4.9	-10.7
Acenaphthylene	0.88	0.96	0.96	-8.3	0.0
Acenaphthene	0.92	0.96	1.01	-8.9	-5.0
Fluorene	1.1	1.07	1.03	6.8	3.9
Phenanthrene	1.01	0.98	1.01	0.0	-3.0
Anthracene	1.08	1.05	1.02	5.9	2.9
Fluoranthene	1.05	1.02	0.99	6.1	3.0
Pyrene	0.98	0.99	0.95	3.2	4.2
Benzo(a)Anthracene	1.03	0.99	0.97	6.2	2.1
Chrysene	1.05	1.05	1.00	5.0	5.0
Benzo(b)Fluoranthene	0.98	1.01	1.02	-3.9	-1.0
Benzo(k)Fluoranthene	0.91	0.96	0.97	-6.2	-1.0
Benzo(e)Pyrene	1.01	1.02	1.02	-1.0	0.0
Benzo(a)Pyrene	1.01	1.01	0.92	9.8	9.8
Perylene	1.18	1.20	1.22	-3.3	-1.6
Indeno(123-cd)Pyrene	0.97	1.01	0.93	4.3	8.6
Benzo(ghi)Perylene	1.04	1.08	0.98	6.1	10.2
Dibenzo(a,h)Anthracene	0.95	0.99	0.91	4.4	8.8
ES Naphthalene	1.39	1.26	1.27	9.4	-0.8
ES 2-Methyl-naphthalene	0.96	0.95	0.91	5.5	4.4
ES Acenaphthylene	1.42	1.39	1.36	4.4	2.2
ES Acenaphthene	1.01	0.94	1.03	-1.9	-8.7
ES Fluorene	1.17	1.14	1.21	-3.3	-5.8
ES Phenanthrene	1.82	1.81	2.10	-13.3	-13.8
ES Anthracene	1.45	1.54	1.66	-12.7	-7.2
ES Fluoranthene	1.33	1.29	1.27	4.7	1.6
ES Pyrene	1.44	1.38	1.39	3.6	-0.7
ES Benzo(a)Anthracene	1	1.06	1.18	-15.3	-10.2
ES Chrysene	1.11	1.08	1.34	-17.2	-19.4
ES Benzo(b)Fluoranthene	1.57	1.51	1.63	-3.7	-7.4
ES Benzo(k)Fluoranthene	1.83	1.68	1.89	-3.2	-11.1
ES Benzo(e)Pyrene	1.64	1.55	1.77	-7.3	-12.4
ES Benzo(a)Pyrene	1.41	1.38	1.58	-10.8	-12.7
ES Perylene	0.79	0.79	0.81	-2.5	-2.5
ES Indeno(123-cd)Pyrene	1.35	1.34	1.3	3.8	3.1
ES Benzo(ghi)Perylene	1.48	1.35	1.62	-8.6	-16.7
ES Dibenzo(a,h)Anthracene	1.45	1.35	1.41	2.8	-4.3
CS Fluorene	1.19	1.16	1.28	-7	-9.4
CS Terphenyl	0.71	0.74	1	-29	-26.0
SS Fluorene	1.02	1.02	1.06	-3.8	-3.8
SS Terphenyl	0.49	0.54	0.73	-32.9	-26
AS Anthracene	1.18	1.21	1.32	-10.6	-8.3
Analyte	Area	Area			
JS 2-Methylnaphthalene	1065055	1134721			
JS Acenaphthene	889244	993658			
JS Pyrene	1150675	1356123			
JS Benzo(a)Pyrene	803280	1012690			

Continuing Calibration OTM-46

	CS4-C	CS4-D			
Concentration (pg/µL)	**500**	**500**			
Standard ID	**SIDAF41**	**SIDAF41**			
Acquisition Date	**09-Mar-23**	**09-Mar-23**			
Acquisition Time	**4:34:27**	**17:12:51**			
Analyte	**RRF**	**RRF**	**ICAL RRFs**	**PD (CS3-C v. ICAL)**	**PD (CS3-D v. ICAL)**
Naphthalene	1.02	1.03	1.12	-8.9	-8
2-Methyl-naphthalene	0.98	0.94	1.03	-4.9	-8.7
Acenaphthylene	0.88	0.92	0.96	-8.3	-4.2
Acenaphthene	0.92	0.96	1.01	-8.9	-5.0
Fluorene	1.1	1.09	1.03	6.8	5.8
Phenanthrene	1.01	0.98	1.01	0.0	-3.0
Anthracene	1.08	1.04	1.02	5.9	2.0
Fluoranthene	1.05	1.02	0.99	6.1	3.0
Pyrene	0.98	0.96	0.95	3.2	1.1
Benzo(a)Anthracene	1.03	1.04	0.97	6.2	7.2
Chrysene	1.05	1.07	1	5.0	7.0
Benzo(b)Fluoranthene	0.98	0.95	1.02	-3.9	-6.9
Benzo(k)Fluoranthene	0.91	0.99	0.97	-6.2	2.1
Benzo(e)Pyrene	1.01	1.02	1.02	-1.0	0.0
Benzo(a)Pyrene	1.01	1.03	0.92	9.8	12.0
Perylene	1.18	1.17	1.22	-3.3	-4.1
Indeno(123-cd)Pyrene	0.97	0.99	0.93	4.3	6.5
Benzo(ghi)Perylene	1.04	1.07	0.98	6.1	9.2
Dibenzo(a,h)Anthracene	0.95	0.96	0.91	4.4	5.5
ES Naphthalene	1.39	1.27	1.27	9.4	0
ES 2-Methyl-naphthalene	0.96	0.95	0.91	5.5	4.4
ES Acenaphthylene	1.42	1.44	1.36	4.4	5.9
ES Acenaphthene	1.01	0.98	1.03	-1.9	-4.9
ES Fluorene	1.17	1.14	1.21	-3.3	-5.8
ES Phenanthrene	1.82	1.84	2.1	-13.3	-12.4
ES Anthracene	1.45	1.53	1.66	-12.7	-7.8
ES Fluoranthene	1.33	1.35	1.27	4.7	6.3
ES Pyrene	1.44	1.43	1.39	3.6	2.9
ES Benzo(a)Anthracene	1	1.05	1.18	-15.3	-11.0
ES Chrysene	1.11	1.11	1.34	-17.2	-17.2
ES Benzo(b)Fluoranthene	1.57	1.56	1.63	-3.7	-4.3
ES Benzo(k)Fluoranthene	1.83	1.65	1.89	-3.2	-12.7
ES Benzo(e)Pyrene	1.64	1.55	1.77	-7.3	-12.4
ES Benzo(a)Pyrene	1.41	1.34	1.58	-10.8	-15.2
ES Perylene	0.79	0.8	0.81	-2.5	-1.2
ES Indeno(123-cd)Pyrene	1.35	1.4	1.3	3.8	7.7
ES Benzo(ghi)Perylene	1.48	1.41	1.62	-8.6	-13.0
ES Dibenzo(a,h)Anthracene	1.45	1.41	1.41	2.8	0.0
CS Fluorene	1.19	1.14	1.28	-7	-10.9
CS Terphenyl	0.71	0.76	1	-29	-24
SS Fluorene	1.02	1	1.06	-3.8	-5.7
SS Terphenyl	0.49	0.53	0.73	-32.9	-27.4
AS Anthracene	1.18	1.22	1.32	-10.6	-7.6
Analyte	Area	Area			
JS 2-Methylnaphthalene	1065055	1194693			
JS Acenaphthene	889244	1004652			
JS Pyrene	1150675	1377722			
JS Benzo(a)Pyrene	803280	1069302			

Chromatograms

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8_03_03_23.mdb 07 Mar 2023 15:57:02
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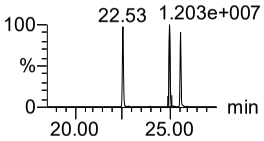
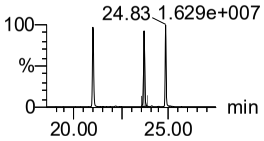
Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

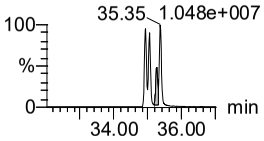
13C-1234-TCDD (JS)
F1:Voltage SIR,EI+
331.9368
22.53 1.203e+007



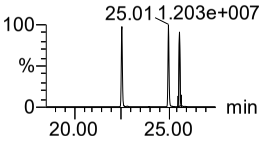
13C-1234-TCDF (JS)
F1:Voltage SIR,EI+
315.9419
24.83 1.629e+007



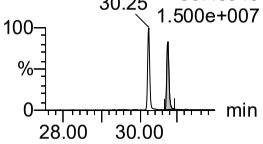
13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+
401.8559
35.35 1.048e+007



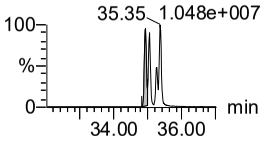
13C-2378-TCDD (ES)
F1:Voltage SIR,EI+
331.9368
25.01 1.203e+007



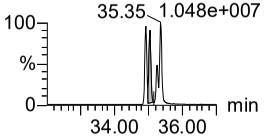
13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+
367.8949
30.25 1.500e+007



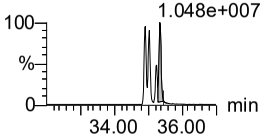
13C-123478-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.35 1.048e+007



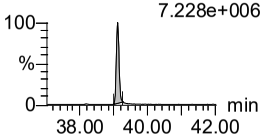
13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.35 1.048e+007



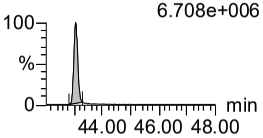
13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
1.048e+007



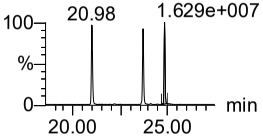
13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+
435.8169
7.228e+006



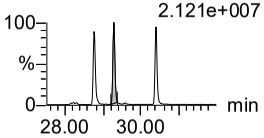
13C-OCDD (ES)
F5:Voltage SIR,EI+
469.7780
6.708e+006



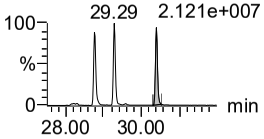
13C-2378-TCDF (ES)
F1:Voltage SIR,EI+
315.9419
20.98 1.629e+007



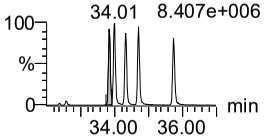
13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
2.121e+007



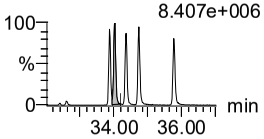
13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
29.29 2.121e+007



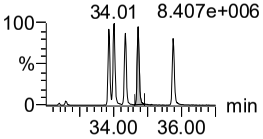
13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01 8.407e+006



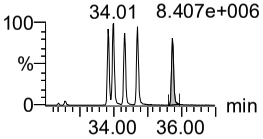
13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
8.407e+006



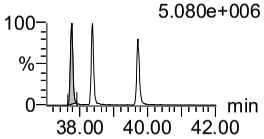
13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01 8.407e+006



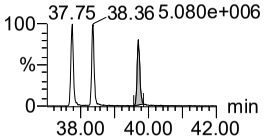
13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01 8.407e+006



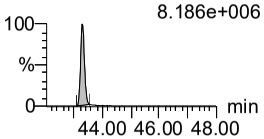
13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
5.080e+006



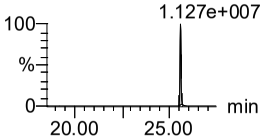
13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
37.75 38.36 5.080e+006



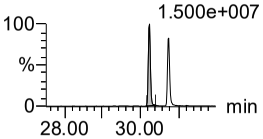
13C-OCDF (ES)
F5:Voltage SIR,EI+
453.7830
8.186e+006



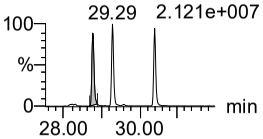
37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+
327.8847
1.127e+007



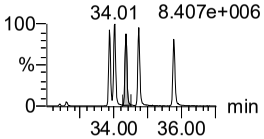
13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+
367.8949
1.500e+007



13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+
351.9000
29.29 2.121e+007



13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+
383.8639
34.01 8.407e+006

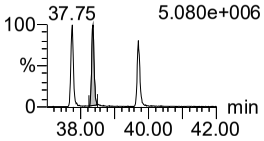


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

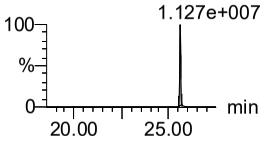
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

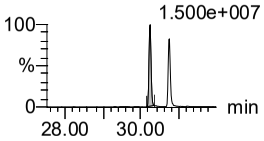
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
37.75 5.080e+006



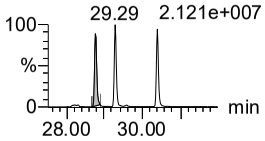
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
1.127e+007



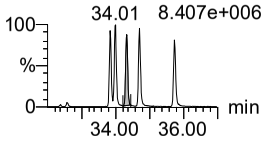
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
1.500e+007



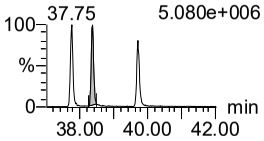
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
29.29 2.121e+007



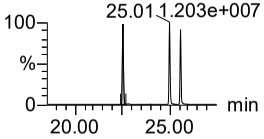
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
34.01 8.407e+006



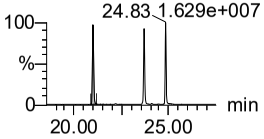
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
37.75 5.080e+006



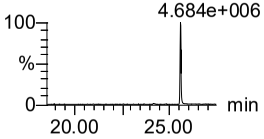
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
25.01 1.203e+007



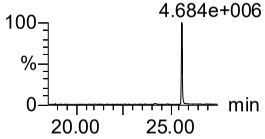
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
24.83 1.629e+007



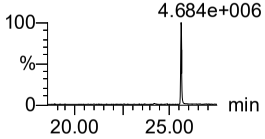
1368-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



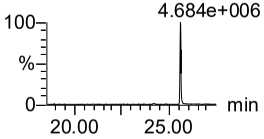
1379-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



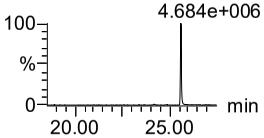
1369-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



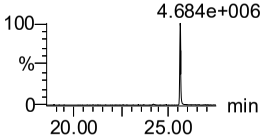
1469-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



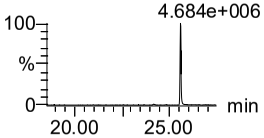
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
4.684e+006



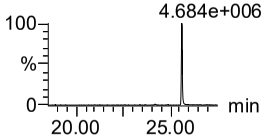
1378-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



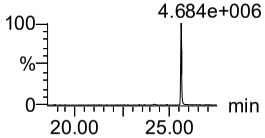
1268-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



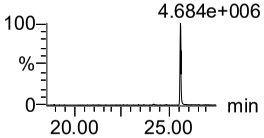
1478-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



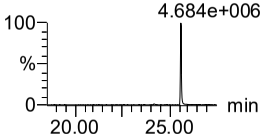
1279-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



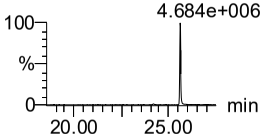
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



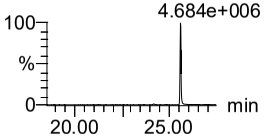
1236-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



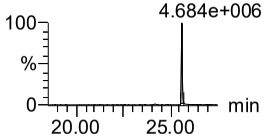
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



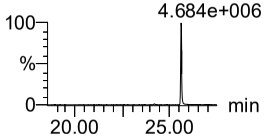
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
4.684e+006



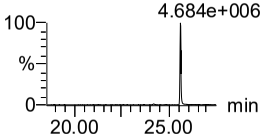
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
4.684e+006



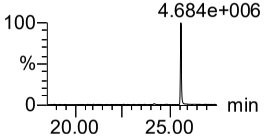
1278-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



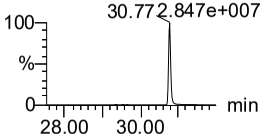
1267-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



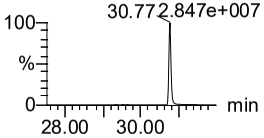
1289-TCDD
F1:Voltage SIR,EI+
319.8965
4.684e+006



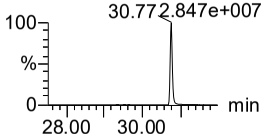
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.847e+007



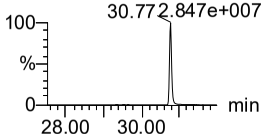
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.847e+007



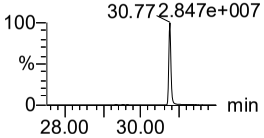
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.847e+007



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.847e+007



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.847e+007



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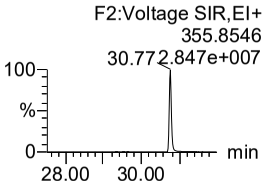
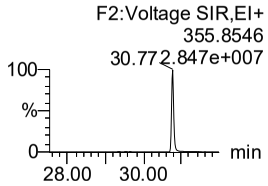
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

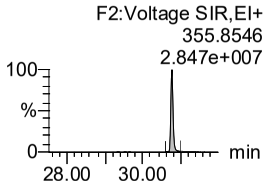
12369/12467/12489-PeCDD



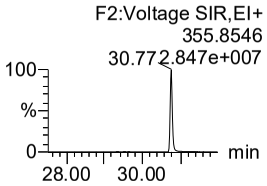
12346/12347-PeCDD



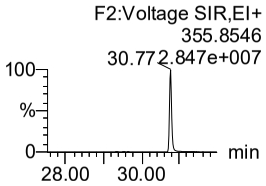
12378-PeCDD (S)



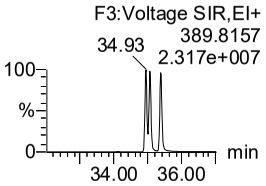
12367-PeCDD



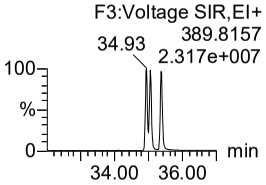
12389-PeCDD



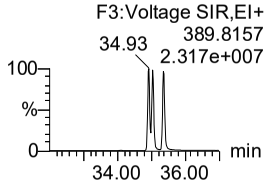
124679/124689-HxCDD



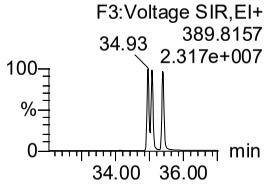
123468-HxCDD



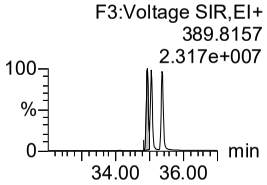
123679/123689-HxCDD



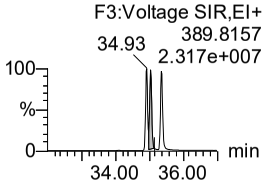
123469-HxCDD



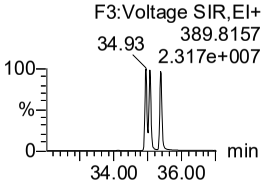
123478-HxCDD (S)



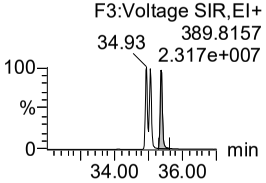
123678-HxCDD (S)



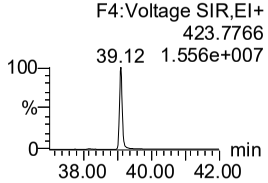
123467-HxCDD



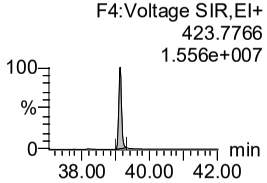
123789-HxCDD (S)



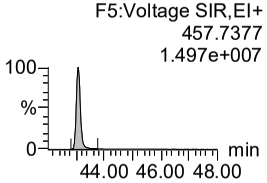
1234679-HpCDD



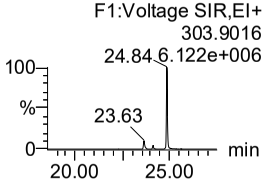
1234678-HpCDD (S)



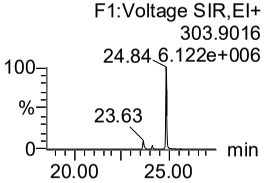
OCDD (S)



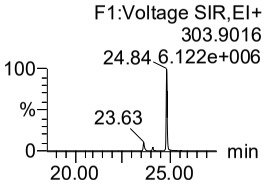
1368-TCDF



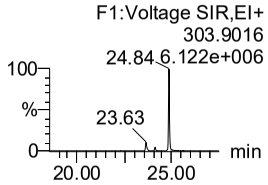
1468-TCDF



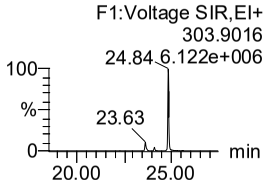
2468-TCDF



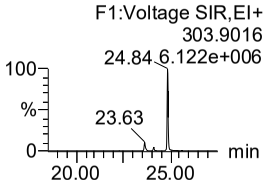
1346/1246-TCDF



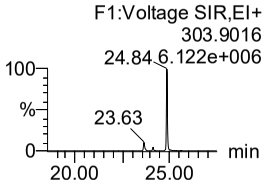
1347/1378/1247-TCDF



1348-TCDF



1248/1367/1379-TCDF



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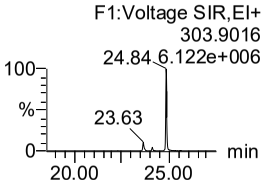

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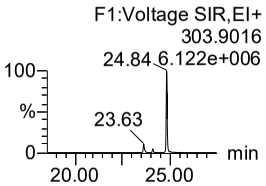
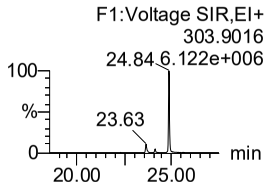
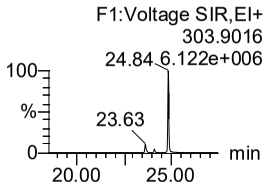


1478-TCDF



1369/1237-TCDF



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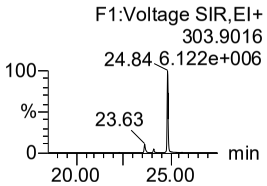
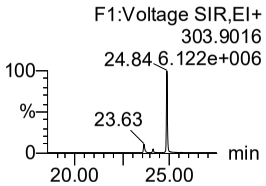
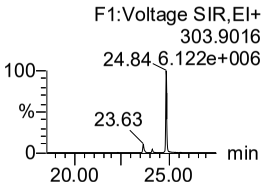


2368-TCDF



1238/1234/1678/1469/1236-TCDF



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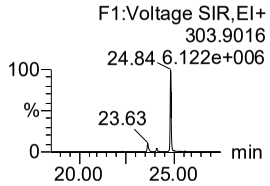
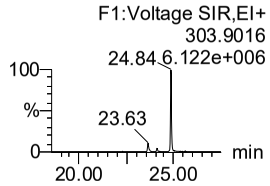
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

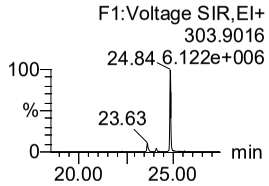
1278-TCDF



1349-TCDF



1267-TCDF



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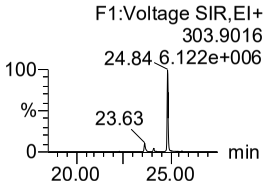
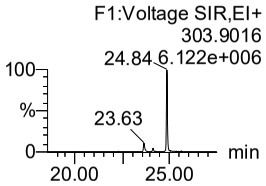
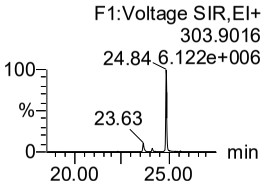


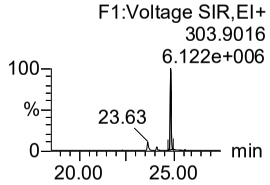
2347/1279-TCDF



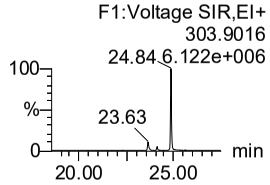
2348-TCDF [CE]



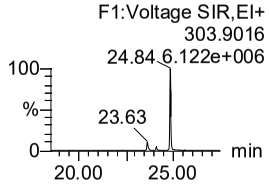
2378-TCDF (S)



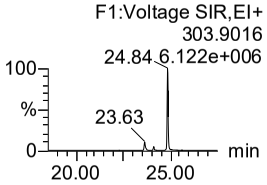
2367/3467-TCDF



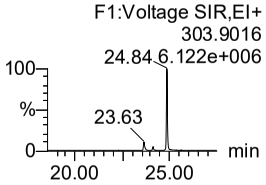
1269-TCDF



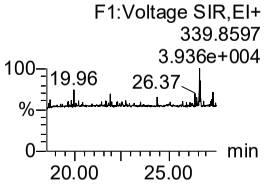
1239-TCDF



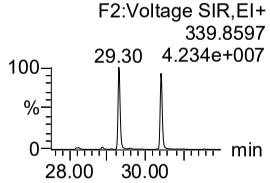
1289-TCDF



13468/12466-PeCDF



13678/13467/12467-PeCDF



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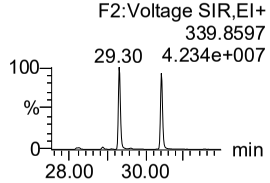

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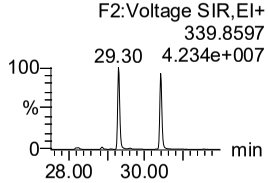

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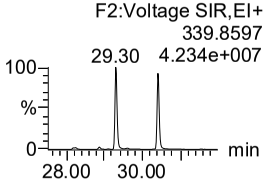

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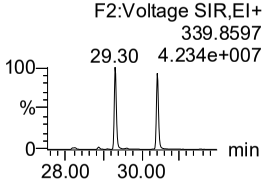

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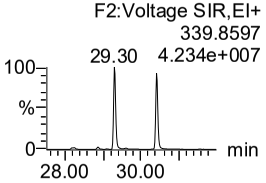

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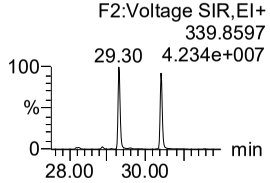

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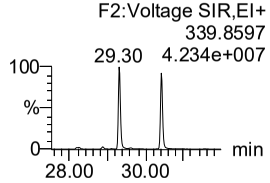

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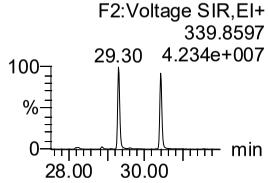
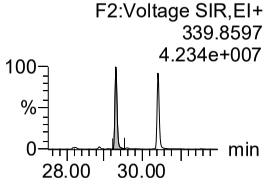


12378-PeCDF (S)



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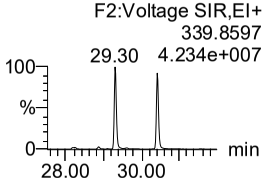

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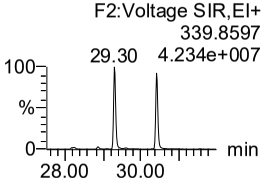

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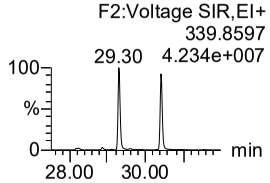
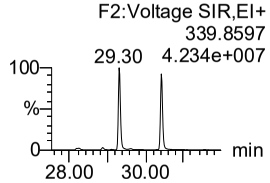


23467/12369-PeCDF



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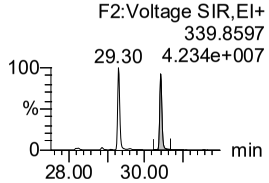
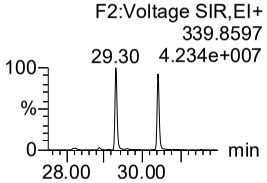
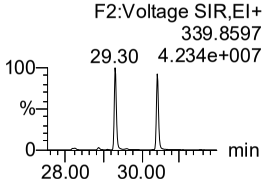


12489-PeCDF (R)



12349-PeCDF



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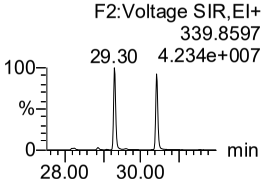

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Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

123468-HxCDF
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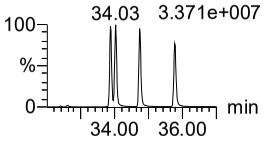
34.03 3.371e+007



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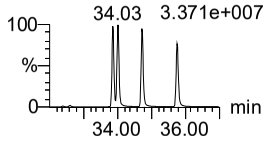

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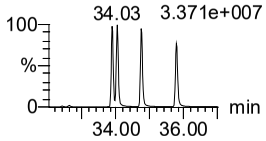
34.03 3.371e+007



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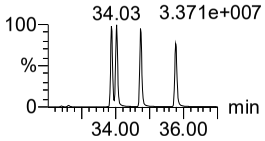
34.03 3.371e+007



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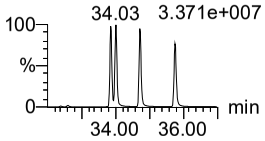
34.03 3.371e+007



123467-HxCDF
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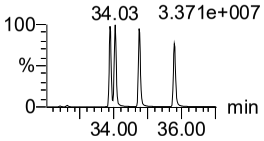
34.03 3.371e+007



123478-HxCDF (S)
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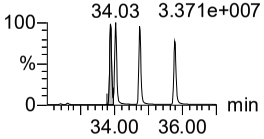
34.03 3.371e+007



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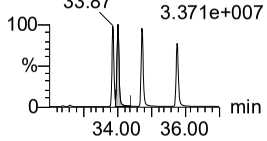

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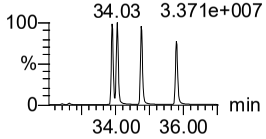
34.03 3.371e+007



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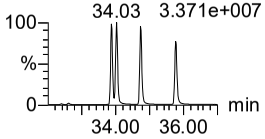
34.03 3.371e+007



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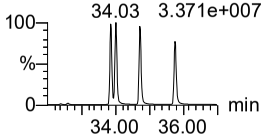
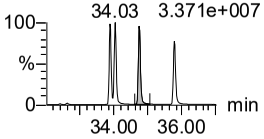
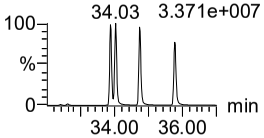
F3:Voltage SIR,EI+ 373.8208
34.03 3.371e+007



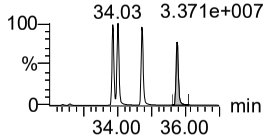
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
34.03 3.371e+007



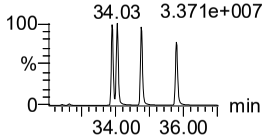
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208
34.03 3.371e+007



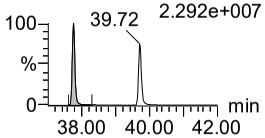
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
34.03 3.371e+007



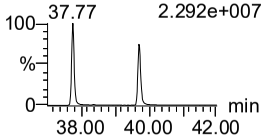
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208
34.03 3.371e+007



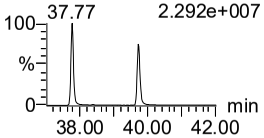
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
39.72 2.292e+007



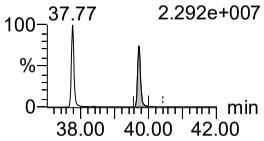
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 2.292e+007



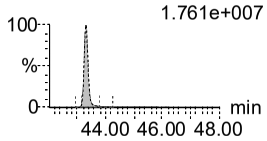
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 2.292e+007



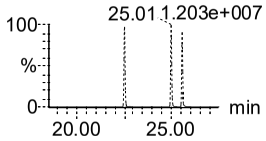
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.77 2.292e+007



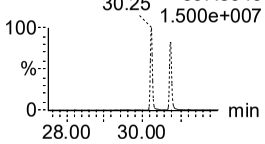
OCDF (S)
F5:Voltage SIR,EI+ 441.7428
1.761e+007



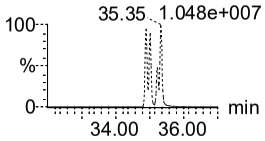
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368
25.01 1.203e+007



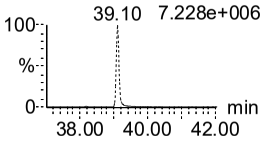
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949
30.25 1.500e+007



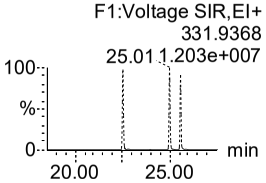
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559
35.35 1.048e+007



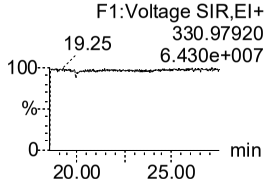
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169
39.10 7.228e+006



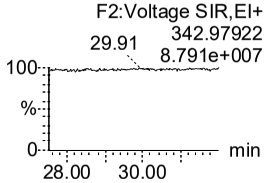
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368
25.01 1.203e+007



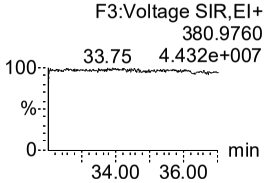
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920
19.25 6.430e+007



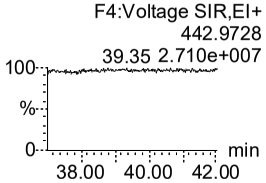
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922
29.91 8.791e+007



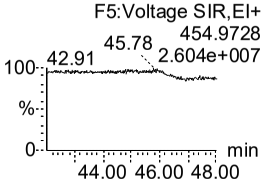
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760
33.75 4.432e+007



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728
39.35 2.710e+007



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728
42.91 45.78 2.604e+007

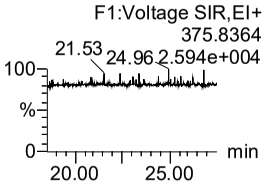


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

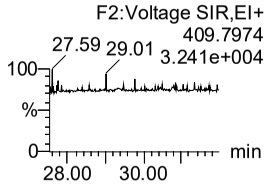
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

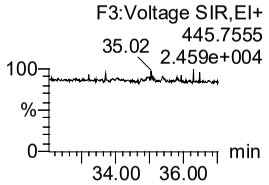
HxDPE



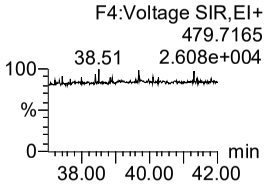
HpDPE



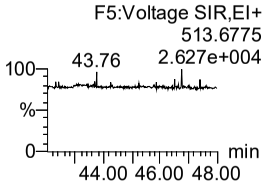
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	757460.813	941605.125		1699065.938	bb	59.2	-40.8	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	1024116.125	1303503.5...		2327619.625	bb	60.1	-39.9	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	326274.594	261212.266		587486.860	bd	28.5	-43.1	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	670498.625	832032.500	757460.813	88.433	bb	94.2	-5.8	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	829303.750	545135.500	757460.813	80.894	bb	99.1	-0.9	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	711315.500	552630.500	326274.594	107.572	bd	102.9	2.9	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	643976.000	521431.313	326274.594	99.186	db	100.6	0.6	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.35	726746.688	574685.188	326274.594	110.763	db	99.6	-0.4	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	644838.875	604512.250	326274.594	106.330	bb	115.6	15.6	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.06	1027030.375	1129398.7...	326274.594	183.530	bb	246.9	23.5	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	1000282.500	1291957.6...	1024116.125	98.480	bb	99.5	-0.5	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	1262915.375	820863.688	1024116.125	89.524	bb	101.8	1.8	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	1220158.375	782151.000	1024116.125	86.024	bb	101.3	1.3	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	499019.156	940852.688	326274.594	122.545	bd	103.7	3.7	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	600527.938	1131008.3...	326274.594	147.368	db	103.7	3.7	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.72	554134.375	1050260.3...	326274.594	136.547	bb	105.7	5.7	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.75	504804.969	950883.063	326274.594	123.891	bb	105.0	5.0	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	431274.594	967348.688	326274.594	119.034	bb	123.0	23.0	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.70	368318.344	828291.063	326274.594	101.841	bb	116.7	16.7	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.27	1257340.625	1404862.0...	326274.594	226.576	bb	248.8	24.4	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	733496.938		757460.813	43.171	bb	37.9	-5.3	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	940013.938	588092.188	757460.813	89.938	bb	103.4	3.4	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	1235430.000	803342.250	1024116.125	87.590	bb	101.8	1.8	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	511596.406	961172.063	326274.594	125.345	bb	97.2	-2.8	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	399476.344	885155.313	326274.594	109.333	bb	110.4	10.4	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	733496.938		670498.625	48.817	bb	40.3	0.9	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	925738.625	577311.688	829303.750	109.357	bb	104.1	4.1	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	1235430.000	803342.250	1262915.375	97.840	bb	94.1	-5.9	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	499440.875	946258.063	600527.938	83.492	bb	91.7	-8.3	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	391480.656	885155.313	431274.594	91.278	bb	94.1	-5.9	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.53	789037.125	975833.750	757460.813	103.873	bb	100.8	0.8	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.98	1146339.625	1465349.7...	1024116.125	112.204	bb	102.9	2.9	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.60	304294.906	403484.688	670498.625	47.106	bb	41.3	3.4	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				670498.625					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.77	1888199.500	1193767.3...	829303.750	224.234	bs	221.4	10.7	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				829303.750					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				711315.500					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				711315.500					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				711315.500					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				711315.500					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.93	1583207.625	1255630.7...	711315.500	224.601	bd	212.9	6.4	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.05	1548987.000	1232124.5...	643976.000	238.639	db	217.0	8.5	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				726746.688					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.36	1660208.500	1323877.1...	726746.688	229.292	bs	219.3	9.7	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				644838.875					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1424729.125	1375120.3...	644838.875	224.104	bb	213.7	6.9	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.08	2487106.000	2819817.0...	1027030.375	492.195	bd	428.1	7.0	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.84	422918.188	581339.250	1000282.500	43.811	bb	39.5	-1.4	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				1000282.500					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.30	2793559.000	1778605.5...	1262915.375	219.417	bd	204.2	2.1	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				1262915.375					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				1220158.375					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				1220158.375					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.42	2591983.500	1658909.5...	1220158.375	212.300	bs	200.6	0.3	G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				1220158.375					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				1220158.375					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				1220158.375					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				499019.156					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.87	2228760.500	1727930.7...	499019.156	274.795	dd	210.8	5.4	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	2497116.250	1991903.0...	600527.938	259.251	ds	214.7	7.4	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				600527.938					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				554134.375					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				554134.375					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.73	2375662.500	1856534.7...	554134.375	263.788	bs	212.7	6.4	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				554134.375					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.77	2091727.375	1654799.2...	504804.969	257.372	bs	210.7	5.4	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				504804.969					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.77	2117633.500	2011538.0...	431274.594	295.231	bd	200.4	0.2	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				431274.594					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				431274.594					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.72	1759101.500	1694151.0...	368318.344	288.586	MM	207.7	3.8	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.31	2852800.500	3137610.2...	1257340.625	450.034	MM	384.3	-3.9	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				670498.625					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				829303.750					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				326274.594					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				644838.875					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				670498.625					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

	Summary Flag Reason
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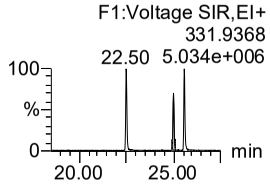
Name: G07032312B, Date: 07-Mar-2023, Time: 19:22:53, ID: SID AH70, Description: CS4

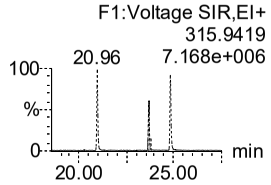
	Summary Flag Reason
149	

Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

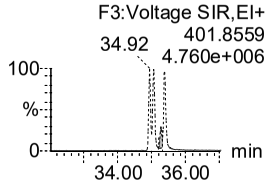
13C-1234-TCDD (JS)



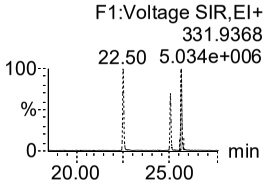
13C-1234-TCDF (JS)



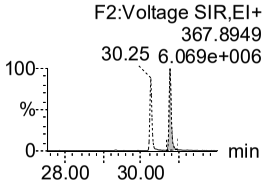
13C-123467-HxCDD (JS)



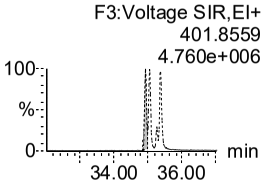
13C-2378-TCDD (ES)



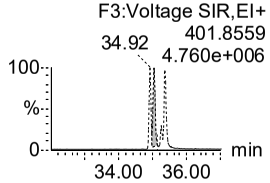
13C-12378-PeCDD (ES)



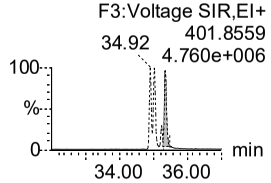
13C-123478-HxCDD (ES)



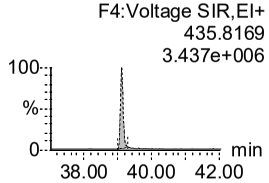
13C-123678-HxCDD (ES)



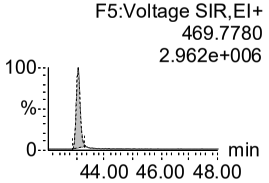
13C-123789-HxCDD (ES)



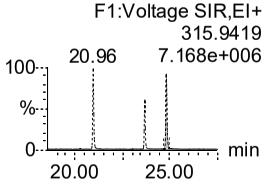
13C-1234678-HpCDD (ES)



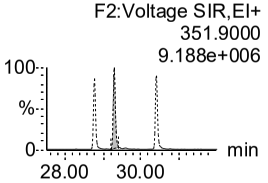
13C-OCDD (ES)



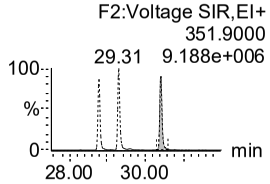
13C-2378-TCDF (ES)



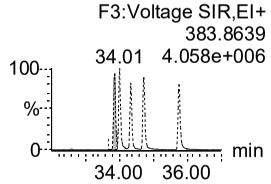
13C-12378-PeCDF (ES)



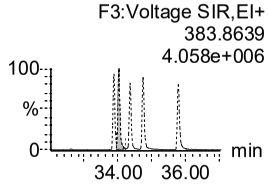
13C-23478-PeCDF (ES)



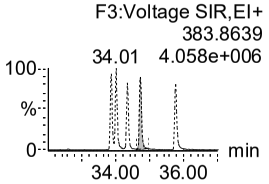
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



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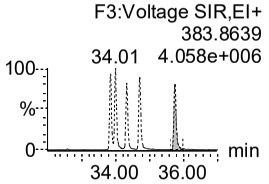

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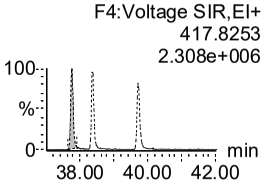

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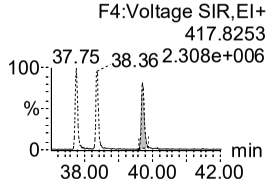
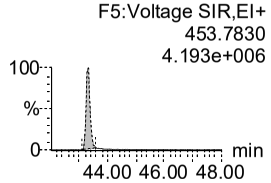
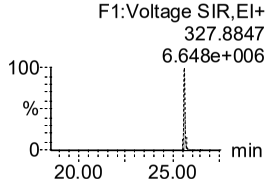


13C-OCDF (ES)



37Cl-2378-TCDD (CS)



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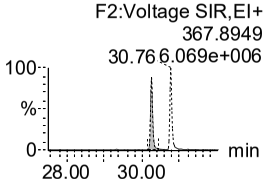

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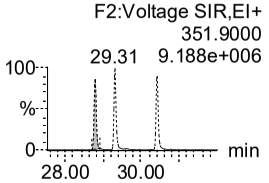
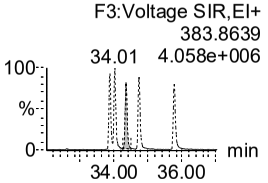


13C-123469-HxCDF (CS)



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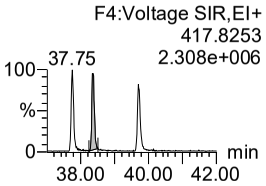
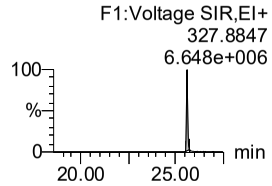
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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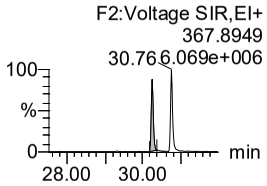

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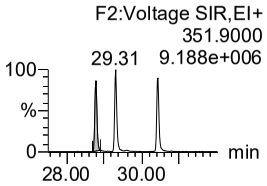

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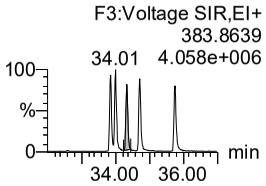

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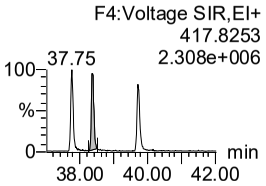

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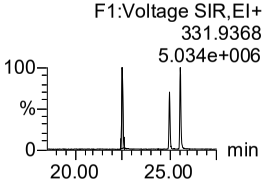

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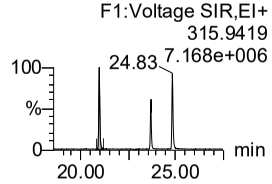
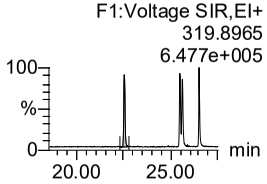


1368-TCDD



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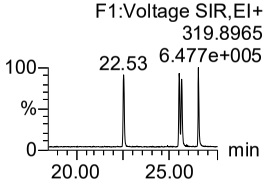
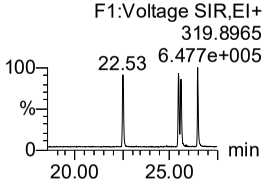


1369-TCDD



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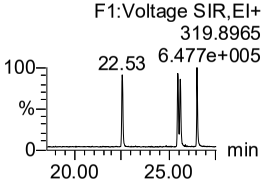
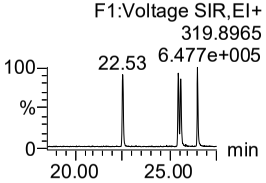


1247/1246/1248/1249-TCDI



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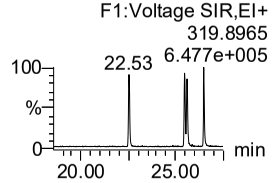
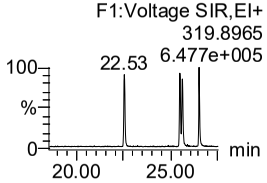
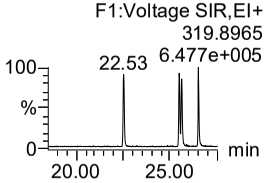


1268-TCDD



1478-TCDD



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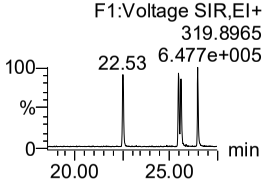
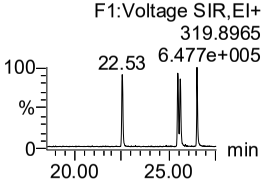


1234/1269-TCDD



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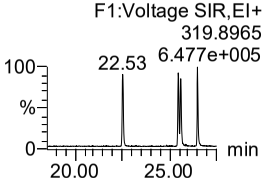
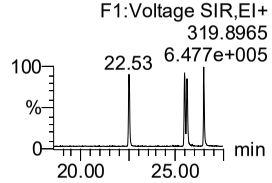
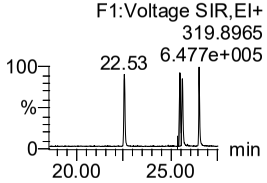


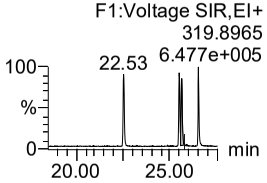
1237/1238-TCDD



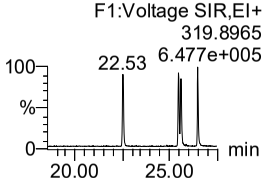
1239-TCDD [CE]



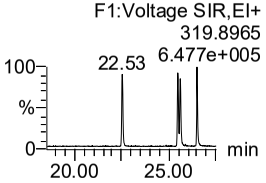
2378-TCDD (S)



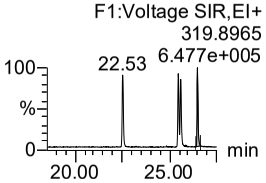
1278-TCDD



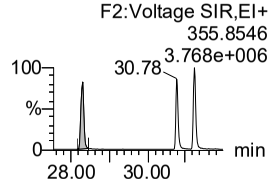
1267-TCDD



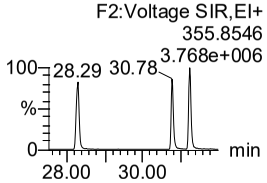
1289-TCDD



12479/12468-PeCDD



12469-PeCDD



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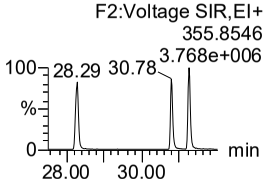

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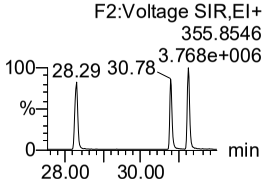
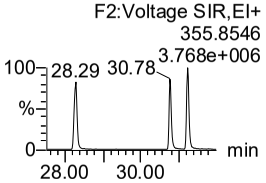


12379-PeCDD



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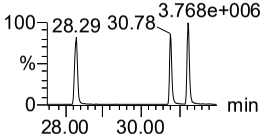
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+
355.8546
3.768e+006
28.29 30.78



12346/12347-PeCDD
F2:Voltage SIR,EI+
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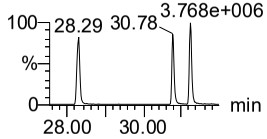
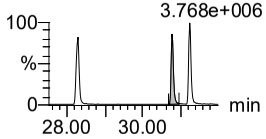
3.768e+006
28.29 30.78



12378-PeCDD (S)
F2:Voltage SIR,EI+
355.8546
3.768e+006



12367-PeCDD
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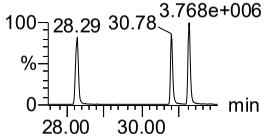
3.768e+006
28.29 30.78



12389-PeCDD
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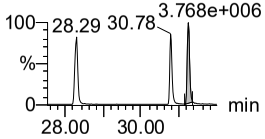
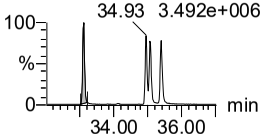
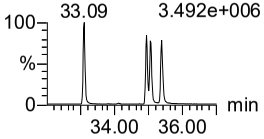
3.768e+006
28.29 30.78



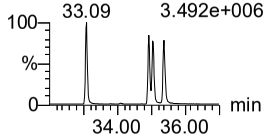
124679/124689-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 3.492e+006



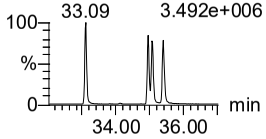
123468-HxCDD
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



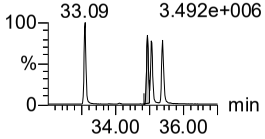
123679/123689-HxCDD
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



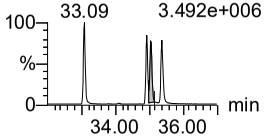
123469-HxCDD
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



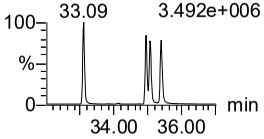
123478-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



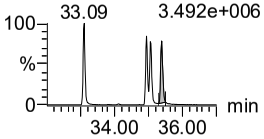
123678-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



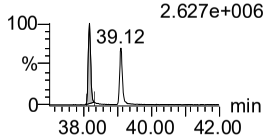
123467-HxCDD
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



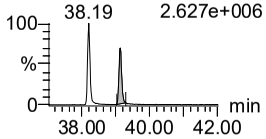
123789-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
33.09 3.492e+006



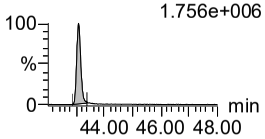
1234679-HpCDD
F4:Voltage SIR,EI+
423.7766
2.627e+006
39.12



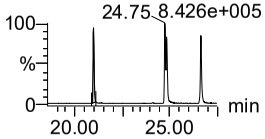
1234678-HpCDD (S)
F4:Voltage SIR,EI+
423.7766
38.19 2.627e+006



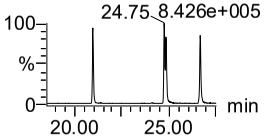
OCDD (S)
F5:Voltage SIR,EI+
457.7377
1.756e+006



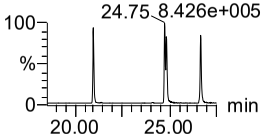
1368-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



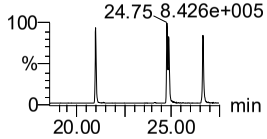
1468-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



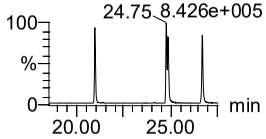
2468-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



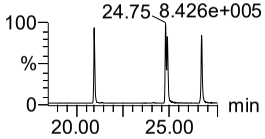
1346/1246-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



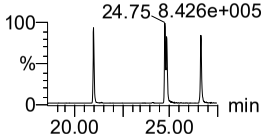
1347/1378/1247-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



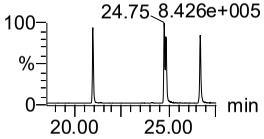
1348-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



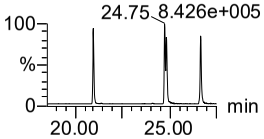
1248/1367/1379-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



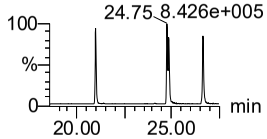
1268-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



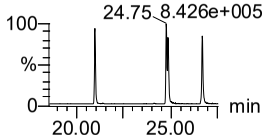
1467-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



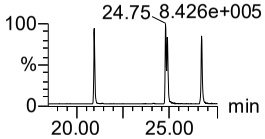
1478-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



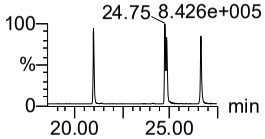
1369/1237-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



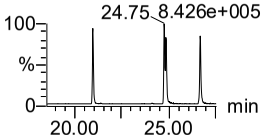
2467-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



2368-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



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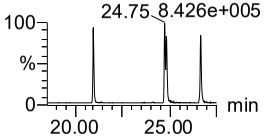
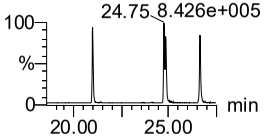
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

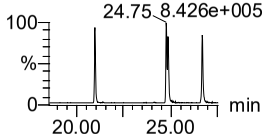
1278-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



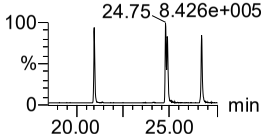
1349-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



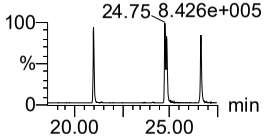
1267-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



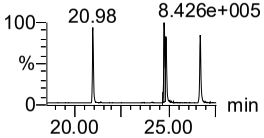
2346/1249-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



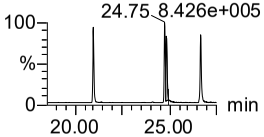
2347/1279-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



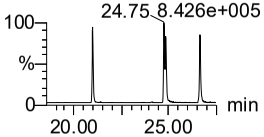
2348-TCDF [CE]
F1:Voltage SIR,EI+
303.9016
20.98 8.426e+005



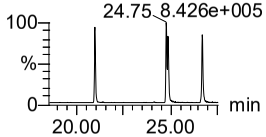
2378-TCDF (S)
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



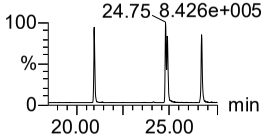
2367/3467-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



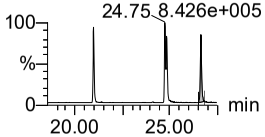
1269-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



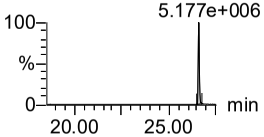
1239-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



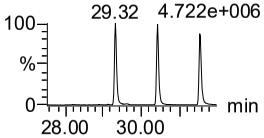
1289-TCDF
F1:Voltage SIR,EI+
303.9016
24.75 8.426e+005



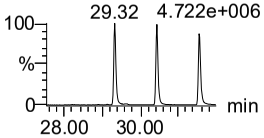
13468/12466-PeCDF
F1:Voltage SIR,EI+
339.8597
5.177e+006



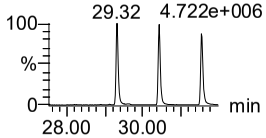
13678/13467/12467-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



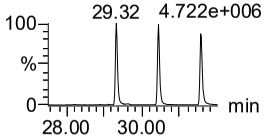
12368/13478/12478-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



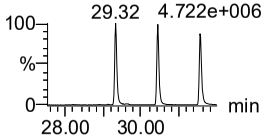
14678-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



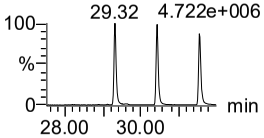
13479-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



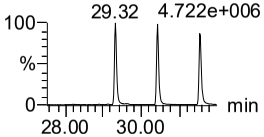
13469/12479-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



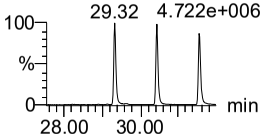
12346-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



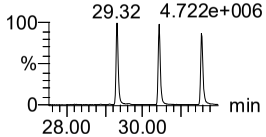
23468/12469-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



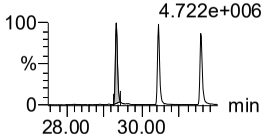
12347-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



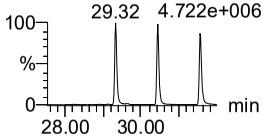
12348-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



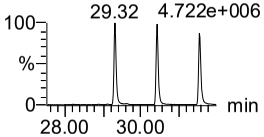
12378-PeCDF (S)
F2:Voltage SIR,EI+
339.8597
4.722e+006



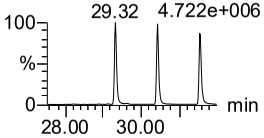
12678/12367-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



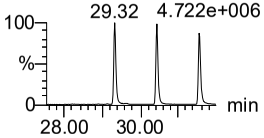
12379-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



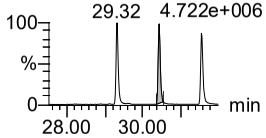
12679-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



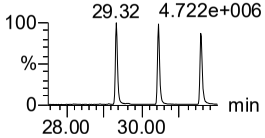
23467/12369-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



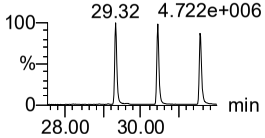
23478-PeCDF (S)
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



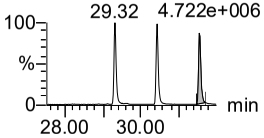
12489-PeCDF (R)
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



12349-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



12389-PeCDF
F2:Voltage SIR,EI+
339.8597
29.32 4.722e+006



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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

123468-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
34.03

124678/134678-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

134679-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

124679-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

124689-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123467-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123479-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123469-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123679-HxCDF
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208 4.451e+006
32.39

1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818 2.673e+006
39.73

1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818 2.673e+006
37.78

1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818 2.673e+006
37.78

1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818 2.673e+006
37.78

OCDF (S)
F5:Voltage SIR,EI+ 441.7428 2.189e+006

13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368 5.034e+006
22.50

13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949 6.069e+006
30.76

13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559 4.760e+006
34.92

13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169 3.437e+006
39.10

13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368 5.034e+006
22.50

QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920 6.156e+007
21.40

QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922 7.914e+007
29.03

QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760 4.059e+007
33.94

QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728 2.574e+007
39.03 39.45

QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728 2.490e+007
45.81

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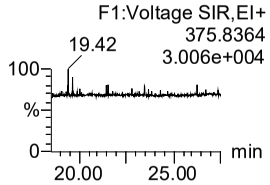
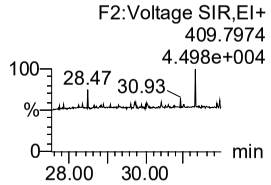
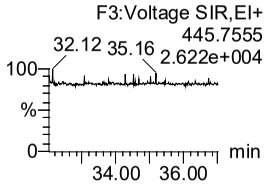


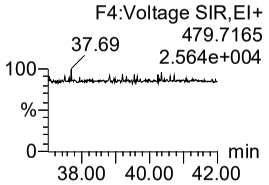
HpDPE



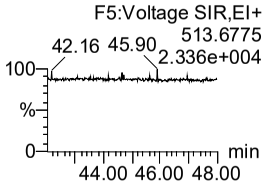
OcDPE



NoDPE



DeDPE



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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	226600.328	285209.563		511809.891	MM	17.8	-64.3	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	326495.344	396243.906		722739.250	MM	18.7	-62.6	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	69511.016	59118.871		128629.887	bd	6.2	-75.1	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	332287.750	410565.063	226600.328	72.571	bb	77.3	-22.7	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.76	379148.156	248321.375	226600.328	61.299	bb	75.1	-24.9	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	294201.844	234494.281	69511.016	102.755	bd	98.3	-1.7	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	324167.375	261518.359	69511.016	113.832	db	115.4	15.4	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	329967.625	260997.438	69511.016	114.858	db	103.3	3.3	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	297531.344	268410.500	69511.016	109.994	bb	119.6	19.6	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.08	450063.844	504760.094	69511.016	185.576	bb	249.7	24.9	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	446055.594	566934.188	326495.344	70.080	bb	70.8	-29.2	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.31	570301.313	355771.375	326495.344	64.067	bb	72.9	-27.1	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.42	566266.563	343492.031	326495.344	62.938	bb	74.1	-25.9	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	247207.531	471059.031	69511.016	139.599	bd	118.2	18.2	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	271153.313	520754.906	69511.016	153.912	db	108.4	8.4	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	259136.109	486276.875	69511.016	144.876	bb	112.2	12.2	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	251299.734	477199.125	69511.016	141.588	bb	120.1	20.1	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	187751.719	422057.063	69511.016	118.520	bb	122.5	22.5	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.70	175179.781	387839.719	69511.016	109.426	bb	125.4	25.4	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	658751.188	721714.500	69511.016	268.302	bb	294.6	47.3	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.61	461966.188		226600.328	45.131	bb	39.6	-1.0	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	332131.594	208264.828	226600.328	52.793	bb	60.7	-39.3	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.78	508477.125	322453.594	326495.344	57.485	bb	66.8	-33.2	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	218885.219	422423.469	69511.016	124.642	bb	96.6	-3.4	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	179778.500	388344.844	69511.016	110.418	bb	111.5	11.5	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.61	461966.188		332287.750	62.188	bb	51.4	28.5	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	321178.125	201370.625	379148.156	83.279	bb	79.3	-20.7	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.78	508477.125	322453.594	570301.313	89.726	bb	86.3	-13.7	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	212173.672	405151.438	271153.313	77.954	bb	85.7	-14.3	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	179778.500	379634.406	187751.719	91.736	bb	94.6	-5.4	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.50	346859.063	431899.656	226600.328	76.079	bb	73.9	-26.1	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	542368.000	663353.625	326495.344	83.413	bb	76.5	-23.5	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.53	44079.738	51555.949	332287.750	12.874	bb	11.0	10.0	G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965	25.48	39564.590	52247.398	332287.750	12.359	bd	10.6	5.6	G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.61	38552.820	50392.602	332287.750	11.973	db	10.5	5.1	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				332287.750					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965	26.50	39522.906	49778.680	332287.750	12.021	bb	10.3	2.7	G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546	28.29	252150.703	164630.953	379148.156	66.423	bb	62.7	25.3	G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.77	224589.734	137135.141	379148.156	57.648	bs	56.9	13.9	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				379148.156					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546	31.24	238396.156	152000.000	379148.156	62.218	bb	58.7	17.4	G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157	33.09	218468.594	173784.016	294201.844	74.192	bb	69.5	39.1	G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				294201.844					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				294201.844					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				294201.844					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.93	182234.453	145030.313	294201.844	61.900	bd	58.7	17.3	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.05	190197.141	151329.688	324167.375	58.312	db	53.0	6.0	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				329967.625					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.38	183522.188	148380.859	329967.625	56.163	bb	53.7	7.4	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.19	206367.516	200569.078	297531.344	71.904	bb	66.6	33.2	G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	163076.141	152067.672	297531.344	55.685	bb	53.1	6.2	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.09	280237.469	319633.281	450063.844	125.651	bb	109.3	9.3	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016	20.98	56864.340	79222.047	446055.594	13.434	bb	12.6	25.6	G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016	24.75	52858.684	63425.473	446055.594	11.479	bd	10.7	7.3	G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.84	46473.344	67986.539	446055.594	11.299	db	10.2	1.8	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				446055.594					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016	26.67	52131.363	68934.305	446055.594	11.951	bb	11.2	11.7	G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597	26.59	342893.563	218922.609	570301.313	60.667	bb	58.3	16.7	G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.32	295389.250	204708.547	570301.313	54.002	bb	50.3	0.5	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				570301.313					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				566266.563					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				566266.563					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.43	292198.844	201574.703	566266.563	54.275	bb	51.3	2.6	G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				566266.563					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				566266.563					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597	31.55	285202.156	178165.969	566266.563	50.933	bb	49.0	-2.1	G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208	32.39	312132.813	246762.594	247207.531	77.812	bs	61.5	23.0	G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				247207.531					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				247207.531					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				247207.531					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				247207.531					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				247207.531					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.88	268079.844	213904.156	247207.531	67.104	bd	51.5	2.9	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	300094.688	237026.359	271153.313	67.826	ds	56.2	12.3	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				271153.313					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				259136.109					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				259136.109					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	284154.656	225802.219	259136.109	68.413	bb	55.2	10.3	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				259136.109					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.78	268448.969	217159.906	251299.734	66.659	bs	54.6	9.1	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				251299.734					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.78	243980.469	233596.297	187751.719	78.316	bd	53.2	6.3	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				187751.719					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				187751.719					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.73	210602.047	203101.797	175179.781	73.479	MM	52.9	5.8	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.32	339971.219	384788.813	658751.188	105.002	bb	89.7	-10.3	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				332287.750					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				379148.156					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				69511.016					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				297531.344					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				332287.750					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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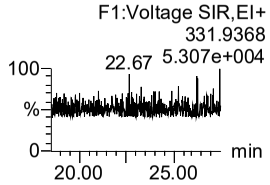
Name: G07032313B, Date: 07-Mar-2023, Time: 20:23:05, ID: BCS-14784-DF, Description: BCS-14784-DF

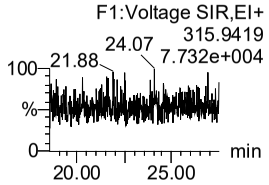
	Summary Flag Reason
149	

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

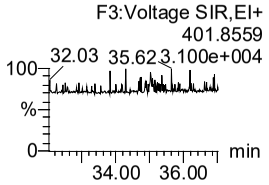
13C-1234-TCDD (JS)



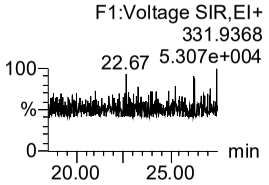
13C-1234-TCDF (JS)



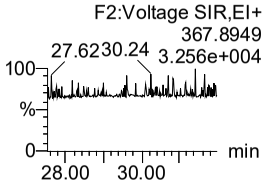
13C-123467-HxCDD (JS)



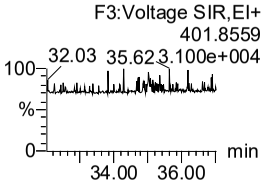
13C-2378-TCDD (ES)



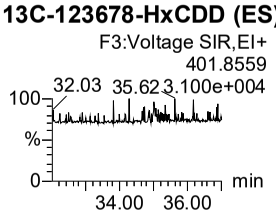
13C-12378-PeCDD (ES)



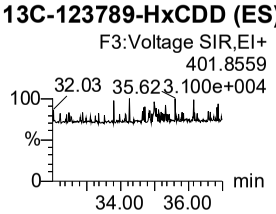
13C-123478-HxCDD (ES)



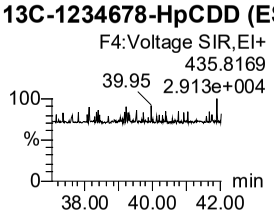
13C-123678-HxCDD (ES)



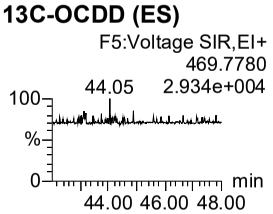
13C-123789-HxCDD (ES)



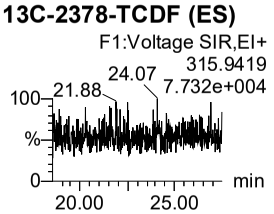
13C-1234678-HpCDD (ES)



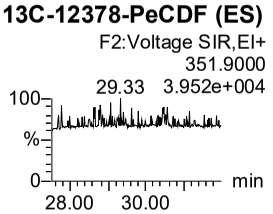
13C-OCDD (ES)



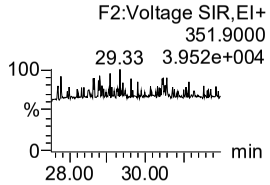
13C-2378-TCDF (ES)



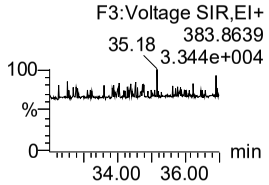
13C-12378-PeCDF (ES)



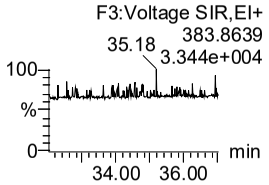
13C-23478-PeCDF (ES)



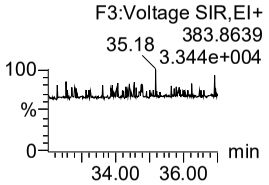
13C-123478-HxCDF (ES)



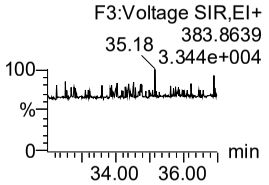
13C-123678-HxCDF (ES)



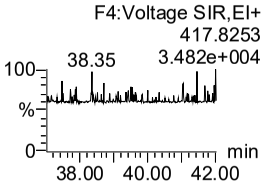
13C-234678-HxCDF (ES)



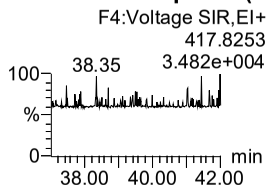
13C-123789-HxCDF (ES)



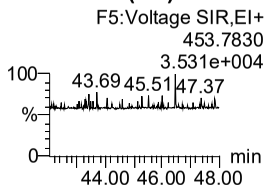
13C-1234678-HpCDF (ES)



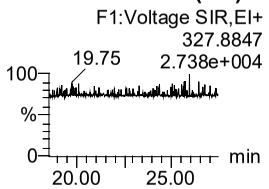
13C-1234789-HpCDF (ES)



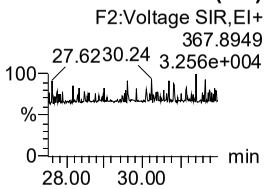
13C-OCDF (ES)



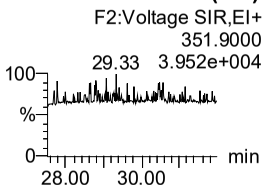
37Cl-2378-TCDD (CS)



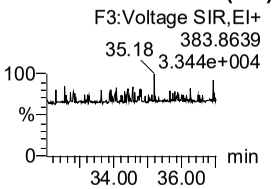
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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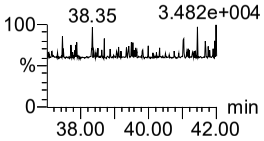
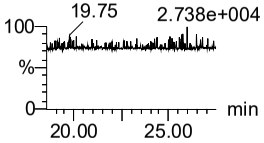
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

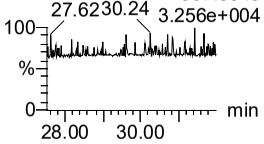
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+ 417.8253
38.35 3.482e+004



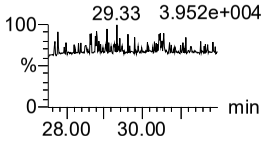
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+ 327.8847
19.75 2.738e+004



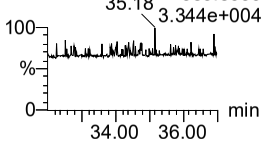
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+ 367.8949
27.62 30.24 3.256e+004



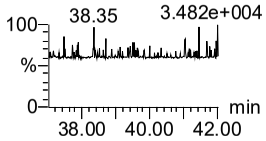
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+ 351.9000
29.33 3.952e+004



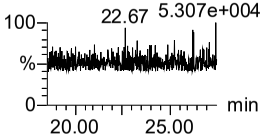
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+ 383.8639
35.18 3.344e+004



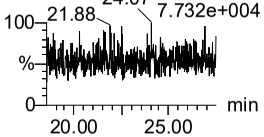
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+ 417.8253
38.35 3.482e+004



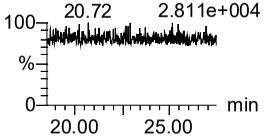
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+ 331.9368
22.67 5.307e+004



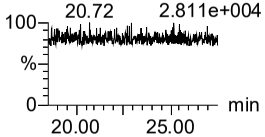
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+ 315.9419
21.88 24.07 7.732e+004



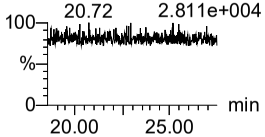
1368-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



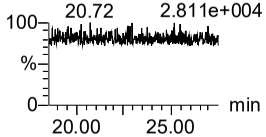
1379-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



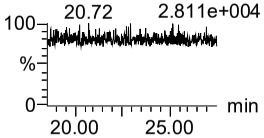
1369-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



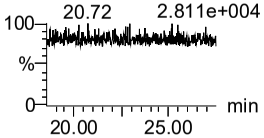
1469-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



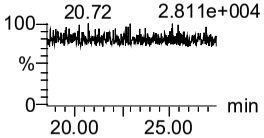
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



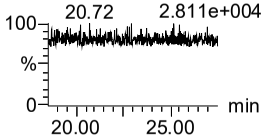
1378-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



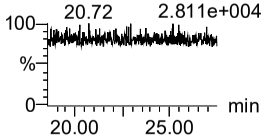
1268-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



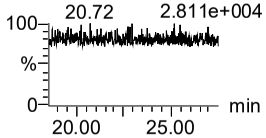
1478-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



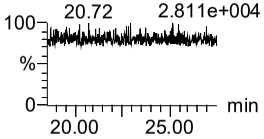
1279-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



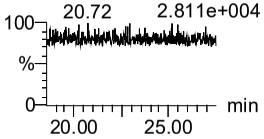
1234/1269-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



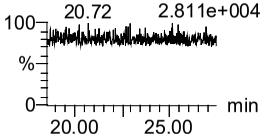
1236-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



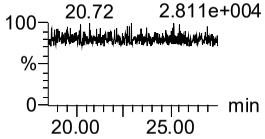
1237/1238-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



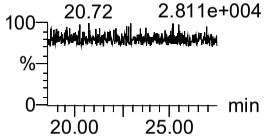
1239-TCDD [CE]
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



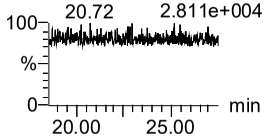
2378-TCDD (S)
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



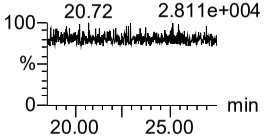
1278-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



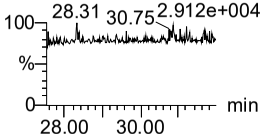
1267-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



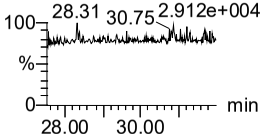
1289-TCDD
F1:Voltage SIR,EI+ 319.8965
20.72 2.811e+004



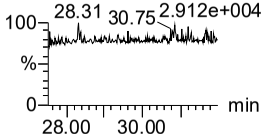
12479/12468-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



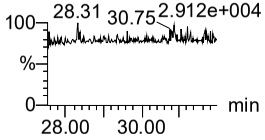
12469-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



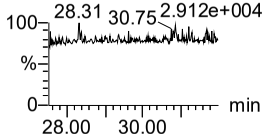
12368-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



12478-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



12379-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



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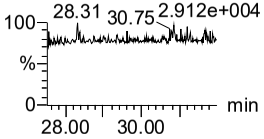
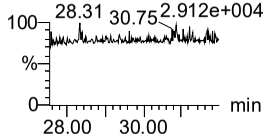
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

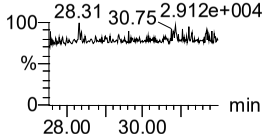
12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



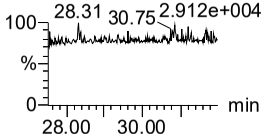
12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



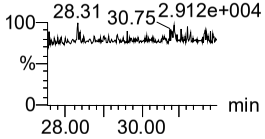
12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



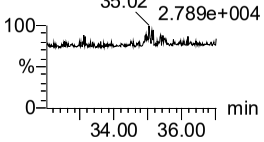
12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



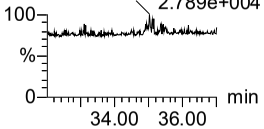
12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.31 30.75 2.912e+004



124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



123679/123689-HxCDD
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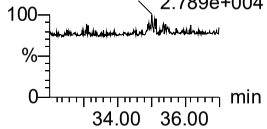
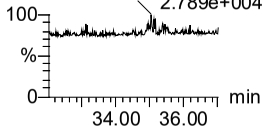
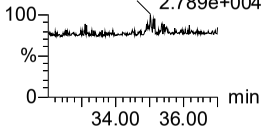
35.02 2.789e+004



123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



123678-HxCDD (S)
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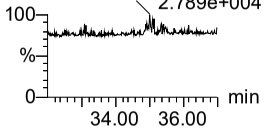
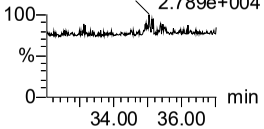
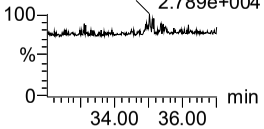
35.02 2.789e+004



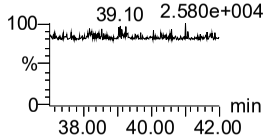
123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



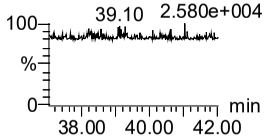
123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.02 2.789e+004



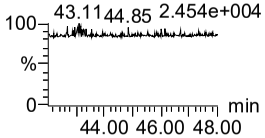
1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.10 2.580e+004



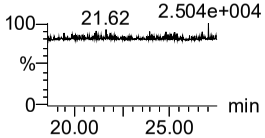
1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
39.10 2.580e+004



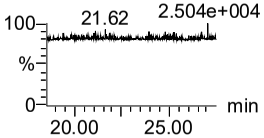
OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.11 44.85 2.454e+004



1368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



2468-TCDF
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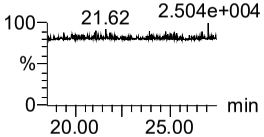
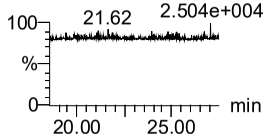
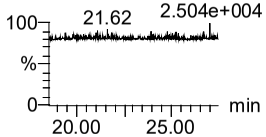
21.62 2.504e+004



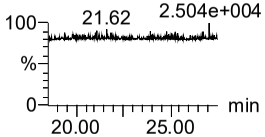
1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



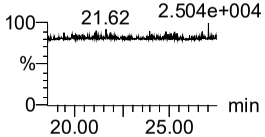
1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1348-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1268-TCDF
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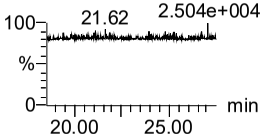
21.62 2.504e+004



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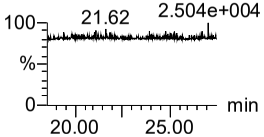
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1478-TCDF
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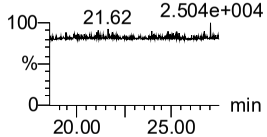
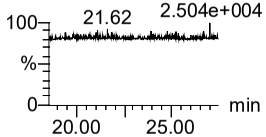
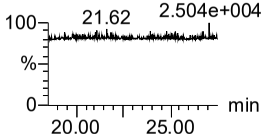
21.62 2.504e+004



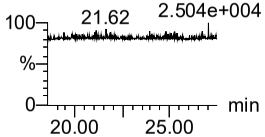
1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



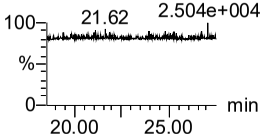
2467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



2368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
21.62 2.504e+004



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

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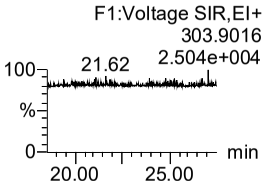

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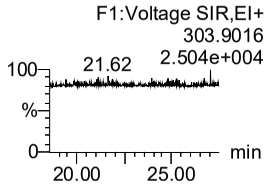

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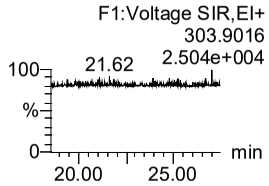

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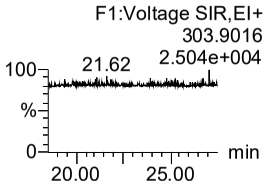
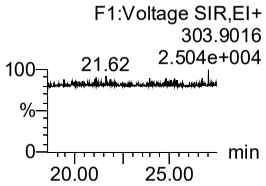
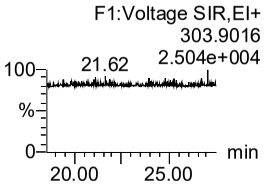


2347/1279-TCDF


2348-TCDF [CE]


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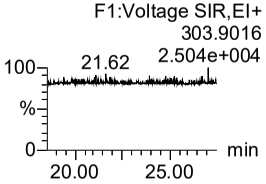
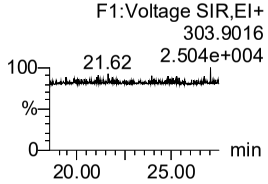
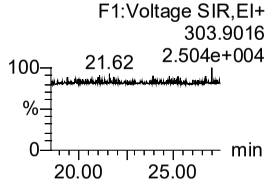
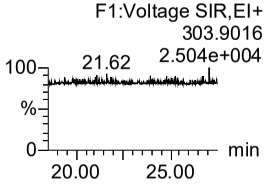


2367/3467-TCDF


1269-TCDF


1239-TCDF


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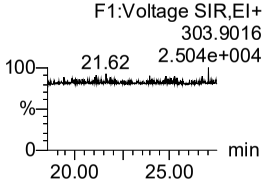
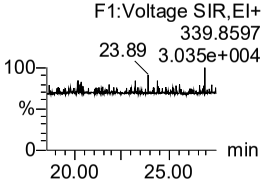


13468/12466-PeCDF


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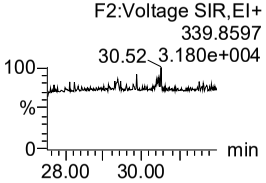

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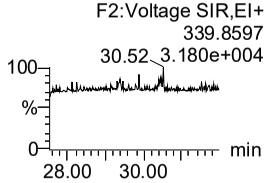

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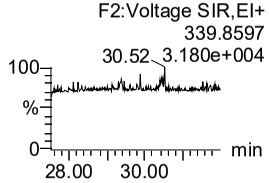
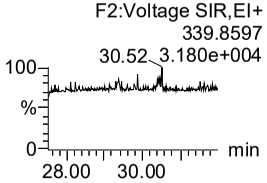


13479-PeCDF


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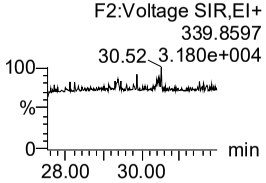
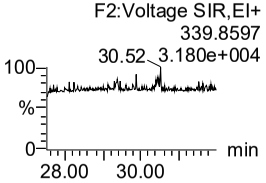
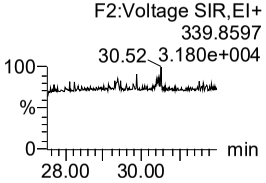


12346-PeCDF


23468/12469-PeCDF


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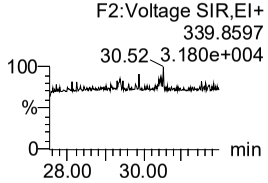

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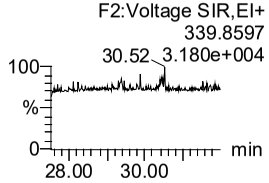

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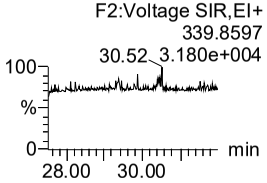

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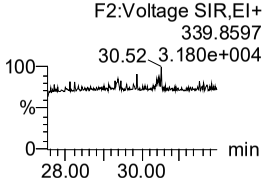

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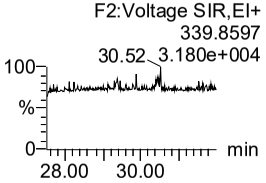
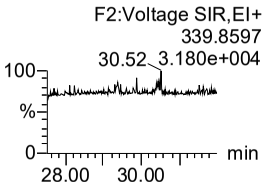
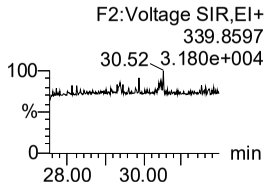
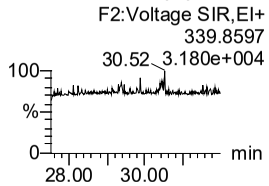
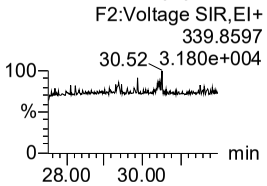
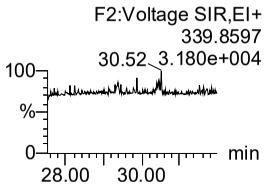


12679-PeCDF


23467/12369-PeCDF


23478-PeCDF (S)


12489-PeCDF (R)


12349-PeCDF


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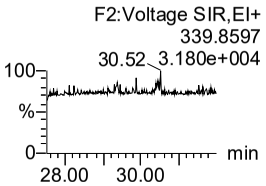
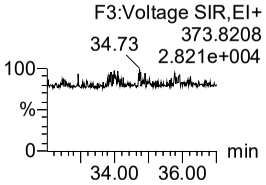


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

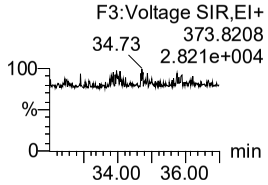
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

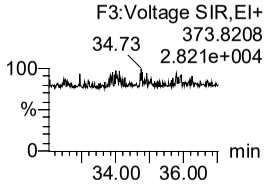
123468-HxCDF



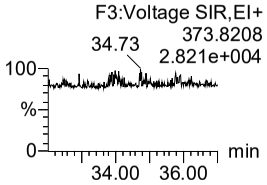
124678/134678-HxCDF



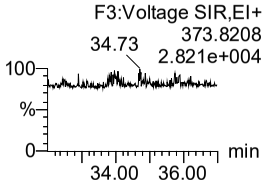
134679-HxCDF



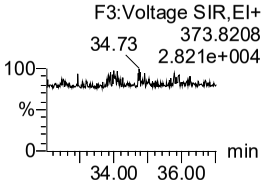
124679-HxCDF



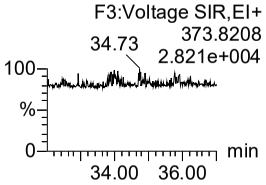
124689-HxCDF



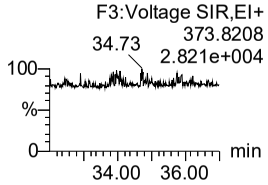
123467-HxCDF



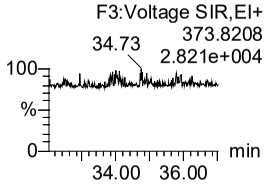
123478-HxCDF (S)



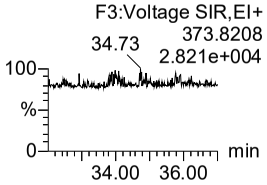
123678-HxCDF (S)



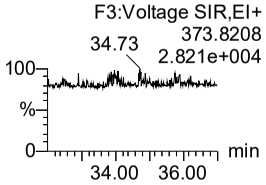
123479-HxCDF



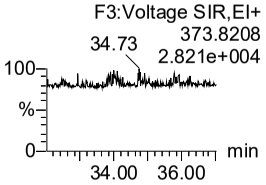
123469-HxCDF



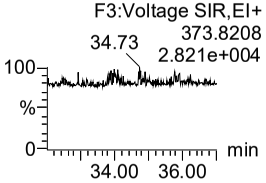
123679-HxCDF



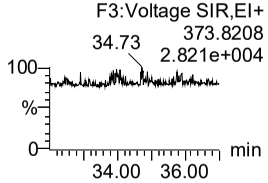
234678-HxCDF (S)



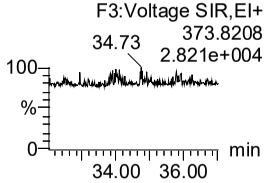
123689-HxCDF (NR)



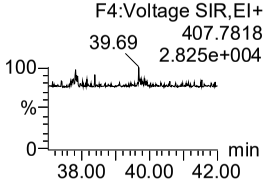
123789-HxCDF (S)



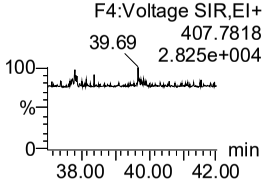
123489-HxCDF (R)



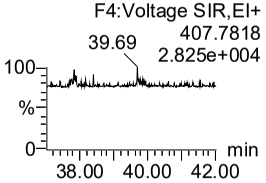
1234678-HpCDF (S)



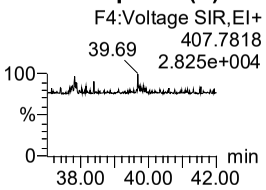
1234679-HpCDF



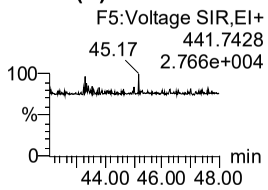
1234689-HpCDF



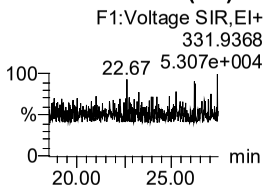
1234789-HpCDF (S)



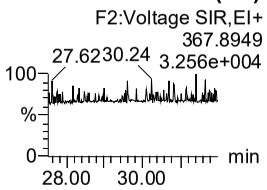
OCDF (S)



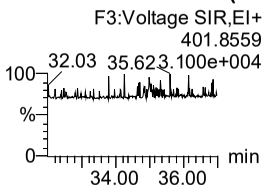
13C-1278-TCDD (FS)



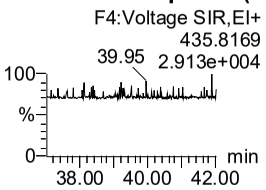
13C-12478-PeCDD (FS)



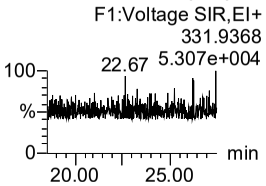
13C-123468-HxCDD (FS)



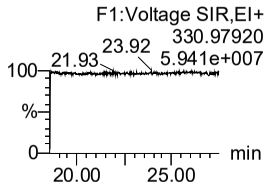
13C-1234679-HpCDD (FS)



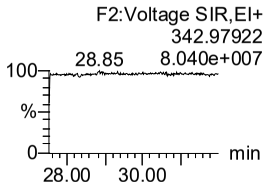
13C-1378-TCDD (TS)



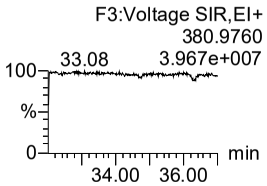
QC Check Ion Fn 1



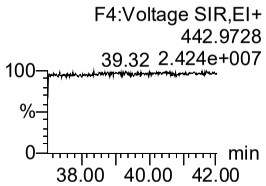
QC Check Ion Fn 2



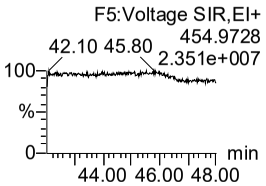
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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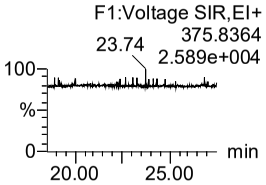
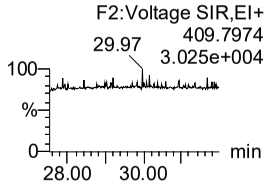
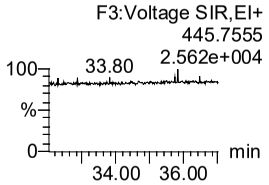
HxDPE



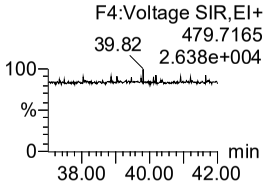
HpDPE



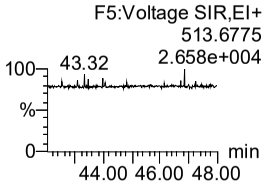
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780									G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830									G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965									G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965									G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546									G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766									G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766									G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377									G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016									G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016									G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016									G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428									G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032314B, Date: 07-Mar-2023, Time: 21:14:26, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
112	
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115	
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Quantify Sample Report **MassLynx 4.2 SCN1035**

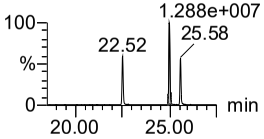
Dataset: J:\Instrument Data\Batches\14784- TRC\14784 MB only.qld

Last Altered: Wednesday, March 08, 2023 13:03:19 Eastern Standard Time
Printed: Wednesday, March 08, 2023 13:11:22 Eastern Standard Time

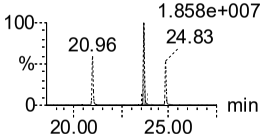
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8_03_03_23.mdb 07 Mar 2023 15:57:02
Calibration: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\G_DF_ICAL_05MAY22_calibration file reprocessed 8_23_22.cdb 23 Aug 2022 10:47:36

Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF, Description: MB-14784-DF

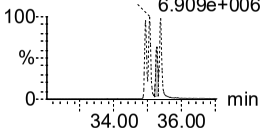
13C-1234-TCDD (JS)
F1:Voltage SIR,EI+
331.9368
1.288e+007
22.52
25.58



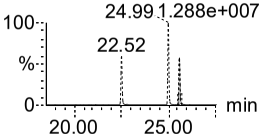
13C-1234-TCDF (JS)
F1:Voltage SIR,EI+
315.9419
1.858e+007
20.96
24.83



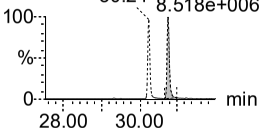
13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+
401.8559
35.03
6.909e+006



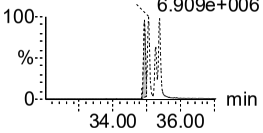
13C-2378-TCDD (ES)
F1:Voltage SIR,EI+
331.9368
24.99
1.288e+007
22.52



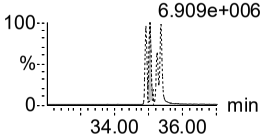
13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+
367.8949
30.24
8.518e+006



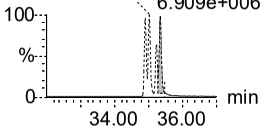
13C-123478-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.03
6.909e+006



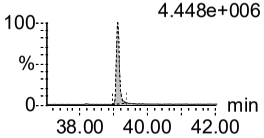
13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
6.909e+006



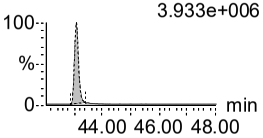
13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.03
6.909e+006



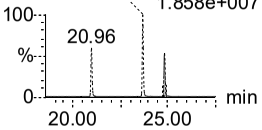
13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+
435.8169
4.448e+006



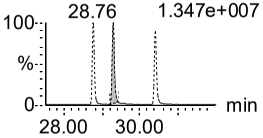
13C-OCDD (ES)
F5:Voltage SIR,EI+
469.7780
3.933e+006



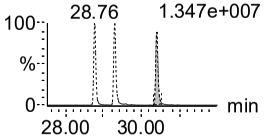
13C-2378-TCDF (ES)
F1:Voltage SIR,EI+
315.9419
23.68
1.858e+007
20.96



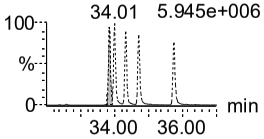
13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
28.76
1.347e+007



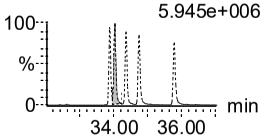
13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
28.76
1.347e+007



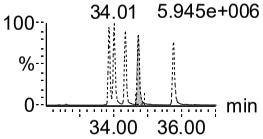
13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01
5.945e+006



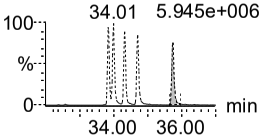
13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
5.945e+006



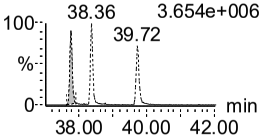
13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01
5.945e+006



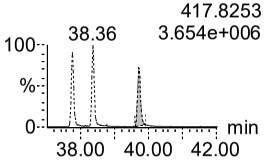
13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.01
5.945e+006



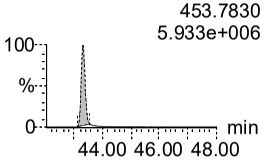
13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
38.36
3.654e+006
39.72



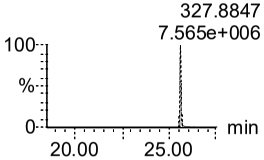
13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
38.36
3.654e+006



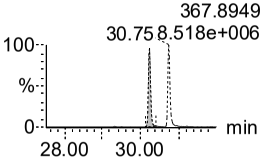
13C-OCDF (ES)
F5:Voltage SIR,EI+
453.7830
5.933e+006



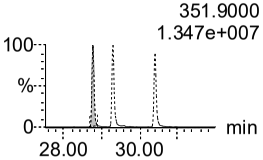
37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+
327.8847
7.565e+006



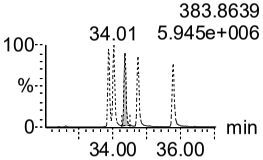
13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+
367.8949
30.75
8.518e+006



13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+
351.9000
1.347e+007



13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+
383.8639
34.01
5.945e+006



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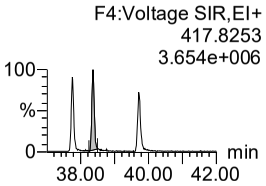
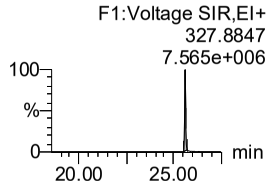
Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF, Description: MB-14784-DF

13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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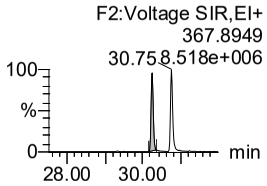

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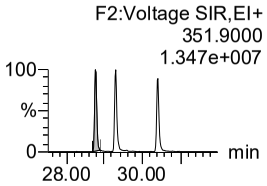
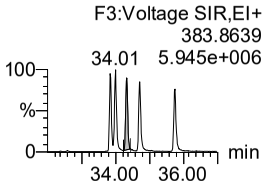


13C-123469-HxCDF (SS)



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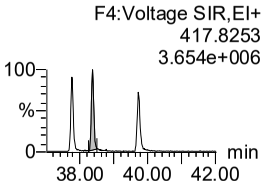
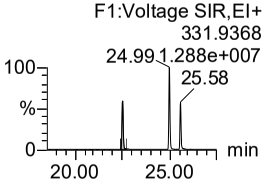
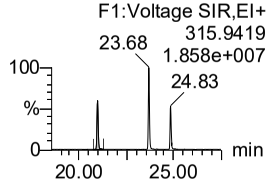


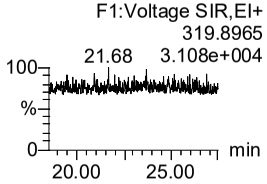
13C-1368-TCDD (AS)



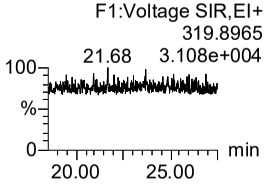
13C-1368-TCDF (AS)



1368-TCDD



1379-TCDD



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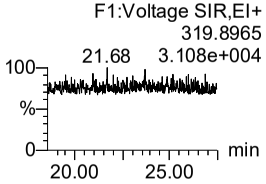

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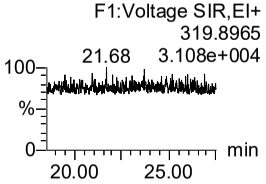
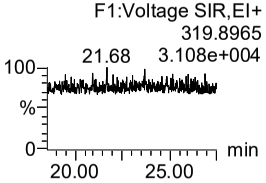


1247/1246/1248/1249-TCDI



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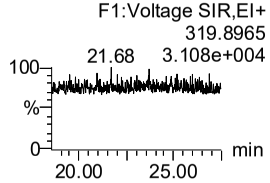
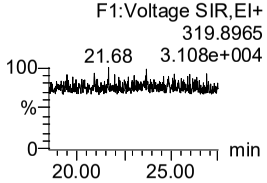
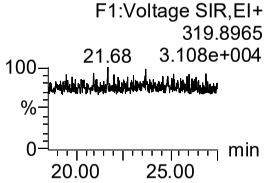


1268-TCDD



1478-TCDD



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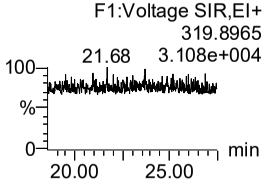
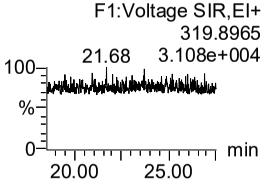
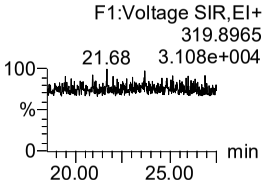


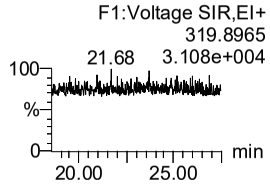
1234/1269-TCDD



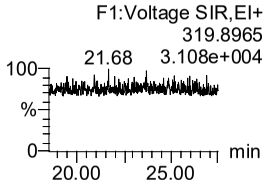
1236-TCDD



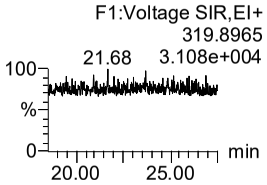
1237/1238-TCDD



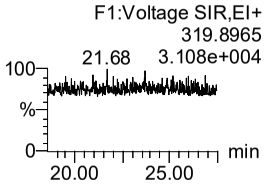
1239-TCDD [CE]



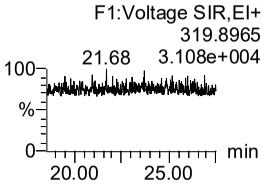
2378-TCDD (S)



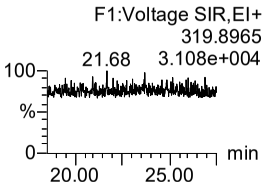
1278-TCDD



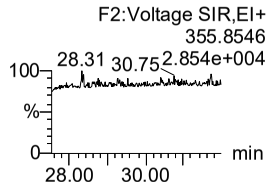
1267-TCDD



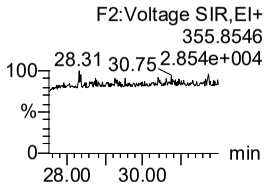
1289-TCDD



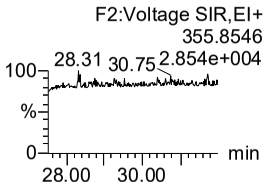
12479/12468-PeCDD



12469-PeCDD



12368-PeCDD



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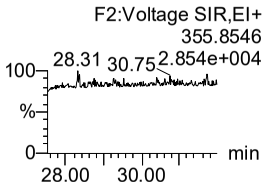
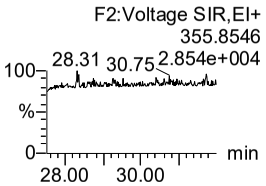


12379-PeCDD



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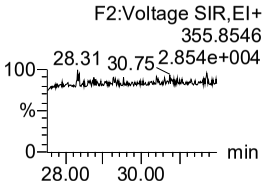
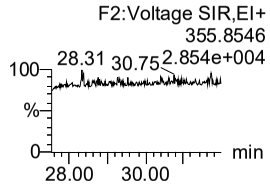
12369/12467/12489-PeCDD



12346/12347-PeCDD



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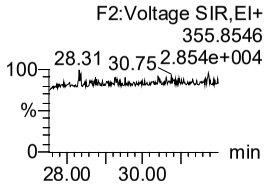
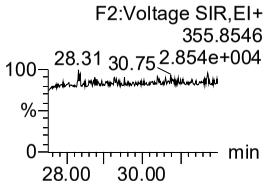
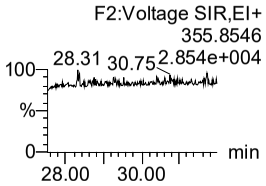


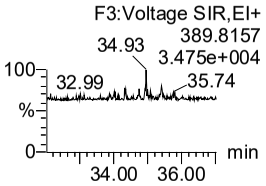
12367-PeCDD



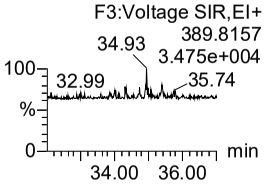
12389-PeCDD



124679/124689-HxCDD



123468-HxCDD



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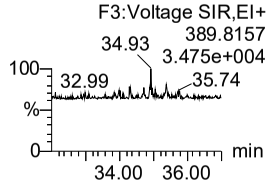

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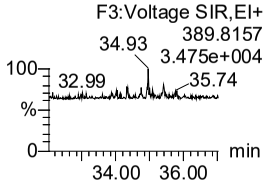

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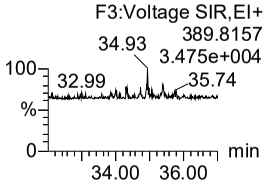

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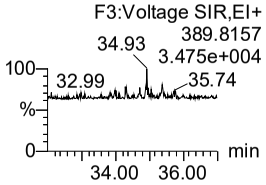

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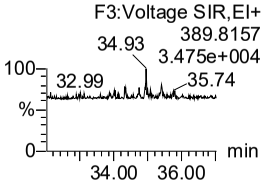

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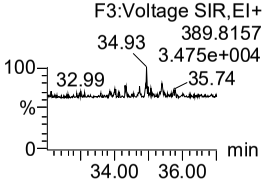

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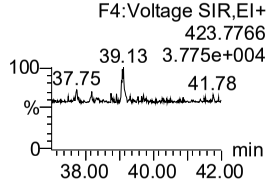

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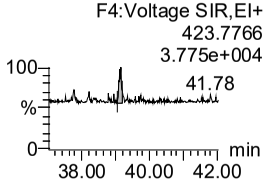

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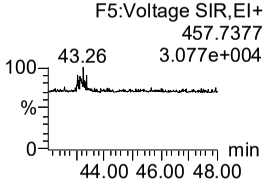

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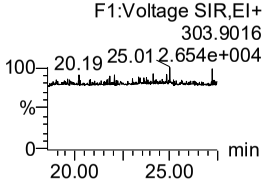

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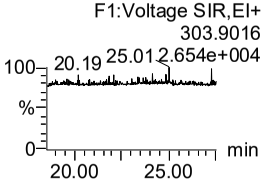

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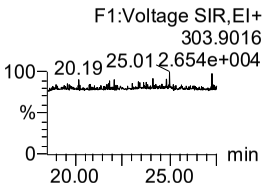

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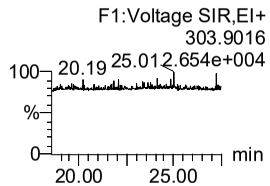
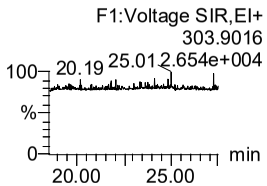


1347/1378/1247-TCDF



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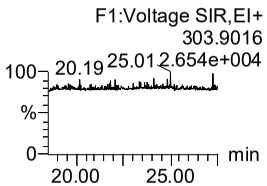

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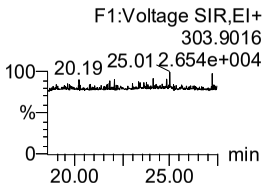

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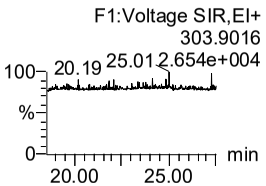

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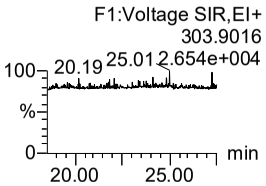

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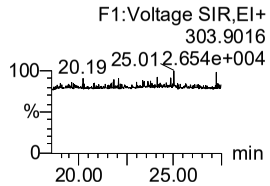

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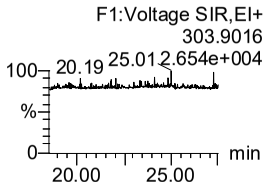

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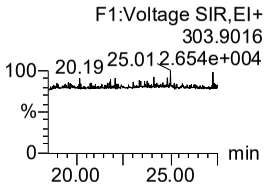

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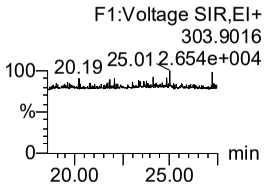

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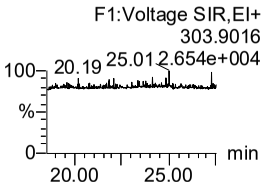

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Printed: Wednesday, March 08, 2023 13:11:22 Eastern Standard Time

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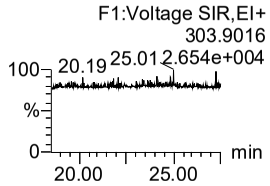
1278-TCDF



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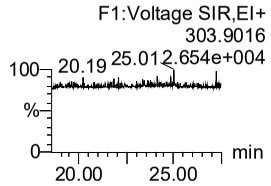

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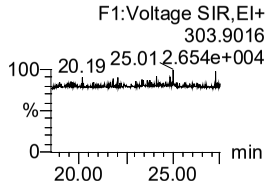

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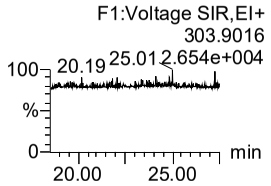

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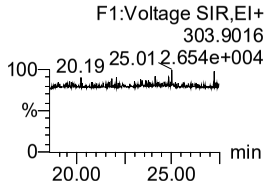
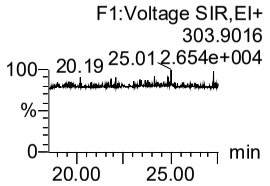


2348-TCDF [CE]



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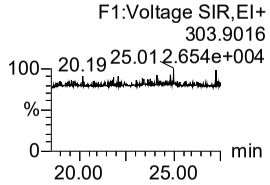

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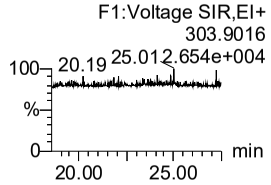

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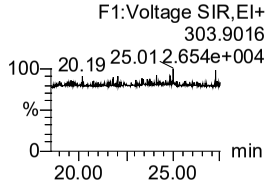

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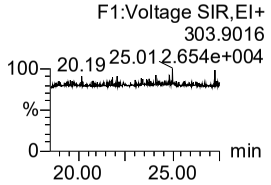

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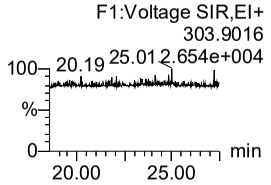

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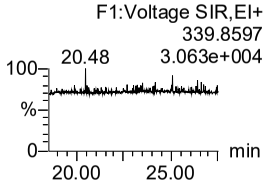

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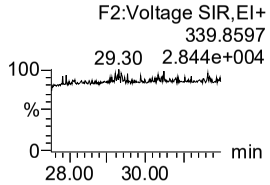

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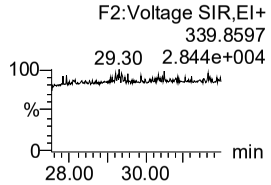

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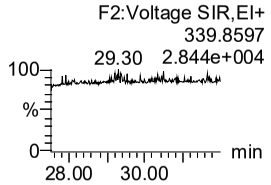

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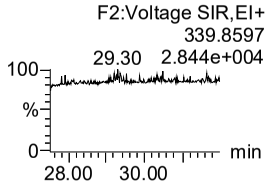

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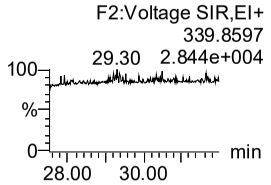

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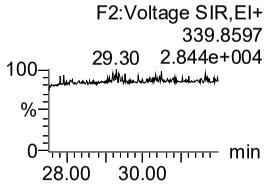

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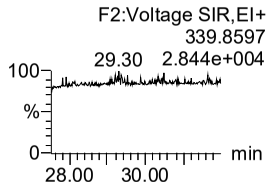

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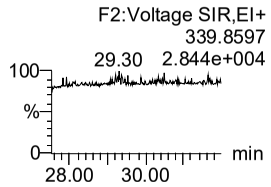

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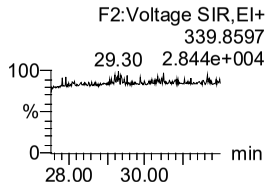

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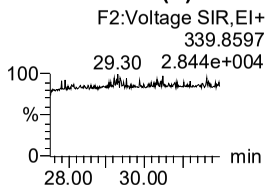

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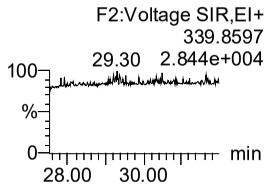

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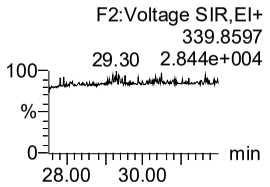

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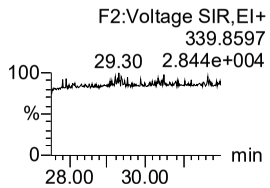

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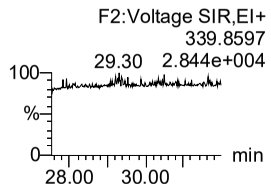

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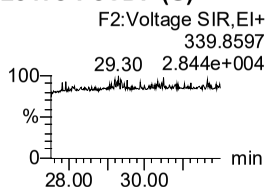

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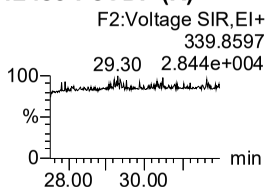
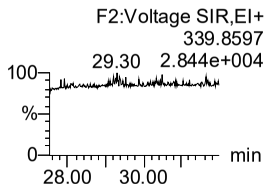
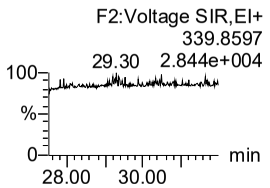


12349-PeCDF



12389-PeCDF



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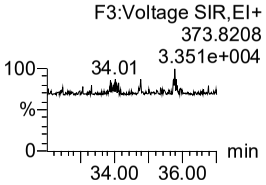
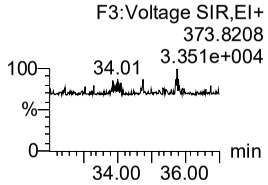
123468-HxCDF



124678/134678-HxCDF



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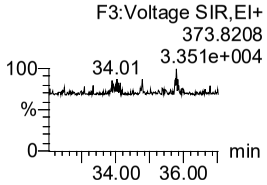

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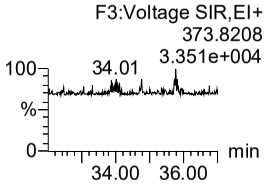

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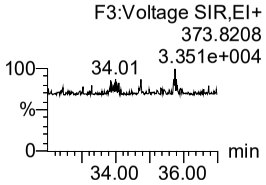

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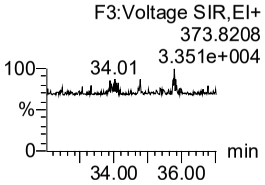

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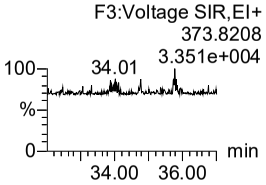

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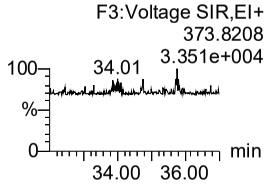

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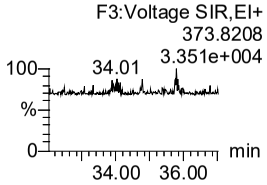
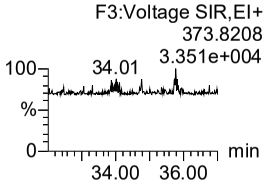
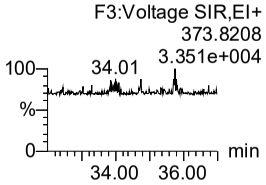


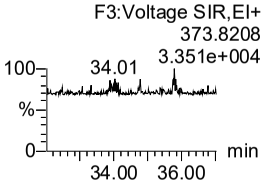
123469-HxCDF



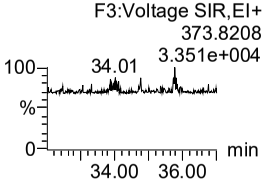
123679-HxCDF



234678-HxCDF (S)



123689-HxCDF (NR)



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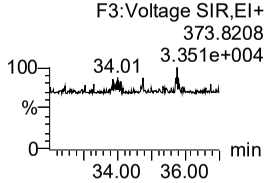

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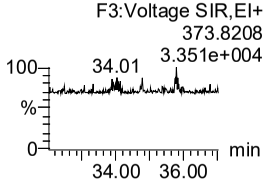
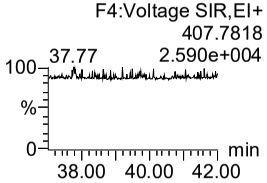


1234678-HpCDF (S)



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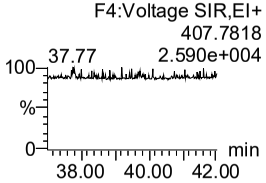
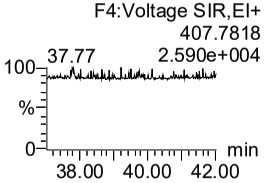


1234689-HpCDF



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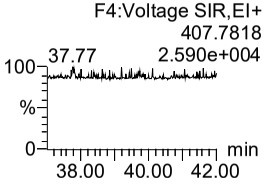
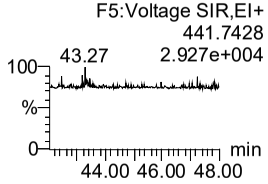
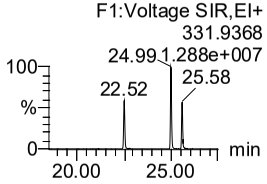


OCDF (S)



13C-1278-TCDD (FS)



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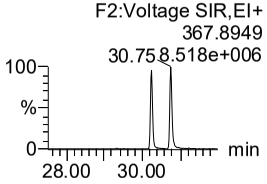

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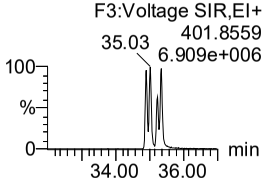

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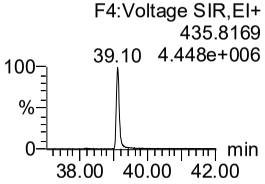

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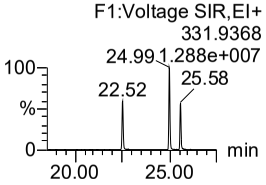
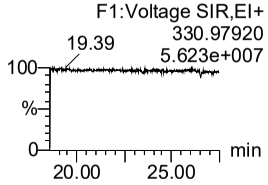
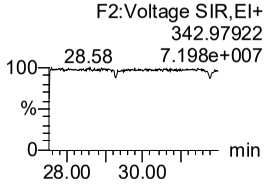


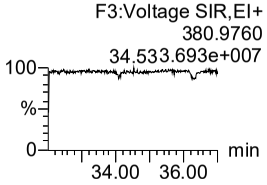
QC Check Ion Fn 1



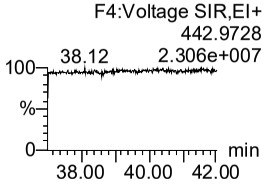
QC Check Ion Fn 2



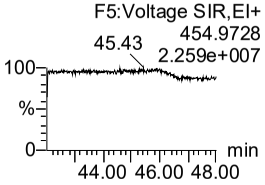
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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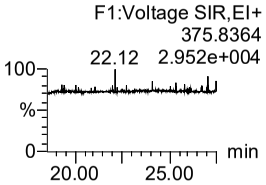
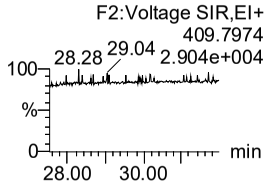
Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF, Description: MB-14784-DF

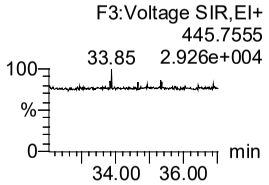
HxDPE



HpDPE



OcDPE



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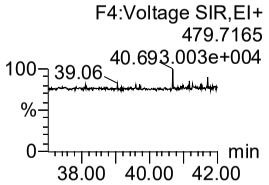

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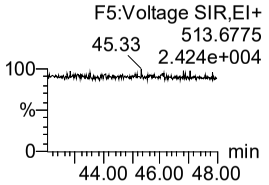

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Last Altered: Wednesday, March 08, 2023 13:03:19 Eastern Standard Time
Printed: Wednesday, March 08, 2023 13:11:22 Eastern Standard Time

Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF, Description: MB-14784-DF

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1	1	13C-1234-TCDD (JS)	331.9368	24.99	845783.938	1081621.7...		1927405.688	MM	134.3	34.3	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	1209825.875	1529049.5...		2738875.375	bb	141.6	41.6	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	275604.688	222510.609		498115.297	bd	48.3	-3.5	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	490438.125	622487.313	845783.938	57.742	bb	123.0	23.0	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	579863.750	372883.969	845783.938	49.432	bb	121.1	21.1	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	440441.594	345224.750	275604.688	78.864	bd	150.9	50.9	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	474727.125	381402.906	275604.688	85.937	db	174.3	74.3	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	487141.813	388623.406	275604.688	87.908	db	158.1	58.1	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	439393.500	414223.938	275604.688	85.685	bb	186.4	86.4	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.09	623257.563	680424.938	275604.688	130.862	bb	352.2	76.1	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	649237.438	841841.813	1209825.875	54.441	bb	110.0	10.0	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.30	896933.250	563840.750	1209825.875	53.335	bb	121.3	21.3	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.42	827493.125	507938.469	1209825.875	48.758	bb	114.9	14.9	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	365673.281	697418.125	275604.688	106.711	bd	180.7	80.7	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	409604.938	775015.938	275604.688	118.910	db	167.4	67.4	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	371039.250	722730.313	275604.688	109.791	bb	170.0	70.0	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	354273.406	668607.188	275604.688	102.675	bb	174.1	74.1	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	273695.656	610300.938	275604.688	88.734	bb	183.4	83.4	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	255315.281	566432.438	275604.688	82.486	bb	189.0	89.0	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.31	902428.438	1007651.1...	275604.688	191.731	bb	421.0	110.5	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	485884.875		845783.938	25.209	bb	44.2	10.6	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	534929.688	338116.969	845783.938	45.296	bb	104.1	4.1	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	865399.813	540942.313	1209825.875	51.347	bb	119.4	19.4	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	363889.281	694332.875	275604.688	106.223	bb	164.7	64.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	279982.625	622866.688	275604.688	90.627	bb	183.1	83.1	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	485884.875		490438.125	43.658	bb	72.2	80.4	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	518220.906	333748.563	579863.750	89.422	bb	170.3	70.3	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	865399.813	540942.313	896933.250	96.274	bb	185.1	85.1	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	353174.781	678834.875	409604.938	87.117	bb	191.5	91.5	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	279982.625	622866.688	273695.656	102.133	bb	210.6	110.6	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.52	548615.063	677336.938	845783.938	63.606	bb	123.5	23.5	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	819715.250	1043361.5...	1209825.875	68.023	bb	124.8	24.8	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				490438.125					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				579863.750					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				440441.594					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				440441.594					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				440441.594					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				440441.594					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				440441.594					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				474727.125					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				487141.813					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				487141.813					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				439393.500					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.13	1283.866	1318.286	439393.500	0.305	MM	0.6		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				623257.563					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				649237.438					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				896933.250					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				827493.125					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208				365673.281					G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				409604.938					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				409604.938					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				371039.250					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				371039.250					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208				371039.250					G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				371039.250					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				354273.406					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				354273.406					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818				273695.656					G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				273695.656					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				273695.656					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				255315.281					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				902428.438					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				490438.125					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				579863.750					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				275604.688					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				439393.500					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				490438.125					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
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	Summary Flag Reason
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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 MB only.qld

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Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF, Description: MB-14784-DF

	Summary Flag Reason
149	

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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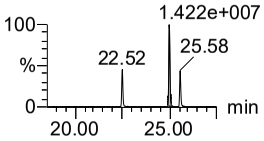
Name: G07032315B, Date: 07-Mar-2023, Time: 22:05:46, ID: MB-14784-DF/PAH, Description: MB-14784-DF/PAH

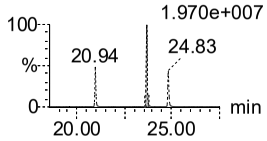
	Summary Flag Reason
149	

Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

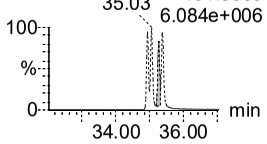
13C-1234-TCDD (JS)
F1:Voltage SIR,EI+
331.9368
1.422e+007



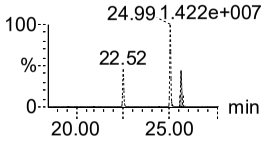
13C-1234-TCDF (JS)
F1:Voltage SIR,EI+
315.9419
1.970e+007



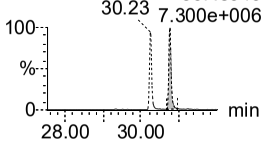
13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+
401.8559
6.084e+006



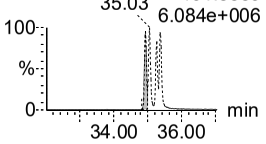
13C-2378-TCDD (ES)
F1:Voltage SIR,EI+
331.9368
1.422e+007



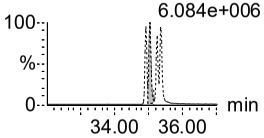
13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+
367.8949
7.300e+006



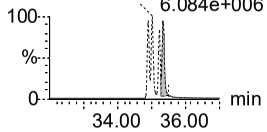
13C-123478-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
6.084e+006



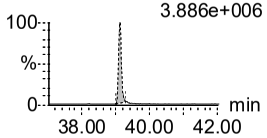
13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
6.084e+006



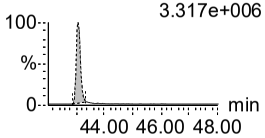
13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
6.084e+006



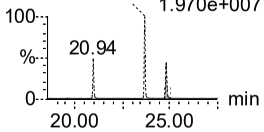
13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+
435.8169
3.886e+006



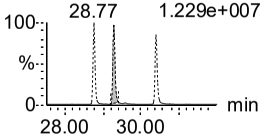
13C-OCDD (ES)
F5:Voltage SIR,EI+
469.7780
3.317e+006



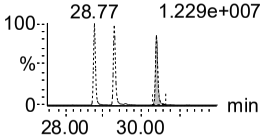
13C-2378-TCDF (ES)
F1:Voltage SIR,EI+
315.9419
1.970e+007



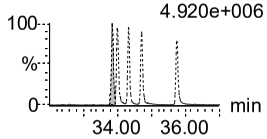
13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
1.229e+007



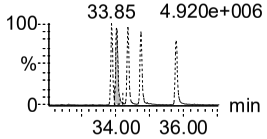
13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
1.229e+007



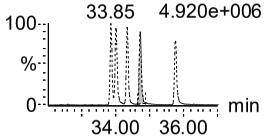
13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
4.920e+006



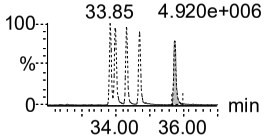
13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
4.920e+006



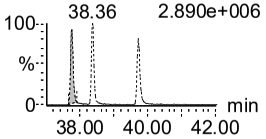
13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
4.920e+006



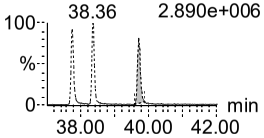
13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
4.920e+006



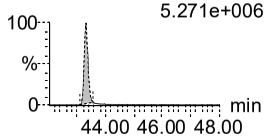
13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
2.890e+006



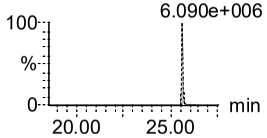
13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
2.890e+006



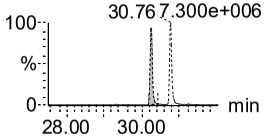
13C-OCDF (ES)
F5:Voltage SIR,EI+
453.7830
5.271e+006



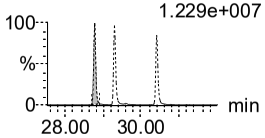
37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+
327.8847
6.090e+006



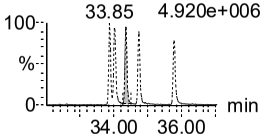
13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+
367.8949
7.300e+006



13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+
351.9000
1.229e+007



13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+
383.8639
4.920e+006



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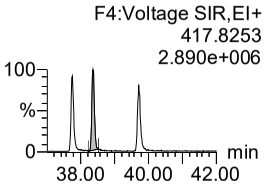
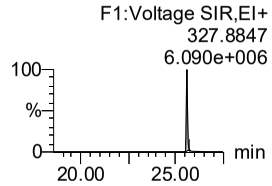
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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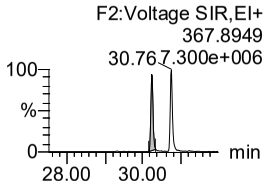

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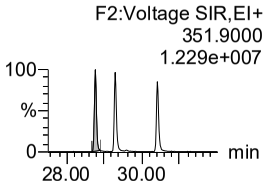
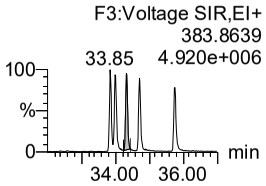


13C-123469-HxCDF (SS)



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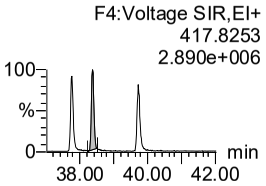

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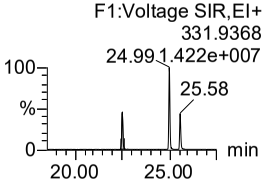
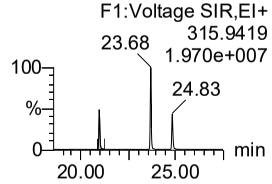
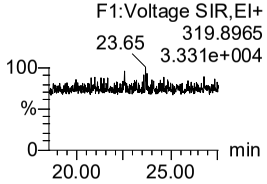


13C-1368-TCDF (AS)



1368-TCDD



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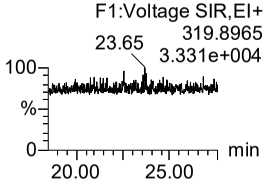
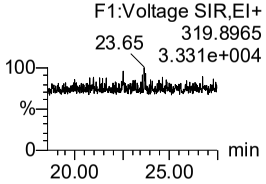
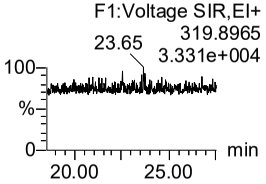


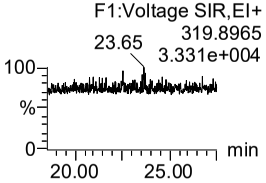
1369-TCDD



1469-TCDD



1247/1246/1248/1249-TCDI



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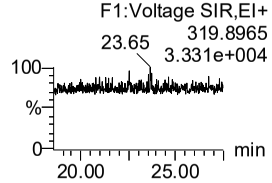

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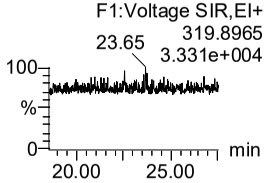

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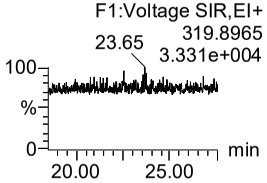

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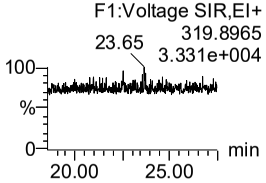
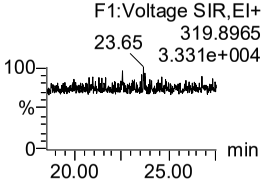
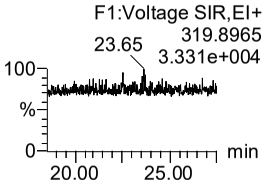


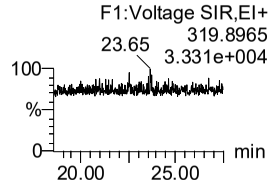
1234/1269-TCDD



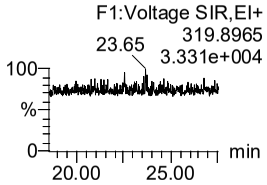
1236-TCDD



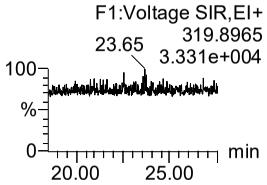
1237/1238-TCDD



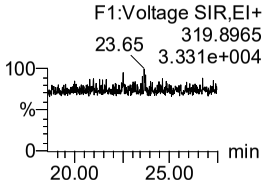
1239-TCDD [CE]



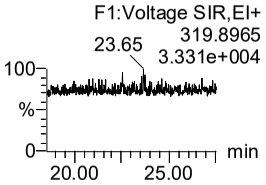
2378-TCDD (S)



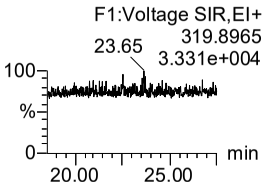
1278-TCDD



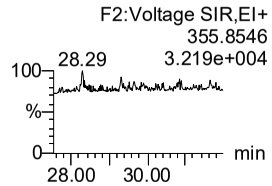
1267-TCDD



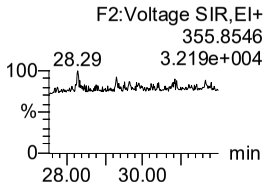
1289-TCDD



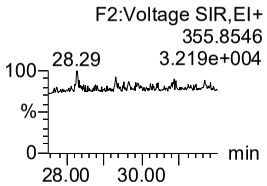
12479/12468-PeCDD



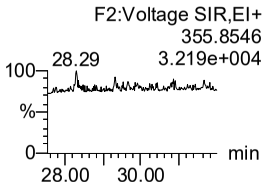
12469-PeCDD



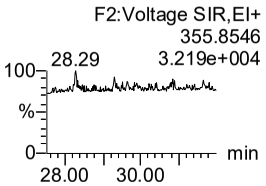
12368-PeCDD



12478-PeCDD



12379-PeCDD



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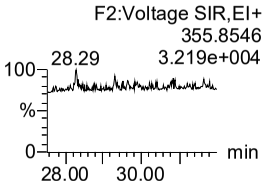
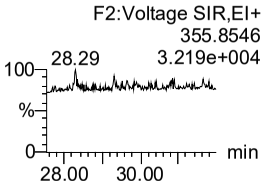
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

12369/12467/12489-PeCDD



12346/12347-PeCDD



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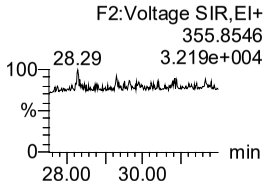
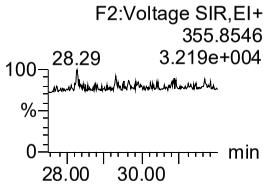
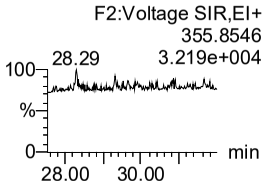


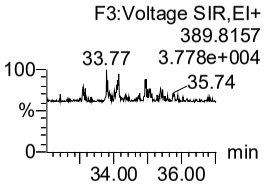
12367-PeCDD



12389-PeCDD



124679/124689-HxCDD



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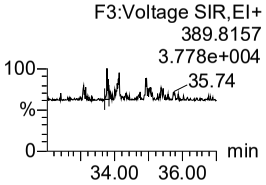

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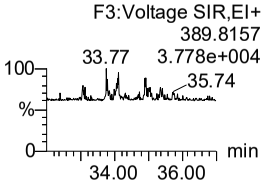
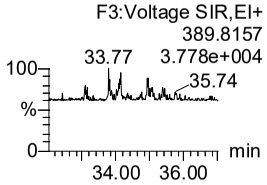


123469-HxCDD



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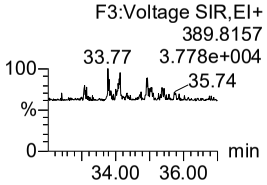

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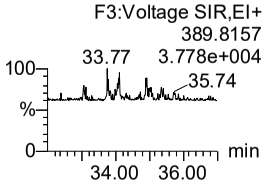

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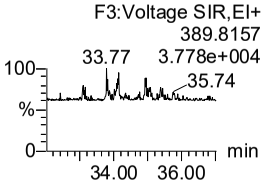
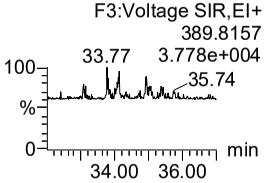


123789-HxCDD (S)



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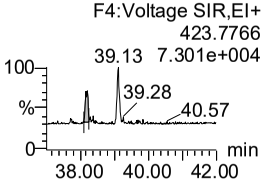
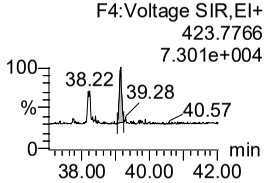
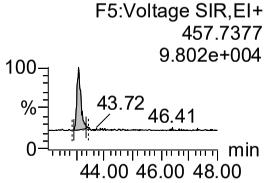


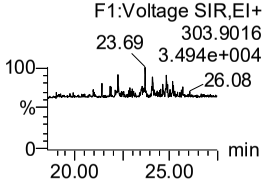
1234678-HpCDD (S)



OCDD (S)



1368-TCDF



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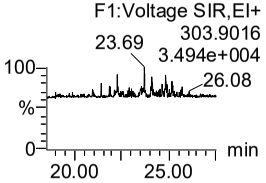

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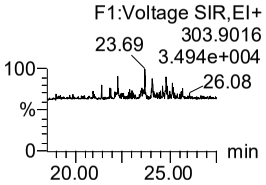
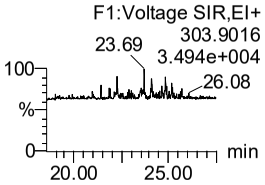
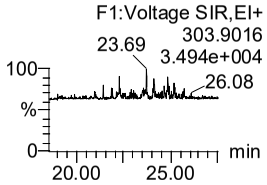


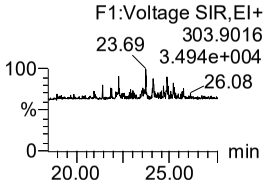
1346/1246-TCDF



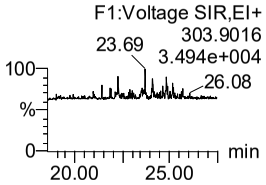
1347/1378/1247-TCDF



1348-TCDF



1248/1367/1379-TCDF



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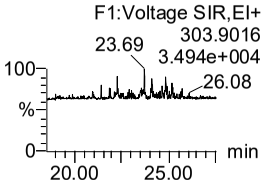

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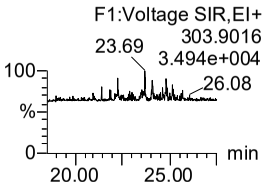
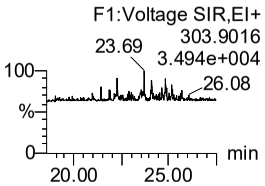
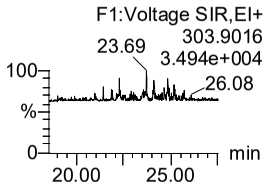


1478-TCDF



1369/1237-TCDF



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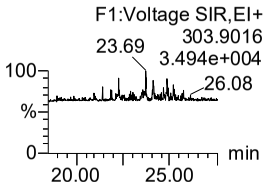

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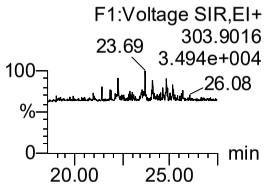

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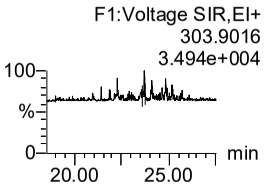

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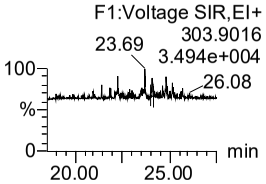
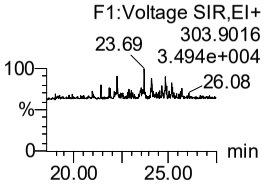
Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

1278-TCDF



1349-TCDF



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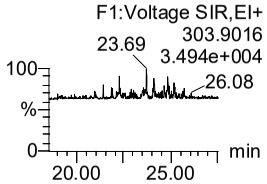
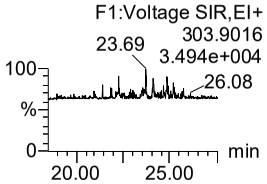
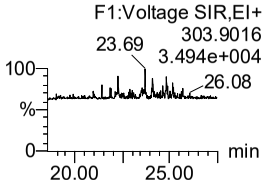


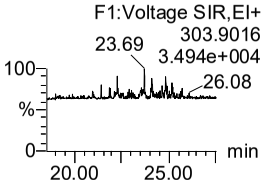
2346/1249-TCDF



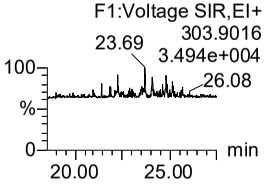
2347/1279-TCDF



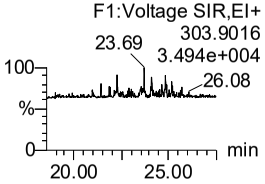
2348-TCDF [CE]



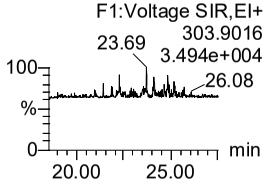
2378-TCDF (S)



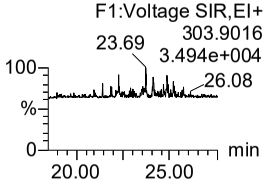
2367/3467-TCDF



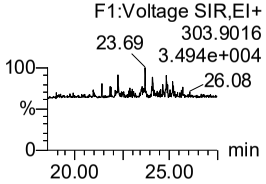
1269-TCDF



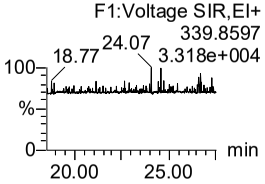
1239-TCDF



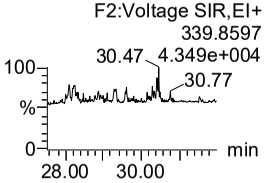
1289-TCDF



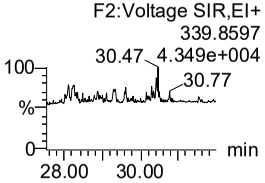
13468/12466-PeCDF



13678/13467/12467-PeCDF



12368/13478/12478-PeCDF



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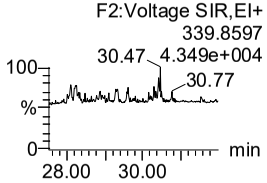
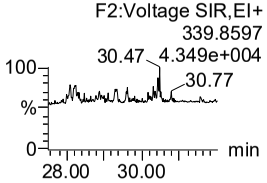
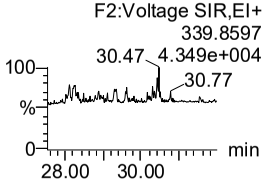


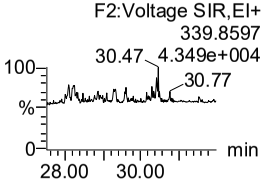
13479-PeCDF



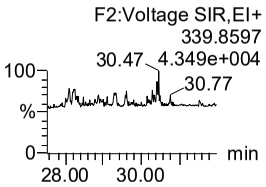
13469/12479-PeCDF



12346-PeCDF



23468/12469-PeCDF



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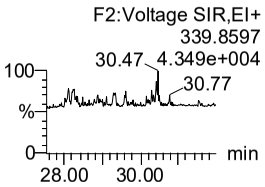
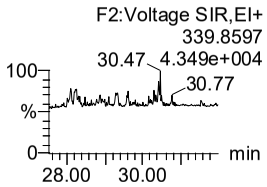
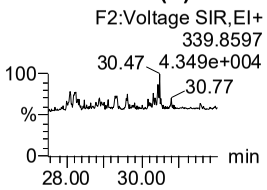


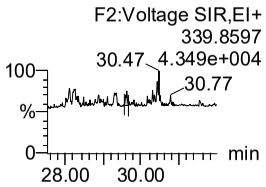
12348-PeCDF



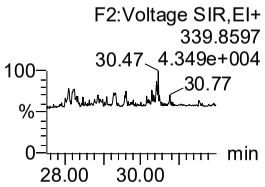
12378-PeCDF (S)



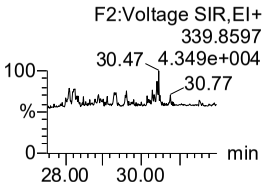
12678/12367-PeCDF



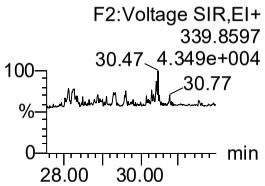
12379-PeCDF



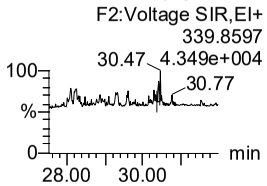
12679-PeCDF



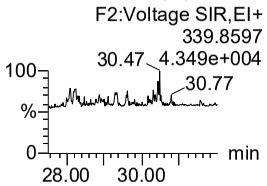
23467/12369-PeCDF



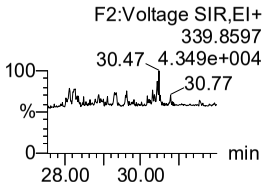
23478-PeCDF (S)



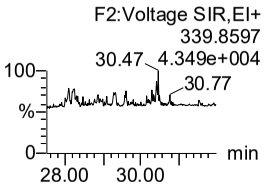
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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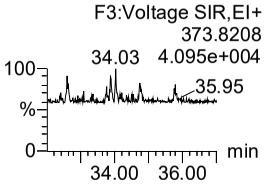
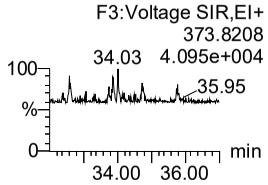
Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

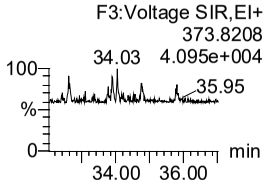
123468-HxCDF



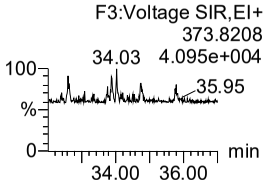
124678/134678-HxCDF



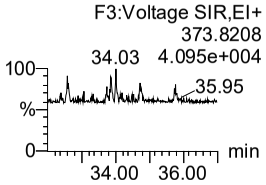
134679-HxCDF



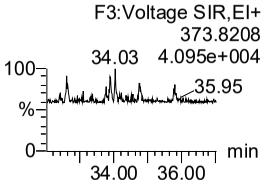
124679-HxCDF



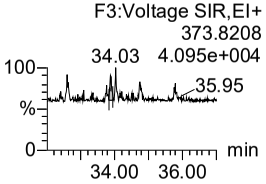
124689-HxCDF



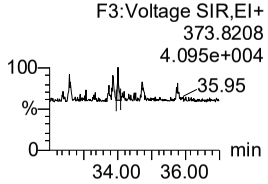
123467-HxCDF



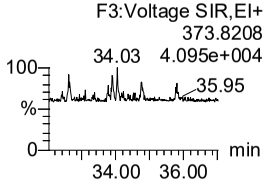
123478-HxCDF (S)



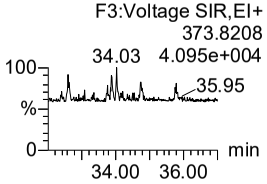
123678-HxCDF (S)



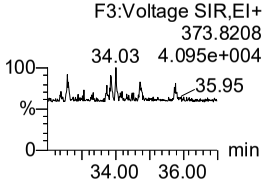
123479-HxCDF



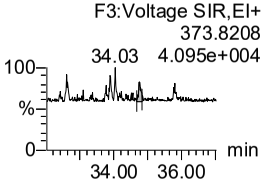
123469-HxCDF



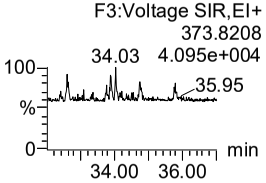
123679-HxCDF



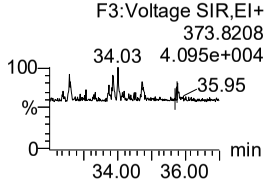
234678-HxCDF (S)



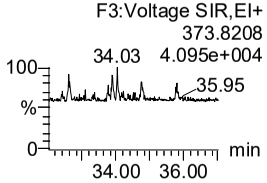
123689-HxCDF (NR)



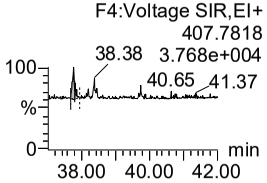
123789-HxCDF (S)



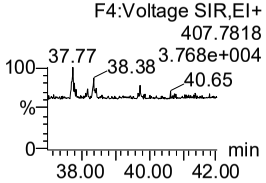
123489-HxCDF (R)



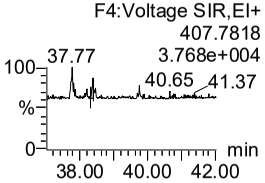
1234678-HpCDF (S)



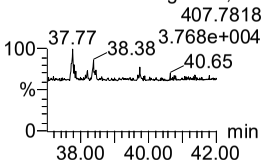
1234679-HpCDF



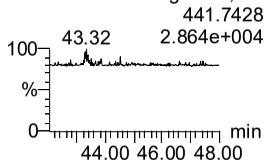
1234689-HpCDF



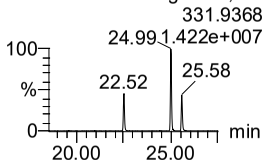
1234789-HpCDF (S)



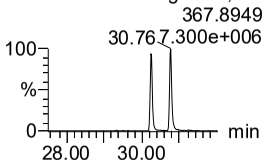
OCDF (S)



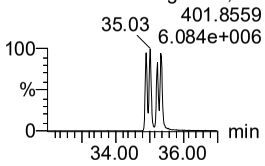
13C-1278-TCDD (FS)



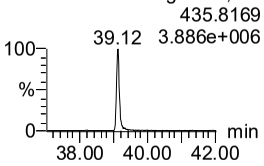
13C-12478-PeCDD (FS)



13C-123468-HxCDD (FS)



13C-1234679-HpCDD (FS)



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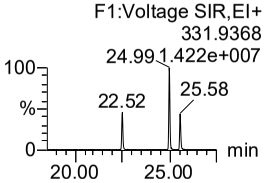
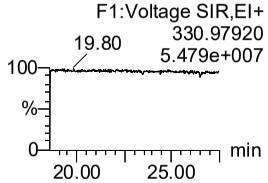
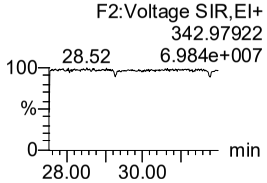


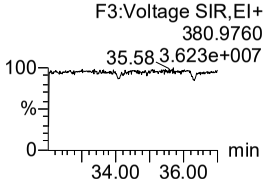
QC Check Ion Fn 1



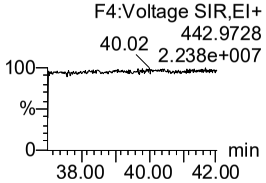
QC Check Ion Fn 2



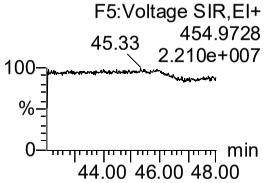
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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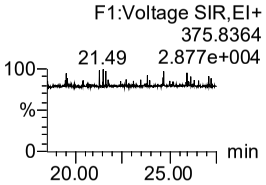
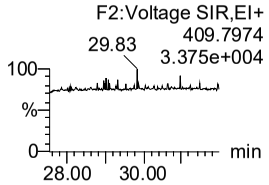
Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

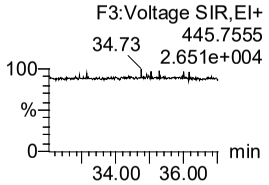
HxDPE



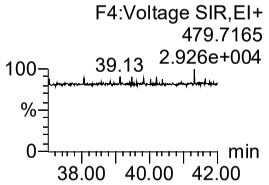
HpDPE



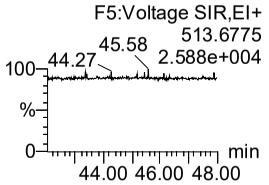
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.99	931006.625	1143401.7...		2074408.375	MM	144.5	44.5	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	1306702.500	1635645.2...		2942347.750	MM	152.1	52.1	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	299191.250	258008.797		557200.047	bd	54.0	8.0	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	422856.594	530490.625	931006.625	45.958	bb	97.9	-2.1	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.76	495491.438	311131.719	931006.625	38.884	bb	95.2	-4.8	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	394567.969	319502.469	299191.250	64.077	bd	122.6	22.6	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	441667.938	349156.188	299191.250	70.964	dd	143.9	43.9	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.35	447502.063	311743.250	299191.250	68.130	db	122.6	22.6	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	362221.031	332271.125	299191.250	62.320	bb	135.6	35.6	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.06	546428.938	602816.938	299191.250	103.127	bb	277.5	38.8	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	581205.688	732650.563	1306702.500	44.653	bb	90.2	-9.8	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	752809.625	491085.500	1306702.500	42.276	bb	96.2	-3.8	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	715325.563	441532.188	1306702.500	39.318	bb	92.6	-7.4	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	319698.094	596859.875	299191.250	82.247	bd	139.3	39.3	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.00	351175.313	664015.875	299191.250	91.098	db	128.3	28.3	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.72	310628.000	606317.500	299191.250	82.282	bb	127.4	27.4	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	308991.594	567810.500	299191.250	78.679	bb	133.4	33.4	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	230274.922	519118.219	299191.250	67.246	bb	139.0	39.0	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	222572.656	488479.969	299191.250	63.806	bb	146.2	46.2	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.31	783219.063	893012.875	299191.250	150.416	bb	330.3	65.2	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	417134.094		931006.625	20.109	bb	35.3	-11.8	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.23	455944.094	285981.781	931006.625	35.766	bb	82.2	-17.8	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.77	739333.500	454153.594	1306702.500	40.562	bb	94.3	-5.7	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.33	318129.844	584978.750	299191.250	81.040	bb	125.6	25.6	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	238260.922	536149.625	299191.250	69.491	bb	140.4	40.4	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	417134.094		422856.594	43.755	bb	72.3	80.8	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.23	437826.281	273266.063	495491.438	88.157	bb	167.9	67.9	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.77	739333.500	454153.594	752809.625	95.948	bb	184.5	84.5	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.33	308357.094	564635.188	351175.313	85.993	bb	189.0	89.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	233913.875	536149.625	230274.922	102.758	bb	211.9	111.9	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.51	446335.969	565661.813	931006.625	48.785	bb	94.7	-5.3	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.94	703550.563	855778.813	1306702.500	52.996	bb	97.2	-2.8	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				422856.594					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				495491.438					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				394567.969					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157	33.77	556.062	269.354	394567.969	0.116	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				394567.969					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				394567.969					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				394567.969					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				441667.938					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				447502.063					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				447502.063					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.22	2412.242	2655.639	362221.031	0.730	MM	1.4		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.13	3867.309	3798.395	362221.031	1.104	bb	2.1		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.09	11735.940	12895.386	546428.938	4.287	MM	7.5		G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016	23.69	503.835	916.032	581205.688	0.108	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016	24.10	497.231	633.872	581205.688	0.086	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				581205.688					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597	29.62	356.991	576.061	752809.625	0.075	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				752809.625					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				715325.563					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				715325.563					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.42	372.620	334.893	715325.563	0.061	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				715325.563					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				715325.563					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				715325.563					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				319698.094					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.87	738.924	534.712	319698.094	0.139	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	738.441	356.031	351175.313	0.108	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				351175.313					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				310628.000					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				310628.000					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	815.435	329.496	310628.000	0.125	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				310628.000					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.75	181.558	189.882	308991.594	0.042	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				308991.594					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.77	838.015	798.585	230274.922	0.218	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				230274.922					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818	38.38	352.452	215.720	230274.922	0.076	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				222572.656					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				783219.063					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				422856.594					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				495491.438					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				299191.250					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				362221.031					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				422856.594					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

	Summary Flag Reason
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
85	
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94	
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103	
104	
105	
106	
107	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
108	
109	
110	
111	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

	Summary Flag Reason
112	
113	
114	
115	
116	
117	
118	
119	
120	
121	
122	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
123	
124	
125	
126	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
127	
128	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
129	
130	
131	
132	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
133	
134	
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148	

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

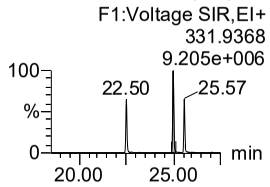
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032316B, Date: 07-Mar-2023, Time: 22:57:07, ID: 0123-704-001-1, Description: 0123-704-001-1

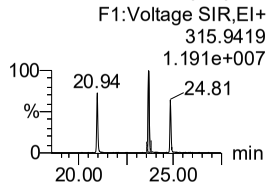
	Summary Flag Reason
149	

Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

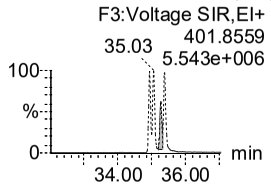
13C-1234-TCDD (JS)



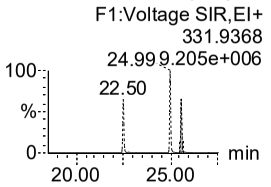
13C-1234-TCDF (JS)



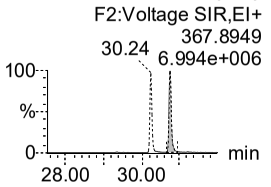
13C-123467-HxCDD (JS)



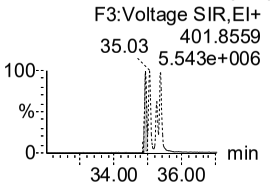
13C-2378-TCDD (ES)



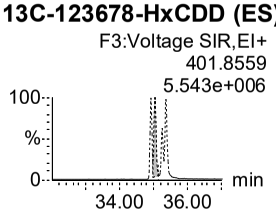
13C-12378-PeCDD (ES)



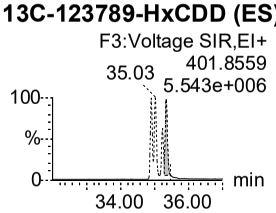
13C-123478-HxCDD (ES)



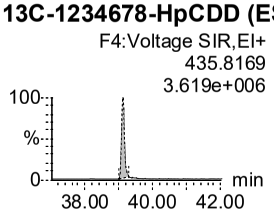
13C-123678-HxCDD (ES)



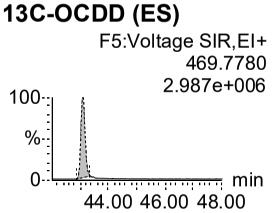
13C-123789-HxCDD (ES)



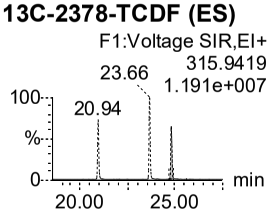
13C-1234678-HpCDD (ES)



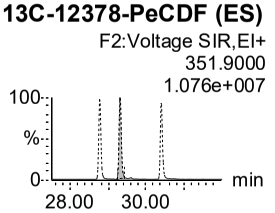
13C-OCDD (ES)



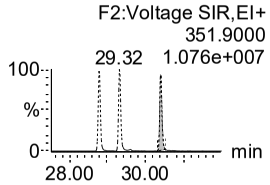
13C-2378-TCDF (ES)



13C-12378-PeCDF (ES)



13C-23478-PeCDF (ES)



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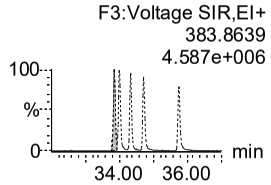
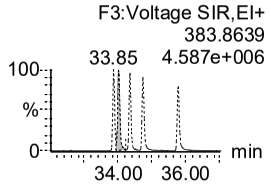
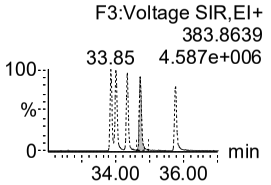


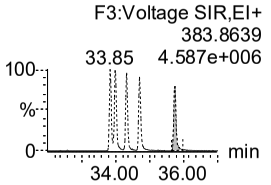
13C-123678-HxCDF (ES)



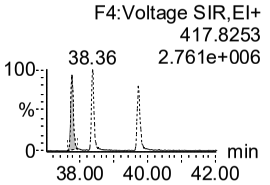
13C-234678-HxCDF (ES)



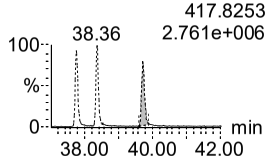
13C-123789-HxCDF (ES)



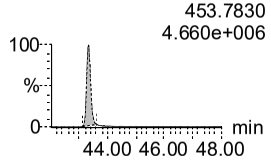
13C-1234678-HpCDF (ES)



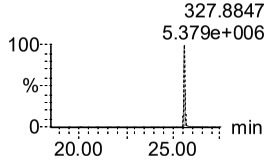
13C-1234789-HpCDF (ES)



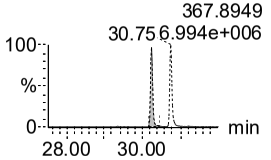
13C-OCDF (ES)



37Cl-2378-TCDD (CS)



13C-12347-PeCDD (CS)



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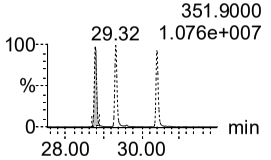
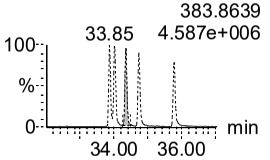


13C-123469-HxCDF (CS)



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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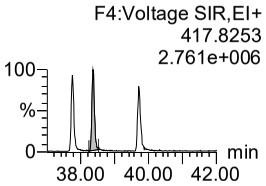
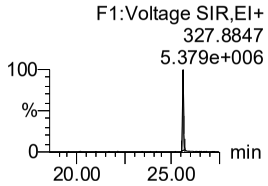
Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

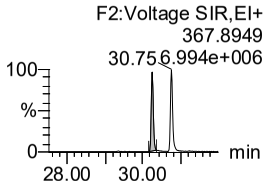
13C-1234689-HpCDF (CS)



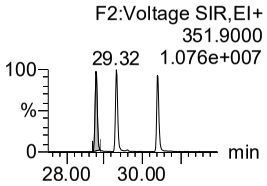
37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



13C-12346-PeCDF (SS)



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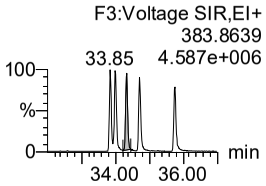
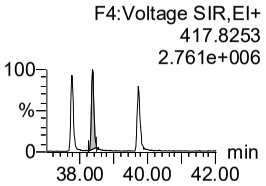
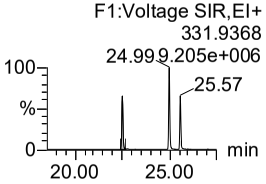


13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



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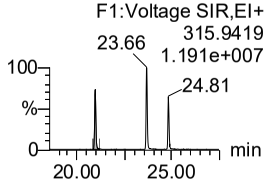
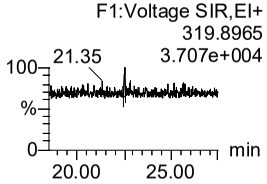
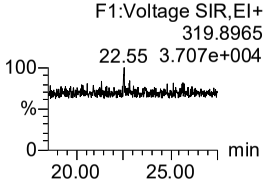


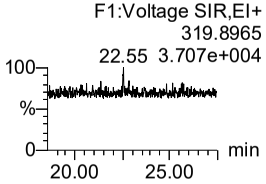
1368-TCDD



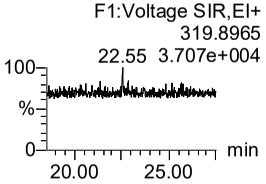
1379-TCDD



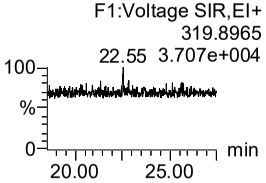
1369-TCDD



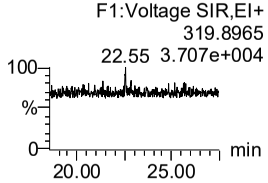
1469-TCDD



1247/1246/1248/1249-TCDI



1378-TCDD



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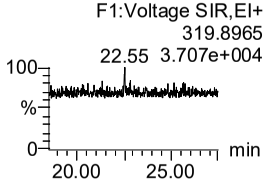
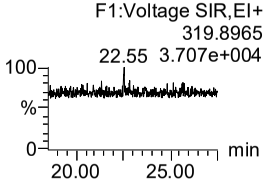
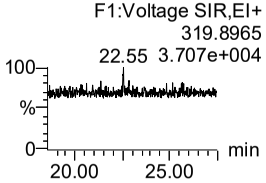


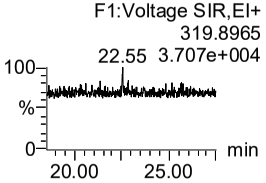
1478-TCDD



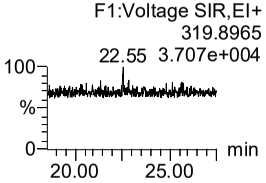
1279-TCDD



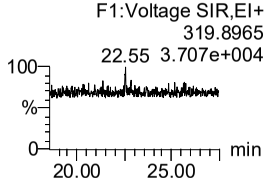
1234/1269-TCDD



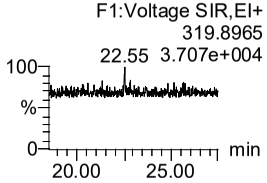
1236-TCDD



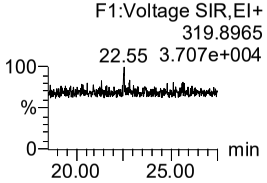
1237/1238-TCDD



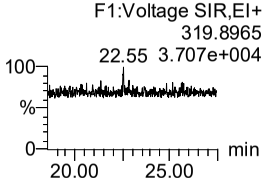
1239-TCDD [CE]



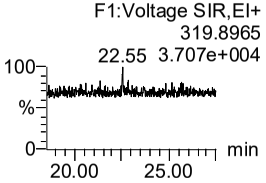
2378-TCDD (S)



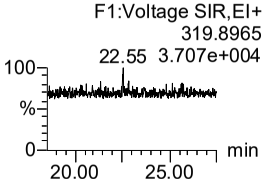
1278-TCDD



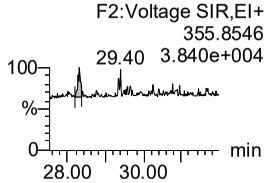
1267-TCDD



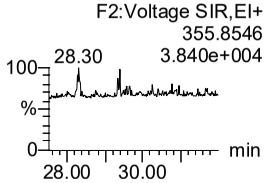
1289-TCDD



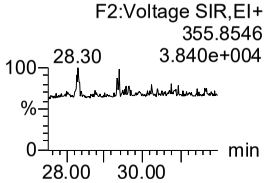
12479/12468-PeCDD



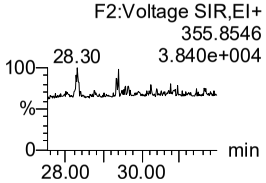
12469-PeCDD



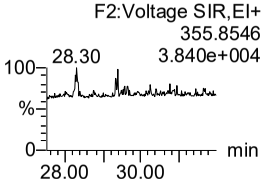
12368-PeCDD



12478-PeCDD



12379-PeCDD



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.30 3.840e+004

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.30 3.840e+004

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.30 3.840e+004

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.30 3.840e+004

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.30 3.840e+004

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
3.613e+004

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
33.80 3.613e+004

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.13 6.561e+004
39.22 41.88

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
6.561e+004
38.19 39.22 41.88

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
8.965e+004
43.31

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

2467-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

2368-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
24.10 4.424e+004
22.21 25.17

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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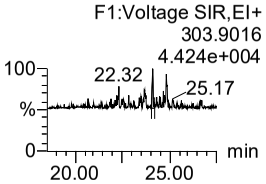
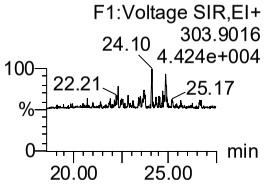
Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

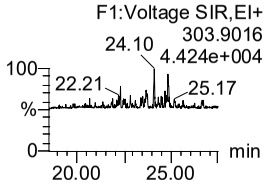
1278-TCDF



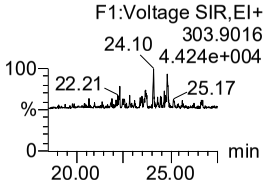
1349-TCDF



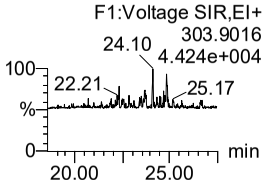
1267-TCDF



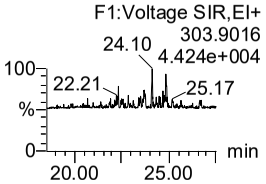
2346/1249-TCDF



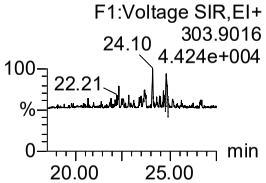
2347/1279-TCDF



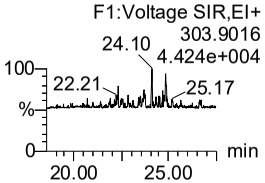
2348-TCDF [CE]



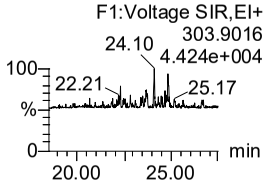
2378-TCDF (S)



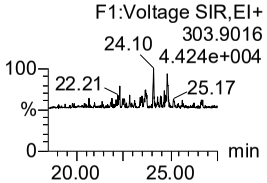
2367/3467-TCDF



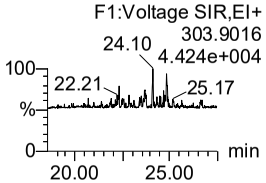
1269-TCDF



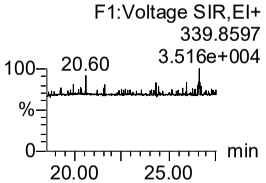
1239-TCDF



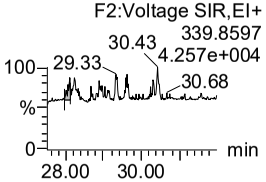
1289-TCDF



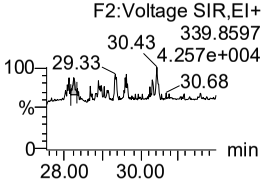
13468/12466-PeCDF



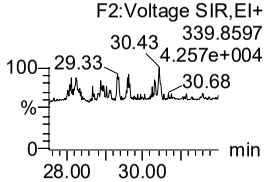
13678/13467/12467-PeCDF



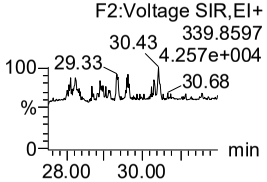
12368/13478/12478-PeCDF



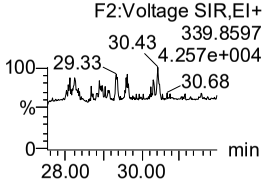
14678-PeCDF



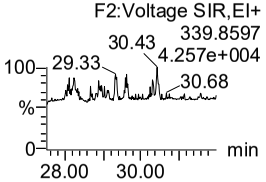
13479-PeCDF



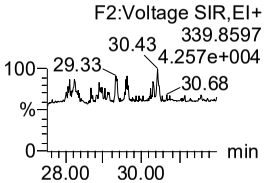
13469/12479-PeCDF



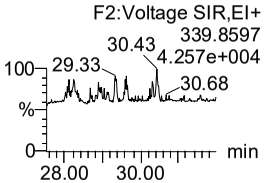
12346-PeCDF



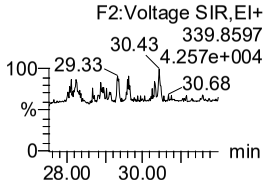
23468/12469-PeCDF



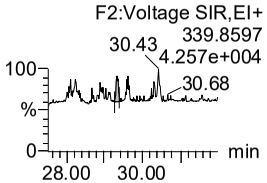
12347-PeCDF



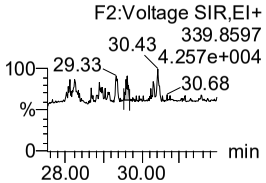
12348-PeCDF



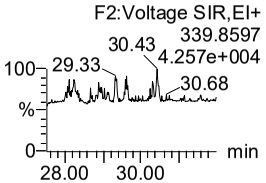
12378-PeCDF (S)



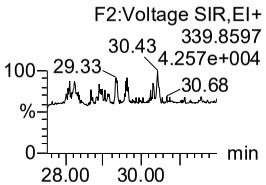
12678/12367-PeCDF



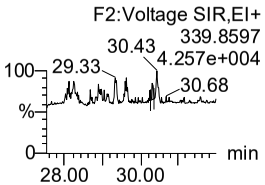
12379-PeCDF



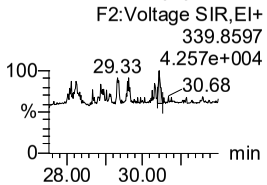
12679-PeCDF



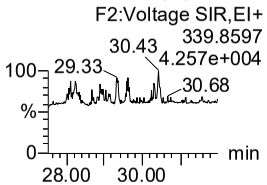
23467/12369-PeCDF



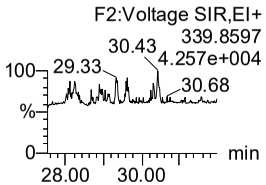
23478-PeCDF (S)



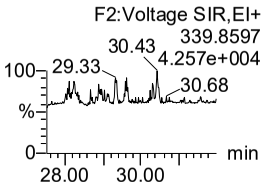
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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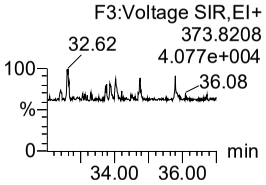
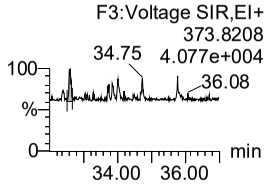
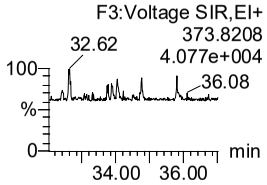
123468-HxCDF



124678/134678-HxCDF



134679-HxCDF



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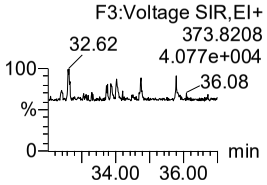
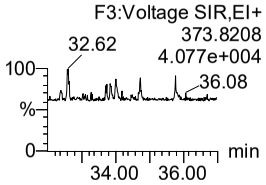
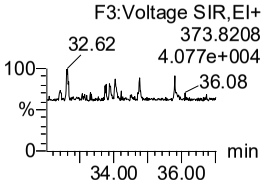


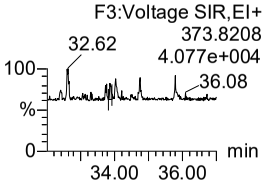
124689-HxCDF



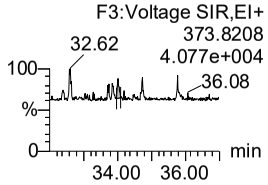
123467-HxCDF



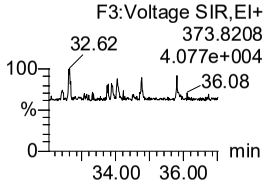
123478-HxCDF (S)



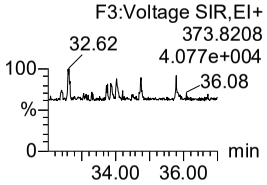
123678-HxCDF (S)



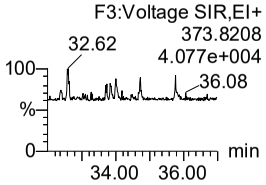
123479-HxCDF



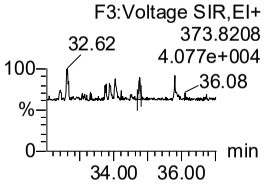
123469-HxCDF



123679-HxCDF



234678-HxCDF (S)



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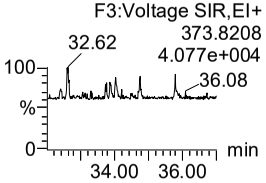
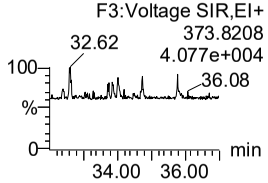
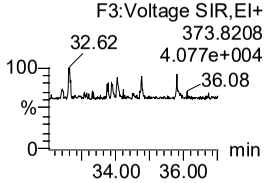


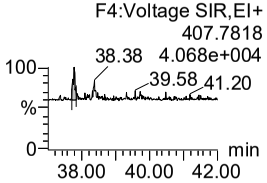
123789-HxCDF (S)



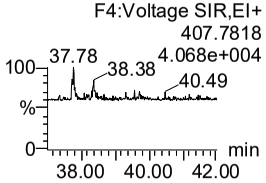
123489-HxCDF (R)



1234678-HpCDF (S)



1234679-HpCDF



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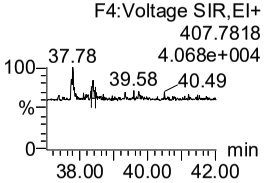
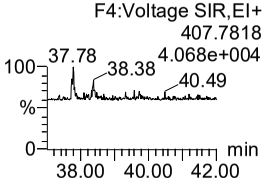
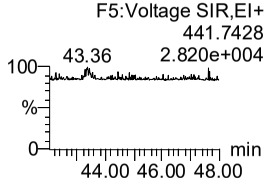


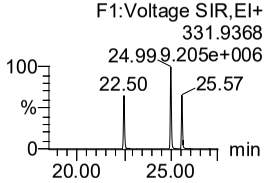
1234789-HpCDF (S)



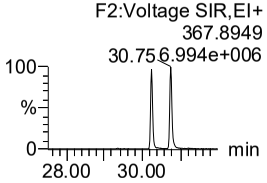
OCDF (S)



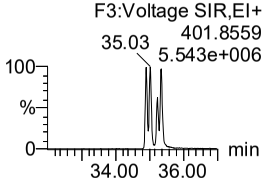
13C-1278-TCDD (FS)



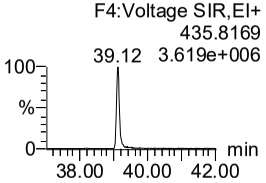
13C-12478-PeCDD (FS)



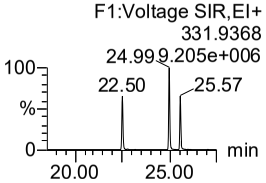
13C-123468-HxCDD (FS)



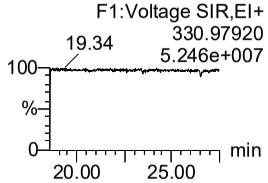
13C-1234679-HpCDD (FS)



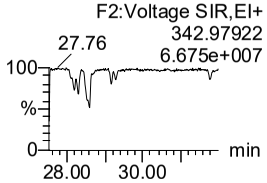
13C-1378-TCDD (TS)



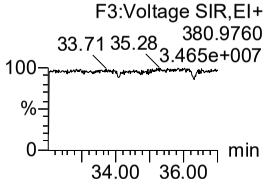
QC Check Ion Fn 1



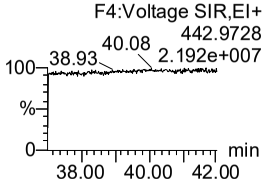
QC Check Ion Fn 2



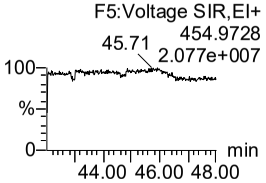
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5

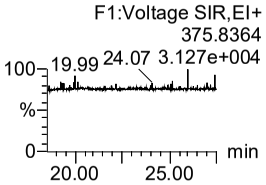


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

HxDPE



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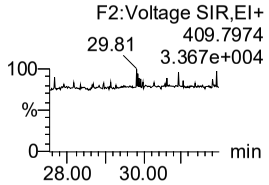
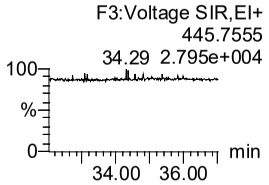
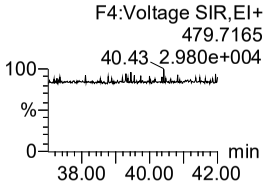


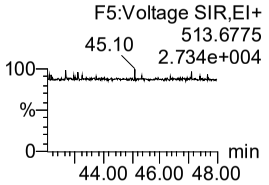
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

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1	1	13C-1234-TCDD (JS)	331.9368	24.99	604442.750	754795.250		1359238.000	bb	94.7	-5.3	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.66	856619.813	1105406.7...		1962026.563	MM	101.4	1.4	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	218518.719	174539.141		393057.860	bd	38.1	-23.8	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.57	386406.094	477246.625	604442.750	63.539	bb	135.3	35.3	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	478334.188	294073.719	604442.750	56.827	bb	139.2	39.2	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	360647.344	276996.000	218518.719	81.113	bd	155.2	55.2	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	388905.031	316435.781	218518.719	89.725	db	182.0	82.0	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.37	374638.094	311174.125	218518.719	87.241	db	156.9	56.9	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	349975.813	326334.406	218518.719	86.032	bb	187.1	87.1	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.11	493856.063	556322.000	218518.719	133.591	bb	359.5	79.8	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.81	517595.594	676578.188	856619.813	60.864	bb	122.9	22.9	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.32	717051.063	467383.625	856619.813	60.368	bb	137.3	37.3	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	655502.000	418883.906	856619.813	54.759	bb	129.0	29.0	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	291850.719	562196.938	218518.719	108.641	bd	184.0	84.0	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.00	336695.531	611740.563	218518.719	120.648	db	169.9	69.9	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.72	302719.000	548383.063	218518.719	108.267	bb	167.6	67.6	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	282277.813	541022.125	218518.719	104.730	bb	177.6	77.6	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	226969.391	487220.438	218518.719	90.850	bb	187.8	87.8	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	211275.031	468656.781	218518.719	86.493	bb	198.2	98.2	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	737193.813	812280.313	218518.719	197.105	bb	432.8	116.4	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	369870.094		604442.750	27.212	bb	47.7	19.3	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	428595.750	268387.688	604442.750	51.278	bb	117.9	17.9	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.78	696992.750	449972.500	856619.813	58.458	bb	135.9	35.9	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	288473.438	534441.750	218518.719	104.681	bb	162.3	62.3	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	228418.156	480797.563	218518.719	90.218	bb	182.3	82.3	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	369870.094		386406.094	42.826	bb	70.8	77.0	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	413438.781	256920.000	478334.188	86.788	bb	165.3	65.3	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.78	696992.750	449972.500	717051.063	96.837	bb	186.2	86.2	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	283904.938	518746.188	336695.531	84.629	bb	186.0	86.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	217217.313	475286.531	226969.391	96.964	bb	199.9	99.9	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.50	418276.781	510812.500	604442.750	68.354	bb	132.7	32.7	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.94	612707.188	763704.875	856619.813	70.153	bb	128.7	28.7	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.55	721.801	486.641	386406.094	0.140	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				386406.094					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546	28.30	988.787	316.688	478334.188	0.169	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				478334.188					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				360647.344					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157	33.80	640.261	421.783	360647.344	0.167	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				360647.344					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				360647.344					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				360647.344					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				388905.031					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				374638.094					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				374638.094					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.19	1769.240	1779.745	349975.813	0.525	bb	1.0		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.13	3380.946	3594.297	349975.813	1.031	MM	2.0		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.14	11145.895	11659.701	493856.063	4.343	MM	7.6		G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016	24.10	1338.417	1357.063	517595.594	0.226	bb	0.4		G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.83	1227.663	1508.465	517595.594	0.229	MM	0.4		G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				517595.594					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597	28.11	727.840	504.591	717051.063	0.104	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597	28.24	585.546	514.299	717051.063	0.093	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.33	896.903	848.838	717051.063	0.147	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597	29.63	797.811	696.583	717051.063	0.126	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				717051.063					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				655502.000					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597	30.31	338.891	383.979	655502.000	0.067	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.43	1076.684	574.913	655502.000	0.154	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				655502.000					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				655502.000					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				655502.000					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				291850.719					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208	32.62	1118.732	906.396	291850.719	0.237	MM	0.4		G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				291850.719					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				291850.719					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				291850.719					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				291850.719					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.85	431.483	472.486	291850.719	0.106	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	572.546	513.092	336695.531	0.114	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				336695.531					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				302719.000					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				302719.000					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	560.697	390.471	302719.000	0.112	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				302719.000					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				282277.813					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				282277.813					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.78	1090.871	1151.299	226969.391	0.314	MM	0.4		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				226969.391					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818	38.38	463.680	552.362	226969.391	0.142	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				211275.031					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				737193.813					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				386406.094					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				478334.188					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				218518.719					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				349975.813					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				386406.094					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

	Summary Flag Reason
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33	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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	Summary Flag Reason
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50	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
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61	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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	Summary Flag Reason
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85	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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98	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
99	
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102	
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105	
106	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
107	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
108	
109	
110	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
111	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...

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	Summary Flag Reason
112	
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121	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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131	
132	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
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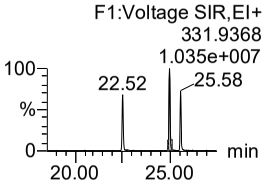
Name: G07032317B, Date: 07-Mar-2023, Time: 23:48:28, ID: 0123-704-002-1, Description: 0123-704-002-1

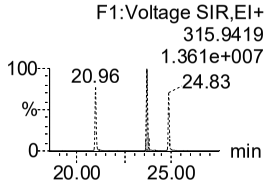
	Summary Flag Reason
149	

Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

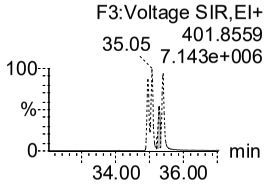
13C-1234-TCDD (JS)



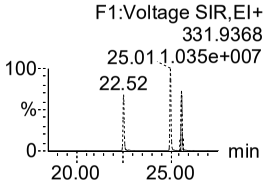
13C-1234-TCDF (JS)



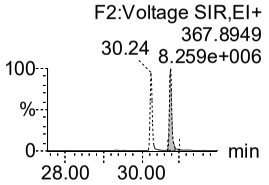
13C-123467-HxCDD (JS)



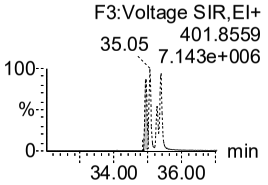
13C-2378-TCDD (ES)



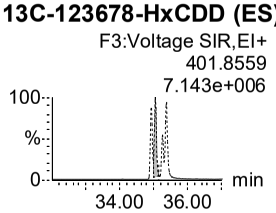
13C-12378-PeCDD (ES)



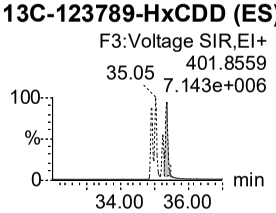
13C-123478-HxCDD (ES)



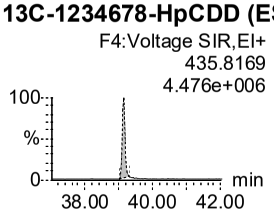
13C-123678-HxCDD (ES)



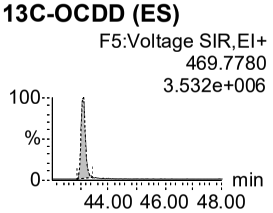
13C-123789-HxCDD (ES)



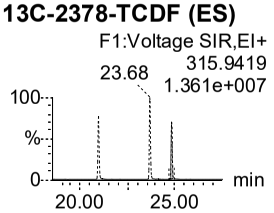
13C-1234678-HpCDD (ES)



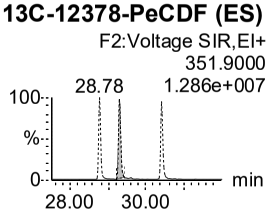
13C-OCDD (ES)



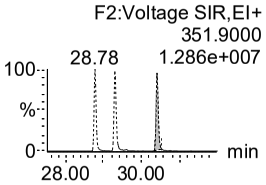
13C-2378-TCDF (ES)



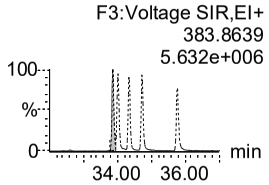
13C-12378-PeCDF (ES)



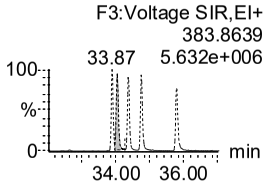
13C-23478-PeCDF (ES)



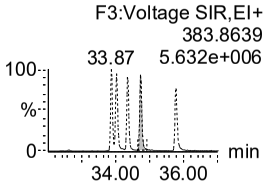
13C-123478-HxCDF (ES)



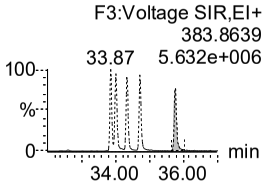
13C-123678-HxCDF (ES)



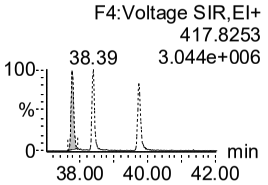
13C-234678-HxCDF (ES)



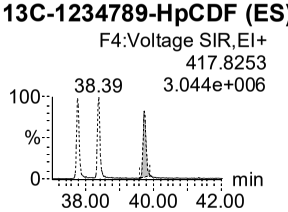
13C-123789-HxCDF (ES)



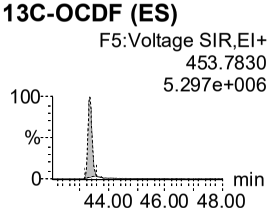
13C-1234678-HpCDF (ES)



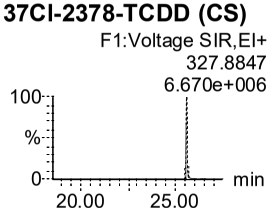
13C-1234789-HpCDF (ES)



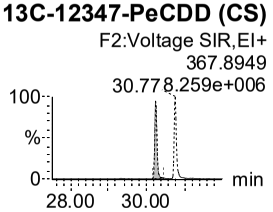
13C-OCDF (ES)



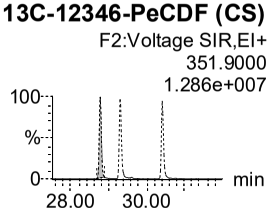
37Cl-2378-TCDD (CS)



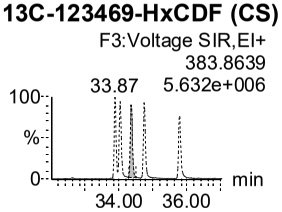
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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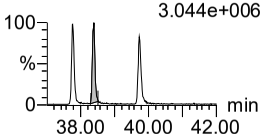
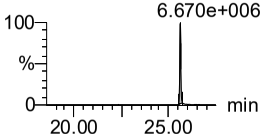
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

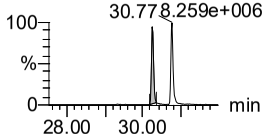
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
3.044e+006



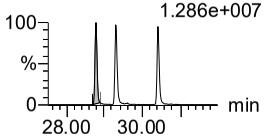
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
6.670e+006



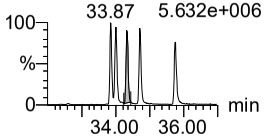
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
30.77 8.259e+006



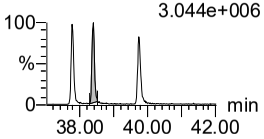
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
1.286e+007



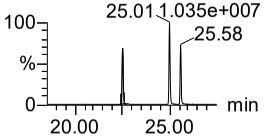
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
33.87 5.632e+006



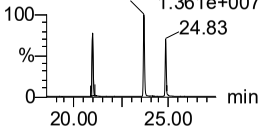
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
3.044e+006



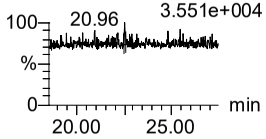
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
25.01 1.035e+007
25.58



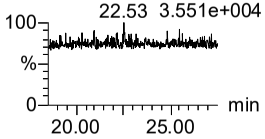
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
23.68 1.361e+007
24.83



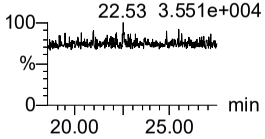
1368-TCDD
F1:Voltage SIR,EI+
319.8965
20.96 3.551e+004



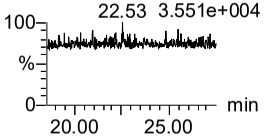
1379-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



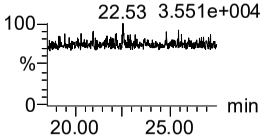
1369-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



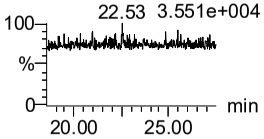
1469-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



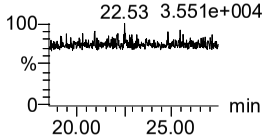
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



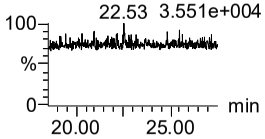
1378-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



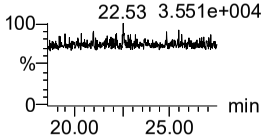
1268-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



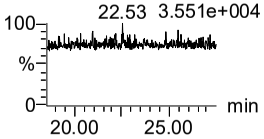
1478-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



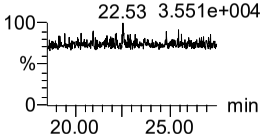
1279-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



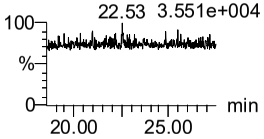
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



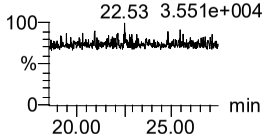
1236-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



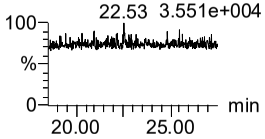
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



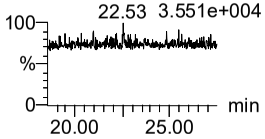
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



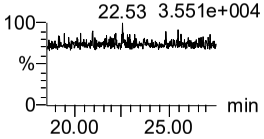
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



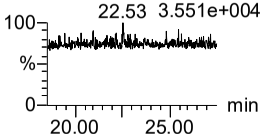
1278-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



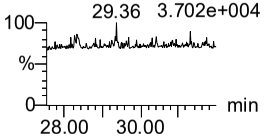
1267-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



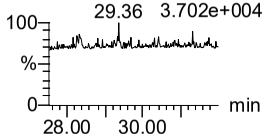
1289-TCDD
F1:Voltage SIR,EI+
319.8965
22.53 3.551e+004



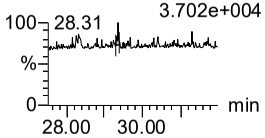
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
29.36 3.702e+004



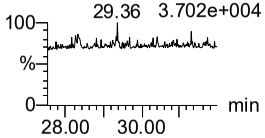
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
29.36 3.702e+004



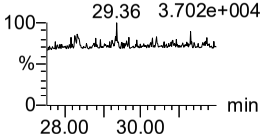
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
3.702e+004
28.31



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
29.36 3.702e+004



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
29.36 3.702e+004



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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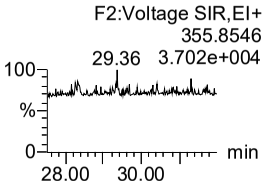
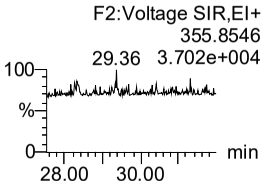
Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

12369/12467/12489-PeCDD



12346/12347-PeCDD



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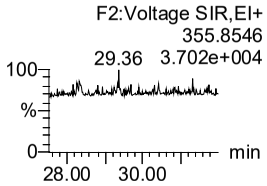

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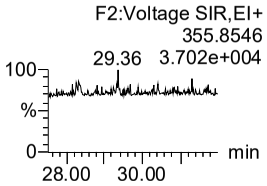

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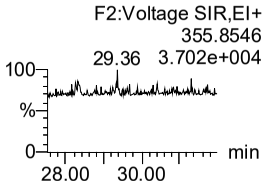
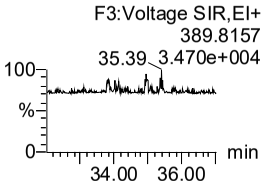


124679/124689-HxCDD



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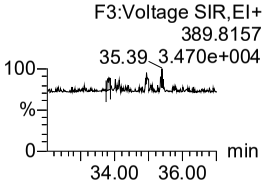

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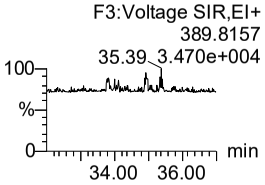

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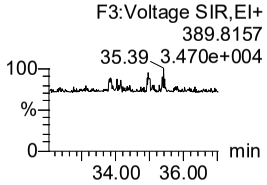

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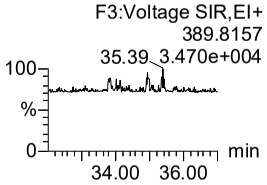

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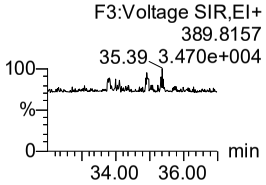

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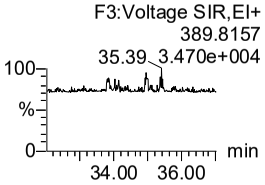

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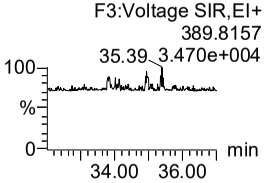

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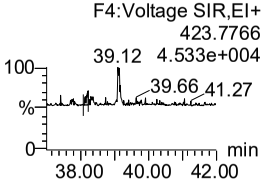

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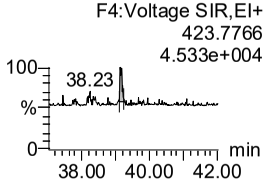
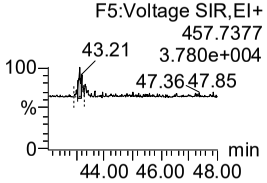
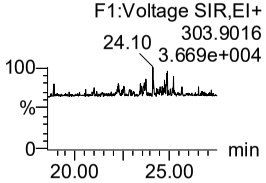


OCDD (S)



1368-TCDF



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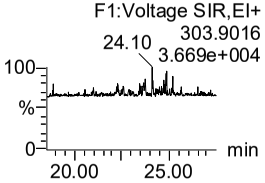

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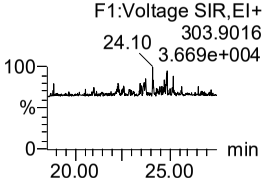
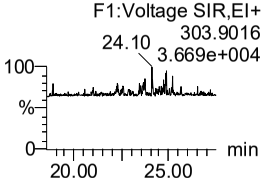


1346/1246-TCDF



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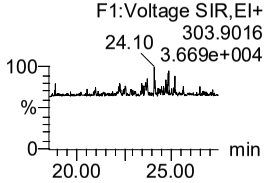

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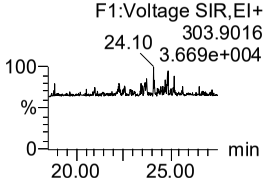
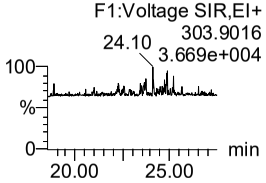


1248/1367/1379-TCDF



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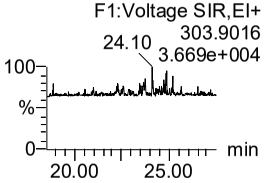

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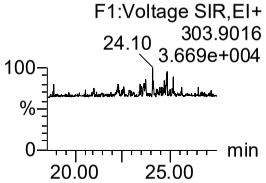

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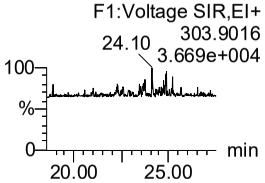
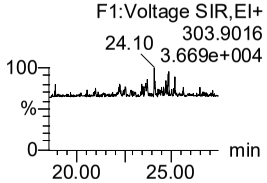


1369/1237-TCDF



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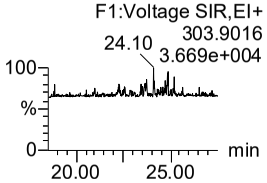

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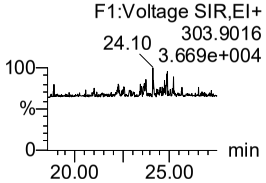

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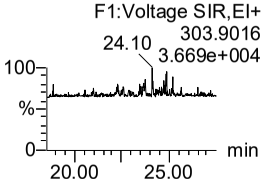

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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

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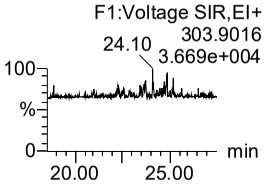

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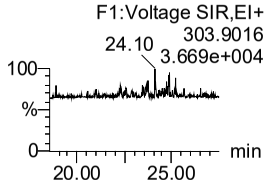

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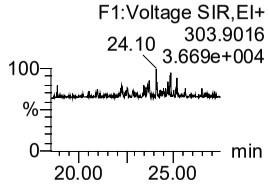

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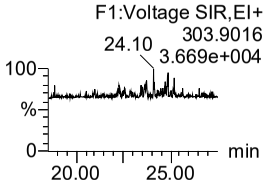

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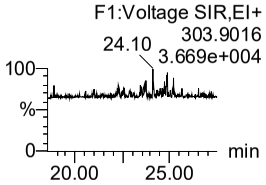

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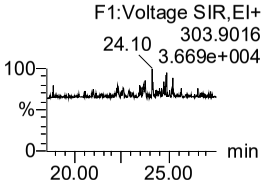

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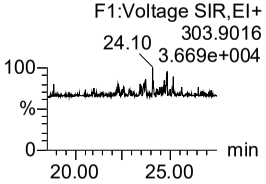
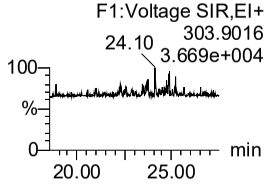


2367/3467-TCDF


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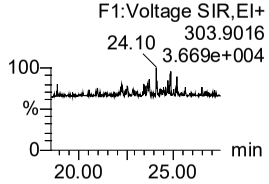

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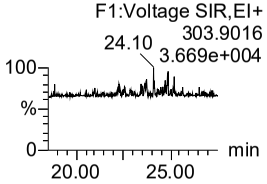

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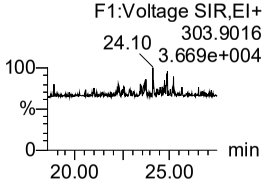

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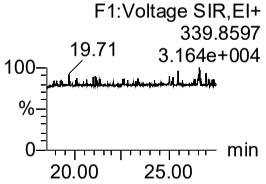

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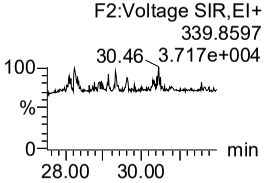

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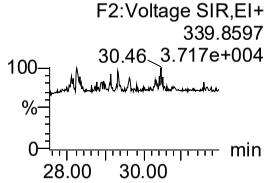

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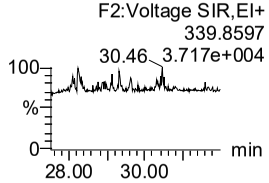

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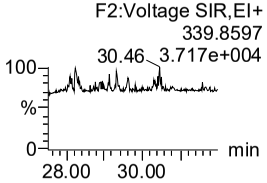

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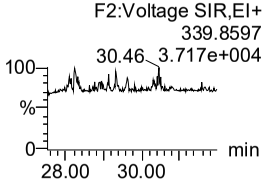

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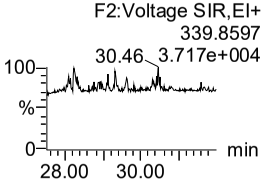

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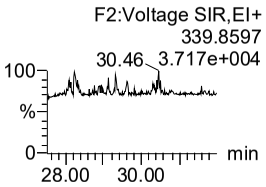

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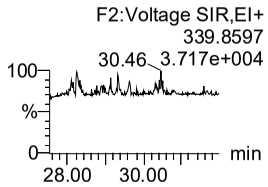

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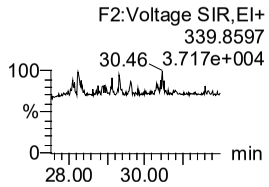

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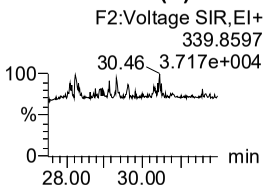

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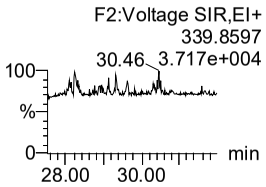
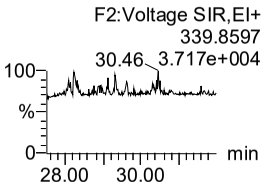
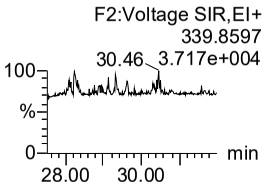
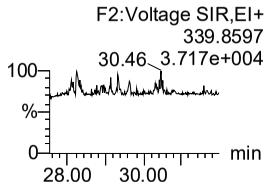
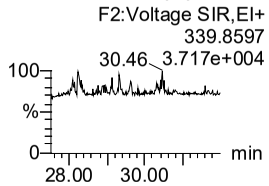
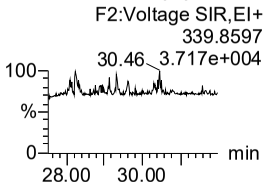


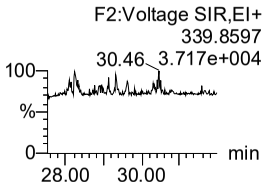
12379-PeCDF


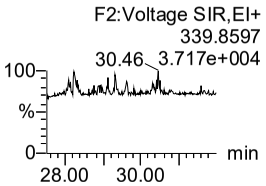
12679-PeCDF


23467/12369-PeCDF


23478-PeCDF (S)


12489-PeCDF (R)


12349-PeCDF


12389-PeCDF


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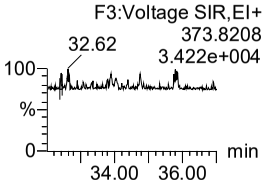
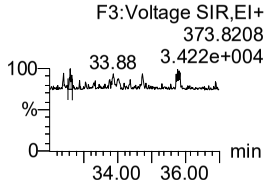
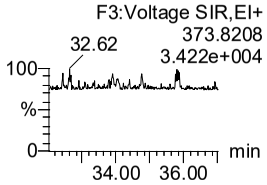
123468-HxCDF



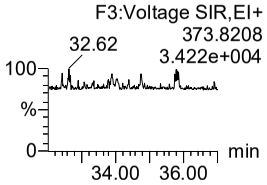
124678/134678-HxCDF



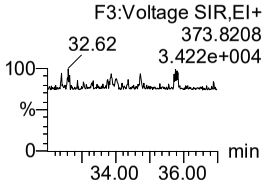
134679-HxCDF



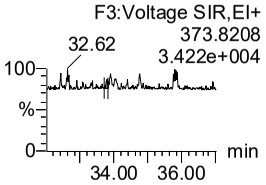
124679-HxCDF



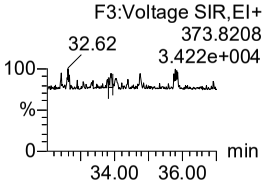
124689-HxCDF



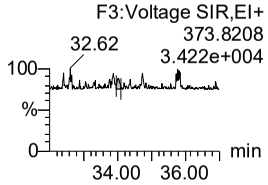
123467-HxCDF



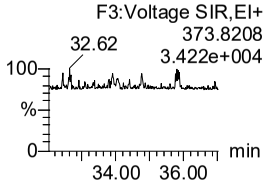
123478-HxCDF (S)



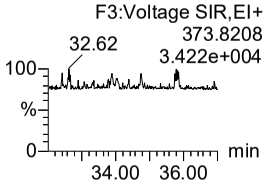
123678-HxCDF (S)



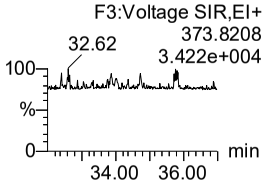
123479-HxCDF



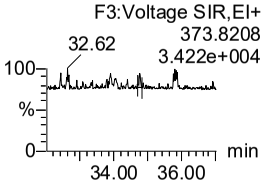
123469-HxCDF



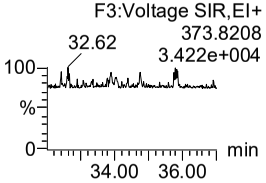
123679-HxCDF



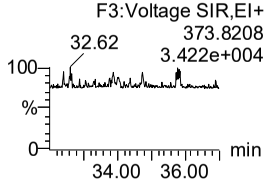
234678-HxCDF (S)



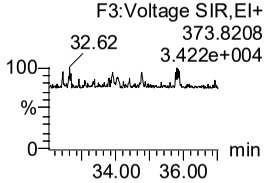
123689-HxCDF (NR)



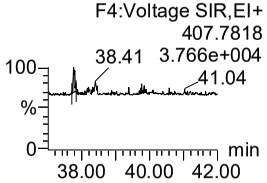
123789-HxCDF (S)



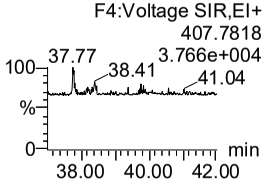
123489-HxCDF (R)



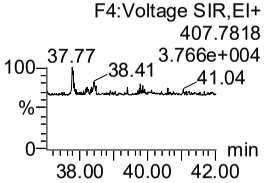
1234678-HpCDF (S)



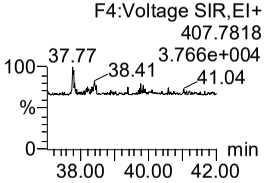
1234679-HpCDF



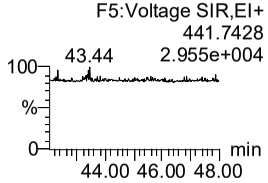
1234689-HpCDF



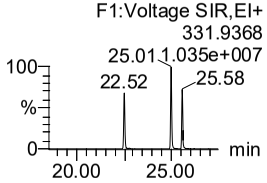
1234789-HpCDF (S)



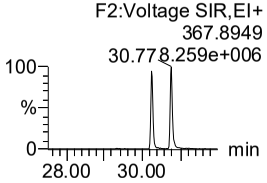
OCDF (S)



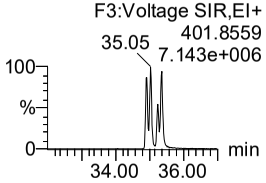
13C-1278-TCDD (FS)



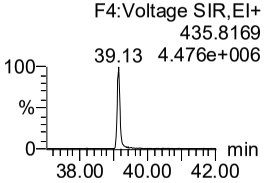
13C-12478-PeCDD (FS)



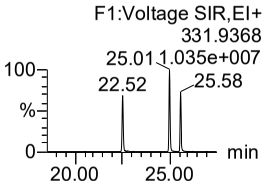
13C-123468-HxCDD (FS)



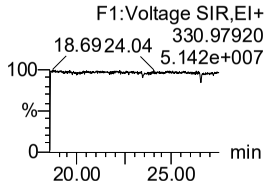
13C-1234679-HpCDD (FS)



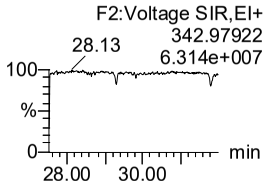
13C-1378-TCDD (TS)



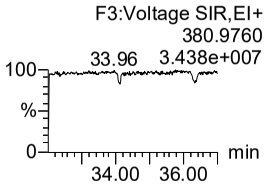
QC Check Ion Fn 1



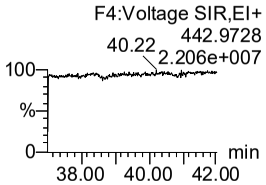
QC Check Ion Fn 2



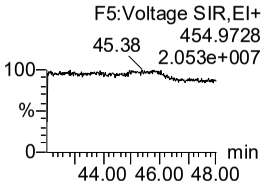
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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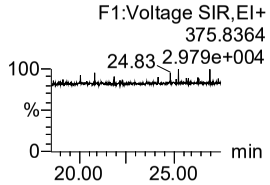
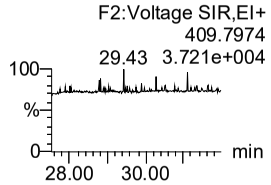
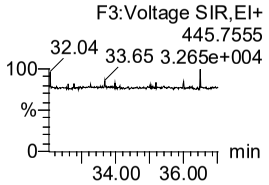
HxDPE



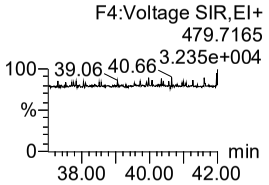
HpDPE



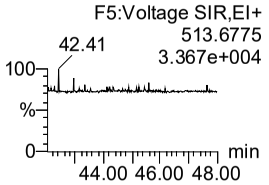
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

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1	1	13C-1234-TCDD (JS)	331.9368	25.01	683635.625	855979.000		1539614.625	MM	107.2	7.2	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	956445.250	1196625.6...		2153070.875	MM	111.3	11.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.26	234488.063	181026.813		415514.876	bd	40.3	-19.5	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	490618.906	612272.938	683635.625	71.634	bb	152.6	52.6	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.77	556960.688	357367.500	683635.625	59.387	bb	145.5	45.5	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.93	437324.063	353291.563	234488.063	95.137	bd	182.0	82.0	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.05	466484.063	380706.000	234488.063	101.945	db	206.8	106.8	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.38	484271.469	385913.250	234488.063	104.712	db	188.4	88.4	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.13	409162.313	380494.031	234488.063	95.021	bb	206.7	106.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.13	605285.688	642934.125	234488.063	150.202	bb	404.2	102.1	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	632435.188	820164.875	956445.250	67.466	bb	136.3	36.3	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.30	829943.063	513630.656	956445.250	62.403	bb	142.0	42.0	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.42	772102.250	511641.938	956445.250	59.624	bb	140.5	40.5	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	361738.500	688021.750	234488.063	126.320	bd	213.9	113.9	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.03	390778.094	739432.438	234488.063	136.001	db	191.5	91.5	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	362399.844	665555.688	234488.063	123.697	bb	191.5	91.5	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	351065.344	655992.063	234488.063	121.182	bb	205.5	105.5	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	260517.781	582457.000	234488.063	101.437	bb	209.7	109.7	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.73	240324.188	528675.063	234488.063	92.536	bb	212.0	112.0	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	833385.625	958983.813	234488.063	215.681	bb	473.6	136.8	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.61	454025.406		683635.625	29.490	bb	51.7	29.3	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	513838.906	322848.094	683635.625	54.344	bb	124.9	24.9	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.78	779365.125	503945.063	956445.250	59.604	bb	138.6	38.6	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	354918.875	671593.875	234488.063	123.523	bb	191.5	91.5	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.39	247660.328	571979.000	234488.063	98.629	bb	199.3	99.3	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.61	454025.406		490618.906	41.167	bb	68.0	70.1	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	487493.406	312569.125	556960.688	87.503	bb	166.7	66.7	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.78	779365.125	503945.063	829943.063	95.515	bb	183.7	83.7	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	346359.469	640835.125	390778.094	87.346	bb	192.0	92.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.39	247660.328	571979.000	260517.781	97.232	bb	200.5	100.5	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.52	484299.875	608679.125	683635.625	70.990	bb	137.8	37.8	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	727648.000	928931.625	956445.250	76.940	bb	141.2	41.2	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.53	443.479	599.122	490618.906	0.095	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				490618.906					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546	29.36	319.142	126.894	556960.688	0.049	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				556960.688					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				437324.063					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157	33.83	407.901	365.119	437324.063	0.098	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				437324.063					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				437324.063					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				437324.063					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				466484.063					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				484271.469					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				484271.469					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.23	509.692	732.686	409162.313	0.157	MM	0.3		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1345.198	1660.268	409162.313	0.381	MM	0.7		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.13	1135.423	1093.568	605285.688	0.357	MM	0.6		G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				632435.188					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				829943.063					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				772102.250					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208	32.42	231.612	205.367	361738.500	0.042	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208	32.62	503.711	369.950	361738.500	0.083	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				361738.500					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				361738.500					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				361738.500					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208	33.78	172.421	310.102	361738.500	0.046	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.88	394.235	409.811	361738.500	0.077	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.04	403.404	370.418	390778.094	0.068	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				390778.094					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				362399.844					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				362399.844					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	303.564	276.968	362399.844	0.056	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				362399.844					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				351065.344					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				351065.344					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.77	617.937	683.227	260517.781	0.154	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				260517.781					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				260517.781					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				240324.188					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				833385.625					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				490618.906					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				556960.688					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				234488.063					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				409162.313					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				490618.906					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
38	
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52	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
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68	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
69	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
70	Ion Ratio Failure (1º Ratio: Expected 0.89 +/- 0.13, Actua...
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	Summary Flag Reason
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	Summary Flag Reason
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120	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
121	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

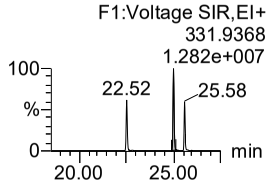
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032318B, Date: 08-Mar-2023, Time: 00:39:49, ID: 0123-704-003-1, Description: 0123-704-003-1

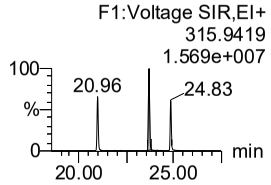
	Summary Flag Reason
149	

Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

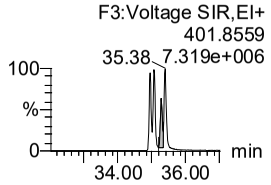
13C-1234-TCDD (JS)



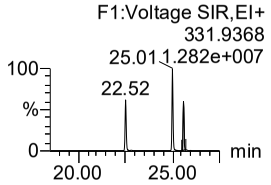
13C-1234-TCDF (JS)



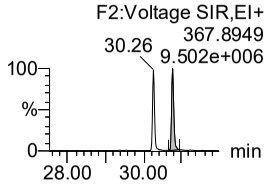
13C-123467-HxCDD (JS)



13C-2378-TCDD (ES)



13C-12378-PeCDD (ES)



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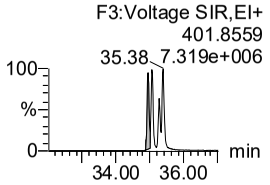
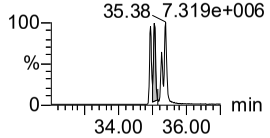
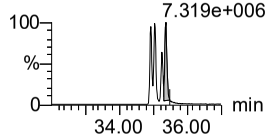


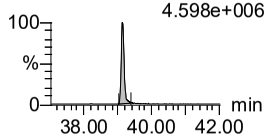
13C-123678-HxCDD (ES)



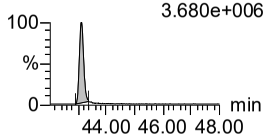
13C-123789-HxCDD (ES)



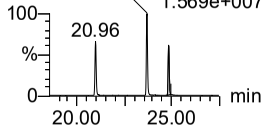
13C-1234678-HpCDD (ES)



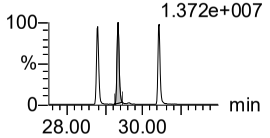
13C-OCDD (ES)



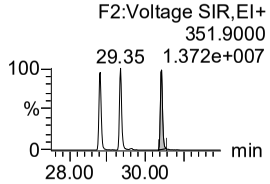
13C-2378-TCDF (ES)



13C-12378-PeCDF (ES)



13C-23478-PeCDF (ES)



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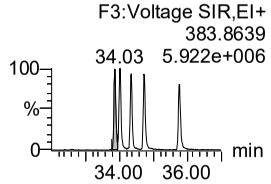
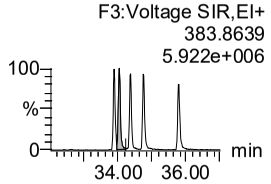
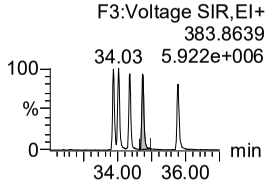


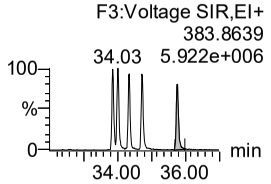
13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



13C-123789-HxCDF (ES)



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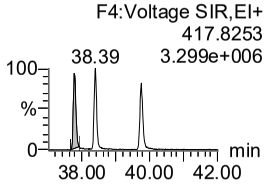

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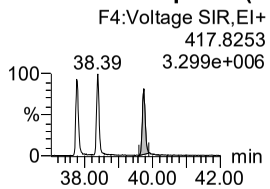
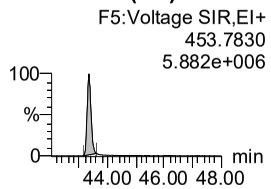
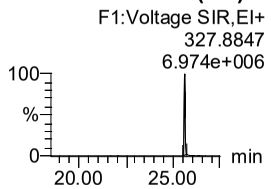


13C-OCDF (ES)



37Cl-2378-TCDD (CS)



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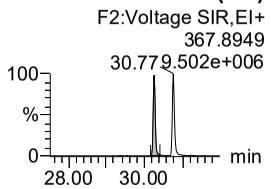

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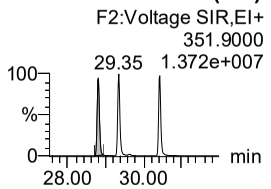
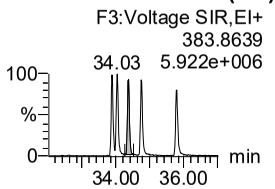


13C-123469-HxCDF (CS)



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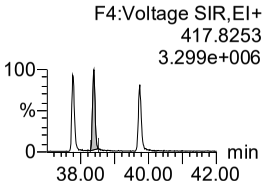
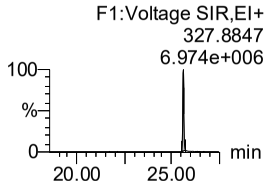
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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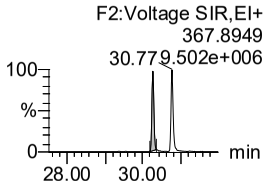

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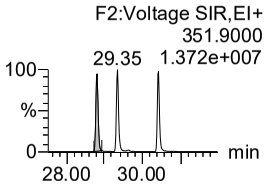

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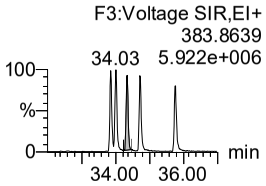

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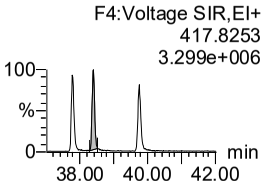
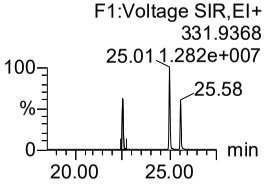


13C-1368-TCDD (AS)



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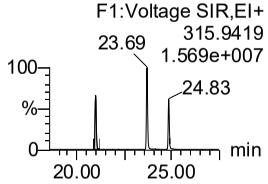
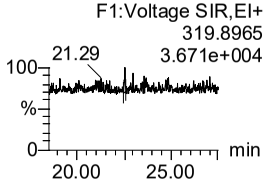


1368-TCDD



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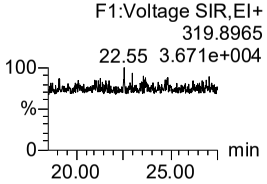
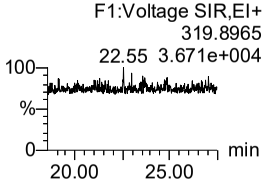


1369-TCDD



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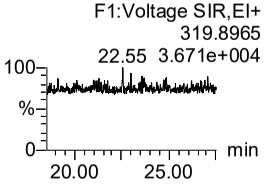
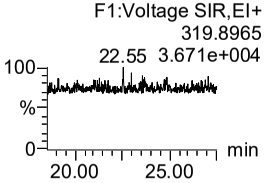


1247/1246/1248/1249-TCDI



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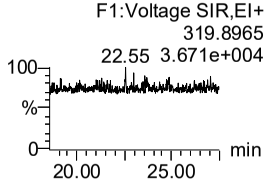

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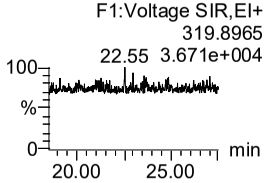
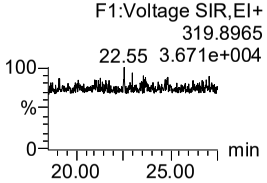
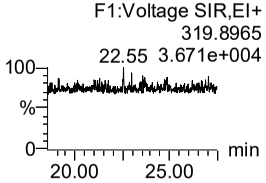


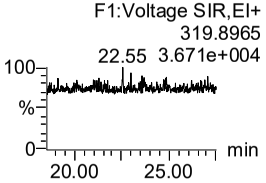
1478-TCDD



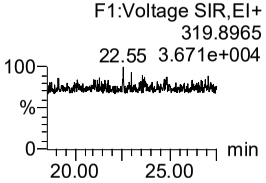
1279-TCDD



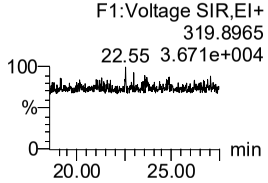
1234/1269-TCDD



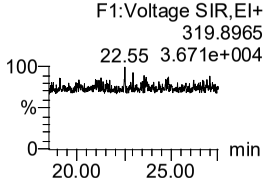
1236-TCDD



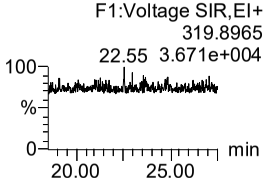
1237/1238-TCDD



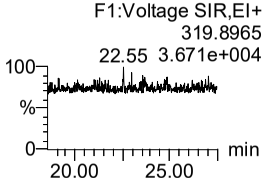
1239-TCDD [CE]



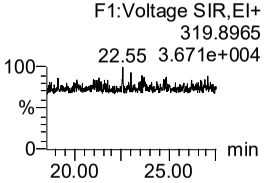
2378-TCDD (S)



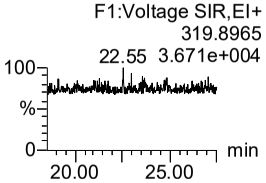
1278-TCDD



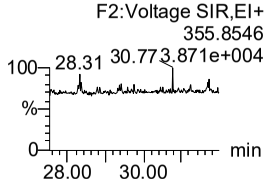
1267-TCDD



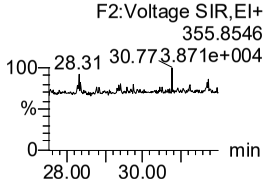
1289-TCDD



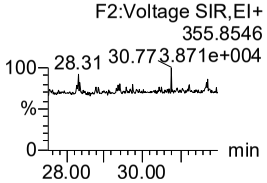
12479/12468-PeCDD



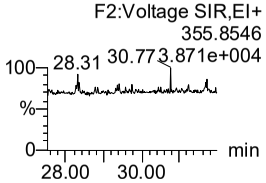
12469-PeCDD



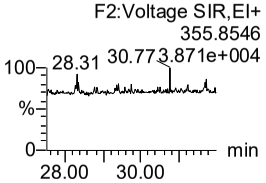
12368-PeCDD



12478-PeCDD



12379-PeCDD



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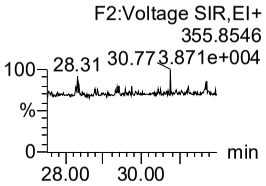
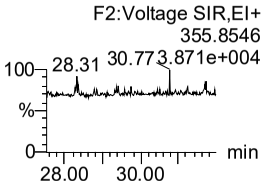
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

12369/12467/12489-PeCDD



12346/12347-PeCDD



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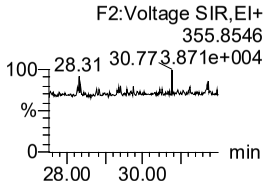

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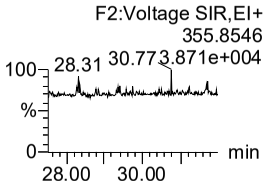
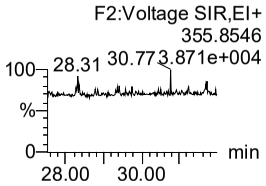
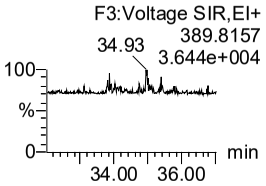


12389-PeCDD



124679/124689-HxCDD



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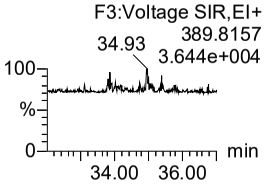

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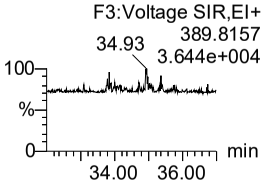
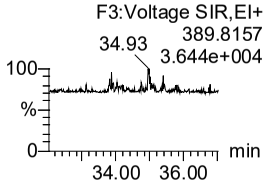


123469-HxCDD



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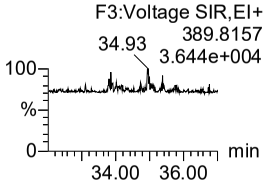
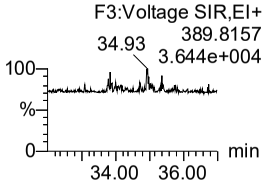
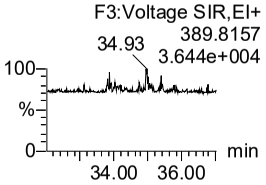


123678-HxCDD (S)



123467-HxCDD



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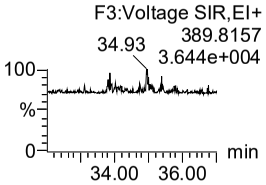
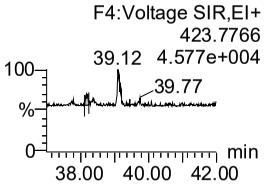


1234679-HpCDD



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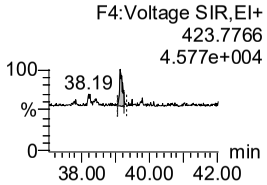
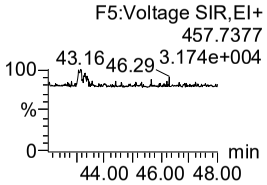
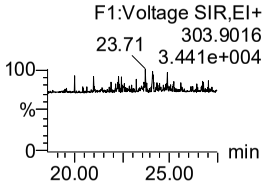


OCDD (S)



1368-TCDF



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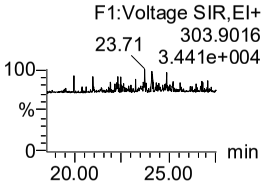
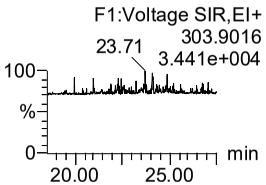
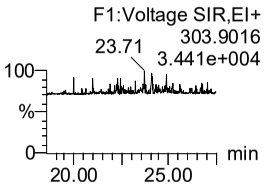


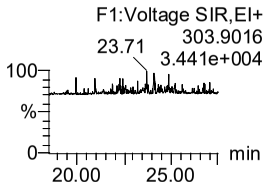
2468-TCDF



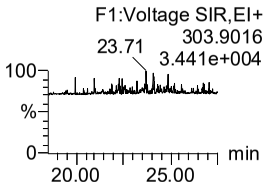
1346/1246-TCDF



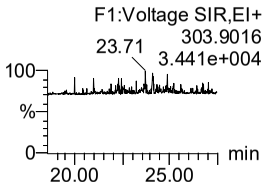
1347/1378/1247-TCDF



1348-TCDF



1248/1367/1379-TCDF



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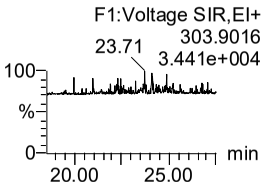

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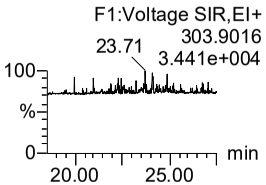

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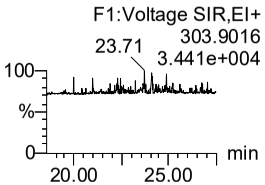
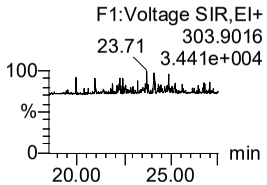


1369/1237-TCDF



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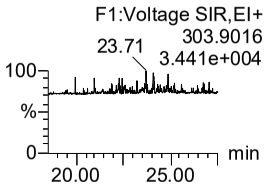

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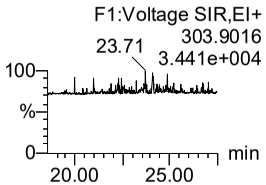

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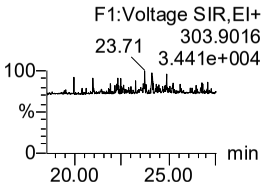

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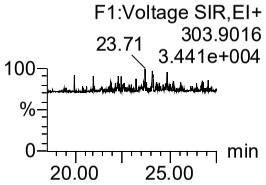
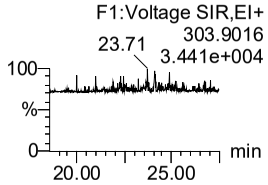
Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

1278-TCDF



1349-TCDF



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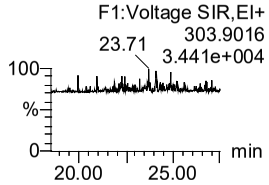
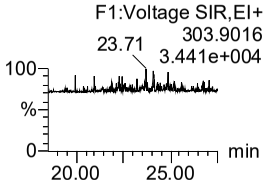
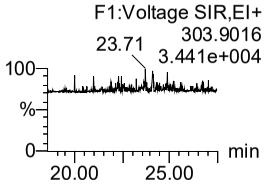


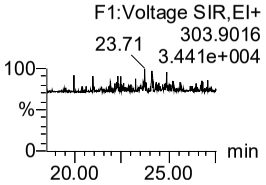
2346/1249-TCDF



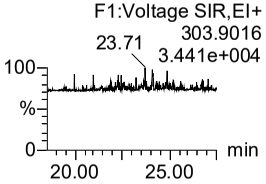
2347/1279-TCDF



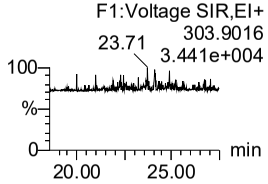
2348-TCDF [CE]



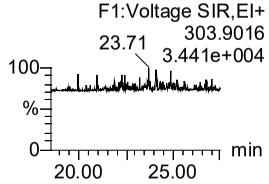
2378-TCDF (S)



2367/3467-TCDF



1269-TCDF



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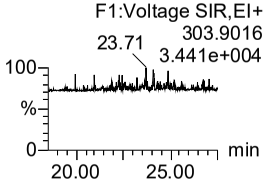
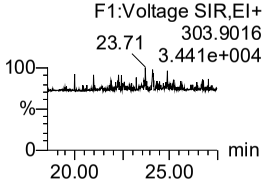
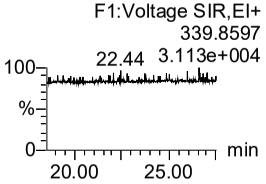


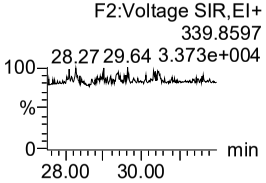
1289-TCDF



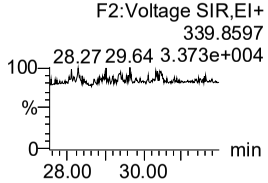
13468/12466-PeCDF



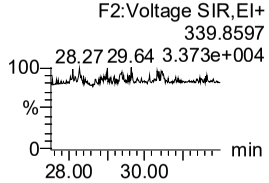
13678/13467/12467-PeCDF



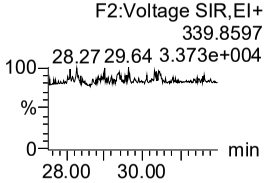
12368/13478/12478-PeCDF



14678-PeCDF



13479-PeCDF



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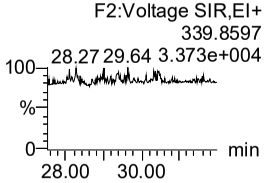
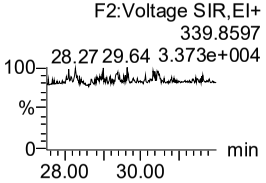
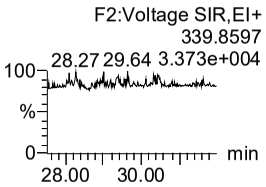


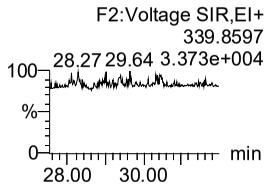
12346-PeCDF



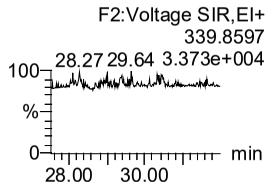
23468/12469-PeCDF



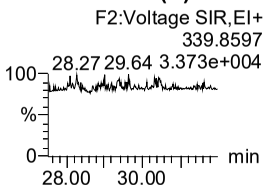
12347-PeCDF



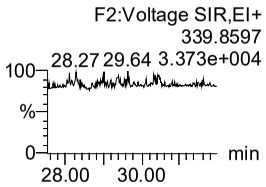
12348-PeCDF



12378-PeCDF (S)



12678/12367-PeCDF



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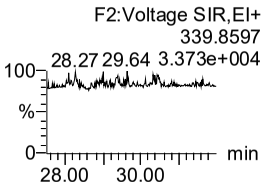

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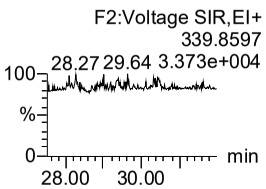
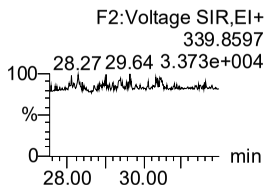
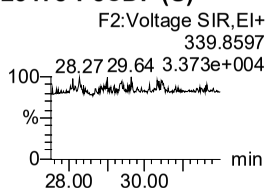


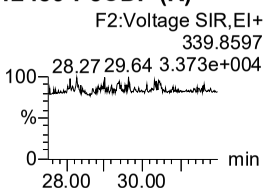
23467/12369-PeCDF



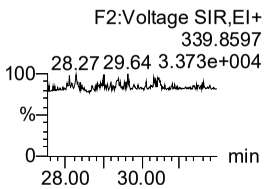
23478-PeCDF (S)



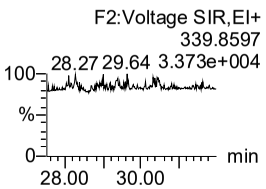
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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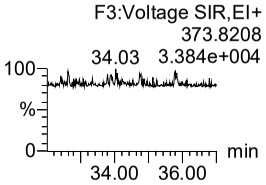
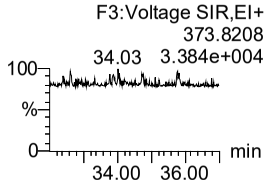
Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

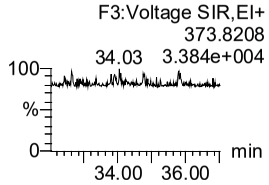
123468-HxCDF



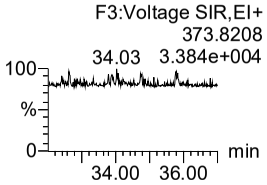
124678/134678-HxCDF



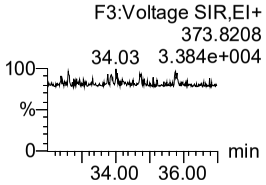
134679-HxCDF



124679-HxCDF



124689-HxCDF



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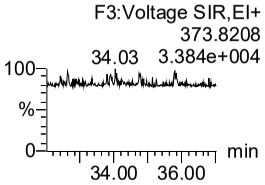
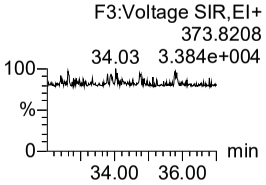
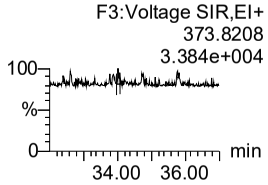


123478-HxCDF (S)



123678-HxCDF (S)



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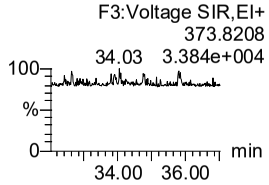
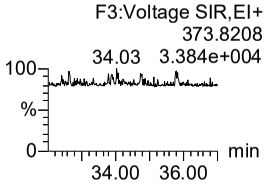
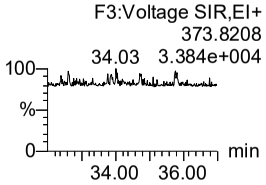


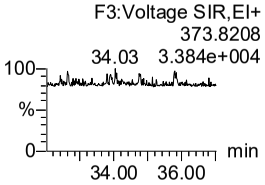
123469-HxCDF



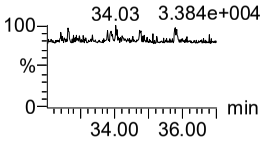
123679-HxCDF



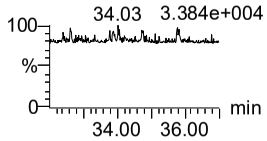
234678-HxCDF (S)



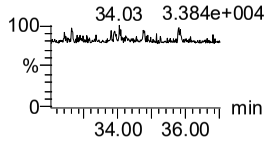
123689-HxCDF (NR)



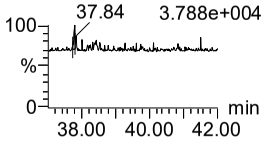
123789-HxCDF (S)



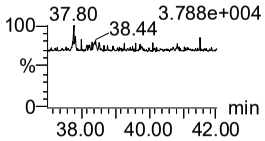
123489-HxCDF (R)



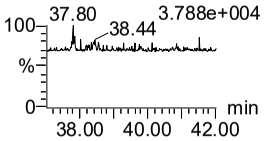
1234678-HpCDF (S)



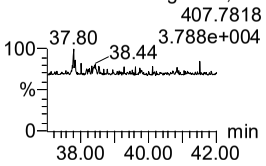
1234679-HpCDF



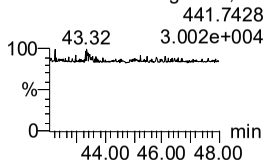
1234689-HpCDF



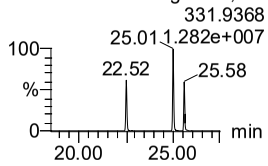
1234789-HpCDF (S)



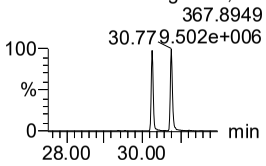
OCDF (S)



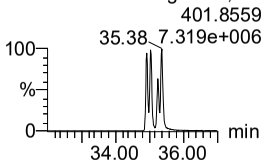
13C-1278-TCDD (FS)



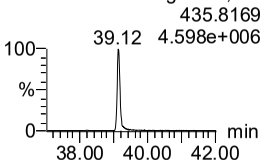
13C-12478-PeCDD (FS)



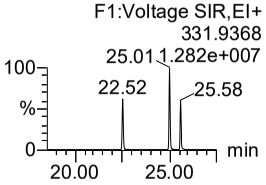
13C-123468-HxCDD (FS)



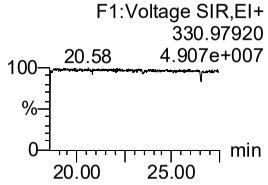
13C-1234679-HpCDD (FS)



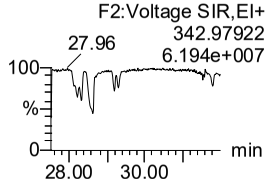
13C-1378-TCDD (TS)



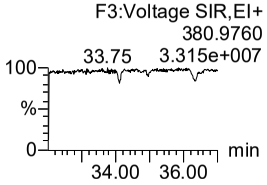
QC Check Ion Fn 1



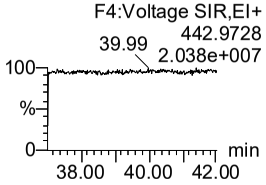
QC Check Ion Fn 2



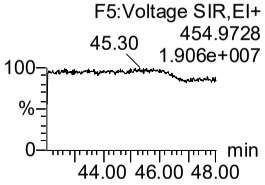
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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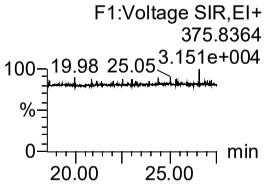
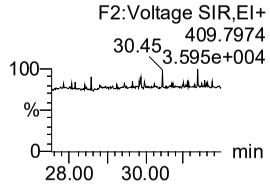
Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

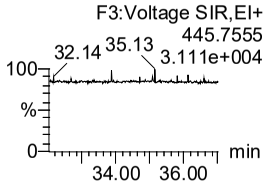
HxDPE



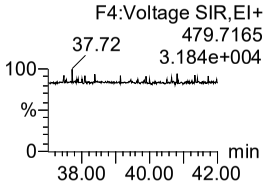
HpDPE



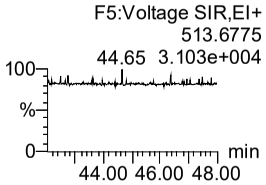
OcDPE



NoDPE



DeDPE



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Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

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1	1	13C-1234-TCDD (JS)	331.9368	25.01	796990.500	982070.813		1779061.313	bb	123.9	23.9	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	1107661.750	1414710.3...		2522372.125	bb	130.4	30.4	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.26	291181.750	235950.969		527132.719	bd	51.1	2.1	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	491621.313	631538.500	796990.500	63.132	bb	134.5	34.5	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.77	610491.125	381835.000	796990.500	55.778	bb	136.6	36.6	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.93	453825.313	354767.188	291181.750	76.697	bd	146.7	46.7	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.05	495638.656	403572.375	291181.750	85.293	db	173.0	73.0	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.38	496148.813	394212.531	291181.750	84.453	db	151.9	51.9	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	453241.094	407805.063	291181.750	81.673	bb	177.6	77.6	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.13	618314.500	673345.188	291181.750	122.518	bb	329.7	64.9	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	668413.000	875517.000	1107661.750	61.209	bb	123.6	23.6	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.35	886108.500	555580.188	1107661.750	57.156	bb	130.0	30.0	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.43	862500.375	546314.438	1107661.750	55.853	bb	131.6	31.6	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	381358.156	731814.688	291181.750	105.588	bd	178.8	78.8	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.03	419879.969	789111.250	291181.750	114.676	db	161.5	61.5	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	384460.406	702967.188	291181.750	103.146	bb	159.7	59.7	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.78	370142.281	691601.500	291181.750	100.709	bb	170.8	70.8	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	264675.000	607211.438	291181.750	82.701	bb	170.9	70.9	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.74	253631.266	573617.625	291181.750	78.467	bb	179.8	79.8	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.34	882992.063	993653.125	291181.750	178.005	bb	390.9	95.5	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.61	486582.156		796990.500	27.350	bb	48.0	20.0	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.26	567392.250	352603.406	796990.500	51.712	bb	118.9	18.9	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.81	892656.375	567640.250	1107661.750	57.894	bb	134.6	34.6	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.36	367901.688	690987.500	291181.750	100.439	bb	155.7	55.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.39	269487.688	623582.375	291181.750	84.710	bb	171.1	71.1	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.61	486582.156		491621.313	43.323	bb	71.6	79.0	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.26	543561.250	343528.563	610491.125	89.395	bb	170.3	70.3	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.81	892656.375	567640.250	886108.500	101.291	bb	194.8	94.8	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.36	361665.188	683569.625	419879.969	86.455	bb	190.0	90.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.39	266769.063	623582.375	264675.000	102.118	bb	210.6	110.6	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.52	543837.563	667658.438	796990.500	68.097	bb	132.2	32.2	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	771425.563	1025644.8...	1107661.750	71.245	bb	130.7	30.7	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.55	537.117	566.812	491621.313	0.098	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				491621.313					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				610491.125					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				453825.313					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				453825.313					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				453825.313					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				453825.313					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				453825.313					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				495638.656					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				496148.813					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				496148.813					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.19	494.328	489.030	453241.094	0.114	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1920.957	1875.878	453241.094	0.441	MM	0.8		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				618314.500					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				668413.000					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				886108.500					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				862500.375					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208				381358.156					G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	279.143	230.171	419879.969	0.042	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				419879.969					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				384460.406					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				384460.406					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208				384460.406					G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				384460.406					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				370142.281					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				370142.281					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.80	384.235	429.909	264675.000	0.093	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				264675.000					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				264675.000					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				253631.266					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				882992.063					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				491621.313					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				610491.125					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				291181.750					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				453241.094					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				491621.313					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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33	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032319B, Date: 08-Mar-2023, Time: 01:31:12, ID: 0123-704-004-1, Description: 0123-704-004-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

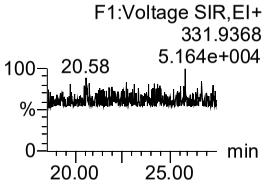
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032320B, Date: 08-Mar-2023, Time: 02:22:32, ID: 0123-704-005-1, Description: 0123-704-005-1

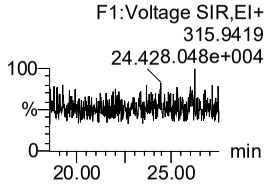
	Summary Flag Reason
149	

Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

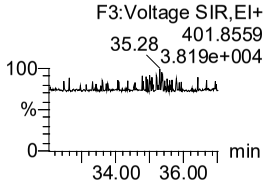
13C-1234-TCDD (JS)



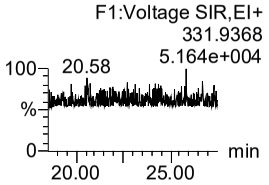
13C-1234-TCDF (JS)



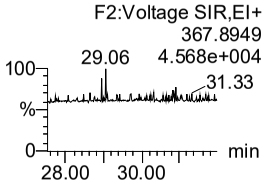
13C-123467-HxCDD (JS)



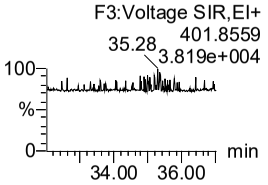
13C-2378-TCDD (ES)



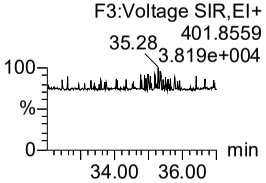
13C-12378-PeCDD (ES)



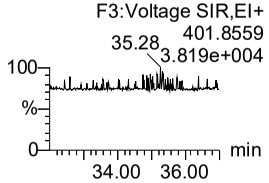
13C-123478-HxCDD (ES)



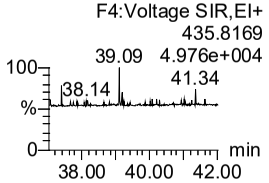
13C-123678-HxCDD (ES)



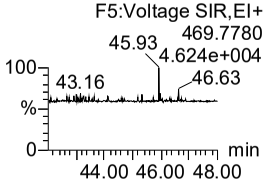
13C-123789-HxCDD (ES)



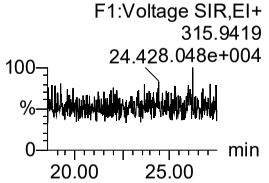
13C-1234678-HpCDD (ES)



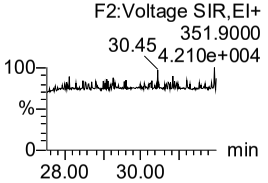
13C-OCDD (ES)



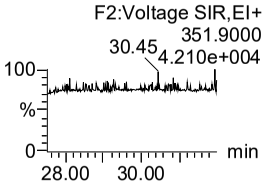
13C-2378-TCDF (ES)



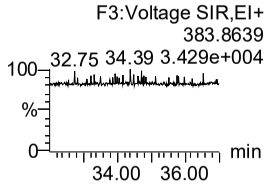
13C-12378-PeCDF (ES)



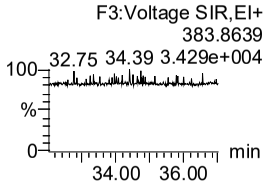
13C-23478-PeCDF (ES)



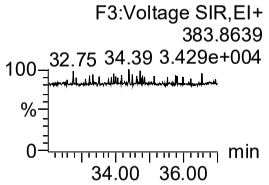
13C-123478-HxCDF (ES)



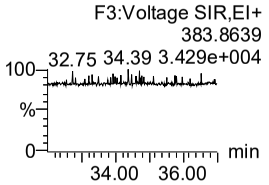
13C-123678-HxCDF (ES)



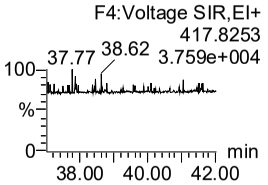
13C-234678-HxCDF (ES)



13C-123789-HxCDF (ES)



13C-1234678-HpCDF (ES)



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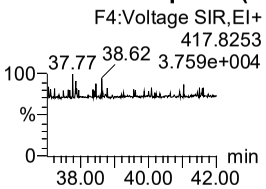
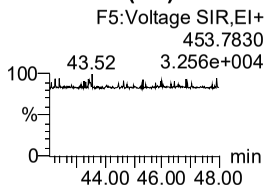
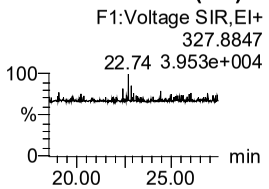


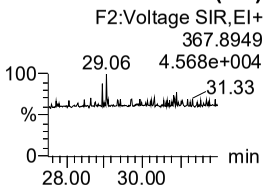
13C-OCDF (ES)



37Cl-2378-TCDD (CS)



13C-12347-PeCDD (CS)



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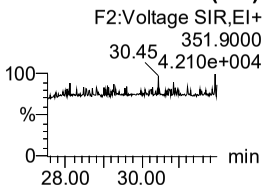
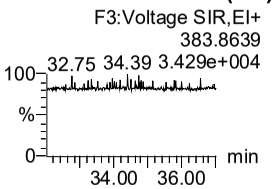


13C-123469-HxCDF (CS)

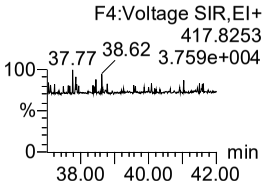


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

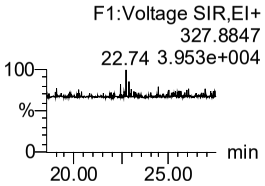
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

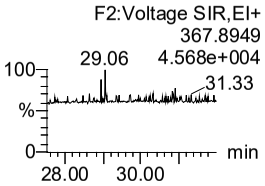
13C-1234689-HpCDF (CS)



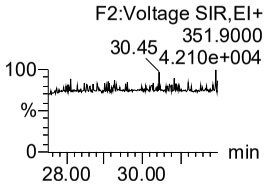
37Cl-2378-TCDD (SS)



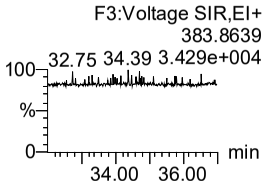
13C-12347-PeCDD (SS)



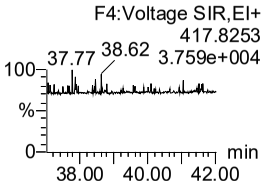
13C-12346-PeCDF (SS)



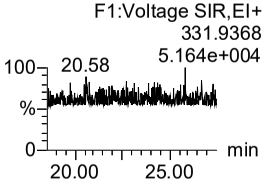
13C-123469-HxCDF (SS)



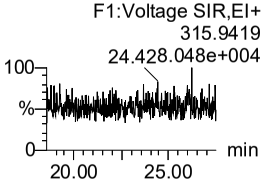
13C-1234689-HpCDF (SS)



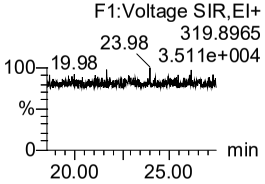
13C-1368-TCDD (AS)



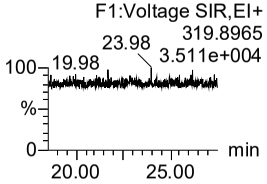
13C-1368-TCDF (AS)



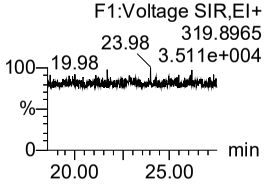
1368-TCDD



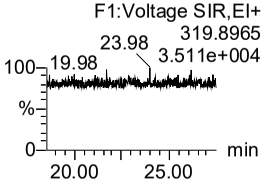
1379-TCDD



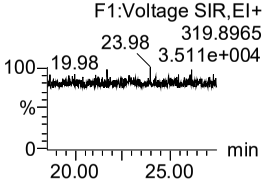
1369-TCDD



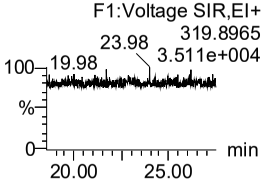
1469-TCDD



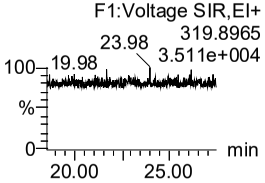
1247/1246/1248/1249-TCDI



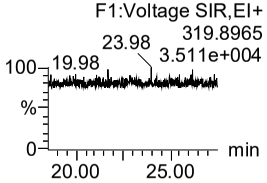
1378-TCDD



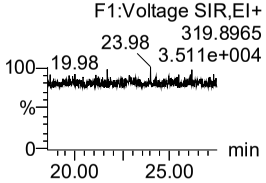
1268-TCDD



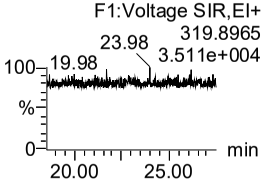
1478-TCDD



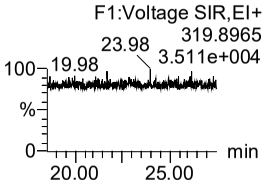
1279-TCDD



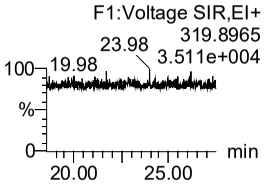
1234/1269-TCDD



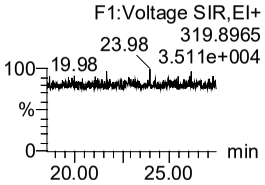
1236-TCDD



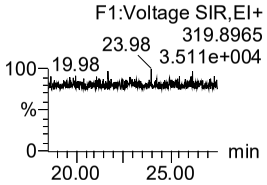
1237/1238-TCDD



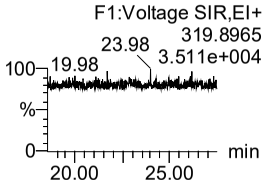
1239-TCDD [CE]



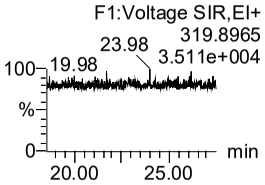
2378-TCDD (S)



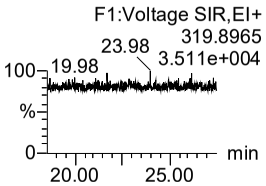
1278-TCDD



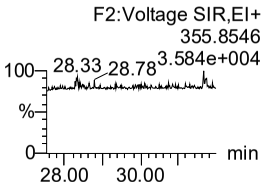
1267-TCDD



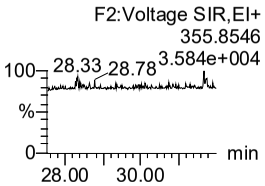
1289-TCDD



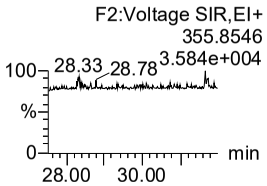
12479/12468-PeCDD



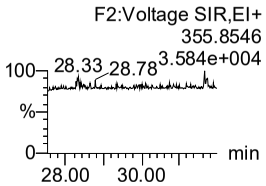
12469-PeCDD



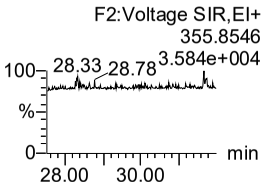
12368-PeCDD



12478-PeCDD



12379-PeCDD



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.33 28.78 3.584e+004
100 % 0 min
28.00 30.00

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.33 28.78 3.584e+004
100 % 0 min
28.00 30.00

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.33 28.78 3.584e+004
100 % 0 min
28.00 30.00

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.33 28.78 3.584e+004
100 % 0 min
28.00 30.00

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.33 28.78 3.584e+004
100 % 0 min
28.00 30.00

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.34 2.996e+004
100 % 0 min
34.00 36.00

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
37.43 2.981e+004
100 % 0 min
38.00 40.00 42.00

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
37.43 2.981e+004
100 % 0 min
38.00 40.00 42.00

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.06 44.82 2.970e+004
100 % 0 min
44.00 46.00 48.00

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

2467-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

2368-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
20.42 25.14 3.084e+004
100 % 0 min
20.00 25.00

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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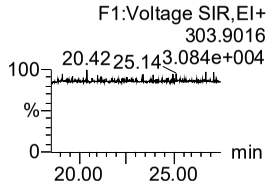
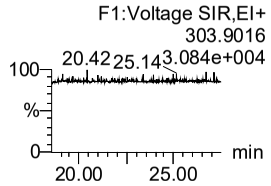
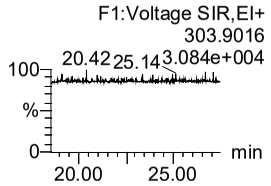
1278-TCDF



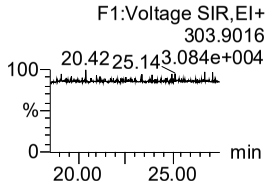
1349-TCDF



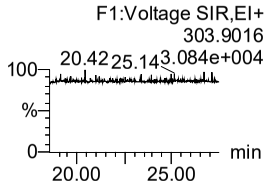
1267-TCDF



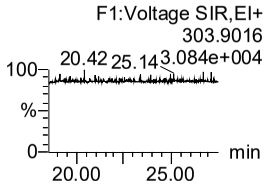
2346/1249-TCDF



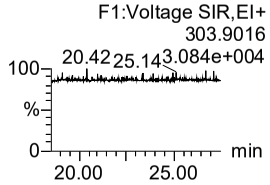
2347/1279-TCDF



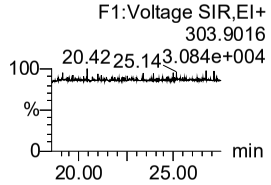
2348-TCDF [CE]



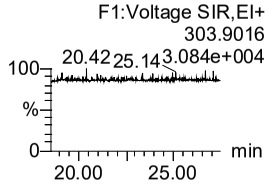
2378-TCDF (S)



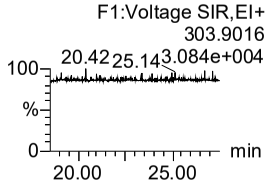
2367/3467-TCDF



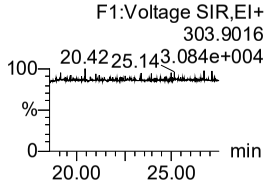
1269-TCDF



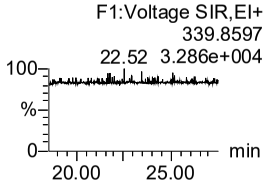
1239-TCDF



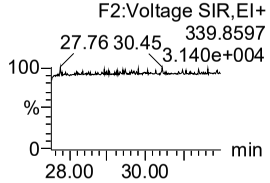
1289-TCDF



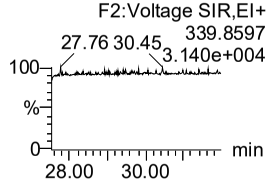
13468/12466-PeCDF



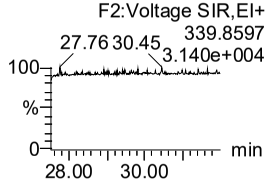
13678/13467/12467-PeCDF



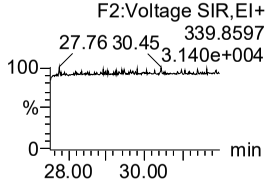
12368/13478/12478-PeCDF



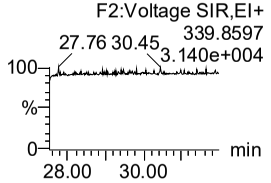
14678-PeCDF



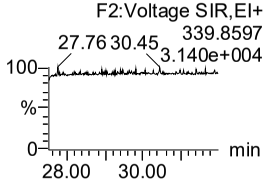
13479-PeCDF



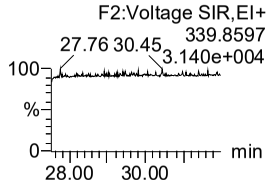
13469/12479-PeCDF



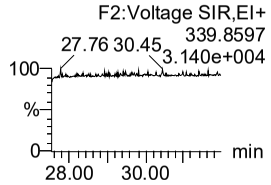
12346-PeCDF



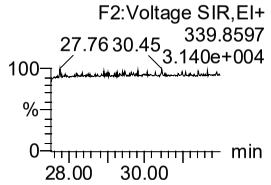
23468/12469-PeCDF



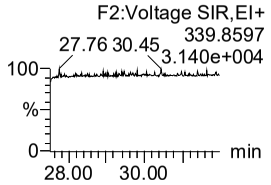
12347-PeCDF



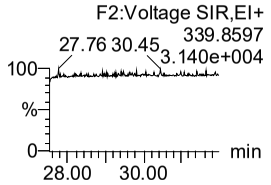
12348-PeCDF



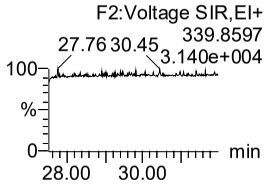
12378-PeCDF (S)



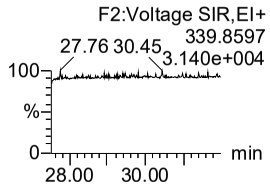
12678/12367-PeCDF



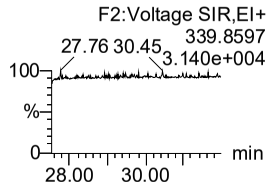
12379-PeCDF



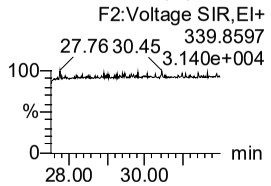
12679-PeCDF



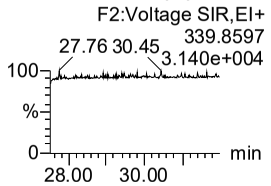
23467/12369-PeCDF



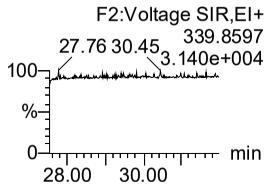
23478-PeCDF (S)



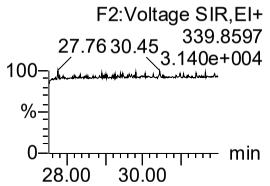
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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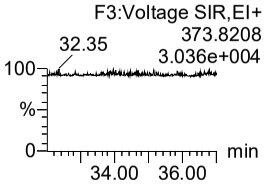
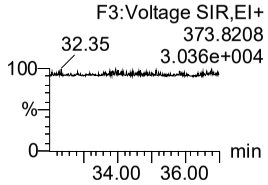
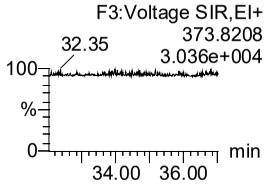
123468-HxCDF



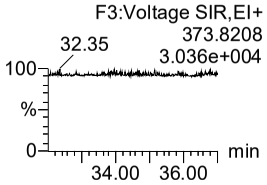
124678/134678-HxCDF



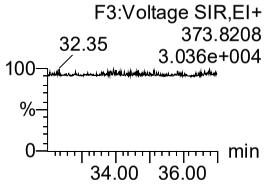
134679-HxCDF



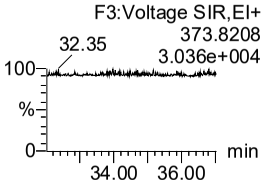
124679-HxCDF



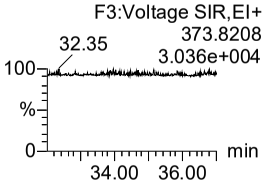
124689-HxCDF



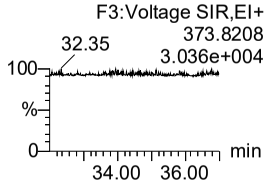
123467-HxCDF



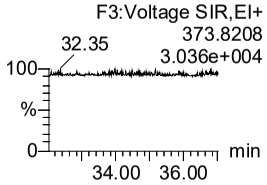
123478-HxCDF (S)



123678-HxCDF (S)



123479-HxCDF



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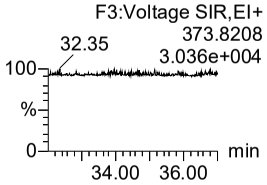
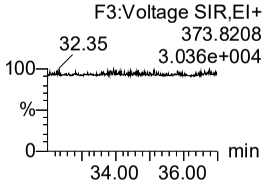
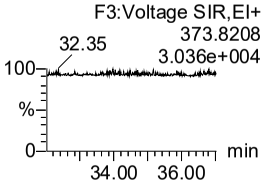


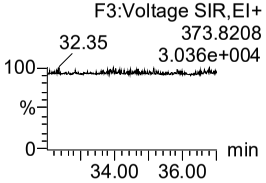
123679-HxCDF



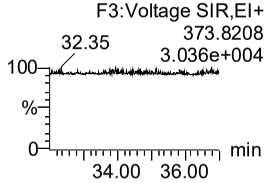
234678-HxCDF (S)



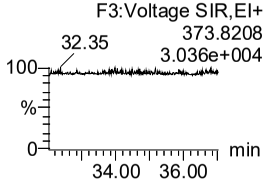
123689-HxCDF (NR)



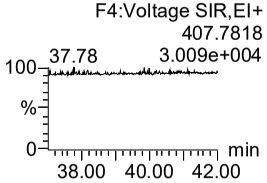
123789-HxCDF (S)



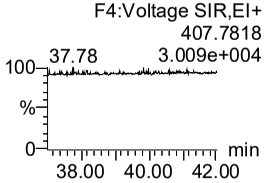
123489-HxCDF (R)



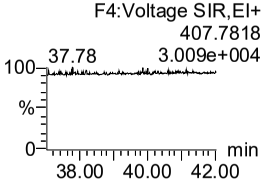
1234678-HpCDF (S)



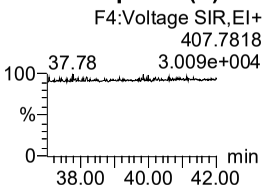
1234679-HpCDF



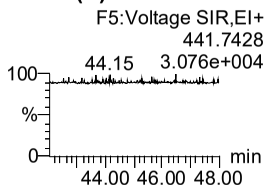
1234689-HpCDF



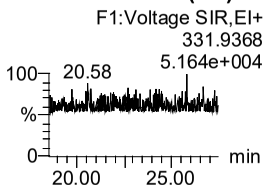
1234789-HpCDF (S)



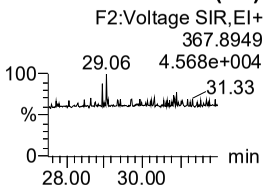
OCDF (S)



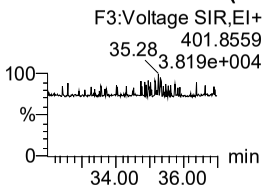
13C-1278-TCDD (FS)



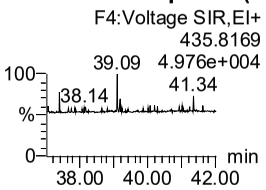
13C-12478-PeCDD (FS)



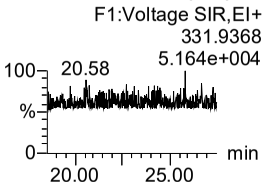
13C-123468-HxCDD (FS)



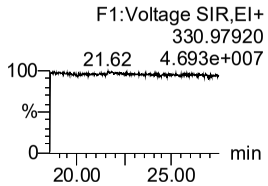
13C-1234679-HpCDD (FS)



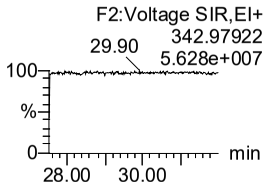
13C-1378-TCDD (TS)



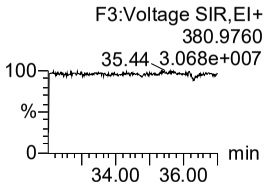
QC Check Ion Fn 1



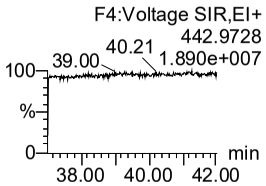
QC Check Ion Fn 2



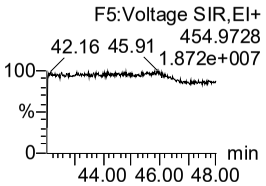
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5

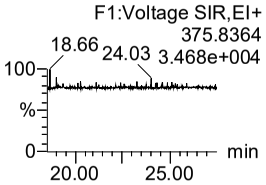


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

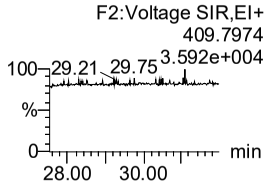
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

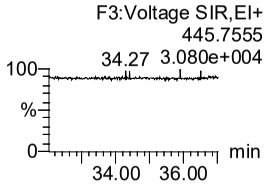
HxDPE



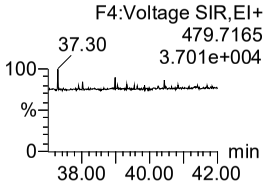
HpDPE



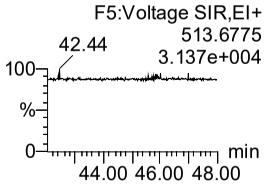
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780									G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830									G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965									G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965									G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546									G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766									G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766									G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377									G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016									G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016									G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016									G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428									G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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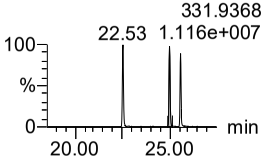
Name: G07032321B, Date: 08-Mar-2023, Time: 03:13:53, ID: Solvent Blank, Description: Solvent Blank

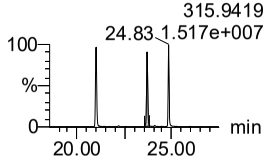
	Summary Flag Reason
149	

Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

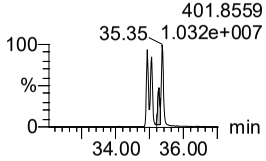
13C-1234-TCDD (JS)



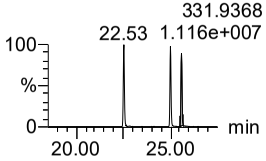
13C-1234-TCDF (JS)



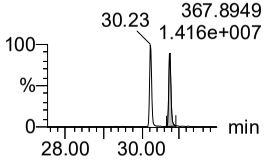
13C-123467-HxCDD (JS)



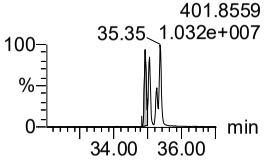
13C-2378-TCDD (ES)



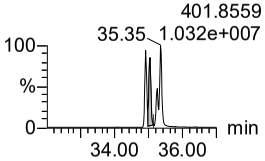
13C-12378-PeCDD (ES)



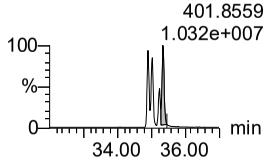
13C-123478-HxCDD (ES)



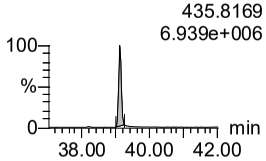
13C-123678-HxCDD (ES)



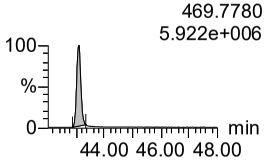
13C-123789-HxCDD (ES)



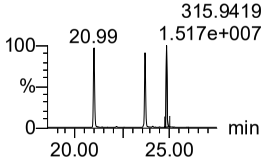
13C-1234678-HpCDD (ES)



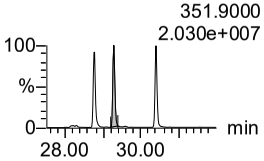
13C-OCDD (ES)



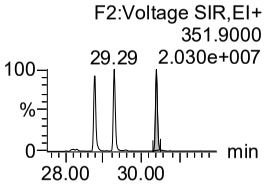
13C-2378-TCDF (ES)



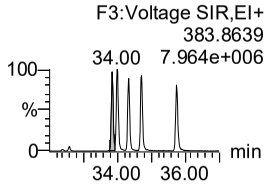
13C-12378-PeCDF (ES)



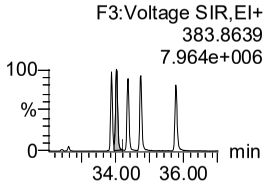
13C-23478-PeCDF (ES)



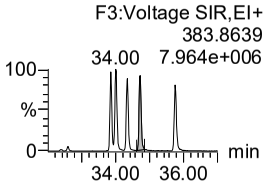
13C-123478-HxCDF (ES)



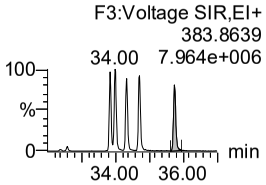
13C-123678-HxCDF (ES)



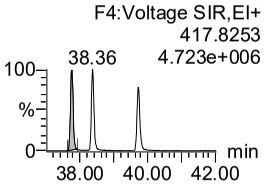
13C-234678-HxCDF (ES)



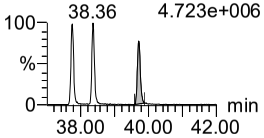
13C-123789-HxCDF (ES)



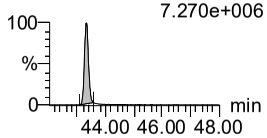
13C-1234678-HpCDF (ES)



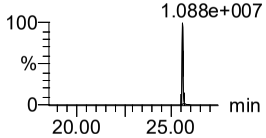
13C-1234789-HpCDF (ES)



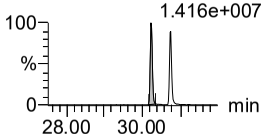
13C-OCDF (ES)



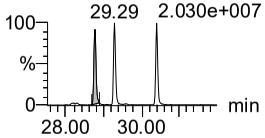
37Cl-2378-TCDD (CS)



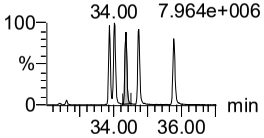
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)

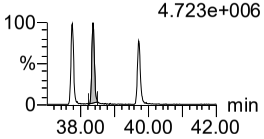


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

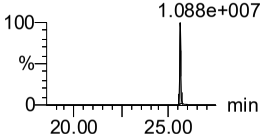
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

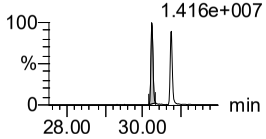
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
4.723e+006



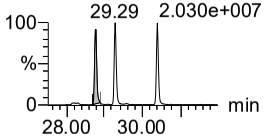
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
1.088e+007



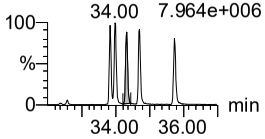
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
1.416e+007



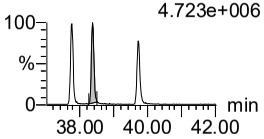
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
29.29 2.030e+007



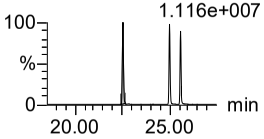
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
34.00 7.964e+006



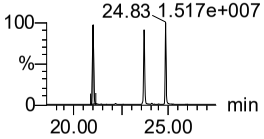
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
4.723e+006



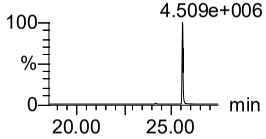
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
1.116e+007



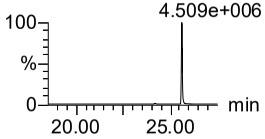
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
24.83 1.517e+007



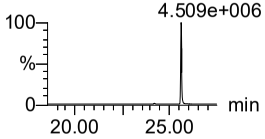
1368-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



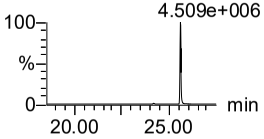
1379-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



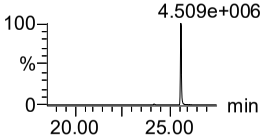
1369-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



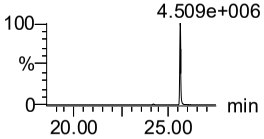
1469-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



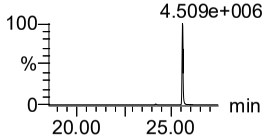
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
4.509e+006



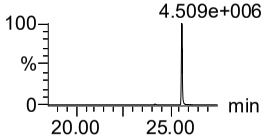
1378-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



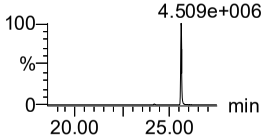
1268-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



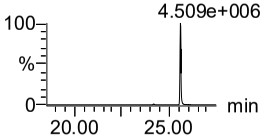
1478-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



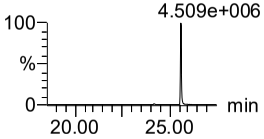
1279-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



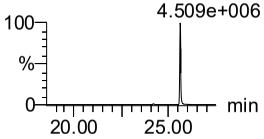
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



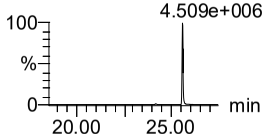
1236-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



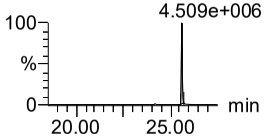
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



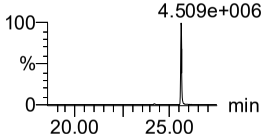
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
4.509e+006



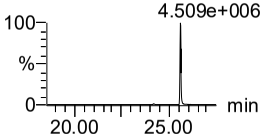
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
4.509e+006



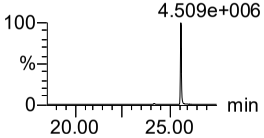
1278-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



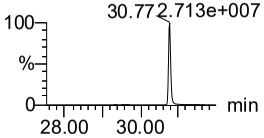
1267-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



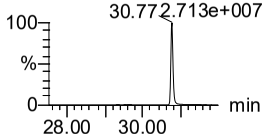
1289-TCDD
F1:Voltage SIR,EI+
319.8965
4.509e+006



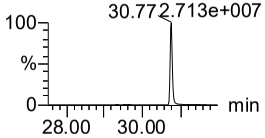
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007



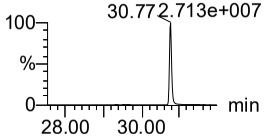
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007



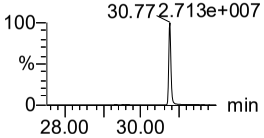
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007



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12369/12467/12489-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007

12346/12347-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007

12378-PeCDD (S)
F2:Voltage SIR,EI+
355.8546
2.713e+007

12367-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007

12389-PeCDD
F2:Voltage SIR,EI+
355.8546
30.77 2.713e+007

124679/124689-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123468-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123679/123689-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123469-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123478-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
2.144e+007

123678-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123467-HxCDD
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

123789-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
34.93 2.144e+007

1234679-HpCDD
F4:Voltage SIR,EI+
423.7766
39.12 1.445e+007

1234678-HpCDD (S)
F4:Voltage SIR,EI+
423.7766
1.445e+007

OCDD (S)
F5:Voltage SIR,EI+
457.7377
1.336e+007

1368-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1468-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

2468-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1346/1246-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1347/1378/1247-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1348-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1248/1367/1379-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1268-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1467-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1478-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1369/1237-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

2467-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

2368-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 5.509e+006
23.63

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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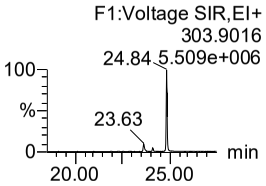
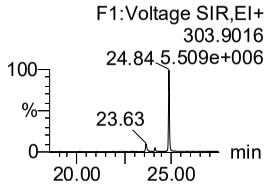
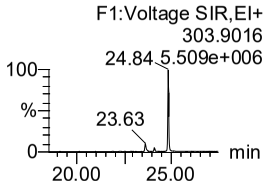
1278-TCDF



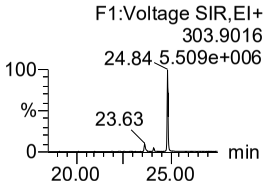
1349-TCDF



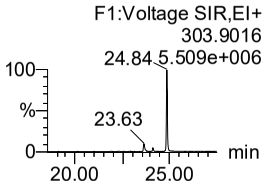
1267-TCDF



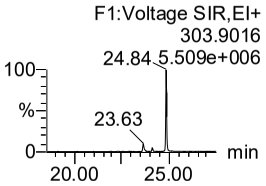
2346/1249-TCDF



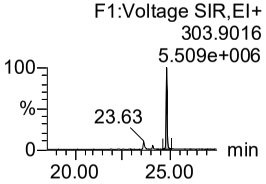
2347/1279-TCDF



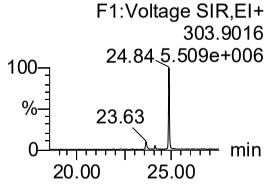
2348-TCDF [CE]



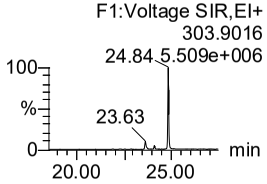
2378-TCDF (S)



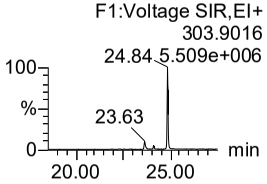
2367/3467-TCDF



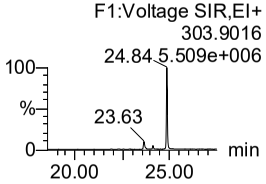
1269-TCDF



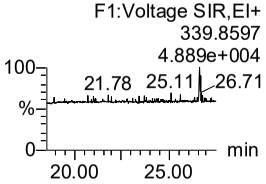
1239-TCDF



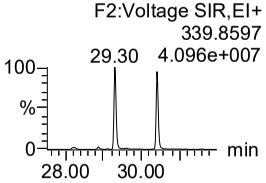
1289-TCDF



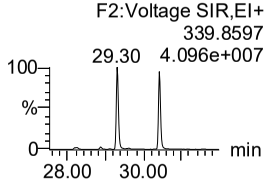
13468/12466-PeCDF



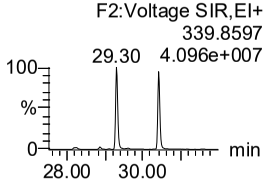
13678/13467/12467-PeCDF



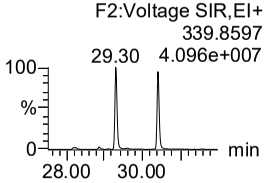
12368/13478/12478-PeCDF



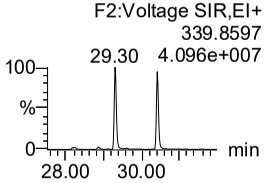
14678-PeCDF



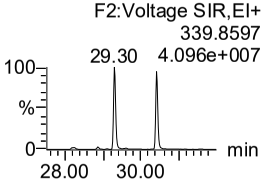
13479-PeCDF



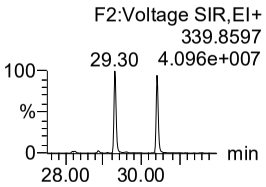
13469/12479-PeCDF



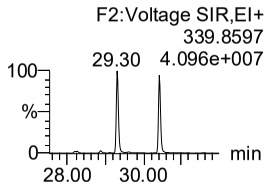
12346-PeCDF



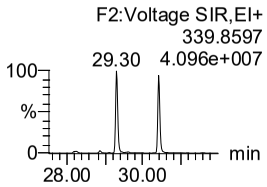
23468/12469-PeCDF



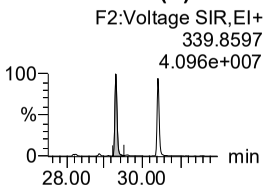
12347-PeCDF



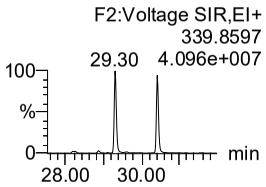
12348-PeCDF



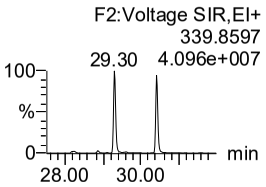
12378-PeCDF (S)



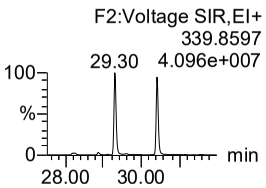
12678/12367-PeCDF



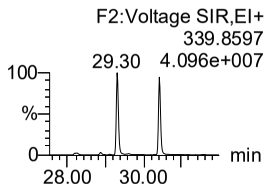
12379-PeCDF



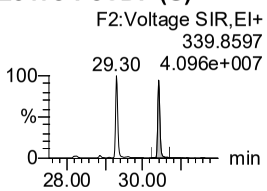
12679-PeCDF



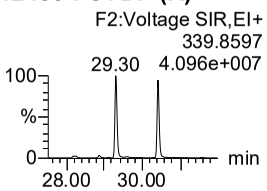
23467/12369-PeCDF



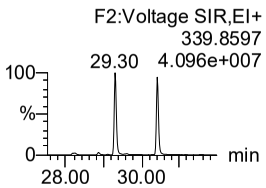
23478-PeCDF (S)



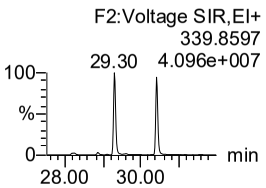
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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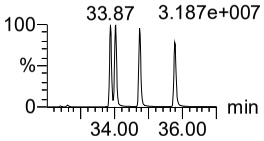
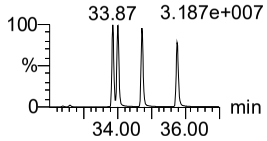
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

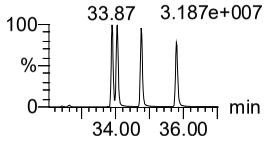
123468-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



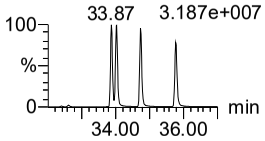
124678/134678-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



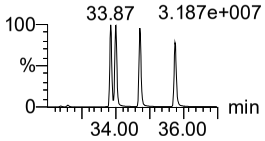
134679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



124679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



124689-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



123467-HxCDF
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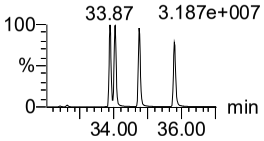
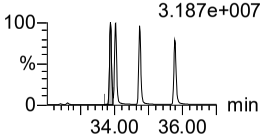
33.87 3.187e+007



123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
3.187e+007



123678-HxCDF (S)
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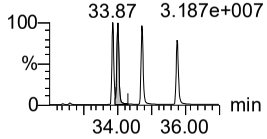
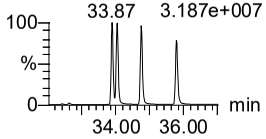
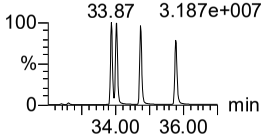
33.87 3.187e+007



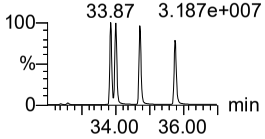
123479-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



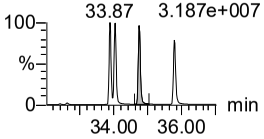
123469-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



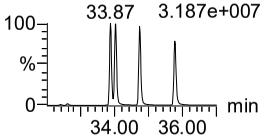
123679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



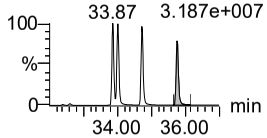
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



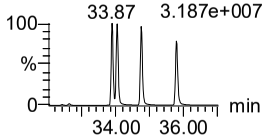
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



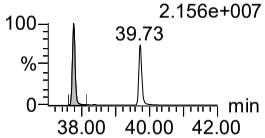
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



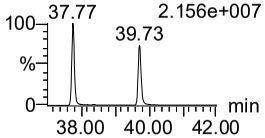
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208
33.87 3.187e+007



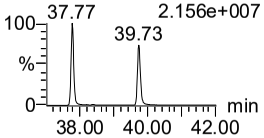
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
2.156e+007
39.73



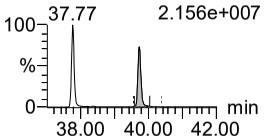
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 2.156e+007
39.73



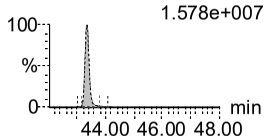
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 2.156e+007
39.73



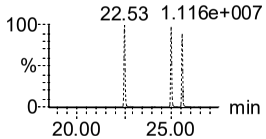
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.77 2.156e+007



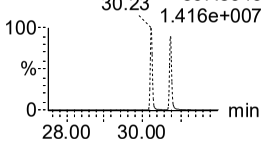
OCDF (S)
F5:Voltage SIR,EI+ 441.7428
1.578e+007



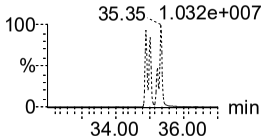
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368
22.53 1.116e+007



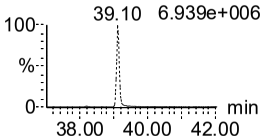
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949
30.23 1.416e+007



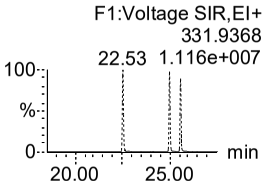
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559
35.35 1.032e+007



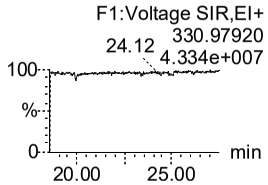
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169
39.10 6.939e+006



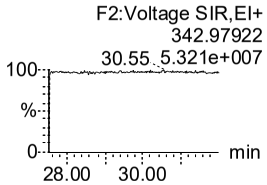
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368
22.53 1.116e+007



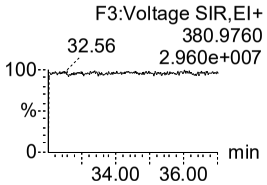
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920
24.12 4.334e+007



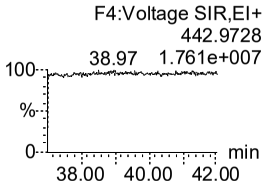
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922
30.55 5.321e+007



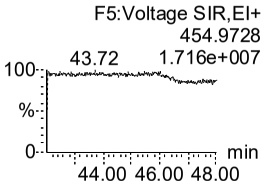
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760
32.56 2.960e+007



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728
38.97 1.761e+007



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728
43.72 1.716e+007



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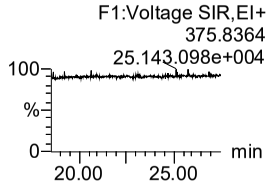
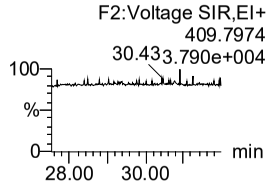
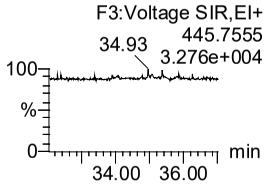
HxDPE



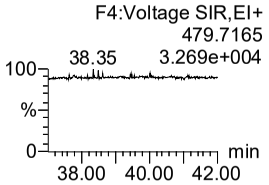
HpDPE



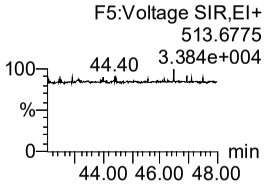
OcDPE



NoDPE



DeDPE



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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	710597.563	880509.750		1591107.313	bb	55.4	-44.6	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	928257.813	1197318.0...		2125575.813	bb	54.9	-45.1	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	311154.500	251195.859		562350.359	bd	27.2	-45.5	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	632824.500	802108.250	710597.563	90.185	bb	96.0	-4.0	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	835742.625	511917.594	710597.563	84.700	bb	103.7	3.7	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.90	646278.125	517747.125	311154.500	103.496	bd	99.0	-1.0	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	603681.625	476061.969	311154.500	96.003	db	97.4	-2.6	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.35	704313.625	548565.938	311154.500	111.397	db	100.2	0.2	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	600197.813	580745.188	311154.500	105.001	bb	114.2	14.2	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.11	965969.563	1095145.8...	311154.500	183.259	bb	246.6	23.3	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	924428.750	1196110.375	928257.813	99.763	bb	100.8	0.8	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	1240421.750	783302.000	928257.813	95.208	bb	108.3	8.3	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	1186024.125	769718.875	928257.813	92.010	bb	108.4	8.4	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	477861.469	911378.063	311154.500	123.521	bd	104.6	4.6	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.00	576016.063	1074889.0...	311154.500	146.786	db	103.3	3.3	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.72	519056.781	1014856.0...	311154.500	136.384	bb	105.6	5.6	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.75	493455.344	905081.000	311154.500	124.347	bb	105.4	5.4	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	426001.469	936553.000	311154.500	121.148	bb	125.2	25.2	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	360941.125	794835.813	311154.500	102.763	bb	117.7	17.7	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	1157374.875	1329465.0...	311154.500	221.111	bb	242.8	21.4	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	722500.438		710597.563	45.409	bb	39.8	-0.4	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.23	882837.375	555565.813	710597.563	90.403	bb	103.9	3.9	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	1217360.125	767253.813	928257.813	93.368	bb	108.6	8.6	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	490710.594	936202.938	311154.500	126.871	bb	98.3	-1.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	390985.063	846534.313	311154.500	110.031	bb	111.1	11.1	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	722500.438		632824.500	50.351	bb	41.6	4.0	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.23	868757.500	548847.375	835742.625	105.190	bb	100.2	0.2	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	1217360.125	767253.813	1240421.750	98.067	bb	94.3	-5.7	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	487103.313	920432.500	576016.063	85.258	bb	93.7	-6.3	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	390985.063	846534.313	426001.469	90.823	bb	93.6	-6.4	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.53	745995.375	922673.375	710597.563	104.875	bb	101.8	1.8	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.99	1081240.750	1371328.5...	928257.813	115.384	bb	105.9	5.9	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.60	300818.375	400343.719	632824.500	48.864	bb	42.9	7.2	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				632824.500					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.77	1827070.750	1157558.3...	835742.625	221.467	bs	218.7	9.4	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				835742.625					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				646278.125					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				646278.125					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				646278.125					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				646278.125					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.93	1515908.125	1188931.2...	646278.125	232.369	bd	220.3	10.1	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.05	1478990.250	1156323.2...	603681.625	244.068	db	221.9	10.9	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				704313.625					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.37	1575241.750	1258146.1...	704313.625	226.150	bs	216.3	8.1	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				600197.813					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1358410.500	1255456.3...	600197.813	221.337	bb	211.1	5.6	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.11	2365913.250	2689955.0...	965969.563	490.595	bd	426.7	6.7	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.84	374365.719	500684.719	924428.750	41.265	bd	37.2	-7.1	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				924428.750					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.30	2727130.500	1732237.8...	1240421.750	220.355	bd	205.1	2.6	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				1240421.750					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				1186024.125					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				1186024.125					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.42	2532653.000	1611539.8...	1186024.125	211.899	bd	200.3	0.1	G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				1186024.125					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				1186024.125					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				1186024.125					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				477861.469					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.87	2122450.000	1699633.0...	477861.469	275.121	bd	211.0	5.5	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	2419967.750	1934240.1...	576016.063	263.747	ds	218.4	9.2	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				576016.063					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				519056.781					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				519056.781					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.73	2263514.000	1810152.6...	519056.781	265.574	bs	214.2	7.1	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				519056.781					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.77	2020928.125	1582814.5...	493455.344	257.680	bs	211.0	5.5	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				493455.344					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.77	2006063.500	1944320.7...	426001.469	289.925	bd	196.8	-1.6	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				426001.469					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				426001.469					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.73	1691684.125	1626173.6...	360941.125	287.067	MM	206.6	3.3	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.34	2712963.500	2990373.5...	1157374.875	458.681	MM	391.7	-2.1	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				632824.500					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				835742.625					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				311154.500					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				600197.813					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				632824.500					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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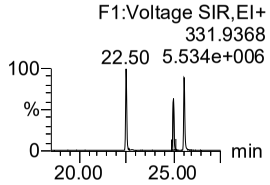
Name: G07032322B, Date: 08-Mar-2023, Time: 04:05:13, ID: SID AH70, Description: CS4

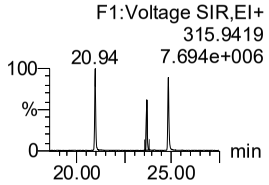
	Summary Flag Reason
149	

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

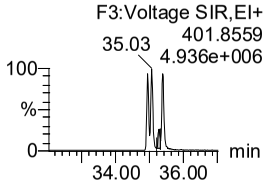
13C-1234-TCDD (JS)



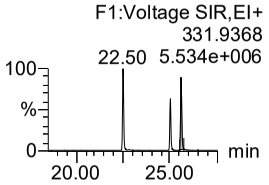
13C-1234-TCDF (JS)



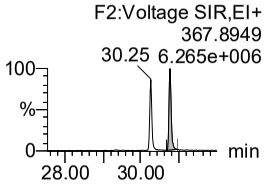
13C-123467-HxCDD (JS)



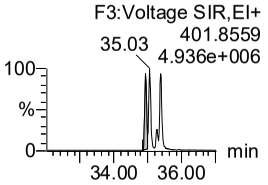
13C-2378-TCDD (ES)



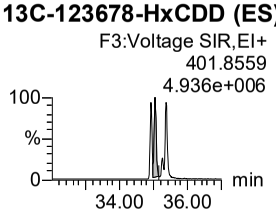
13C-12378-PeCDD (ES)



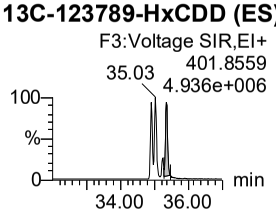
13C-123478-HxCDD (ES)



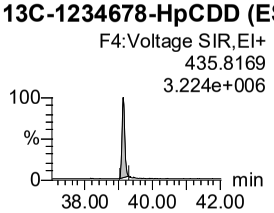
13C-123678-HxCDD (ES)



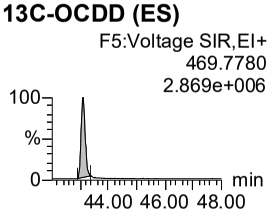
13C-123789-HxCDD (ES)



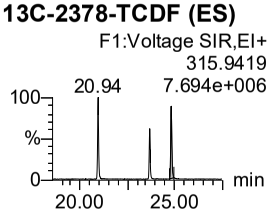
13C-1234678-HpCDD (ES)



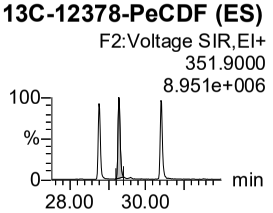
13C-OCDD (ES)



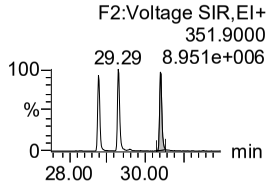
13C-2378-TCDF (ES)



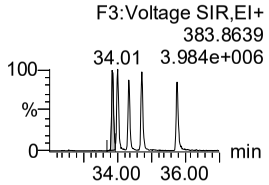
13C-12378-PeCDF (ES)



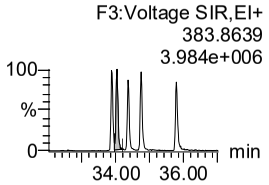
13C-23478-PeCDF (ES)



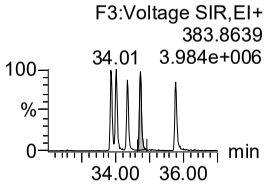
13C-123478-HxCDF (ES)



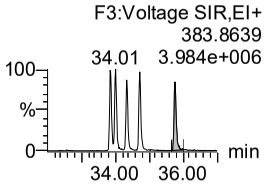
13C-123678-HxCDF (ES)



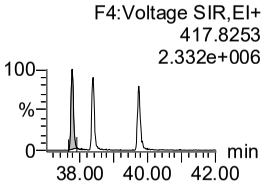
13C-234678-HxCDF (ES)



13C-123789-HxCDF (ES)



13C-1234678-HpCDF (ES)



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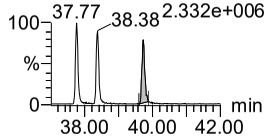
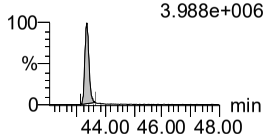
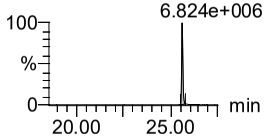


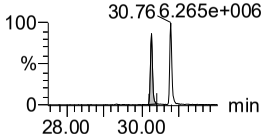
13C-OCDF (ES)



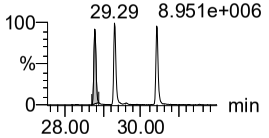
37Cl-2378-TCDD (CS)



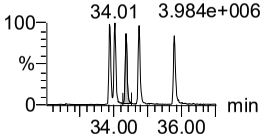
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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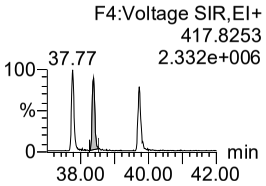
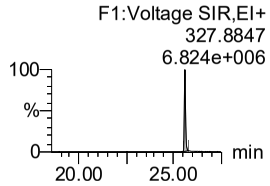
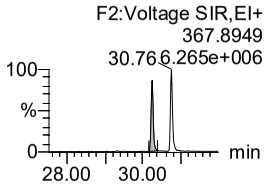
13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



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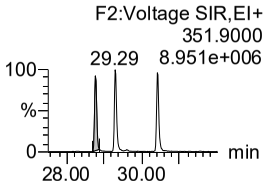
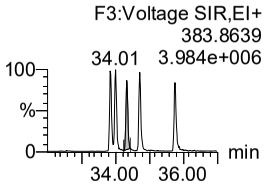


13C-123469-HxCDF (SS)



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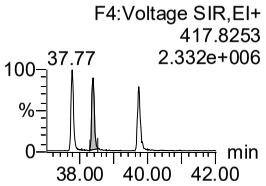
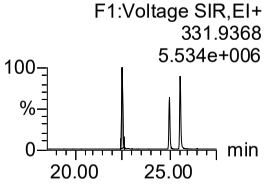


13C-1368-TCDD (AS)



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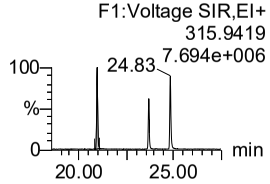

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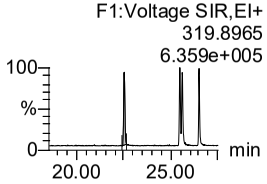

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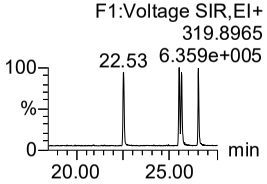

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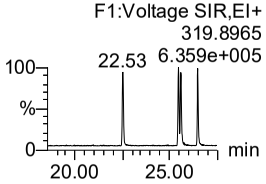

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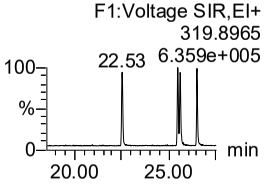
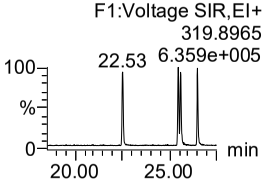


1247/1246/1248/1249-TCDI



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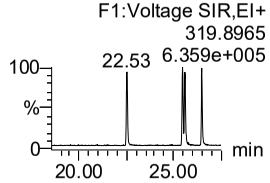

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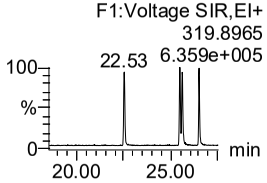

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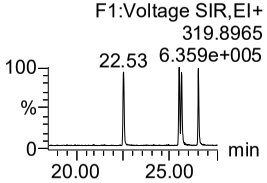

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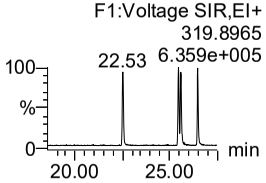

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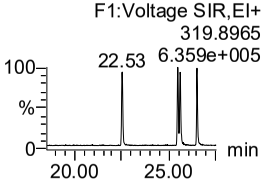

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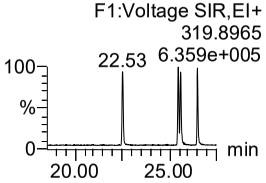
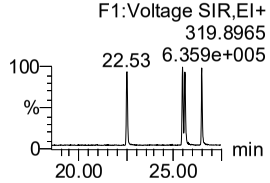
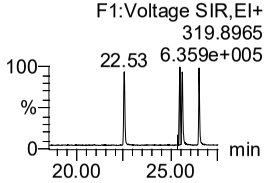


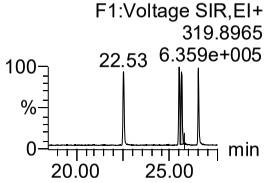
1237/1238-TCDD



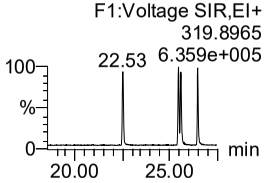
1239-TCDD [CE]



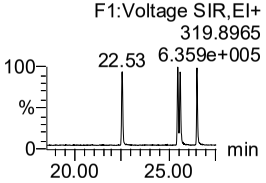
2378-TCDD (S)



1278-TCDD



1267-TCDD



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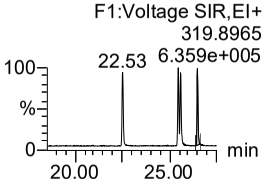
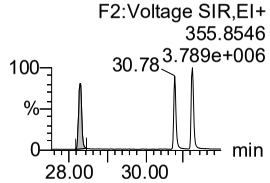


12479/12468-PeCDD



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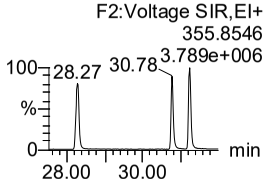

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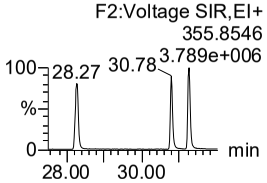

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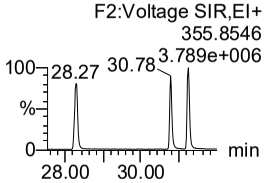

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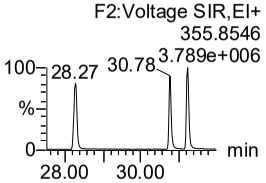

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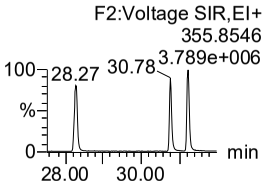
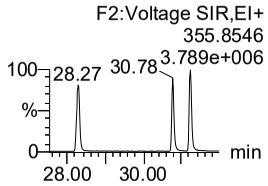
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

12369/12467/12489-PeCDD



12346/12347-PeCDD



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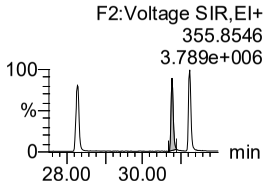

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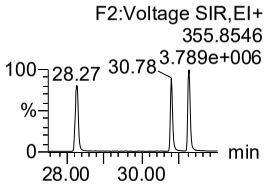

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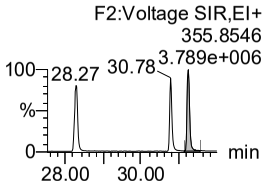

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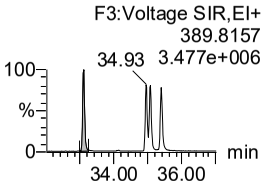

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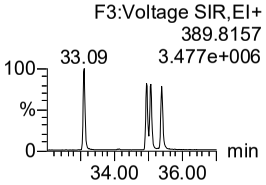

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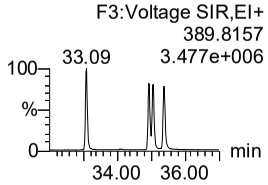

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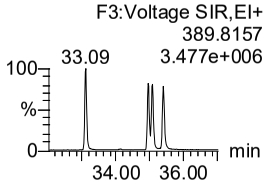

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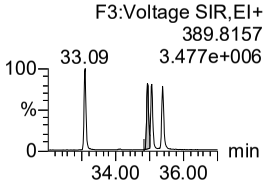

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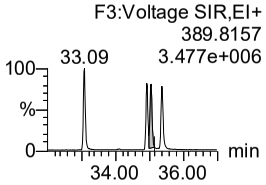

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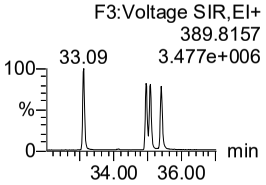

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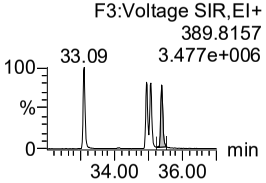

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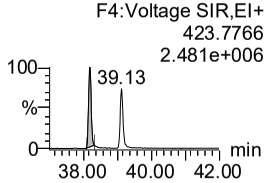

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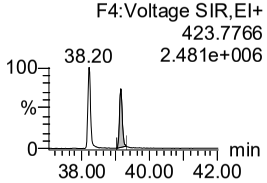
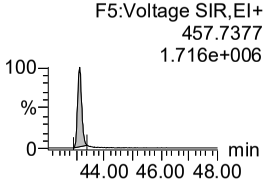


OCDD (S)



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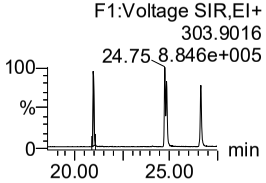

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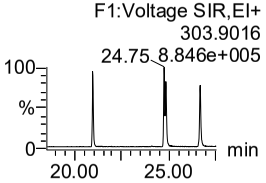

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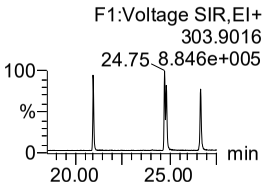
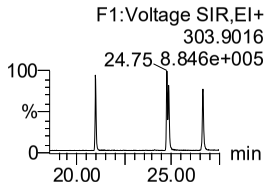
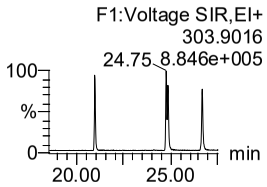


1346/1246-TCDF



1347/1378/1247-TCDF



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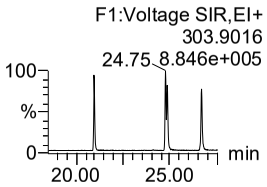

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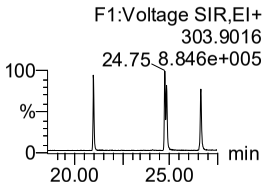
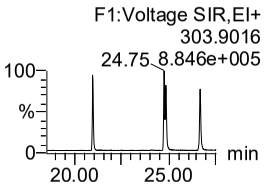
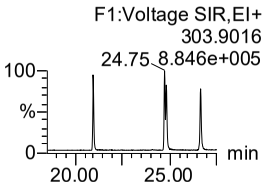


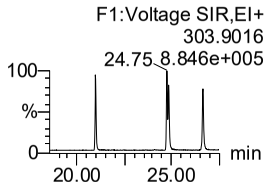
1268-TCDF



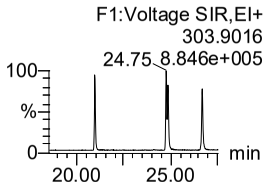
1467-TCDF



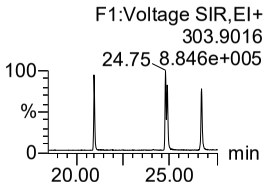
1478-TCDF



1369/1237-TCDF



2467-TCDF



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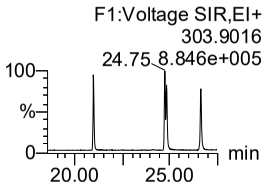

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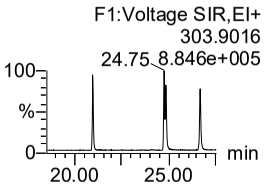

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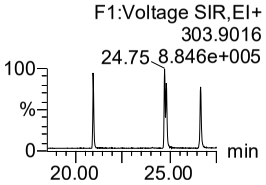
1278-TCDF



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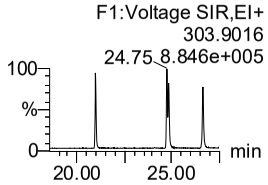

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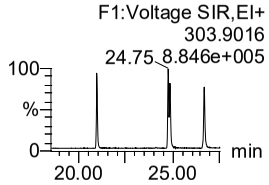

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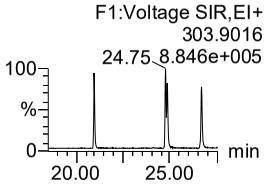
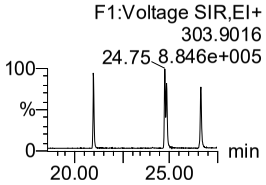
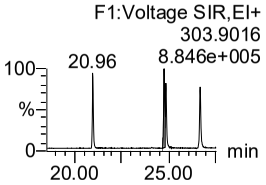


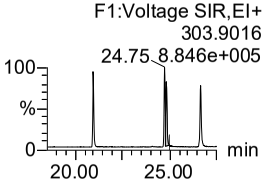
2347/1279-TCDF



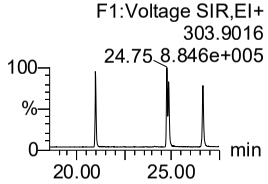
2348-TCDF [CE]



2378-TCDF (S)



2367/3467-TCDF



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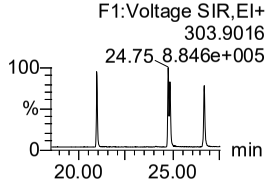
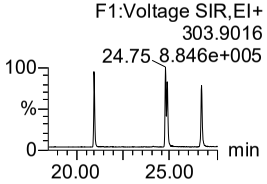
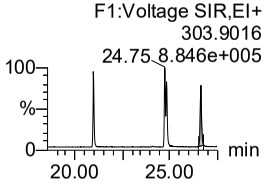


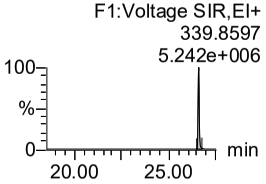
1239-TCDF



1289-TCDF



13468/12466-PeCDF



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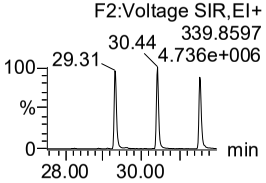

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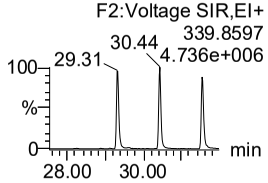

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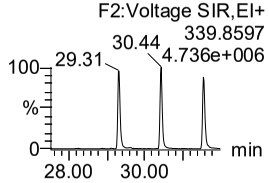

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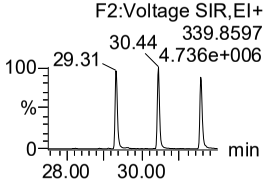

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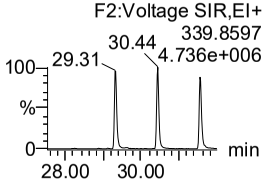
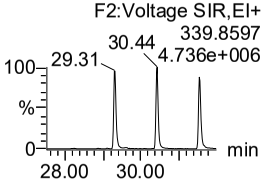
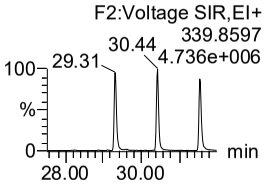


12346-PeCDF



23468/12469-PeCDF



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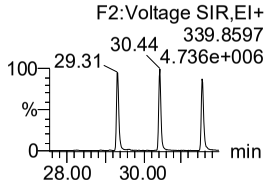

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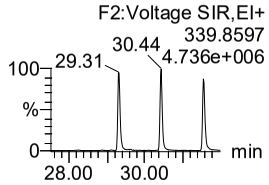

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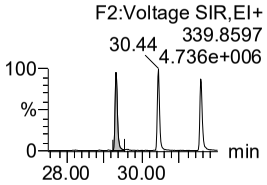
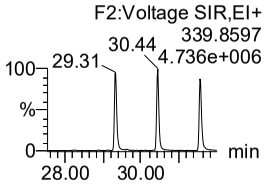
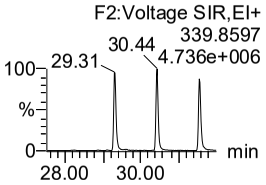


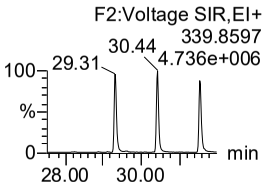
12678/12367-PeCDF



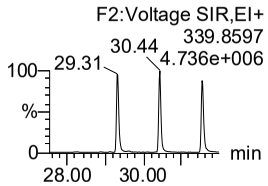
12379-PeCDF



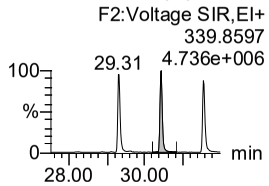
12679-PeCDF



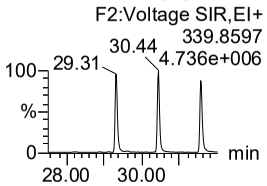
23467/12369-PeCDF



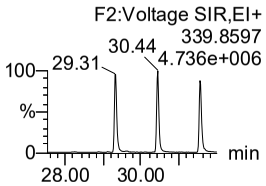
23478-PeCDF (S)



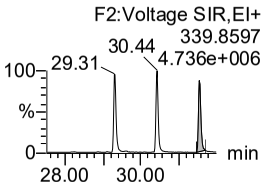
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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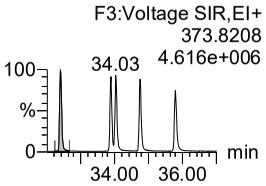
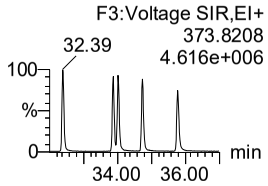
123468-HxCDF



124678/134678-HxCDF



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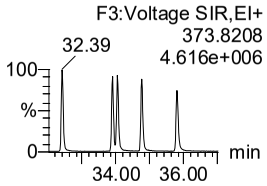

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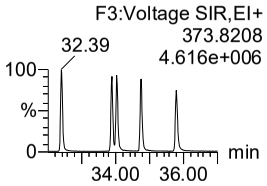

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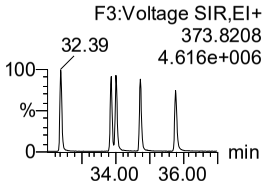

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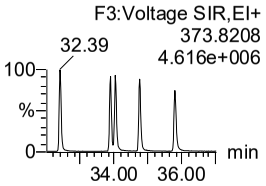

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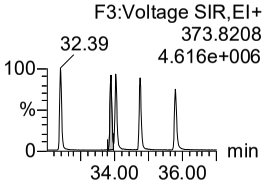
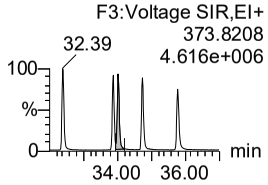
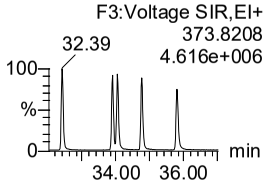


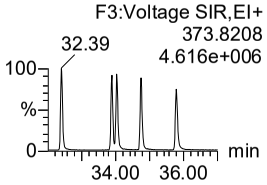
123678-HxCDF (S)



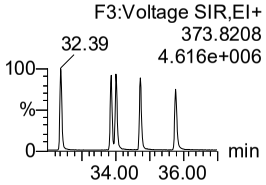
123479-HxCDF



123469-HxCDF



123679-HxCDF



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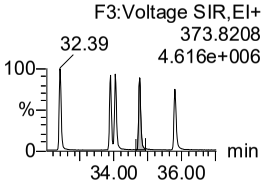
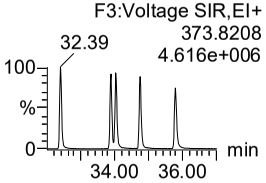
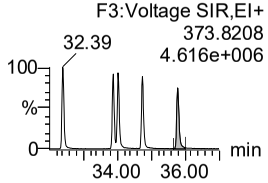


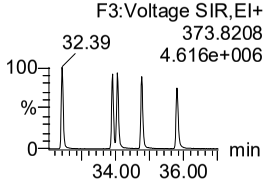
123689-HxCDF (NR)



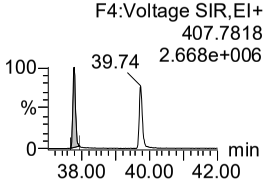
123789-HxCDF (S)



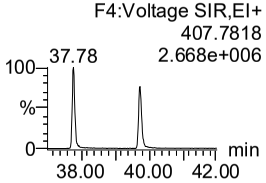
123489-HxCDF (R)



1234678-HpCDF (S)



1234679-HpCDF



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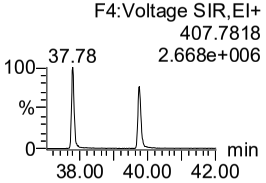
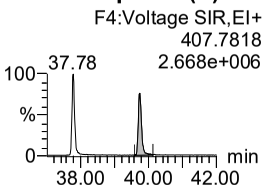
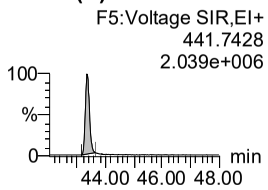


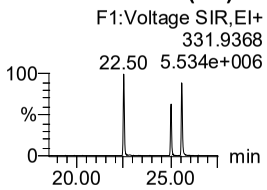
1234789-HpCDF (S)



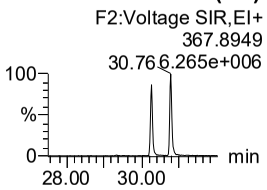
OCDF (S)



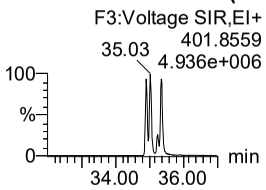
13C-1278-TCDD (FS)



13C-12478-PeCDD (FS)



13C-123468-HxCDD (FS)



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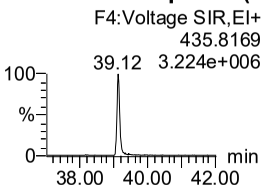
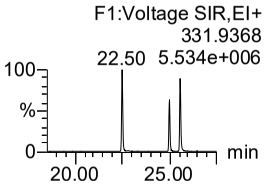
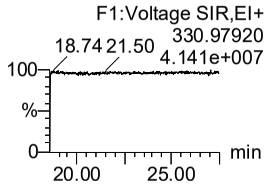


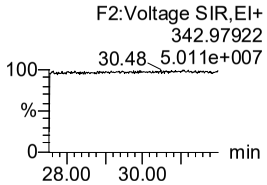
13C-1378-TCDD (TS)



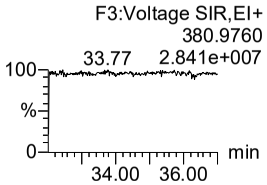
QC Check Ion Fn 1



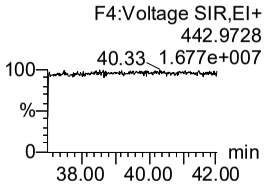
QC Check Ion Fn 2



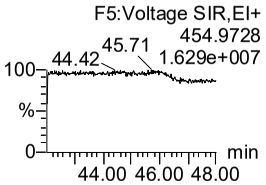
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5

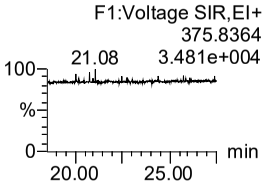


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

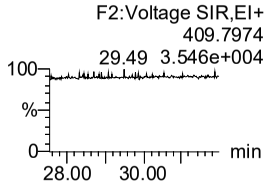
Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

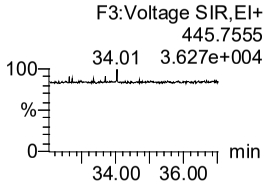
HxDPE



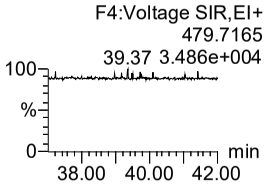
HpDPE



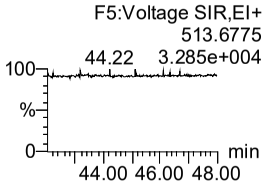
OcDPE



NoDPE



DeDPE



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Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	234900.203	292018.375		526918.578	bb	18.4	-63.3	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	331837.969	410175.250		742013.219	bb	19.2	-61.7	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	68198.688	55109.262		123307.950	bd	6.0	-76.1	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.57	340245.625	424297.969	234900.203	72.549	bb	77.3	-22.7	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.76	401081.094	246701.141	234900.203	61.469	bb	75.3	-24.7	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	293818.188	239091.016	68198.688	108.044	bd	103.3	3.3	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	338945.813	275405.750	68198.688	124.556	db	126.3	26.3	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	320374.219	249751.031	68198.688	115.590	db	104.0	4.0	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	289142.375	276193.469	68198.688	114.619	bb	124.7	24.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.11	455443.219	515322.375	68198.688	196.817	bb	264.8	32.4	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	453893.469	588407.813	331837.969	70.235	bb	70.9	-29.1	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	582347.063	378231.438	331837.969	64.728	bb	73.6	-26.4	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	572603.938	368078.750	331837.969	63.387	bb	74.7	-25.3	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	257358.906	482810.156	68198.688	150.065	bd	127.0	27.0	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	268703.031	530354.500	68198.688	162.004	db	114.0	14.0	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	263971.688	496497.156	68198.688	154.181	bb	119.4	19.4	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	248290.250	475981.156	68198.688	146.842	bb	124.5	24.5	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	193772.594	417397.531	68198.688	123.911	bb	128.1	28.1	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.73	170394.250	385206.688	68198.688	112.645	bb	129.1	29.1	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.34	647616.000	752088.500	68198.688	283.782	bb	311.6	55.8	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	476626.844		234900.203	45.228	bb	39.7	-0.8	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	339993.844	219678.984	234900.203	53.108	bb	61.0	-39.0	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.77	531043.875	336448.375	331837.969	58.455	bb	68.0	-32.0	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	225559.438	428130.594	68198.688	132.532	bb	102.7	2.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.38	178242.953	394442.344	68198.688	116.109	bb	117.3	17.3	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	476626.844		340245.625	62.341	bb	51.5	28.8	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	339993.844	210655.734	401081.094	85.005	bb	81.0	-19.0	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.77	531043.875	336448.375	582347.063	90.309	bb	86.8	-13.2	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	215869.563	416309.688	268703.031	79.116	bb	86.9	-13.1	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.38	178242.953	386102.563	193772.594	92.339	bb	95.2	-4.8	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.50	364758.844	437576.563	234900.203	76.135	bb	73.9	-26.1	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.94	549897.125	676087.375	331837.969	82.612	bb	75.8	-24.2	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.53	42290.145	55081.715	340245.625	12.736	bb	10.9	8.9	G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

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Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965	25.48	40115.008	53081.602	340245.625	12.190	bd	10.4	4.2	G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.60	40940.367	51360.352	340245.625	12.073	db	10.6	6.0	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				340245.625					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965	26.50	40320.805	51040.973	340245.625	11.950	bb	10.2	2.1	G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546	28.27	269775.719	167701.703	401081.094	67.535	bb	63.7	27.4	G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.77	220509.797	137652.609	401081.094	55.291	bb	54.6	9.2	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				401081.094					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546	31.24	265524.500	153875.156	401081.094	64.744	bd	61.1	22.2	G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157	33.09	234064.469	183290.938	293818.188	78.316	bs	73.4	46.8	G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				293818.188					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				293818.188					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				293818.188					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.93	190221.344	146772.328	293818.188	63.237	bd	59.9	19.9	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.06	188812.172	153140.078	338945.813	55.661	db	50.6	1.2	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				320374.219					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.38	189860.375	150257.703	320374.219	59.657	bb	57.1	14.1	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.20	210859.156	197941.938	289142.375	72.311	bb	67.0	33.9	G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.13	167283.391	158529.828	289142.375	57.632	bb	55.0	9.9	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.13	270685.094	307504.000	455443.219	119.120	bb	103.6	3.6	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016	20.96	56944.445	75515.609	453893.469	12.708	bb	11.9	18.8	G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016	24.75	52681.051	68129.484	453893.469	11.591	bd	10.8	8.3	G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.84	52316.797	68129.000	453893.469	11.556	db	10.4	4.1	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				453893.469					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016	26.67	51264.699	70705.641	453893.469	11.702	bb	10.9	9.4	G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597	26.59	350461.813	213243.406	582347.063	58.684	bd	56.4	12.9	G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.31	333322.406	215823.109	582347.063	57.168	bd	53.2	6.4	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				582347.063					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				572603.938					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				572603.938					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.43	333135.813	197208.031	572603.938	56.379	bd	53.3	6.6	G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				572603.938					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				572603.938					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597	31.55	296349.813	187233.109	572603.938	51.408	bb	49.4	-1.1	G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208	32.39	327756.094	256898.297	257358.906	78.989	bs	62.4	24.9	G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				257358.906					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				257358.906					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				257358.906					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				257358.906					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				257358.906					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.88	272909.281	216769.188	257358.906	66.158	bd	50.7	1.5	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.03	296505.000	239810.594	268703.031	67.119	db	55.6	11.2	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				268703.031					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				263971.688					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				263971.688					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	289856.063	230321.344	263971.688	68.402	bs	55.2	10.3	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				263971.688					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.78	278280.844	214895.844	248290.250	68.093	bs	55.7	11.5	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				248290.250					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.78	226622.953	223350.344	193772.594	73.625	bb	50.0	-0.1	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				193772.594					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				193772.594					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.74	221329.594	201642.797	170394.250	76.129	bd	54.8	9.6	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.34	324263.688	385229.750	647616.000	101.378	bb	86.6	-13.4	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				340245.625					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				401081.094					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				68198.688					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				289142.375					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				340245.625					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
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Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 QLD_1.qld

Last Altered: Wednesday, March 08, 2023 10:24:03 Eastern Standard Time
Printed: Wednesday, March 08, 2023 10:26:39 Eastern Standard Time

Name: G07032323B, Date: 08-Mar-2023, Time: 05:05:26, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
149	

Quantify Sample Report **MassLynx 4.2 SCN1035**

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8_03_03_23.mdb 07 Mar 2023 15:57:02
Calibration: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\G_DF_ICAL_05MAY22_calibration file reprocessed 8_23_22.cdb 23 Aug 2022 10:47:36

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

13C-1234-TCDD (JS)
F1:Voltage SIR,EI+
331.9368
1.643e+007
22.52 25.58
100 % 0 min
20.00 25.00

13C-1234-TCDF (JS)
F1:Voltage SIR,EI+
315.9419
2.053e+007
20.96 24.83
100 % 0 min
20.00 25.00

13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+
401.8559
35.05 8.660e+006
100 % 0 min
34.00 36.00

13C-2378-TCDD (ES)
F1:Voltage SIR,EI+
331.9368
25.01 1.643e+007
22.52
100 % 0 min
20.00 25.00

13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+
367.8949
30.25 1.213e+007
100 % 0 min
28.00 30.00

13C-123478-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.05 8.660e+006
100 % 0 min
34.00 36.00

13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
8.660e+006
100 % 0 min
34.00 36.00

13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.05 8.660e+006
100 % 0 min
34.00 36.00

13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+
435.8169
5.884e+006
100 % 0 min
38.00 40.00 42.00

13C-OCDD (ES)
F5:Voltage SIR,EI+
469.7780
4.724e+006
100 % 0 min
44.00 46.00 48.00

13C-2378-TCDF (ES)
F1:Voltage SIR,EI+
315.9419
23.69 2.053e+007
20.96
100 % 0 min
20.00 25.00

13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
28.77 2.042e+007
100 % 0 min
28.00 30.00

13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
28.77 2.042e+007
100 % 0 min
28.00 30.00

13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.34 8.146e+006
35.77
100 % 0 min
34.00 36.00

13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.34 8.146e+006
35.77
100 % 0 min
34.00 36.00

13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.34 8.146e+006
100 % 0 min
34.00 36.00

13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.34 8.146e+006
100 % 0 min
34.00 36.00

13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
38.38 5.137e+006
39.73
100 % 0 min
38.00 40.00 42.00

13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
38.38 5.137e+006
100 % 0 min
38.00 40.00 42.00

13C-OCDF (ES)
F5:Voltage SIR,EI+
453.7830
7.116e+006
100 % 0 min
44.00 46.00 48.00

37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+
327.8847
1.123e+007
100 % 0 min
20.00 25.00

13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+
367.8949
1.213e+007
100 % 0 min
28.00 30.00

13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+
351.9000
2.042e+007
100 % 0 min
28.00 30.00

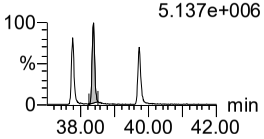
13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+
383.8639
8.146e+006
100 % 0 min
34.00 36.00

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

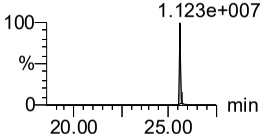
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

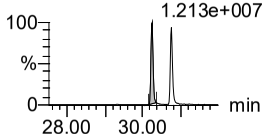
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
5.137e+006



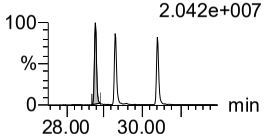
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
1.123e+007



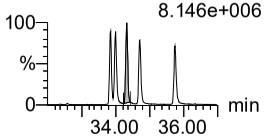
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
1.213e+007



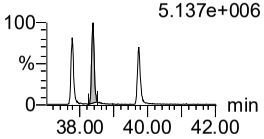
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
2.042e+007



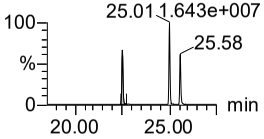
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
8.146e+006



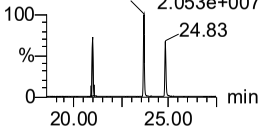
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
5.137e+006



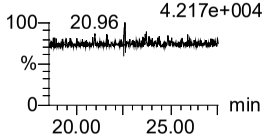
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
25.01 1.643e+007
25.58



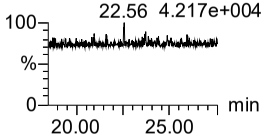
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
23.69
2.053e+007
24.83



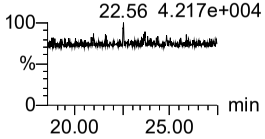
1368-TCDD
F1:Voltage SIR,EI+
319.8965
4.217e+004
20.96



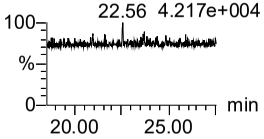
1379-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



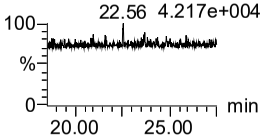
1369-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



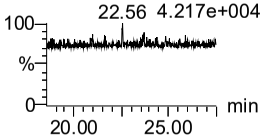
1469-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



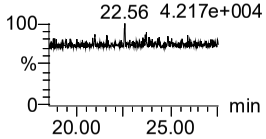
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



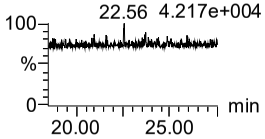
1378-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



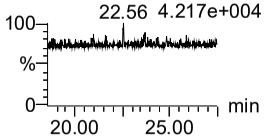
1268-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



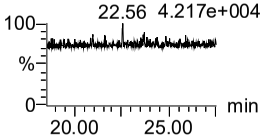
1478-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



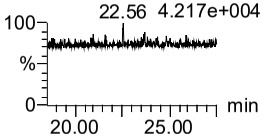
1279-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



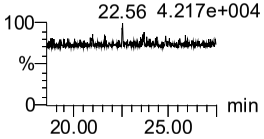
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



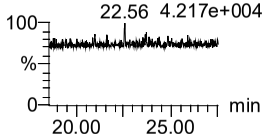
1236-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



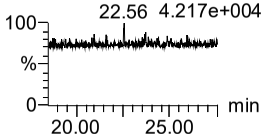
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



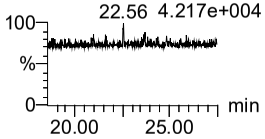
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



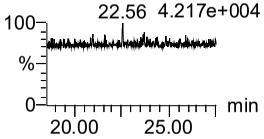
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



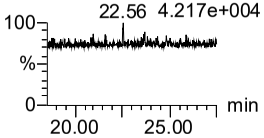
1278-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



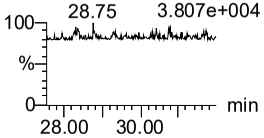
1267-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



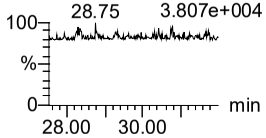
1289-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 4.217e+004



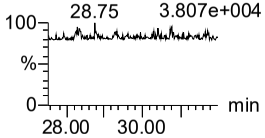
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
28.75
3.807e+004



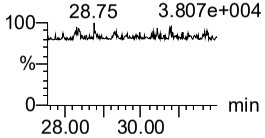
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
28.75
3.807e+004



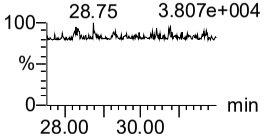
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
28.75
3.807e+004



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
28.75
3.807e+004



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
28.75
3.807e+004



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.75 3.807e+004

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.75 3.807e+004

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.75 3.807e+004

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.75 3.807e+004

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.75 3.807e+004

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.95 4.156e+004

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.12 5.805e+004
39.72 41.64

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
38.23 5.805e+004
39.72 41.64

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.13 4.381e+004
43.69 45.98

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

2467-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

2368-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
24.13 3.921e+004
22.14

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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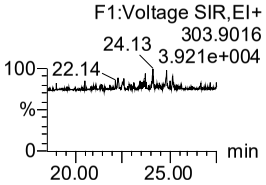
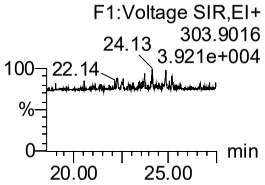
Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

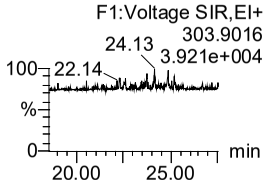
1278-TCDF



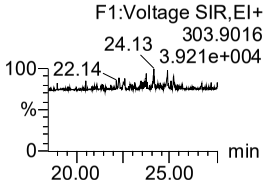
1349-TCDF



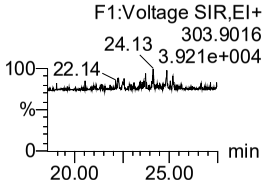
1267-TCDF



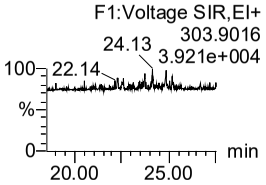
2346/1249-TCDF



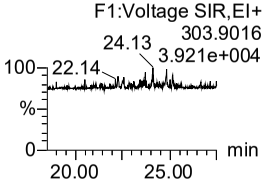
2347/1279-TCDF



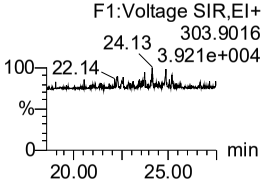
2348-TCDF [CE]



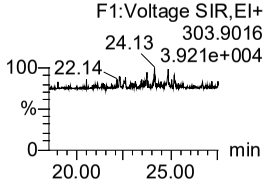
2378-TCDF (S)



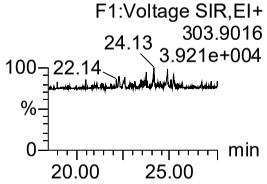
2367/3467-TCDF



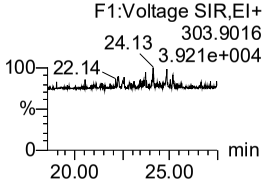
1269-TCDF



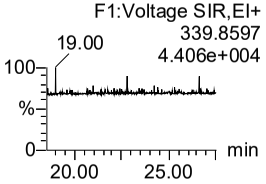
1239-TCDF



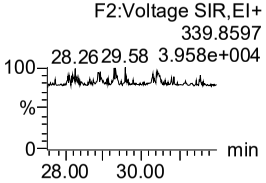
1289-TCDF



13468/12466-PeCDF



13678/13467/12467-PeCDF



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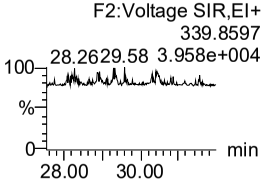

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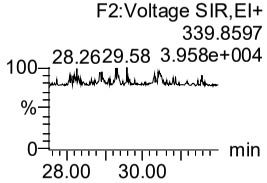

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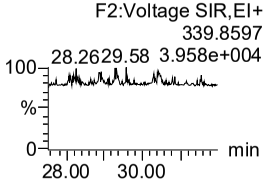

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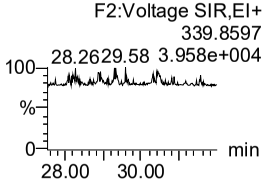

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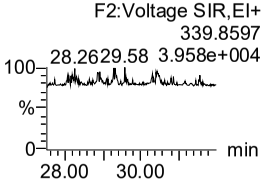

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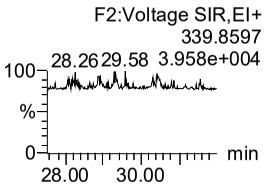

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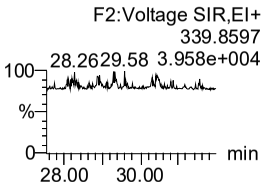

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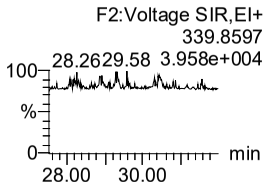

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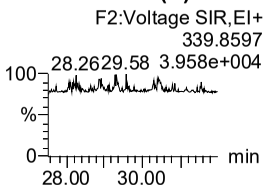

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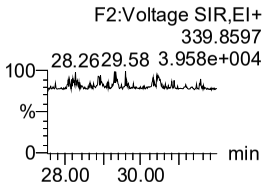

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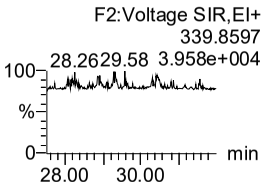

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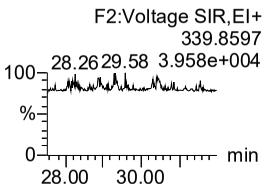

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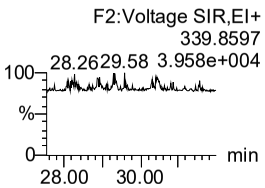
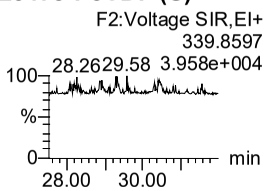
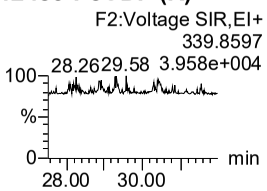


23478-PeCDF (S)



12489-PeCDF (R)



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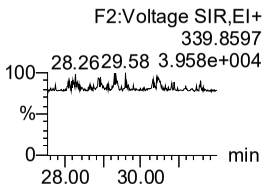

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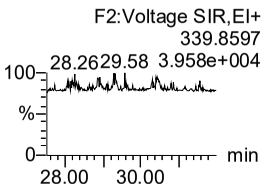

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Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

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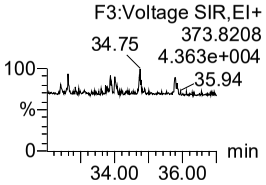
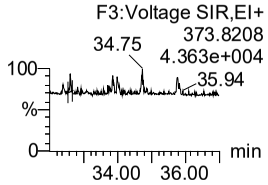


124678/134678-HxCDF



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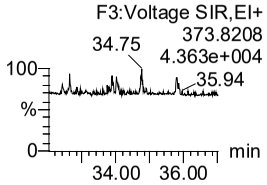

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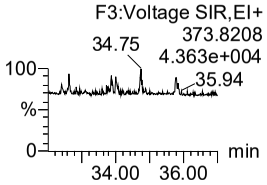

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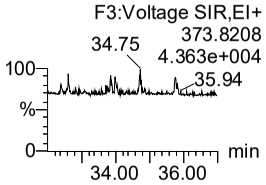

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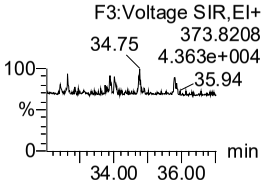

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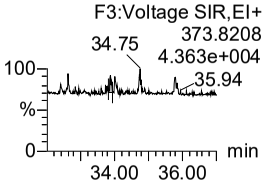
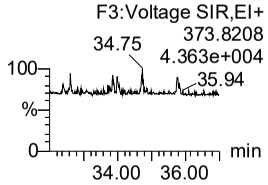


123678-HxCDF (S)



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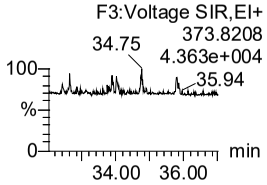

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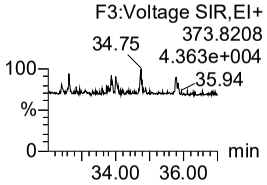

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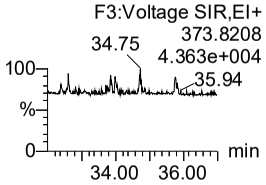
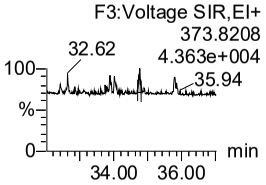


234678-HxCDF (S)



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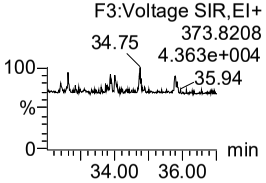

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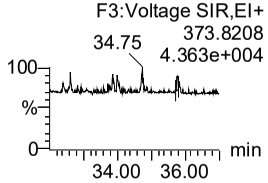
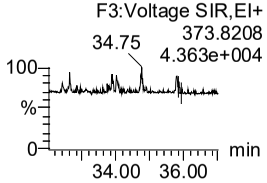


123489-HxCDF (R)



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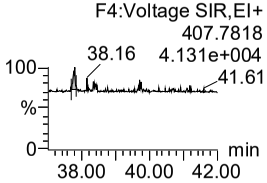

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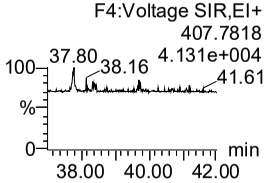

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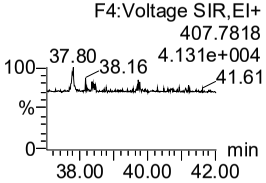
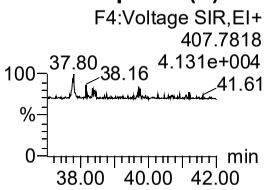
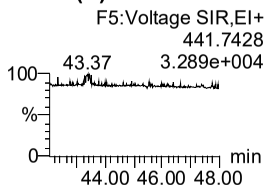


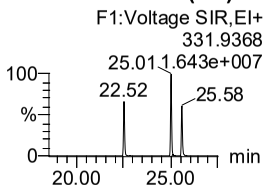
1234789-HpCDF (S)



OCDF (S)



13C-1278-TCDD (FS)



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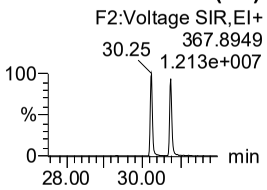

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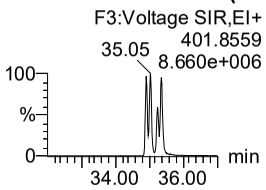

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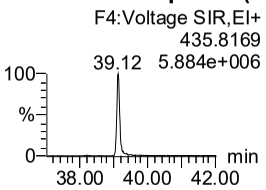

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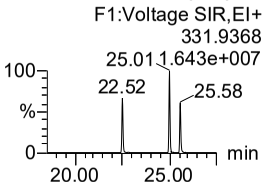
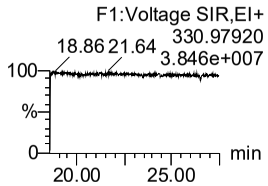


QC Check Ion Fn 1



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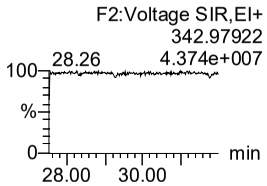
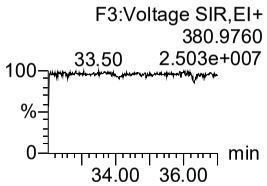
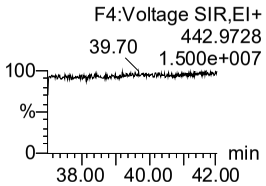


QC Check Ion Fn 3



QC Check Ion Fn 4



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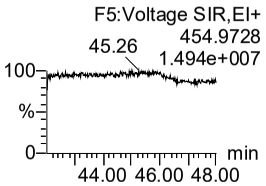

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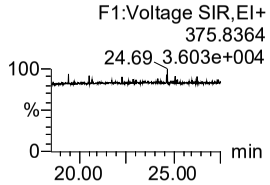
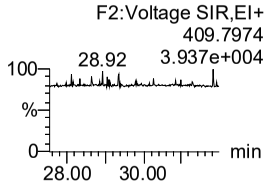
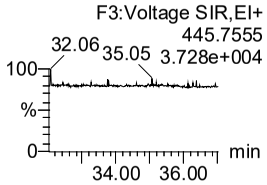


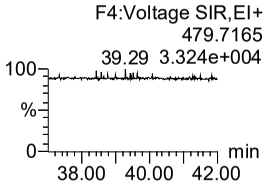
HpDPE



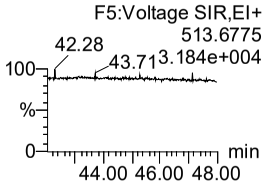
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	1019634.375	1274658.5...		2294292.875	bb	159.8	59.8	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	1427990.375	1845567.6...		3273558.000	bb	169.2	69.2	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	344338.031	273304.000		617642.031	bd	59.8	19.7	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	654226.313	851561.313	1019634.375	65.632	bb	139.8	39.8	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.76	783175.688	484191.813	1019634.375	55.240	bb	135.3	35.3	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	568084.250	451427.594	344338.031	82.533	bd	157.9	57.9	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.05	642199.875	512605.344	344338.031	93.485	db	189.6	89.6	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	615759.000	471593.406	344338.031	88.024	db	158.3	58.3	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	598845.375	524044.031	344338.031	90.901	bb	197.7	97.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.09	796319.375	859147.500	344338.031	134.015	bb	360.6	80.3	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	917570.625	1168345.2...	1427990.375	63.720	bb	128.7	28.7	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	1169389.375	755271.063	1427990.375	58.794	bb	133.8	33.8	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	1105511.875	726267.125	1427990.375	55.957	bb	131.8	31.8	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	486224.688	917447.688	344338.031	113.632	bd	192.4	92.4	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	534976.125	1023930.7...	344338.031	126.198	db	177.7	77.7	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	487467.969	946056.563	344338.031	116.048	bb	179.7	79.7	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	465269.406	866837.625	344338.031	107.838	bb	182.9	82.9	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	369113.906	823973.750	344338.031	96.584	bb	199.6	99.6	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.73	343791.000	767598.438	344338.031	89.970	bb	206.2	106.2	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.34	1179163.750	1321655.5...	344338.031	202.449	bb	444.6	122.3	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	739977.000		1019634.375	32.253	bb	56.6	41.5	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	805705.813	502055.125	1019634.375	57.001	bb	131.0	31.0	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.77	1271503.875	806448.563	1427990.375	63.477	bb	147.6	47.6	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	541052.688	1041927.1...	344338.031	128.147	bb	198.7	98.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.38	423882.281	951146.375	344338.031	111.313	bb	224.9	124.9	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	739977.000		654226.313	49.142	bb	81.2	103.1	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	777037.438	489576.594	783175.688	99.941	bb	190.4	90.4	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.77	1271503.875	806448.563	1169389.375	107.965	bb	207.6	107.6	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	522290.406	1008869.9...	534976.125	98.220	bb	215.9	115.9	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.38	423882.281	951146.375	369113.906	115.250	bb	237.6	137.6	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.51	741072.938	895396.438	1019634.375	71.328	bb	138.5	38.5	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	1070433.875	1414017.5...	1427990.375	75.895	bb	139.3	39.3	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.56	569.753	590.211	654226.313	0.077	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				654226.313					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				783175.688					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				568084.250					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				568084.250					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				568084.250					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				568084.250					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.92	395.300	415.496	568084.250	0.080	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				642199.875					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				615759.000					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.39	411.825	370.494	615759.000	0.072	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.23	657.849	855.063	598845.375	0.135	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	2579.364	2270.601	598845.375	0.432	bb	0.8		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				796319.375					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				917570.625					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				1169389.375					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				1105511.875					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				486224.688					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208	32.62	338.737	294.198	486224.688	0.045	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				486224.688					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				486224.688					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				486224.688					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				486224.688					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.87	456.989	384.171	486224.688	0.060	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				534976.125					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				534976.125					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				487467.969					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				487467.969					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.75	632.149	403.447	487467.969	0.072	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				487467.969					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.78	388.211	260.770	465269.406	0.049	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208	35.84	196.563	237.745	465269.406	0.033	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.80	706.568	764.729	369113.906	0.123	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				369113.906					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				369113.906					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				343791.000					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				1179163.750					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				654226.313					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				783175.688					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				344338.031					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				598845.375					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				654226.313					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
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33	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
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64	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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68	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
112	
113	
114	
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120	
121	
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125	
126	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
127	
128	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
129	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

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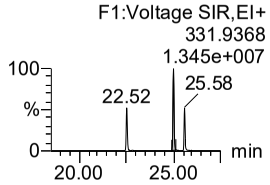
Name: G07032325B, Date: 08-Mar-2023, Time: 06:48:07, ID: 0123-704-006-1, Description: 0123-704-006-1

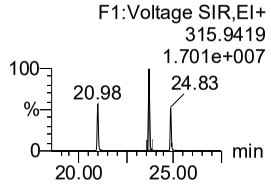
	Summary Flag Reason
149	

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

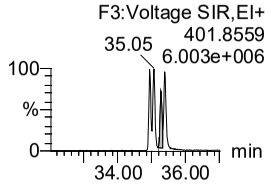
13C-1234-TCDD (JS)



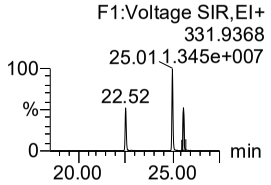
13C-1234-TCDF (JS)



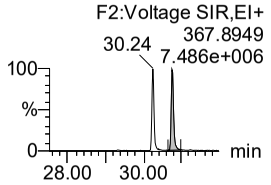
13C-123467-HxCDD (JS)



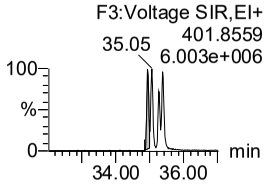
13C-2378-TCDD (ES)



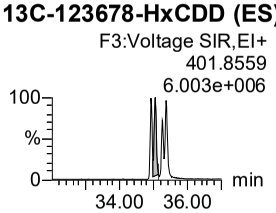
13C-12378-PeCDD (ES)



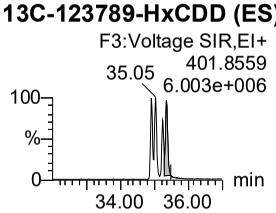
13C-123478-HxCDD (ES)



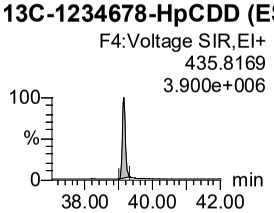
13C-123678-HxCDD (ES)



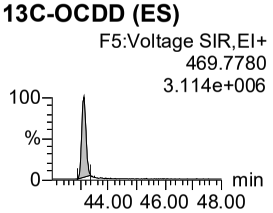
13C-123789-HxCDD (ES)



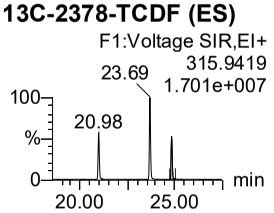
13C-1234678-HpCDD (ES)



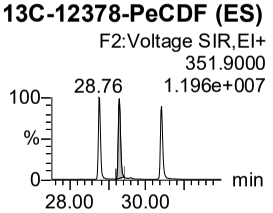
13C-OCDD (ES)



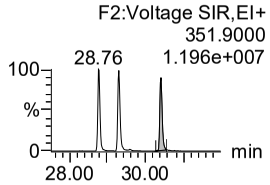
13C-2378-TCDF (ES)



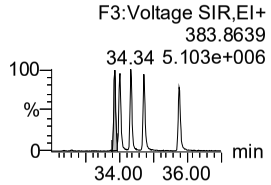
13C-12378-PeCDF (ES)



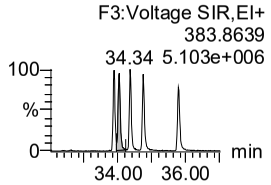
13C-23478-PeCDF (ES)



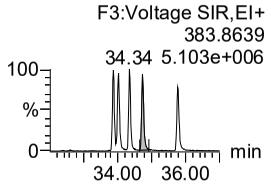
13C-123478-HxCDF (ES)



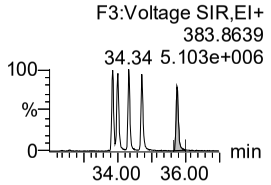
13C-123678-HxCDF (ES)



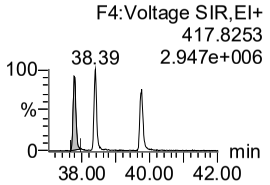
13C-234678-HxCDF (ES)



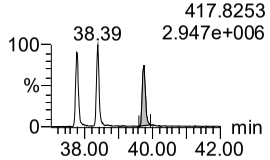
13C-123789-HxCDF (ES)



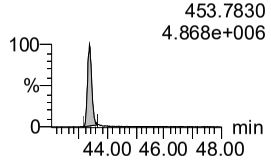
13C-1234678-HpCDF (ES)



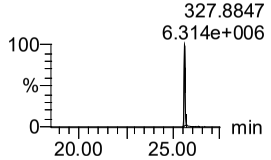
13C-1234789-HpCDF (ES)



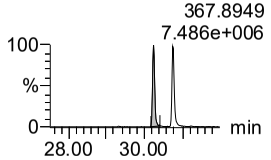
13C-OCDF (ES)



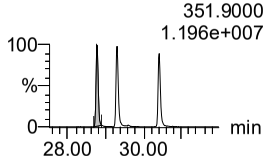
37Cl-2378-TCDD (CS)



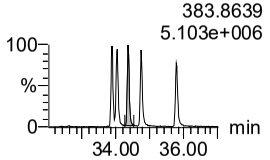
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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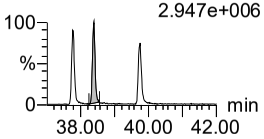
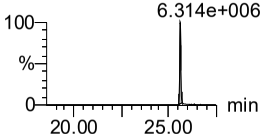
Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

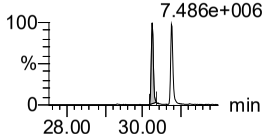
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
2.947e+006



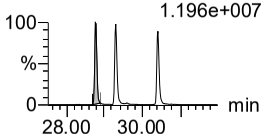
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
6.314e+006



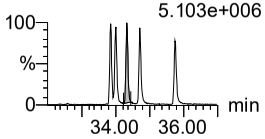
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
7.486e+006



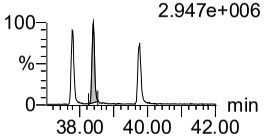
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
1.196e+007



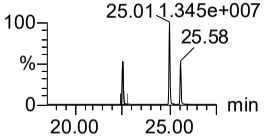
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
5.103e+006



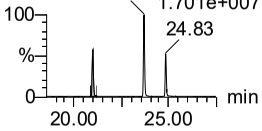
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
2.947e+006



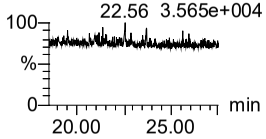
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
25.01 1.345e+007
25.58



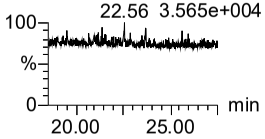
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
23.69 1.701e+007
24.83



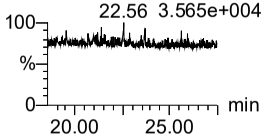
1368-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



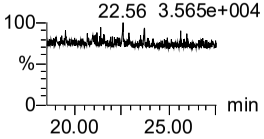
1379-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



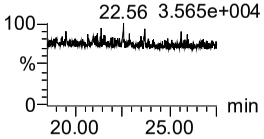
1369-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



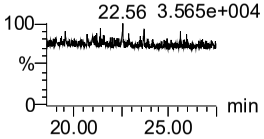
1469-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



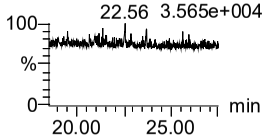
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



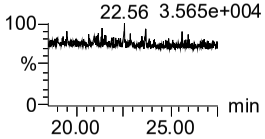
1378-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



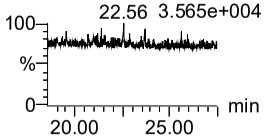
1268-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



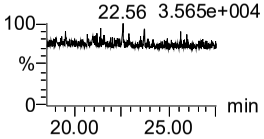
1478-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



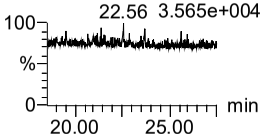
1279-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



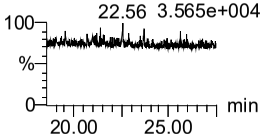
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



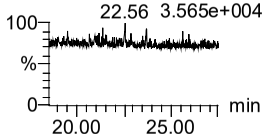
1236-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



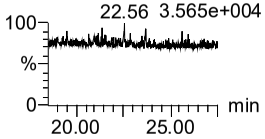
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



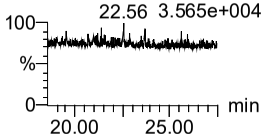
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



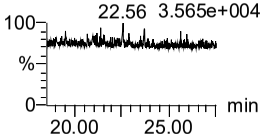
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



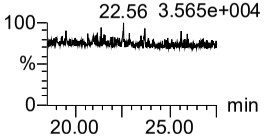
1278-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



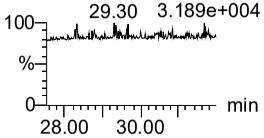
1267-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



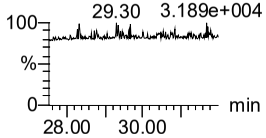
1289-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 3.565e+004



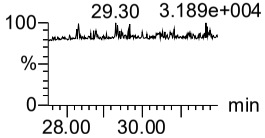
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
29.30 3.189e+004



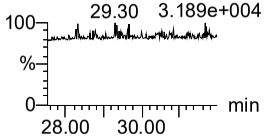
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
29.30 3.189e+004



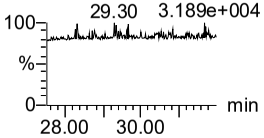
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
29.30 3.189e+004



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
29.30 3.189e+004



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
29.30 3.189e+004



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

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Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
29.30 3.189e+004

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
29.30 3.189e+004

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
29.30 3.189e+004

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
29.30 3.189e+004

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
29.30 3.189e+004

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.42 3.264e+004

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.15 4.880e+004
39.37 41.01

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
4.880e+004
39.37 41.01

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.17 3.293e+004

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

2467-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

2368-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
23.68 3.109e+004

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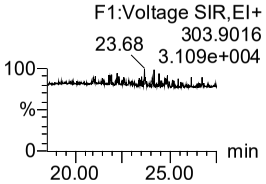
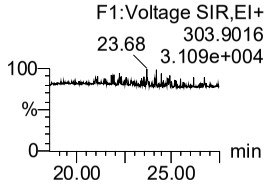
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

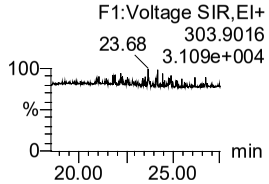
1278-TCDF



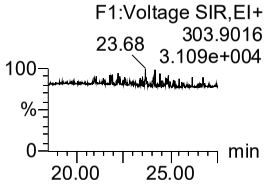
1349-TCDF



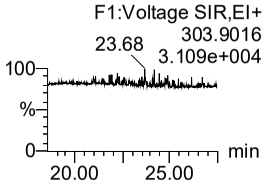
1267-TCDF



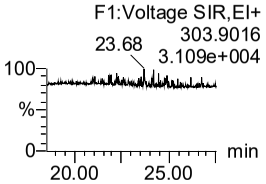
2346/1249-TCDF



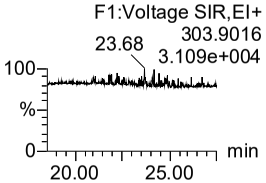
2347/1279-TCDF



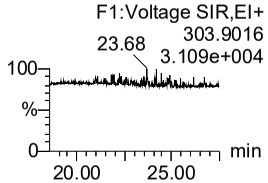
2348-TCDF [CE]



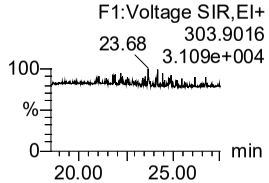
2378-TCDF (S)



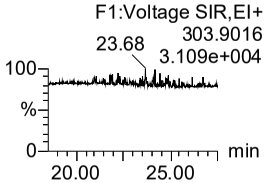
2367/3467-TCDF



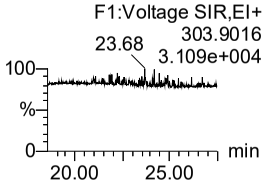
1269-TCDF



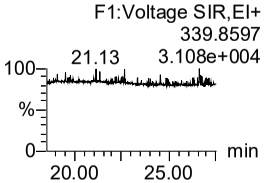
1239-TCDF



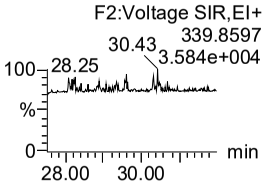
1289-TCDF



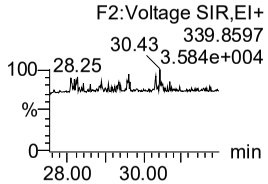
13468/12466-PeCDF



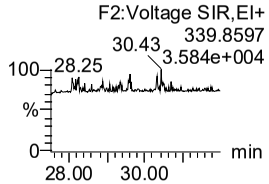
13678/13467/12467-PeCDF



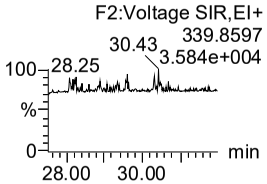
12368/13478/12478-PeCDF



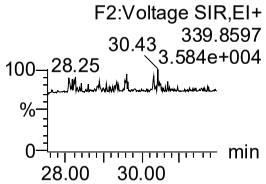
14678-PeCDF



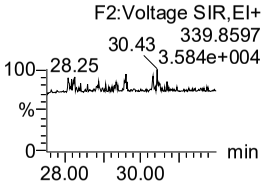
13479-PeCDF



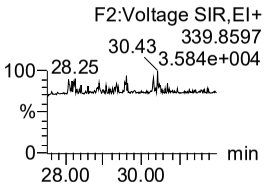
13469/12479-PeCDF



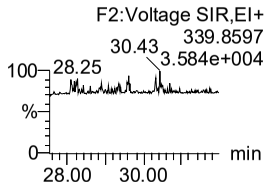
12346-PeCDF



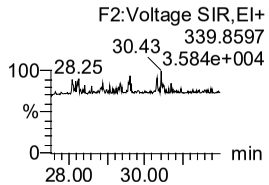
23468/12469-PeCDF



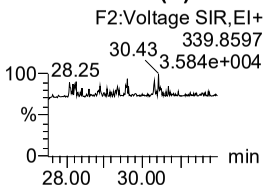
12347-PeCDF



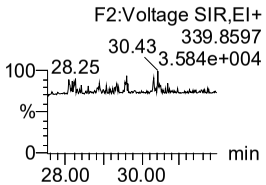
12348-PeCDF



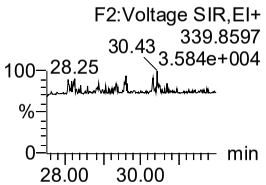
12378-PeCDF (S)



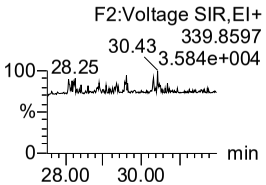
12678/12367-PeCDF



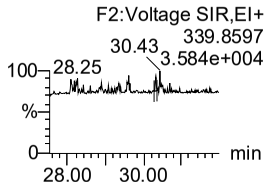
12379-PeCDF



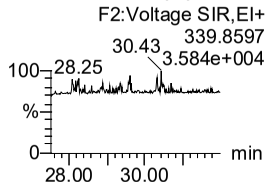
12679-PeCDF



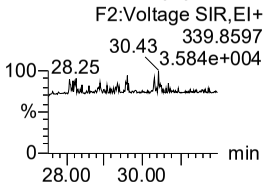
23467/12369-PeCDF



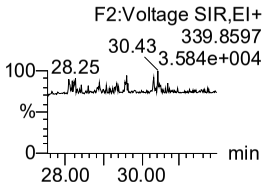
23478-PeCDF (S)



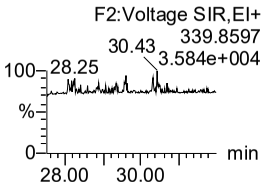
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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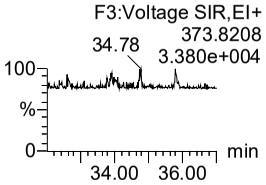
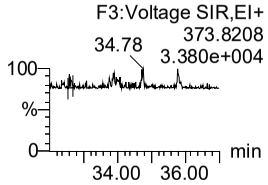
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

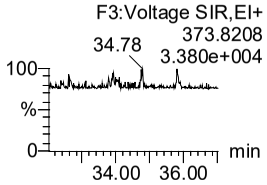
123468-HxCDF



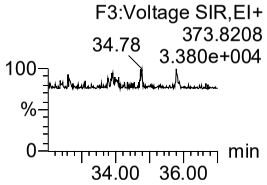
124678/134678-HxCDF



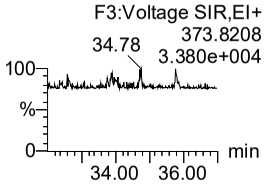
134679-HxCDF



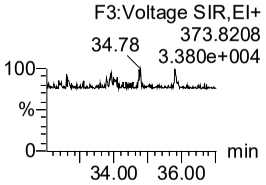
124679-HxCDF



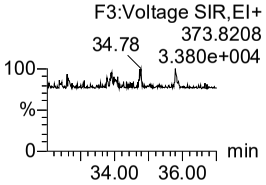
124689-HxCDF



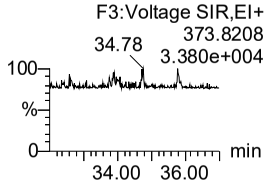
123467-HxCDF



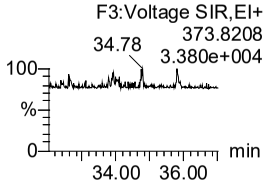
123478-HxCDF (S)



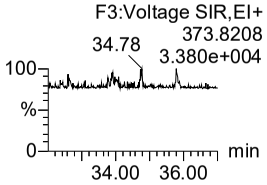
123678-HxCDF (S)



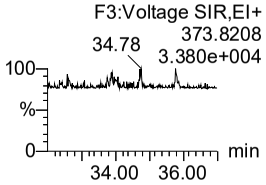
123479-HxCDF



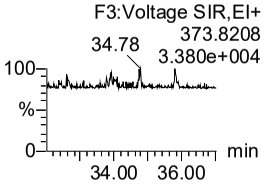
123469-HxCDF



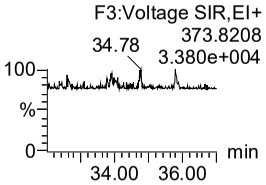
123679-HxCDF



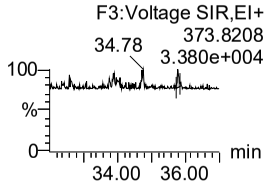
234678-HxCDF (S)



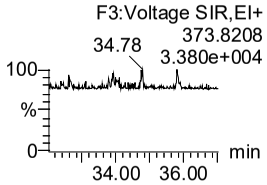
123689-HxCDF (NR)



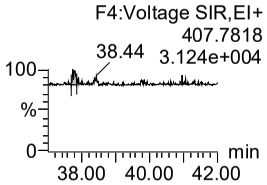
123789-HxCDF (S)



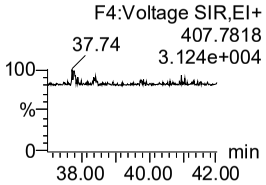
123489-HxCDF (R)



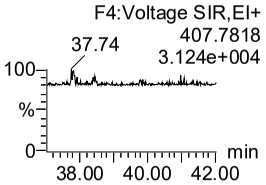
1234678-HpCDF (S)



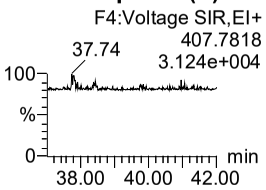
1234679-HpCDF



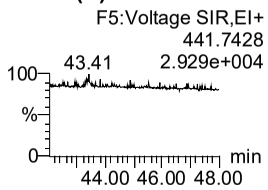
1234689-HpCDF



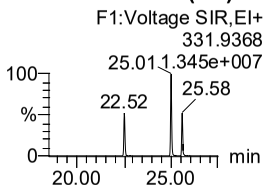
1234789-HpCDF (S)



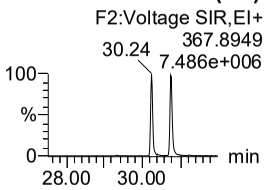
OCDF (S)



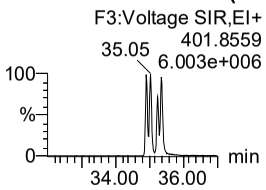
13C-1278-TCDD (FS)



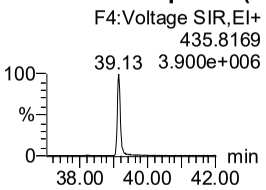
13C-12478-PeCDD (FS)



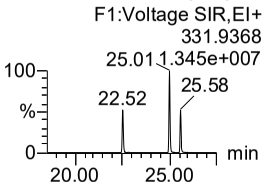
13C-123468-HxCDD (FS)



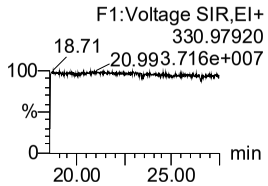
13C-1234679-HpCDD (FS)



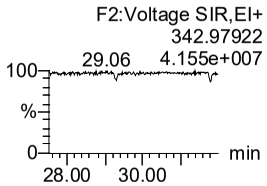
13C-1378-TCDD (TS)



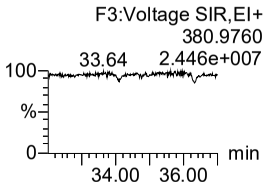
QC Check Ion Fn 1



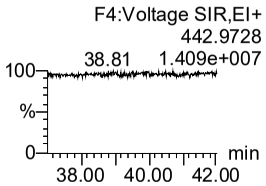
QC Check Ion Fn 2



QC Check Ion Fn 3



QC Check Ion Fn 4



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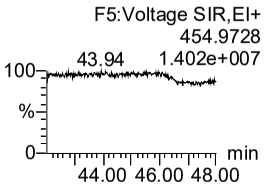
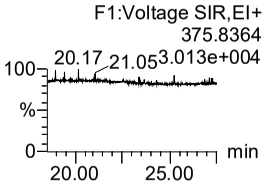


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

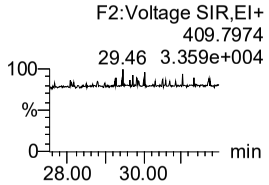
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

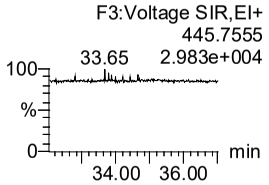
HxDPE



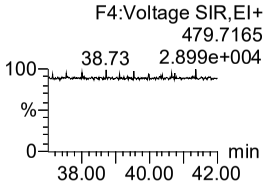
HpDPE



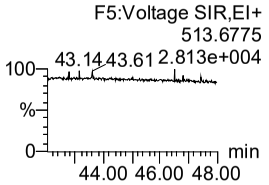
OcDPE



NoDPE



DeDPE



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Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

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1	1	13C-1234-TCDD (JS)	331.9368	25.01	842825.938	1034199.2...		1877025.188	bb	130.7	30.7	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.69	1170835.125	1499852.6...		2670687.750	bb	138.0	38.0	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	276029.094	221662.641		497691.735	bd	48.2	-3.6	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	456866.938	577312.563	842825.938	55.097	bb	117.4	17.4	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	521657.250	328799.188	842825.938	45.309	bb	111.0	11.0	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	379471.313	307477.813	276029.094	69.014	bd	132.0	32.0	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.05	420369.625	331311.906	276029.094	75.517	db	153.2	53.2	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	421259.813	340735.813	276029.094	76.553	db	137.7	37.7	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.13	383509.125	356595.563	276029.094	74.354	bb	161.7	61.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.14	525364.875	603162.313	276029.094	113.376	bb	305.1	52.6	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	620883.375	777366.375	1170835.125	52.355	bb	105.8	5.8	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.30	801798.063	504203.063	1170835.125	48.901	bb	111.3	11.3	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.42	751617.563	458431.344	1170835.125	45.309	bb	106.7	6.7	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	333984.188	622853.688	276029.094	96.128	bd	162.8	62.8	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.03	364928.969	704116.438	276029.094	107.400	db	151.2	51.2	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	334301.031	620612.313	276029.094	95.934	bb	148.5	48.5	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	320718.594	594144.688	276029.094	91.911	bb	155.9	55.9	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	252094.922	541842.750	276029.094	79.762	bb	164.9	64.9	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.76	232401.094	516759.438	276029.094	75.264	bb	172.5	72.5	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.36	812320.688	896784.313	276029.094	171.703	bb	377.1	88.5	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	441623.656		842825.938	23.528	bb	41.3	3.2	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	478368.469	296432.813	842825.938	41.278	bb	94.9	-5.1	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	778082.063	476818.438	1170835.125	46.988	bb	109.3	9.3	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	339627.719	627190.938	276029.094	97.130	bb	150.6	50.6	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.39	251157.078	565532.813	276029.094	82.048	bb	165.8	65.8	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	441623.656		456866.938	42.703	bb	70.6	76.5	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	460085.688	283643.469	521657.250	87.451	bb	166.6	66.6	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	778082.063	476818.438	801798.063	96.087	bb	184.8	84.8	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	324445.250	600602.875	364928.969	86.530	bb	190.2	90.2	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.39	247456.156	551270.000	252094.922	100.603	bb	207.4	107.4	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.52	487530.000	605944.500	842825.938	58.256	bb	113.1	13.1	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.98	715205.625	894165.938	1170835.125	60.261	bb	110.6	10.6	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				456866.938					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				521657.250					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				379471.313					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				379471.313					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				379471.313					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				379471.313					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				379471.313					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				420369.625					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				421259.813					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				421259.813					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				383509.125					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.15	1682.824	1448.289	383509.125	0.423	MM	0.8		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.13	243.417	365.995	525364.875	0.108	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				620883.375					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				801798.063					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				751617.563					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597	30.32	196.333	239.578	751617.563	0.036	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				751617.563					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				751617.563					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				751617.563					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				751617.563					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208	32.59	307.315	257.424	333984.188	0.059	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208				333984.188					G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				364928.969					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				364928.969					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				334301.031					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				334301.031					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208				334301.031					G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				334301.031					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.78	397.796	331.964	320718.594	0.080	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				320718.594					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.74	527.927	511.388	252094.922	0.131	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				252094.922					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				252094.922					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				232401.094					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				812320.688					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				456866.938					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				521657.250					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				276029.094					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				383509.125					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				456866.938					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
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70	Ion Ratio Failure (1º Ratio: Expected 0.89 +/- 0.13, Actua...
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	Summary Flag Reason
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110	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
111	

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

	Summary Flag Reason
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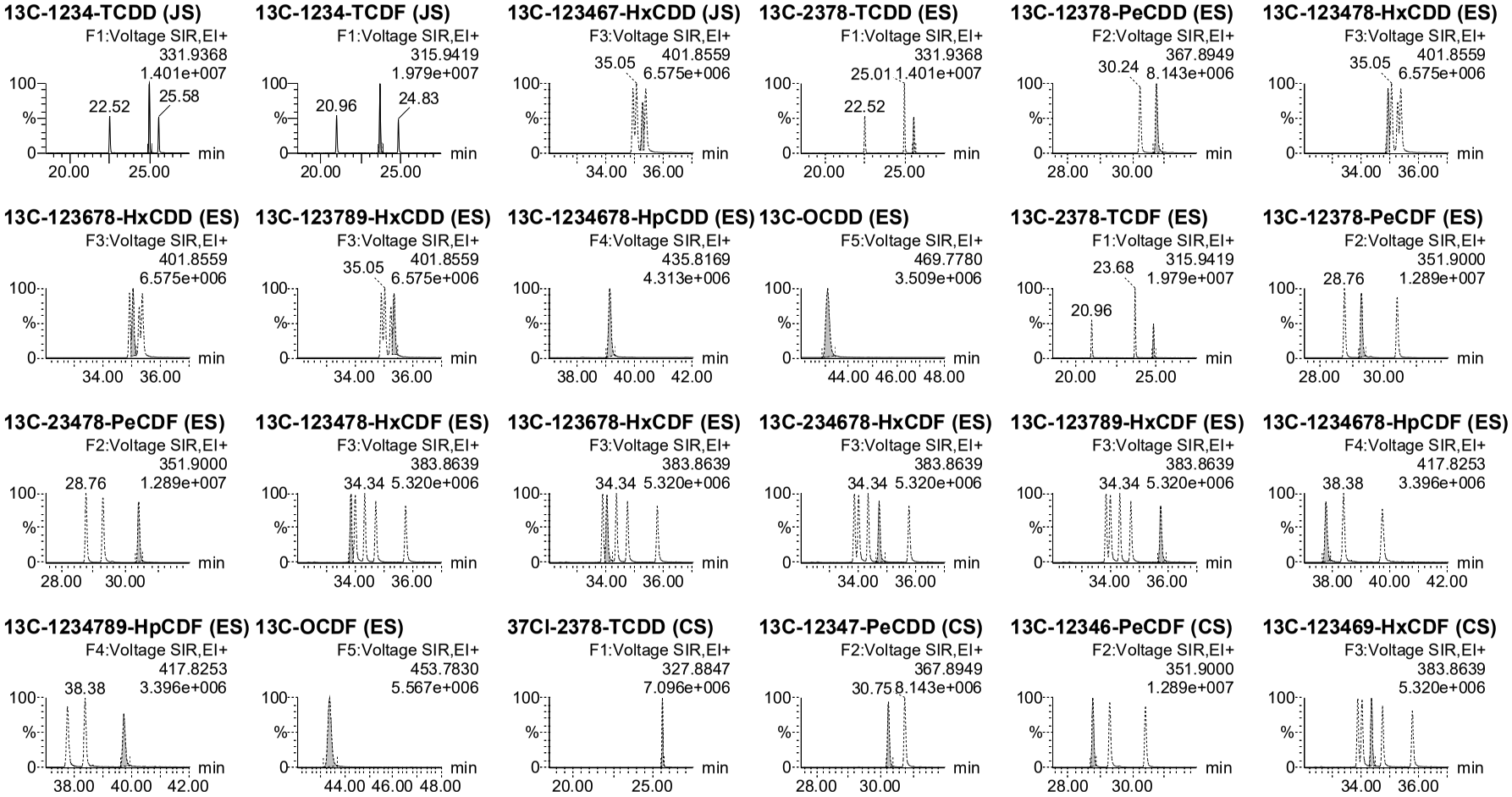
Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032326B, Date: 08-Mar-2023, Time: 07:39:28, ID: 0123-704-007-1, Description: 0123-704-007-1

	Summary Flag Reason
149	

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

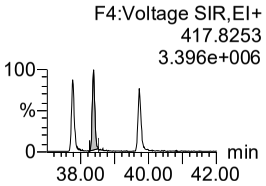


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

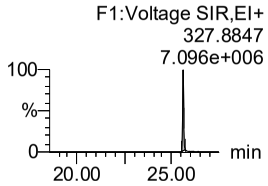
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

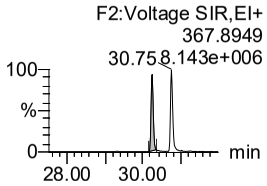
13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



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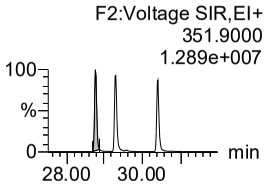
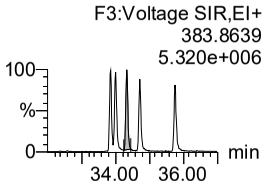


13C-123469-HxCDF (SS)



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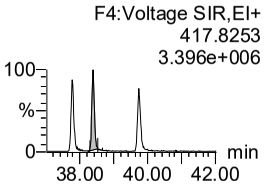
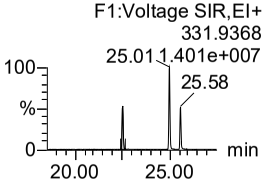
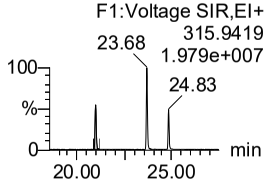


13C-1368-TCDD (AS)



13C-1368-TCDF (AS)



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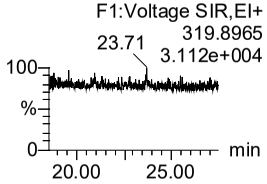
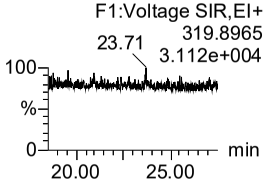
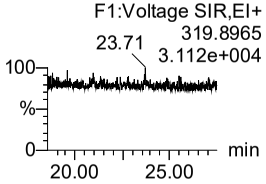


1379-TCDD



1369-TCDD



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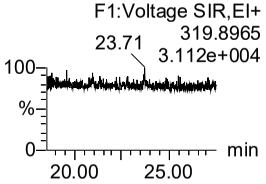
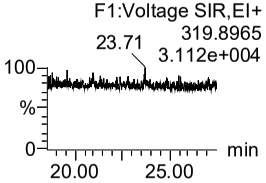
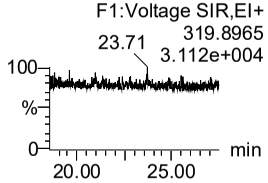


1247/1246/1248/1249-TCDI



1378-TCDD



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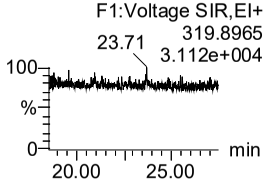

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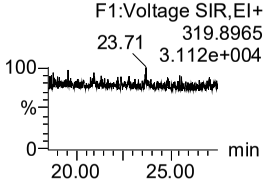
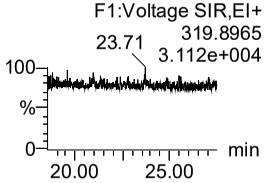
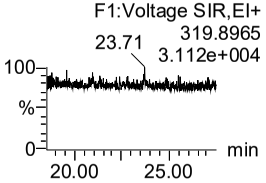


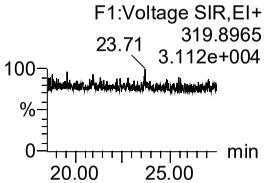
1279-TCDD



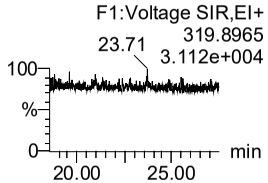
1234/1269-TCDD



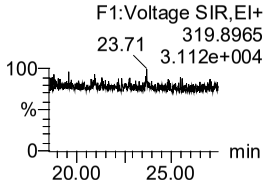
1236-TCDD



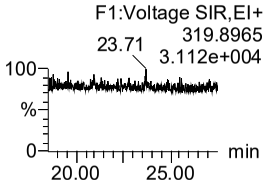
1237/1238-TCDD



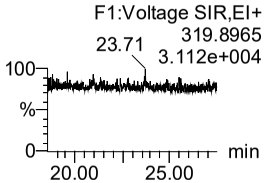
1239-TCDD [CE]



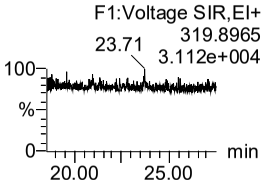
2378-TCDD (S)



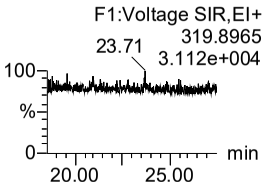
1278-TCDD



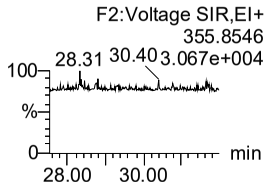
1267-TCDD



1289-TCDD



12479/12468-PeCDD



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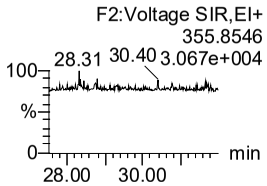
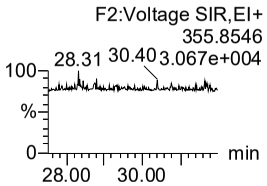
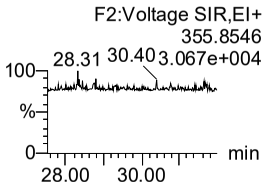


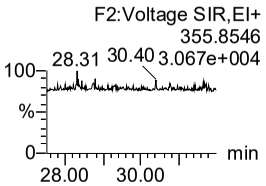
12368-PeCDD



12478-PeCDD



12379-PeCDD

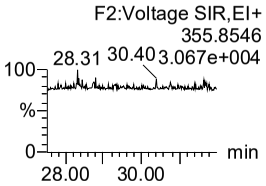


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

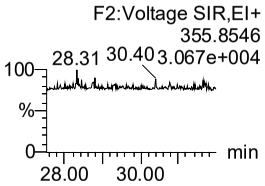
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

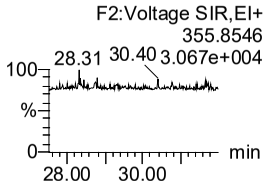
12369/12467/12489-PeCDD



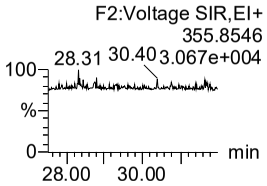
12346/12347-PeCDD



12378-PeCDD (S)



12367-PeCDD



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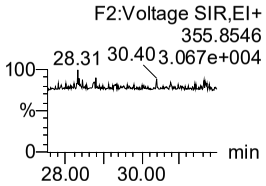
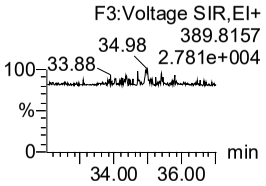


124679/124689-HxCDD



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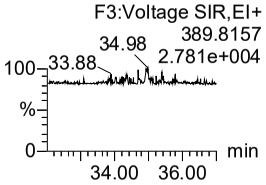
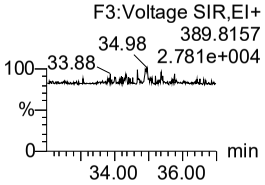
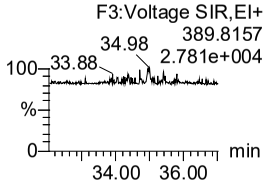


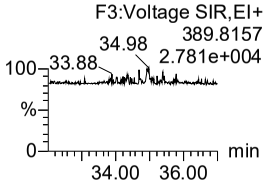
123679/123689-HxCDD



123469-HxCDD



123478-HxCDD (S)



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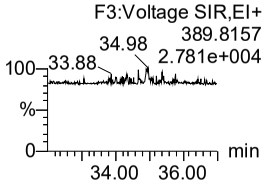

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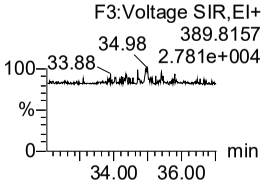
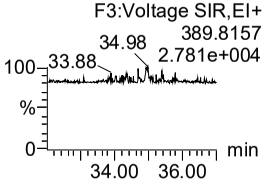
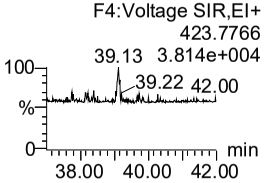


123789-HxCDD (S)



1234679-HpCDD



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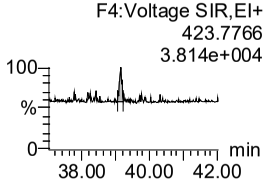
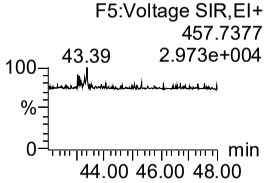
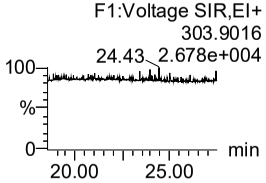


OCDD (S)



1368-TCDF



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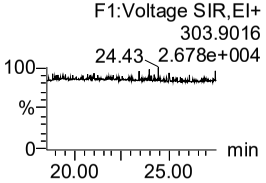
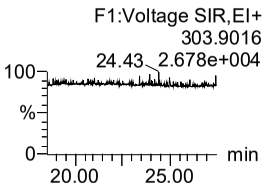
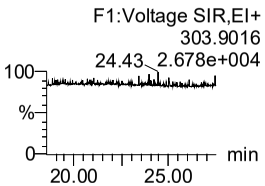


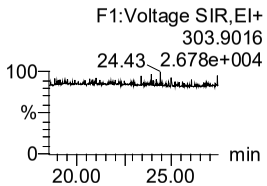
2468-TCDF



1346/1246-TCDF



1347/1378/1247-TCDF



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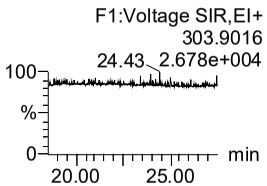
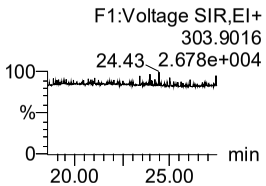


1248/1367/1379-TCDF



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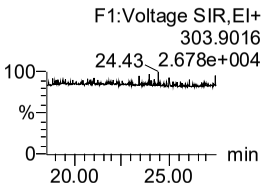

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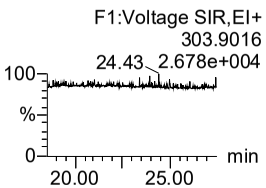
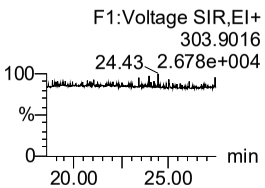
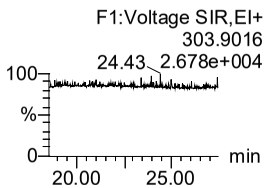


1478-TCDF



1369/1237-TCDF



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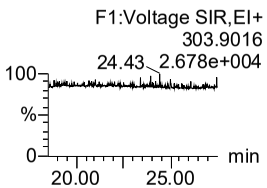

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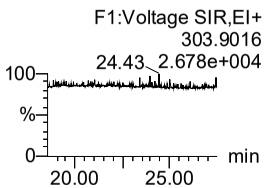

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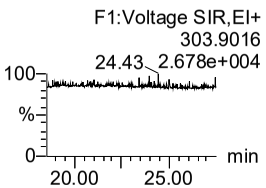

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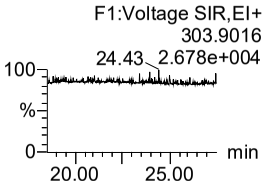
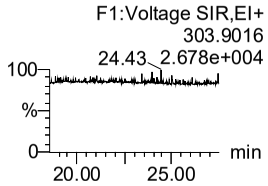
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

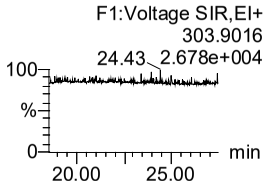
1278-TCDF



1349-TCDF



1267-TCDF



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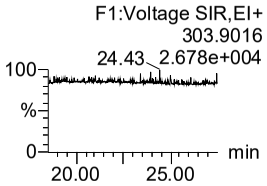

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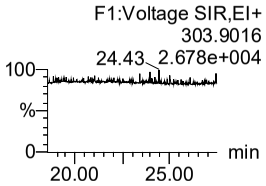
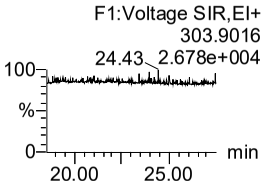
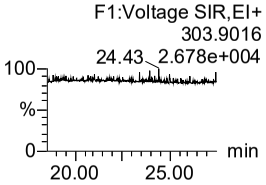


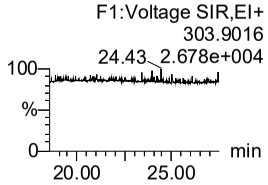
2348-TCDF [CE]



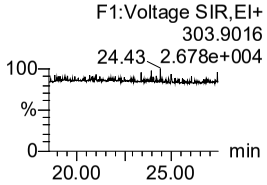
2378-TCDF (S)



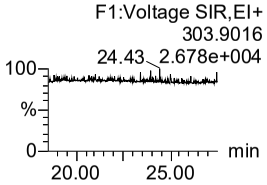
2367/3467-TCDF



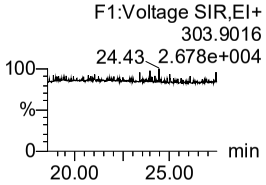
1269-TCDF



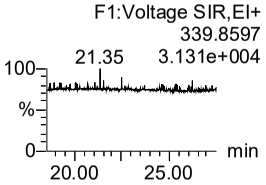
1239-TCDF



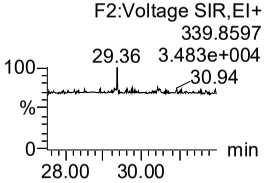
1289-TCDF



13468/12466-PeCDF



13678/13467/12467-PeCDF



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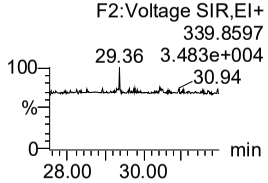

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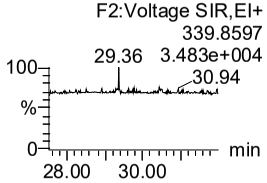

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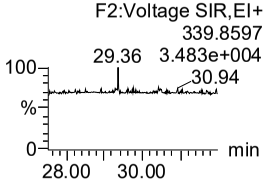

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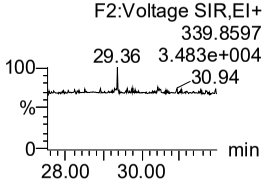

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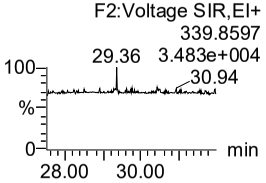

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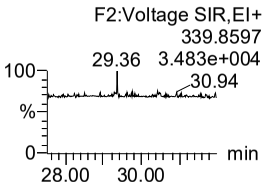
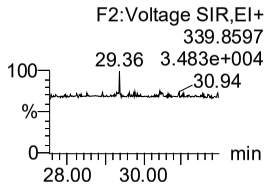
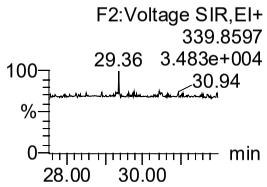


12347-PeCDF



12348-PeCDF



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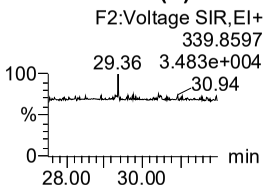
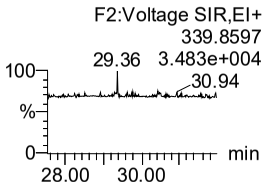


12678/12367-PeCDF



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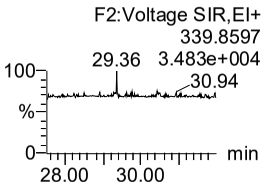

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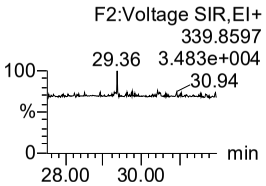
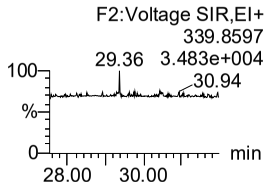


23467/12369-PeCDF



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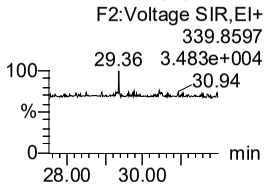

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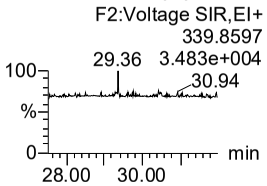

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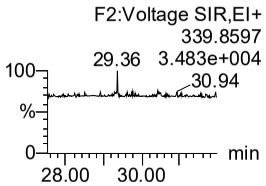

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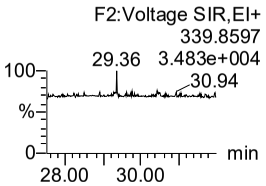

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Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

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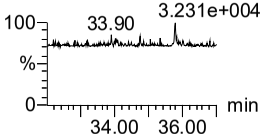

124678/134678-HxCDF
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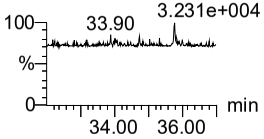

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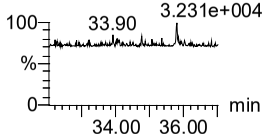

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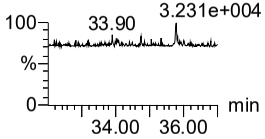

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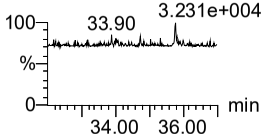

123467-HxCDF
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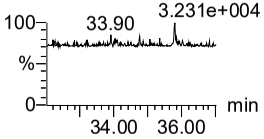

123478-HxCDF (S)
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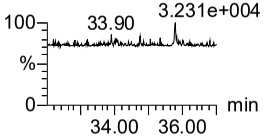

123678-HxCDF (S)
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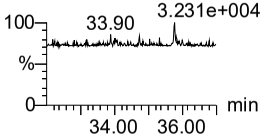
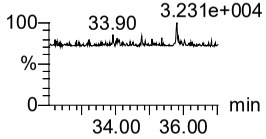
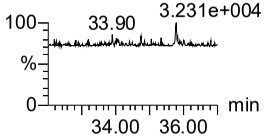
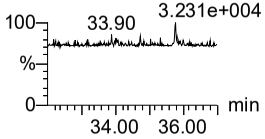
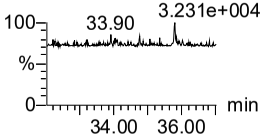
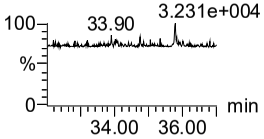


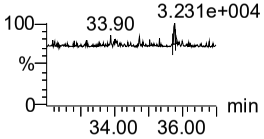
123479-HxCDF
F3:Voltage SIR,EI+ 373.8208


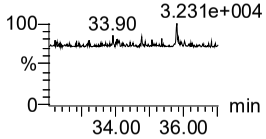
123469-HxCDF
F3:Voltage SIR,EI+ 373.8208


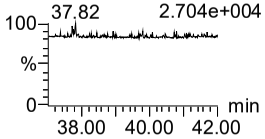
123679-HxCDF
F3:Voltage SIR,EI+ 373.8208


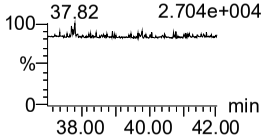
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208


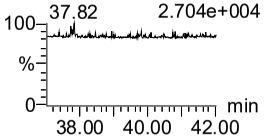
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208


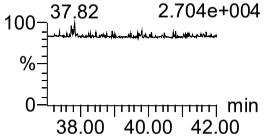
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208


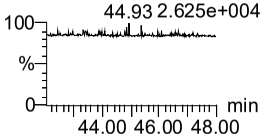
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208


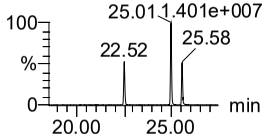
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818


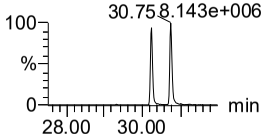
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818


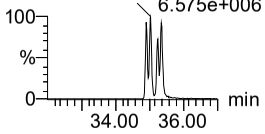
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818


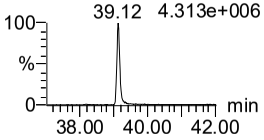
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818


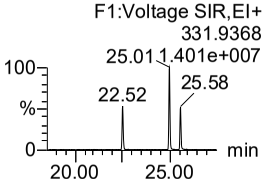
OCDF (S)
F5:Voltage SIR,EI+ 441.7428


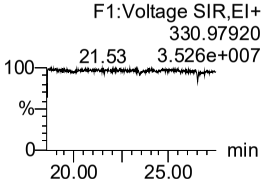
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368


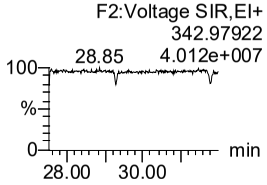
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949


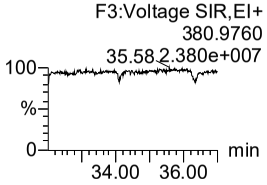
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559


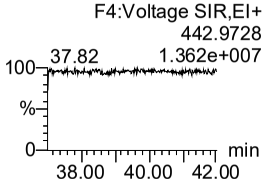
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169


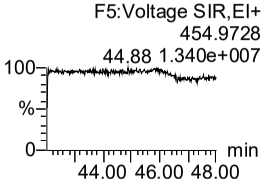
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368


QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920


QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922


QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760


QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728


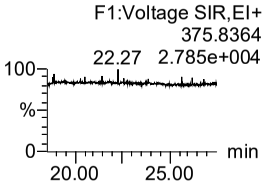
QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

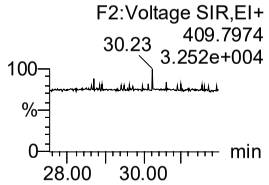
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

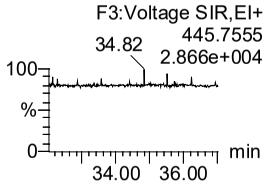
HxDPE



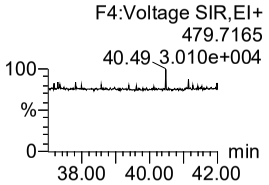
HpDPE



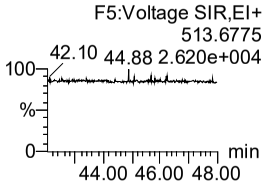
OcDPE



NoDPE



DeDPE



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Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	920084.875	1135052.8...		2055137.750	bb	143.2	43.2	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	1327437.000	1696530.8...		3023967.875	MM	156.3	56.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.26	310733.438	235579.625		546313.063	bd	52.9	5.8	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.58	482781.156	594595.313	920084.875	52.424	bb	111.7	11.7	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.75	557530.063	358813.750	920084.875	44.588	bb	109.2	9.2	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	403902.125	334080.625	310733.438	67.542	bd	129.2	29.2	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.05	485020.344	406378.000	310733.438	81.583	db	165.5	65.5	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.36	455881.219	383119.938	310733.438	76.788	db	138.1	38.1	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	416879.500	390429.250	310733.438	73.887	bb	160.7	60.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.13	597939.188	663120.750	310733.438	115.416	bb	310.6	55.3	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	642539.500	800477.125	1327437.000	47.719	bb	96.4	-3.6	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.30	839377.188	543925.063	1327437.000	45.745	bb	104.1	4.1	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.42	759783.688	480565.188	1327437.000	41.017	bb	96.6	-3.4	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.87	360876.813	676189.063	310733.438	94.915	bd	160.7	60.7	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	389087.281	753696.438	310733.438	104.591	db	147.3	47.3	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.73	342979.750	646175.813	310733.438	90.530	bb	140.2	40.2	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	334366.938	636884.625	310733.438	88.891	bb	150.7	50.7	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	271991.469	606754.813	310733.438	80.425	bb	166.2	66.2	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.73	259109.453	584520.188	310733.438	77.211	bb	176.9	76.9	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.36	922103.000	1015697.0...	310733.438	177.353	bb	389.5	94.7	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	470644.781		920084.875	22.901	bb	40.2	0.4	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.25	506321.219	317441.313	920084.875	40.083	bb	92.1	-7.9	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	807068.813	524485.313	1327437.000	44.033	bb	102.4	2.4	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.34	359863.063	678063.375	310733.438	94.994	bb	147.3	47.3	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.38	276805.594	616567.125	310733.438	81.764	bb	165.2	65.2	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	470644.781		482781.156	43.684	bb	72.2	80.5	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.25	491137.250	305695.844	557530.063	86.958	bb	165.6	65.6	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	807068.813	524485.313	839377.188	96.259	bb	185.1	85.1	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.34	354265.219	665143.813	389087.281	89.204	bb	196.1	96.1	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.38	276805.594	606740.063	271991.469	100.546	bb	207.3	107.3	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.51	507481.719	647272.188	920084.875	56.189	bb	109.1	9.1	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.96	774591.375	1003384.4...	1327437.000	58.796	bb	107.9	7.9	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				482781.156					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				557530.063					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				403902.125					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				403902.125					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				403902.125					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				403902.125					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				403902.125					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				485020.344					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				455881.219					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				455881.219					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				416879.500					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.13	1294.347	1298.847	416879.500	0.321	MM	0.6		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				597939.188					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				642539.500					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				839377.188					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				759783.688					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208				360876.813					G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				389087.281					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				389087.281					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				342979.750					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				342979.750					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208				342979.750					G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				342979.750					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.78	325.391	319.796	334366.938	0.066	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				334366.938					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818				271991.469					G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				271991.469					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				271991.469					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				259109.453					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				922103.000					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				482781.156					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				557530.063					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				310733.438					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				416879.500					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				482781.156					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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128	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032327B, Date: 08-Mar-2023, Time: 08:30:49, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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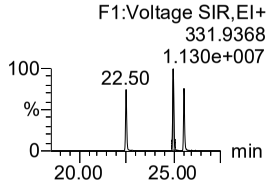
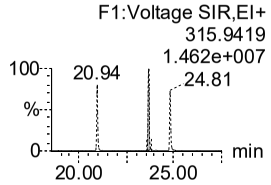
Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

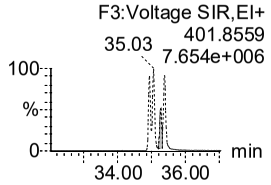
13C-1234-TCDD (JS)



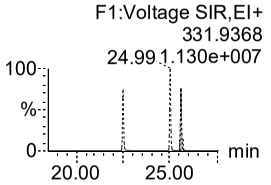
13C-1234-TCDF (JS)



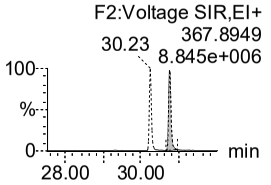
13C-123467-HxCDD (JS)



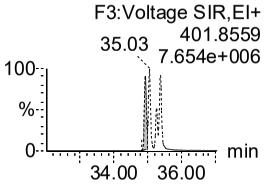
13C-2378-TCDD (ES)



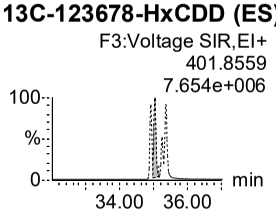
13C-12378-PeCDD (ES)



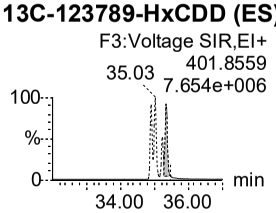
13C-123478-HxCDD (ES)



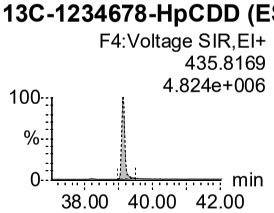
13C-123678-HxCDD (ES)



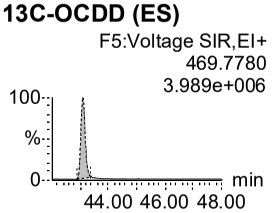
13C-123789-HxCDD (ES)



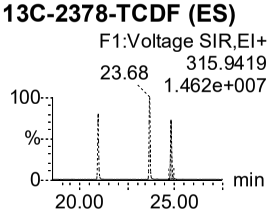
13C-1234678-HpCDD (ES)



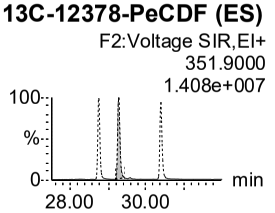
13C-OCDD (ES)



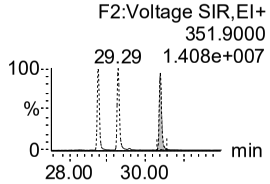
13C-2378-TCDF (ES)



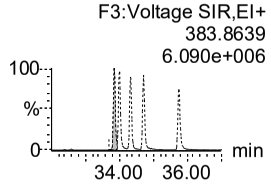
13C-12378-PeCDF (ES)



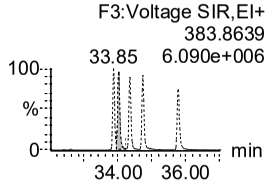
13C-23478-PeCDF (ES)



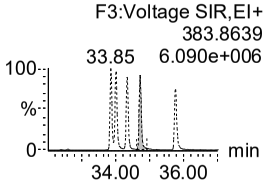
13C-123478-HxCDF (ES)



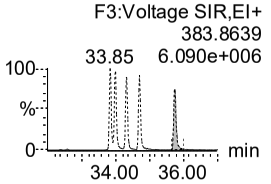
13C-123678-HxCDF (ES)



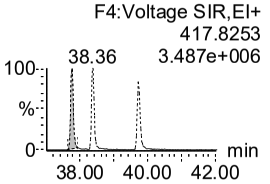
13C-234678-HxCDF (ES)



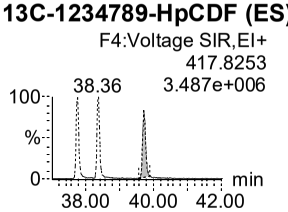
13C-123789-HxCDF (ES)



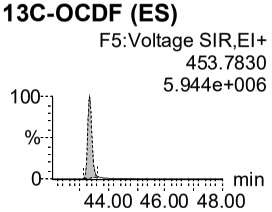
13C-1234678-HpCDF (ES)



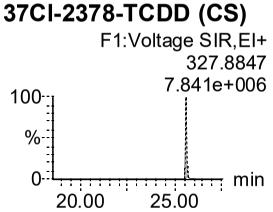
13C-1234789-HpCDF (ES)



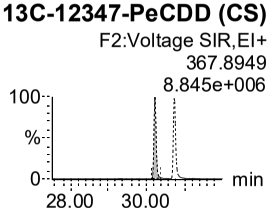
13C-OCDF (ES)



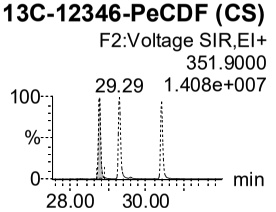
37Cl-2378-TCDD (CS)



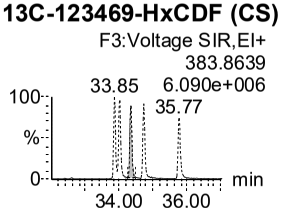
13C-12347-PeCDD (CS)



13C-12346-PeCDD (CS)



13C-123469-HxCDF (CS)



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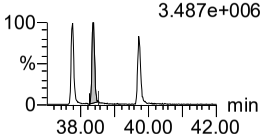
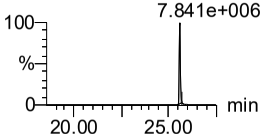
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

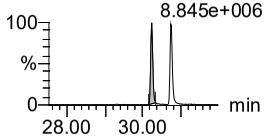
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
3.487e+006



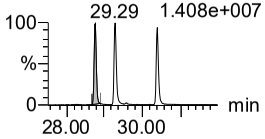
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
7.841e+006



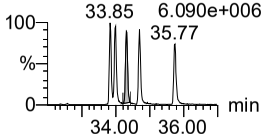
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
8.845e+006



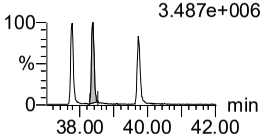
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
29.29 1.408e+007



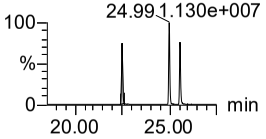
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
33.85 6.090e+006
35.77



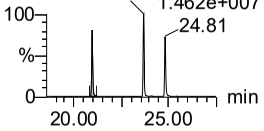
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
3.487e+006



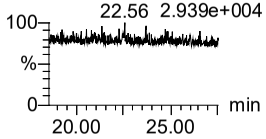
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
24.99 1.130e+007



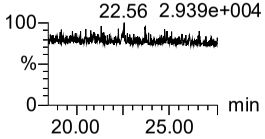
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
23.68 1.462e+007
24.81



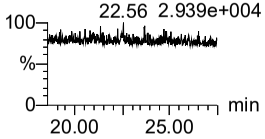
1368-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



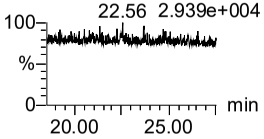
1379-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



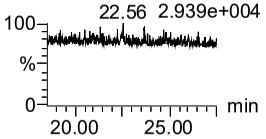
1369-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



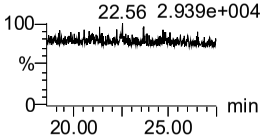
1469-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



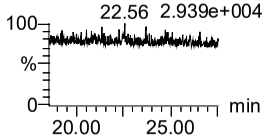
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



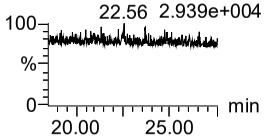
1378-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



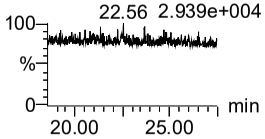
1268-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



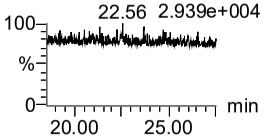
1478-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



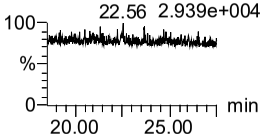
1279-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



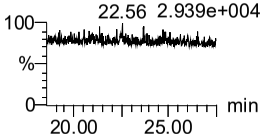
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



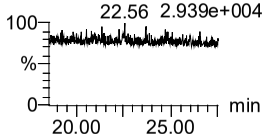
1236-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



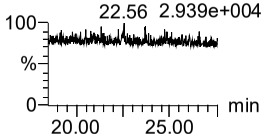
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



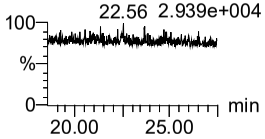
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



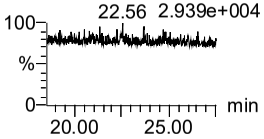
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



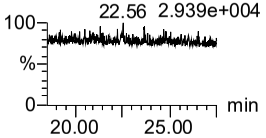
1278-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



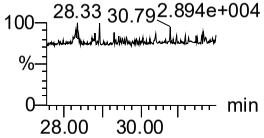
1267-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



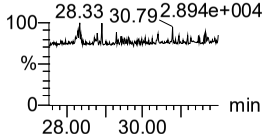
1289-TCDD
F1:Voltage SIR,EI+
319.8965
22.56 2.939e+004



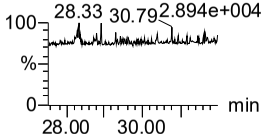
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
28.33 30.79 2.894e+004



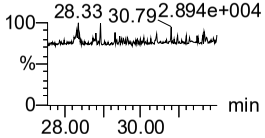
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
28.33 30.79 2.894e+004



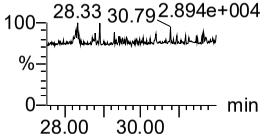
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
28.33 30.79 2.894e+004



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
28.33 30.79 2.894e+004



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
28.33 30.79 2.894e+004



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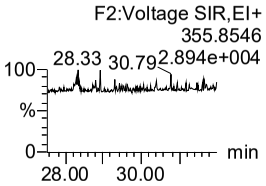
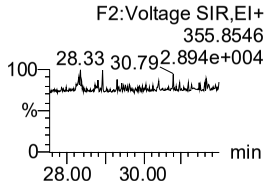
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

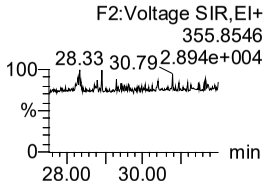
12369/12467/12489-PeCDD



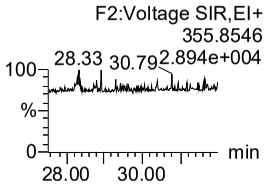
12346/12347-PeCDD



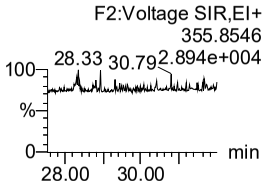
12378-PeCDD (S)



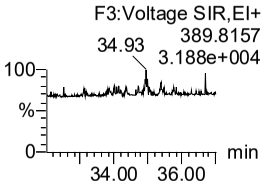
12367-PeCDD



12389-PeCDD



124679/124689-HxCDD



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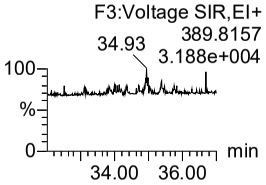

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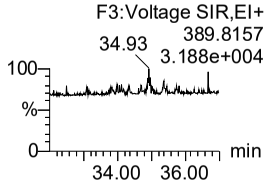

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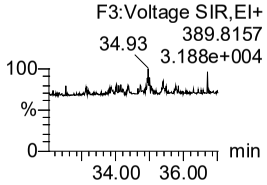

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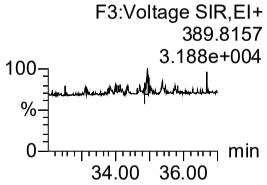

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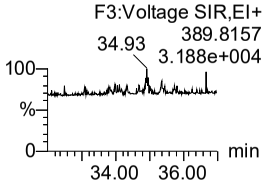

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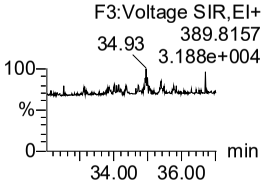

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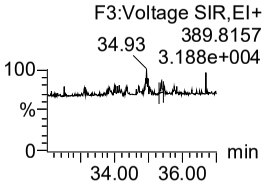

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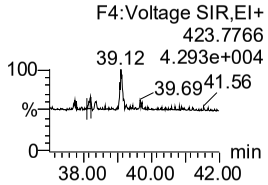

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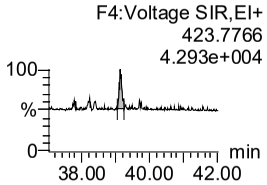
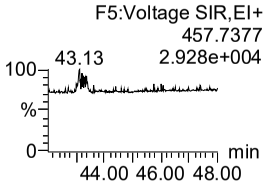


OCDD (S)



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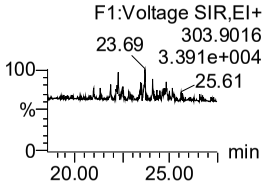

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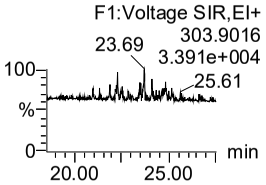

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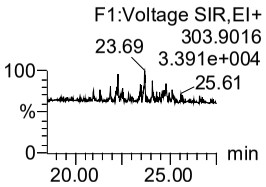

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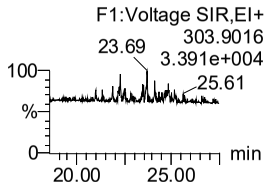
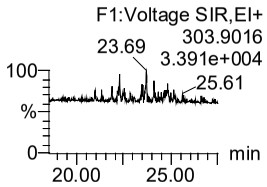


1347/1378/1247-TCDF



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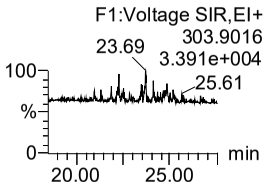

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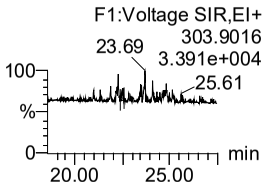

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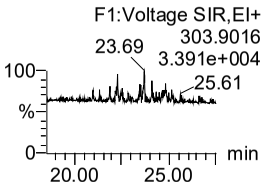

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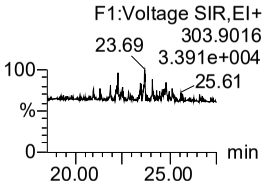

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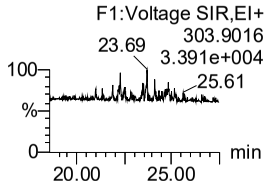

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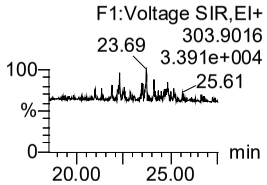

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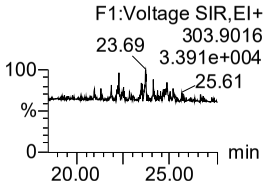

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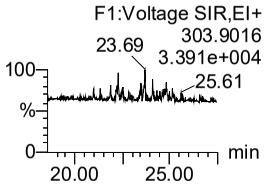

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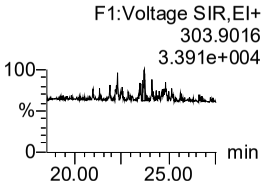

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Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

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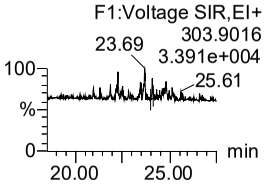
1278-TCDF



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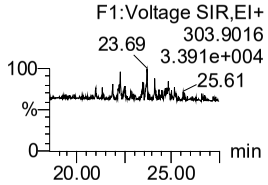

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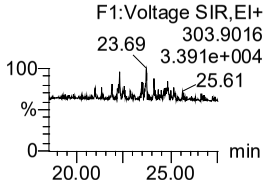

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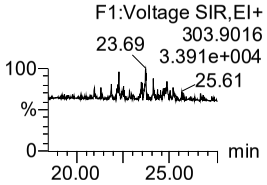

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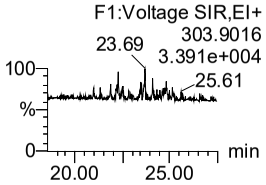
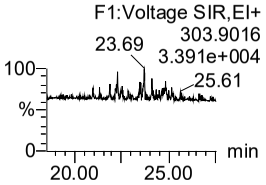


2348-TCDF [CE]



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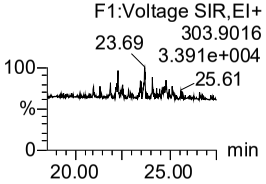
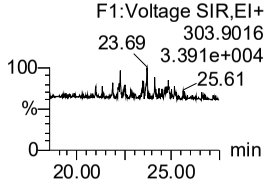


2367/3467-TCDF



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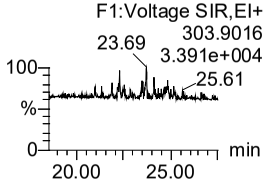

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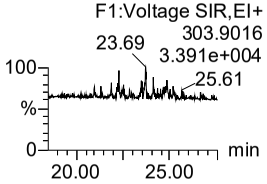

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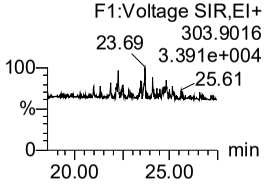

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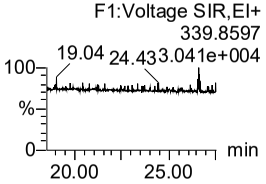

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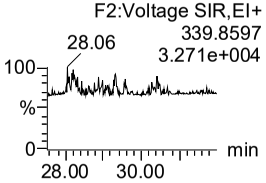

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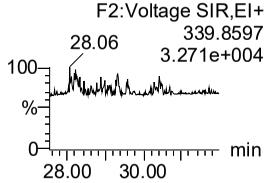

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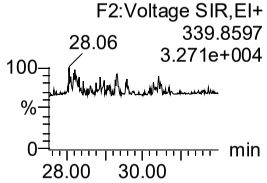

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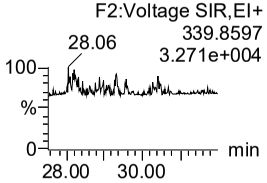

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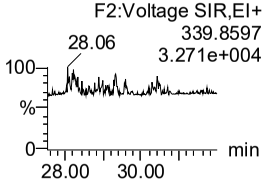

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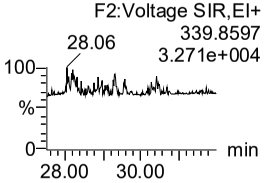

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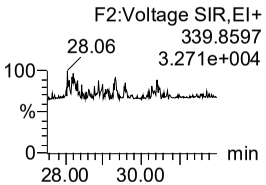

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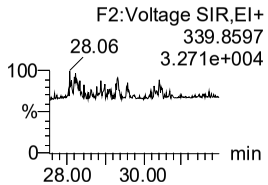

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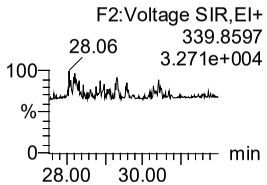

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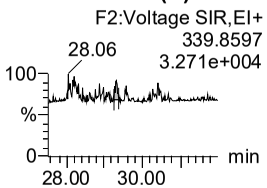

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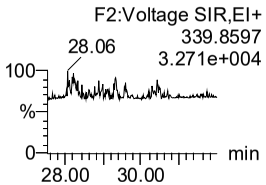

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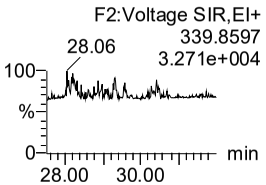

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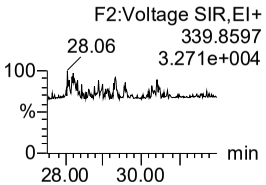
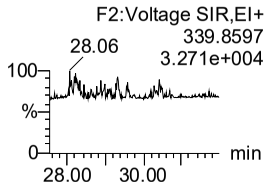
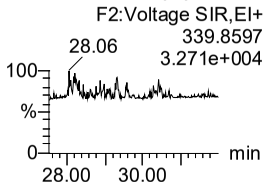


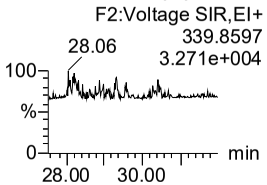
23467/12369-PeCDF



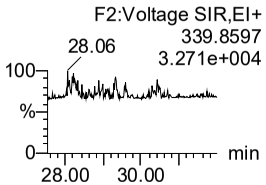
23478-PeCDF (S)



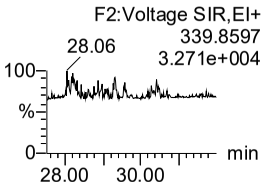
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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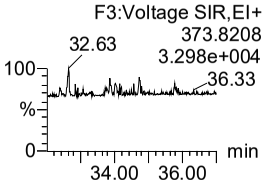
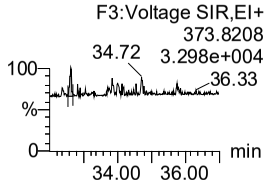
Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

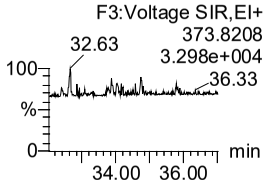
123468-HxCDF



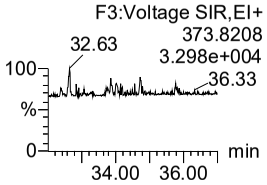
124678/134678-HxCDF



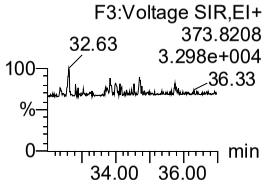
134679-HxCDF



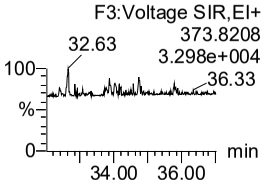
124679-HxCDF



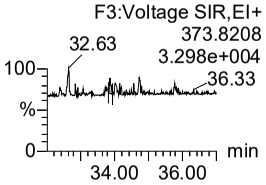
124689-HxCDF



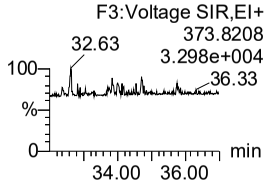
123467-HxCDF



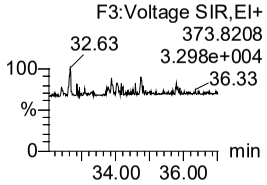
123478-HxCDF (S)



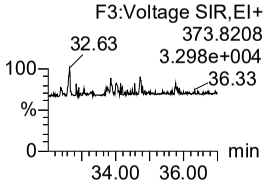
123678-HxCDF (S)



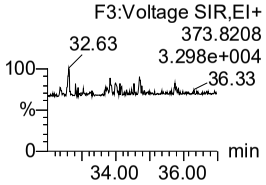
123479-HxCDF



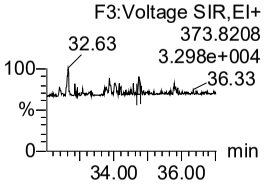
123469-HxCDF



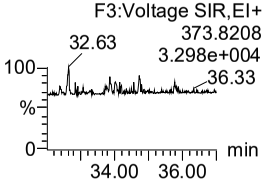
123679-HxCDF



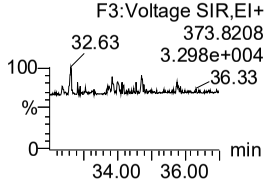
234678-HxCDF (S)



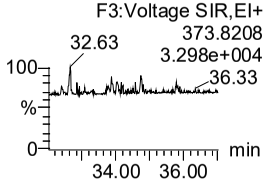
123689-HxCDF (NR)



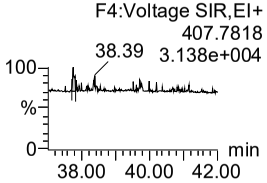
123789-HxCDF (S)



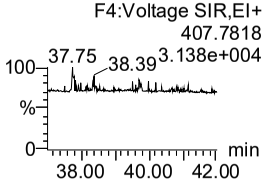
123489-HxCDF (R)



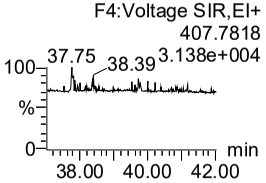
1234678-HpCDF (S)



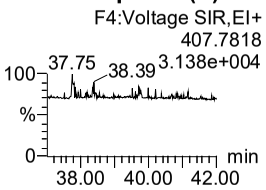
1234679-HpCDF



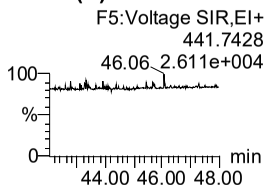
1234689-HpCDF



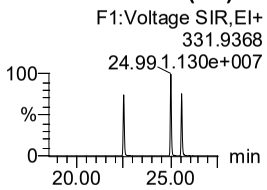
1234789-HpCDF (S)



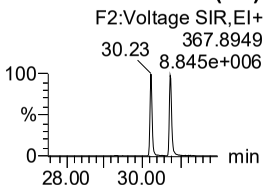
OCDF (S)



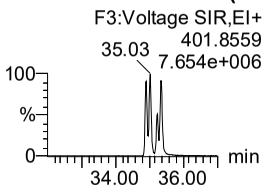
13C-1278-TCDD (FS)



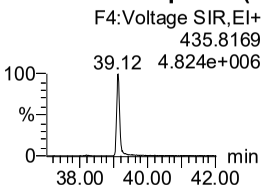
13C-12478-PeCDD (FS)



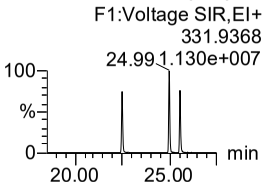
13C-123468-HxCDD (FS)



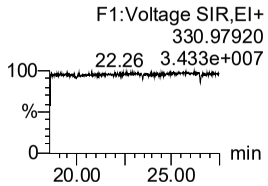
13C-1234679-HpCDD (FS)



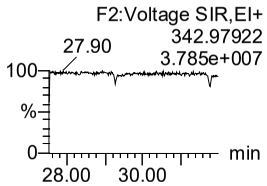
13C-1378-TCDD (TS)



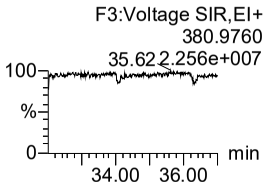
QC Check Ion Fn 1



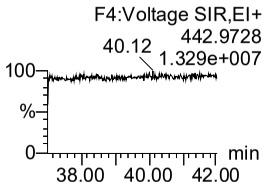
QC Check Ion Fn 2



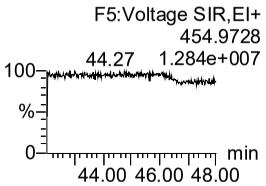
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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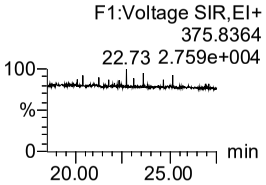
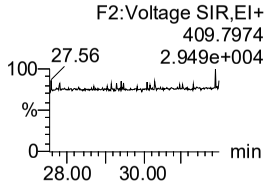
Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

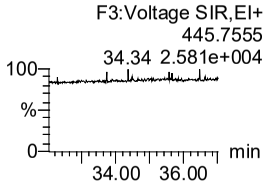
HxDPE



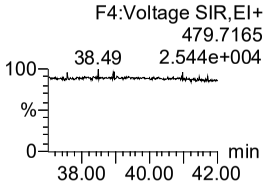
HpDPE



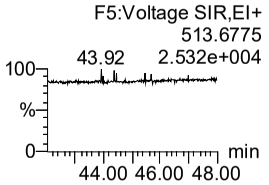
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.99	746248.188	917181.188		1663429.376	MM	115.9	15.9	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	1025599.938	1320568.5...		2346168.438	bb	121.3	21.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	243741.344	189666.703		433408.047	bd	42.0	-16.0	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.57	535903.750	669689.625	746248.188	72.476	bb	154.4	54.4	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.74	626557.938	387091.156	746248.188	60.937	bb	149.3	49.3	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.92	486676.688	381986.531	243741.344	100.213	bd	191.7	91.7	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	535050.938	402913.969	243741.344	108.208	db	219.5	119.5	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.35	519348.344	399885.313	243741.344	106.047	db	190.8	90.8	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.12	501346.844	465064.625	243741.344	111.490	bb	242.5	142.5	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.09	676393.563	740160.438	243741.344	163.420	bb	439.8	119.9	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.81	709800.063	883053.125	1025599.938	67.892	bb	137.1	37.1	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.29	962473.938	586899.250	1025599.938	66.038	bb	150.3	50.3	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.40	899279.750	542822.063	1025599.938	61.466	bb	144.8	44.8	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.85	401766.750	752632.563	243741.344	133.177	bd	225.5	125.5	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.01	429260.844	845493.188	243741.344	147.062	db	207.1	107.1	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.72	401095.563	741339.125	243741.344	131.797	bb	204.1	104.1	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.77	374373.688	717615.000	243741.344	125.977	bb	213.6	113.6	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.77	314214.125	695327.313	243741.344	116.465	bb	240.7	140.7	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	281079.438	625741.188	243741.344	104.615	bb	239.7	139.7	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	982718.563	1084443.3...	243741.344	238.478	bb	523.7	161.9	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	515791.563		746248.188	31.008	bb	54.4	36.0	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.23	559078.063	347060.844	746248.188	54.474	bb	125.2	25.2	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.77	902894.563	571293.000	1025599.938	62.834	bb	146.1	46.1	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.33	382102.938	725303.938	243741.344	127.756	bb	198.1	98.1	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	303167.375	676319.938	243741.344	112.998	bb	228.3	128.3	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	515791.563		535903.750	42.783	bb	70.7	76.8	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.23	541322.563	347060.844	626557.938	87.642	bb	166.9	66.9	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.77	902894.563	571293.000	962473.938	95.147	bb	183.0	83.0	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.33	372788.250	701104.875	429260.844	84.243	bb	185.1	85.1	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	303167.375	661868.750	314214.125	95.592	bb	197.1	97.1	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.50	568504.250	697623.688	746248.188	76.116	bb	147.8	47.8	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.94	855368.125	1075244.1...	1025599.938	82.288	bb	151.0	51.0	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				535903.750					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				626557.938					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				486676.688					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				486676.688					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				486676.688					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				486676.688					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.93	490.857	420.245	486676.688	0.105	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				535050.938					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				519348.344					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.38	206.873	292.134	519348.344	0.054	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.22	294.183	382.415	501346.844	0.070	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1724.520	1534.395	501346.844	0.337	MM	0.6		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				676393.563					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016	22.53	375.520	831.426	709800.063	0.076	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016	23.69	1047.117	806.292	709800.063	0.116	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016	24.10	362.604	444.754	709800.063	0.051	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				709800.063					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.32	528.451	580.532	962473.938	0.072	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				962473.938					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				899279.750					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				401766.750					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208	32.63	697.895	444.023	401766.750	0.099	MM	0.2		G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				401766.750					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				401766.750					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				401766.750					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				401766.750					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.85	319.176	257.612	401766.750	0.050	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				429260.844					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				429260.844					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				401095.563					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				401095.563					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.72	379.027	252.427	401095.563	0.055	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				401095.563					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				374373.688					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				374373.688					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.75	558.000	447.470	314214.125	0.100	MM	0.1		G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				314214.125					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				314214.125					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				281079.438					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				982718.563					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				535903.750					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				626557.938					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				243741.344					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				501346.844					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				535903.750					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
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67	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
68	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
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	Summary Flag Reason
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77	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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84	Ion Ratio Failure (1º Ratio: Expected 0.77 +/- 0.12, Actua...
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106	Ion Ratio Failure (1º Ratio: Expected 1.55 +/- 0.23, Actua...
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	Summary Flag Reason
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116	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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126	Ion Ratio Failure (1º Ratio: Expected 1.25 +/- 0.19, Actua...
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130	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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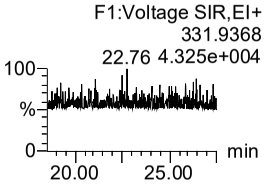
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032328B, Date: 08-Mar-2023, Time: 09:22:09, ID: 0123-704-009-1, Description: 0123-704-009-1

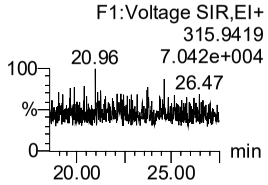
	Summary Flag Reason
149	

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

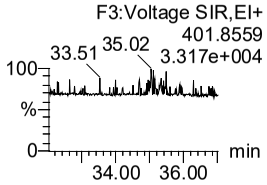
13C-1234-TCDD (JS)



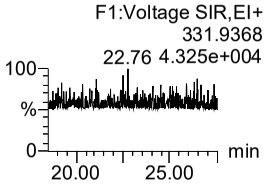
13C-1234-TCDF (JS)



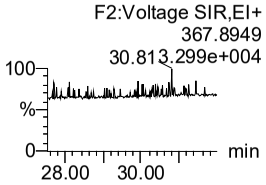
13C-123467-HxCDD (JS)



13C-2378-TCDD (ES)



13C-12378-PeCDD (ES)



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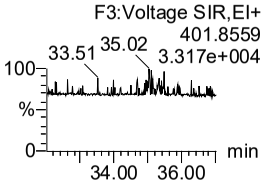

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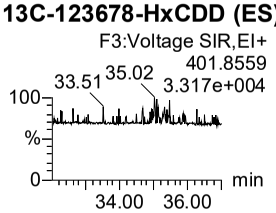
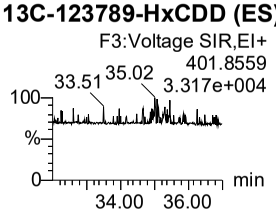


13C-123789-HxCDD (ES)



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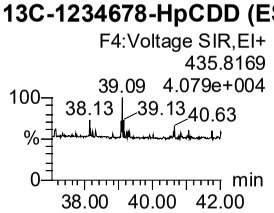
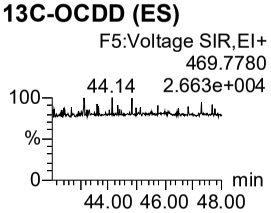


13C-OCDD (ES)



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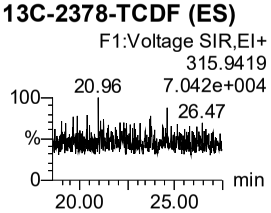
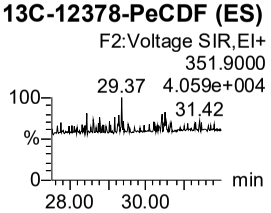


13C-12378-PeCDF (ES)



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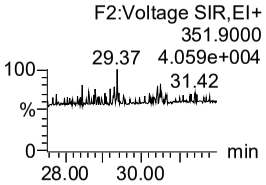

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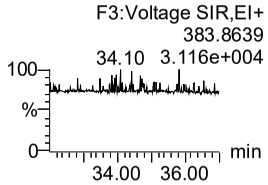
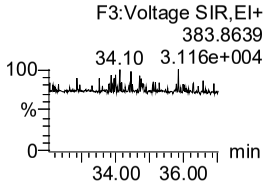
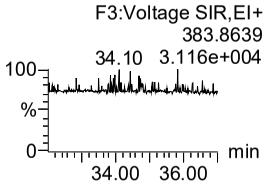


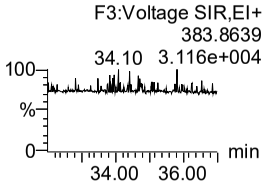
13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



13C-123789-HxCDF (ES)



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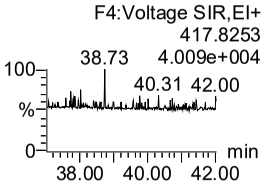

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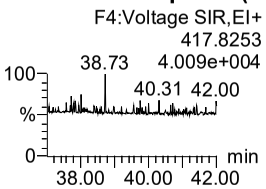
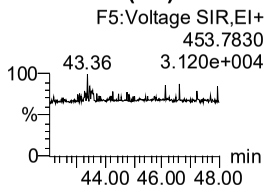
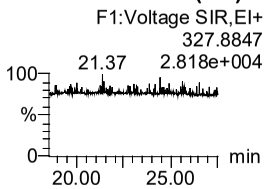


13C-OCDF (ES)



37Cl-2378-TCDD (CS)



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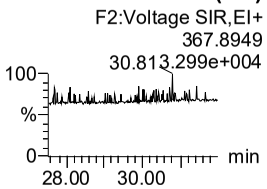

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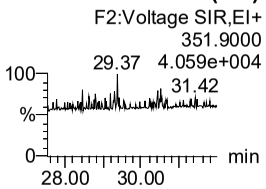
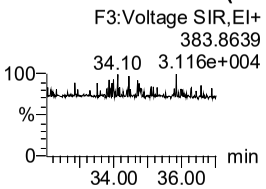


13C-123469-HxCDF (CS)

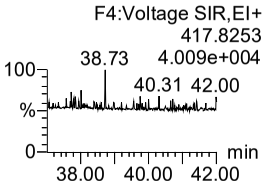


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

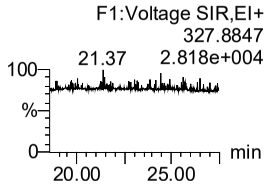
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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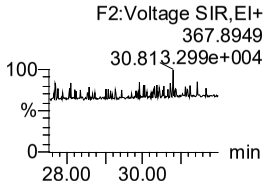

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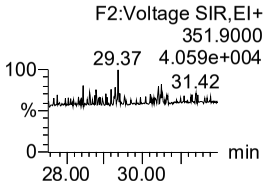

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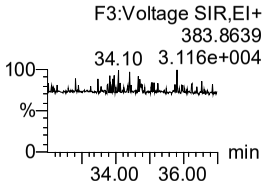

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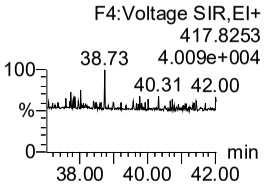
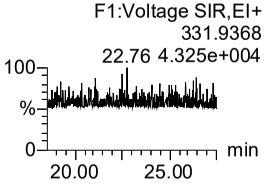


13C-1368-TCDD (AS)



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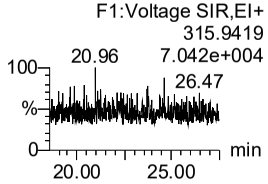

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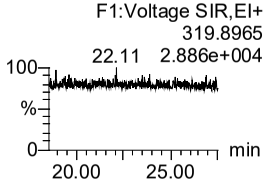
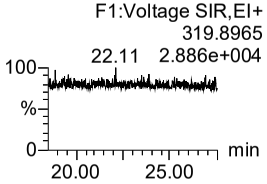
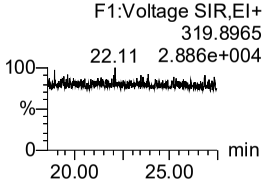


1379-TCDD



1369-TCDD



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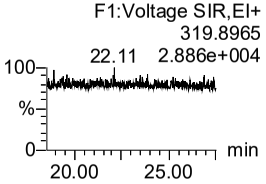
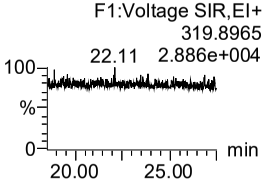
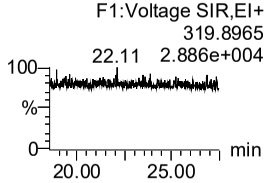


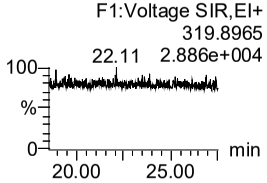
1247/1246/1248/1249-TCDI



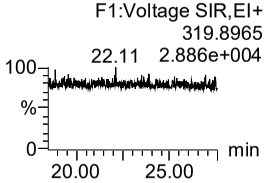
1378-TCDD



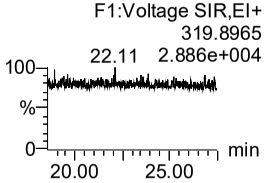
1268-TCDD



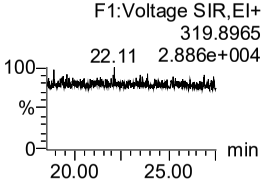
1478-TCDD



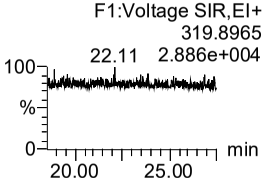
1279-TCDD



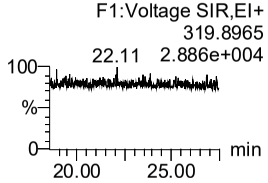
1234/1269-TCDD



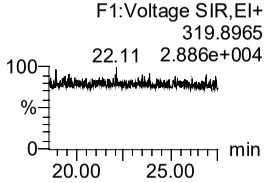
1236-TCDD



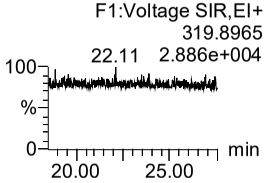
1237/1238-TCDD



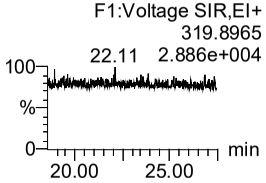
1239-TCDD [CE]



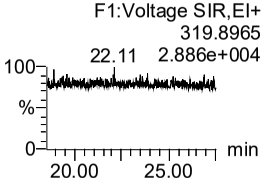
2378-TCDD (S)



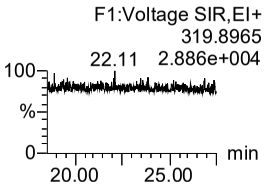
1278-TCDD



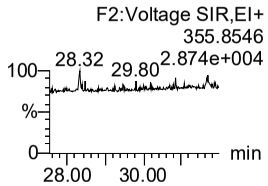
1267-TCDD



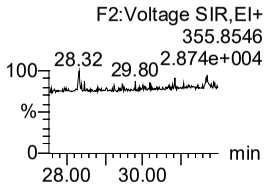
1289-TCDD



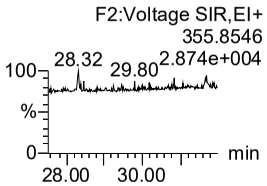
12479/12468-PeCDD



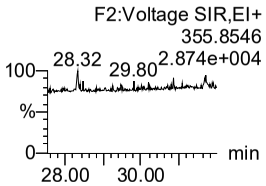
12469-PeCDD



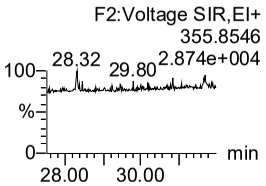
12368-PeCDD



12478-PeCDD



12379-PeCDD



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.32 29.80 2.874e+004
100 % 0 min
28.00 30.00

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.32 29.80 2.874e+004
100 % 0 min
28.00 30.00

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.32 29.80 2.874e+004
100 % 0 min
28.00 30.00

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.32 29.80 2.874e+004
100 % 0 min
28.00 30.00

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.32 29.80 2.874e+004
100 % 0 min
28.00 30.00

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
34.99 2.406e+004
100 % 0 min
34.00 36.00

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
37.91 38.42 2.486e+004
100 % 0 min
38.00 40.00 42.00

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
37.91 38.42 2.486e+004
100 % 0 min
38.00 40.00 42.00

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.21 44.20 2.328e+004
100 % 0 min
44.00 46.00 48.00

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

2467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

2368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
21.49 2.366e+004
100 % 0 min
20.00 25.00

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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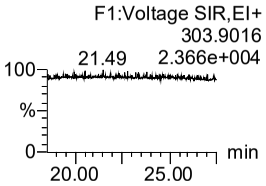
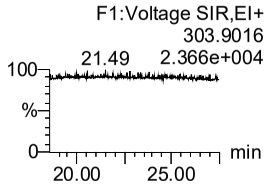
Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

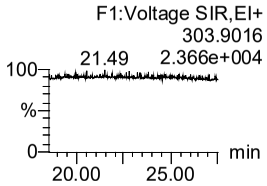
1278-TCDF



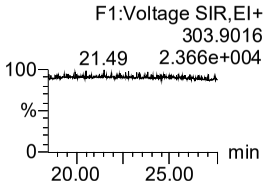
1349-TCDF



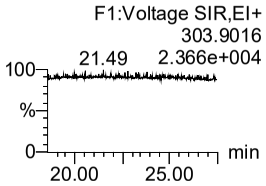
1267-TCDF



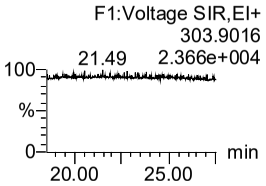
2346/1249-TCDF



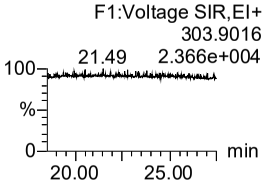
2347/1279-TCDF



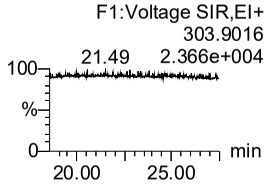
2348-TCDF [CE]



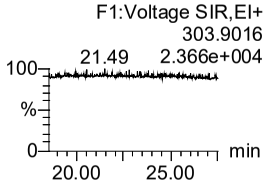
2378-TCDF (S)



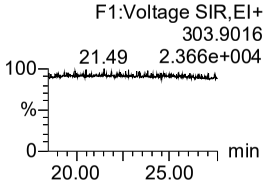
2367/3467-TCDF



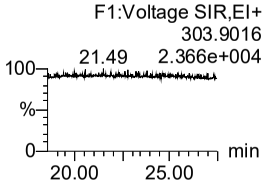
1269-TCDF



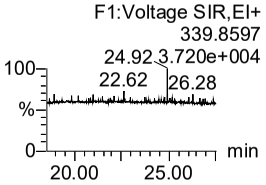
1239-TCDF



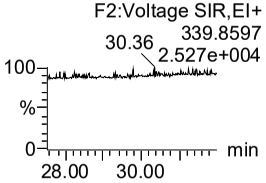
1289-TCDF



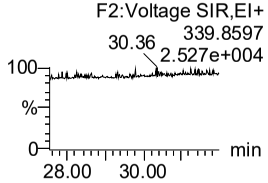
13468/12466-PeCDF



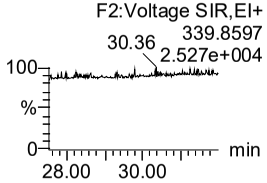
13678/13467/12467-PeCDF



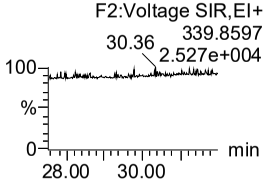
12368/13478/12478-PeCDF



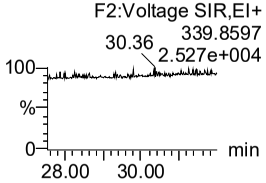
14678-PeCDF



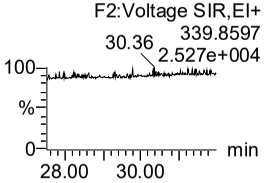
13479-PeCDF



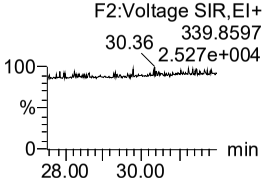
13469/12479-PeCDF



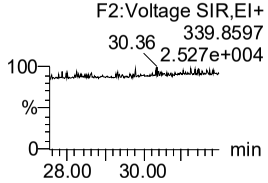
12346-PeCDF



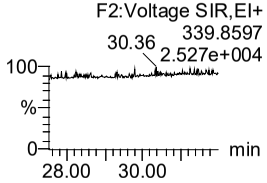
23468/12469-PeCDF



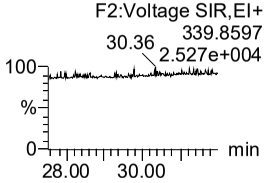
12347-PeCDF



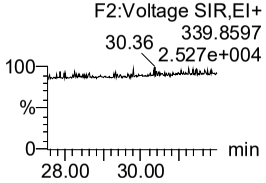
12348-PeCDF



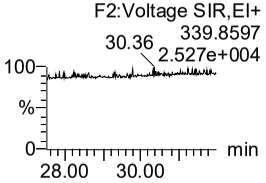
12378-PeCDF (S)



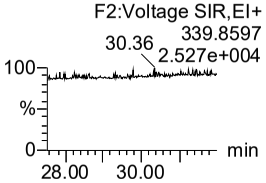
12678/12367-PeCDF



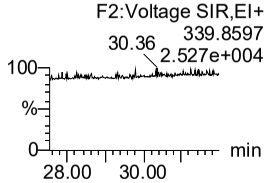
12379-PeCDF



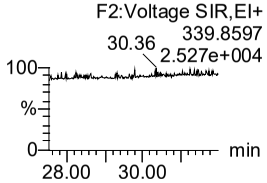
12679-PeCDF



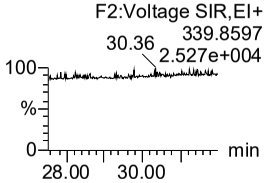
23467/12369-PeCDF



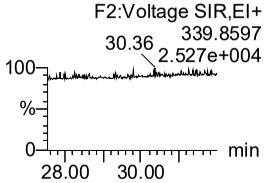
23478-PeCDF (S)



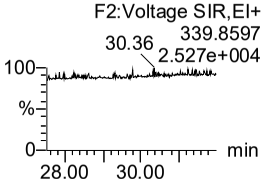
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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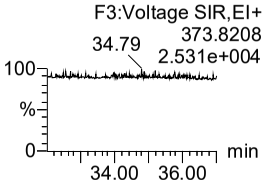
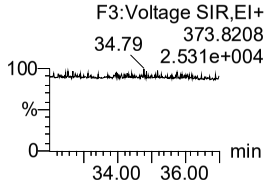
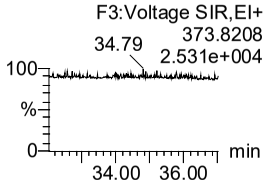
123468-HxCDF



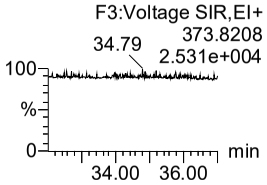
124678/134678-HxCDF



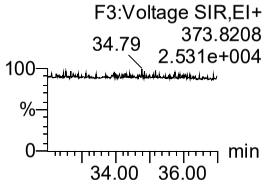
134679-HxCDF



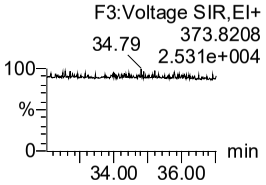
124679-HxCDF



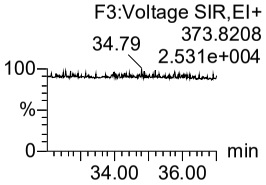
124689-HxCDF



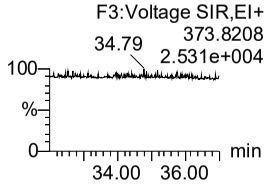
123467-HxCDF



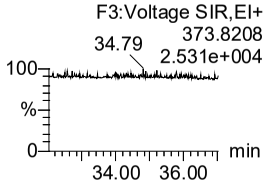
123478-HxCDF (S)



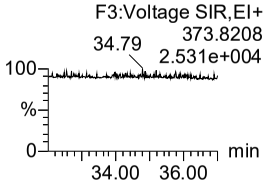
123678-HxCDF (S)



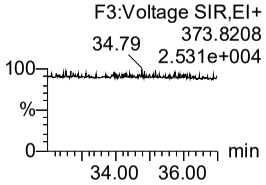
123479-HxCDF



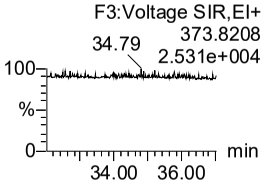
123469-HxCDF



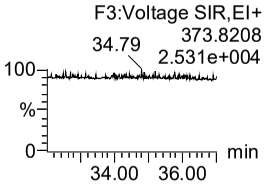
123679-HxCDF



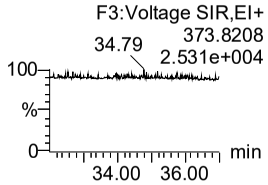
234678-HxCDF (S)



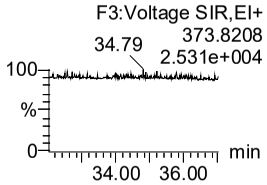
123689-HxCDF (NR)



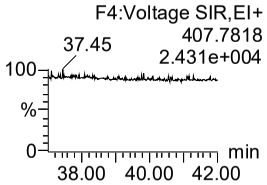
123789-HxCDF (S)



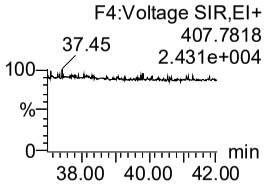
123489-HxCDF (R)



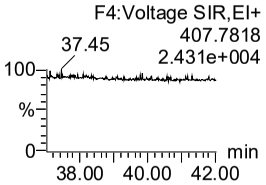
1234678-HpCDF (S)



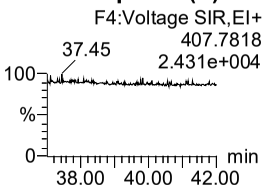
1234679-HpCDF



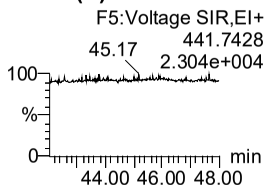
1234689-HpCDF



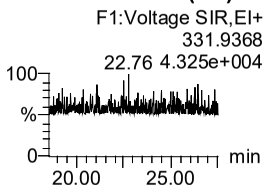
1234789-HpCDF (S)



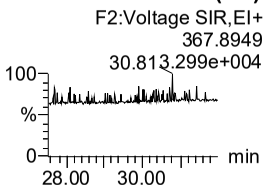
OCDF (S)



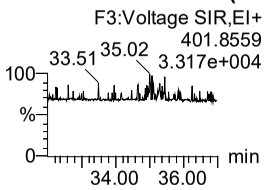
13C-1278-TCDD (FS)



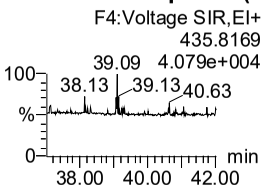
13C-12478-PeCDD (FS)



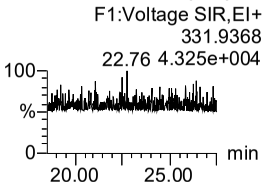
13C-123468-HxCDD (FS)



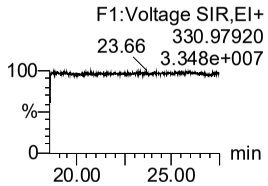
13C-1234679-HpCDD (FS)



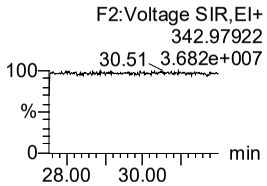
13C-1378-TCDD (TS)



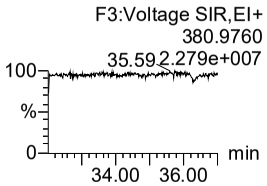
QC Check Ion Fn 1



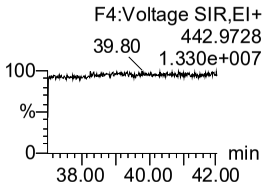
QC Check Ion Fn 2



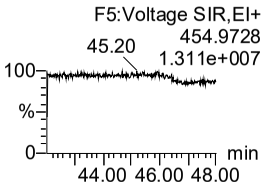
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5

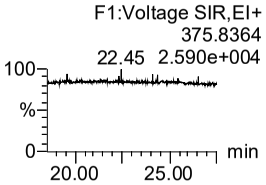


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

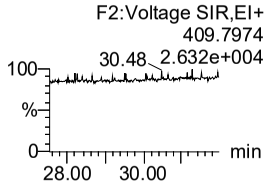
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

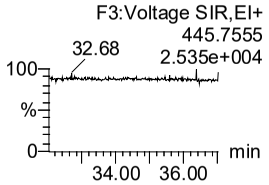
HxDPE



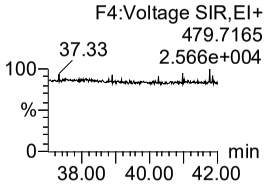
HpDPE



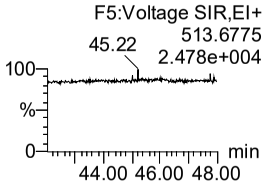
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780									G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830									G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965									G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965									G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546									G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766									G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766									G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377									G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016									G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016									G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016									G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428									G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
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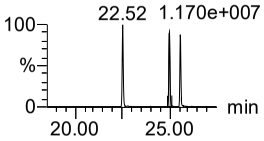
TRC Report 508369

Name: G07032329B, Date: 08-Mar-2023, Time: 10:13:32, ID: Solvent Blank, Description: Solvent Blank

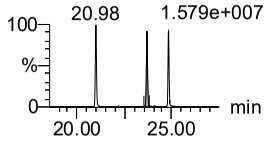
	Summary Flag Reason
149	

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

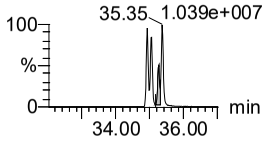
13C-1234-TCDD (JS)
F1:Voltage SIR,EI+
331.9368
22.52 1.170e+007



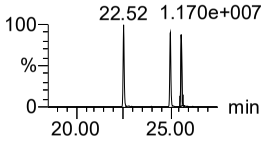
13C-1234-TCDF (JS)
F1:Voltage SIR,EI+
315.9419
20.98 1.579e+007



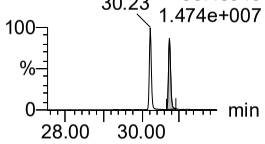
13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+
401.8559
35.35 1.039e+007



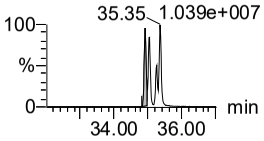
13C-2378-TCDD (ES)
F1:Voltage SIR,EI+
331.9368
22.52 1.170e+007



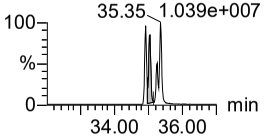
13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+
367.8949
30.23 1.474e+007



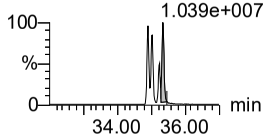
13C-123478-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.35 1.039e+007



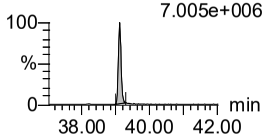
13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
35.35 1.039e+007



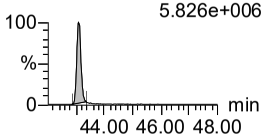
13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+
401.8559
1.039e+007



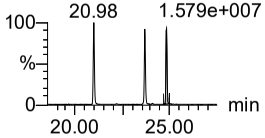
13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+
435.8169
7.005e+006



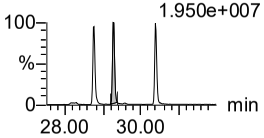
13C-OCDD (ES)
F5:Voltage SIR,EI+
469.7780
5.826e+006



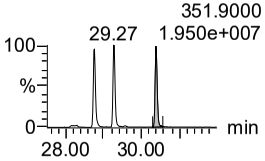
13C-2378-TCDF (ES)
F1:Voltage SIR,EI+
315.9419
20.98 1.579e+007



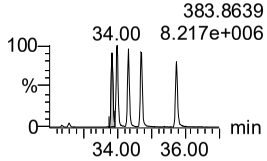
13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
1.950e+007



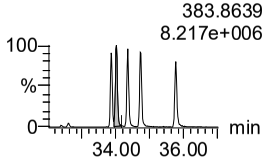
13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+
351.9000
29.27 1.950e+007



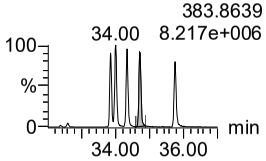
13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.00 8.217e+006



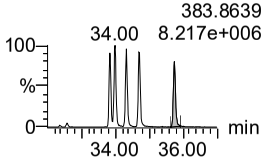
13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
8.217e+006



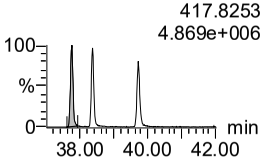
13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.00 8.217e+006



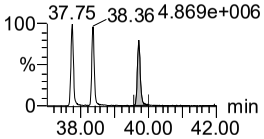
13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+
383.8639
34.00 8.217e+006



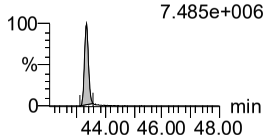
13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
4.869e+006



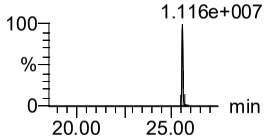
13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+
417.8253
37.75 38.36 4.869e+006



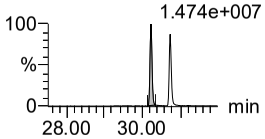
13C-OCDF (ES)
F5:Voltage SIR,EI+
453.7830
7.485e+006



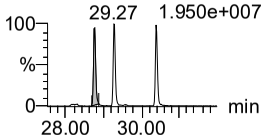
37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+
327.8847
1.116e+007



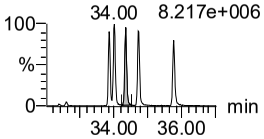
13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+
367.8949
1.474e+007



13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+
351.9000
29.27 1.950e+007



13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+
383.8639
34.00 8.217e+006



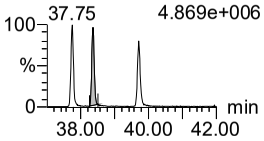
Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

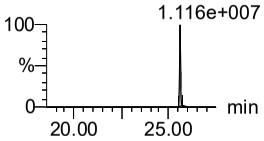
TRC Report 508369

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

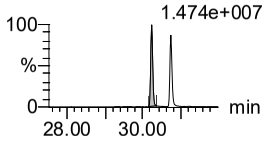
13C-1234689-HpCDF (CS)
F4:Voltage SIR,EI+
417.8253
4.869e+006
37.75



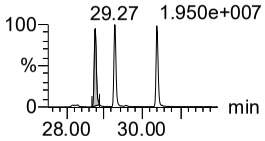
37Cl-2378-TCDD (SS)
F1:Voltage SIR,EI+
327.8847
1.116e+007



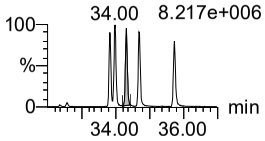
13C-12347-PeCDD (SS)
F2:Voltage SIR,EI+
367.8949
1.474e+007



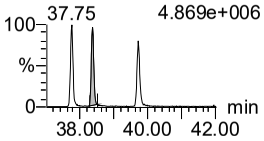
13C-12346-PeCDF (SS)
F2:Voltage SIR,EI+
351.9000
29.27
1.950e+007



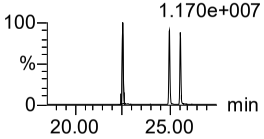
13C-123469-HxCDF (SS)
F3:Voltage SIR,EI+
383.8639
34.00
8.217e+006



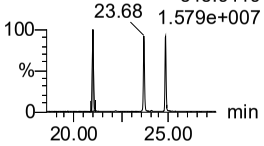
13C-1234689-HpCDF (SS)
F4:Voltage SIR,EI+
417.8253
4.869e+006
37.75



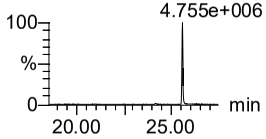
13C-1368-TCDD (AS)
F1:Voltage SIR,EI+
331.9368
1.170e+007



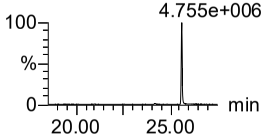
13C-1368-TCDF (AS)
F1:Voltage SIR,EI+
315.9419
23.68
1.579e+007



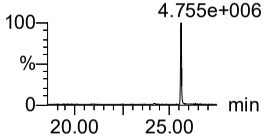
1368-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



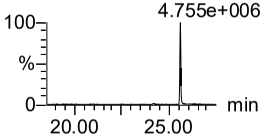
1379-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



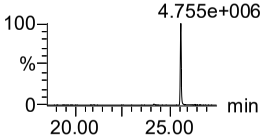
1369-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



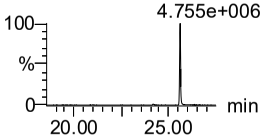
1469-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



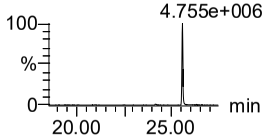
1247/1246/1248/1249-TCDI
F1:Voltage SIR,EI+
319.8965
4.755e+006



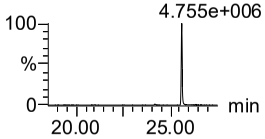
1378-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



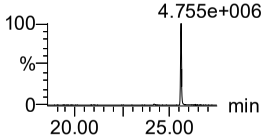
1268-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



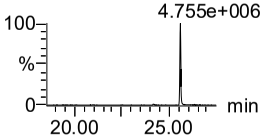
1478-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



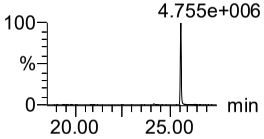
1279-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



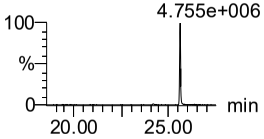
1234/1269-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



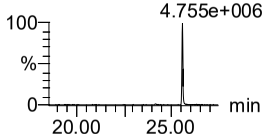
1236-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



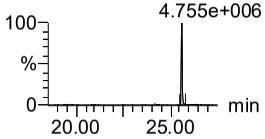
1237/1238-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



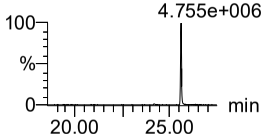
1239-TCDD [CE]
F1:Voltage SIR,EI+
319.8965
4.755e+006



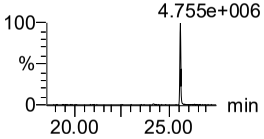
2378-TCDD (S)
F1:Voltage SIR,EI+
319.8965
4.755e+006



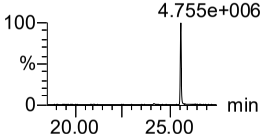
1278-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



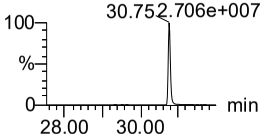
1267-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



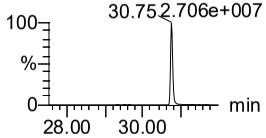
1289-TCDD
F1:Voltage SIR,EI+
319.8965
4.755e+006



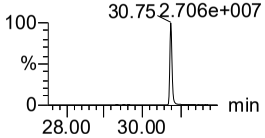
12479/12468-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75
2.706e+007



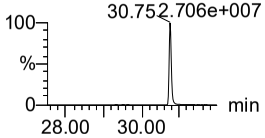
12469-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75
2.706e+007



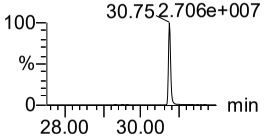
12368-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75
2.706e+007



12478-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75
2.706e+007



12379-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75
2.706e+007

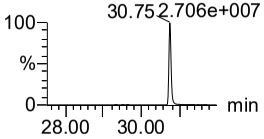


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

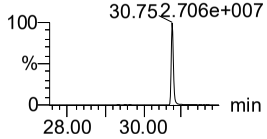
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

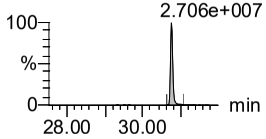
12369/12467/12489-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75 2.706e+007



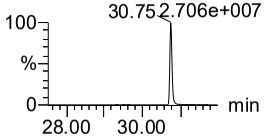
12346/12347-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75 2.706e+007



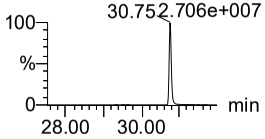
12378-PeCDD (S)
F2:Voltage SIR,EI+
355.8546
2.706e+007



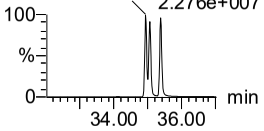
12367-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75 2.706e+007



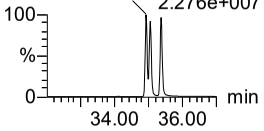
12389-PeCDD
F2:Voltage SIR,EI+
355.8546
30.75 2.706e+007



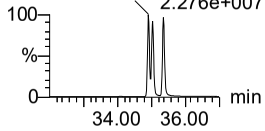
124679/124689-HxCDD
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



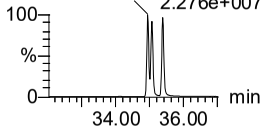
123468-HxCDD
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



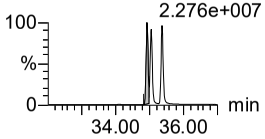
123679/123689-HxCDD
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



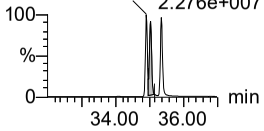
123469-HxCDD
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



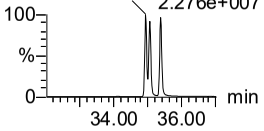
123478-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
2.276e+007



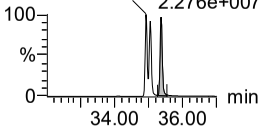
123678-HxCDD (S)
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



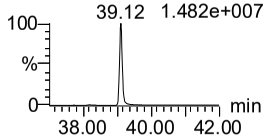
123467-HxCDD
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



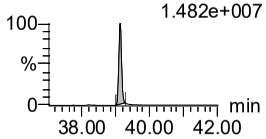
123789-HxCDD (S)
F3:Voltage SIR,EI+
34.92 389.8157
2.276e+007



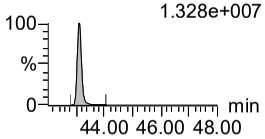
1234679-HpCDD
F4:Voltage SIR,EI+
423.7766
39.12 1.482e+007



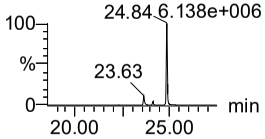
1234678-HpCDD (S)
F4:Voltage SIR,EI+
423.7766
1.482e+007



OCDD (S)
F5:Voltage SIR,EI+
457.7377
1.328e+007



1368-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



1468-TCDF
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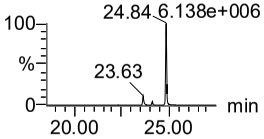
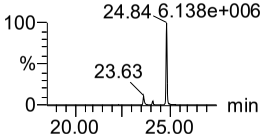
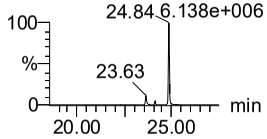
303.9016
24.84 6.138e+006



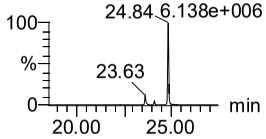
2468-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



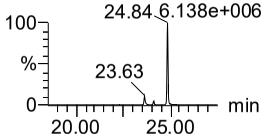
1346/1246-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



1347/1378/1247-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



1348-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



1248/1367/1379-TCDF
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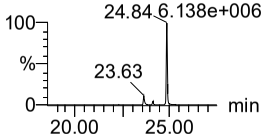
303.9016
24.84 6.138e+006



1268-TCDF
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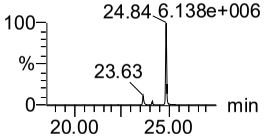
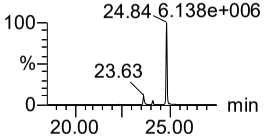
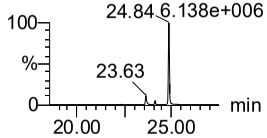
303.9016
24.84 6.138e+006



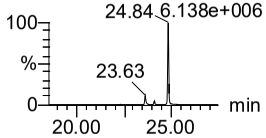
1467-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



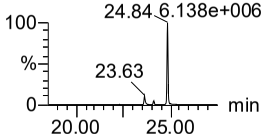
1478-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



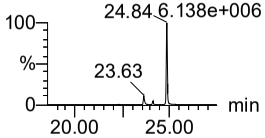
1369/1237-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



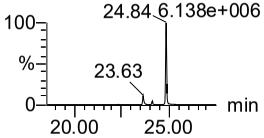
2467-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



2368-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+
303.9016
24.84 6.138e+006



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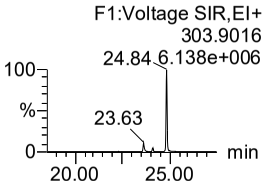
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

1278-TCDF


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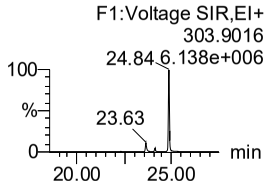

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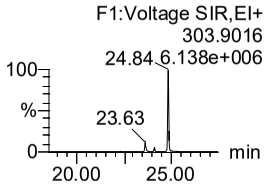

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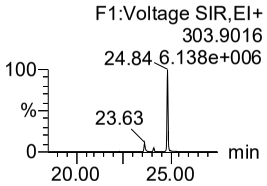

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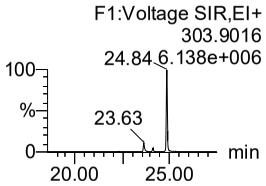
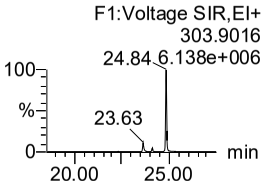


2348-TCDF [CE]


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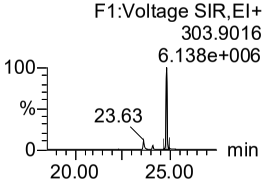
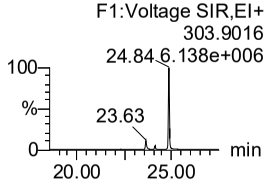
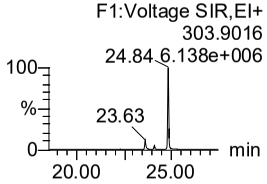


2367/3467-TCDF


1269-TCDF


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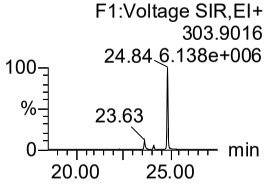
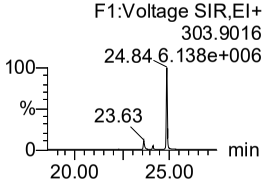
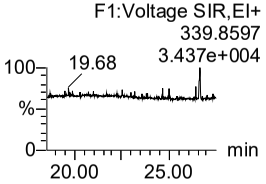


1289-TCDF


13468/12466-PeCDF


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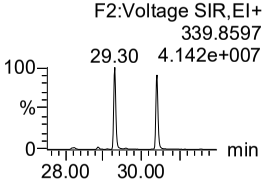

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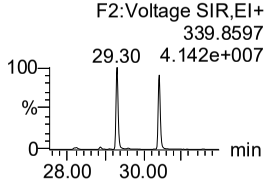

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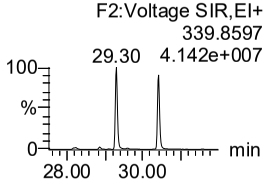
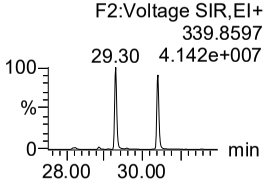


13479-PeCDF


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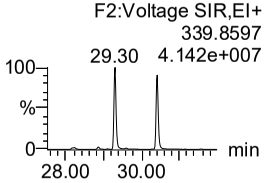

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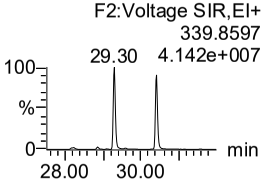

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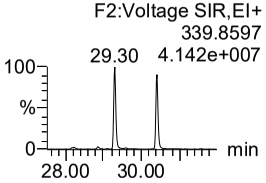

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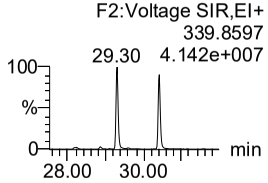

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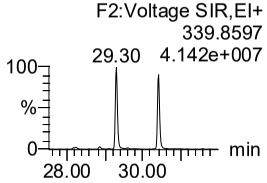

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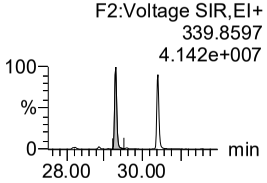

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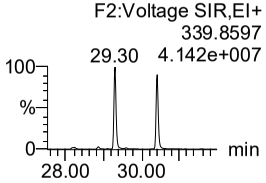

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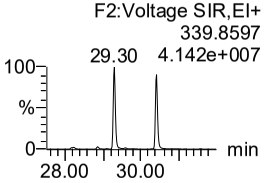

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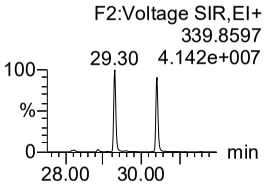

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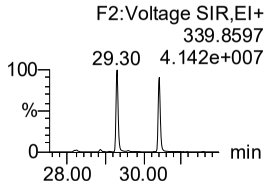

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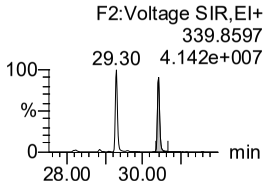

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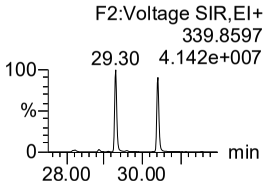

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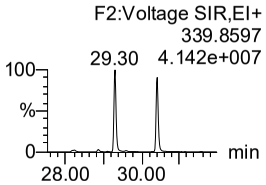
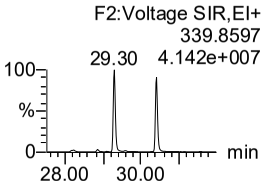


12389-PeCDF


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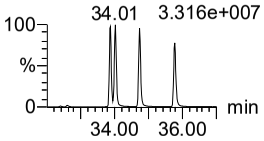
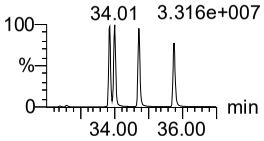
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

123468-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



124678/134678-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



134679-HxCDF
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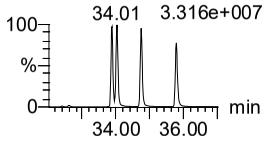
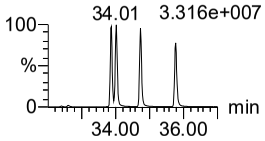
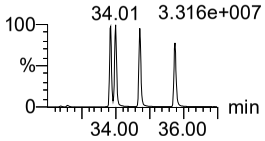
34.01 3.316e+007



124679-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



124689-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



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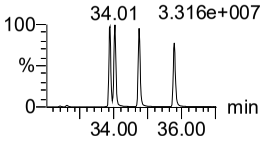
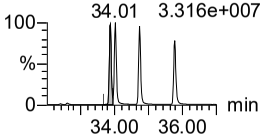
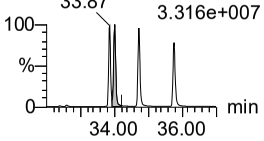
34.01 3.316e+007



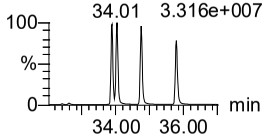
123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



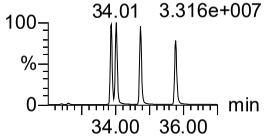
123678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.87 3.316e+007



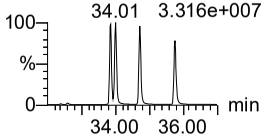
123479-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



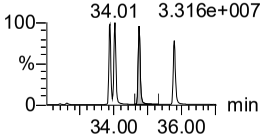
123469-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



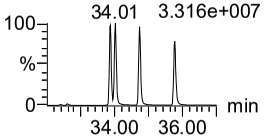
123679-HxCDF
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



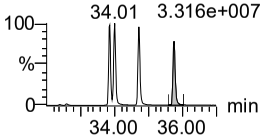
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



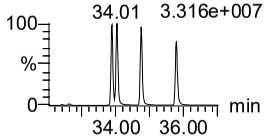
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



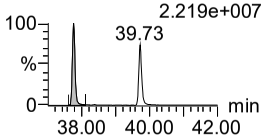
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



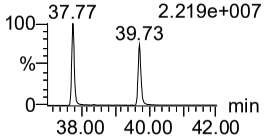
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208
34.01 3.316e+007



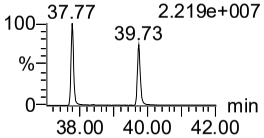
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
39.73 2.219e+007



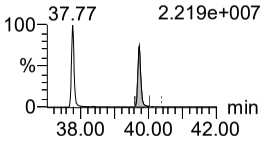
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 39.73 2.219e+007



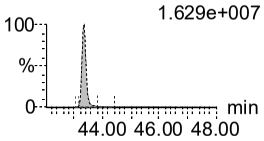
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.77 39.73 2.219e+007



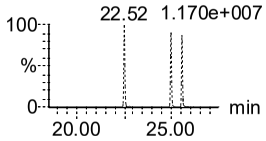
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.77 2.219e+007



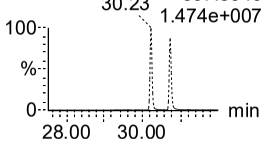
OCDF (S)
F5:Voltage SIR,EI+ 441.7428
1.629e+007



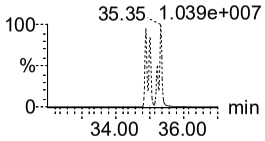
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368
22.52 1.170e+007



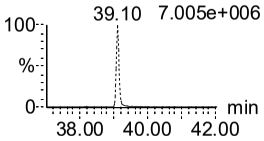
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949
30.23 1.474e+007



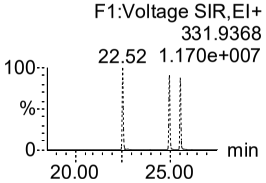
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559
35.35 1.039e+007



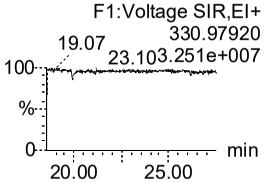
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169
39.10 7.005e+006



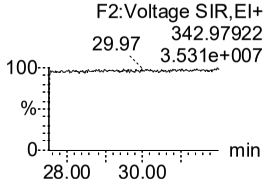
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368
22.52 1.170e+007



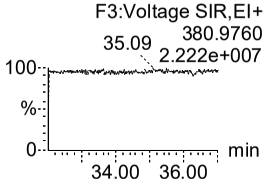
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920
19.07 23.10 3.251e+007



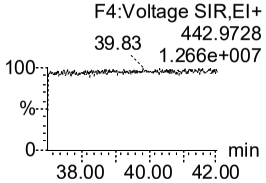
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922
29.97 3.531e+007



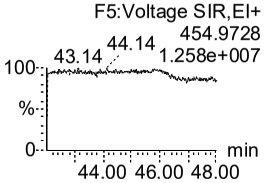
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760
35.09 2.222e+007



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728
39.83 1.266e+007



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728
43.14 44.14 1.258e+007

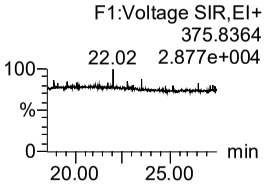


Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

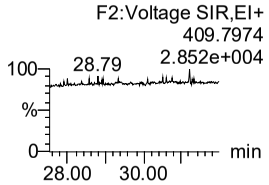
Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

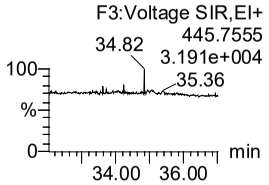
HxDPE



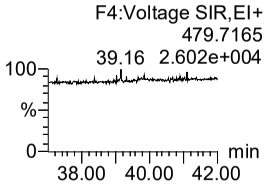
HpDPE



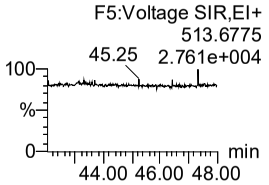
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\Resources\14784 QLD_2_v2.qld

Last Altered: Thursday, March 16, 2023 10:48:10 Eastern Daylight Time
Printed: Thursday, March 16, 2023 11:00:21 Eastern Daylight Time

Name: G07032330B, Date: 08-Mar-2023, Time: 11:04:53, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	25.01	702095.813	888160.000		1590255.813	bb	55.4	-44.6	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.68	985772.938	1259093.0...		2244865.938	bb	58.0	-42.0	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.25	326202.563	248437.469		574640.032	bd	27.8	-44.3	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.57	635305.500	799934.063	702095.813	90.252	bb	96.1	-3.9	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.74	823335.250	513905.719	702095.813	84.090	bb	103.0	3.0	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.90	646224.313	504975.250	326202.563	100.167	bd	95.8	-4.2	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.03	636212.875	515454.250	326202.563	100.208	db	101.6	1.6	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.35	696239.438	550594.688	326202.563	108.488	db	97.6	-2.4	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	625516.125	575923.875	326202.563	104.538	bb	113.7	13.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.09	960458.375	1061962.2...	326202.563	175.973	bb	236.8	18.4	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.83	972147.188	1249640.3...	985772.938	98.972	bb	100.0	-0.0	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.27	1218690.375	795185.250	985772.938	89.710	bb	102.1	2.1	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.38	1204798.250	733344.625	985772.938	86.337	bb	101.7	1.7	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.84	482673.344	914632.063	326202.563	121.581	bd	102.9	2.9	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	34.00	569368.063	1070291.3...	326202.563	142.668	db	100.4	0.4	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.70	535377.313	1003345.4...	326202.563	133.886	bb	103.6	3.6	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.75	478199.031	920175.813	326202.563	121.674	bb	103.2	3.2	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.75	419369.906	926342.875	326202.563	117.092	bb	121.0	21.0	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	381795.875	771121.375	326202.563	100.316	bb	114.9	14.9	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	1169106.625	1328835.7...	326202.563	217.348	bb	238.7	19.3	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.60	732137.000		702095.813	46.039	bb	40.4	1.0	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.23	880684.375	564384.063	702095.813	90.870	bb	104.4	4.4	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.76	1203878.000	763519.313	985772.938	87.640	bb	101.9	1.9	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.33	508212.344	929952.813	326202.563	125.136	bb	97.0	-3.0	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.36	373668.875	848275.688	326202.563	106.323	bb	107.4	7.4	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.60	732137.000		635305.500	51.011	bb	42.2	5.4	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.23	880684.375	554023.563	823335.250	107.289	bb	102.2	2.2	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.76	1203878.000	763519.313	1218690.375	97.692	bb	93.9	-6.1	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.33	496869.656	906382.750	569368.063	85.582	bb	94.0	-6.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.36	373668.875	848275.688	419369.906	90.803	bb	93.6	-6.4	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.52	730662.750	924438.375	702095.813	104.078	bb	101.0	1.0	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.98	1096630.500	1393637.2...	985772.938	110.932	bb	101.8	1.8	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.60	312802.313	381394.125	635305.500	48.368	bd	42.5	6.1	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				635305.500					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.75	1838853.250	1159729.3...	823335.250	224.237	bs	221.4	10.7	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				823335.250					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				646224.313					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				646224.313					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				646224.313					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				646224.313					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.92	1476490.250	1180222.7...	646224.313	230.778	bd	218.7	9.4	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.05	1533016.875	1221537.0...	636212.875	239.180	db	217.4	8.7	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				696239.438					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.36	1589628.375	1258895.8...	696239.438	228.461	bs	218.5	9.3	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				625516.125					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	1341004.125	1317065.3...	625516.125	221.240	bb	211.0	5.5	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.11	2371545.500	2678522.0...	960458.375	499.408	bd	434.4	8.6	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.84	420671.500	559668.563	972147.188	44.124	bs	39.7	-0.7	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				972147.188					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.30	2737219.750	1746718.5...	1218690.375	222.652	bd	207.2	3.6	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				1218690.375					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				1204798.250					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				1204798.250					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.42	2527194.500	1609602.1...	1204798.250	213.441	ds	201.7	0.9	G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				1204798.250					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				1204798.250					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				1204798.250					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				482673.344					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.87	2164046.500	1720548.6...	482673.344	278.006	bd	213.2	6.6	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	34.01	2408303.000	1914794.0...	569368.063	263.658	ds	218.4	9.2	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				569368.063					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				535377.313					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				535377.313					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.73	2318167.750	1855980.8...	535377.313	271.274	bd	218.8	9.4	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				535377.313					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.77	2018752.375	1611463.3...	478199.031	259.602	bs	212.5	6.3	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				478199.031					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.77	2029315.625	1950812.3...	419369.906	295.764	bd	200.7	0.4	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				419369.906					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				419369.906					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.73	1682468.625	1621224.8...	381795.875	286.551	MM	206.2	3.1	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.34	2721779.000	3004698.0...	1169106.625	458.496	MM	391.5	-2.1	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				635305.500					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				823335.250					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				326202.563					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				625516.125					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				635305.500					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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	Summary Flag Reason
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	Summary Flag Reason
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	Summary Flag Reason
149	

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

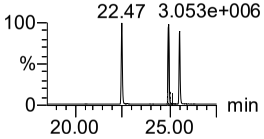
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

TRC Report 508369

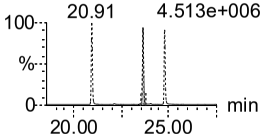
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8_03_03_23.mdb 10 Mar 2023 16:01:49
Calibration: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\G_DF_ICAL_05MAY22_calibration file reprocessed 8_23_22.cdb 23 Aug 2022 11:47:36

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

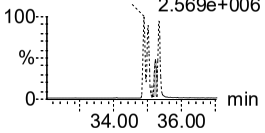
13C-1234-TCDD (JS)
F1:Voltage SIR,EI+ 331.9368
22.47 3.053e+006



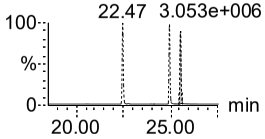
13C-1234-TCDF (JS)
F1:Voltage SIR,EI+ 315.9419
20.91 4.513e+006



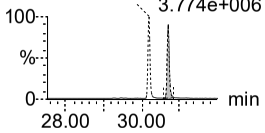
13C-123467-HxCDD (JS)
F3:Voltage SIR,EI+ 401.8559
34.88 2.569e+006



13C-2378-TCDD (ES)
F1:Voltage SIR,EI+ 331.9368
22.47 3.053e+006



13C-12378-PeCDD (ES)
F2:Voltage SIR,EI+ 367.8949
30.20 3.774e+006



13C-123478-HxCDD (ES)
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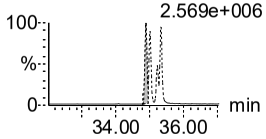
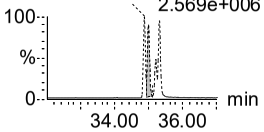
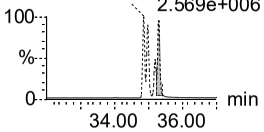
2.569e+006



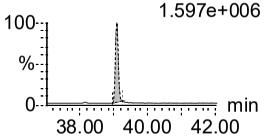
13C-123678-HxCDD (ES)
F3:Voltage SIR,EI+ 401.8559
34.88 2.569e+006



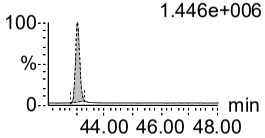
13C-123789-HxCDD (ES)
F3:Voltage SIR,EI+ 401.8559
34.88 2.569e+006



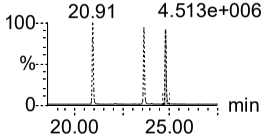
13C-1234678-HpCDD (ES)
F4:Voltage SIR,EI+ 435.8169
1.597e+006



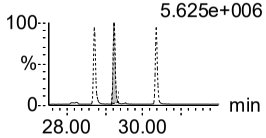
13C-OCDD (ES)
F5:Voltage SIR,EI+ 469.7780
1.446e+006



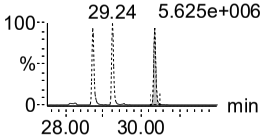
13C-2378-TCDF (ES)
F1:Voltage SIR,EI+ 315.9419
20.91 4.513e+006



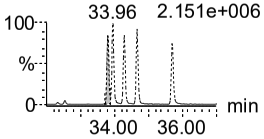
13C-12378-PeCDF (ES)
F2:Voltage SIR,EI+ 351.9000
5.625e+006



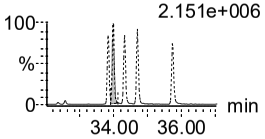
13C-23478-PeCDF (ES)
F2:Voltage SIR,EI+ 351.9000
29.24 5.625e+006



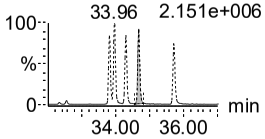
13C-123478-HxCDF (ES)
F3:Voltage SIR,EI+ 383.8639
33.96 2.151e+006



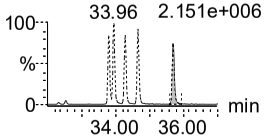
13C-123678-HxCDF (ES)
F3:Voltage SIR,EI+ 383.8639
2.151e+006



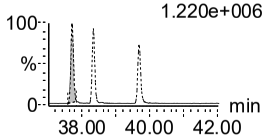
13C-234678-HxCDF (ES)
F3:Voltage SIR,EI+ 383.8639
33.96 2.151e+006



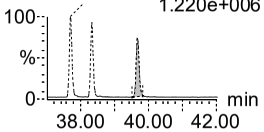
13C-123789-HxCDF (ES)
F3:Voltage SIR,EI+ 383.8639
33.96 2.151e+006



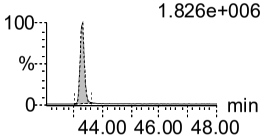
13C-1234678-HpCDF (ES)
F4:Voltage SIR,EI+ 417.8253
1.220e+006



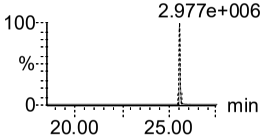
13C-1234789-HpCDF (ES)
F4:Voltage SIR,EI+ 417.8253
37.69 1.220e+006



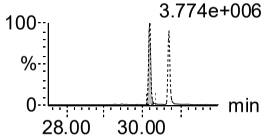
13C-OCDF (ES)
F5:Voltage SIR,EI+ 453.7830
1.826e+006



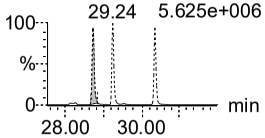
37Cl-2378-TCDD (CS)
F1:Voltage SIR,EI+ 327.8847
2.977e+006



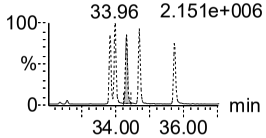
13C-12347-PeCDD (CS)
F2:Voltage SIR,EI+ 367.8949
3.774e+006



13C-12346-PeCDF (CS)
F2:Voltage SIR,EI+ 351.9000
29.24 5.625e+006



13C-123469-HxCDF (CS)
F3:Voltage SIR,EI+ 383.8639
33.96 2.151e+006

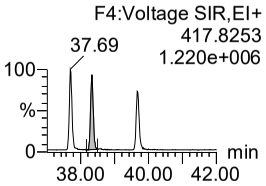


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

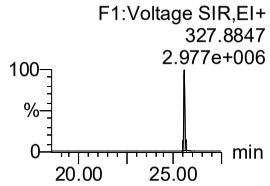
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

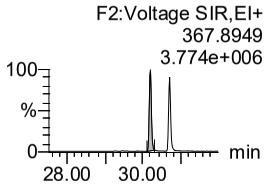
13C-1234689-HpCDF (CS)



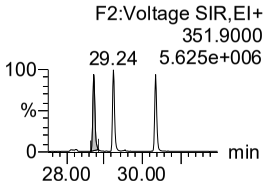
37Cl-2378-TCDD (SS)



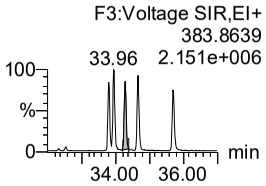
13C-12347-PeCDD (SS)



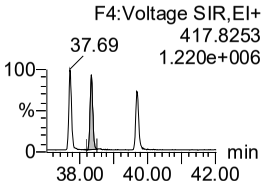
13C-12346-PeCDF (SS)



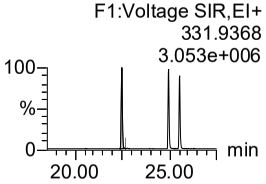
13C-123469-HxCDF (SS)



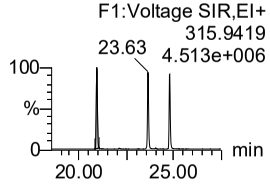
13C-1234689-HpCDF (SS)



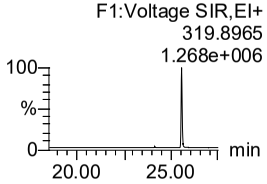
13C-1368-TCDD (AS)



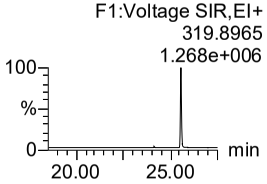
13C-1368-TCDF (AS)



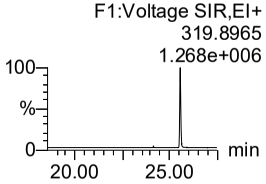
1368-TCDD



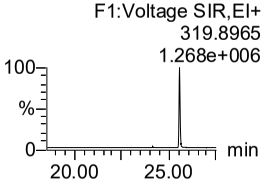
1379-TCDD



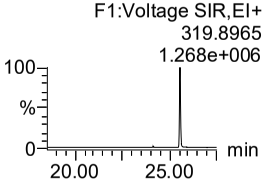
1369-TCDD



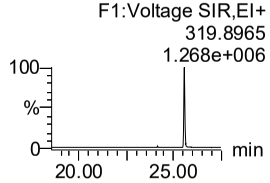
1469-TCDD



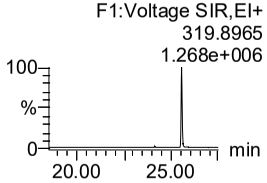
1247/1246/1248/1249-TCDI



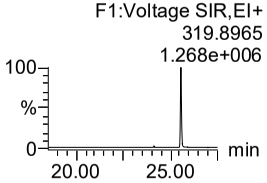
1378-TCDD



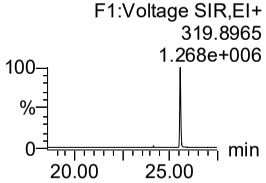
1268-TCDD



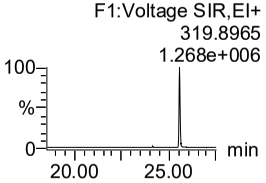
1478-TCDD



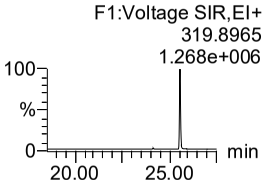
1279-TCDD



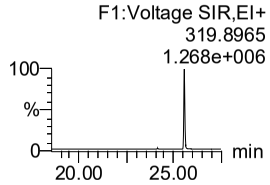
1234/1269-TCDD



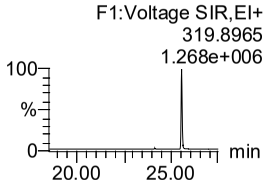
1236-TCDD



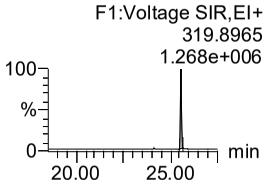
1237/1238-TCDD



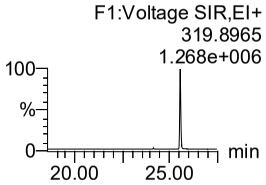
1239-TCDD [CE]



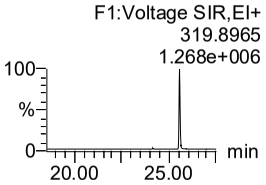
2378-TCDD (S)



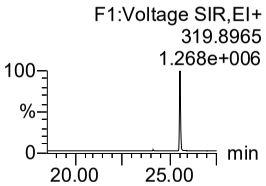
1278-TCDD



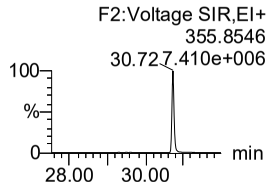
1267-TCDD



1289-TCDD



12479/12468-PeCDD



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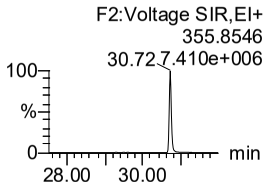
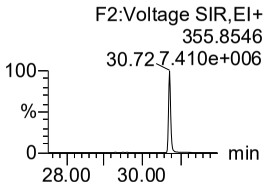
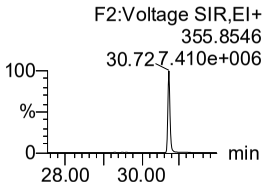


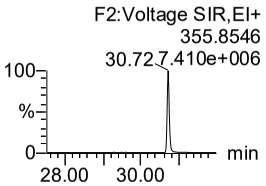
12368-PeCDD



12478-PeCDD



12379-PeCDD



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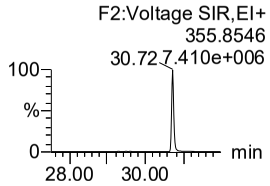
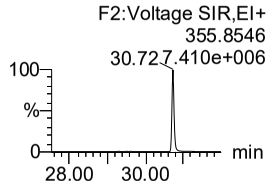
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

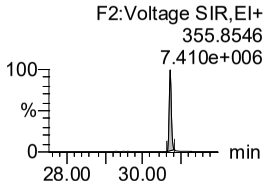
12369/12467/12489-PeCDD



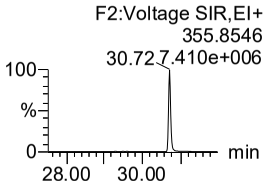
12346/12347-PeCDD



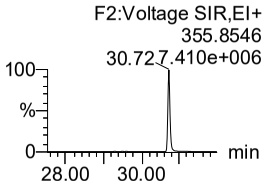
12378-PeCDD (S)



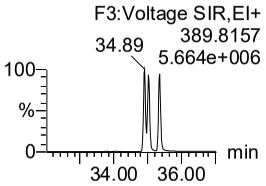
12367-PeCDD



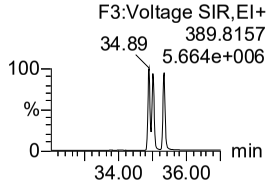
12389-PeCDD



124679/124689-HxCDD



123468-HxCDD



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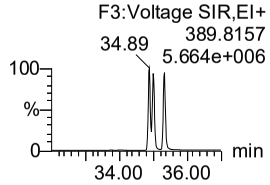
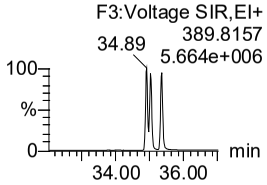
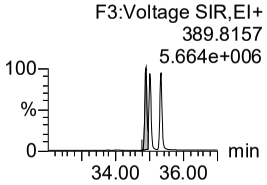


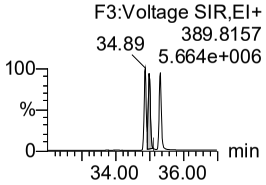
123469-HxCDD



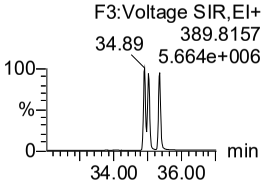
123478-HxCDD (S)



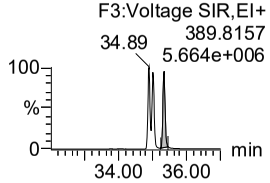
123678-HxCDD (S)



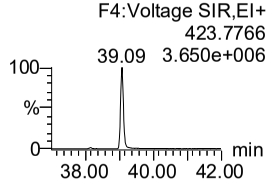
123467-HxCDD



123789-HxCDD (S)



1234679-HpCDD



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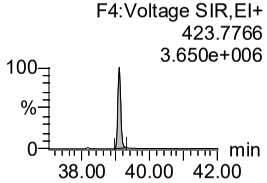
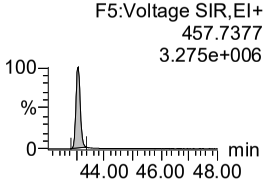
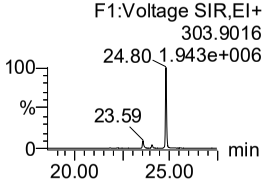


OCDD (S)



1368-TCDF



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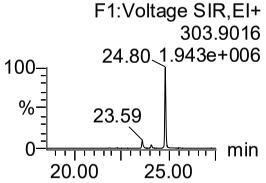
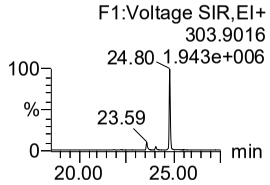
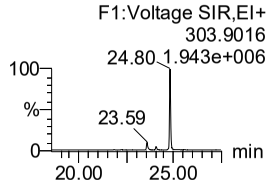


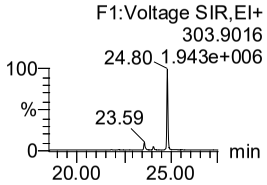
2468-TCDF



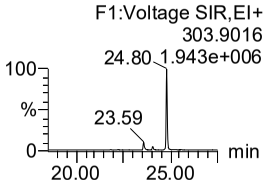
1346/1246-TCDF



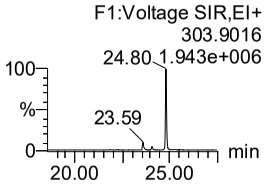
1347/1378/1247-TCDF



1348-TCDF



1248/1367/1379-TCDF



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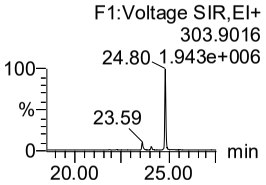

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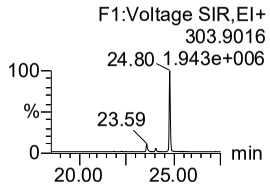

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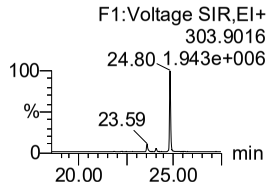
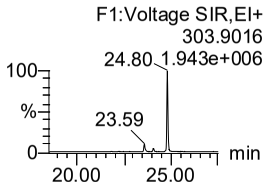


1369/1237-TCDF



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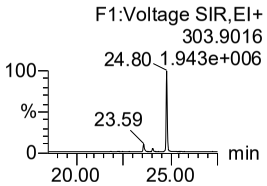

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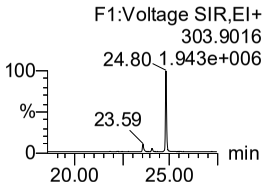

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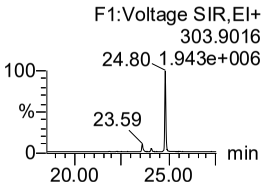

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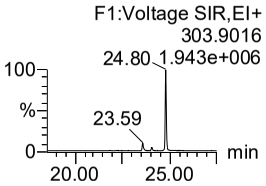
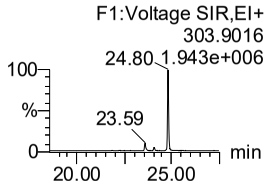
Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

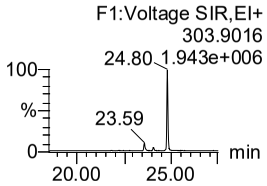
1278-TCDF



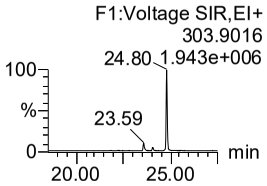
1349-TCDF



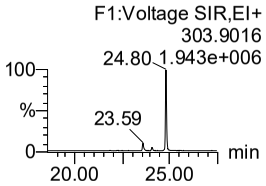
1267-TCDF



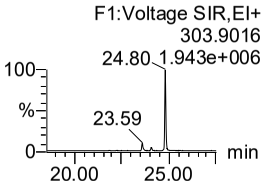
2346/1249-TCDF



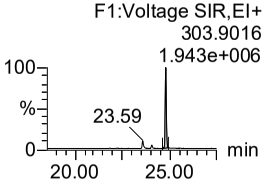
2347/1279-TCDF



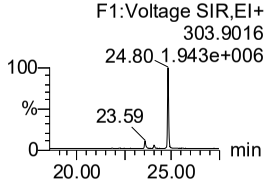
2348-TCDF [CE]



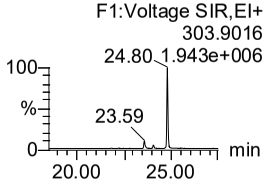
2378-TCDF (S)



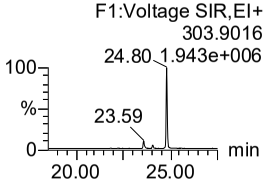
2367/3467-TCDF



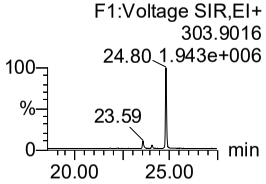
1269-TCDF



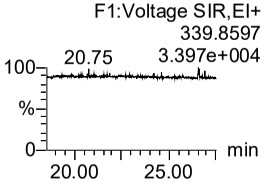
1239-TCDF



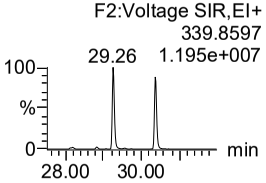
1289-TCDF



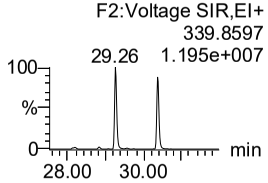
13468/12466-PeCDF



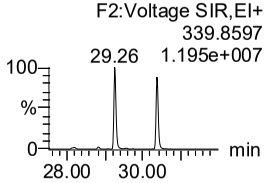
13678/13467/12467-PeCDF



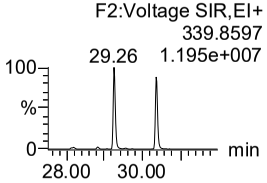
12368/13478/12478-PeCDF



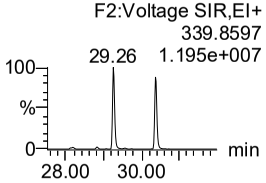
14678-PeCDF



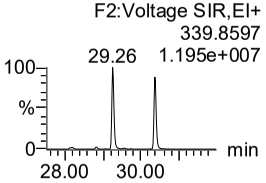
13479-PeCDF



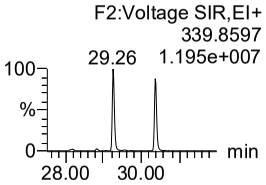
13469/12479-PeCDF



12346-PeCDF



23468/12469-PeCDF



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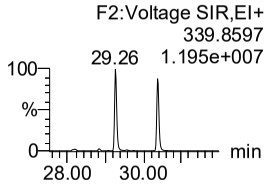

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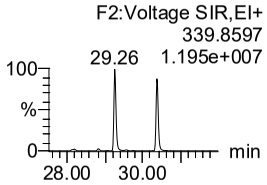
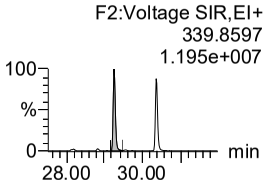
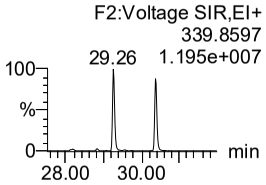


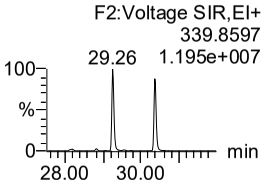
12378-PeCDF (S)



12678/12367-PeCDF



12379-PeCDF



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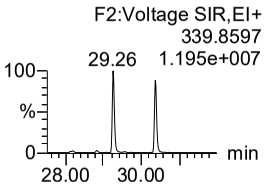
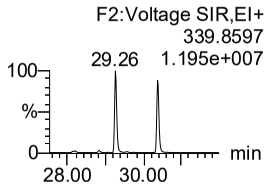
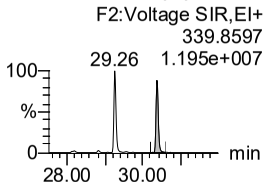


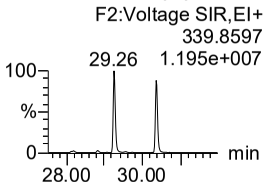
23467/12369-PeCDF



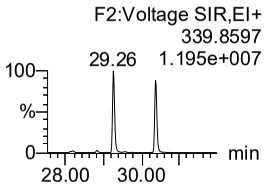
23478-PeCDF (S)



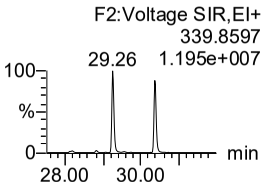
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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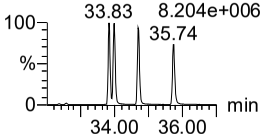
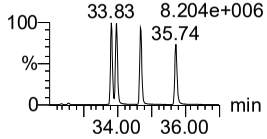
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

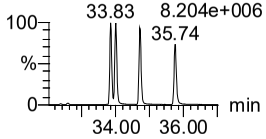
123468-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



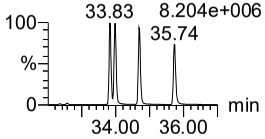
124678/134678-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



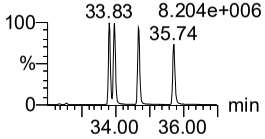
134679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



124679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



124689-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



123467-HxCDF
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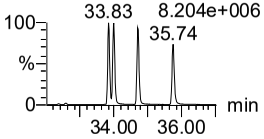
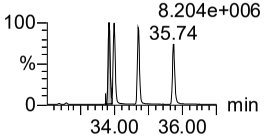
33.83 8.204e+006
35.74



123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
8.204e+006
35.74



123678-HxCDF (S)
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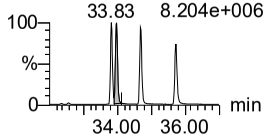
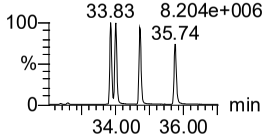
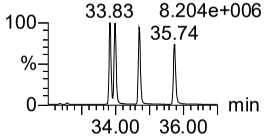
33.83 8.204e+006



123479-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



123469-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



123679-HxCDF
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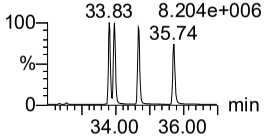
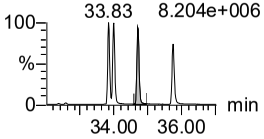
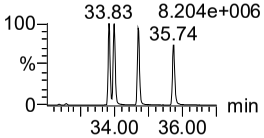
33.83 8.204e+006
35.74



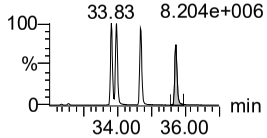
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006



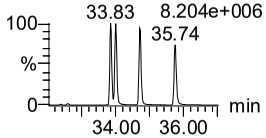
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



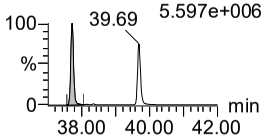
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006



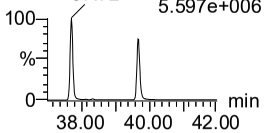
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208
33.83 8.204e+006
35.74



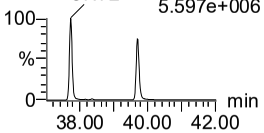
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
39.69 5.597e+006



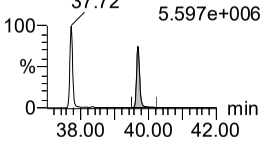
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.72 5.597e+006



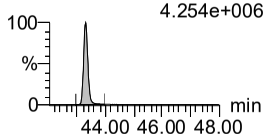
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.72 5.597e+006



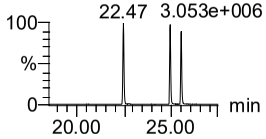
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.72 5.597e+006



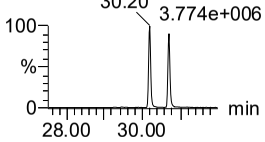
OCDF (S)
F5:Voltage SIR,EI+ 441.7428
4.254e+006



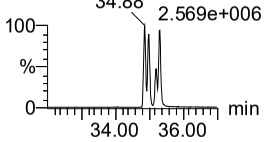
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368
22.47 3.053e+006



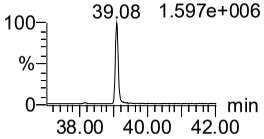
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949
30.20 3.774e+006



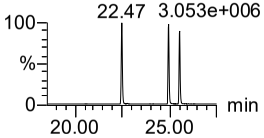
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559
34.88 2.569e+006



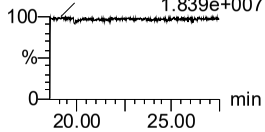
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169
39.08 1.597e+006



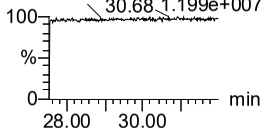
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368
22.47 3.053e+006



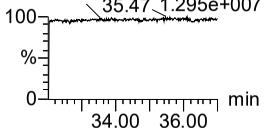
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920
19.15 1.839e+007



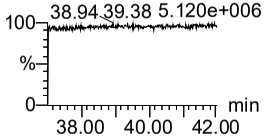
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922
28.89 30.68 1.199e+007



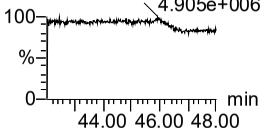
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760
33.52 35.47 1.295e+007



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728
38.94 39.38 5.120e+006



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728
45.93 4.905e+006



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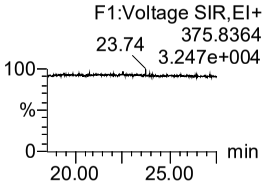
HxDPE



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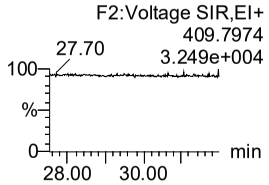

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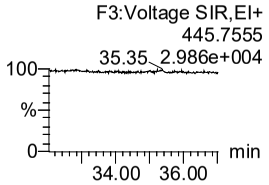

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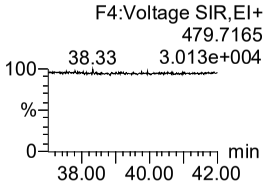

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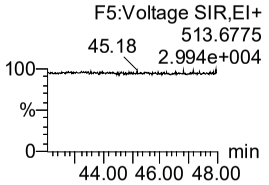

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.96	197026.313	242793.609		439819.922	MM	15.3	-84.7	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.63	287220.625	360643.906		647864.531	MM	16.7	-83.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.21	78504.383	62171.871		140676.254	bd	6.8	-86.4	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.54	171318.875	215358.000	197026.313	87.917	bb	93.6	-6.4	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.71	213651.406	136550.984	197026.313	79.624	bb	97.5	-2.5	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.88	176082.547	139686.297	78504.383	112.232	bd	107.4	7.4	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	34.99	166060.547	132070.109	78504.383	105.963	db	107.5	7.5	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.32	176476.719	142628.375	78504.383	113.418	db	102.0	2.0	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.08	148583.750	141028.563	78504.383	102.936	bb	111.9	11.9	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.06	231127.703	263093.594	78504.383	175.659	bb	236.4	18.2	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.78	278870.844	343009.594	287220.625	95.989	bb	96.9	-3.1	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.24	336966.969	210100.219	287220.625	84.442	bb	96.1	-3.9	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.35	322739.031	200357.234	287220.625	80.742	bb	95.1	-4.9	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.81	118993.688	225157.766	78504.383	122.320	bd	103.6	3.6	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	33.96	145294.844	273771.844	78504.383	148.947	db	104.9	4.9	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.67	132405.328	257140.797	78504.383	138.455	bb	107.2	7.2	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.71	121492.742	226796.266	78504.383	123.791	bb	105.0	5.0	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.69	104559.898	234559.156	78504.383	120.532	bb	124.6	24.6	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.67	87966.016	206380.688	78504.383	104.618	bb	119.9	19.9	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.29	303605.313	341082.500	78504.383	229.139	bb	251.6	25.8	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.55	193618.484		197026.313	44.022	bb	38.6	-3.5	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.20	236952.656	145546.953	197026.313	86.967	bb	100.0	-0.0	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.72	332735.219	206098.047	287220.625	83.171	bb	96.7	-3.3	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.30	124495.039	241083.453	78504.383	129.936	bb	100.7	0.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.33	98477.039	219557.578	78504.383	113.038	bb	114.2	14.2	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.55	193618.484		171318.875	50.072	bb	41.4	3.5	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.20	234818.953	144451.656	213651.406	108.300	bb	103.1	3.1	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.72	332735.219	206098.047	336966.969	98.495	bb	94.7	-5.3	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.30	121107.656	234202.156	145294.844	84.786	bb	93.2	-6.8	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.33	98477.039	219557.578	104559.898	93.783	bb	96.7	-3.3	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.47	204304.172	251354.391	197026.313	103.601	bb	100.6	0.6	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.92	313121.656	398798.156	287220.625	109.887	bb	100.8	0.8	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.55	78397.016	99642.906	171318.875	46.044	bb	40.4	1.0	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				171318.875					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.72	459365.438	296238.000	213651.406	215.762	bb	213.1	6.5	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				213651.406					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				176082.547					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				176082.547					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				176082.547					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				176082.547					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.89	390368.281	310655.563	176082.547	222.005	bd	210.4	5.2	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.01	386951.188	302972.656	166060.547	231.417	db	210.4	5.2	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				176476.719					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.34	384840.250	311290.906	176476.719	218.151	bb	208.6	4.3	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				148583.750					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.09	345429.094	321168.563	148583.750	230.169	bb	219.5	9.8	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.08	553796.875	623009.875	231127.703	476.227	bb	414.2	3.6	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.80	127494.055	164885.688	278870.844	47.015	bb	42.3	5.8	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				278870.844					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.26	782339.688	489946.438	336966.969	232.565	bd	216.5	8.2	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				336966.969					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				322739.031					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				322739.031					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.37	716887.000	444749.688	322739.031	222.069	bs	209.9	4.9	G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				322739.031					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				322739.031					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				322739.031					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				118993.688					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.83	544043.125	425312.594	118993.688	281.665	bd	216.0	8.0	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	33.98	583814.813	475064.031	145294.844	252.675	db	209.3	4.6	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				145294.844					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				132405.328					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				132405.328					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.69	576289.563	448889.969	132405.328	263.173	bs	212.2	6.1	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				132405.328					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.74	491482.875	380930.656	121492.742	250.486	bs	205.1	2.5	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				121492.742					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.72	537939.000	516560.375	104559.898	310.953	bd	211.0	5.5	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				104559.898					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				104559.898					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.69	447047.594	396968.438	87966.016	286.742	bd	206.3	3.2	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.29	733402.875	794424.188	303605.313	473.974	bd	404.7	1.2	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				171318.875					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				213651.406					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				78504.383					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				148583.750					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				171318.875					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

	Summary Flag Reason
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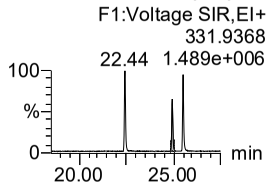
TRC Report 508369

Name: G10032308B, Date: 10-Mar-2023, Time: 18:17:57, ID: SID AH70, Description: CS4

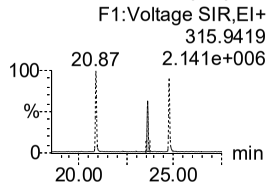
	Summary Flag Reason
149	

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

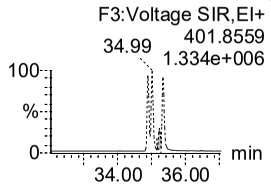
13C-1234-TCDD (JS)



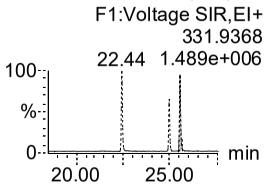
13C-1234-TCDF (JS)



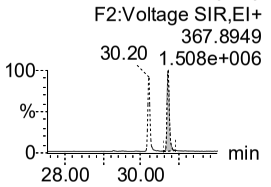
13C-123467-HxCDD (JS)



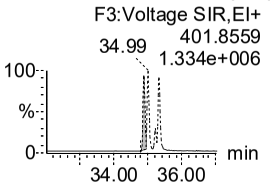
13C-2378-TCDD (ES)



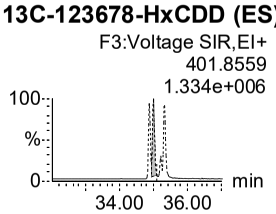
13C-12378-PeCDD (ES)



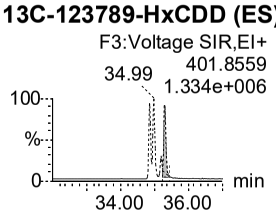
13C-123478-HxCDD (ES)



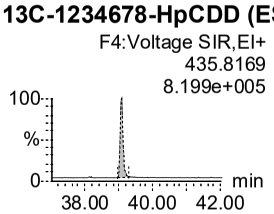
13C-123678-HxCDD (ES)



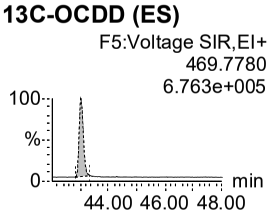
13C-123789-HxCDD (ES)



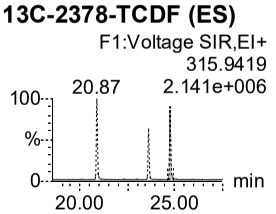
13C-1234678-HpCDD (ES)



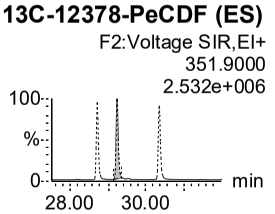
13C-OCDD (ES)



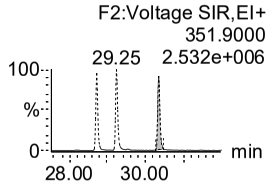
13C-2378-TCDF (ES)



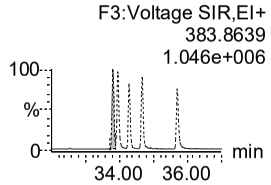
13C-12378-PeCDF (ES)



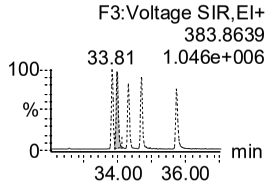
13C-23478-PeCDF (ES)



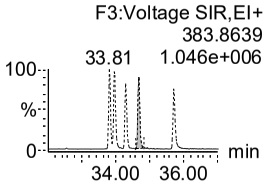
13C-123478-HxCDF (ES)



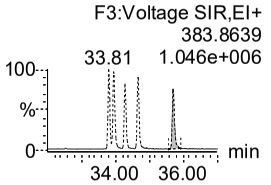
13C-123678-HxCDF (ES)



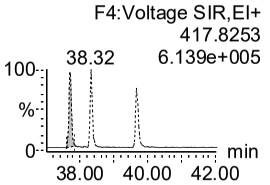
13C-234678-HxCDF (ES)



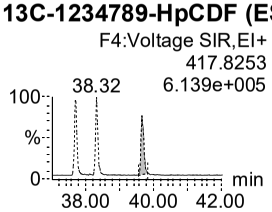
13C-123789-HxCDF (ES)



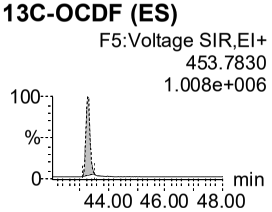
13C-1234678-HpCDF (ES)



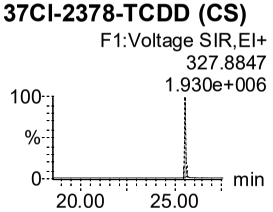
13C-1234789-HpCDF (ES)



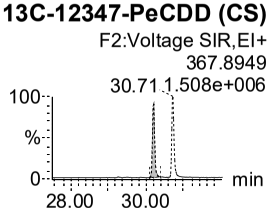
13C-OCDF (ES)



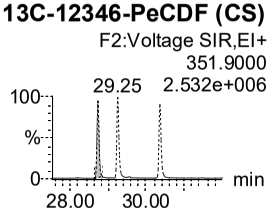
37Cl-2378-TCDD (CS)



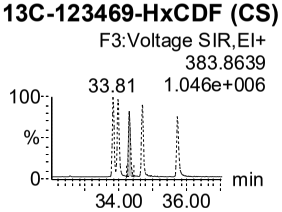
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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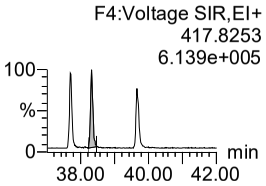
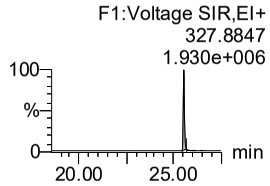
Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

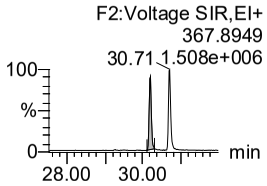
13C-1234689-HpCDF (CS)



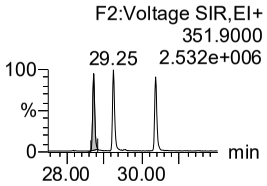
37Cl-2378-TCDD (SS)



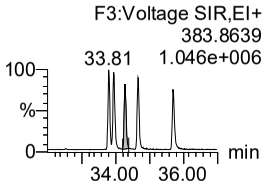
13C-12347-PeCDD (SS)



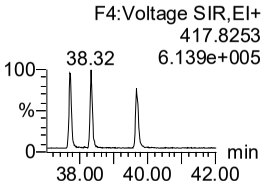
13C-12346-PeCDF (SS)



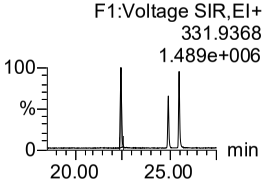
13C-123469-HxCDF (SS)



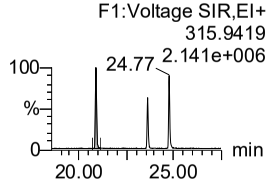
13C-1234689-HpCDF (SS)



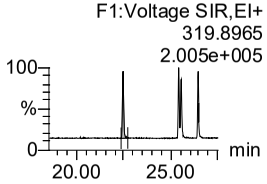
13C-1368-TCDD (AS)



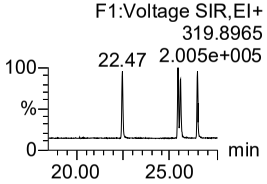
13C-1368-TCDF (AS)



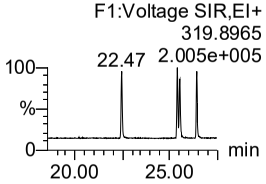
1368-TCDD



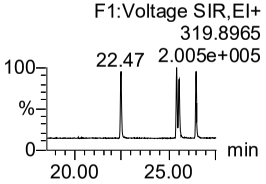
1379-TCDD



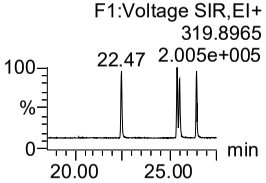
1369-TCDD



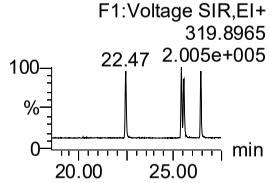
1469-TCDD



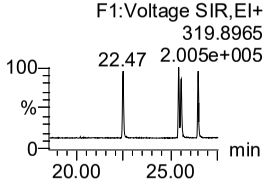
1247/1246/1248/1249-TCDI



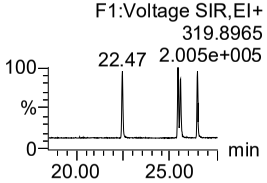
1378-TCDD



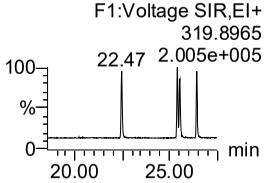
1268-TCDD



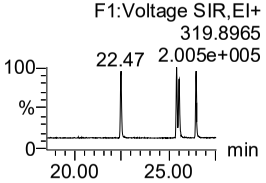
1478-TCDD



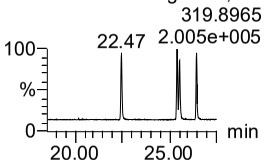
1279-TCDD



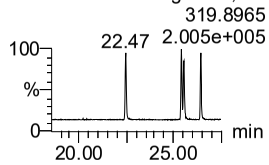
1234/1269-TCDD



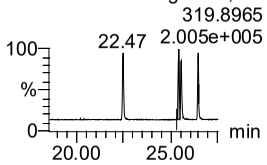
1236-TCDD



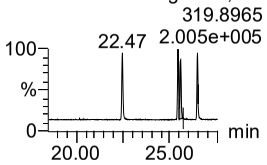
1237/1238-TCDD



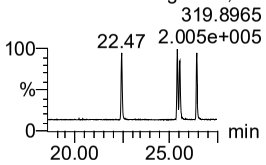
1239-TCDD [CE]



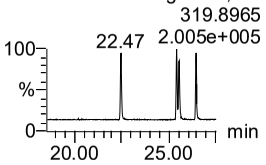
2378-TCDD (S)



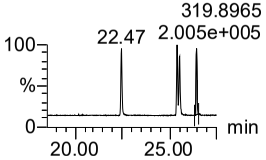
1278-TCDD



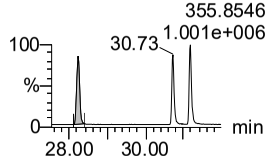
1267-TCDD



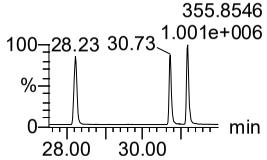
1289-TCDD



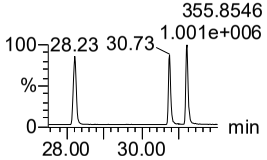
12479/12468-PeCDD



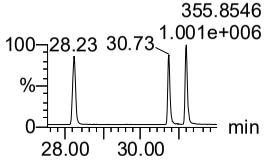
12469-PeCDD



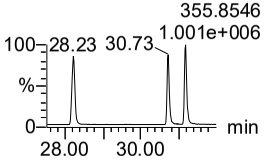
12368-PeCDD



12478-PeCDD



12379-PeCDD



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546 1.001e+006
28.23 30.73

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546 1.001e+006
28.23 30.73

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546 1.001e+006

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546 1.001e+006
28.23 30.73

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546 1.001e+006
28.23 30.73

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157 9.161e+005
34.89

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 9.161e+005
33.04

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766 6.547e+005
39.08

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766 6.547e+005
38.14

OCDD (S)
F5:Voltage SIR,EI+ 457.7377 4.140e+005

1368-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1468-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

2468-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1348-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1268-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1467-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1478-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

2467-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

2368-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

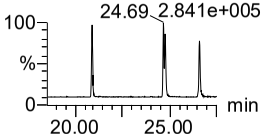
1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016 2.841e+005
24.69

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

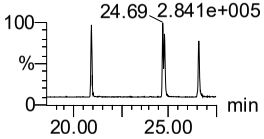
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

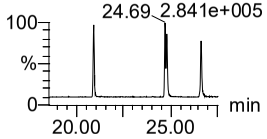
1278-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



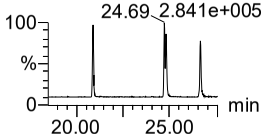
1349-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



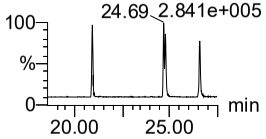
1267-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



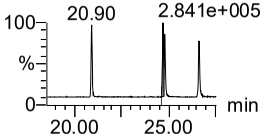
2346/1249-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



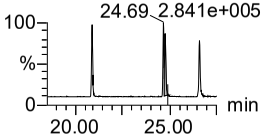
2347/1279-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



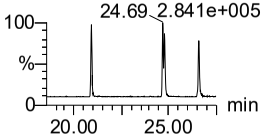
2348-TCDF [CE]
F1:Voltage SIR,EI+
303.9016
20.90 2.841e+005



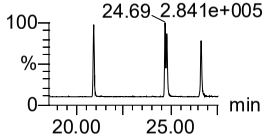
2378-TCDF (S)
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



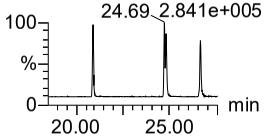
2367/3467-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



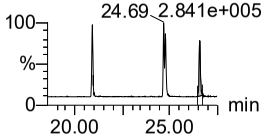
1269-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



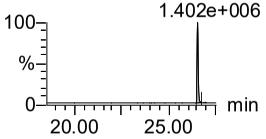
1239-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



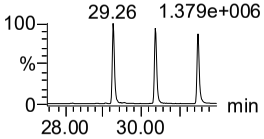
1289-TCDF
F1:Voltage SIR,EI+
303.9016
24.69 2.841e+005



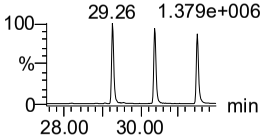
13468/12466-PeCDF
F1:Voltage SIR,EI+
339.8597
1.402e+006



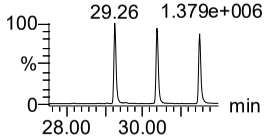
13678/13467/12467-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



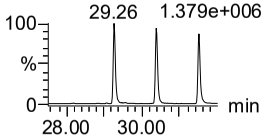
12368/13478/12478-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



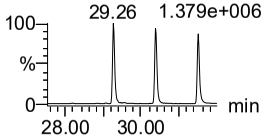
14678-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



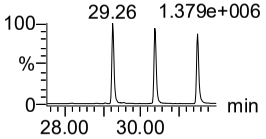
13479-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



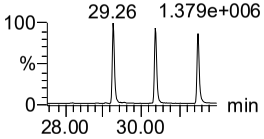
13469/12479-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



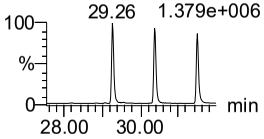
12346-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



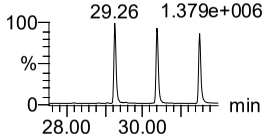
23468/12469-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



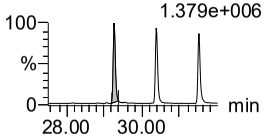
12347-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



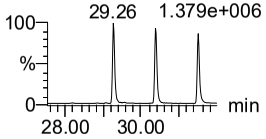
12348-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



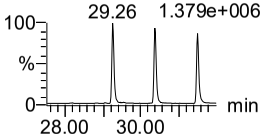
12378-PeCDF (S)
F2:Voltage SIR,EI+
339.8597
1.379e+006



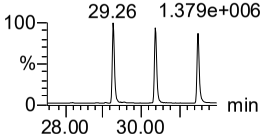
12678/12367-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



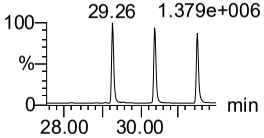
12379-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



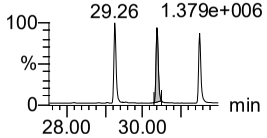
12679-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



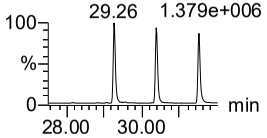
23467/12369-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



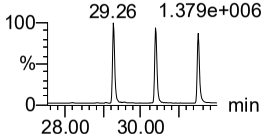
23478-PeCDF (S)
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



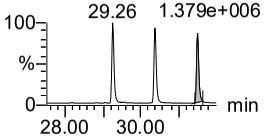
12489-PeCDF (R)
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



12349-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006



12389-PeCDF
F2:Voltage SIR,EI+
339.8597
29.26 1.379e+006

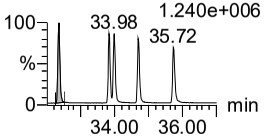


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

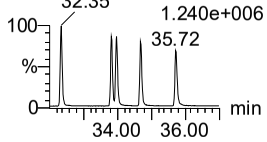
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

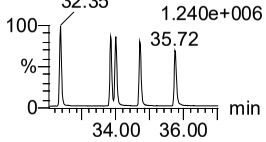
123468-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
33.98 35.72



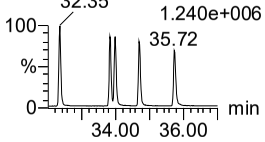
124678/134678-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



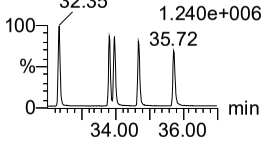
134679-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



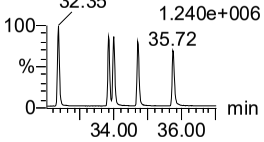
124679-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



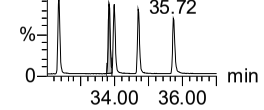
124689-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



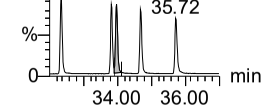
123467-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



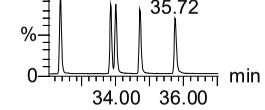
123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



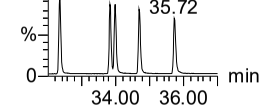
123678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



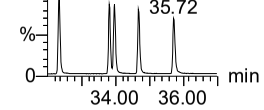
123479-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



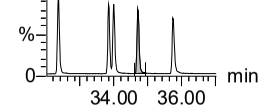
123469-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



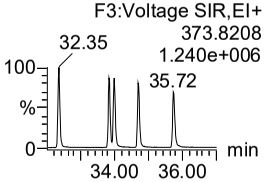
123679-HxCDF
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



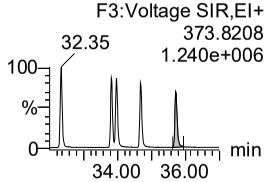
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35



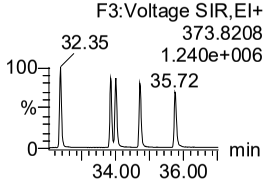
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



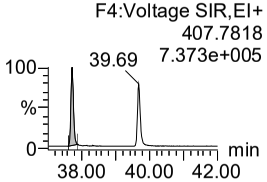
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35



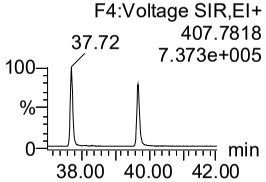
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208 1.240e+006
32.35 35.72



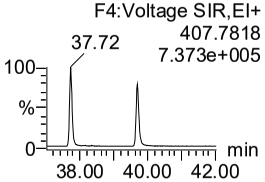
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818 7.373e+005
39.69



1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818 7.373e+005
37.72



1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818 7.373e+005
37.72



1234789-HpCDF (S)
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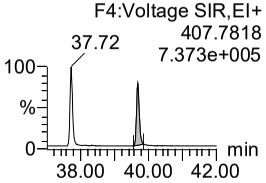
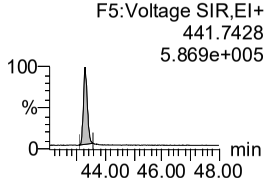
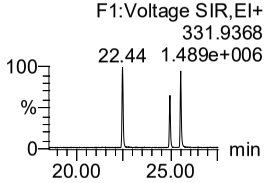
37.72



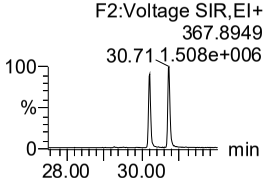
OCDF (S)
F5:Voltage SIR,EI+ 441.7428 5.869e+005



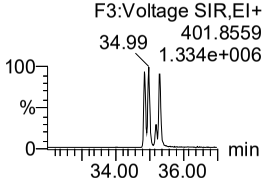
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368 1.489e+006
22.44



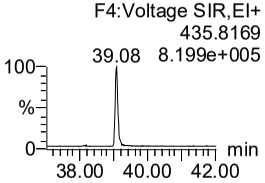
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949 1.508e+006
30.71



13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559 1.334e+006
34.99



13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169 8.199e+005
39.08



13C-1378-TCDD (TS)
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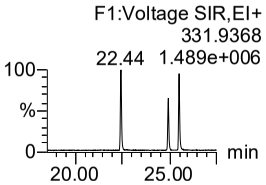
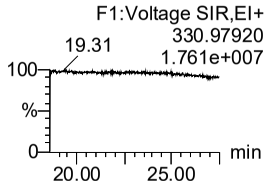
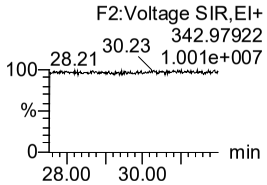
22.44



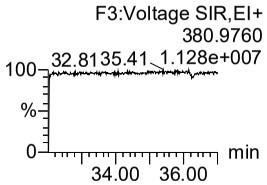
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920 1.761e+007
19.31



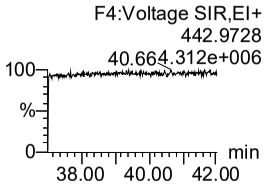
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922 1.001e+007
28.21 30.23



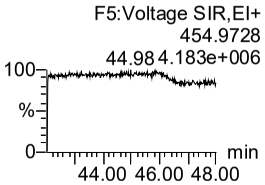
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760 1.128e+007
32.81 35.41



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728 4.312e+006
40.66



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728 4.183e+006
44.98



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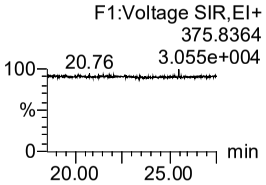
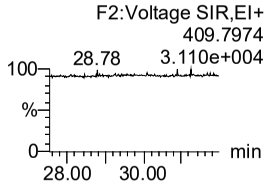
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

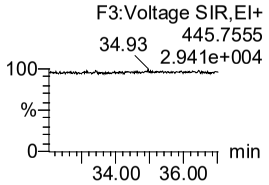
HxDPE



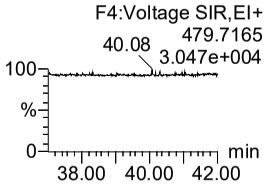
HpDPE



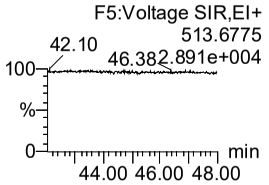
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.95	62986.988	78309.797		141296.785	MM	4.9	-90.2	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.62	90033.023	117048.742		207081.765	bb	5.4	-89.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.21	19864.049	15389.524		35253.573	bd	1.7	-93.2	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.52	88370.422	116298.477	62986.988	72.425	bb	77.1	-22.9	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.71	102446.750	67423.508	62986.988	60.111	bb	73.6	-26.4	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.86	79649.258	63416.859	19864.049	101.455	bd	97.0	-3.0	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	34.99	84486.055	68761.813	19864.049	108.675	db	110.2	10.2	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.31	86978.617	65469.211	19864.049	108.108	MM	97.2	-2.8	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.08	73341.461	65910.594	19864.049	98.750	bb	107.4	7.4	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.03	107502.938	121226.148	19864.049	162.203	bb	218.3	9.1	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.77	133007.016	162207.188	90033.023	71.280	bb	72.0	-28.0	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.25	157494.703	94638.914	90033.023	60.878	bb	69.3	-30.7	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.36	149664.594	95777.977	90033.023	59.262	bb	69.8	-30.2	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.81	64641.039	123917.125	19864.049	133.716	bd	113.2	13.2	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	33.96	67568.695	132871.031	19864.049	142.141	db	100.1	0.1	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.67	62983.281	124974.211	19864.049	133.290	bb	103.2	3.2	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.71	58138.375	117679.852	19864.049	124.681	bb	105.7	5.7	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.69	47641.277	108379.984	19864.049	110.642	MM	114.4	14.4	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.66	42273.844	94989.719	19864.049	97.340	MM	111.5	11.5	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.26	156710.469	174433.031	19864.049	234.830	bb	257.8	28.9	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.54	126344.320		62986.988	44.709	bb	39.2	-2.0	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.20	89465.938	54763.711	62986.988	51.038	bb	58.7	-41.3	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.72	144790.234	88837.938	90033.023	56.410	bb	65.6	-34.4	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.29	55276.098	110011.867	19864.049	117.214	bb	90.9	-9.1	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.32	44829.324	98377.016	19864.049	101.554	MM	102.6	2.6	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.54	126344.320		88370.422	61.731	bb	51.0	27.5	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.20	86699.750	53711.348	102446.750	82.658	bb	78.7	-21.3	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.72	144790.234	88837.938	157494.703	92.660	bb	89.1	-10.9	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.29	54806.691	105423.781	67568.695	79.939	bb	87.8	-12.2	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253				47641.277					G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.44	101260.836	129120.461	62986.988	81.524	bb	79.1	-20.9	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.87	158939.328	199263.781	90033.023	86.488	bb	79.3	-20.7	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965	22.47	11976.826	14943.403	88370.422	13.153	bb	11.2	12.4	G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965	25.42	10900.866	14128.580	88370.422	12.229	bd	10.5	4.5	G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.55	10669.154	13653.942	88370.422	11.884	db	10.4	4.3	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				88370.422					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965	26.44	10977.555	13736.553	88370.422	12.075	bb	10.3	3.2	G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546	28.23	70206.586	44843.457	102446.750	67.728	bb	63.9	27.8	G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.73	56944.289	35766.852	102446.750	54.578	bb	53.9	7.8	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				102446.750					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546	31.19	64347.344	41243.563	102446.750	62.160	bb	58.6	17.3	G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157	33.03	58118.070	45684.711	79649.258	72.556	bb	68.0	36.0	G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				79649.258					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				79649.258					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				79649.258					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.89	46833.563	37591.504	79649.258	59.011	bd	55.9	11.9	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.01	48356.914	37940.230	84486.055	56.312	db	51.2	2.4	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				86978.617					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.34	47964.148	36853.996	86978.617	55.637	bb	53.2	6.4	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766	38.14	51348.000	49503.023	73341.461	72.423	bb	67.1	34.1	G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.08	40348.445	38094.879	73341.461	56.332	bb	53.7	7.5	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.06	64951.195	72095.805	107502.938	119.833	bb	104.2	4.2	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016	20.90	18438.461	23400.861	133007.016	14.173	bb	13.2	32.5	G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016	24.69	15136.696	19529.730	133007.016	11.743	bd	11.0	9.7	G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.78	15792.586	18919.658	133007.016	11.758	db	10.6	5.9	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				133007.016					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016	26.61	15257.492	20001.936	133007.016	11.944	bb	11.2	11.6	G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597	26.53	95876.633	59487.832	157494.703	61.620	bb	59.2	18.5	G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.26	87340.414	58494.477	157494.703	57.840	bb	53.8	7.7	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				157494.703					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				149664.594					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				149664.594					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.37	85038.563	53223.063	149664.594	56.332	bb	53.2	6.5	G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				149664.594					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				149664.594					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597	31.50	79351.391	49952.438	149664.594	52.682	bb	50.7	1.3	G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208	32.35	79290.188	63246.219	64641.039	75.593	bb	59.8	19.5	G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				64641.039					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				64641.039					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				64641.039					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				64641.039					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				64641.039					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.83	68536.484	52367.297	64641.039	64.120	bd	49.2	-1.6	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	33.98	73407.625	55126.961	67568.695	64.126	db	53.1	6.2	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				67568.695					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				62983.281					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				62983.281					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.69	70636.227	54449.527	62983.281	66.550	bb	53.7	7.3	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				62983.281					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.72	66423.875	51301.777	58138.375	66.959	bb	54.8	9.6	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				58138.375					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.72	60419.863	56900.938	47641.277	75.195	bb	51.0	2.1	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				47641.277					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				47641.277					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.69	52395.195	52065.066	42273.844	76.102	bb	54.8	9.5	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.27	85204.758	92441.047	156710.469	107.292	bb	91.6	-8.4	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				88370.422					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				102446.750					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				19864.049					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				73341.461					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				88370.422					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
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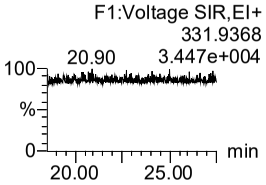
Name: G10032309B, Date: 10-Mar-2023, Time: 19:18:11, ID: BCS-14784-DF, Description: BCS-14784-DF

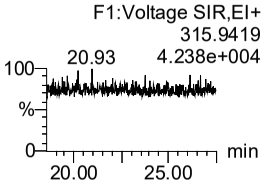
	Summary Flag Reason
149	

Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

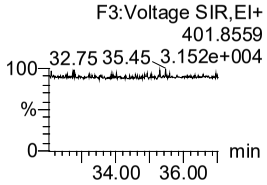
13C-1234-TCDD (JS)



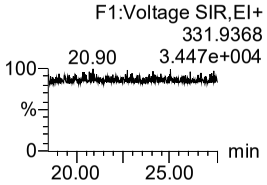
13C-1234-TCDF (JS)



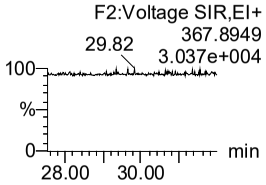
13C-123467-HxCDD (JS)



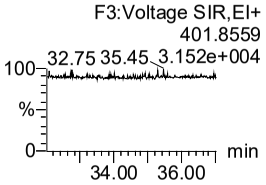
13C-2378-TCDD (ES)



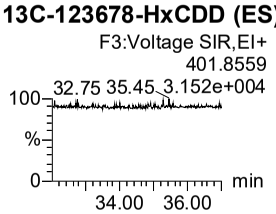
13C-12378-PeCDD (ES)



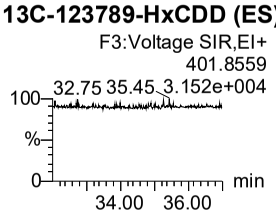
13C-123478-HxCDD (ES)



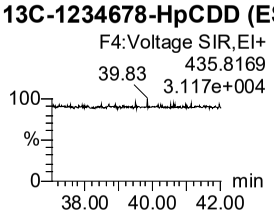
13C-123678-HxCDD (ES)



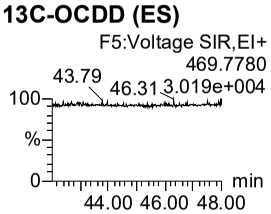
13C-123789-HxCDD (ES)



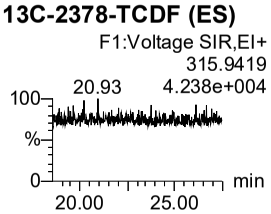
13C-1234678-HpCDD (ES)



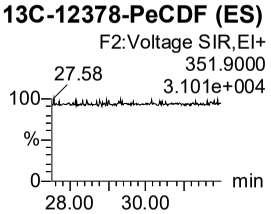
13C-OCDD (ES)



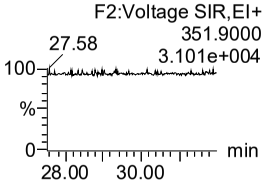
13C-2378-TCDF (ES)



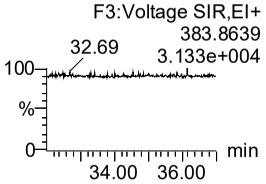
13C-12378-PeCDF (ES)



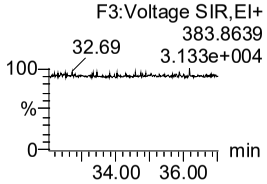
13C-23478-PeCDF (ES)



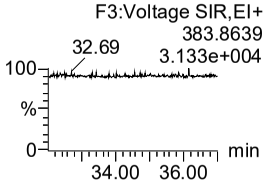
13C-123478-HxCDF (ES)



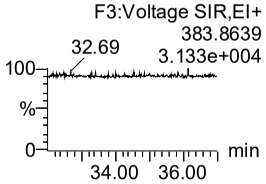
13C-123678-HxCDF (ES)



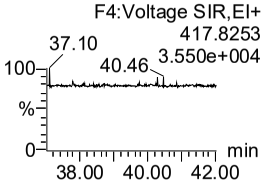
13C-234678-HxCDF (ES)



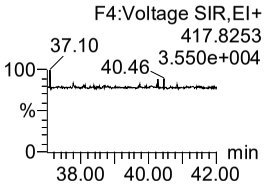
13C-123789-HxCDF (ES)



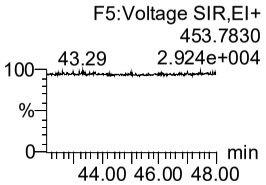
13C-1234678-HpCDF (ES)



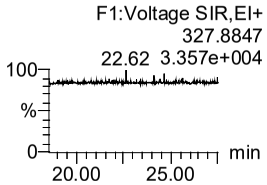
13C-1234789-HpCDF (ES)



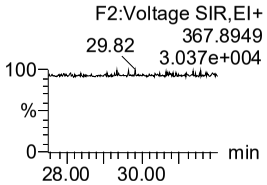
13C-OCDF (ES)



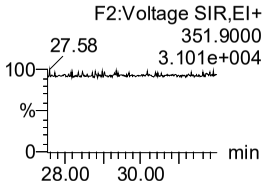
37Cl-2378-TCDD (CS)



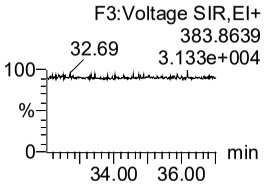
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
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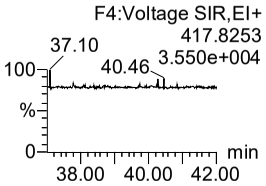
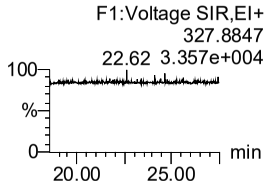
Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

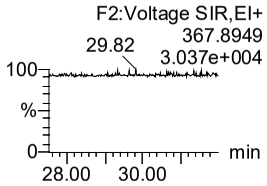
13C-1234689-HpCDF (CS)



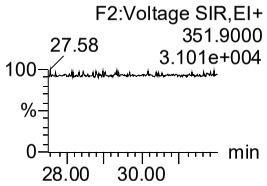
37Cl-2378-TCDD (SS)



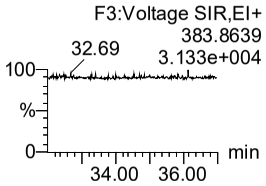
13C-12347-PeCDD (SS)



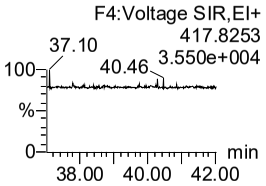
13C-12346-PeCDF (SS)



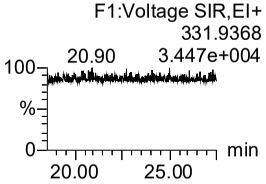
13C-123469-HxCDF (SS)



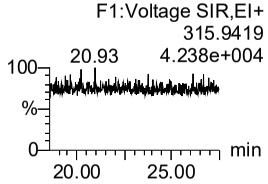
13C-1234689-HpCDF (SS)



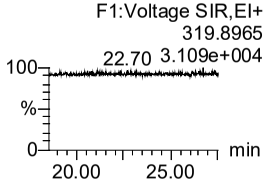
13C-1368-TCDD (AS)



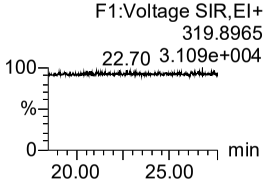
13C-1368-TCDF (AS)



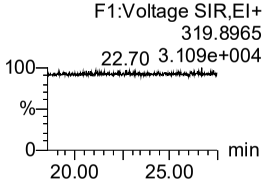
1368-TCDD



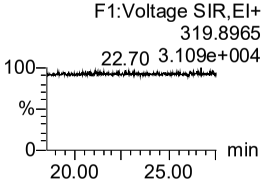
1379-TCDD



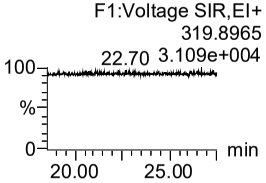
1369-TCDD



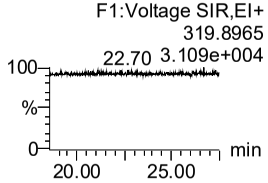
1469-TCDD



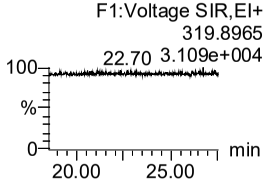
1247/1246/1248/1249-TCDI



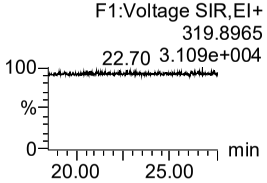
1378-TCDD



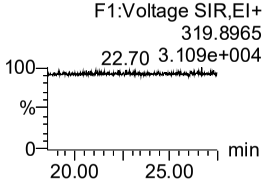
1268-TCDD



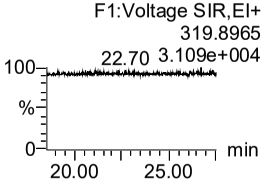
1478-TCDD



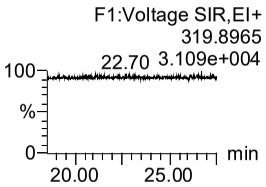
1279-TCDD



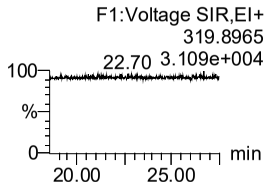
1234/1269-TCDD



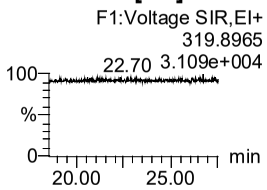
1236-TCDD



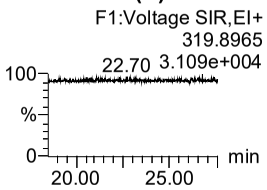
1237/1238-TCDD



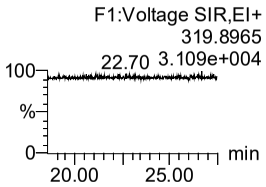
1239-TCDD [CE]



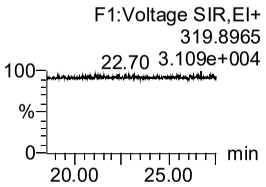
2378-TCDD (S)



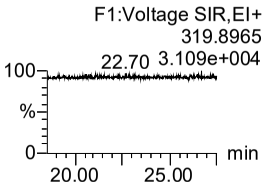
1278-TCDD



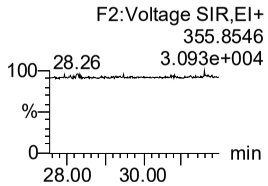
1267-TCDD



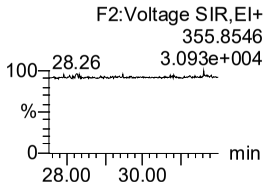
1289-TCDD



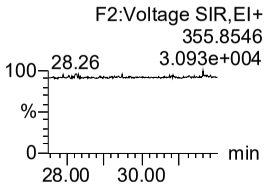
12479/12468-PeCDD



12469-PeCDD



12368-PeCDD



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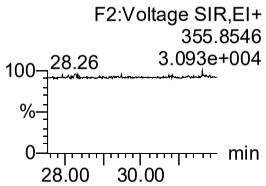
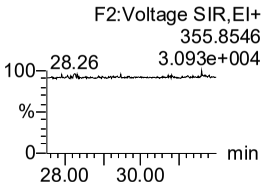


12379-PeCDD



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Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.26 3.093e+004
100 % 0 min 28.00 30.00

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.26 3.093e+004
100 % 0 min 28.00 30.00

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.26 3.093e+004
100 % 0 min 28.00 30.00

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.26 3.093e+004
100 % 0 min 28.00 30.00

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.26 3.093e+004
100 % 0 min 28.00 30.00

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.05 3.057e+004
100 % 0 min 34.00 36.00

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.13 2.873e+004
100 % 0 min 38.00 40.00 42.00

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
39.13 2.873e+004
100 % 0 min 38.00 40.00 42.00

OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.82 2.883e+004
100 % 0 min 44.00 46.00 48.00

1368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

2468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1348-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1268-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1478-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

1369/1237-TCDF
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2467-TCDF
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21.35 2.898e+004
100 % 0 min 20.00 25.00

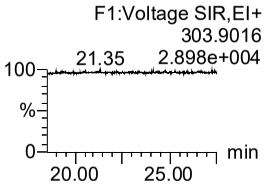
2368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

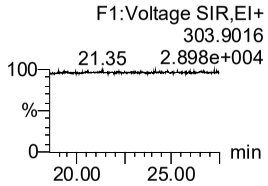
1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.898e+004
100 % 0 min 20.00 25.00

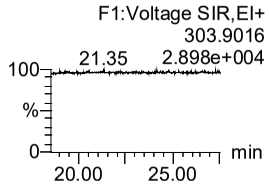
Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

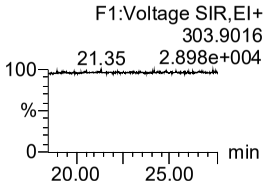
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

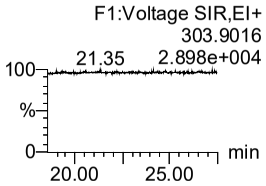
Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

1278-TCDF


1349-TCDF


1267-TCDF


2346/1249-TCDF


2347/1279-TCDF


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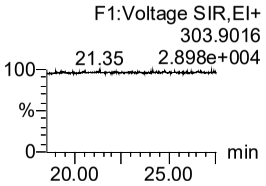
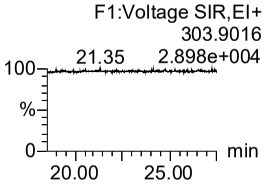
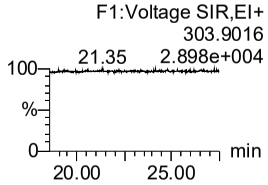


2378-TCDF (S)


2367/3467-TCDF


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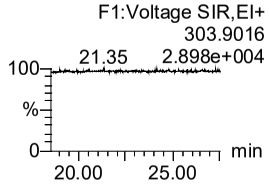
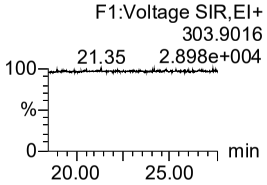


1239-TCDF


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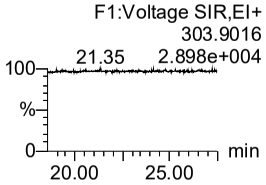
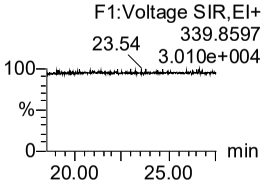


13468/12466-PeCDF


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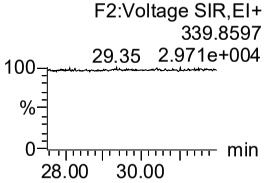

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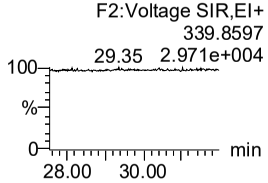

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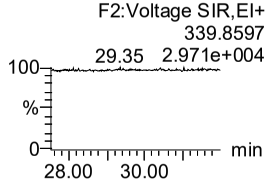

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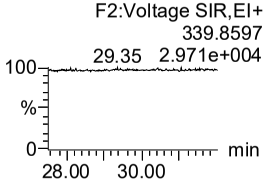

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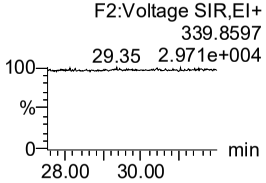
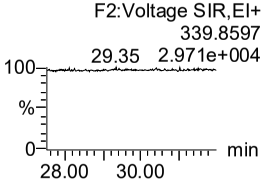
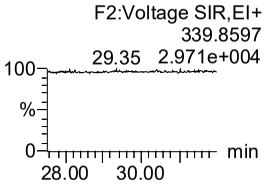


12346-PeCDF


23468/12469-PeCDF


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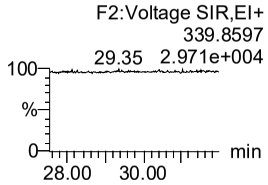
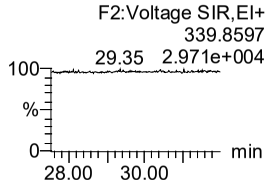


12348-PeCDF


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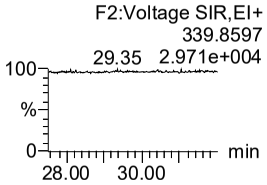
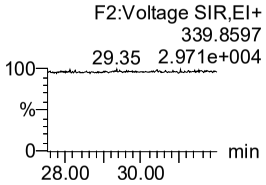


12678/12367-PeCDF


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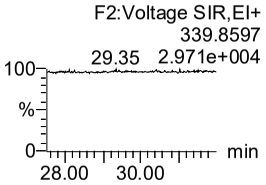

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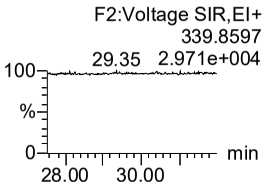
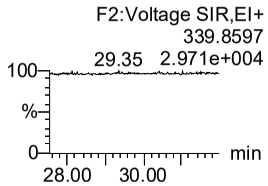
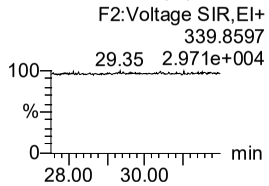
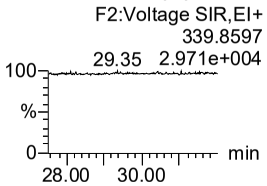
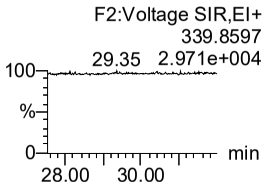


23467/12369-PeCDF


23478-PeCDF (S)


12489-PeCDF (R)


12349-PeCDF


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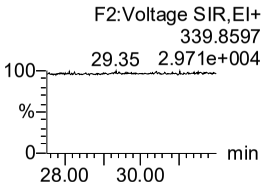
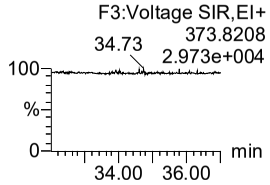


Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

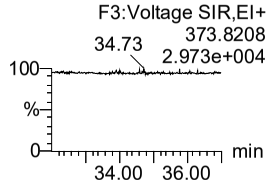
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

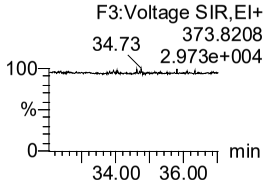
123468-HxCDF



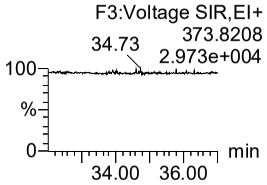
124678/134678-HxCDF



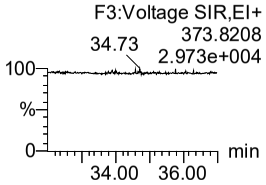
134679-HxCDF



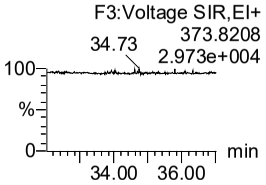
124679-HxCDF



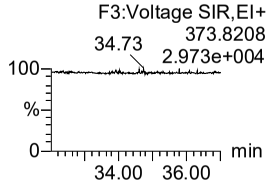
124689-HxCDF



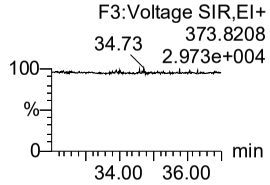
123467-HxCDF



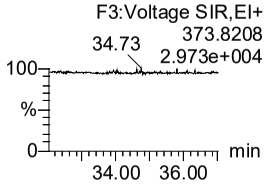
123478-HxCDF (S)



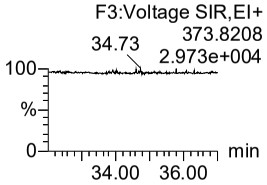
123678-HxCDF (S)



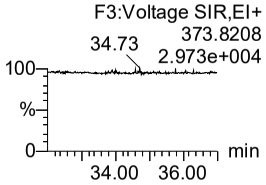
123479-HxCDF



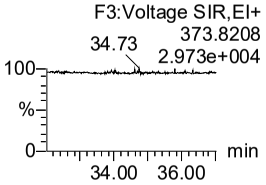
123469-HxCDF



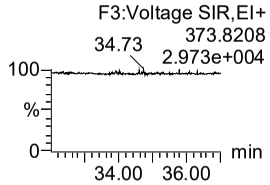
123679-HxCDF



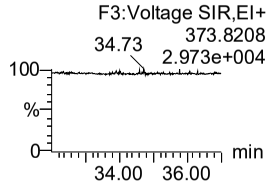
234678-HxCDF (S)



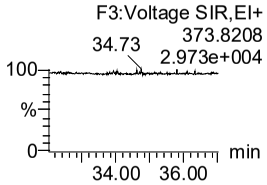
123689-HxCDF (NR)



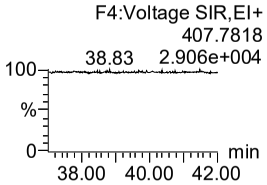
123789-HxCDF (S)



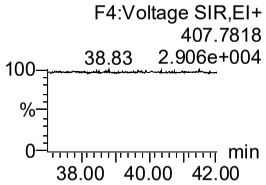
123489-HxCDF (R)



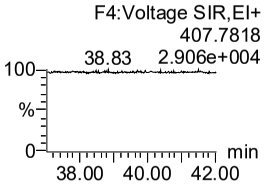
1234678-HpCDF (S)



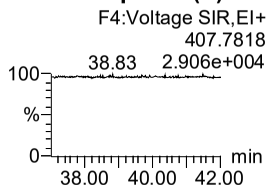
1234679-HpCDF



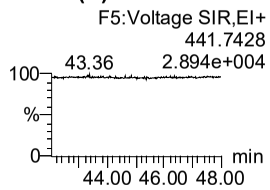
1234689-HpCDF



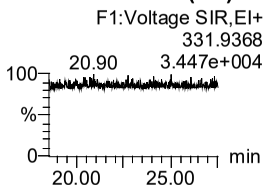
1234789-HpCDF (S)



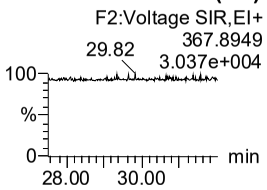
OCDF (S)



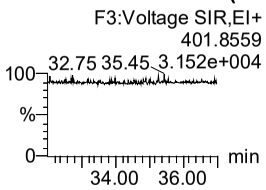
13C-1278-TCDD (FS)



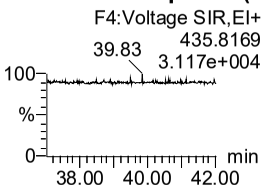
13C-12478-PeCDD (FS)



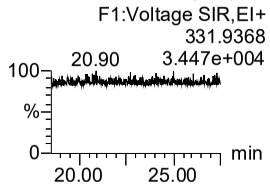
13C-123468-HxCDD (FS)



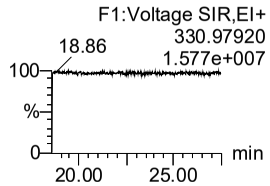
13C-1234679-HpCDD (FS)



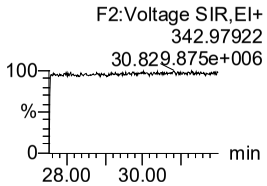
13C-1378-TCDD (TS)



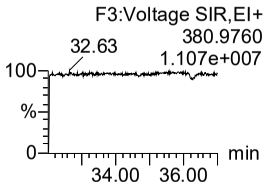
QC Check Ion Fn 1



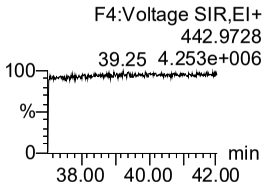
QC Check Ion Fn 2



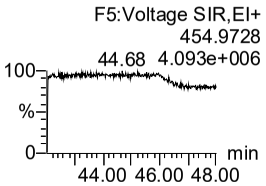
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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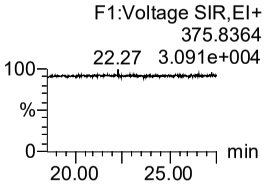
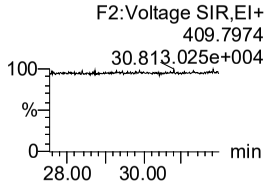
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

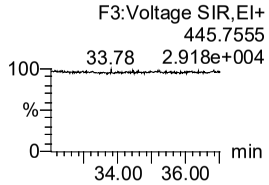
HxDPE



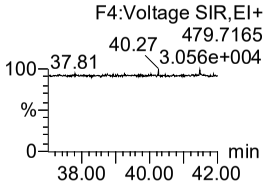
HpDPE



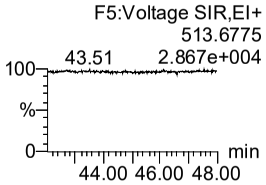
OcDPE



NoDPE



DeDPE



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780									G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830									G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965									G_DF_ICAL_05MAY22_calibration fi...

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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965									G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965									G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546									G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766									G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766									G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377									G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...

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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016									G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016									G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016									G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...

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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428									G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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	Summary Flag Reason
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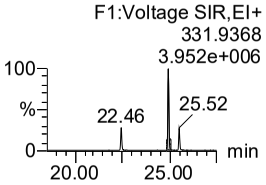
Name: G10032310B, Date: 10-Mar-2023, Time: 20:09:32, ID: Solvent Blank, Description: Solvent Blank

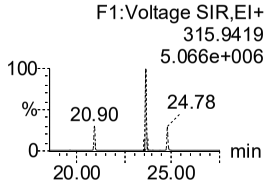
	Summary Flag Reason
149	

Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

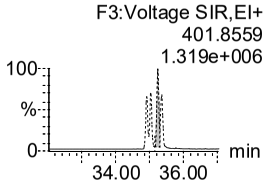
13C-1234-TCDD (JS)



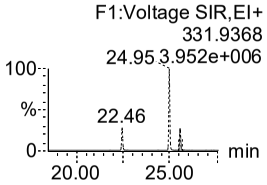
13C-1234-TCDF (JS)



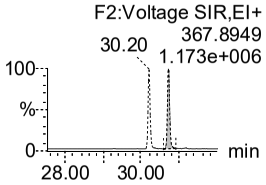
13C-123467-HxCDD (JS)



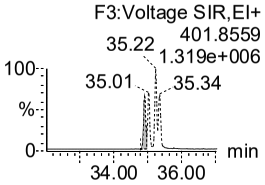
13C-2378-TCDD (ES)



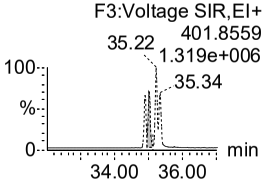
13C-12378-PeCDD (ES)



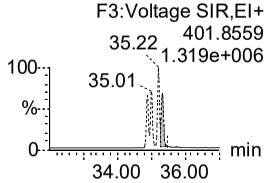
13C-123478-HxCDD (ES)



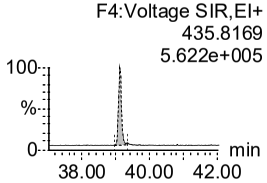
13C-123678-HxCDD (ES)



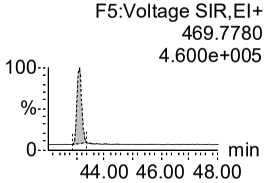
13C-123789-HxCDD (ES)



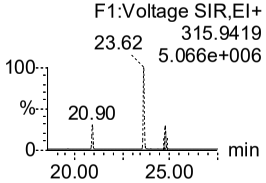
13C-1234678-HpCDD (ES)



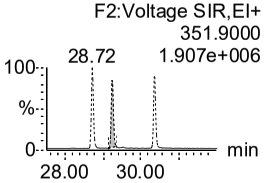
13C-OCDD (ES)



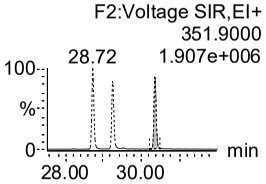
13C-2378-TCDF (ES)



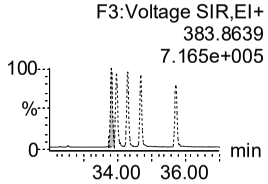
13C-12378-PeCDF (ES)



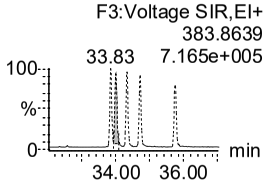
13C-23478-PeCDF (ES)



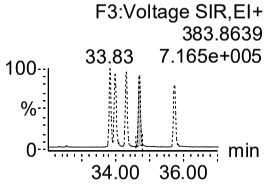
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



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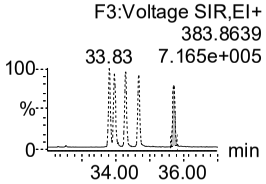
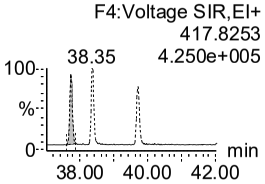
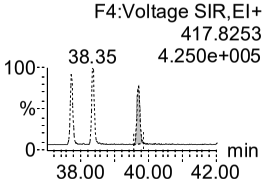


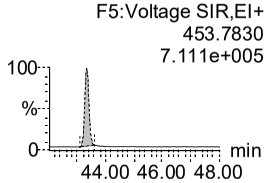
13C-1234678-HpCDF (ES)



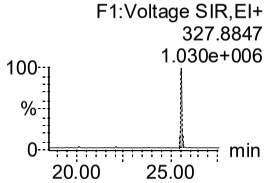
13C-1234789-HpCDF (ES)



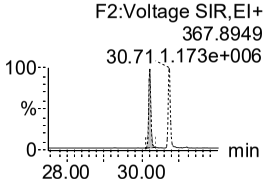
13C-OCDF (ES)



37Cl-2378-TCDD (CS)



13C-12347-PeCDD (CS)



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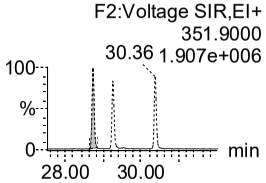
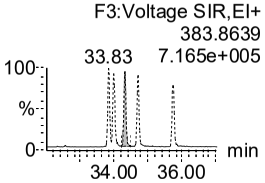


13C-123469-HxCDF (CS)



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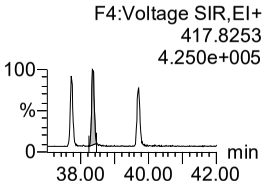
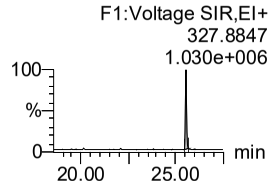
13C-1234689-HpCDF (CS)



37Cl-2378-TCDD (SS)



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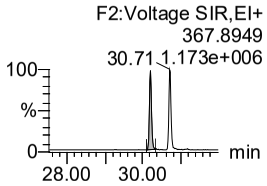

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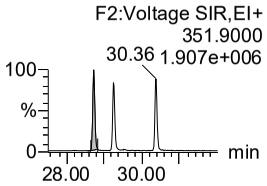

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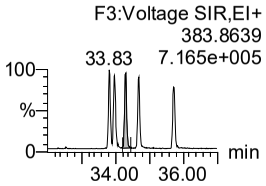

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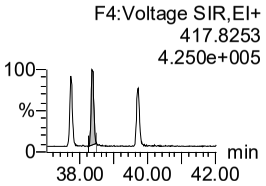
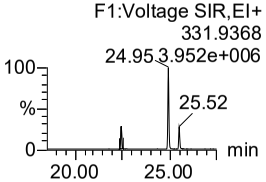
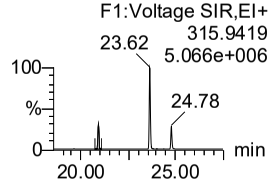


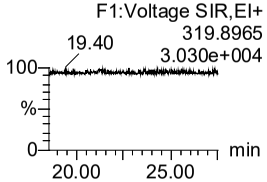
13C-1368-TCDD (AS)



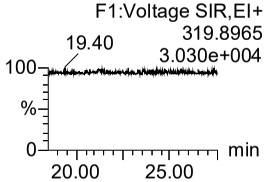
13C-1368-TCDF (AS)



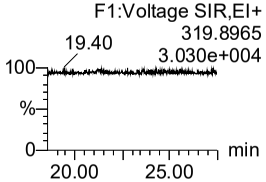
1368-TCDD



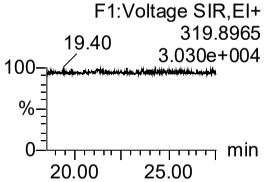
1379-TCDD



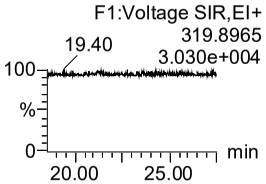
1369-TCDD



1469-TCDD



1247/1246/1248/1249-TCDI



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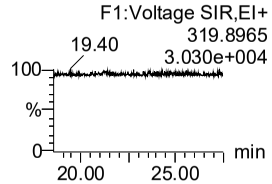
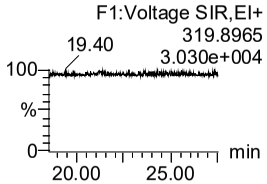
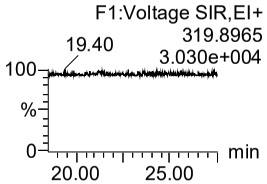


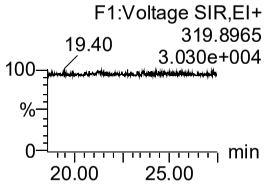
1268-TCDD



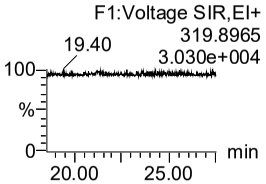
1478-TCDD



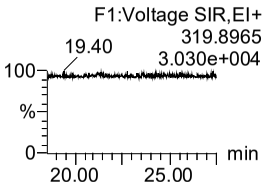
1279-TCDD



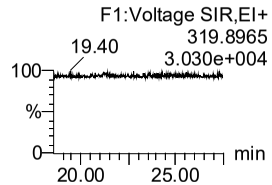
1234/1269-TCDD



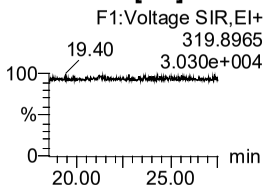
1236-TCDD



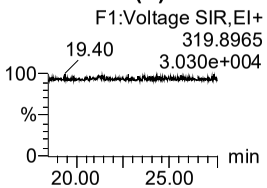
1237/1238-TCDD



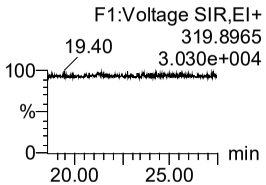
1239-TCDD [CE]



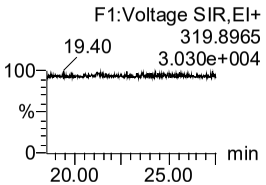
2378-TCDD (S)



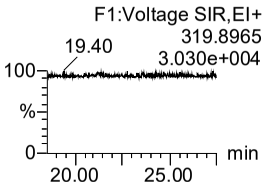
1278-TCDD



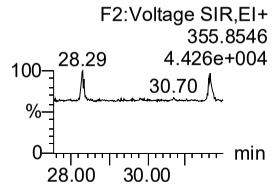
1267-TCDD



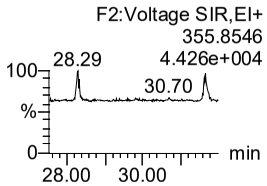
1289-TCDD



12479/12468-PeCDD



12469-PeCDD



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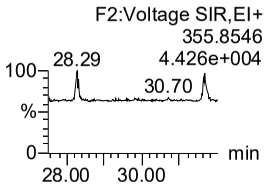
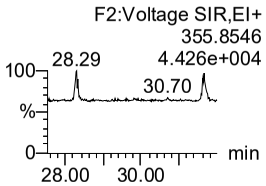
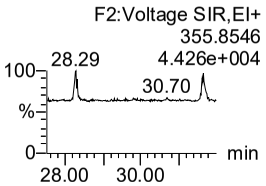


12478-PeCDD



12379-PeCDD



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12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546 4.426e+004
28.29 30.70

12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546 4.426e+004
28.29 30.70

12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546 4.426e+004
28.29 30.70

12367-PeCDD
F2:Voltage SIR,EI+ 355.8546 4.426e+004
28.29 30.70

12389-PeCDD
F2:Voltage SIR,EI+ 355.8546 4.426e+004
28.29 30.70

124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123468-HxCDD
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123469-HxCDD
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123467-HxCDD
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157 3.020e+004
34.93

1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766 3.159e+004
39.12

1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766 3.159e+004
38.17

OCDD (S)
F5:Voltage SIR,EI+ 457.7377 2.996e+004
43.08

1368-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1468-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

2468-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1348-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1268-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1467-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1478-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

2467-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
22.23

2368-TCDF
F1:Voltage SIR,EI+ 303.9016 3.252e+004
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1238/1234/1678/1469/1236-TCDF
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22.23

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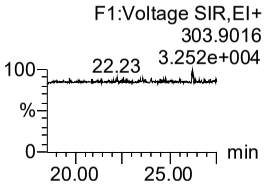
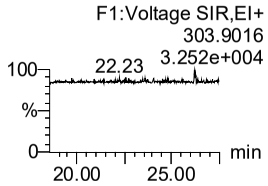
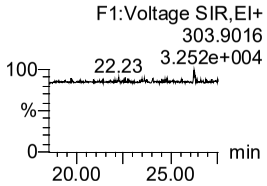
Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

1278-TCDF


1349-TCDF


1267-TCDF


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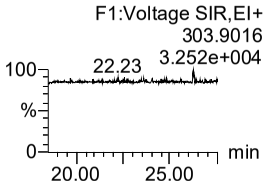
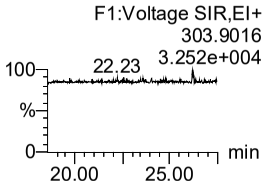
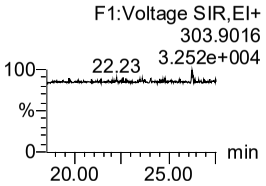
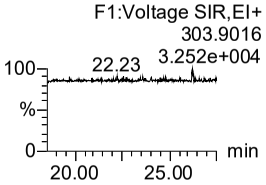
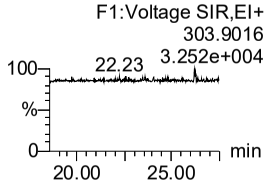


2347/1279-TCDF


2348-TCDF [CE]


2378-TCDF (S)


2367/3467-TCDF


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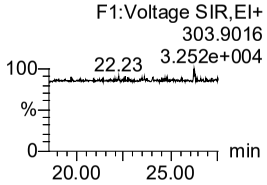

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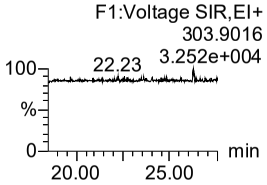

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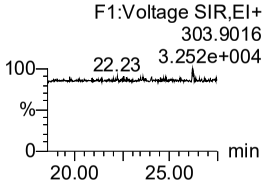
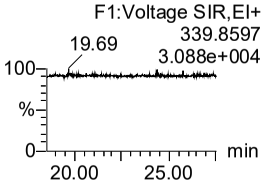


13468/12466-PeCDF


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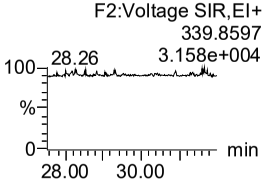
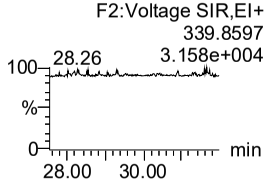


12368/13478/12478-PeCDF


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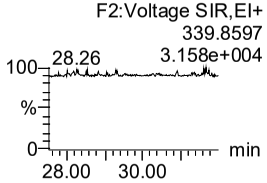
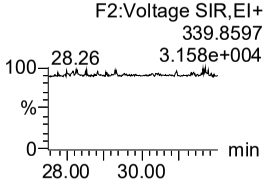


13479-PeCDF


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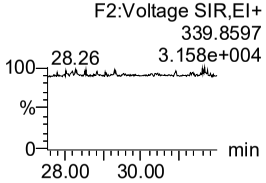

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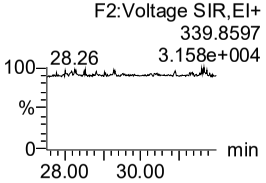

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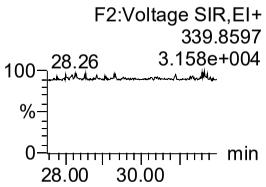

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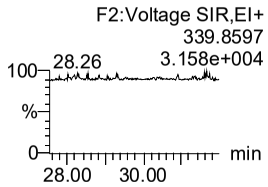

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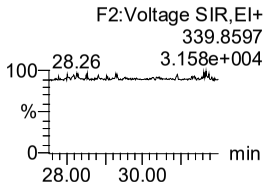

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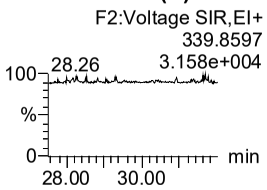

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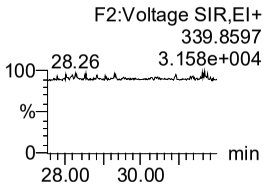

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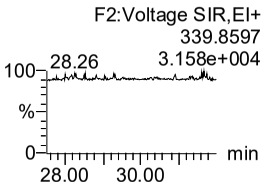

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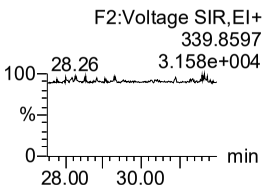

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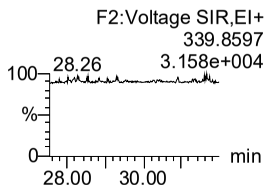
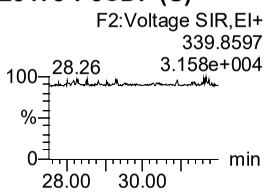
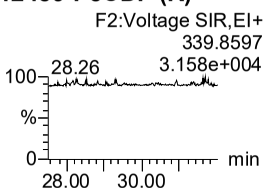


23478-PeCDF (S)


12489-PeCDF (R)


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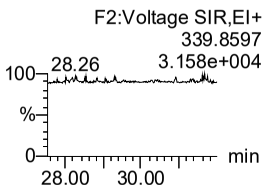
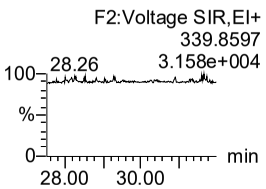


12389-PeCDF


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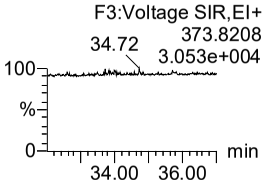
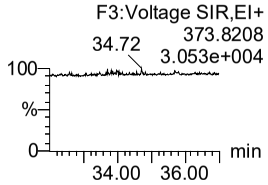
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

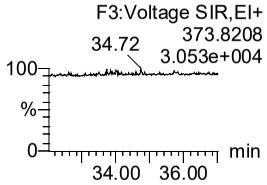
123468-HxCDF



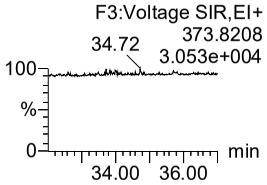
124678/134678-HxCDF



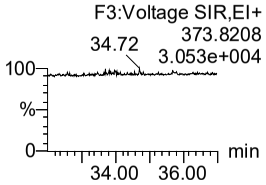
134679-HxCDF



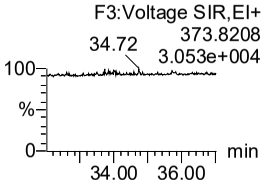
124679-HxCDF



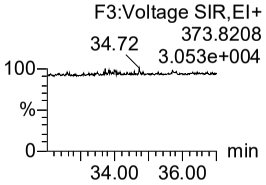
124689-HxCDF



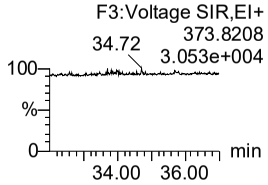
123467-HxCDF



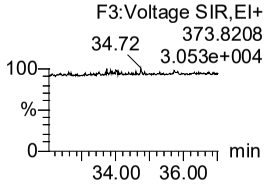
123478-HxCDF (S)



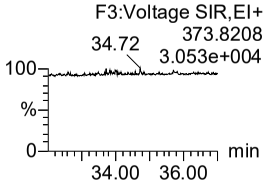
123678-HxCDF (S)



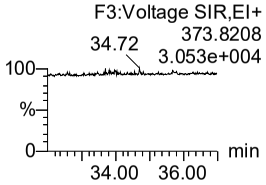
123479-HxCDF



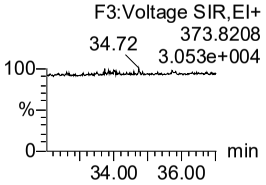
123469-HxCDF



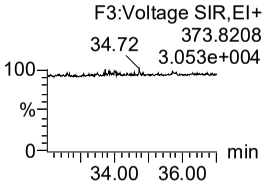
123679-HxCDF



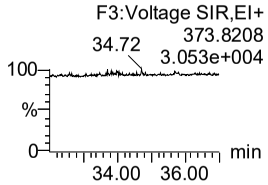
234678-HxCDF (S)



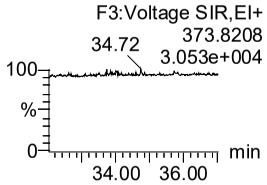
123689-HxCDF (NR)



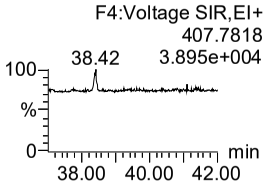
123789-HxCDF (S)



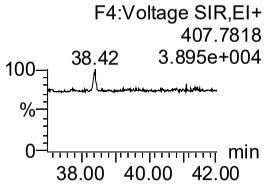
123489-HxCDF (R)



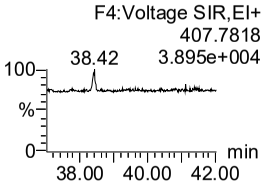
1234678-HpCDF (S)



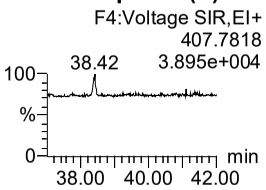
1234679-HpCDF



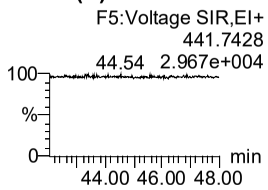
1234689-HpCDF



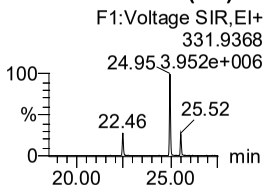
1234789-HpCDF (S)



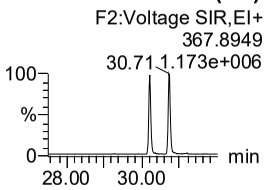
OCDF (S)



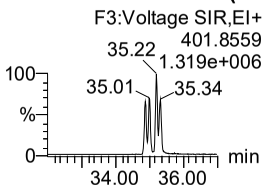
13C-1278-TCDD (FS)



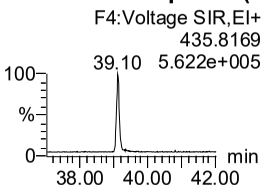
13C-12478-PeCDD (FS)



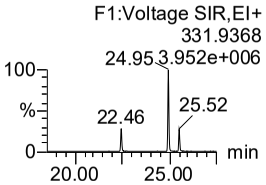
13C-123468-HxCDD (FS)



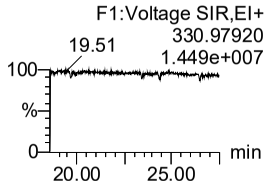
13C-1234679-HpCDD (FS)



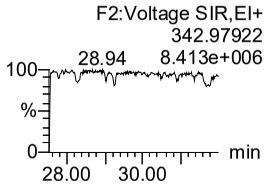
13C-1378-TCDD (TS)



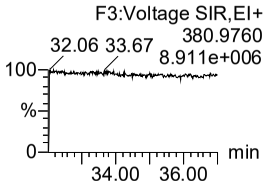
QC Check Ion Fn 1



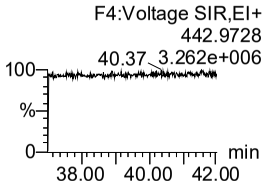
QC Check Ion Fn 2



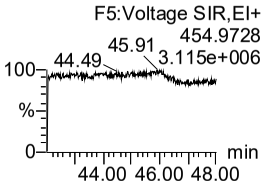
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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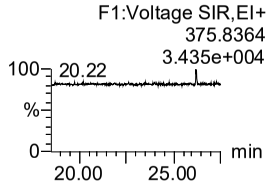
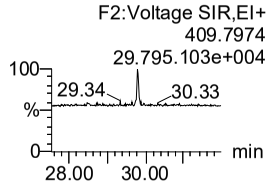
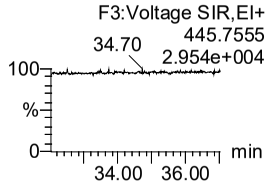
HxDPE



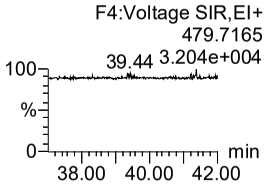
HpDPE



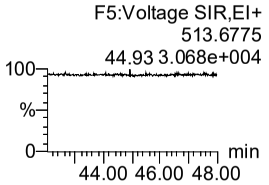
OcDPE



NoDPE



DeDPE



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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.95	245752.563	301123.813		546876.376	MM	76.2	-23.8	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.62	341343.500	429648.750		770992.250	bb	79.7	-20.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.22	82961.711	67690.234		150651.945	bd	29.2	-41.6	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.52	67204.555	85336.938	245752.563	27.893	bb	118.8	137.7	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.71	76394.719	47294.840	245752.563	22.617	bb	110.8	121.6	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.89	59345.945	48541.211	82961.711	35.807	bd	137.0	174.0	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	35.01	65342.410	50840.805	82961.711	38.560	dd	156.4	212.8	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.34	68002.688	53305.516	82961.711	40.261	db	144.8	189.7	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.10	51506.109	46048.891	82961.711	32.378	bb	140.9	181.7	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.13	79448.742	86587.203	82961.711	55.106	bb	296.6	196.6	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.78	93788.539	120205.453	341343.500	27.756	bb	112.1	124.3	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.25	101910.539	66349.063	341343.500	21.824	bb	99.3	98.6	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.36	110041.656	68556.625	341343.500	23.165	bb	109.2	118.3	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.83	45965.398	90342.391	82961.711	45.239	MM	153.2	206.4	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	33.98	43399.285	95700.430	82961.711	46.166	MM	130.0	160.0	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.70	42380.289	85592.922	82961.711	42.473	MM	131.5	163.0	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.72	41420.418	80815.055	82961.711	40.569	MM	137.6	175.2	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.72	32045.703	74265.695	82961.711	35.284	MM	145.9	191.7	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.72	30821.512	70295.000	82961.711	33.560	MM	153.8	207.6	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	112904.867	126283.328	82961.711	79.384	bb	348.7	248.7	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.55	68316.633		245752.563	12.492	bb	43.8	119.2	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.20	70712.422	46726.781	245752.563	21.475	MM	98.7	97.5	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.72	116589.594	71490.391	341343.500	24.395	bb	113.5	126.9	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.31	45664.715	85360.758	82961.711	43.486	MM	134.8	169.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.35	34087.980	75881.953	82961.711	36.498	MM	147.5	194.9	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.55	68316.633		67204.555	22.393	bb	74.0	270.1	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.20	70712.422	46726.781	76394.719	47.473	MM	180.9	261.7	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.72	116589.594	71490.391	101910.539	55.890	bb	215.0	329.9	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.31	45664.715	85360.758	43399.285	47.098	MM	207.0	314.0	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.35	34087.980	75881.953	32045.703	51.721	MM	213.3	326.6	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.45	70466.125	90539.063	245752.563	29.441	bb	114.3	128.7	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.90	112216.297	142891.844	341343.500	33.088	bb	121.4	142.8	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				67204.555					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				76394.719					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				59345.945					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				59345.945					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				59345.945					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				59345.945					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157				59345.945					G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157				65342.410					G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				68002.688					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157				68002.688					G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				51506.109					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.12	205.068	273.023	51506.109	0.245	MM	0.9		G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377				79448.742					G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				93788.539					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				101910.539					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				110041.656					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208				45965.398					G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208				43399.285					G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				43399.285					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				42380.289					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				42380.289					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208				42380.289					G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				42380.289					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208				41420.418					G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				41420.418					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818				32045.703					G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				32045.703					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				32045.703					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818				30821.512					G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428				112904.867					G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				67204.555					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				76394.719					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				82961.711					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				51506.109					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				67204.555					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
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69	Ion Ratio Failure (1º Ratio: Expected 1.04 +/- 0.16, Actua...
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
75	
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
112	
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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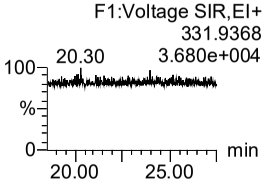
TRC Report 508369

Name: G10032311B, Date: 10-Mar-2023, Time: 21:00:52, ID: 0123-704-005-1, Description: 0123-704-005-1

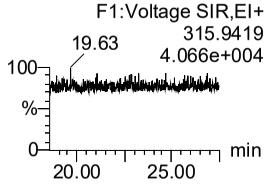
	Summary Flag Reason
149	

Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

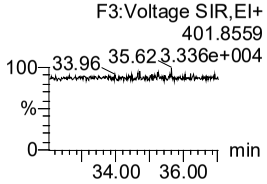
13C-1234-TCDD (JS)



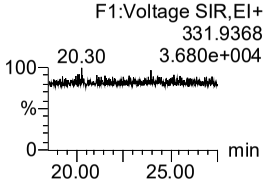
13C-1234-TCDF (JS)



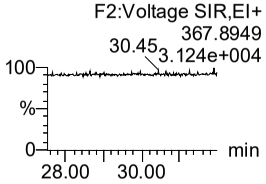
13C-123467-HxCDD (JS)



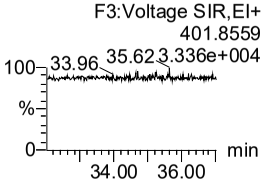
13C-2378-TCDD (ES)



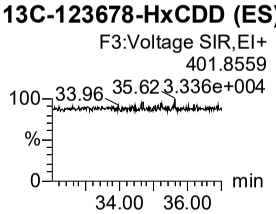
13C-12378-PeCDD (ES)



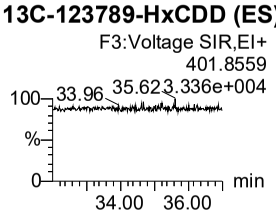
13C-123478-HxCDD (ES)



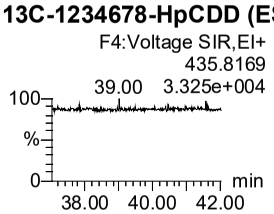
13C-123678-HxCDD (ES)



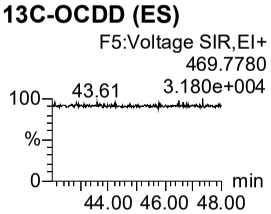
13C-123789-HxCDD (ES)



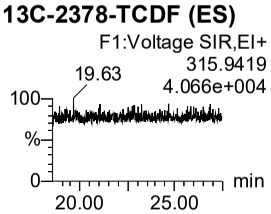
13C-1234678-HpCDD (ES)



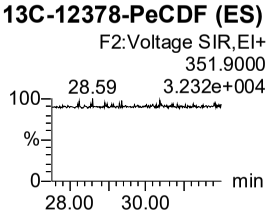
13C-OCDD (ES)



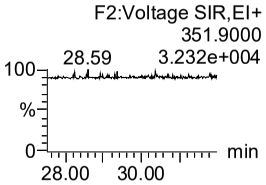
13C-2378-TCDF (ES)



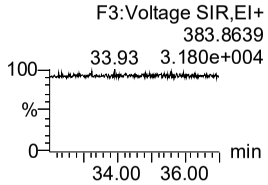
13C-12378-PeCDF (ES)



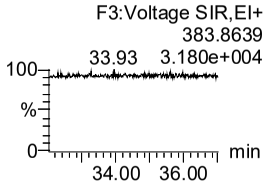
13C-23478-PeCDF (ES)



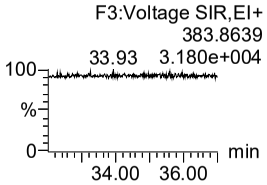
13C-123478-HxCDF (ES)



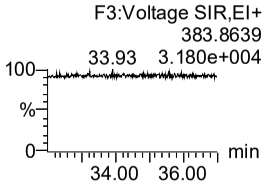
13C-123678-HxCDF (ES)



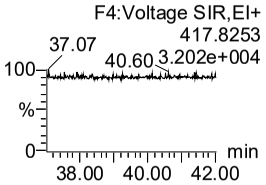
13C-234678-HxCDF (ES)



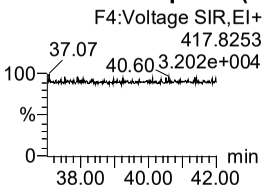
13C-123789-HxCDF (ES)



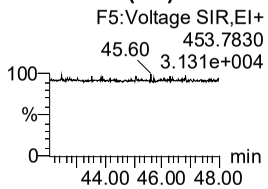
13C-1234678-HpCDF (ES)



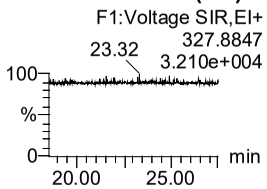
13C-1234789-HpCDF (ES)



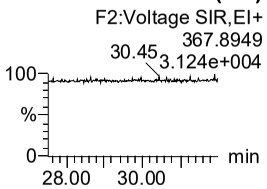
13C-OCDF (ES)



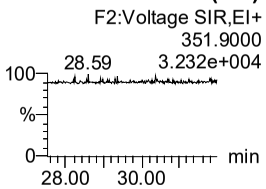
37Cl-2378-TCDD (CS)



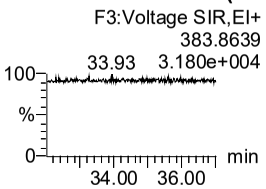
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



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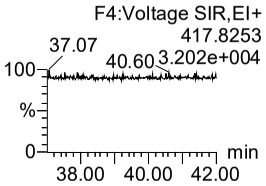
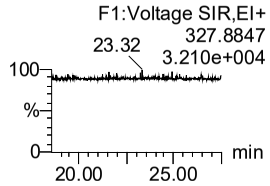
Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

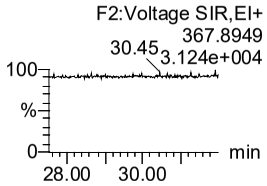
13C-1234689-HpCDF (CS)



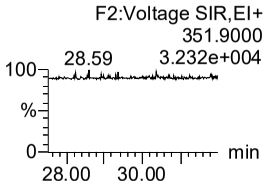
37Cl-2378-TCDD (SS)



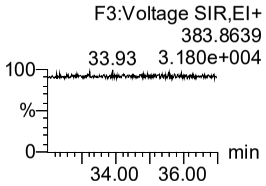
13C-12347-PeCDD (SS)



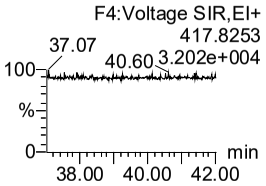
13C-12346-PeCDF (SS)



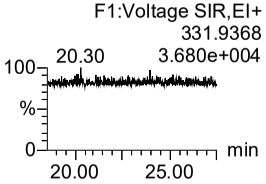
13C-123469-HxCDF (SS)



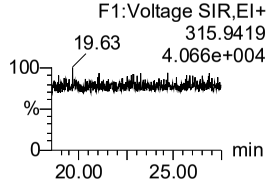
13C-1234689-HpCDF (SS)



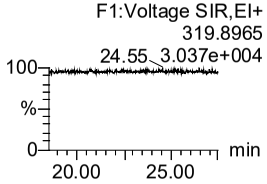
13C-1368-TCDD (AS)



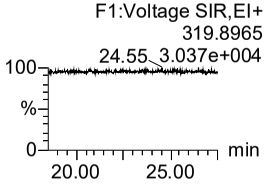
13C-1368-TCDF (AS)



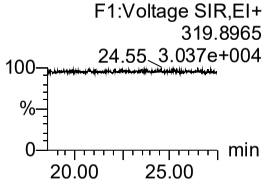
1368-TCDD



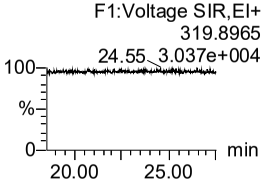
1379-TCDD



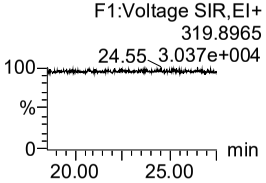
1369-TCDD



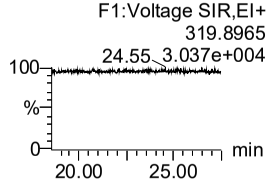
1469-TCDD



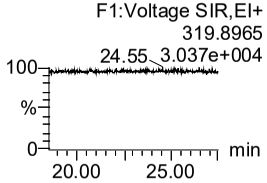
1247/1246/1248/1249-TCDI



1378-TCDD



1268-TCDD



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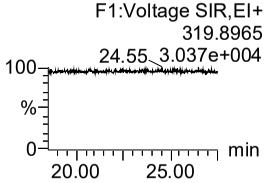
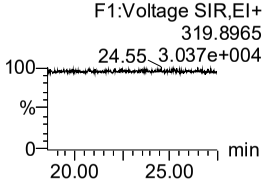
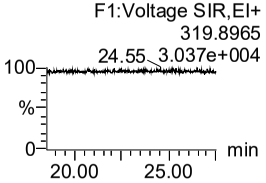


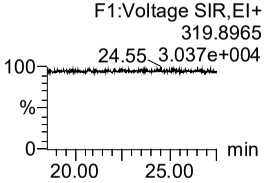
1279-TCDD



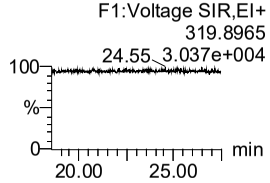
1234/1269-TCDD



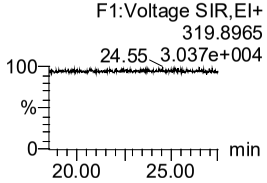
1236-TCDD



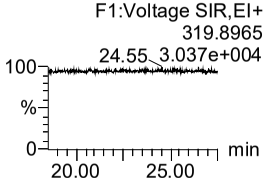
1237/1238-TCDD



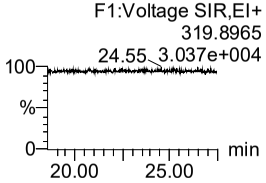
1239-TCDD [CE]



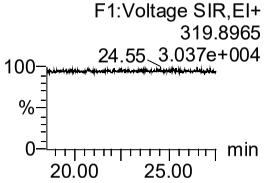
2378-TCDD (S)



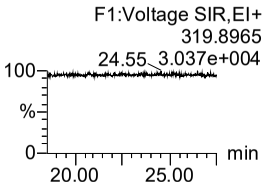
1278-TCDD



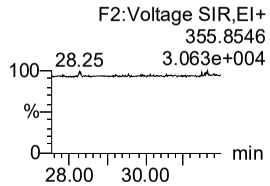
1267-TCDD



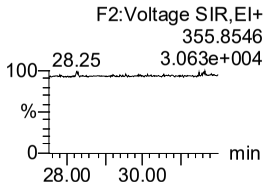
1289-TCDD



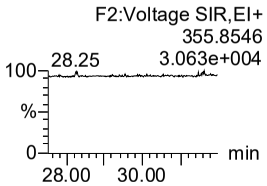
12479/12468-PeCDD



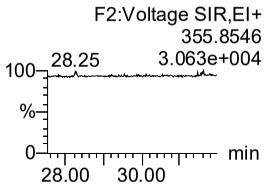
12469-PeCDD



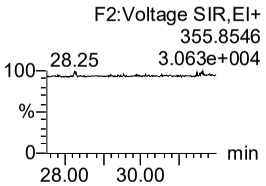
12368-PeCDD



12478-PeCDD



12379-PeCDD



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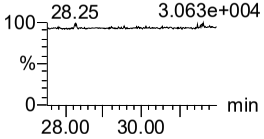
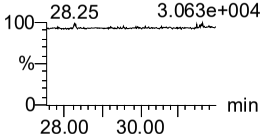
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

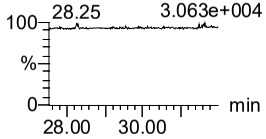
12369/12467/12489-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.25 3.063e+004



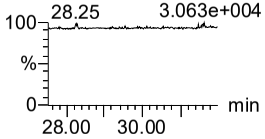
12346/12347-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.25 3.063e+004



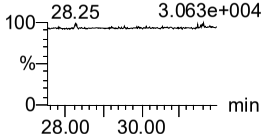
12378-PeCDD (S)
F2:Voltage SIR,EI+ 355.8546
28.25 3.063e+004



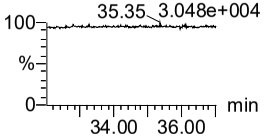
12367-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.25 3.063e+004



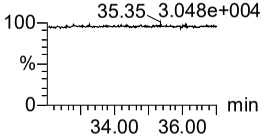
12389-PeCDD
F2:Voltage SIR,EI+ 355.8546
28.25 3.063e+004



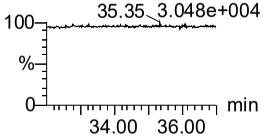
124679/124689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



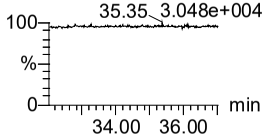
123468-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



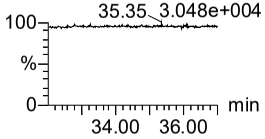
123679/123689-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



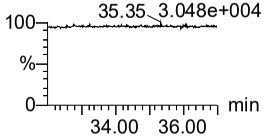
123469-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



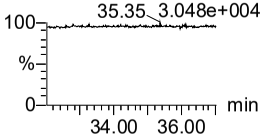
123478-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



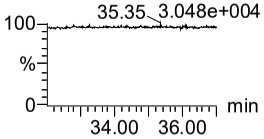
123678-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



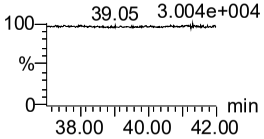
123467-HxCDD
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



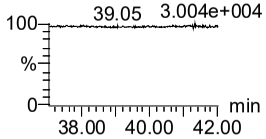
123789-HxCDD (S)
F3:Voltage SIR,EI+ 389.8157
35.35 3.048e+004



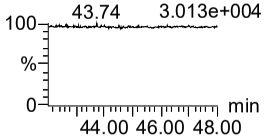
1234679-HpCDD
F4:Voltage SIR,EI+ 423.7766
39.05 3.004e+004



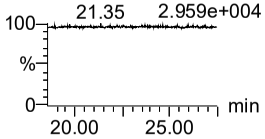
1234678-HpCDD (S)
F4:Voltage SIR,EI+ 423.7766
39.05 3.004e+004



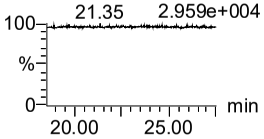
OCDD (S)
F5:Voltage SIR,EI+ 457.7377
43.74 3.013e+004



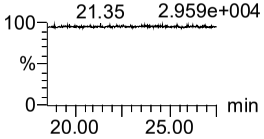
1368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



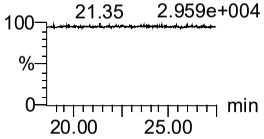
1468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



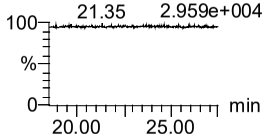
2468-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



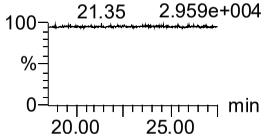
1346/1246-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



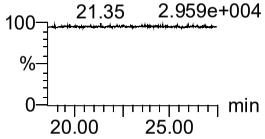
1347/1378/1247-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



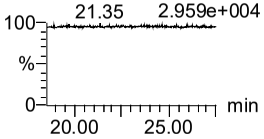
1348-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



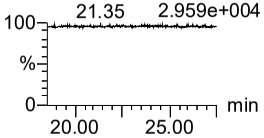
1248/1367/1379-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



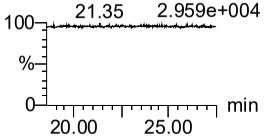
1268-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



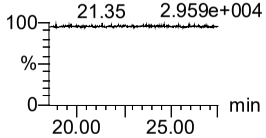
1467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



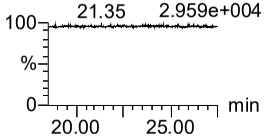
1478-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



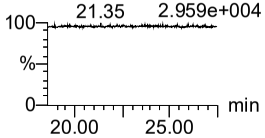
1369/1237-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



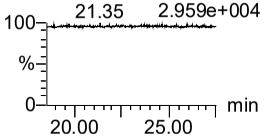
2467-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



2368-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+ 303.9016
21.35 2.959e+004



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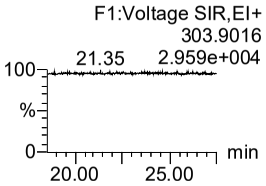
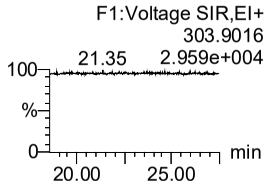
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

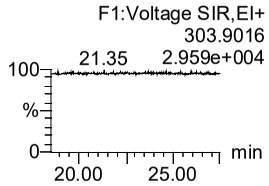
1278-TCDF



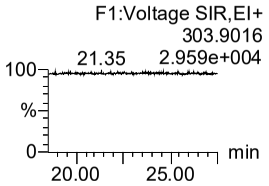
1349-TCDF



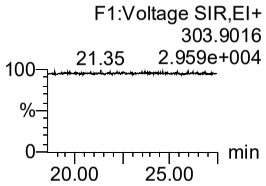
1267-TCDF



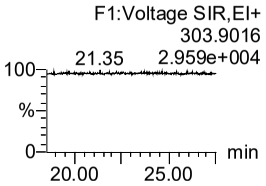
2346/1249-TCDF



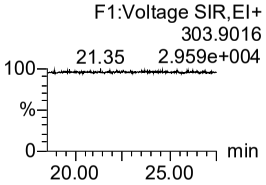
2347/1279-TCDF



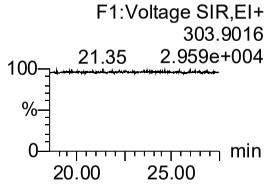
2348-TCDF [CE]



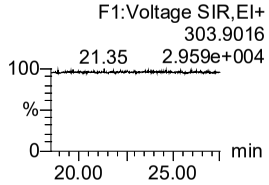
2378-TCDF (S)



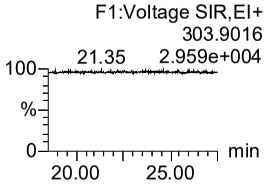
2367/3467-TCDF



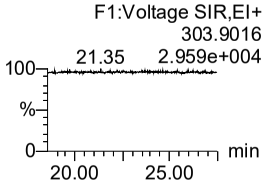
1269-TCDF



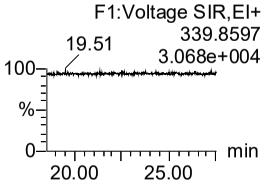
1239-TCDF



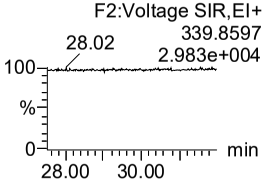
1289-TCDF



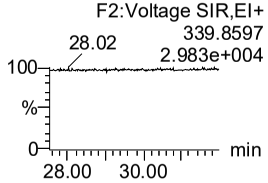
13468/12466-PeCDF



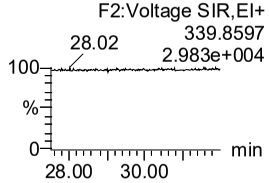
13678/13467/12467-PeCDF



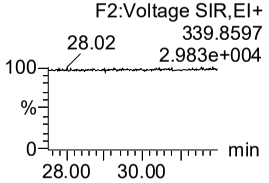
12368/13478/12478-PeCDF



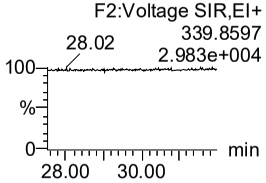
14678-PeCDF



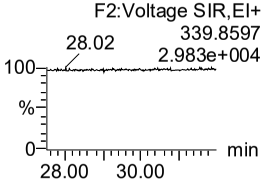
13479-PeCDF



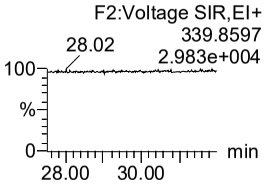
13469/12479-PeCDF



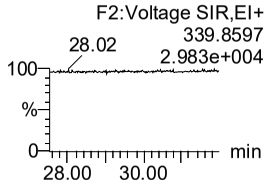
12346-PeCDF



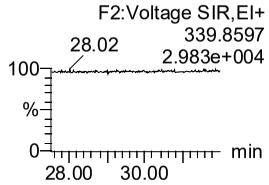
23468/12469-PeCDF



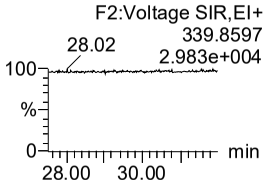
12347-PeCDF



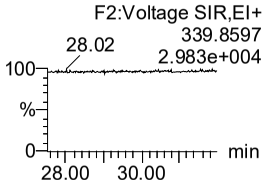
12348-PeCDF



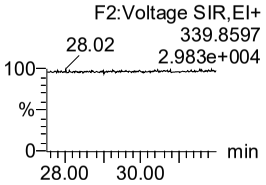
12378-PeCDF (S)



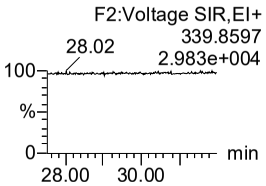
12678/12367-PeCDF



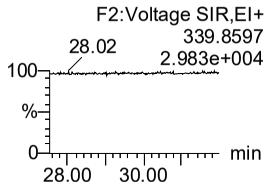
12379-PeCDF



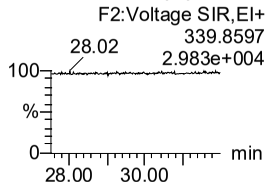
12679-PeCDF



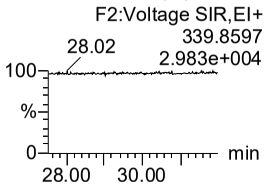
23467/12369-PeCDF



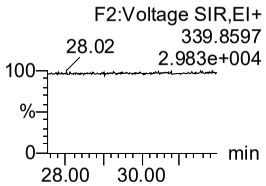
23478-PeCDF (S)



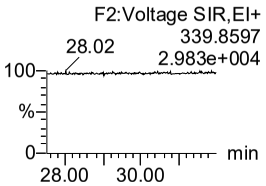
12489-PeCDF (R)



12349-PeCDF



12389-PeCDF



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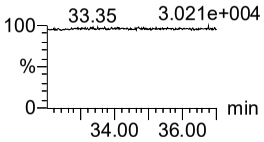
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

123468-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



124678/134678-HxCDF
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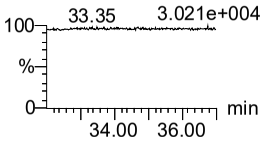
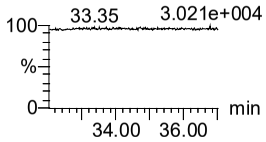
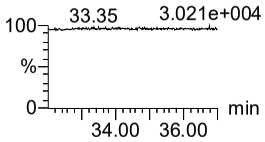
33.35 3.021e+004



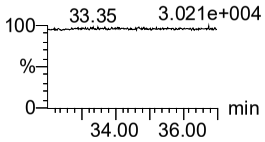
134679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



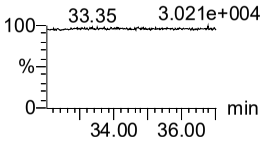
124679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



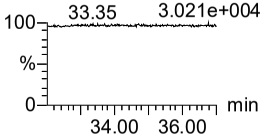
124689-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



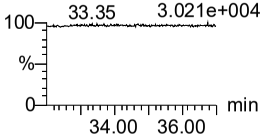
123467-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



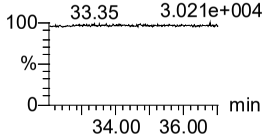
123478-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



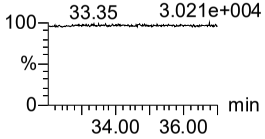
123678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



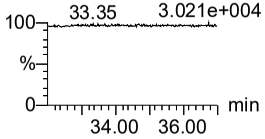
123479-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



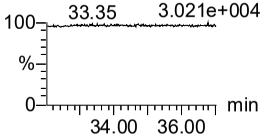
123469-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



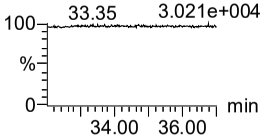
123679-HxCDF
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



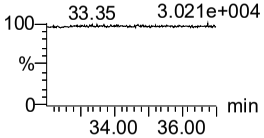
234678-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



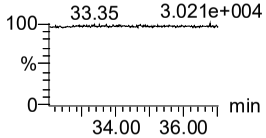
123689-HxCDF (NR)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



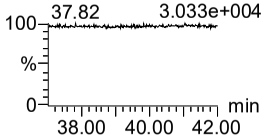
123789-HxCDF (S)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



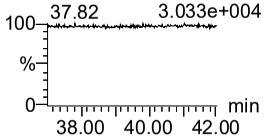
123489-HxCDF (R)
F3:Voltage SIR,EI+ 373.8208
33.35 3.021e+004



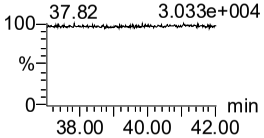
1234678-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.82 3.033e+004



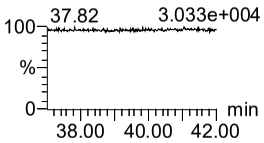
1234679-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.82 3.033e+004



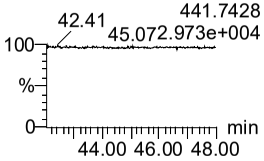
1234689-HpCDF
F4:Voltage SIR,EI+ 407.7818
37.82 3.033e+004



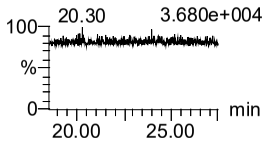
1234789-HpCDF (S)
F4:Voltage SIR,EI+ 407.7818
37.82 3.033e+004



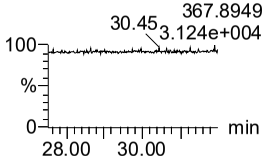
OCDF (S)
F5:Voltage SIR,EI+ 441.7428
42.41 45.07 2.973e+004



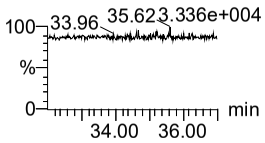
13C-1278-TCDD (FS)
F1:Voltage SIR,EI+ 331.9368
20.30 3.680e+004



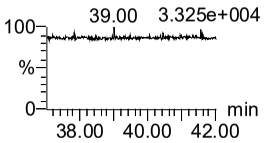
13C-12478-PeCDD (FS)
F2:Voltage SIR,EI+ 367.8949
30.45 3.124e+004



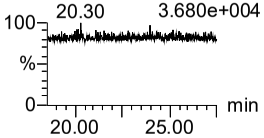
13C-123468-HxCDD (FS)
F3:Voltage SIR,EI+ 401.8559
33.96 35.62 3.336e+004



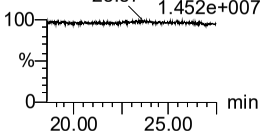
13C-1234679-HpCDD (FS)
F4:Voltage SIR,EI+ 435.8169
39.00 3.325e+004



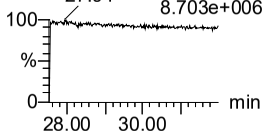
13C-1378-TCDD (TS)
F1:Voltage SIR,EI+ 331.9368
20.30 3.680e+004



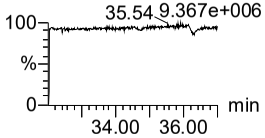
QC Check Ion Fn 1
F1:Voltage SIR,EI+ 330.97920
23.57 1.452e+007



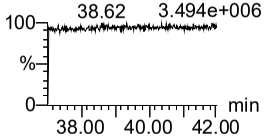
QC Check Ion Fn 2
F2:Voltage SIR,EI+ 342.97922
27.94 8.703e+006



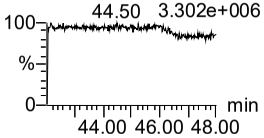
QC Check Ion Fn 3
F3:Voltage SIR,EI+ 380.9760
35.54 9.367e+006



QC Check Ion Fn 4
F4:Voltage SIR,EI+ 442.9728
38.62 3.494e+006



QC Check Ion Fn 5
F5:Voltage SIR,EI+ 454.9728
44.50 3.302e+006



Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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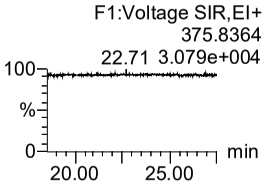
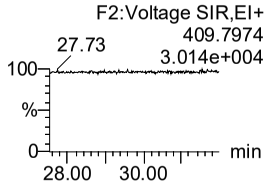
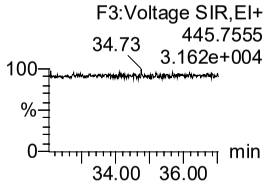
HxDPE



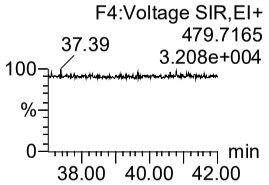
HpDPE



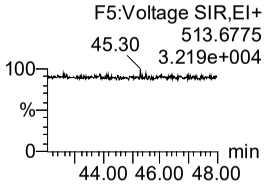
OcDPE



NoDPE



DeDPE



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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780									G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830									G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847									G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000									G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639									G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253									G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419									G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965									G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965									G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965									G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546									G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546									G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157									G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157									G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766									G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766									G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377									G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016									G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016									G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016									G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016									G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597									G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597									G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208									G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208									G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818									G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818									G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428									G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949									G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559									G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169									G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368									G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

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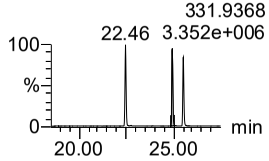
Name: G10032312B, Date: 10-Mar-2023, Time: 21:52:13, ID: Solvent Blank, Description: Solvent Blank

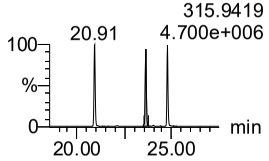
	Summary Flag Reason
149	

Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

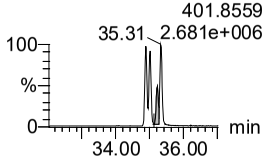
13C-1234-TCDD (JS)



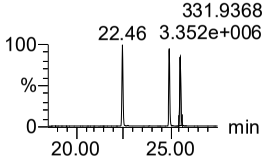
13C-1234-TCDF (JS)



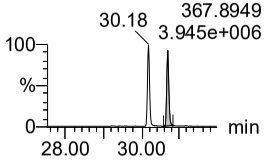
13C-123467-HxCDD (JS)



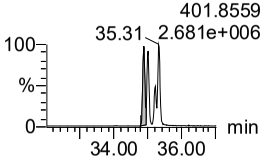
13C-2378-TCDD (ES)



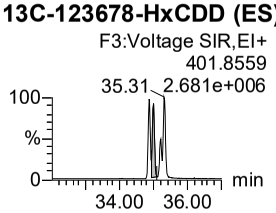
13C-12378-PeCDD (ES)



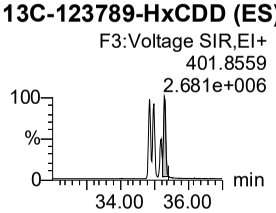
13C-123478-HxCDD (ES)



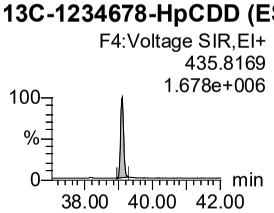
13C-123678-HxCDD (ES)



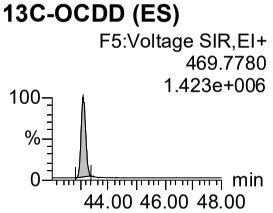
13C-123789-HxCDD (ES)



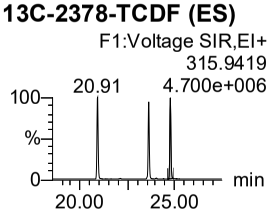
13C-1234678-HpCDD (ES)



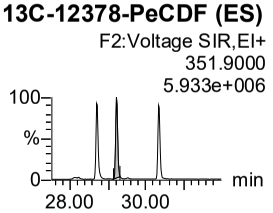
13C-OCDD (ES)



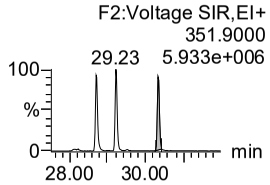
13C-2378-TCDF (ES)



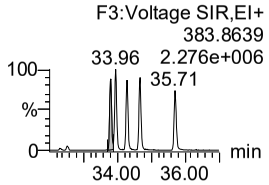
13C-12378-PeCDF (ES)



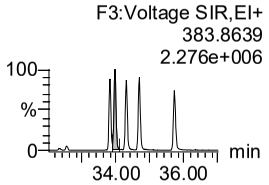
13C-23478-PeCDF (ES)



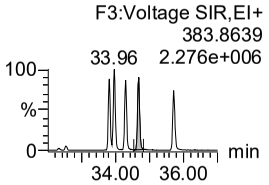
13C-123478-HxCDF (ES)



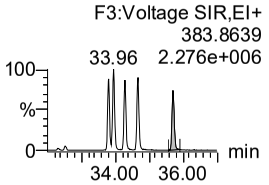
13C-123678-HxCDF (ES)



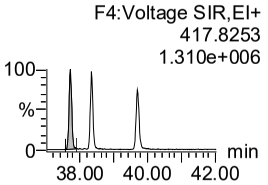
13C-234678-HxCDF (ES)



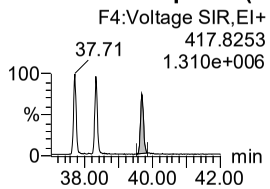
13C-123789-HxCDF (ES)



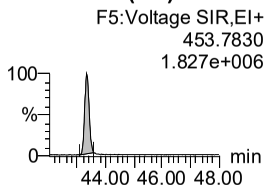
13C-1234678-HpCDF (ES)



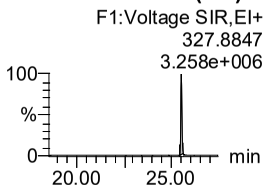
13C-1234789-HpCDF (ES)



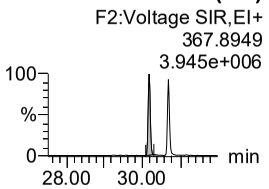
13C-OCDF (ES)



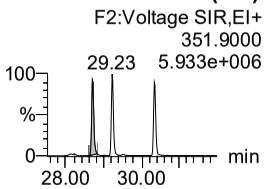
37Cl-2378-TCDD (CS)



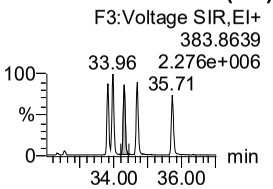
13C-12347-PeCDD (CS)



13C-12346-PeCDD (CS)



13C-123469-HxCDF (CS)



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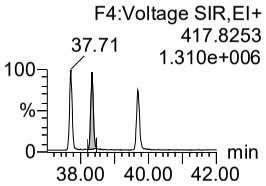
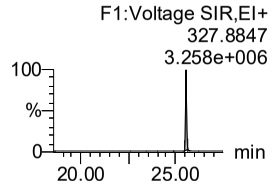
Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

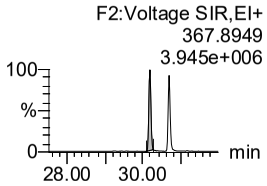
13C-1234689-HpCDF (CS)



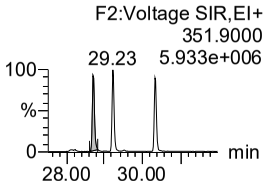
37Cl-2378-TCDD (SS)



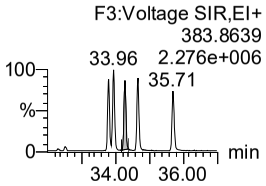
13C-12347-PeCDD (SS)



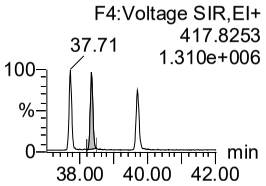
13C-12346-PeCDF (SS)



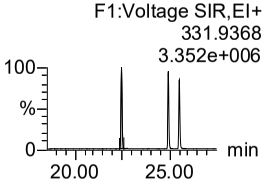
13C-123469-HxCDF (SS)



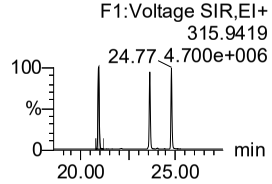
13C-1234689-HpCDF (SS)



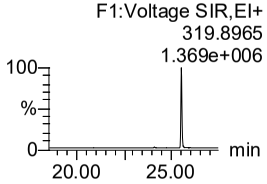
13C-1368-TCDD (AS)



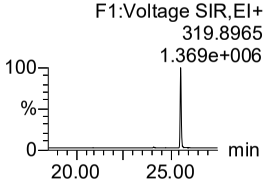
13C-1368-TCDF (AS)



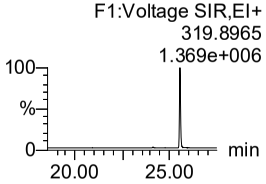
1368-TCDD



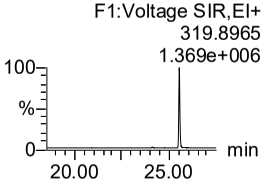
1379-TCDD



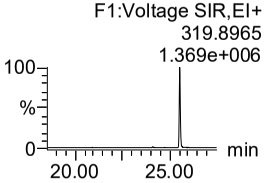
1369-TCDD



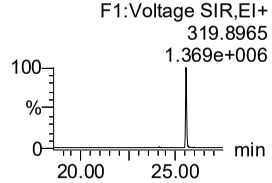
1469-TCDD



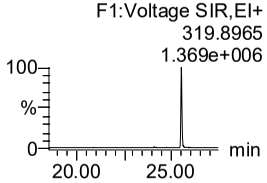
1247/1246/1248/1249-TCDI



1378-TCDD



1268-TCDD



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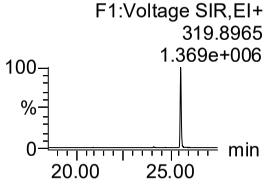

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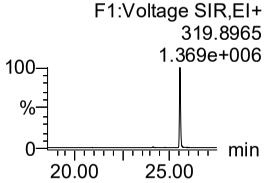
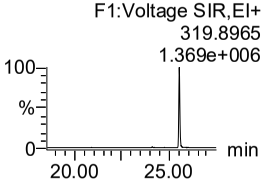
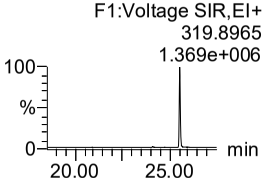


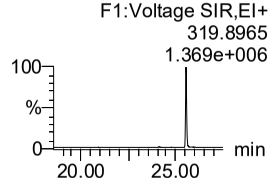
1234/1269-TCDD



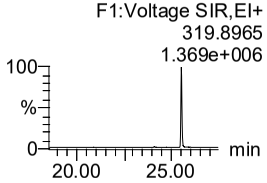
1236-TCDD



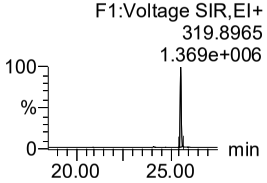
1237/1238-TCDD



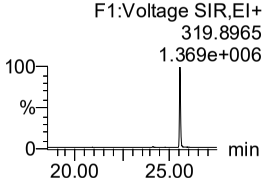
1239-TCDD [CE]



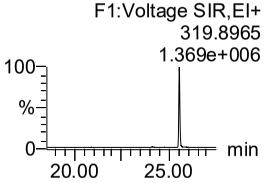
2378-TCDD (S)



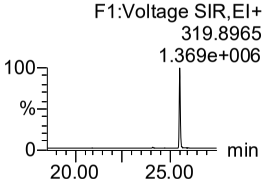
1278-TCDD



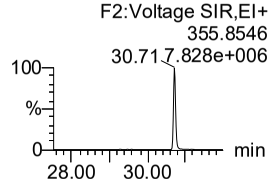
1267-TCDD



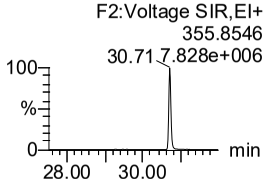
1289-TCDD



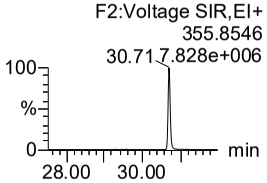
12479/12468-PeCDD



12469-PeCDD



12368-PeCDD



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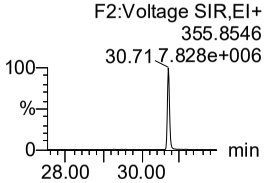
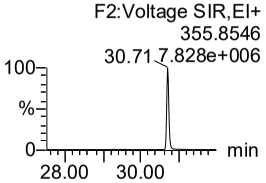


12379-PeCDD



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Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

12369/12467/12489-PeCDD
F2:Voltage SIR,EI+
355.8546
30.71 7.828e+006

12346/12347-PeCDD
F2:Voltage SIR,EI+
355.8546
30.71 7.828e+006

12378-PeCDD (S)
F2:Voltage SIR,EI+
355.8546
7.828e+006

12367-PeCDD
F2:Voltage SIR,EI+
355.8546
30.71 7.828e+006

12389-PeCDD
F2:Voltage SIR,EI+
355.8546
30.71 7.828e+006

124679/124689-HxCDD
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123468-HxCDD
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123679/123689-HxCDD
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123469-HxCDD
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123478-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
5.851e+006

123678-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123467-HxCDD
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

123789-HxCDD (S)
F3:Voltage SIR,EI+
389.8157
34.88 5.851e+006

1234679-HpCDD
F4:Voltage SIR,EI+
423.7766
39.10 3.682e+006

1234678-HpCDD (S)
F4:Voltage SIR,EI+
423.7766
3.682e+006

OCDD (S)
F5:Voltage SIR,EI+
457.7377
3.235e+006

1368-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1468-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

2468-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1346/1246-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1347/1378/1247-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1348-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1248/1367/1379-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1268-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1467-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1478-TCDF
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1369/1237-TCDF
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2467-TCDF
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2368-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

1238/1234/1678/1469/1236-TCDF
F1:Voltage SIR,EI+
303.9016
24.78 2.062e+006
23.57

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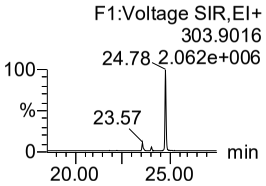
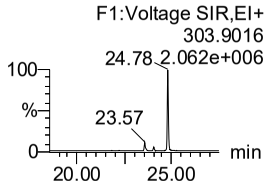
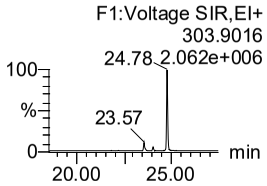
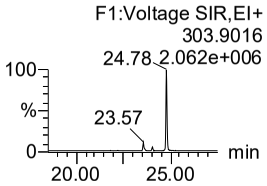
Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

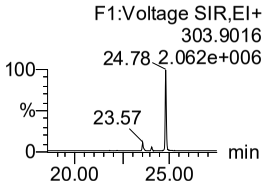
Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

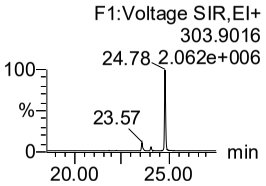
1278-TCDF


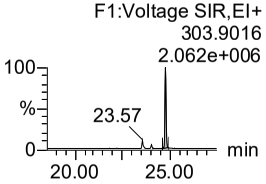
1349-TCDF


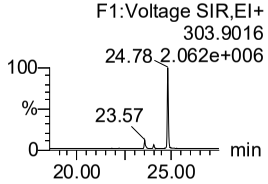
1267-TCDF


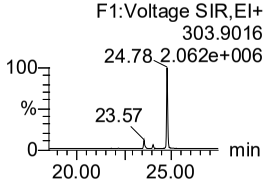
2346/1249-TCDF


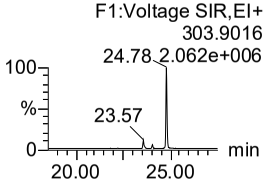
2347/1279-TCDF


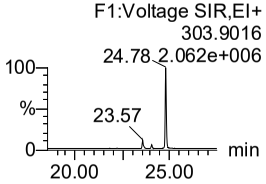
2348-TCDF [CE]


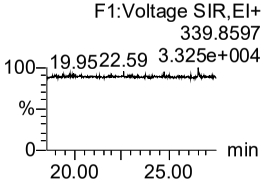
2378-TCDF (S)


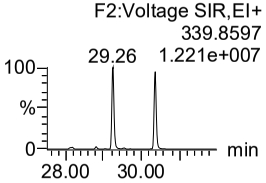
2367/3467-TCDF


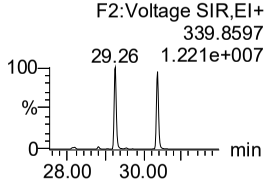
1269-TCDF


1239-TCDF


1289-TCDF


13468/12466-PeCDF


13678/13467/12467-PeCDF


12368/13478/12478-PeCDF


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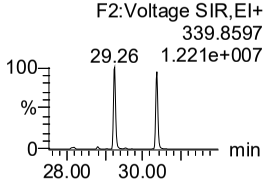
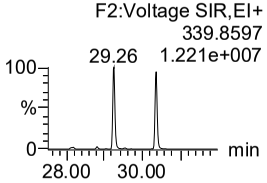


13479-PeCDF


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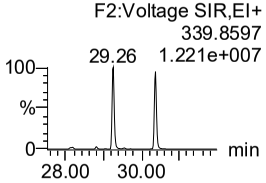

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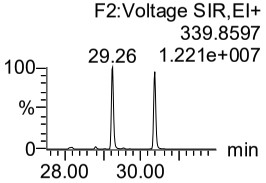
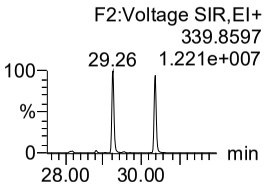
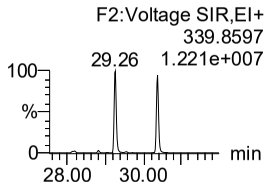


23468/12469-PeCDF


12347-PeCDF


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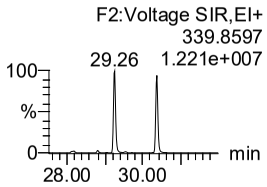
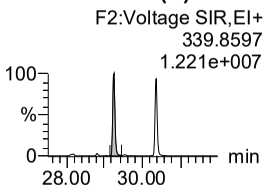
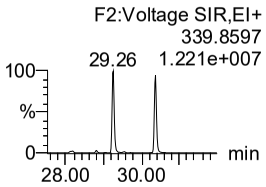


12378-PeCDF (S)


12678/12367-PeCDF


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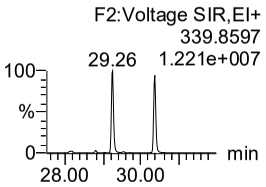

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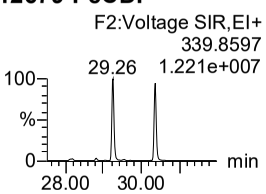

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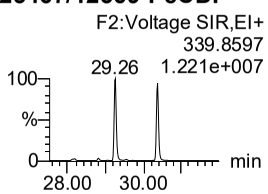
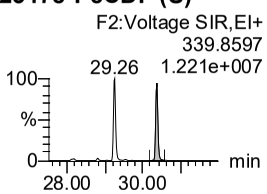
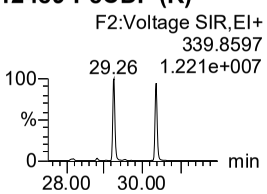
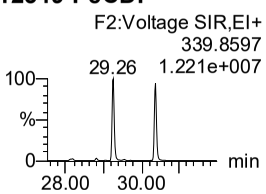


23478-PeCDF (S)


12489-PeCDF (R)


12349-PeCDF


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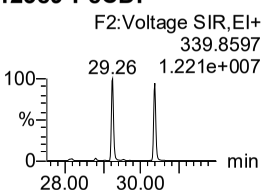

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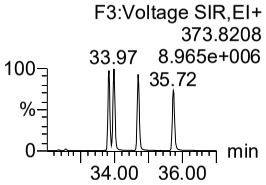
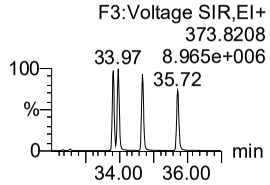
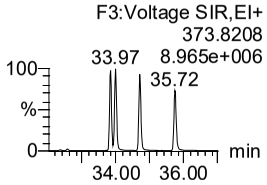
123468-HxCDF



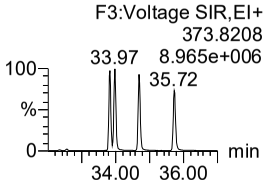
124678/134678-HxCDF



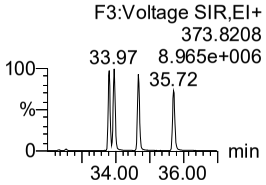
134679-HxCDF



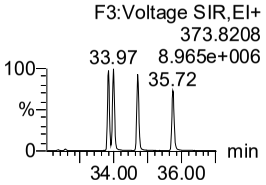
124679-HxCDF



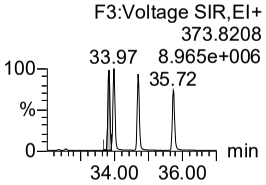
124689-HxCDF



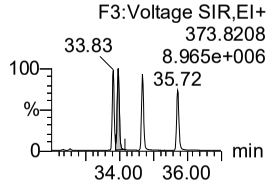
123467-HxCDF



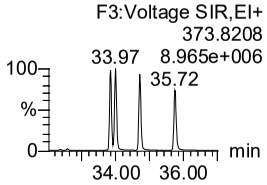
123478-HxCDF (S)



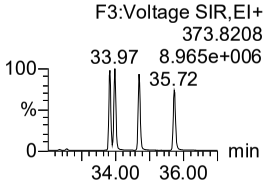
123678-HxCDF (S)



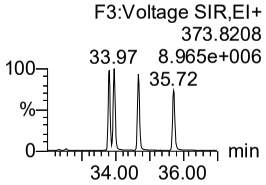
123479-HxCDF



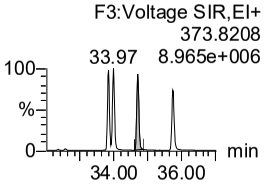
123469-HxCDF



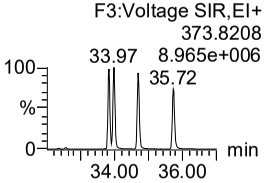
123679-HxCDF



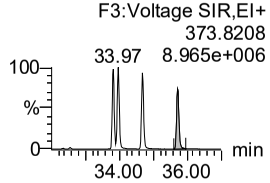
234678-HxCDF (S)



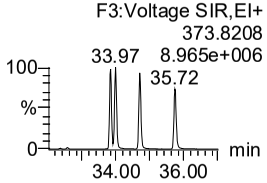
123689-HxCDF (NR)



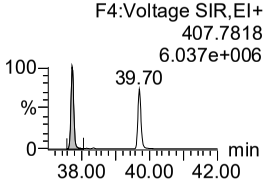
123789-HxCDF (S)



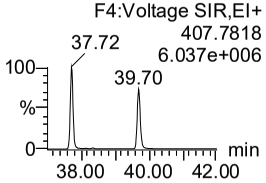
123489-HxCDF (R)



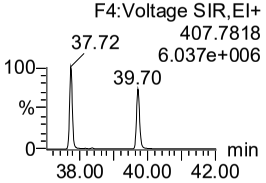
1234678-HpCDF (S)



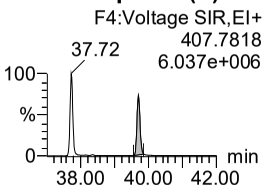
1234679-HpCDF



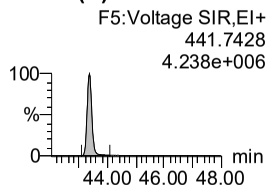
1234689-HpCDF



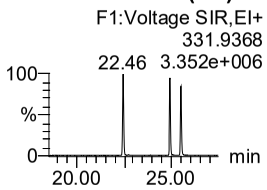
1234789-HpCDF (S)



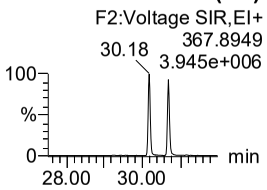
OCDF (S)



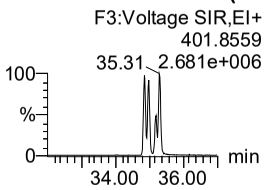
13C-1278-TCDD (FS)



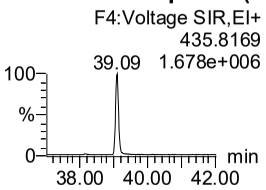
13C-12478-PeCDD (FS)



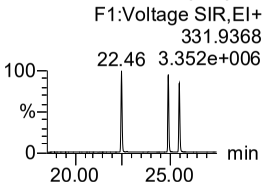
13C-123468-HxCDD (FS)



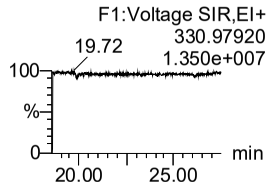
13C-1234679-HpCDD (FS)



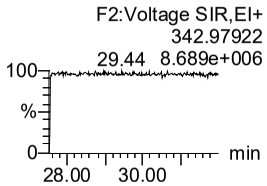
13C-1378-TCDD (TS)



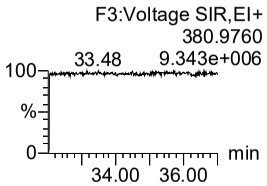
QC Check Ion Fn 1



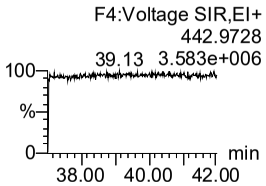
QC Check Ion Fn 2



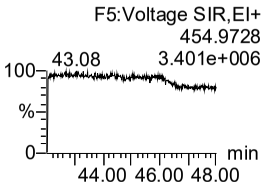
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



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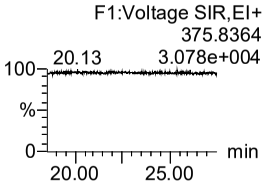
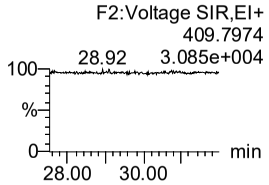
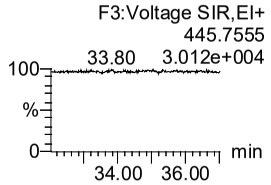
HxDPE



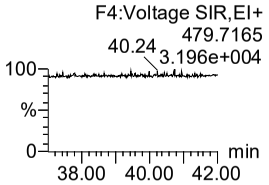
HpDPE



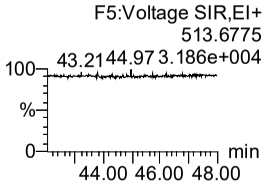
OcDPE



NoDPE



DeDPE



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Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
1	1	13C-1234-TCDD (JS)	331.9368	24.95	208520.094	261967.516		470487.610	bb	16.4	-83.6	G_DF_ICAL_05MAY22_calibration fi...
2	2	13C-1234-TCDF (JS)	315.9419	23.63	300276.563	382990.844		683267.407	bb	17.7	-82.3	G_DF_ICAL_05MAY22_calibration fi...
3	3	13C-123467-HxCDD (JS)	401.8559	35.21	87590.898	68111.477		155702.375	bd	7.5	-84.9	G_DF_ICAL_05MAY22_calibration fi...
4	4	13C-2378-TCDD (ES)	331.9368	25.52	182466.594	227517.016	208520.094	87.140	bb	92.8	-7.2	G_DF_ICAL_05MAY22_calibration fi...
5	5	13C-12378-PeCDD (ES)	367.8949	30.69	224900.672	143405.625	208520.094	78.282	bb	95.9	-4.1	G_DF_ICAL_05MAY22_calibration fi...
6	6	13C-123478-HxCDD (ES)	401.8559	34.86	186688.828	150180.547	87590.898	108.177	bd	103.5	3.5	G_DF_ICAL_05MAY22_calibration fi...
7	7	13C-123678-HxCDD (ES)	401.8559	34.99	174300.484	134341.438	87590.898	99.113	db	100.5	0.5	G_DF_ICAL_05MAY22_calibration fi...
8	8	13C-123789-HxCDD (ES)	401.8559	35.31	196626.031	154603.141	87590.898	112.789	db	101.4	1.4	G_DF_ICAL_05MAY22_calibration fi...
9	9	13C-1234678-HpCDD (ES)	435.8169	39.09	165409.609	154855.906	87590.898	102.845	bb	111.9	11.9	G_DF_ICAL_05MAY22_calibration fi...
10	10	13C-OCDD (ES)	469.7780	43.11	253886.250	280905.250	87590.898	171.735	bb	231.1	15.5	G_DF_ICAL_05MAY22_calibration fi...
11	11	13C-2378-TCDF (ES)	315.9419	24.77	291916.688	368369.875	300276.563	96.637	bb	97.6	-2.4	G_DF_ICAL_05MAY22_calibration fi...
12	12	13C-12378-PeCDF (ES)	351.9000	29.23	351031.969	219084.609	300276.563	83.440	bb	94.9	-5.1	G_DF_ICAL_05MAY22_calibration fi...
13	13	13C-23478-PeCDF (ES)	351.9000	30.34	335507.719	219227.203	300276.563	81.189	bb	95.6	-4.4	G_DF_ICAL_05MAY22_calibration fi...
14	14	13C-123478-HxCDF (ES)	383.8639	33.81	132368.594	252680.672	87590.898	123.649	bd	104.7	4.7	G_DF_ICAL_05MAY22_calibration fi...
15	15	13C-123678-HxCDF (ES)	383.8639	33.96	154459.063	300734.094	87590.898	146.174	db	102.9	2.9	G_DF_ICAL_05MAY22_calibration fi...
16	16	13C-234678-HxCDF (ES)	383.8639	34.67	143502.313	277321.906	87590.898	135.137	bb	104.6	4.6	G_DF_ICAL_05MAY22_calibration fi...
17	17	13C-123789-HxCDF (ES)	383.8639	35.71	125627.469	240798.406	87590.898	117.669	bb	99.8	-0.2	G_DF_ICAL_05MAY22_calibration fi...
18	18	13C-1234678-HpCDF (ES)	417.8253	37.71	113958.789	253806.906	87590.898	118.099	bb	122.1	22.1	G_DF_ICAL_05MAY22_calibration fi...
19	19	13C-1234789-HpCDF (ES)	417.8253	39.69	96744.734	220092.797	87590.898	101.745	bb	116.6	16.6	G_DF_ICAL_05MAY22_calibration fi...
20	20	13C-OCDF (ES)	453.7830	43.32	317789.438	365066.813	87590.898	219.283	bb	240.8	20.4	G_DF_ICAL_05MAY22_calibration fi...
21	21	37Cl-2378-TCDD (CS)	327.8847	25.54	204751.125		208520.094	43.519	bb	38.2	-4.6	G_DF_ICAL_05MAY22_calibration fi...
22	22	13C-12347-PeCDD (CS)	367.8949	30.18	247747.250	154415.609	208520.094	85.478	bb	98.3	-1.7	G_DF_ICAL_05MAY22_calibration fi...
23	23	13C-12346-PeCDF (CS)	351.9000	28.70	349688.625	217692.609	300276.563	83.039	bb	96.6	-3.4	G_DF_ICAL_05MAY22_calibration fi...
24	24	13C-123469-HxCDF (CS)	383.8639	34.29	134928.688	255959.781	87590.898	125.524	bb	97.3	-2.7	G_DF_ICAL_05MAY22_calibration fi...
25	25	13C-1234689-HpCDF (CS)	417.8253	38.33	104202.227	233241.578	87590.898	108.362	bb	109.5	9.5	G_DF_ICAL_05MAY22_calibration fi...
26	26	37Cl-2378-TCDD (SS)	327.8847	25.54	204751.125		182466.594	49.941	bb	41.3	3.2	G_DF_ICAL_05MAY22_calibration fi...
27	27	13C-12347-PeCDD (SS)	367.8949	30.18	242556.719	151315.047	224900.672	106.941	bb	101.8	1.8	G_DF_ICAL_05MAY22_calibration fi...
28	28	13C-12346-PeCDF (SS)	351.9000	28.70	349688.625	217692.609	351031.969	99.520	bb	95.7	-4.3	G_DF_ICAL_05MAY22_calibration fi...
29	29	13C-123469-HxCDF (SS)	383.8639	34.29	131251.453	254371.297	154459.063	84.716	bb	93.1	-6.9	G_DF_ICAL_05MAY22_calibration fi...
30	30	13C-1234689-HpCDF (SS)	417.8253	38.33	104202.227	233241.578	113958.789	91.755	bb	94.6	-5.4	G_DF_ICAL_05MAY22_calibration fi...
31	31	13C-1368-TCDD (AS)	331.9368	22.45	215469.906	273396.125	208520.094	103.906	bb	100.9	0.9	G_DF_ICAL_05MAY22_calibration fi...
32	32	13C-1368-TCDF (AS)	315.9419	20.92	338524.469	422823.438	300276.563	111.428	bb	102.2	2.2	G_DF_ICAL_05MAY22_calibration fi...
33	33	1368-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
34	34	1379-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
35	35	1369-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
36	36	1469-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
37	37	1247/1246/1248/1249-TC...	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
38	38	1378-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
39	39	1268-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
40	40	1478-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
41	41	1279-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
42	42	1234/1269-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
43	43	1236-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
44	44	1237/1238-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
45	45	1239-TCDD [CE]	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
46	46	2378-TCDD (S)	319.8965	25.54	86294.492	110930.617	182466.594	48.106	bb	42.2	5.6	G_DF_ICAL_05MAY22_calibration fi...
47	47	1278-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
48	48	1267-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
49	49	1289-TCDD	319.8965				182466.594					G_DF_ICAL_05MAY22_calibration fi...
50	50	12479/12468-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
51	51	12469-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
52	52	12368-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
53	53	12478-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
54	54	12379-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
55	55	12369/12467/12489-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
56	56	12346/12347-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
57	57	12378-PeCDD (S)	355.8546	30.71	519211.938	319436.188	224900.672	227.704	bs	224.9	12.4	G_DF_ICAL_05MAY22_calibration fi...
58	58	12367-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
59	59	12389-PeCDD	355.8546				224900.672					G_DF_ICAL_05MAY22_calibration fi...
60	60	124679/124689-HxCDD	389.8157				186688.828					G_DF_ICAL_05MAY22_calibration fi...
61	61	123468-HxCDD	389.8157				186688.828					G_DF_ICAL_05MAY22_calibration fi...
62	62	123679/123689-HxCDD	389.8157				186688.828					G_DF_ICAL_05MAY22_calibration fi...
63	63	123469-HxCDD	389.8157				186688.828					G_DF_ICAL_05MAY22_calibration fi...
64	64	123478-HxCDD (S)	389.8157	34.88	423226.813	337422.344	186688.828	225.799	bd	214.0	7.0	G_DF_ICAL_05MAY22_calibration fi...
65	65	123678-HxCDD (S)	389.8157	35.01	408203.500	317933.438	174300.484	235.268	db	213.9	6.9	G_DF_ICAL_05MAY22_calibration fi...
66	66	123467-HxCDD	389.8157				196626.031					G_DF_ICAL_05MAY22_calibration fi...
67	67	123789-HxCDD (S)	389.8157	35.32	413894.094	329735.844	196626.031	211.722	bb	202.5	1.2	G_DF_ICAL_05MAY22_calibration fi...
68	68	1234679-HpCDD	423.7766				165409.609					G_DF_ICAL_05MAY22_calibration fi...
69	69	1234678-HpCDD (S)	423.7766	39.10	376181.719	358411.500	165409.609	229.370	bb	218.8	9.4	G_DF_ICAL_05MAY22_calibration fi...
70	70	OCDD (S)	457.7377	43.13	603596.813	671660.375	253886.250	476.918	bb	414.8	3.7	G_DF_ICAL_05MAY22_calibration fi...
71	71	1368-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
72	72	1468-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
73	73	2468-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
74	74	1346/1246-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
75	75	1347/1378/1247-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
76	76	1348-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
77	77	1248/1367/1379-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
78	78	1268-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
79	79	1467-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
80	80	1478-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
81	81	1369/1237-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
82	82	2467-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
83	83	2368-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
84	84	1238/1234/1678/1469/123...	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
85	85	1278-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
86	86	1349-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
87	87	1267-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
88	88	2346/1249-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
89	89	2347/1279-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
90	90	2348-TCDF [CE]	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
91	91	2378-TCDF (S)	303.9016	24.78	133195.719	181409.219	291916.688	47.647	bb	42.9	7.3	G_DF_ICAL_05MAY22_calibration fi...
92	92	2367/3467-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
93	93	1269-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
94	94	1239-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
95	95	1289-TCDF	303.9016				291916.688					G_DF_ICAL_05MAY22_calibration fi...
96	96	13468/12466-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
97	97	13678/13467/12467-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
98	98	12368/13478/12478-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
99	99	14678-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
100	1...	13479-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
101	1...	13469/12479-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
102	1...	12346-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
103	1...	23468/12469-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
104	1...	12347-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
105	1...	12348-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
106	1...	12378-PeCDF (S)	339.8597	29.26	819793.563	517589.625	351031.969	234.581	bd	218.4	9.2	G_DF_ICAL_05MAY22_calibration fi...
107	1...	12678/12367-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
108	1...	12379-PeCDF	339.8597				351031.969					G_DF_ICAL_05MAY22_calibration fi...
109	1...	12679-PeCDF	339.8597				335507.719					G_DF_ICAL_05MAY22_calibration fi...
110	1...	23467/12369-PeCDF	339.8597				335507.719					G_DF_ICAL_05MAY22_calibration fi...
111	1...	23478-PeCDF (S)	339.8597	30.37	766762.875	477920.656	335507.719	224.374	bs	212.1	6.0	G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
112	1...	12489-PeCDF (R)	339.8597				335507.719					G_DF_ICAL_05MAY22_calibration fi...
113	1...	12349-PeCDF	339.8597				335507.719					G_DF_ICAL_05MAY22_calibration fi...
114	1...	12389-PeCDF	339.8597				335507.719					G_DF_ICAL_05MAY22_calibration fi...
115	1...	123468-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
116	1...	124678/134678-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
117	1...	134679-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
118	1...	124679-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
119	1...	124689-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
120	1...	123467-HxCDF	373.8208				132368.594					G_DF_ICAL_05MAY22_calibration fi...
121	1...	123478-HxCDF (S)	373.8208	33.83	588849.063	465792.313	132368.594	273.898	bd	210.1	5.0	G_DF_ICAL_05MAY22_calibration fi...
122	1...	123678-HxCDF (S)	373.8208	33.97	636142.000	514630.125	154459.063	252.810	db	209.4	4.7	G_DF_ICAL_05MAY22_calibration fi...
123	1...	123479-HxCDF	373.8208				154459.063					G_DF_ICAL_05MAY22_calibration fi...
124	1...	123469-HxCDF	373.8208				143502.313					G_DF_ICAL_05MAY22_calibration fi...
125	1...	123679-HxCDF	373.8208				143502.313					G_DF_ICAL_05MAY22_calibration fi...
126	1...	234678-HxCDF (S)	373.8208	34.69	599153.438	479309.188	143502.313	256.274	bb	206.7	3.3	G_DF_ICAL_05MAY22_calibration fi...
127	1...	123689-HxCDF (NR)	373.8208				143502.313					G_DF_ICAL_05MAY22_calibration fi...
128	1...	123789-HxCDF (S)	373.8208	35.72	532853.875	423632.500	125627.469	261.031	bs	213.7	6.9	G_DF_ICAL_05MAY22_calibration fi...
129	1...	123489-HxCDF (R)	373.8208				125627.469					G_DF_ICAL_05MAY22_calibration fi...
130	1...	1234678-HpCDF (S)	407.7818	37.72	581467.188	551301.500	113958.789	308.014	bd	209.0	4.5	G_DF_ICAL_05MAY22_calibration fi...
131	1...	1234679-HpCDF	407.7818				113958.789					G_DF_ICAL_05MAY22_calibration fi...
132	1...	1234689-HpCDF	407.7818				113958.789					G_DF_ICAL_05MAY22_calibration fi...
133	1...	1234789-HpCDF (S)	407.7818	39.70	452515.750	434626.281	96744.734	279.999	bb	201.5	0.7	G_DF_ICAL_05MAY22_calibration fi...
134	1...	OCDF (S)	441.7428	43.36	792141.500	872368.375	317789.438	487.514	bd	416.3	4.1	G_DF_ICAL_05MAY22_calibration fi...
135	1...	13C-1278-TCDD (FS)	331.9368				182466.594					G_DF_ICAL_05MAY22_calibration fi...
136	1...	13C-12478-PeCDD (FS)	367.8949				224900.672					G_DF_ICAL_05MAY22_calibration fi...
137	1...	13C-123468-HxCDD (FS)	401.8559				87590.898					G_DF_ICAL_05MAY22_calibration fi...
138	1...	13C-1234679-HpCDD (FS)	435.8169				165409.609					G_DF_ICAL_05MAY22_calibration fi...
139	1...	13C-1378-TCDD (TS)	331.9368				182466.594					G_DF_ICAL_05MAY22_calibration fi...
140	1...	QC Check Ion Fn 1	330.97920									G_DF_ICAL_05MAY22_calibration fi...
141	1...	QC Check Ion Fn 2	342.97922									G_DF_ICAL_05MAY22_calibration fi...
142	1...	QC Check Ion Fn 3	380.9760									G_DF_ICAL_05MAY22_calibration fi...
143	1...	QC Check Ion Fn 4	442.9728									G_DF_ICAL_05MAY22_calibration fi...
144	1...	QC Check Ion Fn 5	454.9728									G_DF_ICAL_05MAY22_calibration fi...
145	1...	HxDPE	375.8364									G_DF_ICAL_05MAY22_calibration fi...
146	1...	HpDPE	409.7974									G_DF_ICAL_05MAY22_calibration fi...
147	1...	OcDPE	445.7555									G_DF_ICAL_05MAY22_calibration fi...
148	1...	NoDPE	479.7165									G_DF_ICAL_05MAY22_calibration fi...

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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev	Cal.File
149	1...	DeDPE	513.6775									G_DF_ICAL_05MAY22_calibration fi...

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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\14784 (0123-704-005 only).qld

Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Last Altered: Monday, March 13, 2023 09:18:50 Eastern Daylight Time
Printed: Monday, March 13, 2023 09:19:48 Eastern Daylight Time

Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Name: G10032313B, Date: 10-Mar-2023, Time: 22:43:34, ID: SID AH70, Description: CS4

	Summary Flag Reason
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Printed: Tuesday, March 07, 2023 15:06:08 Eastern Standard Time

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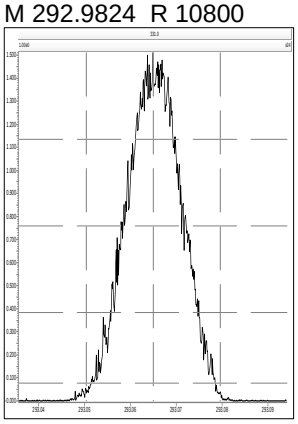
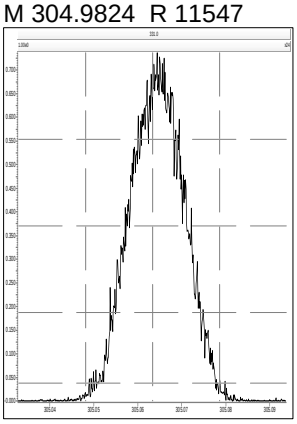
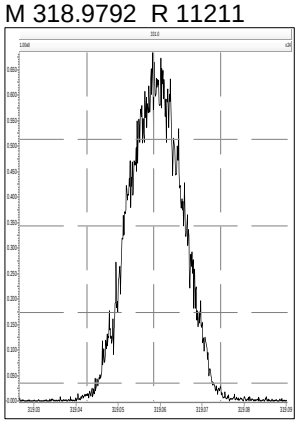


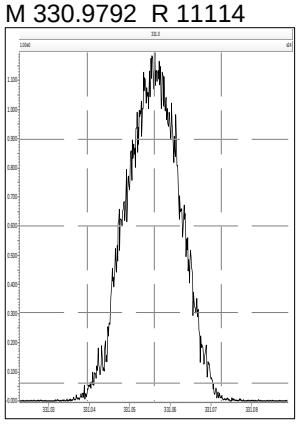
M 304.9824 R 11547



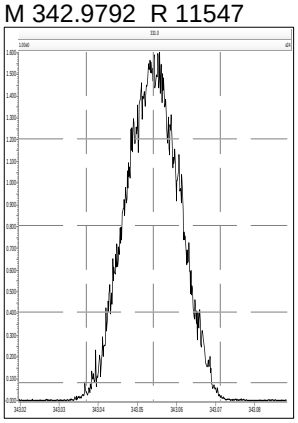
M 318.9792 R 11211



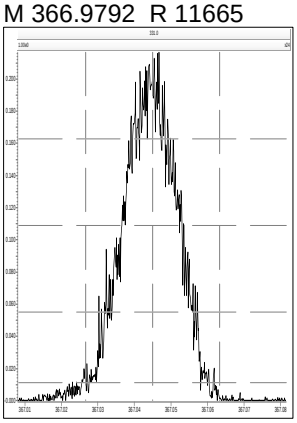
M 330.9792 R 11114



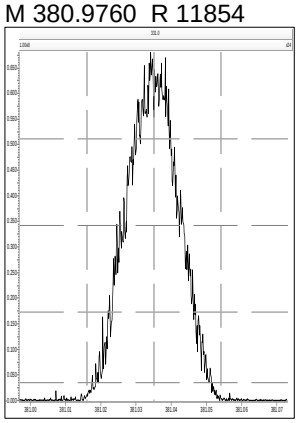
M 342.9792 R 11547



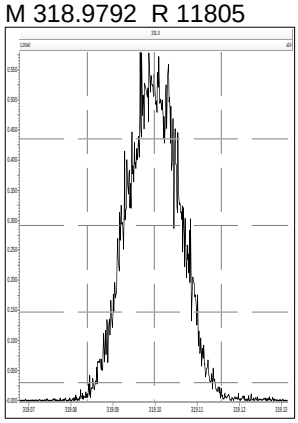
M 366.9792 R 11665



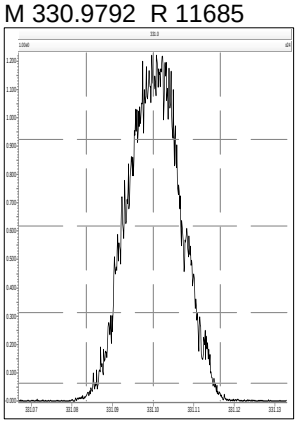
M 380.9760 R 11854



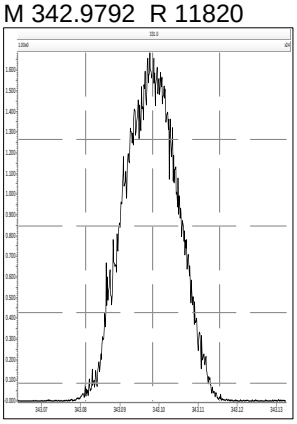
M 318.9792 R 11805



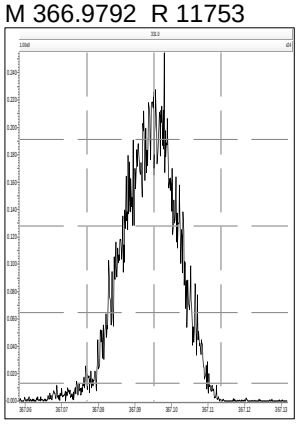
M 330.9792 R 11685



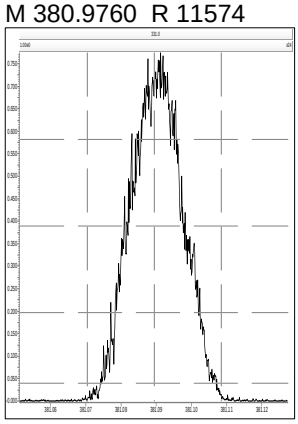
M 342.9792 R 11820



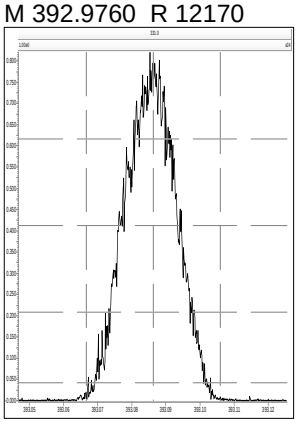
M 366.9792 R 11753



M 380.9760 R 11574



M 392.9760 R 12170



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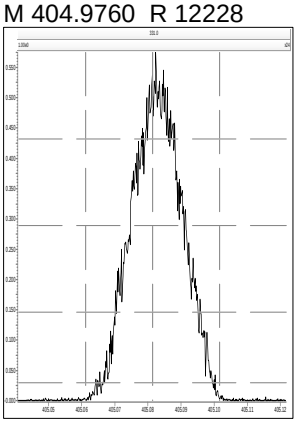
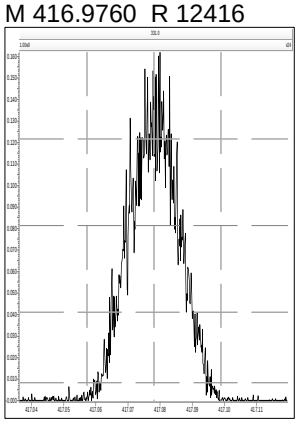
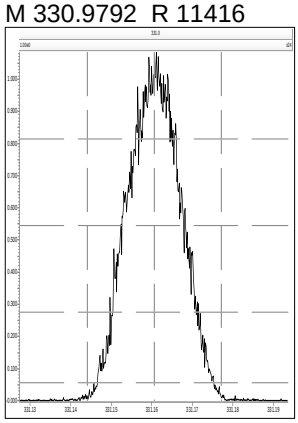


M 416.9760 R 12416



M 330.9792 R 11416



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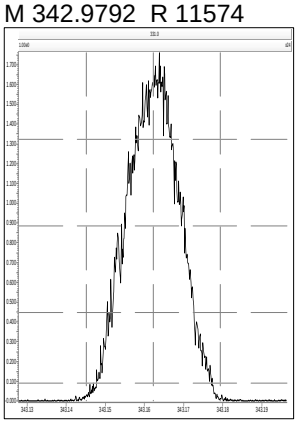
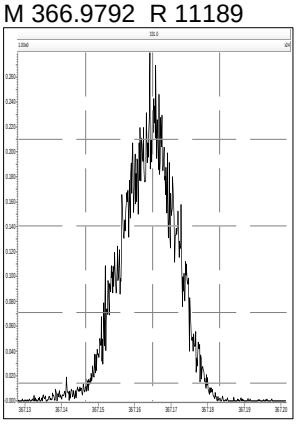
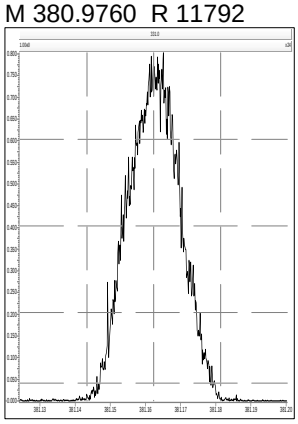
M 342.9792 R 11574



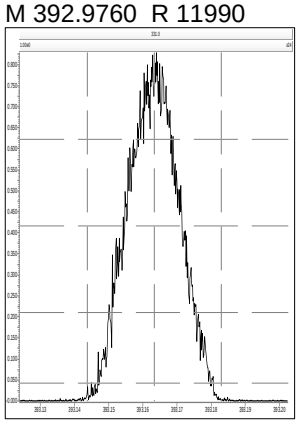
M 366.9792 R 11189



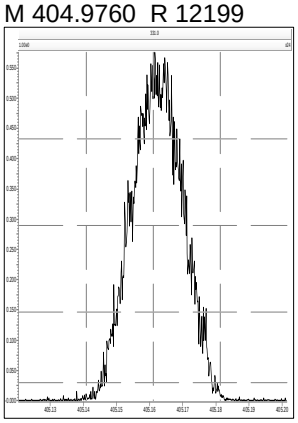
M 380.9760 R 11792



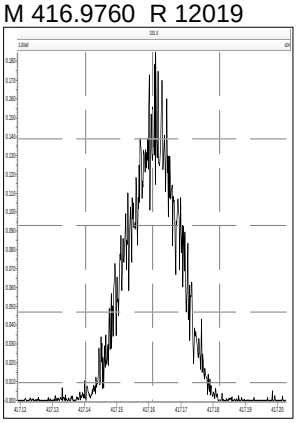
M 392.9760 R 11990



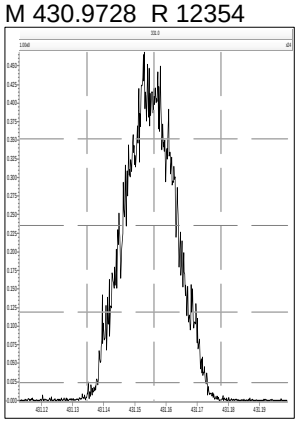
M 404.9760 R 12199



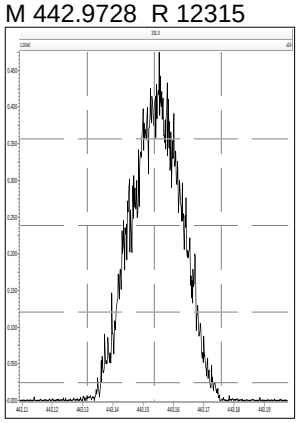
M 416.9760 R 12019



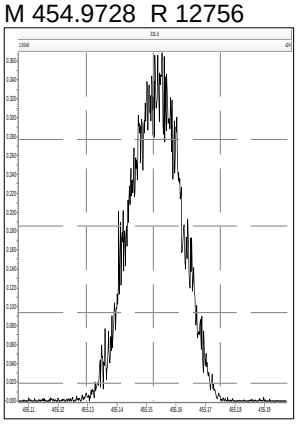
M 430.9728 R 12354



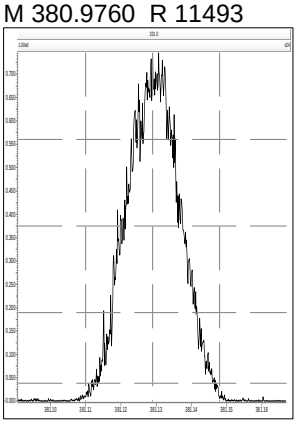
M 442.9728 R 12315



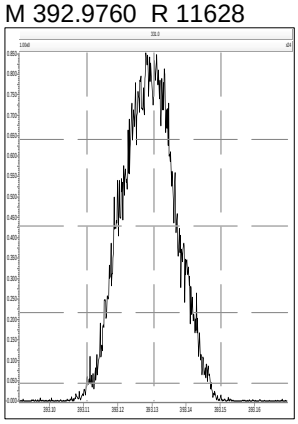
M 454.9728 R 12756



M 380.9760 R 11493



M 392.9760 R 11628



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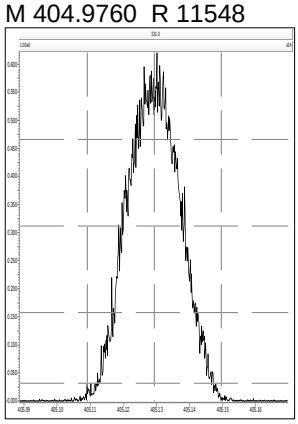

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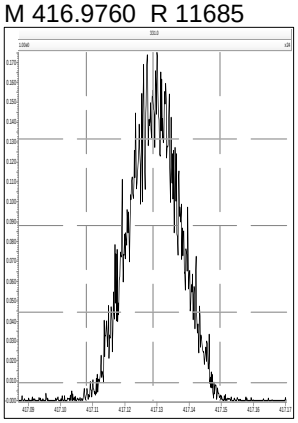
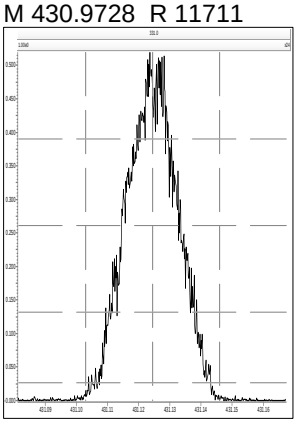
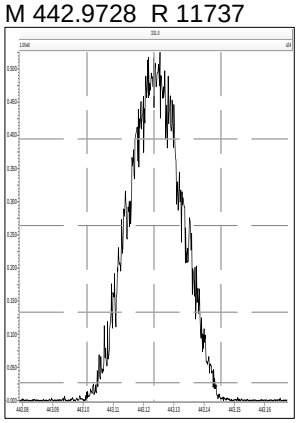


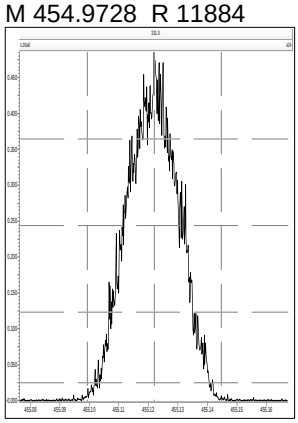
M 430.9728 R 11711



M 442.9728 R 11737



M 454.9728 R 11884



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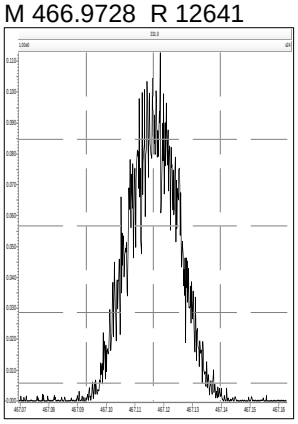
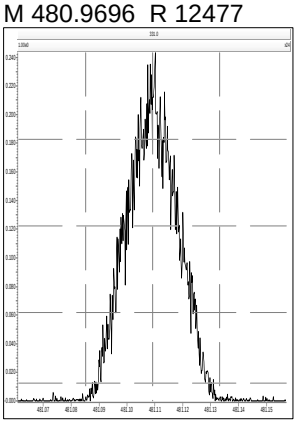


M 480.9696 R 12477



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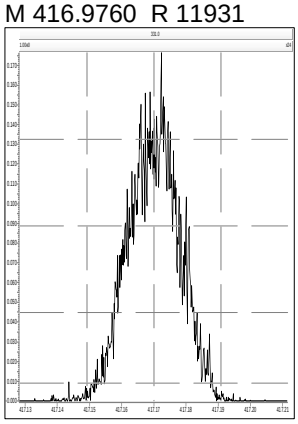
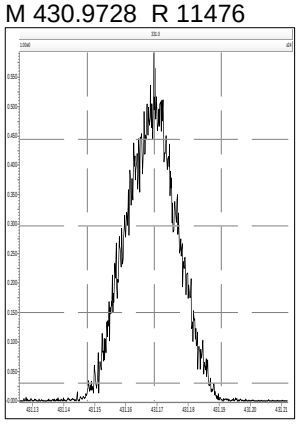
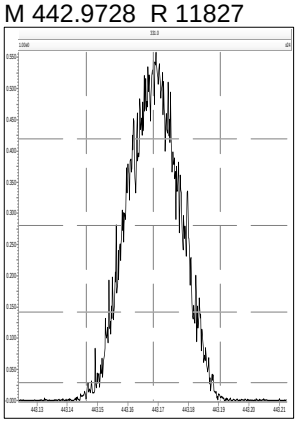


M 430.9728 R 11476



M 442.9728 R 11827



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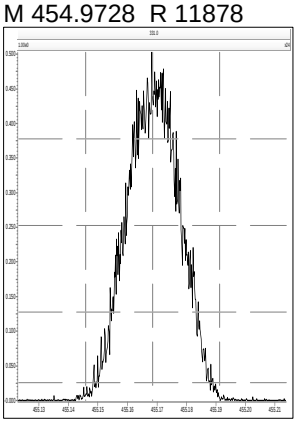

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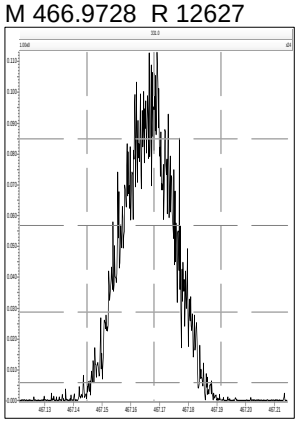

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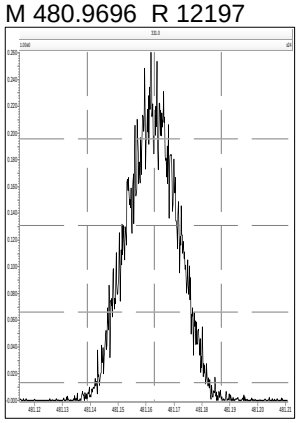
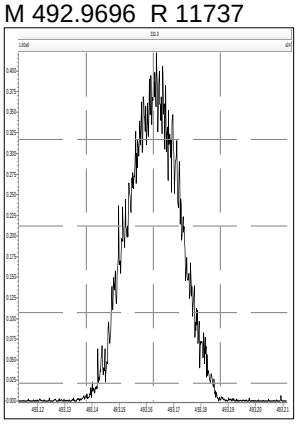
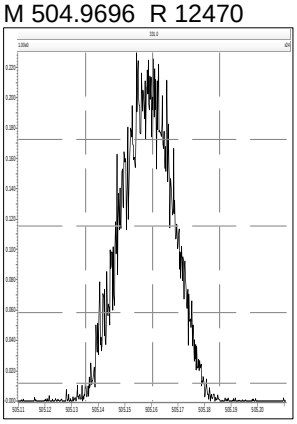


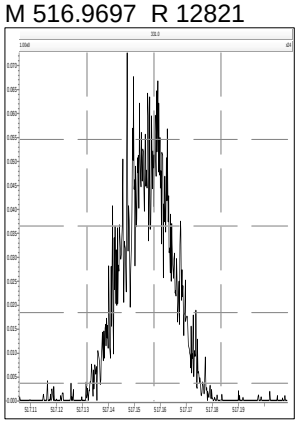
M 492.9696 R 11737



M 504.9696 R 12470



M 516.9697 R 12821



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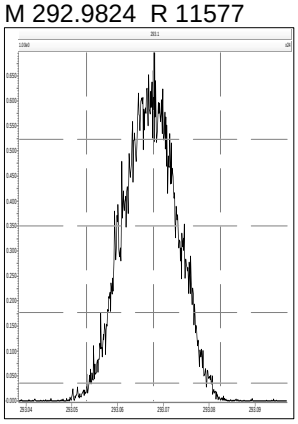
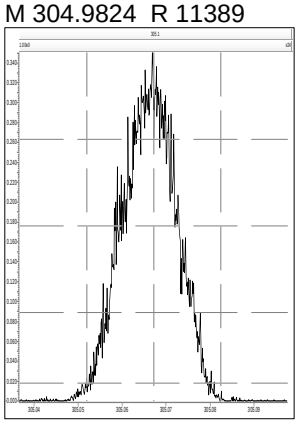
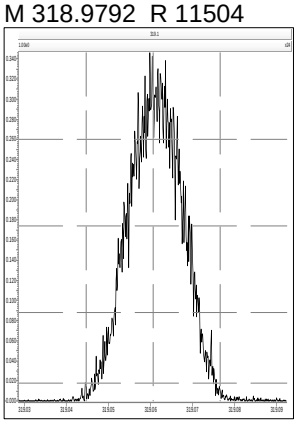


M 304.9824 R 11389



M 318.9792 R 11504



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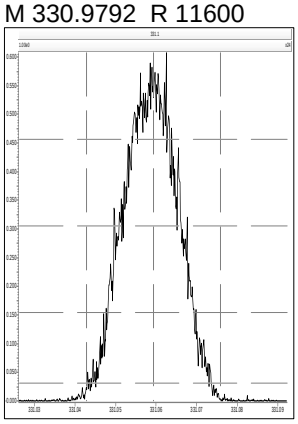
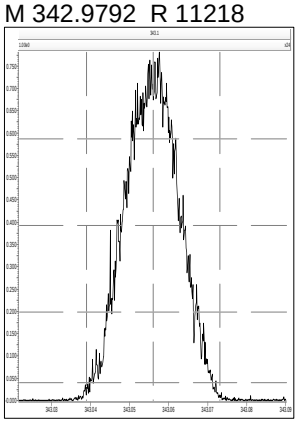
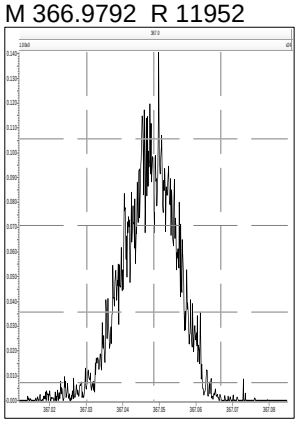


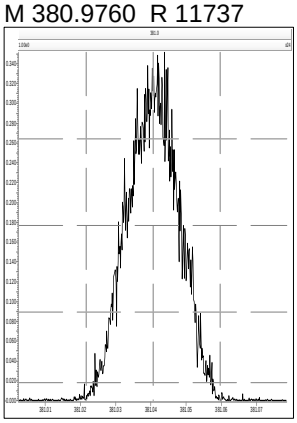
M 342.9792 R 11218



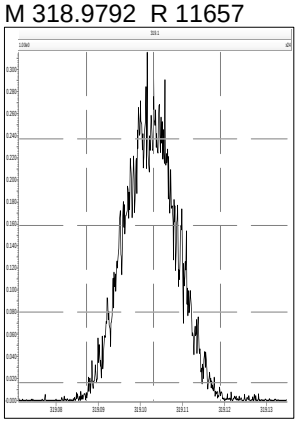
M 366.9792 R 11952



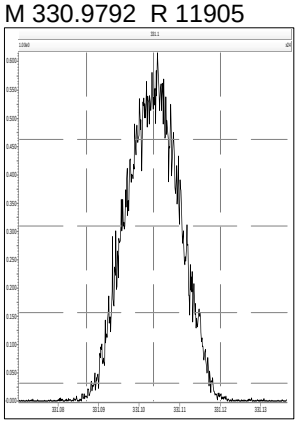
M 380.9760 R 11737



M 318.9792 R 11657



M 330.9792 R 11905



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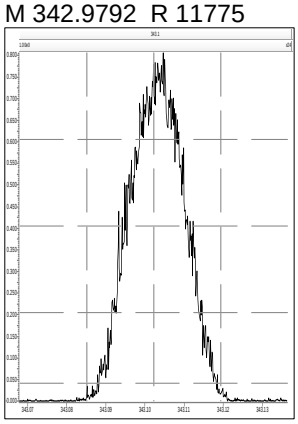

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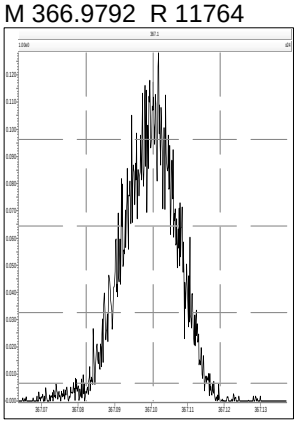
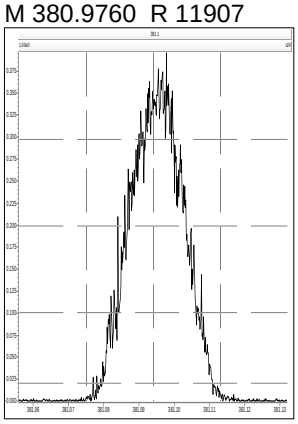


M 380.9760 R 11907



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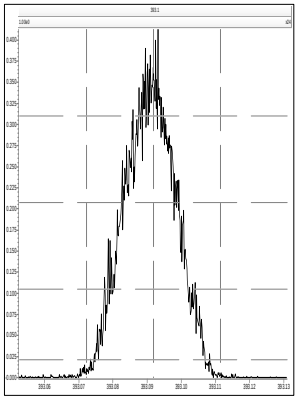
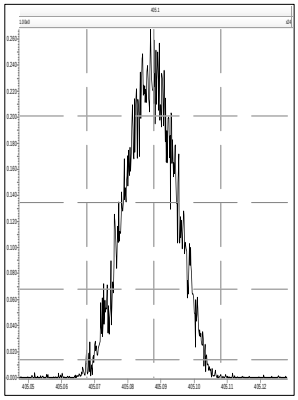
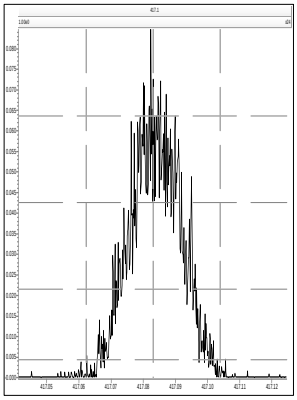


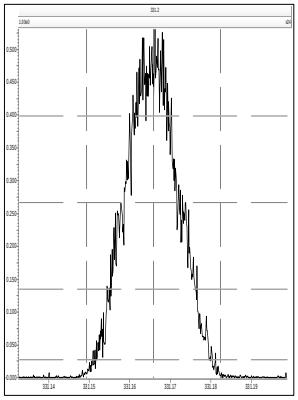
M 404.9760 R 12194



M 416.9760 R 11720



M 330.9792 R 11629



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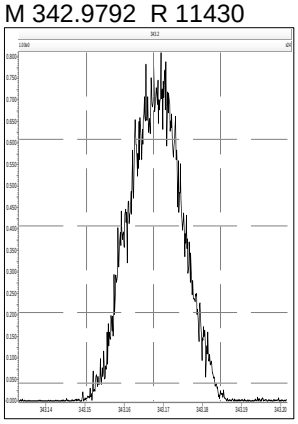
M 342.9792 R 11430



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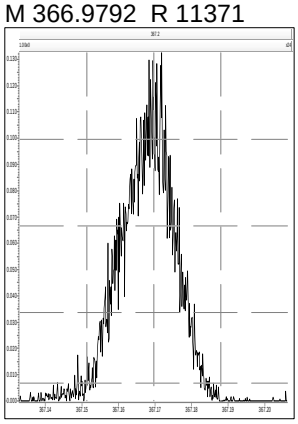

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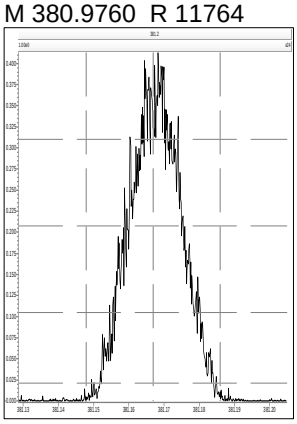

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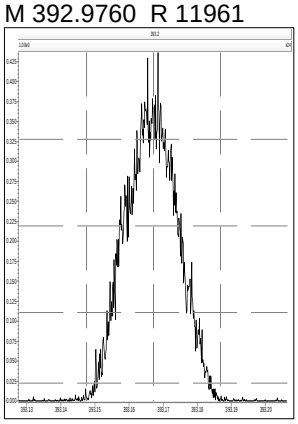
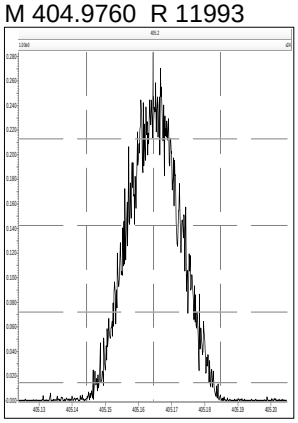
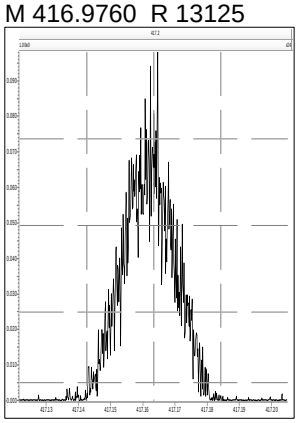


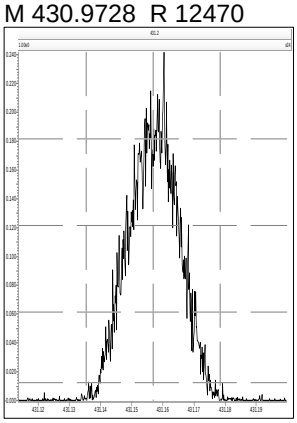
M 404.9760 R 11993



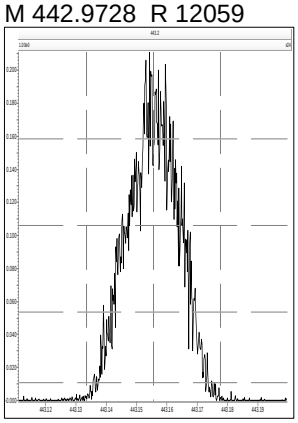
M 416.9760 R 13125



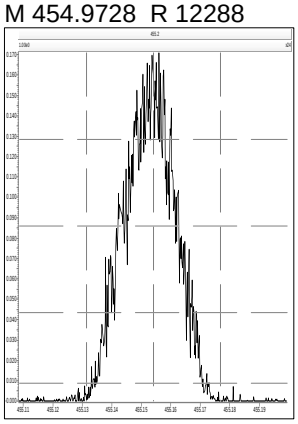
M 430.9728 R 12470



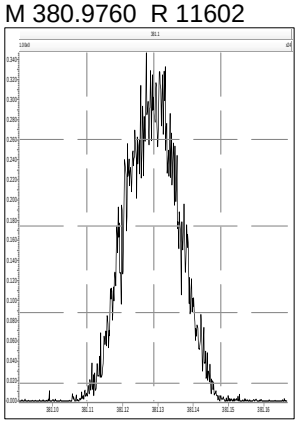
M 442.9728 R 12059



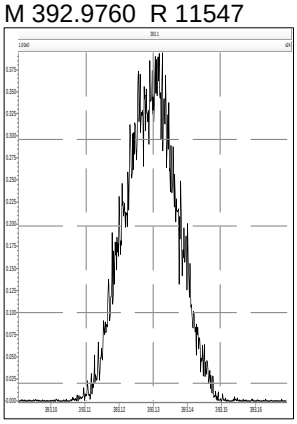
M 454.9728 R 12288



M 380.9760 R 11602



M 392.9760 R 11547



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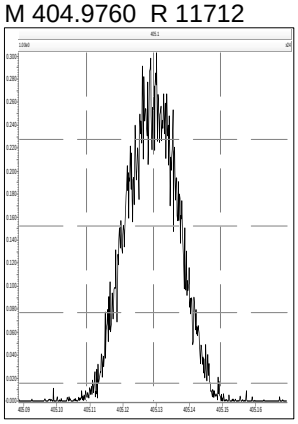

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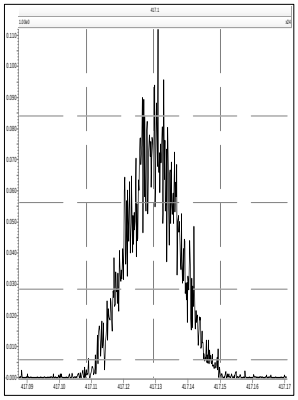

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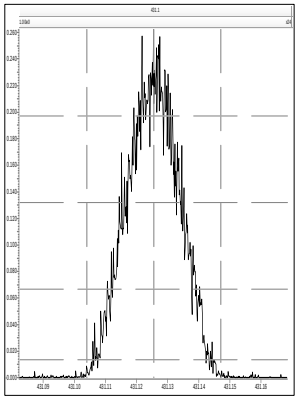
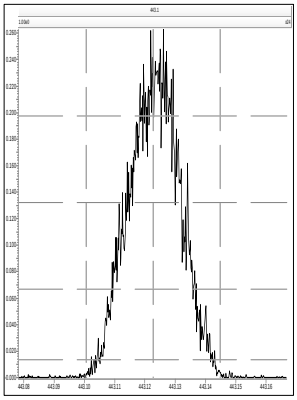
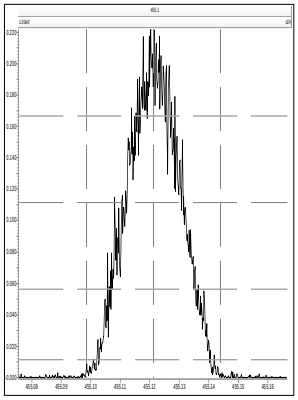


M 442.9728 R 11884



M 454.9728 R 11908



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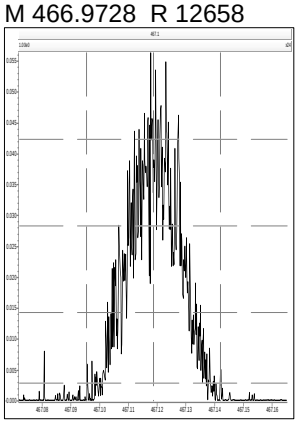
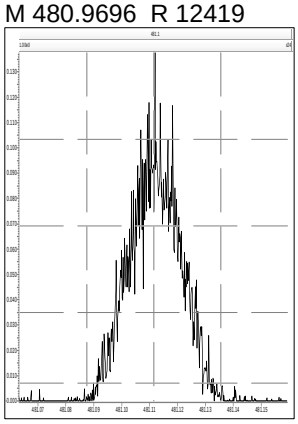
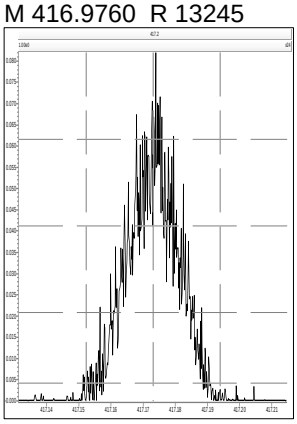


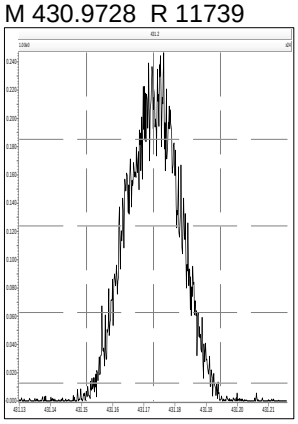
M 480.9696 R 12419



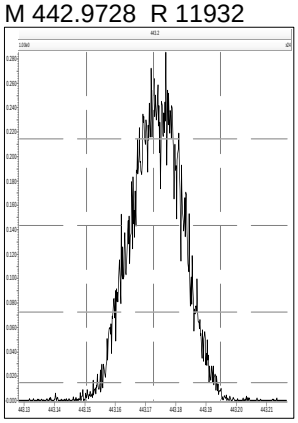
M 416.9760 R 13245



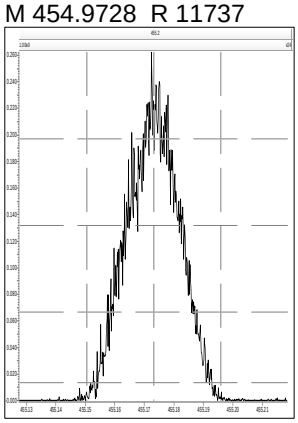
M 430.9728 R 11739



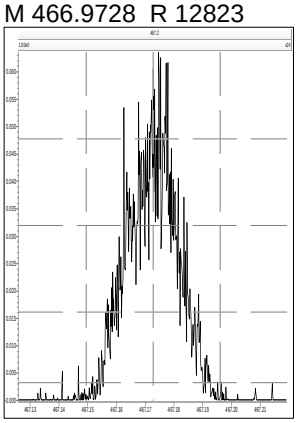
M 442.9728 R 11932



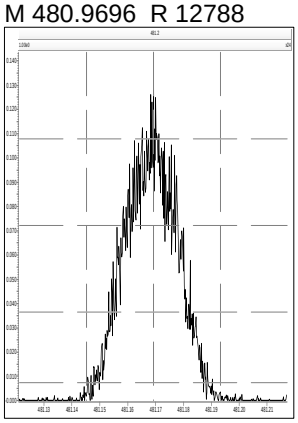
M 454.9728 R 11737



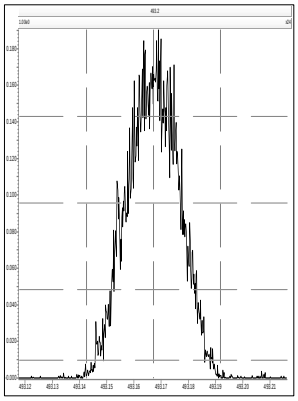
M 466.9728 R 12823



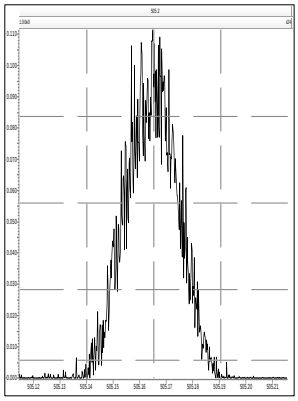
M 480.9696 R 12788



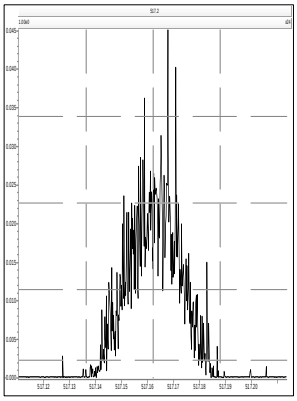
M 492.9696 R 11850



M 504.9696 R 12594



M 516.9697 R 13976



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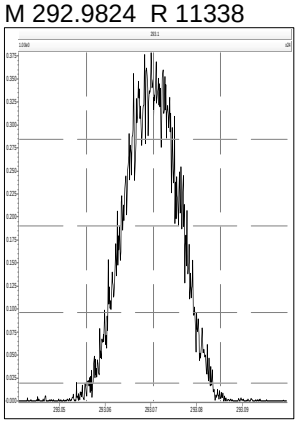
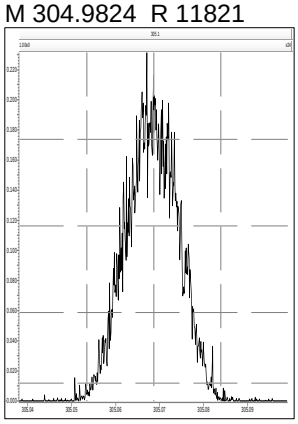
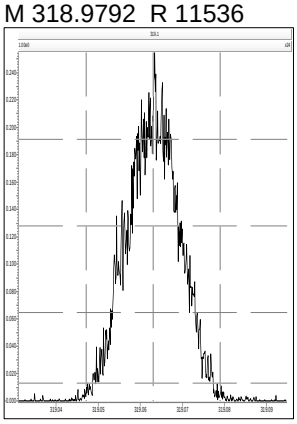


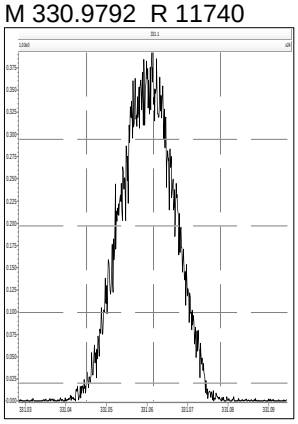
M 304.9824 R 11821



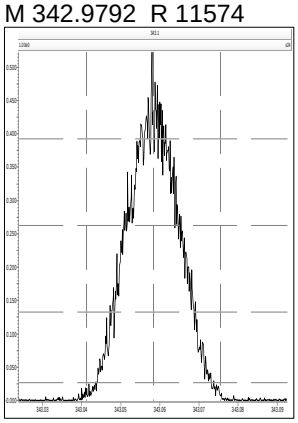
M 318.9792 R 11536



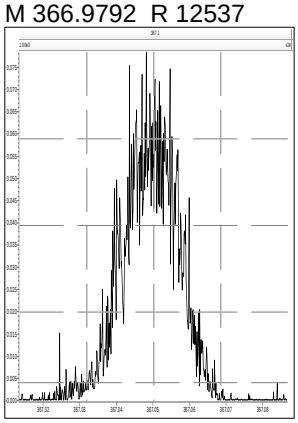
M 330.9792 R 11740



M 342.9792 R 11574



M 366.9792 R 12537



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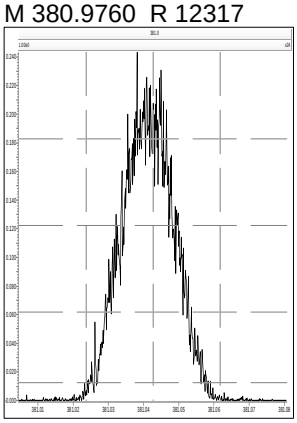
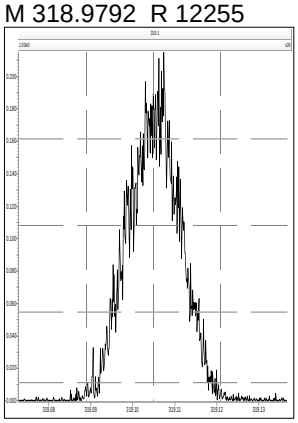
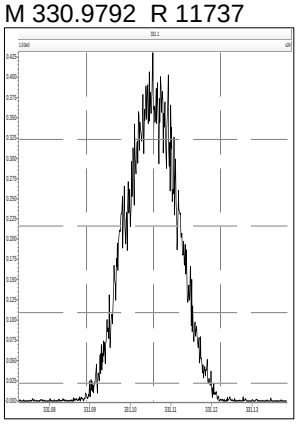


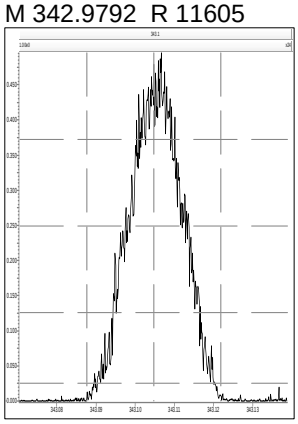
M 318.9792 R 12255



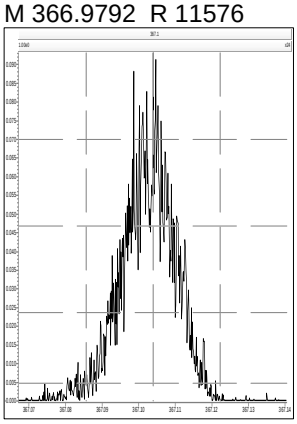
M 330.9792 R 11737



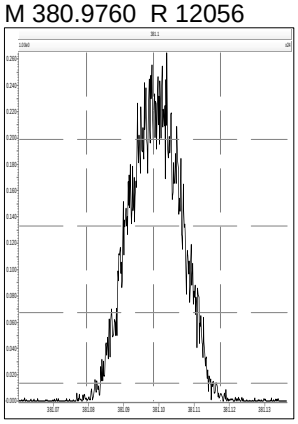
M 342.9792 R 11605



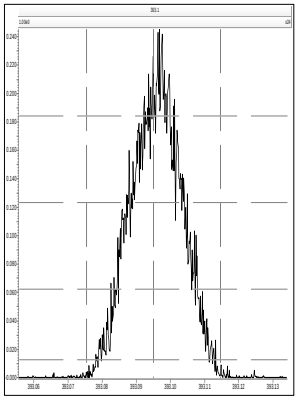
M 366.9792 R 11576



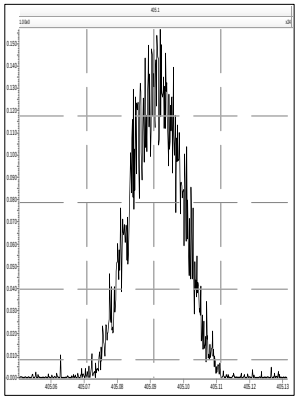
M 380.9760 R 12056



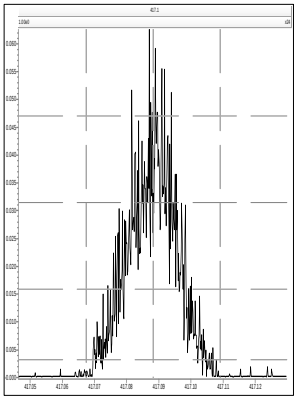
M 392.9760 R 12213



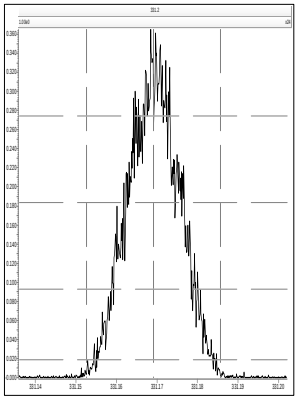
M 404.9760 R 12142



M 416.9760 R 13368



M 330.9792 R 11739



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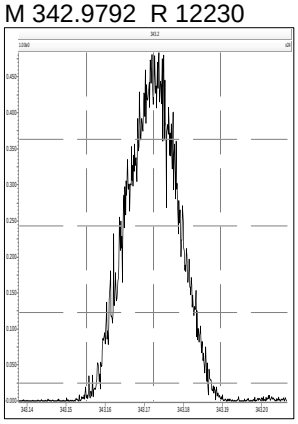
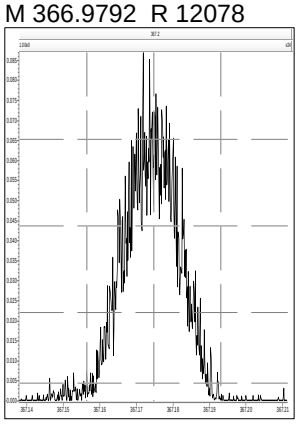
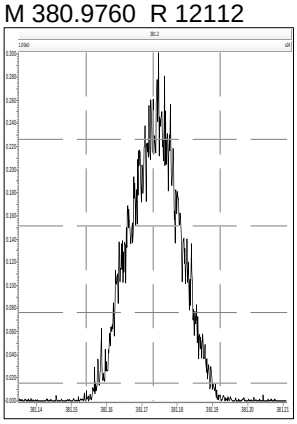
M 342.9792 R 12230



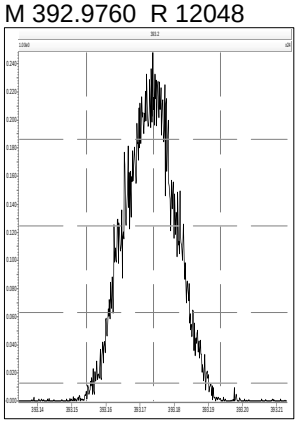
M 366.9792 R 12078



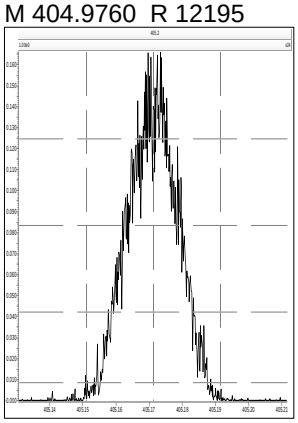
M 380.9760 R 12112



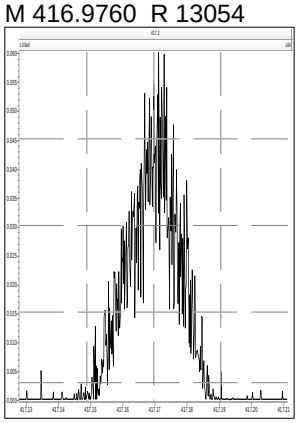
M 392.9760 R 12048



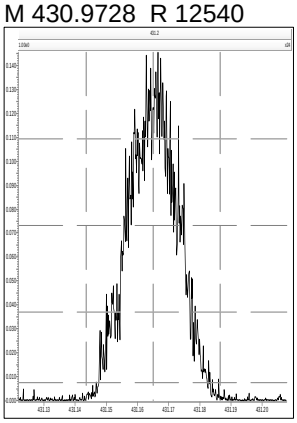
M 404.9760 R 12195



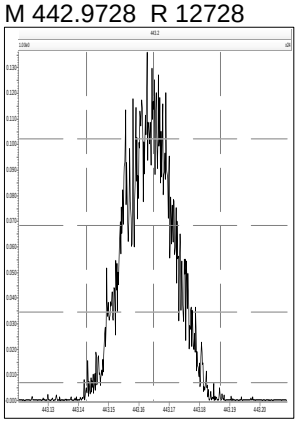
M 416.9760 R 13054



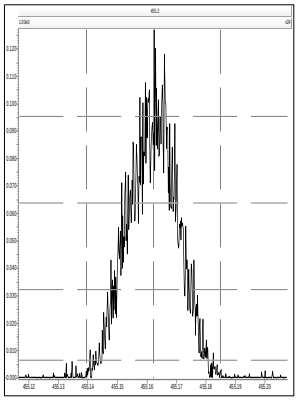
M 430.9728 R 12540



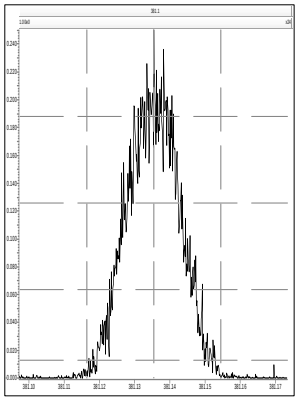
M 442.9728 R 12728



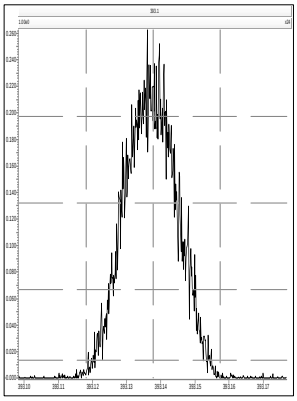
M 454.9728 R 11963



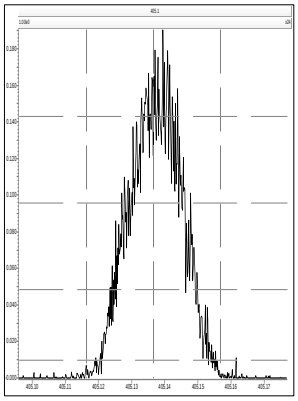
M 380.9760 R 11852



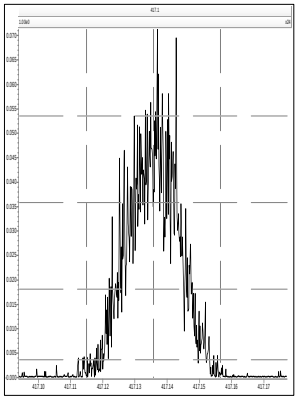
M 392.9760 R 11636



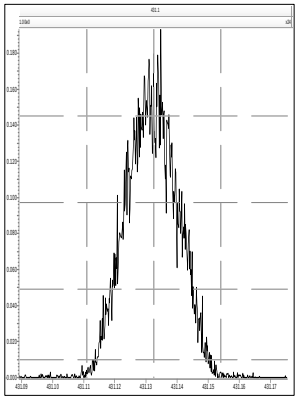
M 404.9760 R 12499



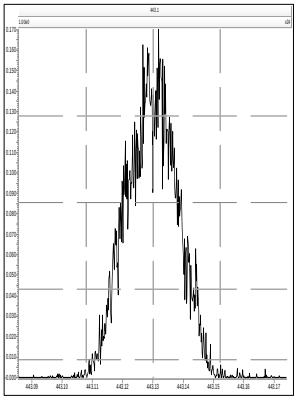
M 416.9760 R 12988



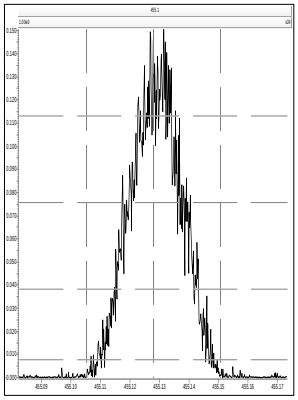
M 430.9728 R 12049



M 442.9728 R 12319



M 454.9728 R 12408



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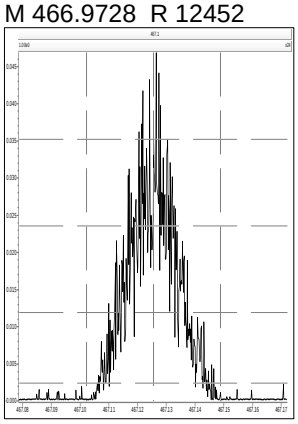
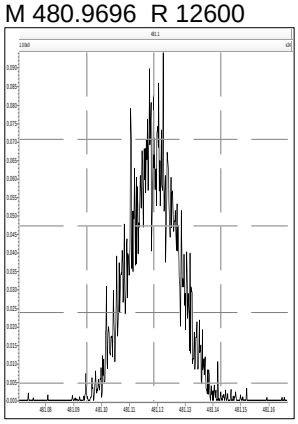
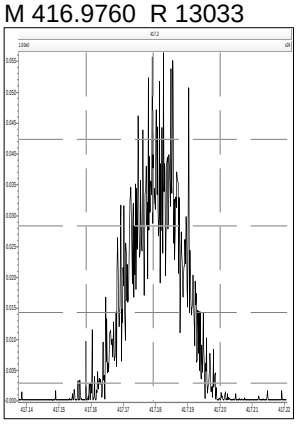


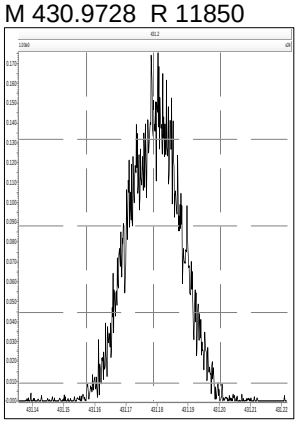
M 480.9696 R 12600



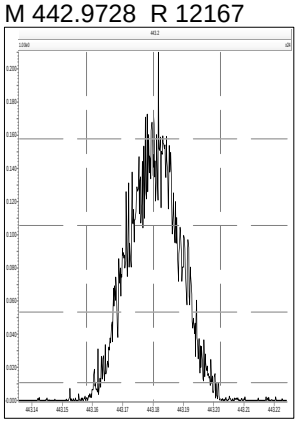
M 416.9760 R 13033



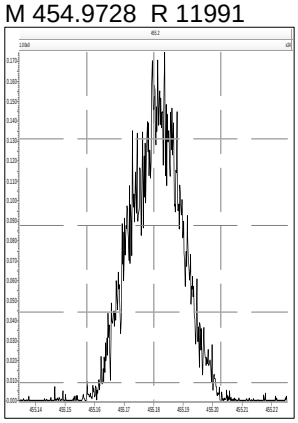
M 430.9728 R 11850



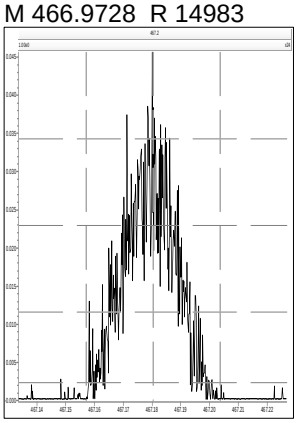
M 442.9728 R 12167



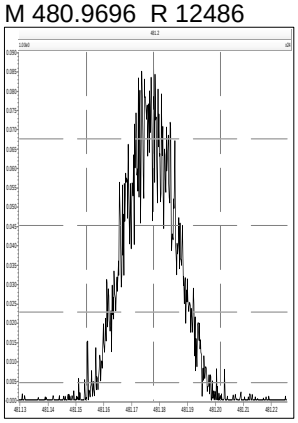
M 454.9728 R 11991



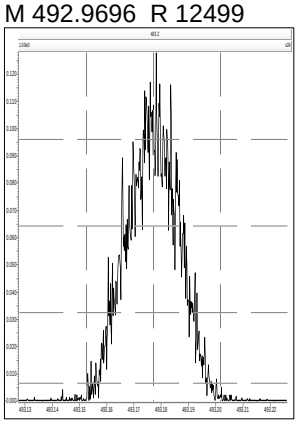
M 466.9728 R 14983



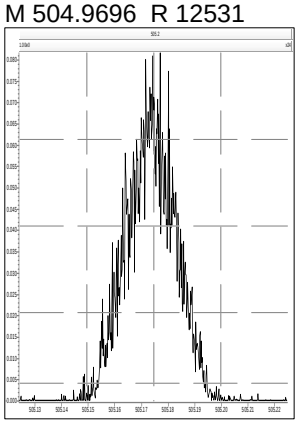
M 480.9696 R 12486



M 492.9696 R 12499



M 504.9696 R 12531



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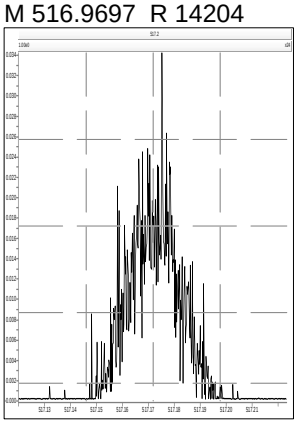

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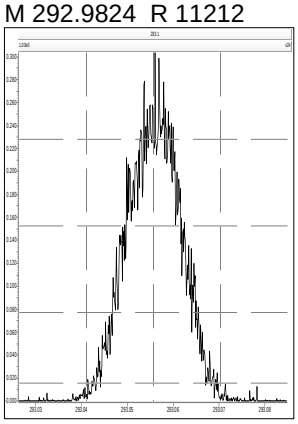
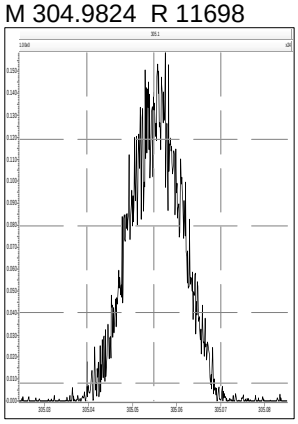
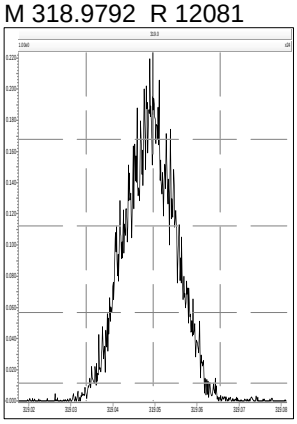
M 292.9824 R 11212



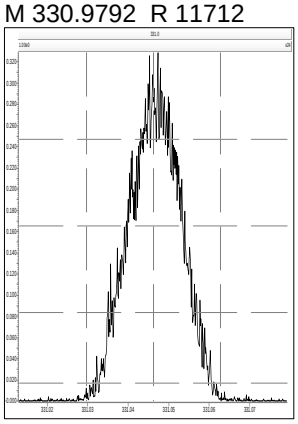
M 304.9824 R 11698



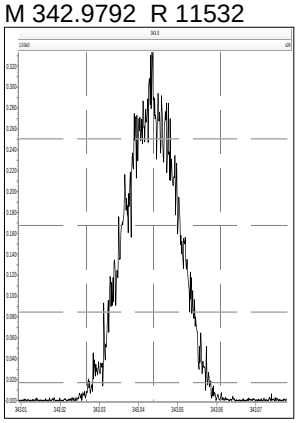
M 318.9792 R 12081



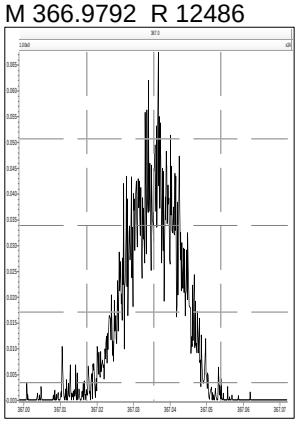
M 330.9792 R 11712



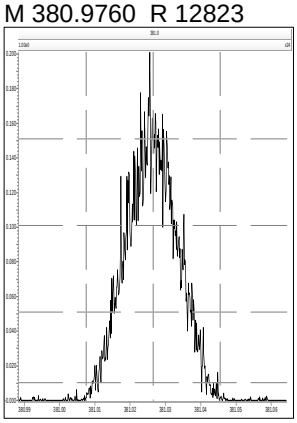
M 342.9792 R 11532



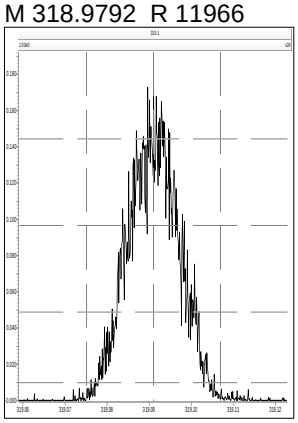
M 366.9792 R 12486



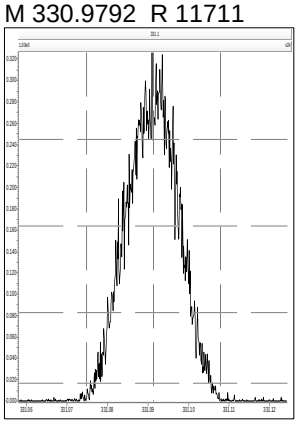
M 380.9760 R 12823



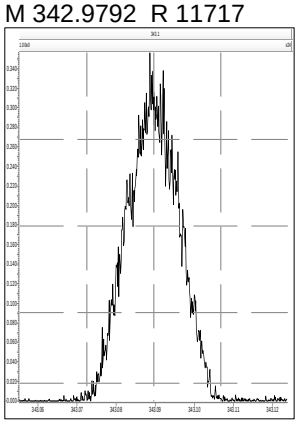
M 318.9792 R 11966



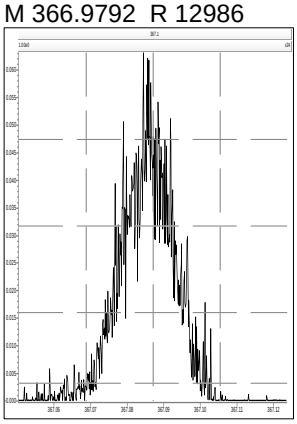
M 330.9792 R 11711



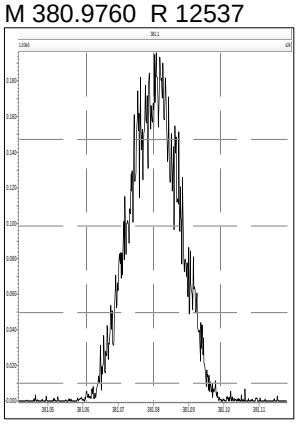
M 342.9792 R 11717



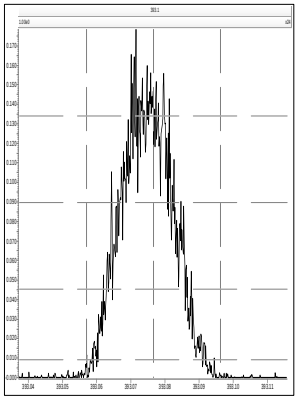
M 366.9792 R 12986



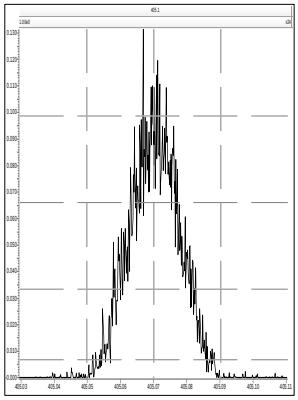
M 380.9760 R 12537



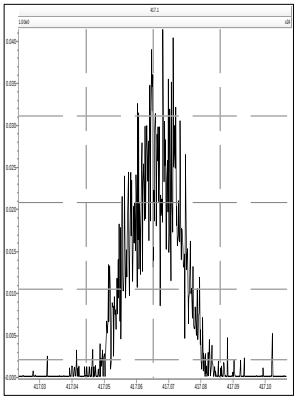
M 392.9760 R 12565



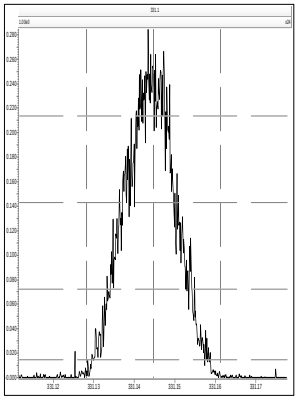
M 404.9760 R 12723



M 416.9760 R 14418



M 330.9792 R 12051



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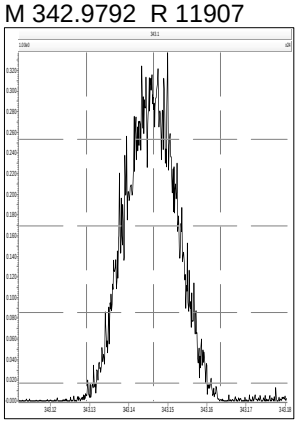
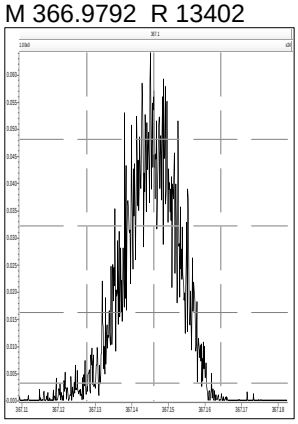
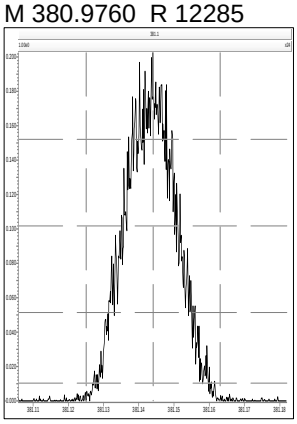
M 342.9792 R 11907



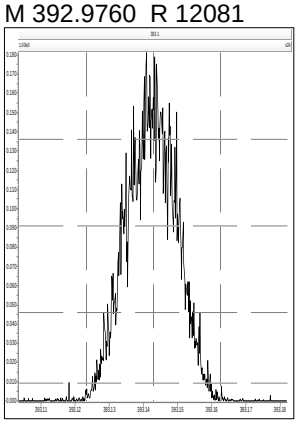
M 366.9792 R 13402



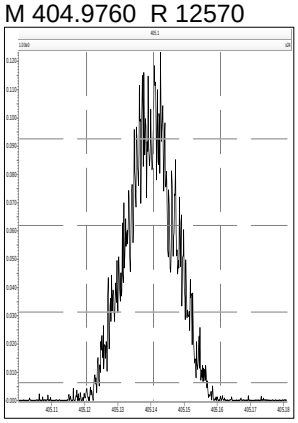
M 380.9760 R 12285



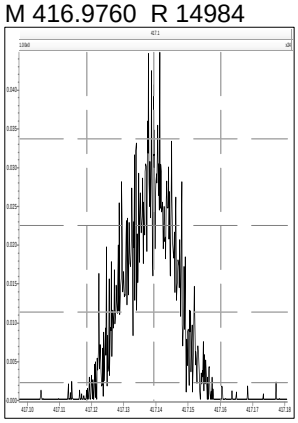
M 392.9760 R 12081



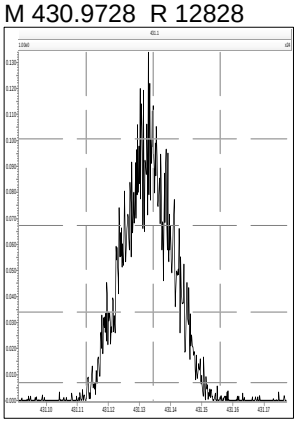
M 404.9760 R 12570



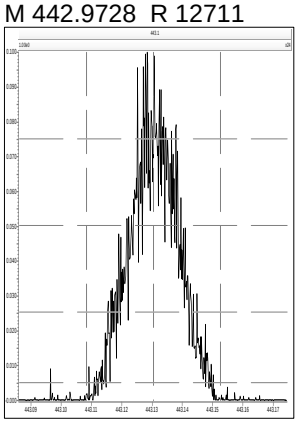
M 416.9760 R 14984



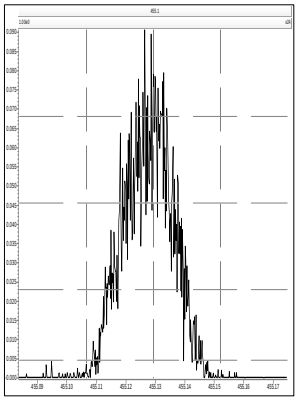
M 430.9728 R 12828



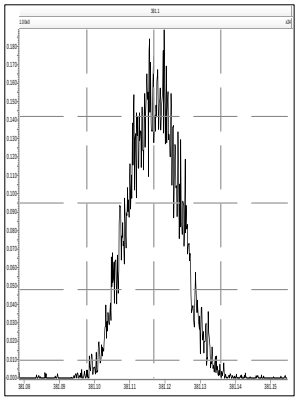
M 442.9728 R 12711



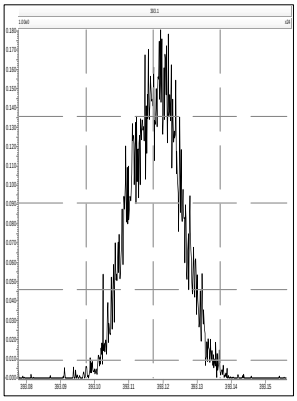
M 454.9728 R 13623



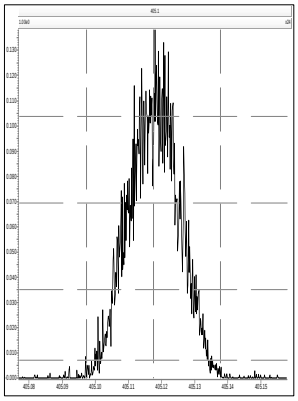
M 380.9760 R 12293



M 392.9760 R 11936



M 404.9760 R 12347



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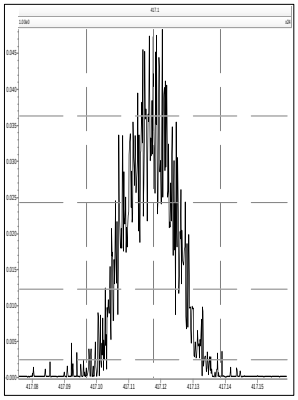
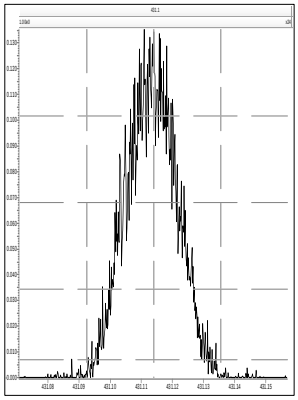
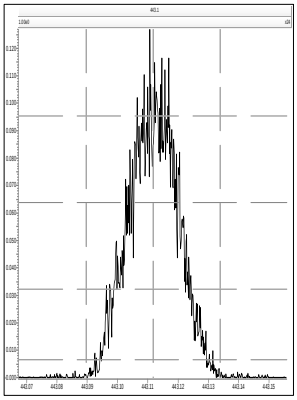


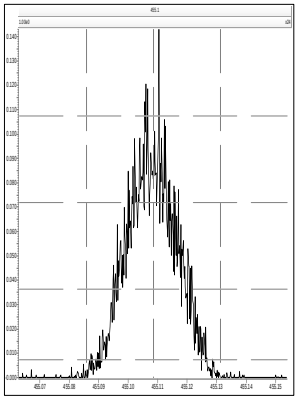
M 430.9728 R 12570



M 442.9728 R 12438



M 454.9728 R 12993



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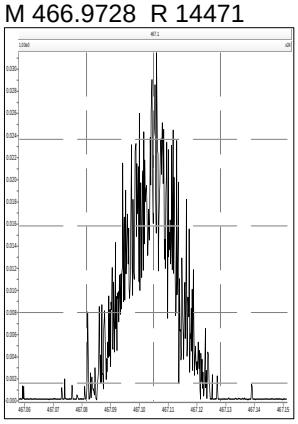
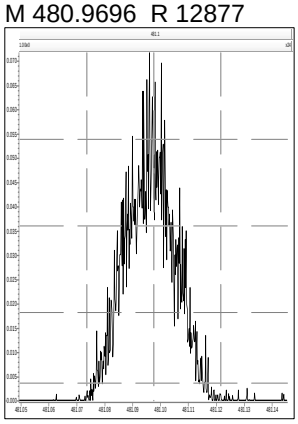
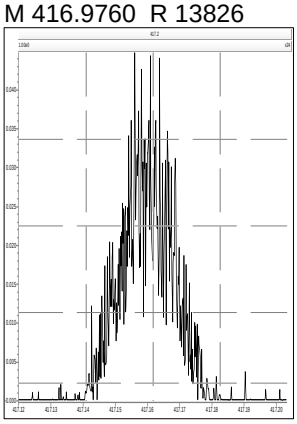
M 466.9728 R 14471



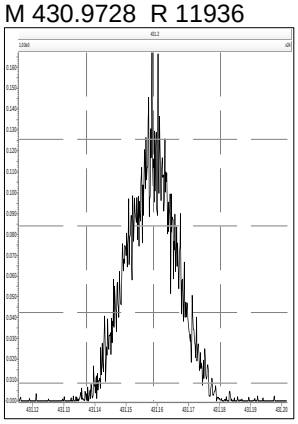
M 480.9696 R 12877



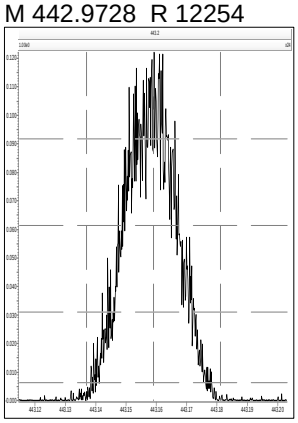
M 416.9760 R 13826



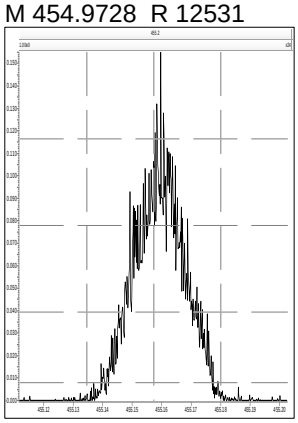
M 430.9728 R 11936



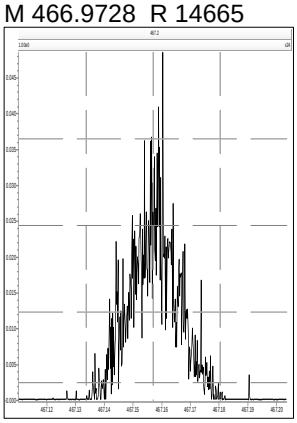
M 442.9728 R 12254



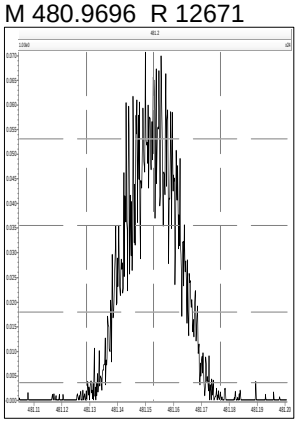
M 454.9728 R 12531



M 466.9728 R 14665



M 480.9696 R 12671



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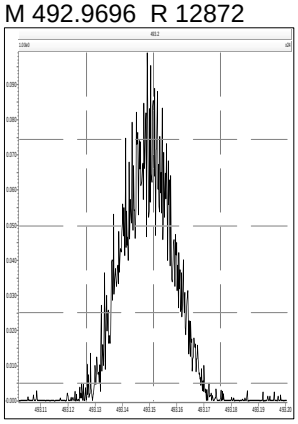

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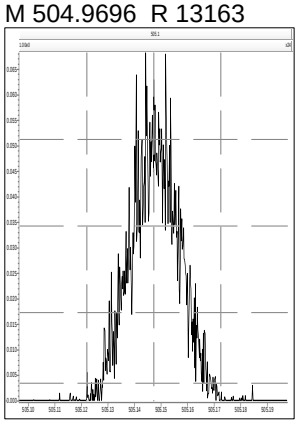

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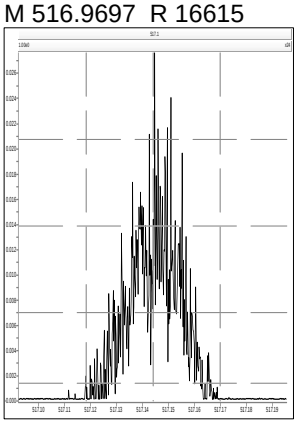

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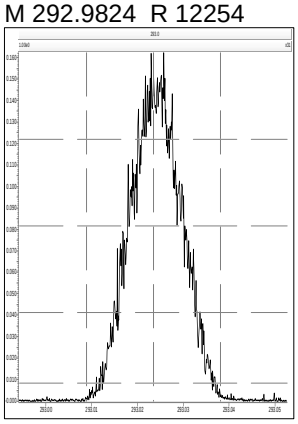
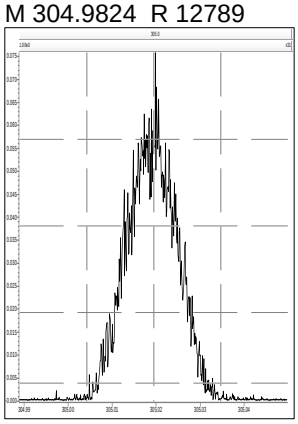
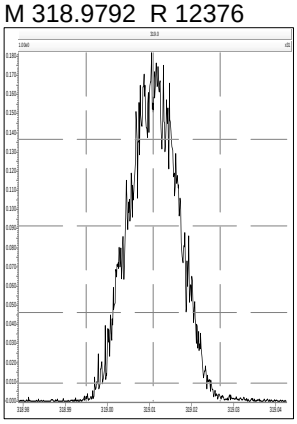
M 292.9824 R 12254



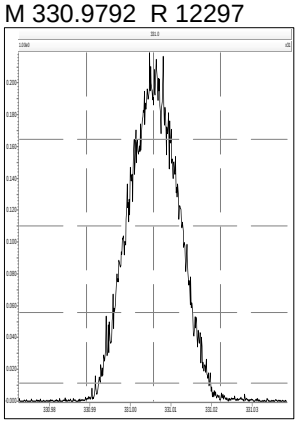
M 304.9824 R 12789



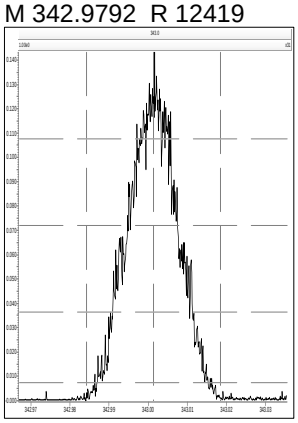
M 318.9792 R 12376



M 330.9792 R 12297



M 342.9792 R 12419



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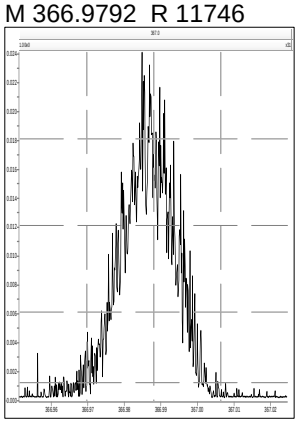
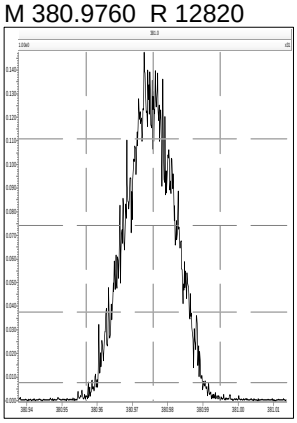


M 380.9760 R 12820



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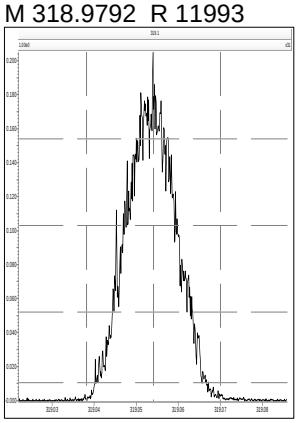

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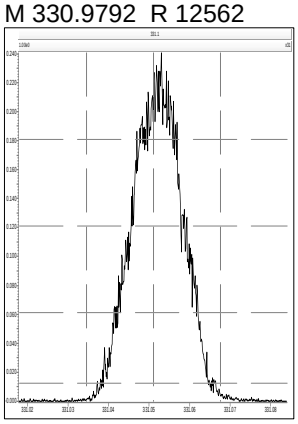

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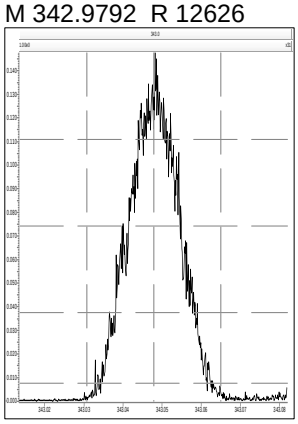

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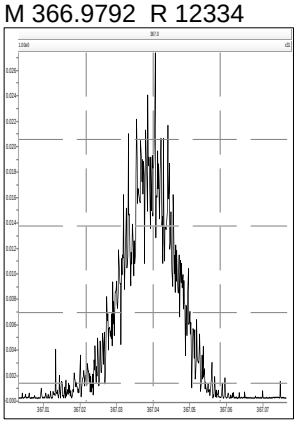
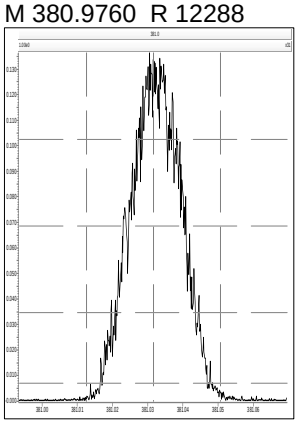


M 380.9760 R 12288



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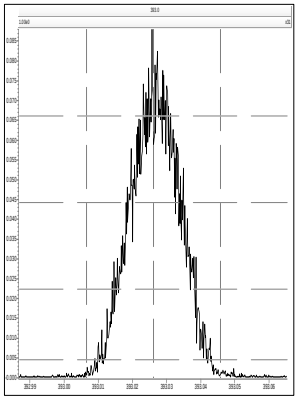
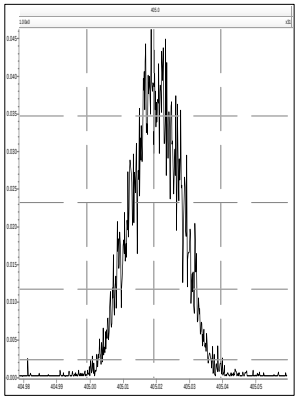
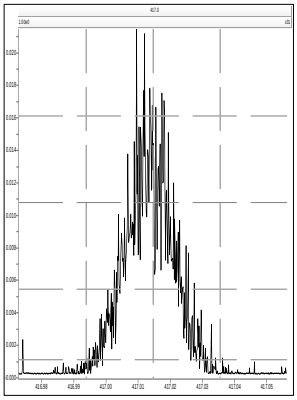


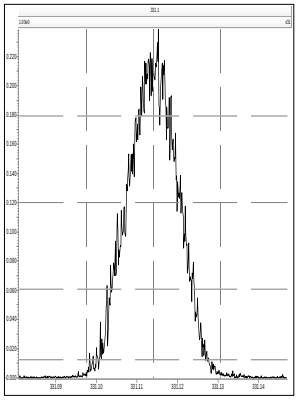
M 404.9760 R 12142



M 416.9760 R 13446



M 330.9792 R 12225



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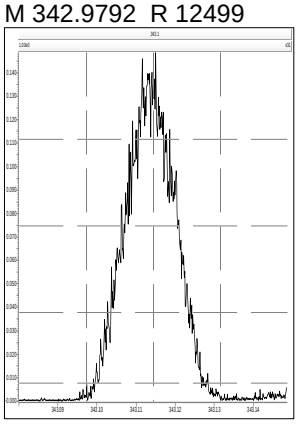
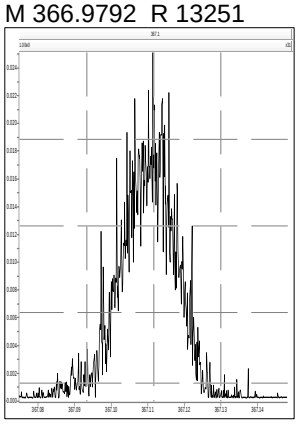
M 342.9792 R 12499



M 366.9792 R 13251



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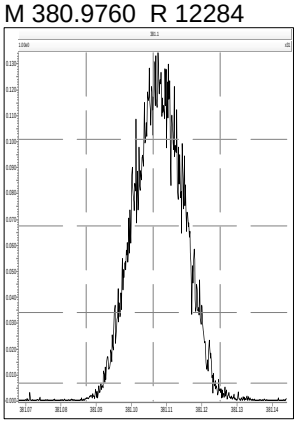
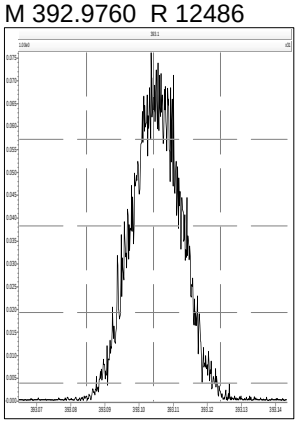


M 392.9760 R 12486



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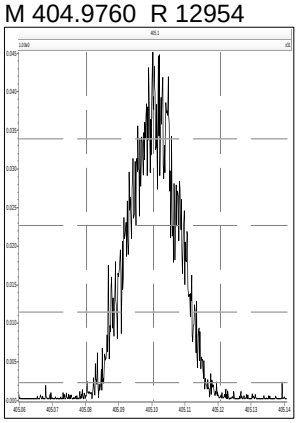
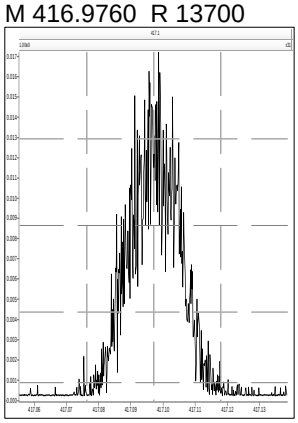


M 416.9760 R 13700



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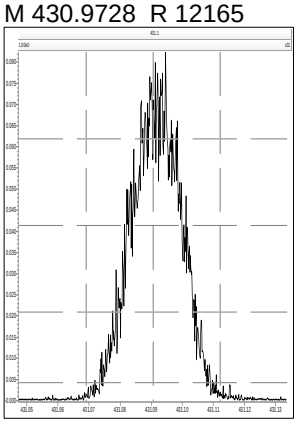
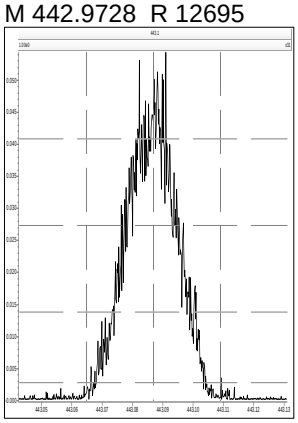
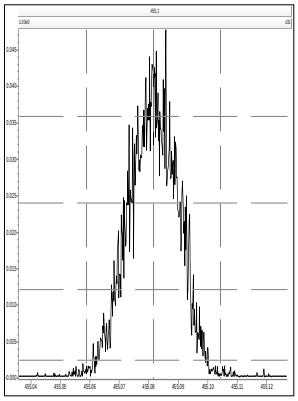


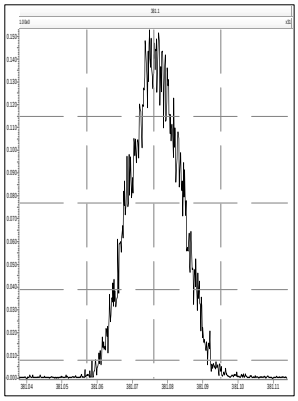
M 442.9728 R 12695



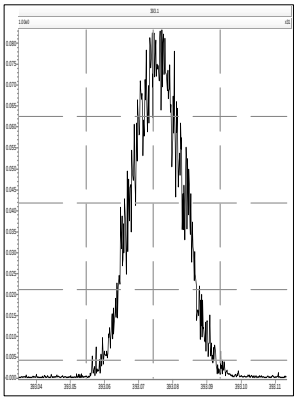
M 454.9728 R 12023



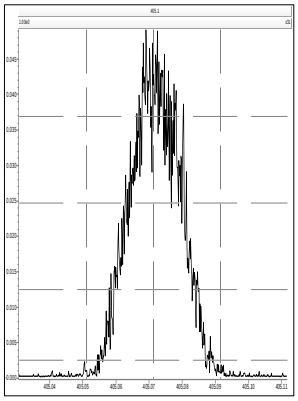
M 380.9760 R 12380



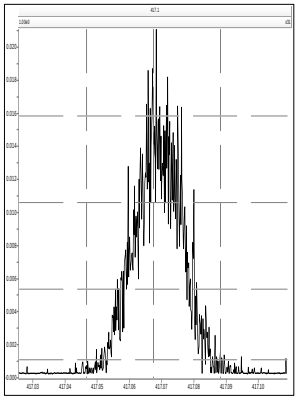
M 392.9760 R 12107



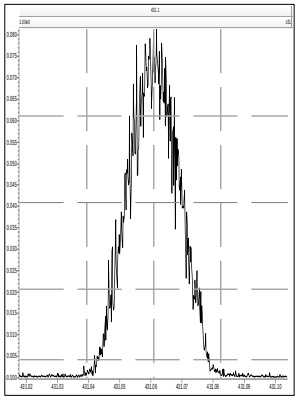
M 404.9760 R 12472



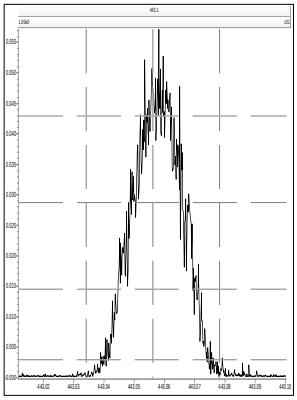
M 416.9760 R 13367



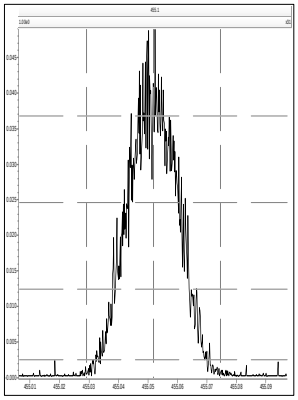
M 430.9728 R 12197



M 442.9728 R 12490



M 454.9728 R 12048



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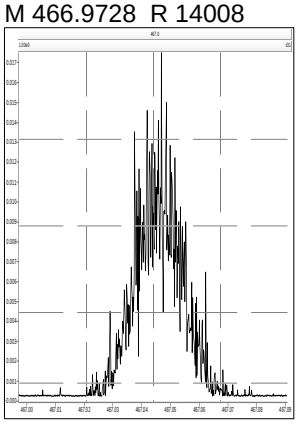
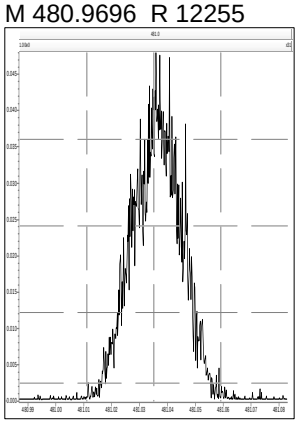
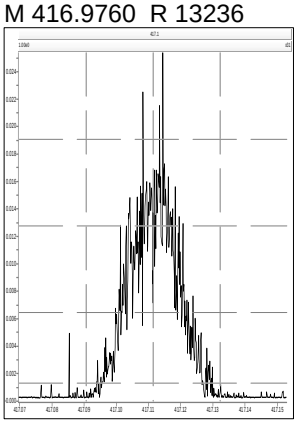
M 466.9728 R 14008



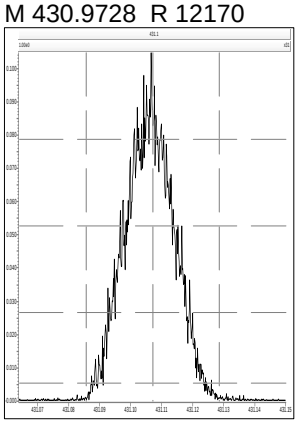
M 480.9696 R 12255



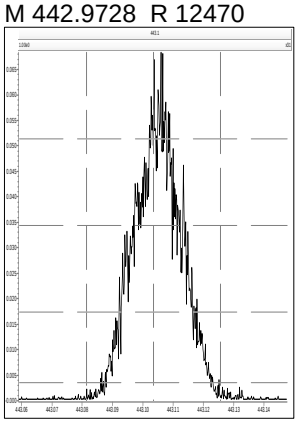
M 416.9760 R 13236



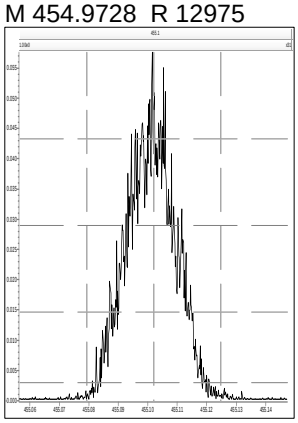
M 430.9728 R 12170



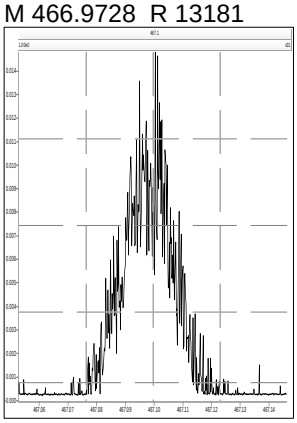
M 442.9728 R 12470



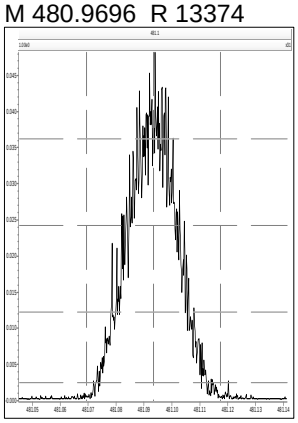
M 454.9728 R 12975



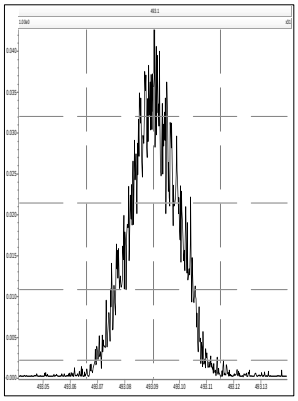
M 466.9728 R 13181



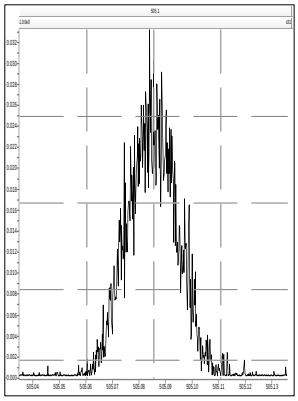
M 480.9696 R 13374



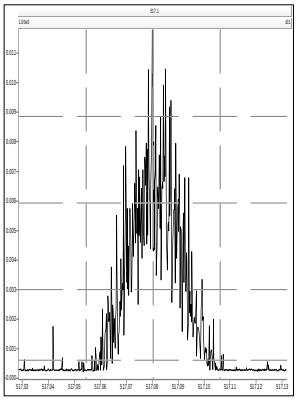
M 492.9696 R 13301



M 504.9696 R 12887



M 516.9697 R 13527



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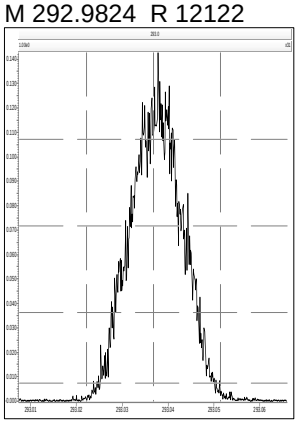
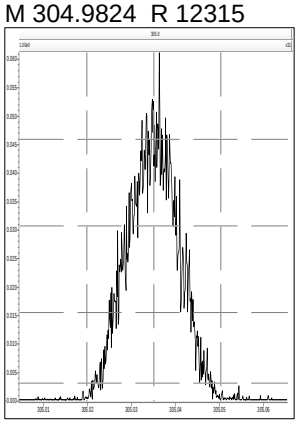
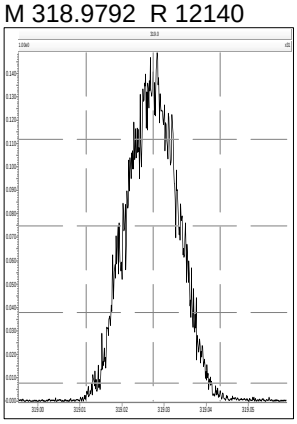
M 292.9824 R 12122



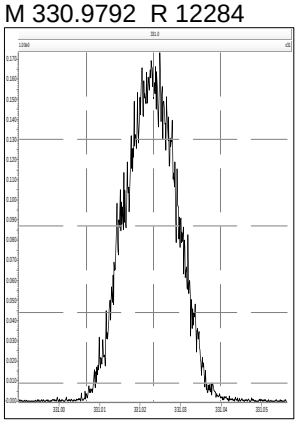
M 304.9824 R 12315



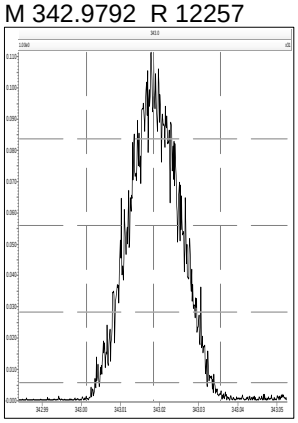
M 318.9792 R 12140



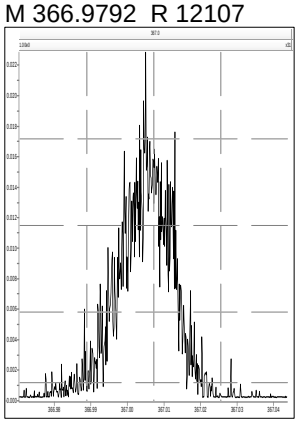
M 330.9792 R 12284



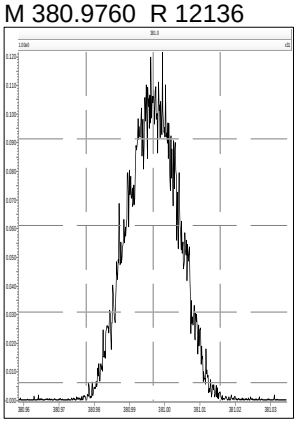
M 342.9792 R 12257



M 366.9792 R 12107



M 380.9760 R 12136



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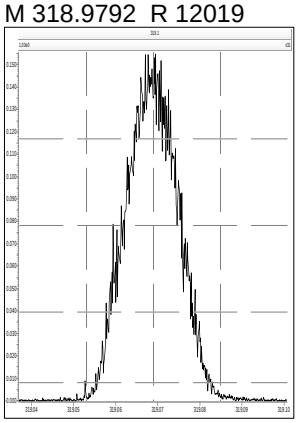
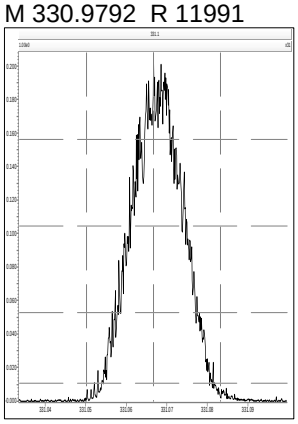
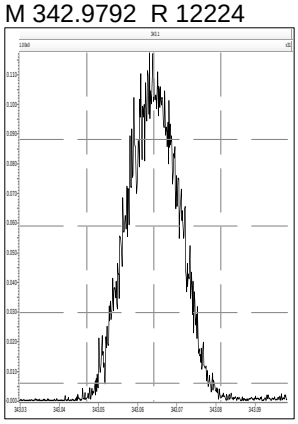


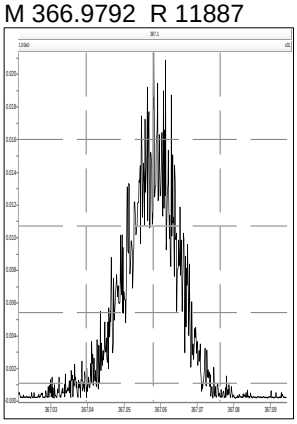
M 330.9792 R 11991



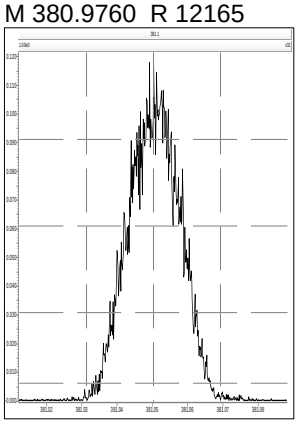
M 342.9792 R 12224



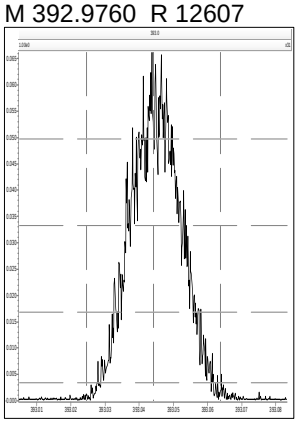
M 366.9792 R 11887



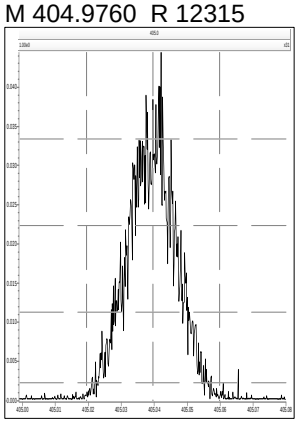
M 380.9760 R 12165



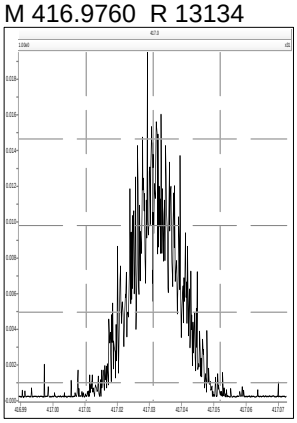
M 392.9760 R 12607



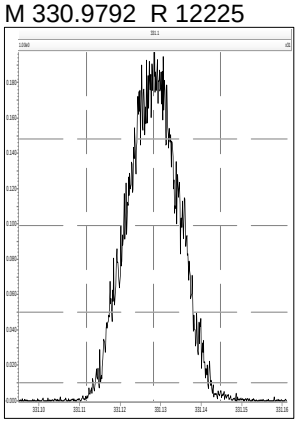
M 404.9760 R 12315



M 416.9760 R 13134



M 330.9792 R 12225



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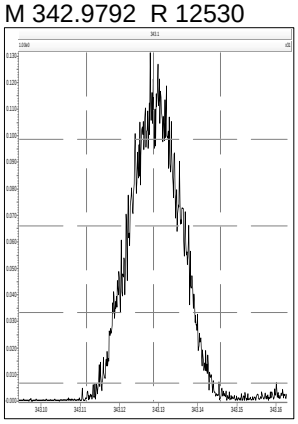
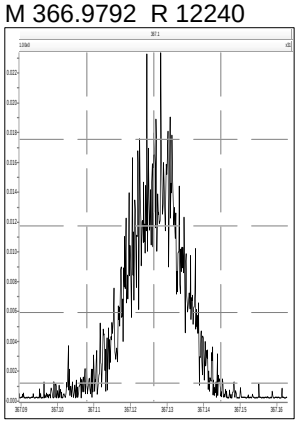
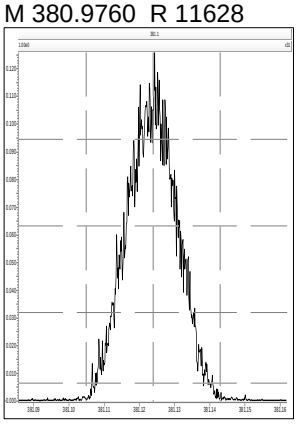
M 342.9792 R 12530



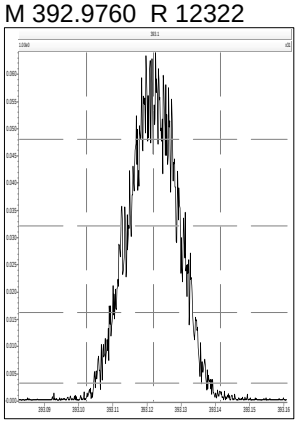
M 366.9792 R 12240



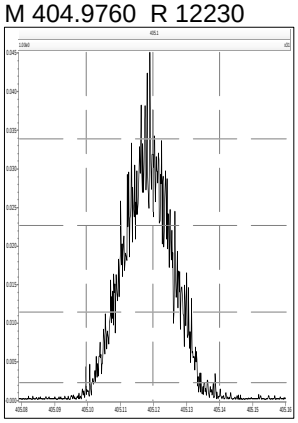
M 380.9760 R 11628



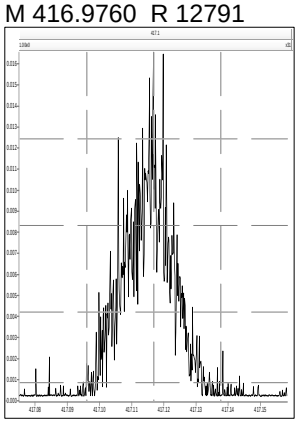
M 392.9760 R 12322



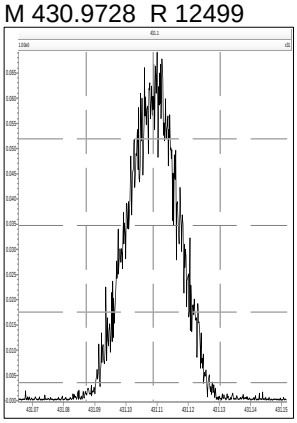
M 404.9760 R 12230



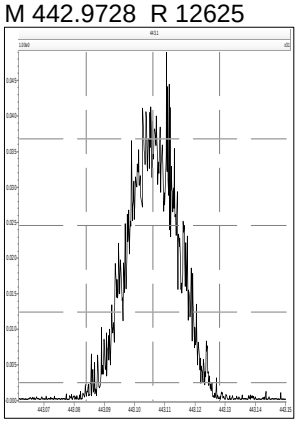
M 416.9760 R 12791



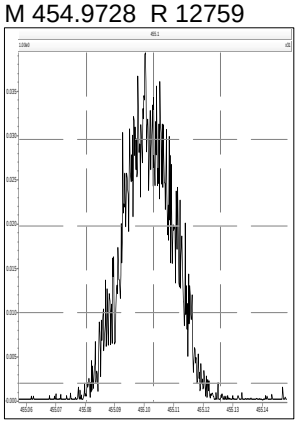
M 430.9728 R 12499



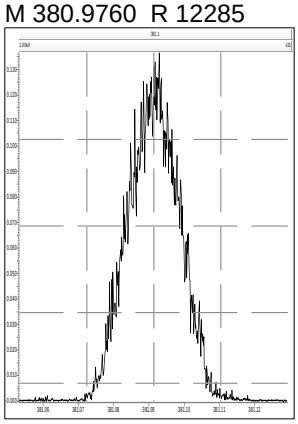
M 442.9728 R 12625



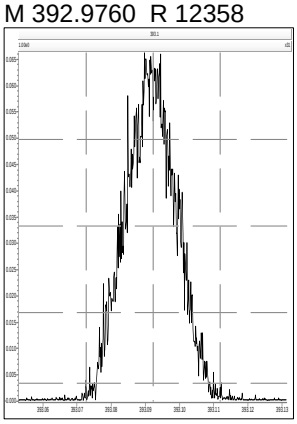
M 454.9728 R 12759



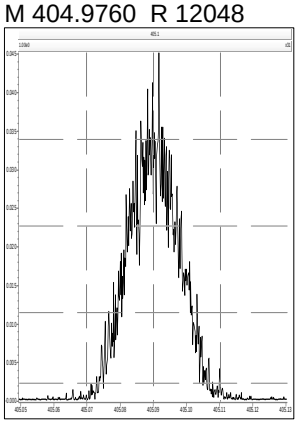
M 380.9760 R 12285



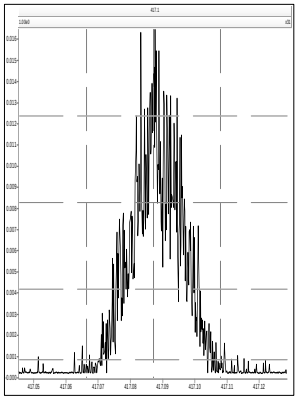
M 392.9760 R 12358



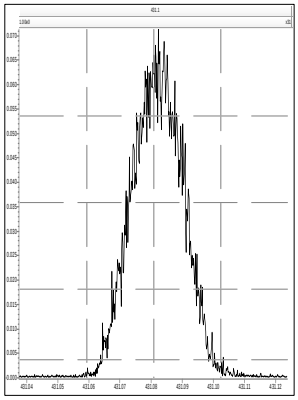
M 404.9760 R 12048



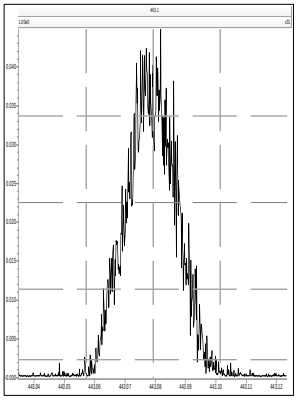
M 416.9760 R 13026



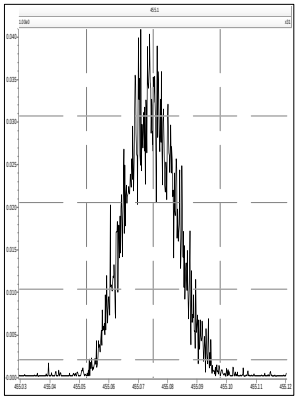
M 430.9728 R 11990



M 442.9728 R 12377



M 454.9728 R 12965



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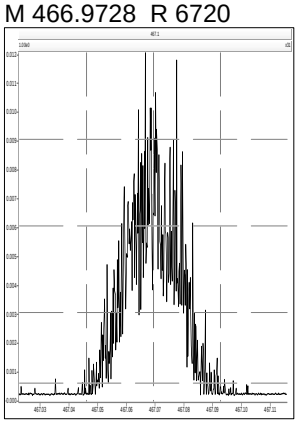
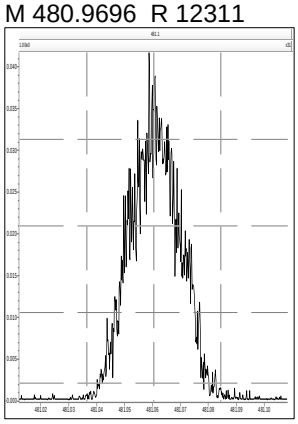
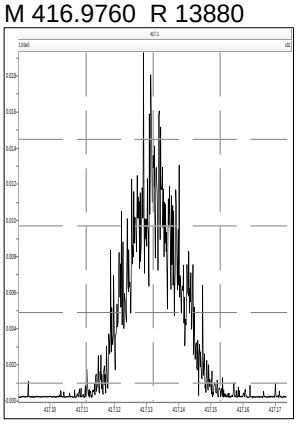
M 466.9728 R 6720



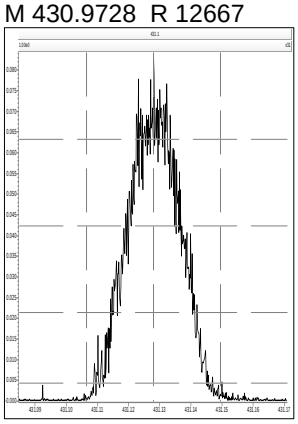
M 480.9696 R 12311



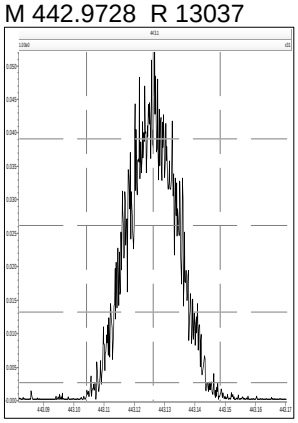
M 416.9760 R 13880



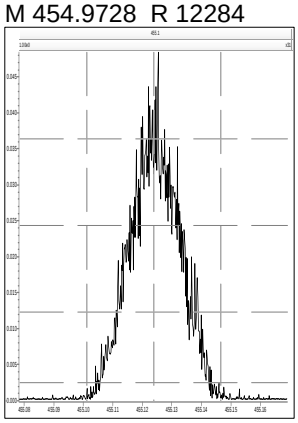
M 430.9728 R 12667



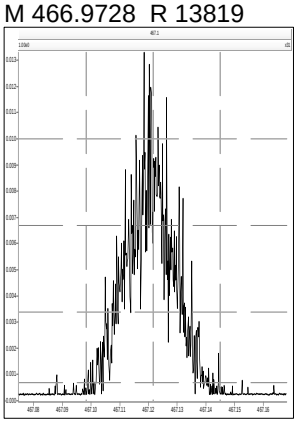
M 442.9728 R 13037



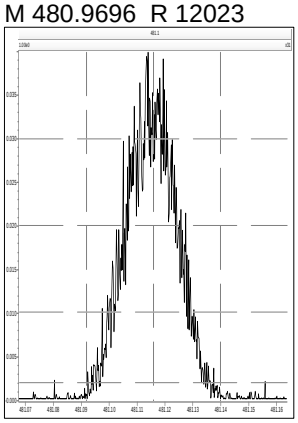
M 454.9728 R 12284



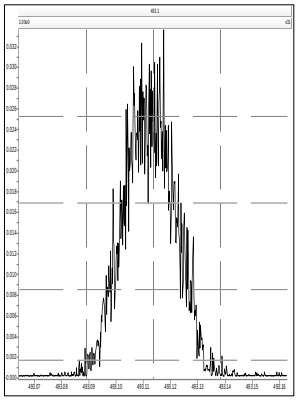
M 466.9728 R 13819



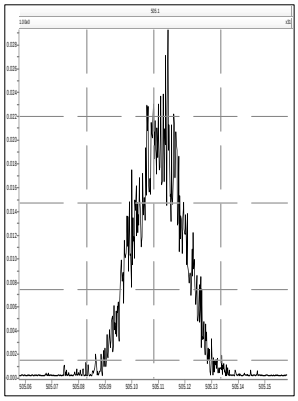
M 480.9696 R 12023



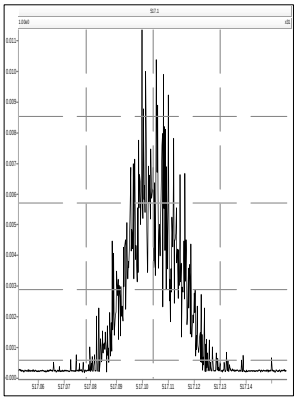
M 492.9696 R 12395



M 504.9696 R 12574



M 516.9697 R 16213



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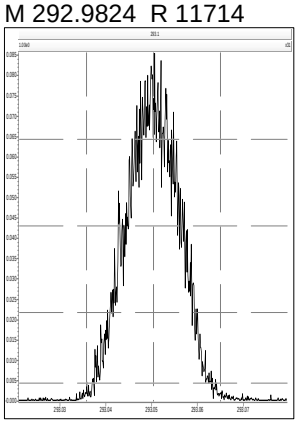
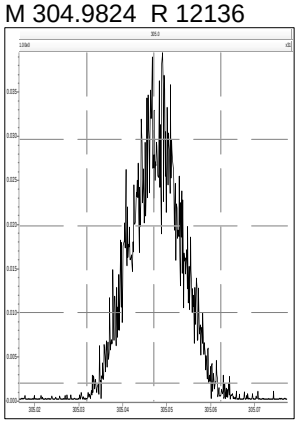
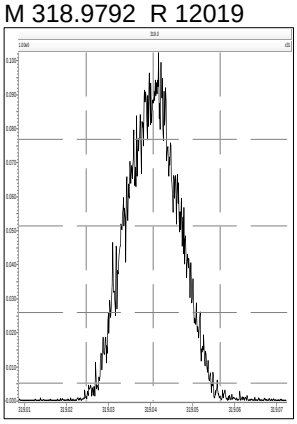
M 292.9824 R 11714



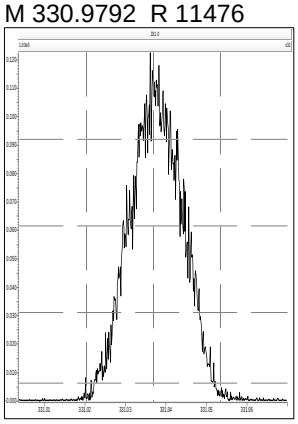
M 304.9824 R 12136



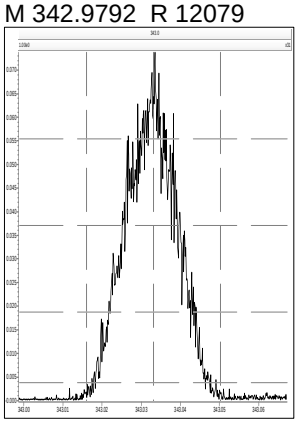
M 318.9792 R 12019



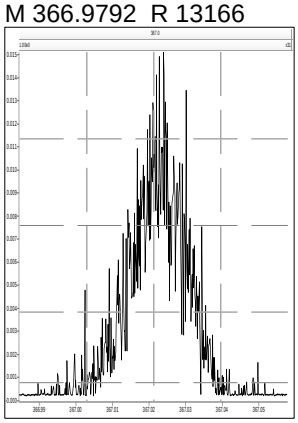
M 330.9792 R 11476



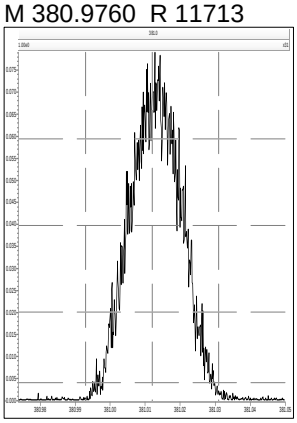
M 342.9792 R 12079



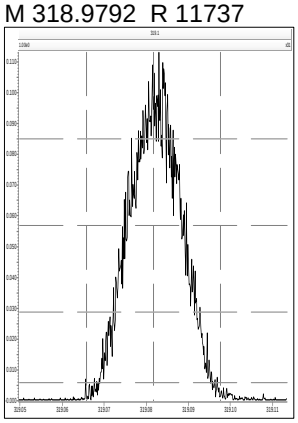
M 366.9792 R 13166



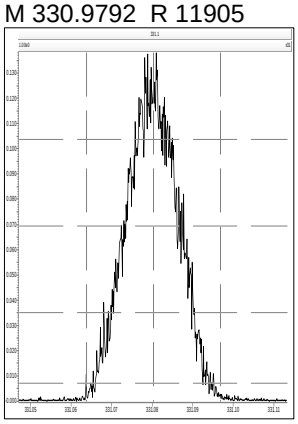
M 380.9760 R 11713



M 318.9792 R 11737



M 330.9792 R 11905



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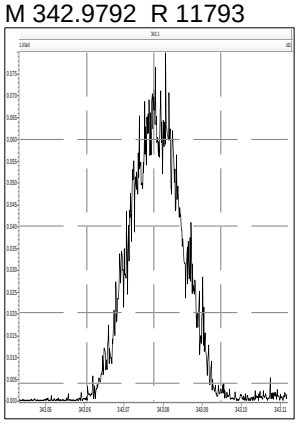
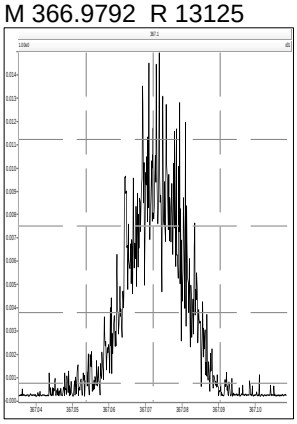


M 366.9792 R 13125



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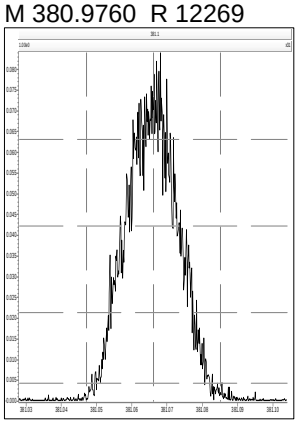
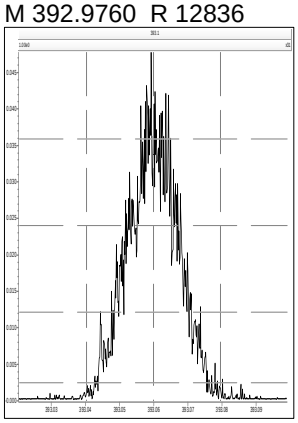
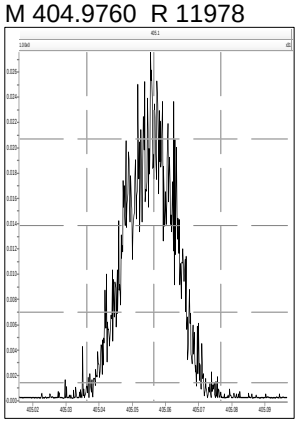


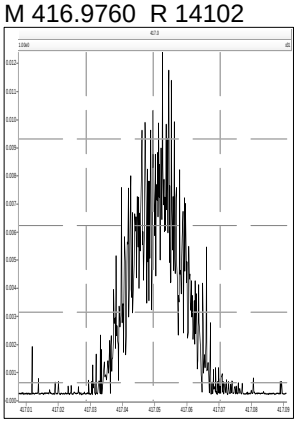
M 392.9760 R 12836



M 404.9760 R 11978



M 416.9760 R 14102



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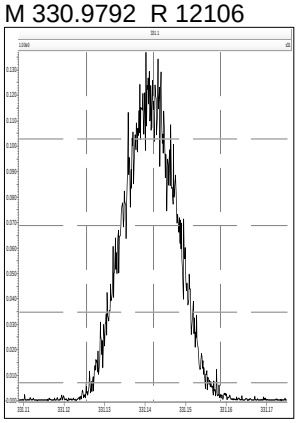

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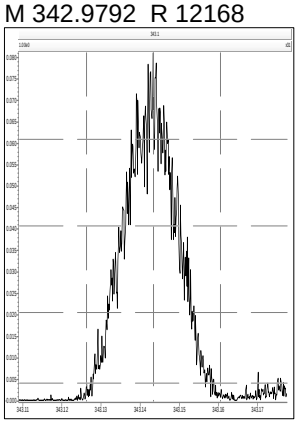
M 342.9792 R 12168



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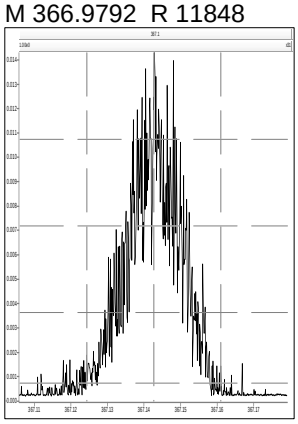

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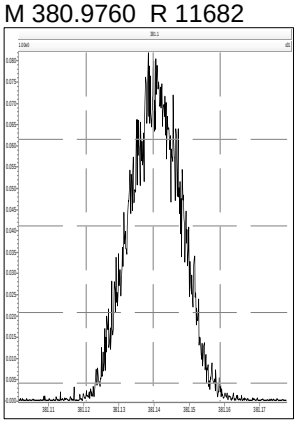
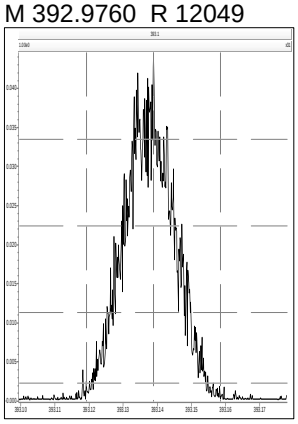


M 392.9760 R 12049



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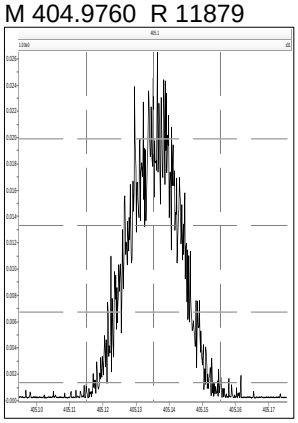
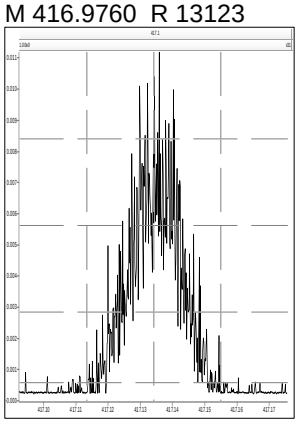
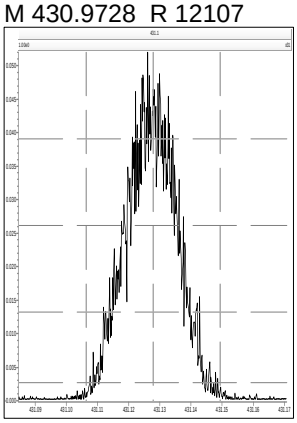


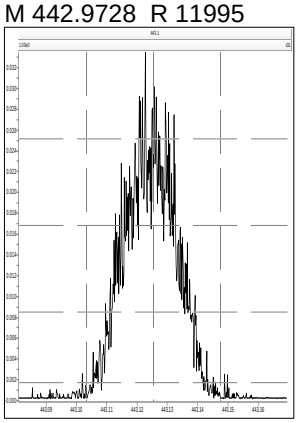
M 416.9760 R 13123



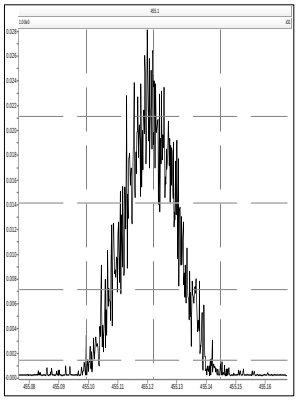
M 430.9728 R 12107



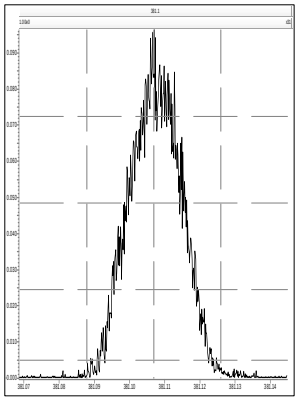
M 442.9728 R 11995



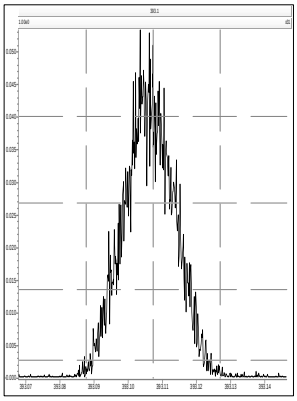
M 454.9728 R 12821



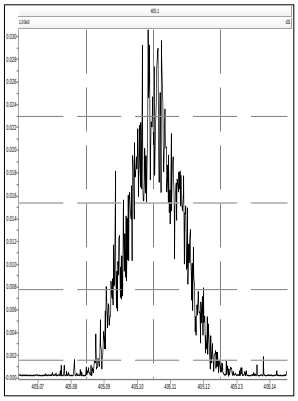
M 380.9760 R 11849



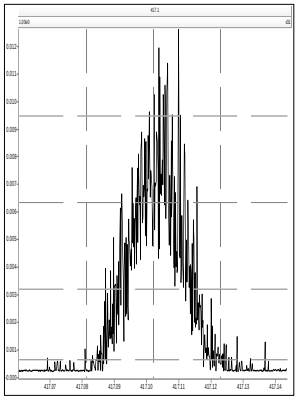
M 392.9760 R 11884



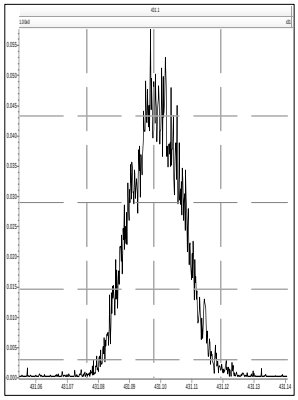
M 404.9760 R 12531



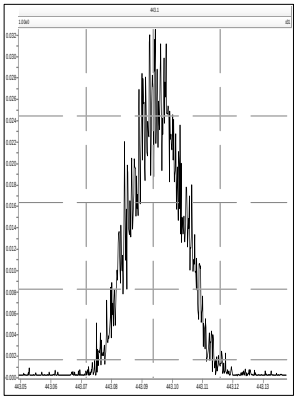
M 416.9760 R 13746



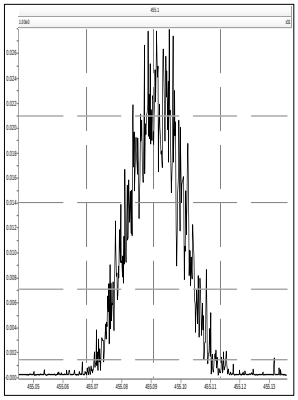
M 430.9728 R 12607



M 442.9728 R 12259



M 454.9728 R 12255



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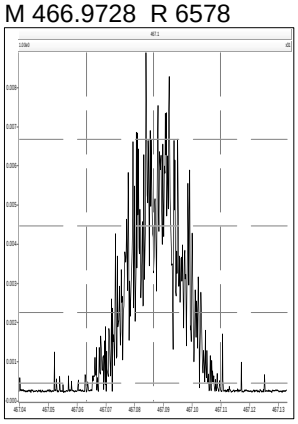
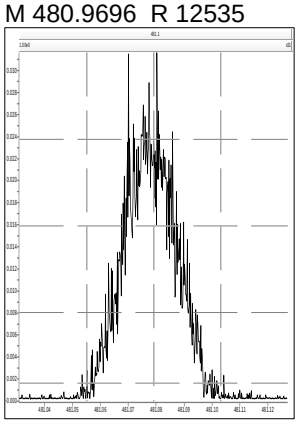
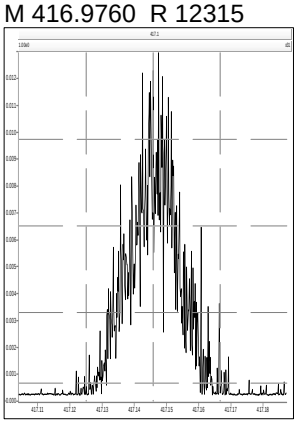
M 466.9728 R 6578



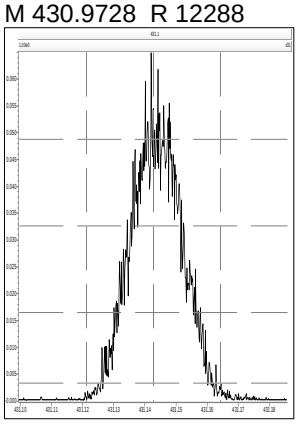
M 480.9696 R 12535



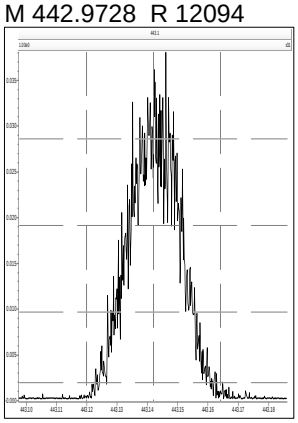
M 416.9760 R 12315



M 430.9728 R 12288



M 442.9728 R 12094



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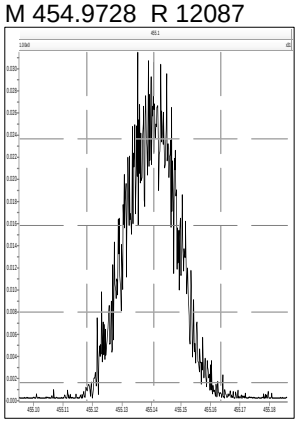
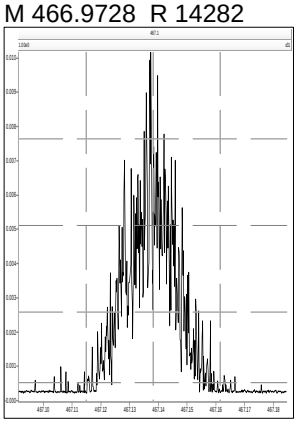
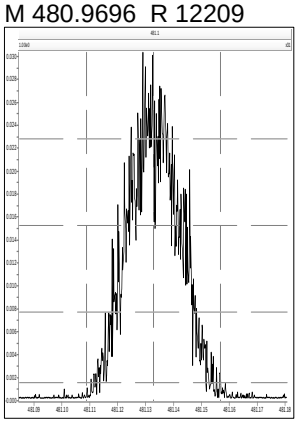


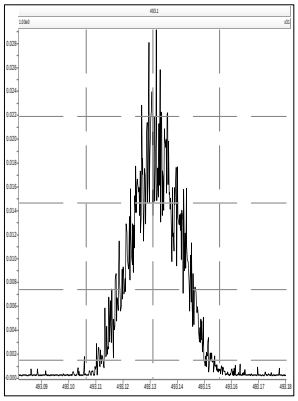
M 466.9728 R 14282



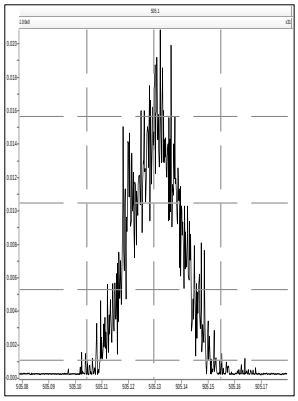
M 480.9696 R 12209



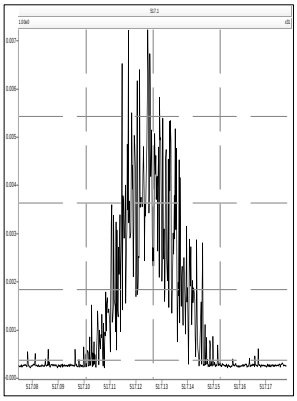
M 492.9696 R 12781



M 504.9696 R 13106



M 516.9697 R 13643



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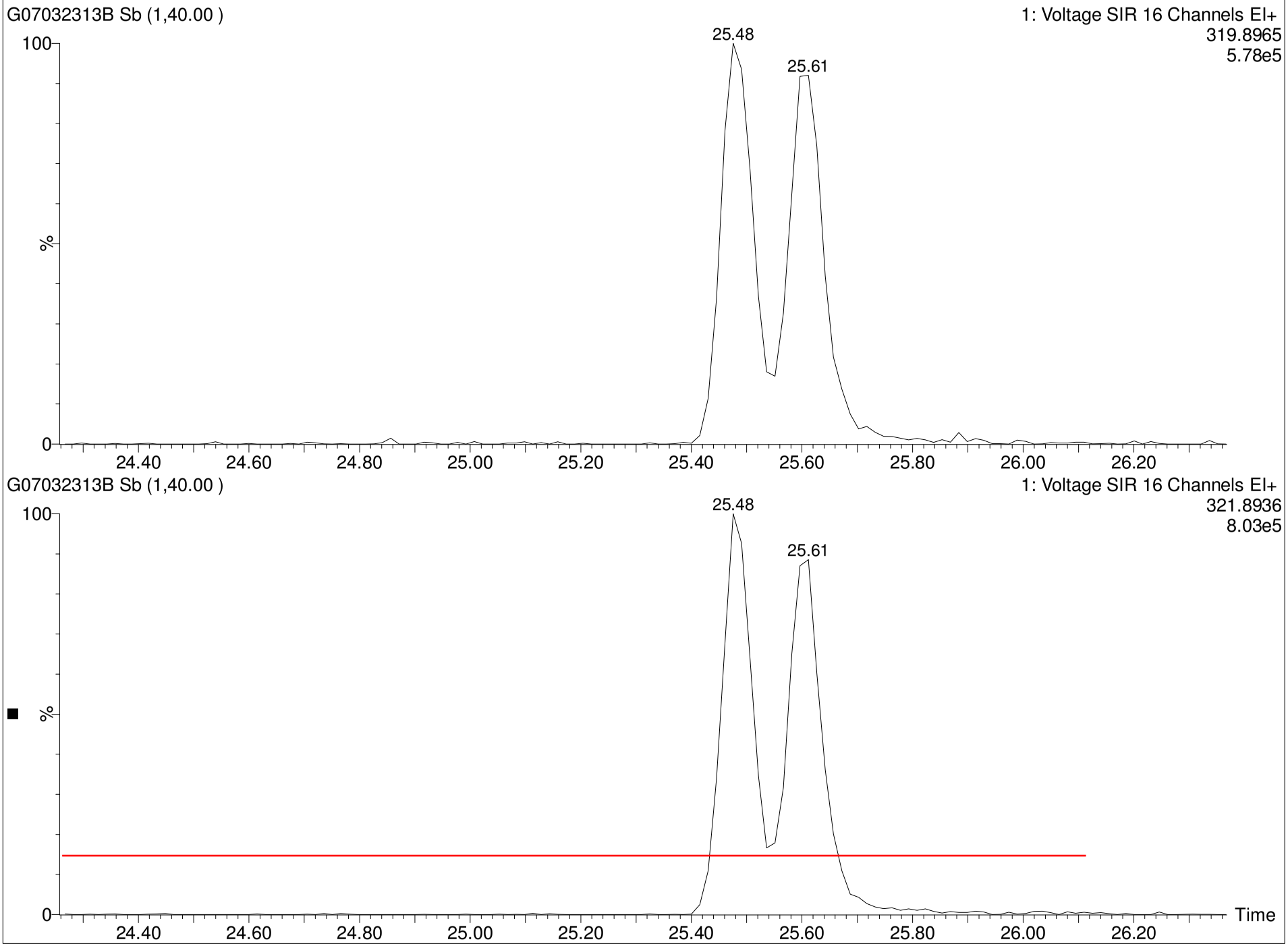
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5.78e5
25.48
25.61
100
%
0
24.40
24.60
24.80
25.00
25.20
25.40
25.60
25.80
26.00
26.20
G07032313B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
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25.61
100
%
0
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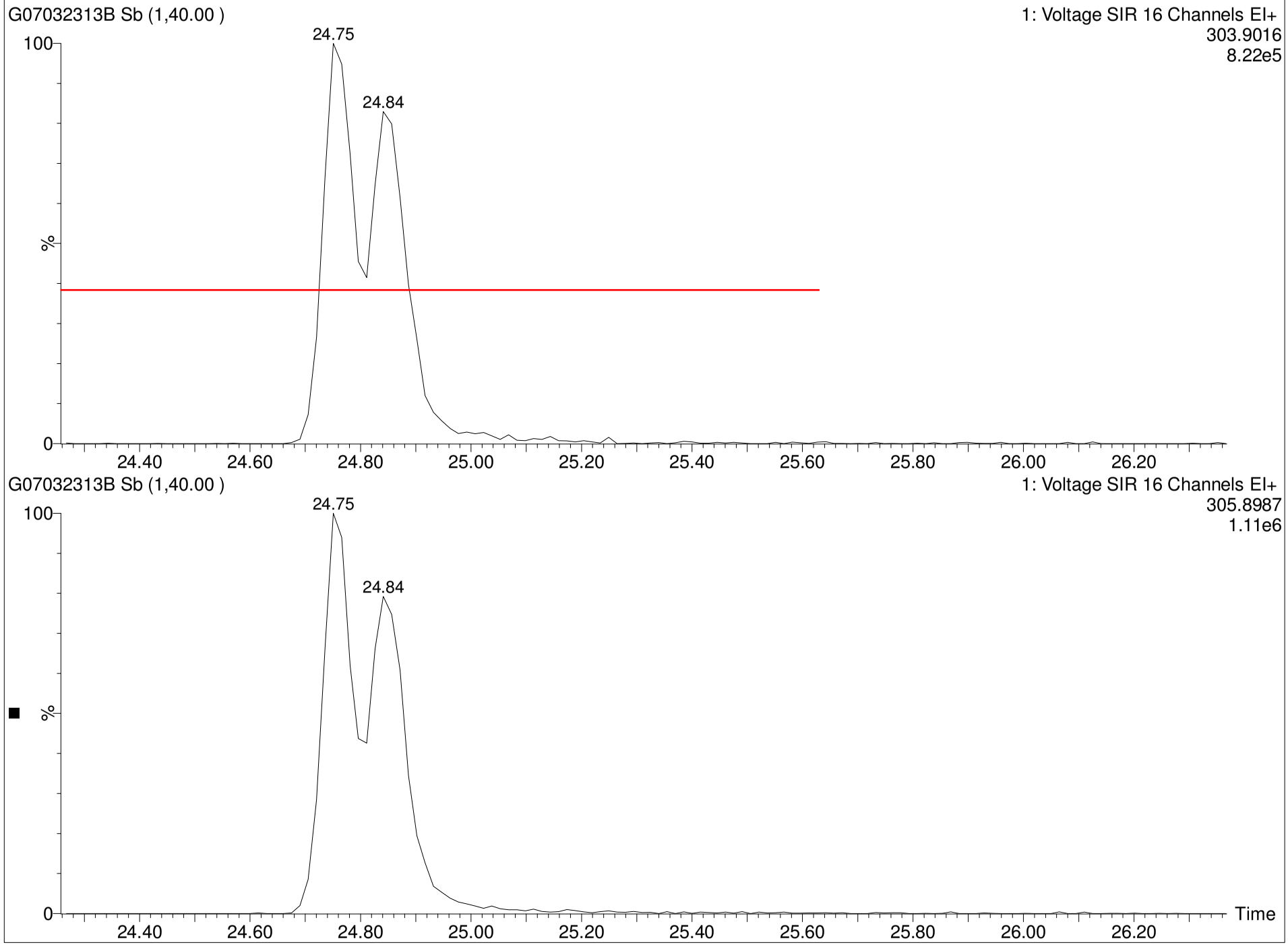
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24.80
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25.20
25.40
25.60
25.80
26.00
26.20
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1.11e6
24.75
24.84
100
%
0
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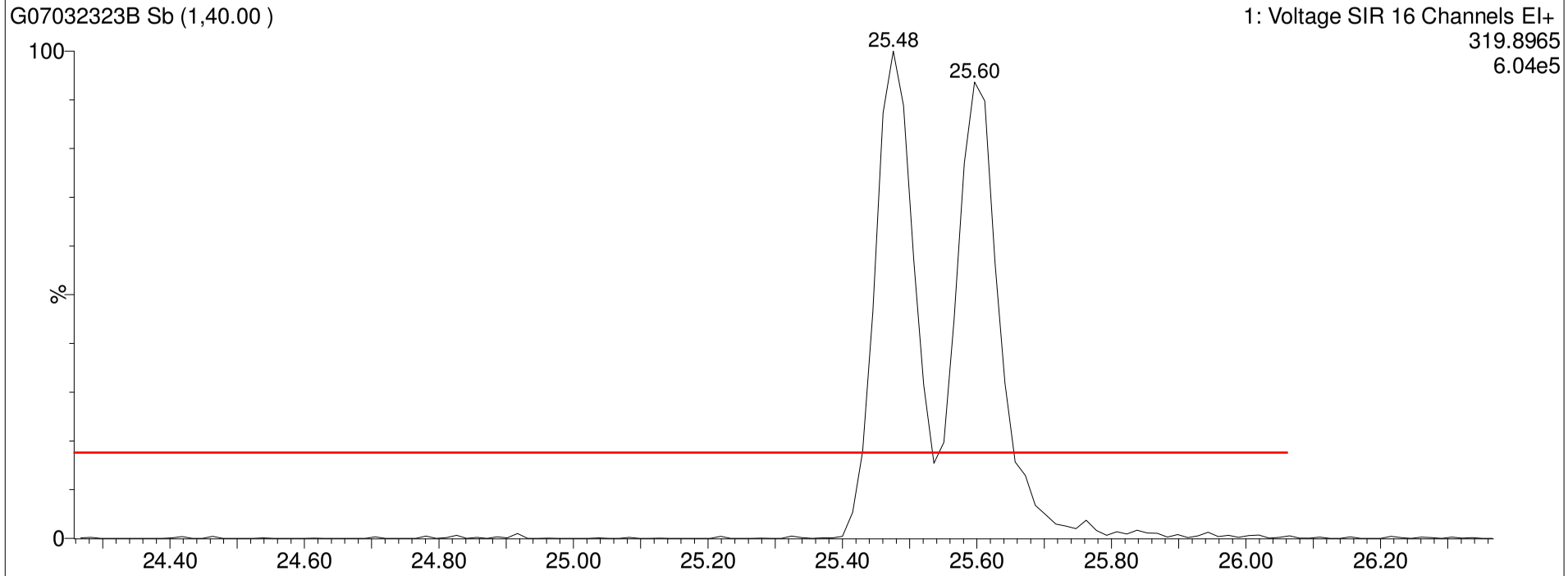
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25.20
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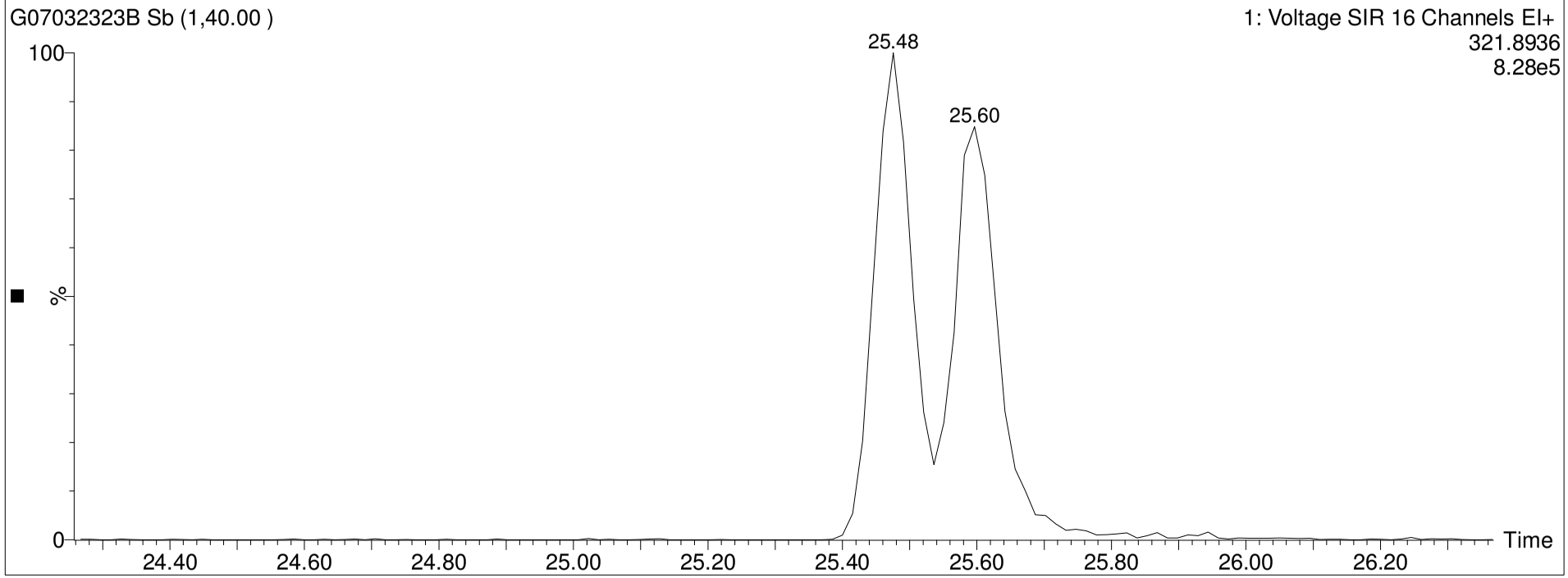
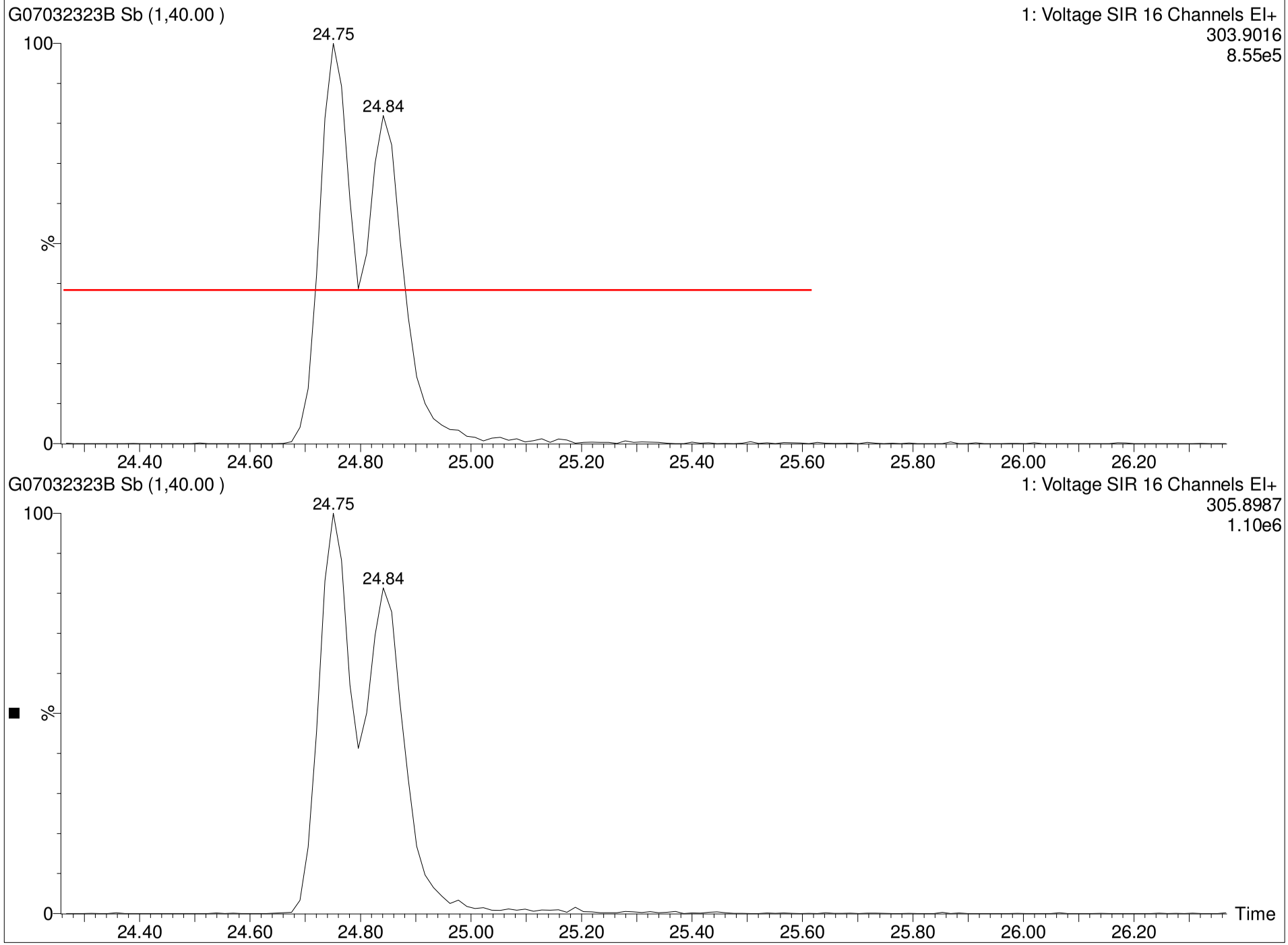
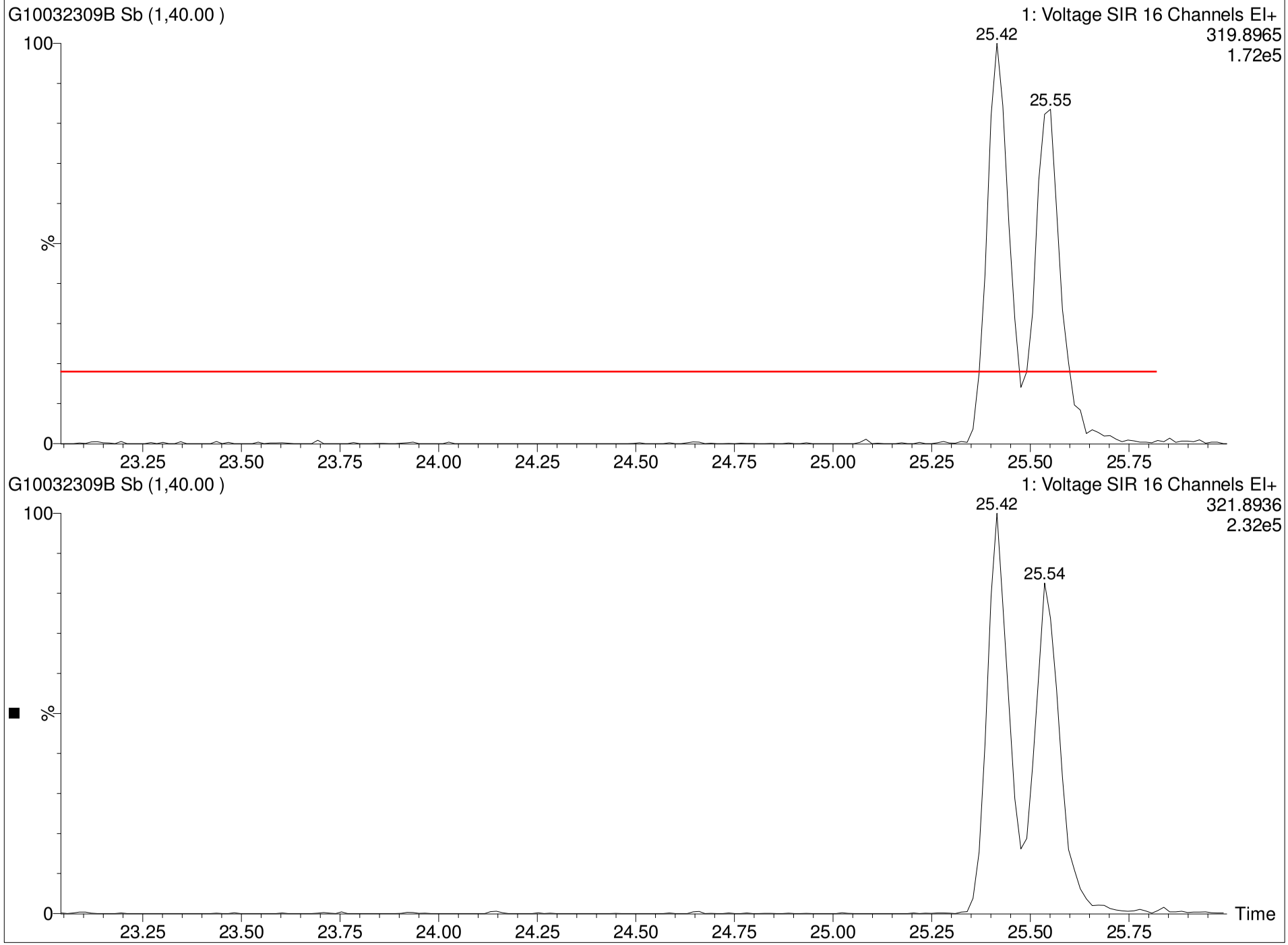
26.00
26.20


G07032323B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
321.8936
8.28e5
25.48
25.60
100
%
0
Time
24.40
24.60
24.80
25.00
25.20
25.40
25.60
25.80
26.00
26.20

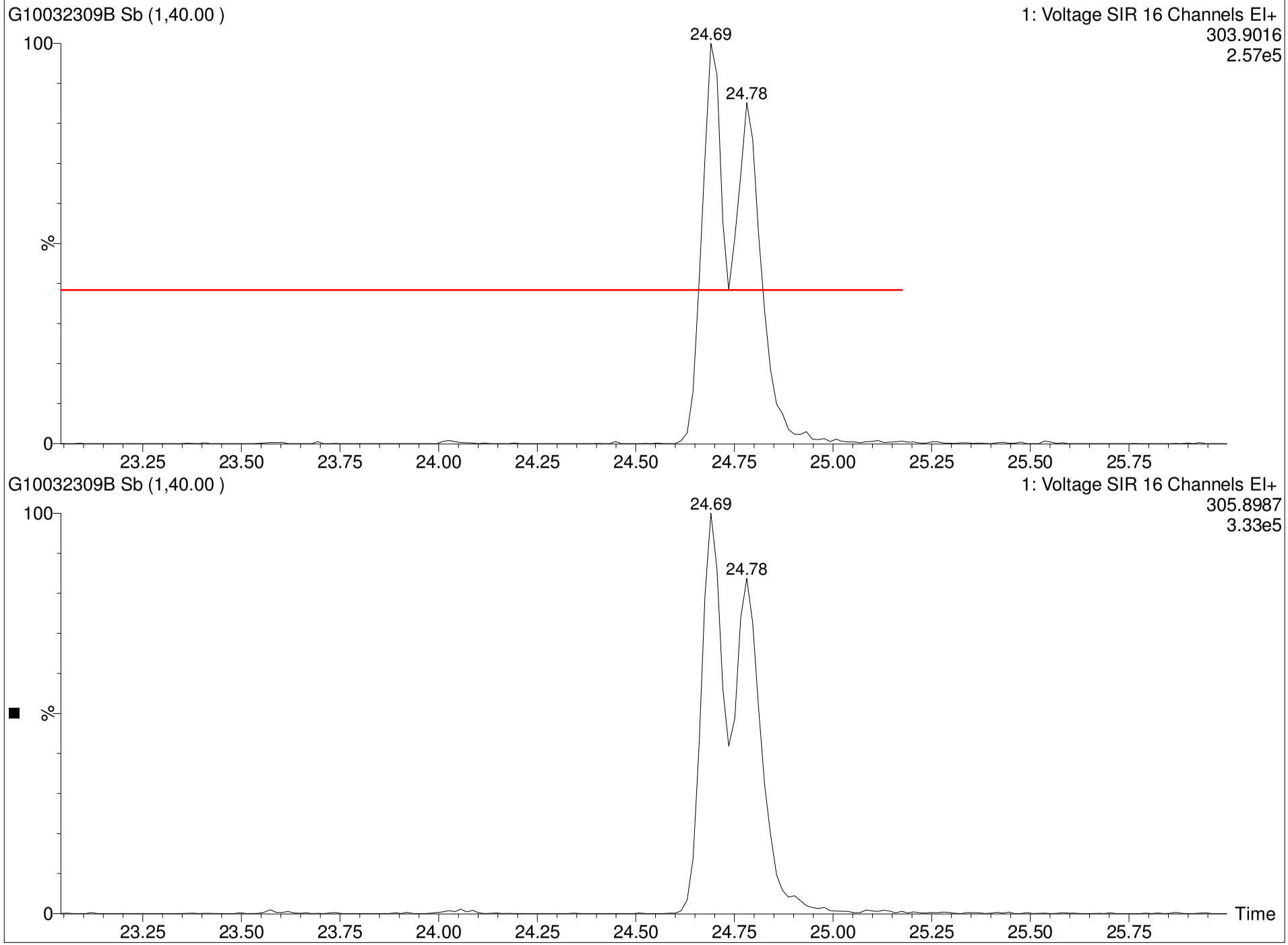
BCS-14784-DF


G07032323B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
303.9016
8.55e5
24.75
24.84
100
%
0
24.40
24.60
24.80
25.00
25.20
25.40
25.60
25.80
26.00
26.20
G07032323B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
305.8987
1.10e6
24.75
24.84
100
%
0
Time
24.40
24.60
24.80
25.00
25.20
25.40
25.60
25.80
26.00
26.20

BCS-14784-DF


G10032309B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
319.8965
1.72e5
25.42
25.55
100
%
0
23.25
23.50
23.75
24.00
24.25
24.50
24.75
25.00
25.25
25.50
25.75
G10032309B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
321.8936
2.32e5
25.42
25.54
100
%
0
Time
23.25
23.50
23.75
24.00
24.25
24.50
24.75
25.00
25.25
25.50
25.75

BCS-14784-DF


G10032309B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
303.9016
2.57e5
24.69
24.78
100
%
0
23.25
23.50
23.75
24.00
24.25
24.50
24.75
25.00
25.25
25.50
25.75
G10032309B Sb (1,40.00)
1: Voltage SIR 16 Channels EI+
305.8987
3.33e5
24.69
24.78
100
%
0
Time
23.25
23.50
23.75
24.00
24.25
24.50
24.75
25.00
25.25
25.50
25.75

Enthalpy Ultratracel Laboratory

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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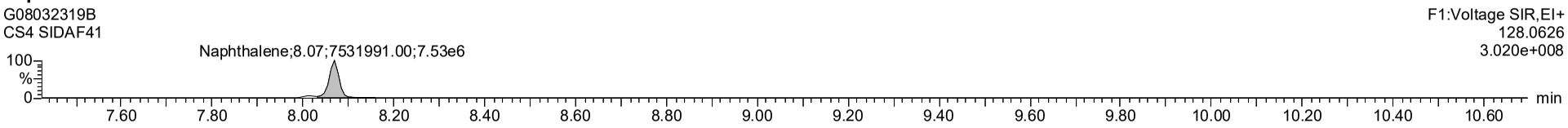
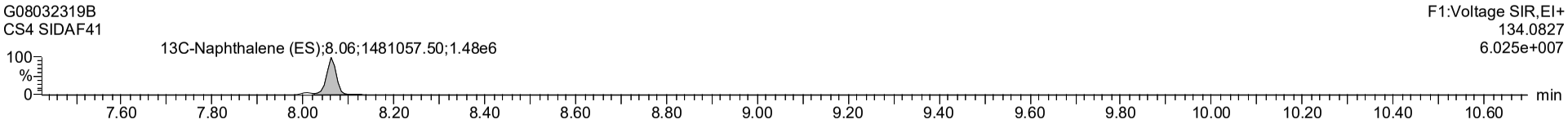
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_PAHs-TLX_v2 03_08_23.mdb 08 Mar 2023 17:04:15
Calibration: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\Gandolf iCAL 2022-calibration file v4 reprocess 8-18-22.cdb 18 Aug 2022 12:31:07

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

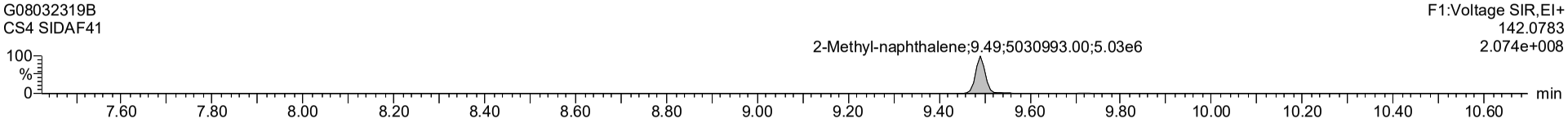
Naphthalene



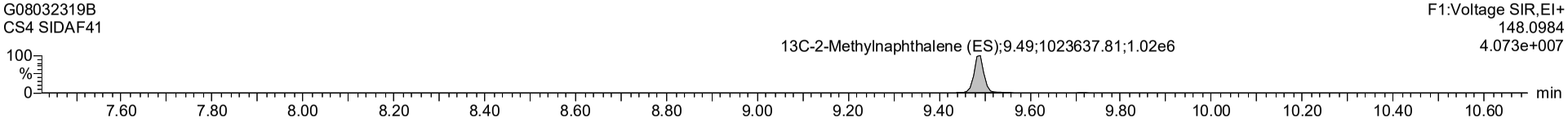
13C-Naphthalene (ES)



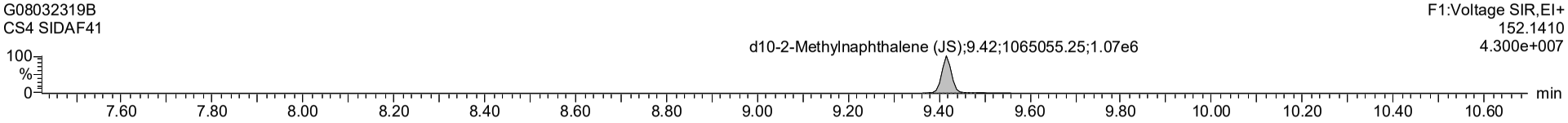
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

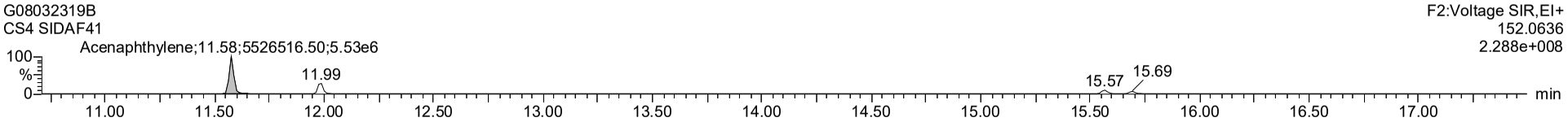


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

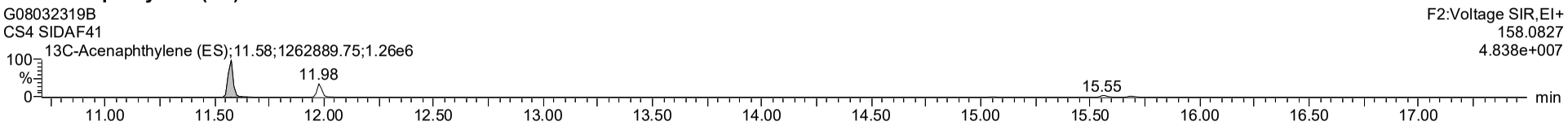
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

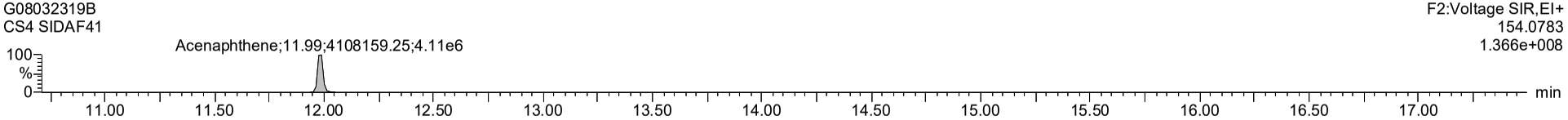
Acenaphthylene



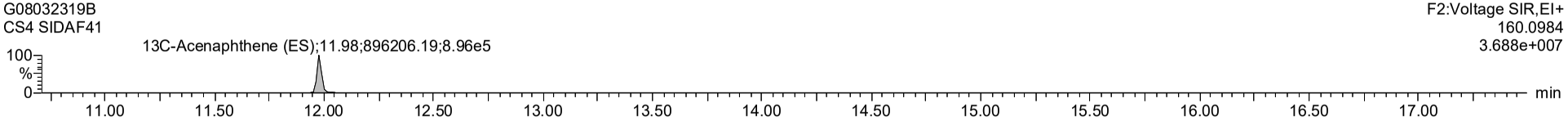
13C-Acenaphthylene (ES)



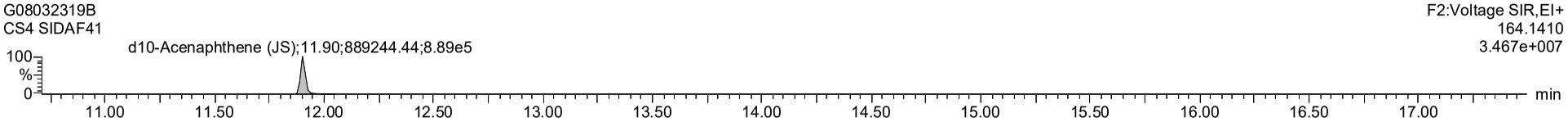
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



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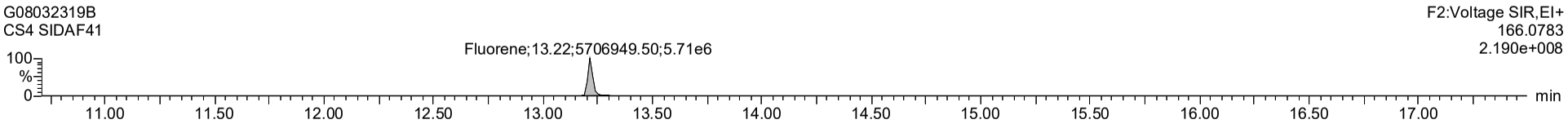
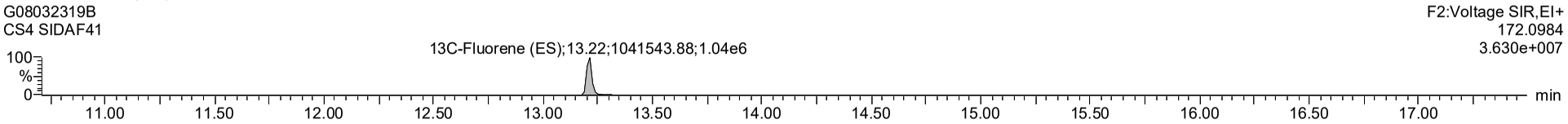
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

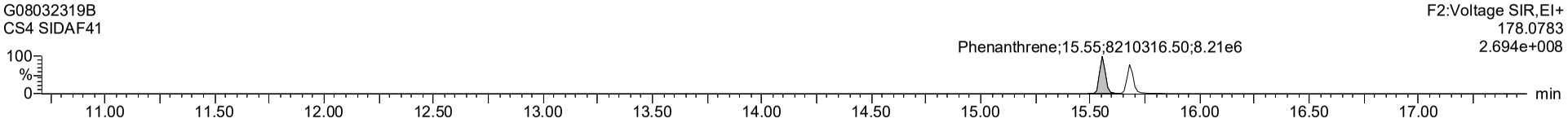
Fluorene



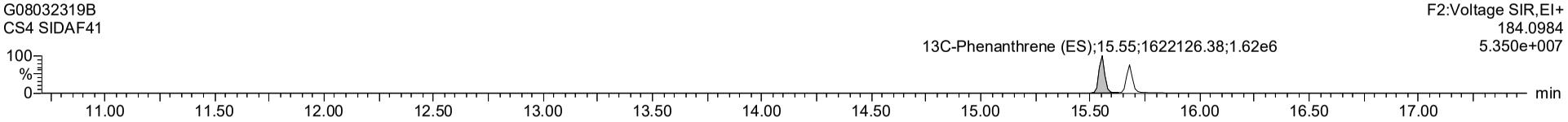
13C-Fluorene (ES)



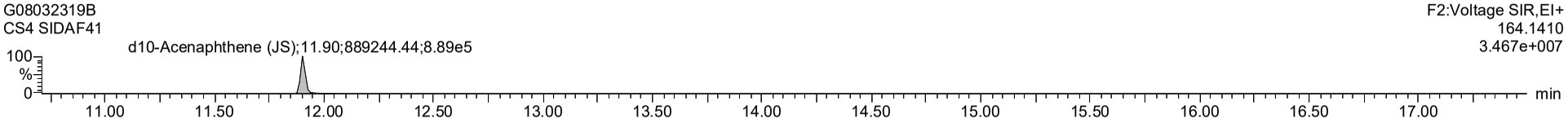
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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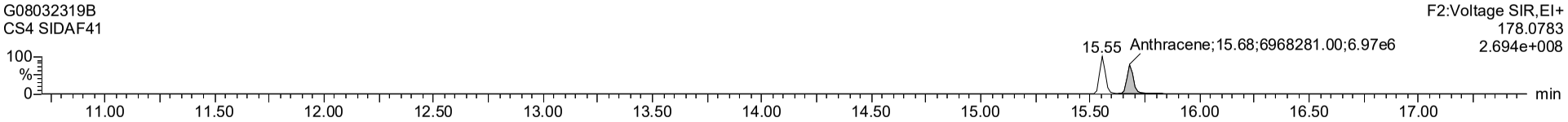
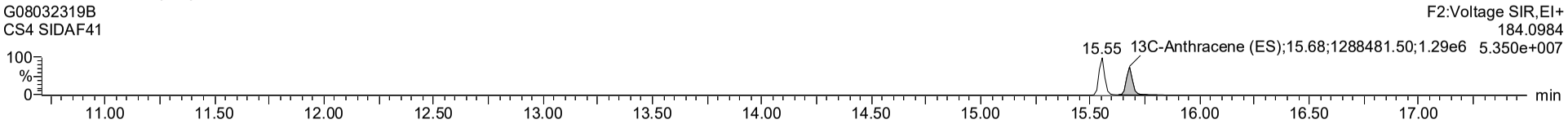
Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

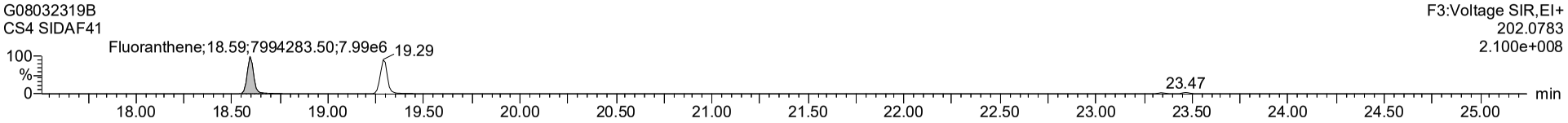
Anthracene



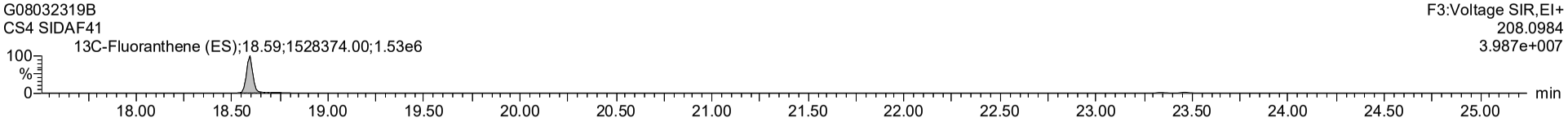
13C-Anthracene (ES)



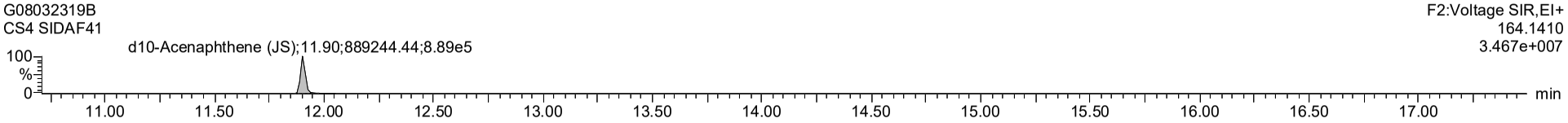
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



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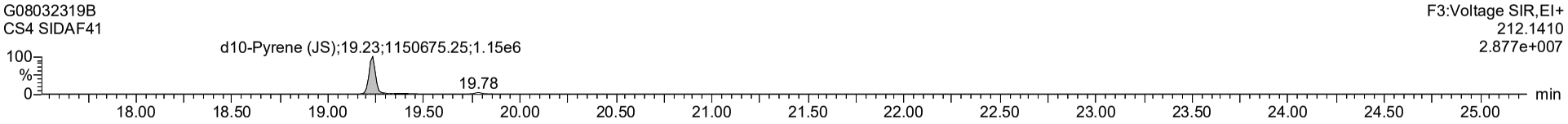
Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

d10-Pyrene (JS)



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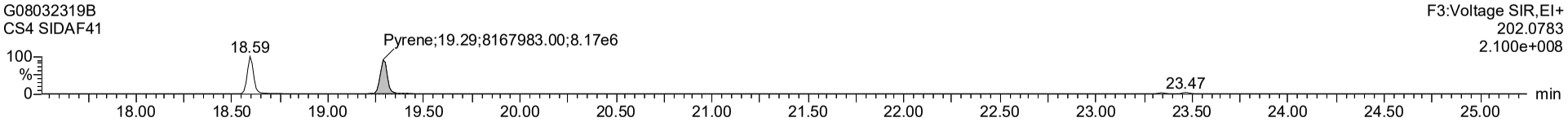
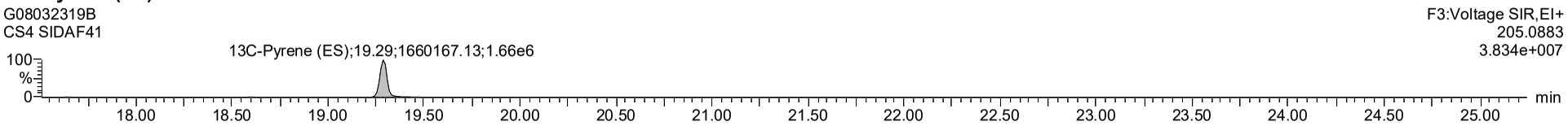
Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

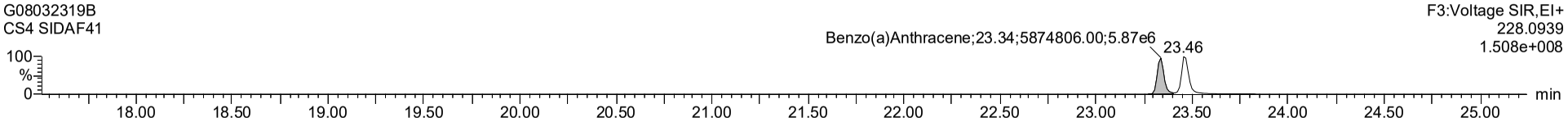
Pyrene



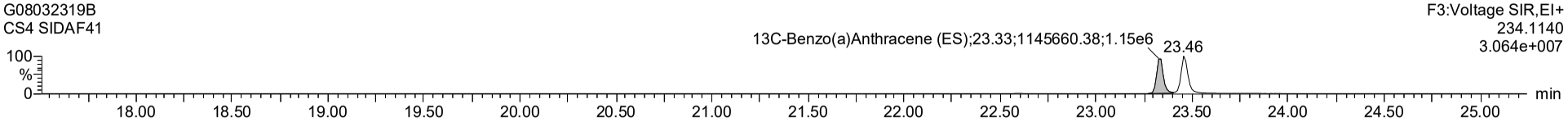
13C-Pyrene (ES)



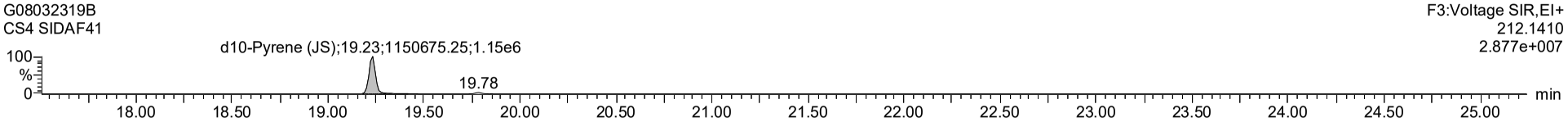
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



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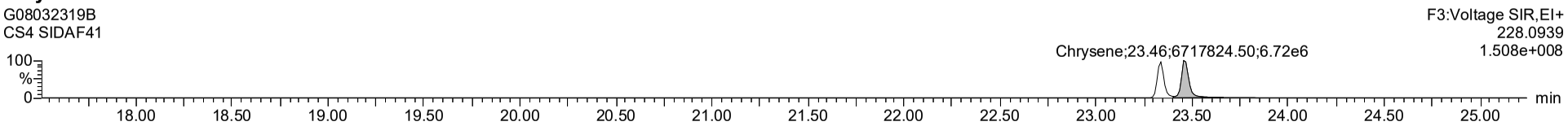
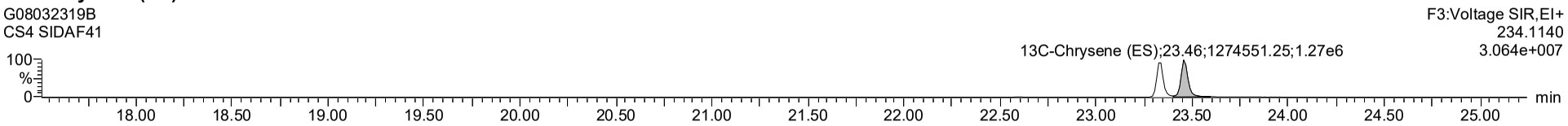
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

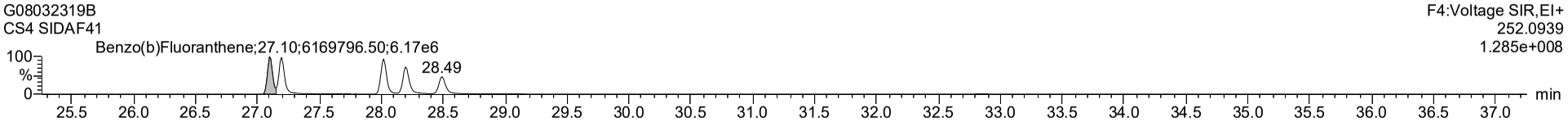
Chrysene



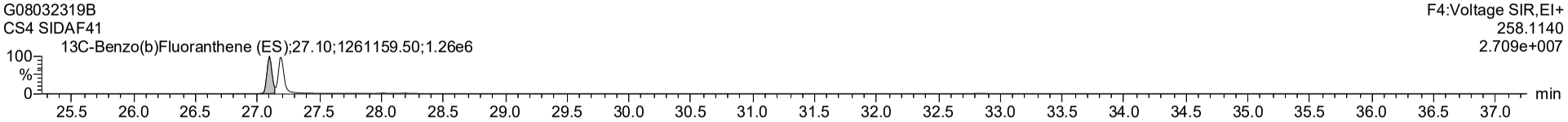
13C-Chrysene (ES)



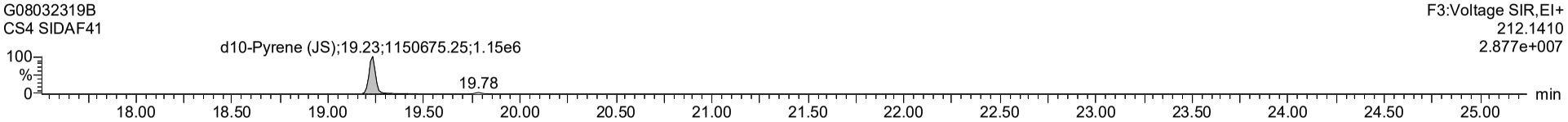
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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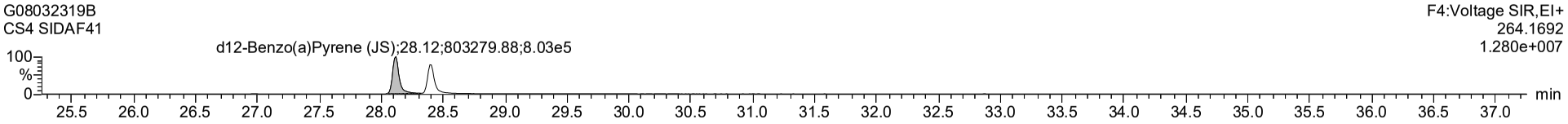
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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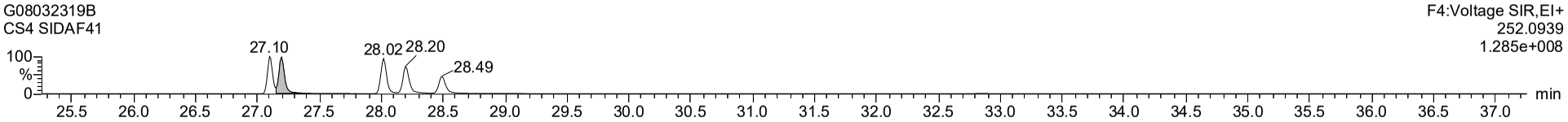
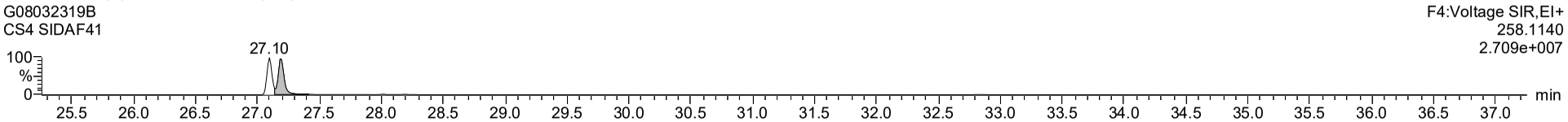
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

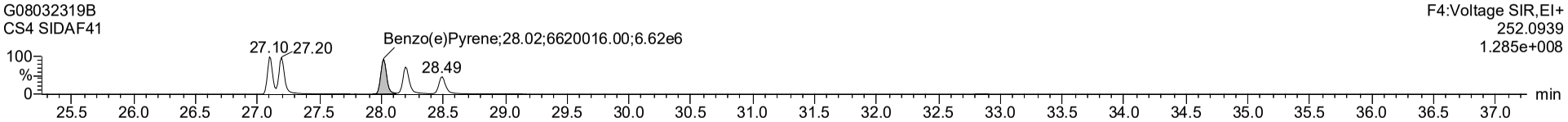
Benzo(k)Fluoranthene



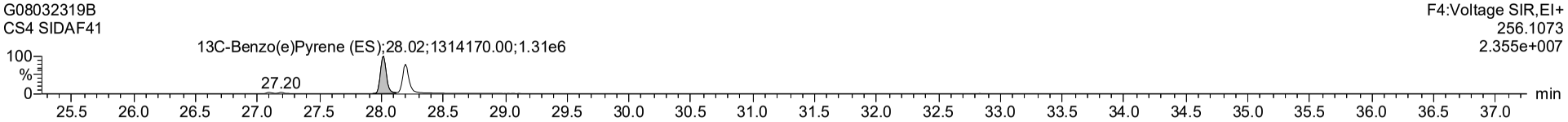
13C-Benzo(k)Fluoranthene (ES)



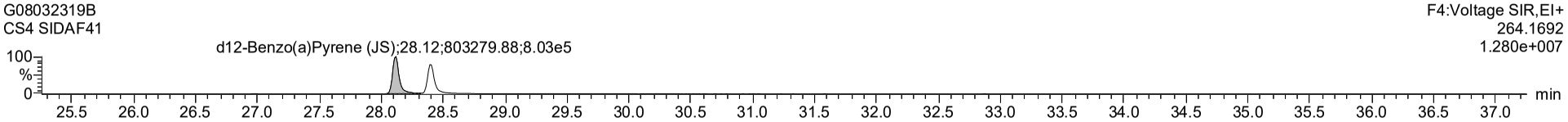
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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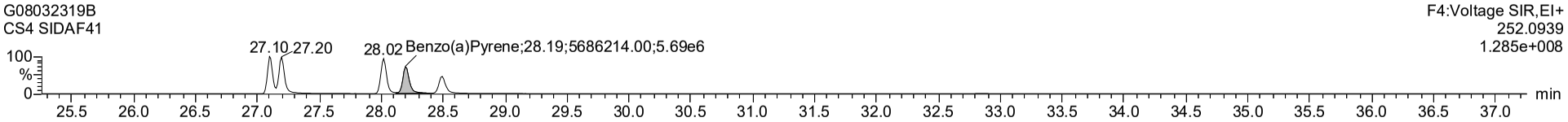
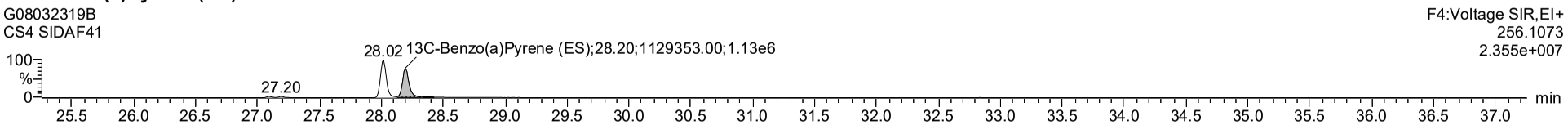
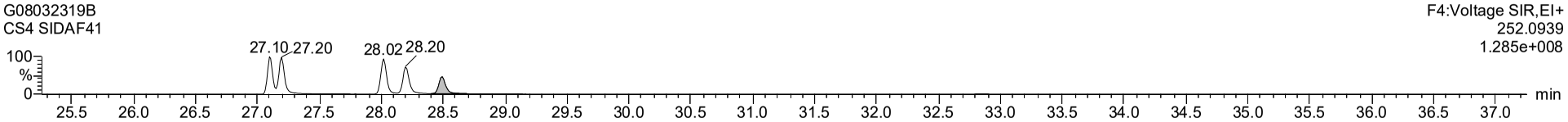
Benzo(a)Pyrene



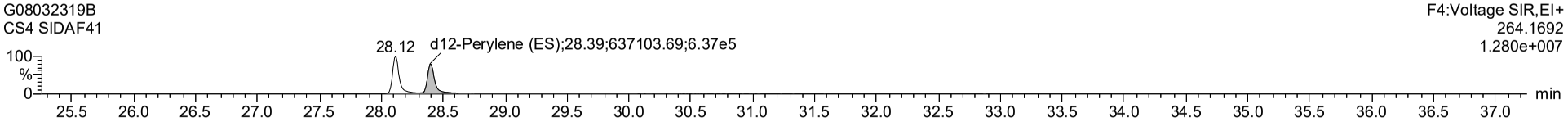
13C-Benzo(a)Pyrene (ES)



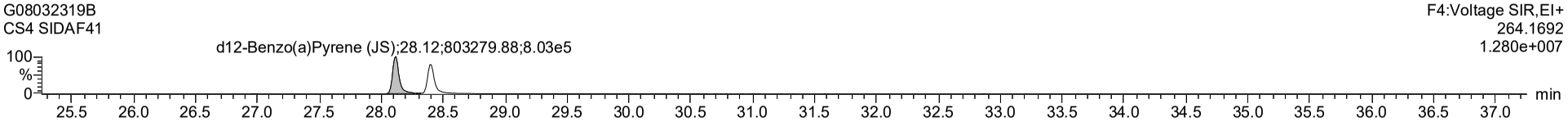
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



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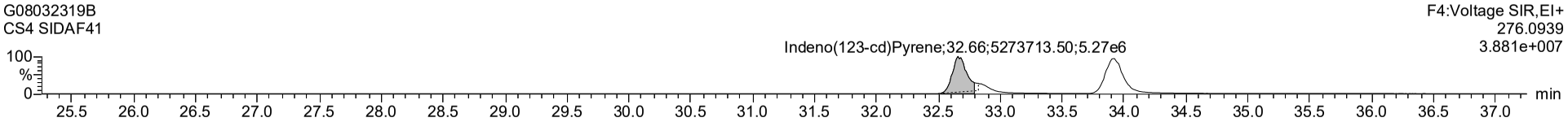
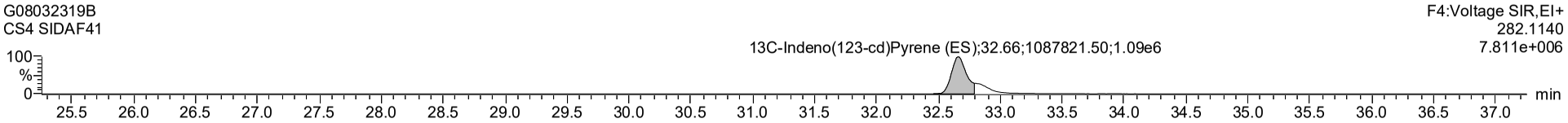
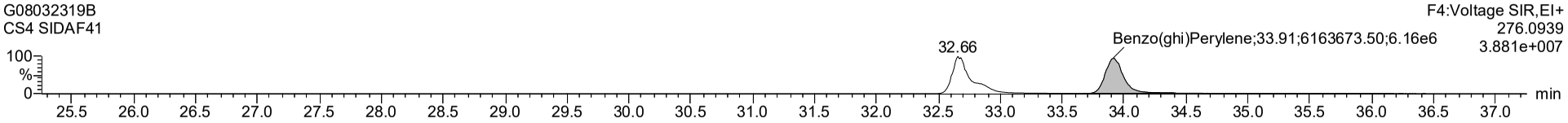
Indeno(123-cd)Pyrene



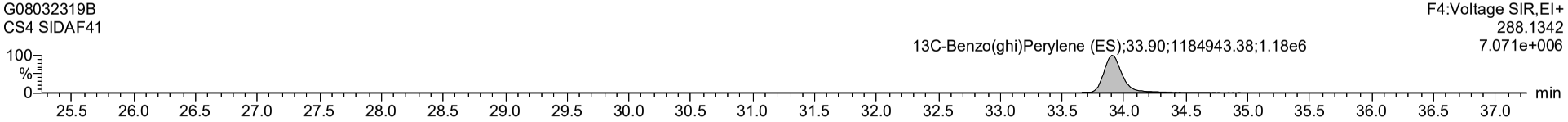
13C-Indeno(123-cd)Pyrene (ES)



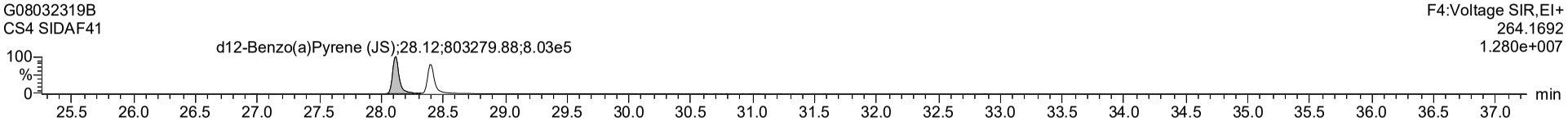
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



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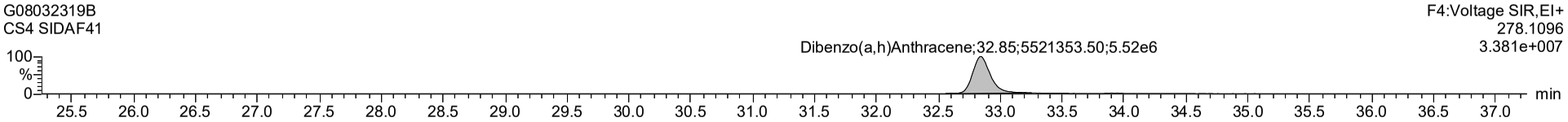
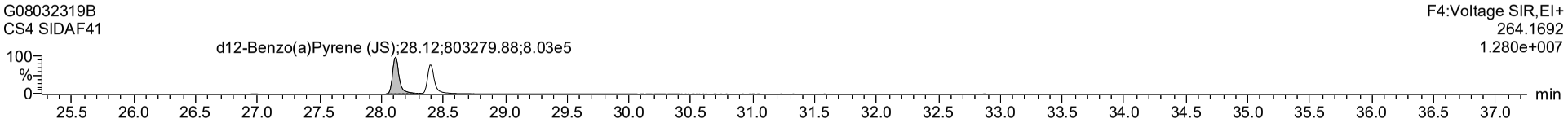
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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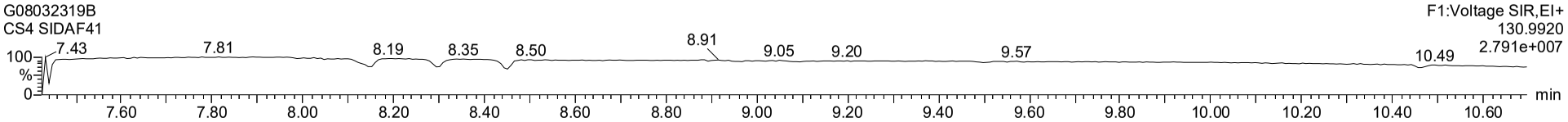
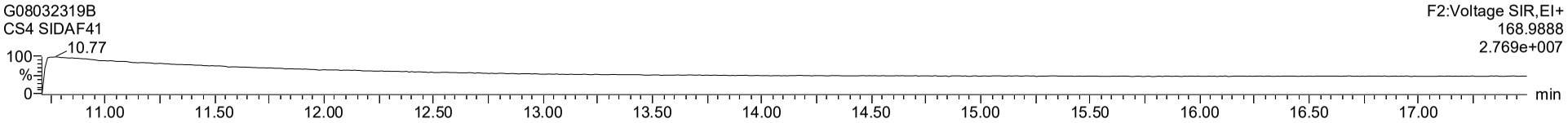
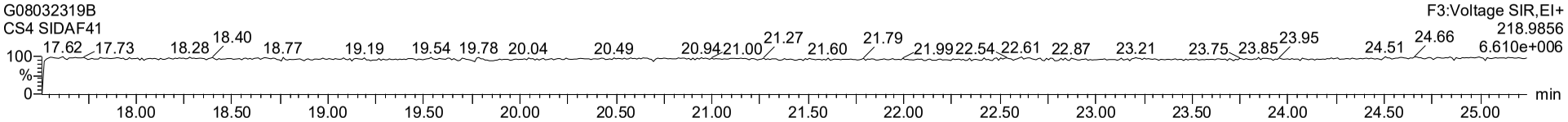
QC Check Ion Fn1



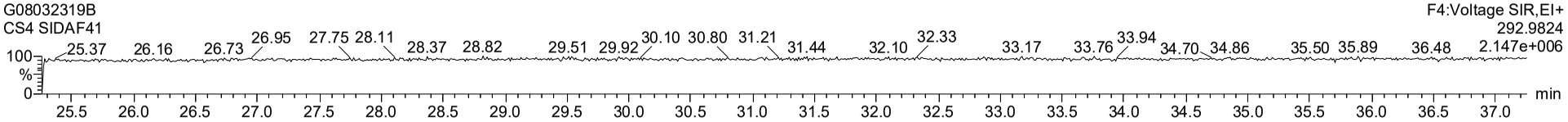
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	7.532e6	1.481e6	0.000		8.06	8.07		0.0		
2	13C-Naphthalene (...	134.0827	1.481e6	1.065e6	0.000		8.10	8.06		0.0		
3	2-Methyl-naphthale...	142.0783	5.031e6	1.024e6	0.000		9.49	9.49		0.0		
4	13C-2-Methylnapht...	148.0984	1.024e6	1.065e6	0.000		9.49	9.49		0.0		
5	d10-2-Methylnapht...	152.1410	1.065e6		0.000	18874.078	9.76	9.42	1070000	0.0	56.430	
6												
7	Acenaphthylene	152.0636	5.527e6	1.263e6	0.000		11.58	11.6		0.0		
8	13C-Acenaphthyle...	158.0827	1.263e6	8.892e5	0.000		11.59	11.6		0.0		
9	Acenaphthene	154.0783	4.108e6	8.962e5	0.000		11.98	12.0		0.0		
10	13C-Acenaphthene...	160.0984	8.962e5	8.892e5	0.000		11.99	12.0		0.0		
11	d10-Acenaphthene...	164.1410	8.892e5		0.000	13122.905	12.25	11.9	889000	0.0	67.763	
12												
13	Fluorene	166.0783	5.707e6	1.042e6	0.000		13.22	13.2		0.0		
14	13C-Fluorene (ES)	172.0984	1.042e6	8.892e5	0.000		13.17	13.2		0.0		
15	Phenanthrene	178.0783	8.210e6	1.622e6	0.000		15.55	15.6		0.0		
16	13C-Phenanthrene...	184.0984	1.622e6	8.892e5	0.000		15.55	15.6		0.0		
17	d10-Acenaphthene...	164.1410	8.892e5		0.000	13122.905	12.25	11.9	889000	0.0	67.763	
18												
19	Anthracene	178.0783	6.968e6	1.288e6	0.000		15.68	15.7		0.0		
20	13C-Anthracene (E...	184.0984	1.288e6	8.892e5	0.000		15.67	15.7		0.0		
21	Fluoranthene	202.0783	7.994e6	1.528e6	0.000		18.59	18.6		0.0		
22	13C-Fluoranthene (...	208.0984	1.528e6	1.151e6	0.000		18.60	18.6		0.0		
23	d10-Acenaphthene...	164.1410	8.892e5		0.000	13122.905	12.25	11.9	889000	0.0	67.763	
24	d10-Pyrene (JS)	212.1410	1.151e6		0.000	19126.001	19.23	19.2	1150000	0.0	60.163	
25												
26	Pyrene	202.0783	8.168e6	1.660e6	0.000		19.29	19.3		0.0		
27	13C-Pyrene (ES)	205.0883	1.660e6	1.151e6	0.000		19.29	19.3		0.0		
28	Benzo(a)Anthracene	228.0939	5.875e6	1.146e6	0.000		23.33	23.3		0.0		
29	13C-Benzo(a)Anthr...	234.1140	1.146e6	1.151e6	0.000		23.34	23.3		0.0		
30	d10-Pyrene (JS)	212.1410	1.151e6		0.000	19126.001	19.23	19.2	1150000	0.0	60.163	
31												
32	Chrysene	228.0939	6.718e6	1.275e6	0.000		23.46	23.5		0.0		
33	13C-Chrysene (ES)	234.1140	1.275e6	1.151e6	0.000		23.47	23.5		0.0		
34	Benzo(b)Fluoranth...	252.0939	6.170e6	1.261e6	0.000		27.10	27.1		0.0		
35	13C-Benzo(b)Fluor...	258.1140	1.261e6	8.033e5	0.000		27.13	27.1		0.0		
36	d10-Pyrene (JS)	212.1410	1.151e6		0.000	19126.001	19.23	19.2	1150000	0.0	60.163	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	8.033e5		0.000	12322.130	28.12	28.1	803000	0.0	65.190	
38												
39	Benzo(k)Fluoranth...	252.0939	6.714e6	1.472e6	0.000		27.18	27.2		0.0		
40	13C-Benzo(k)Fluor...	258.1140	1.472e6	8.033e5	0.000		27.22	27.2		0.0		
41	Benzo(e)Pyrene	252.0939	6.620e6	1.314e6	0.000		28.02	28.0		0.0		
42	13C-Benzo(e)Pyre...	256.1073	1.314e6	8.033e5	0.000		28.02	28.0		0.0		
43	d12-Benzo(a)Pyren...	264.1692	8.033e5		0.000	12322.130	28.12	28.1	803000	0.0	65.190	
44												
45	Benzo(a)Pyrene	252.0939	5.686e6	1.129e6	0.000		28.20	28.2		0.0		
46	13C-Benzo(a)Pyre...	256.1073	1.129e6	8.033e5	0.000		28.20	28.2		0.0		
47	Perylene	252.0939	3.743e6	6.371e5	0.000		28.39	28.5		0.0		
48	d12-Perylene (ES)	264.1692	6.371e5	8.033e5	0.000		28.49	28.4		0.0		
49	d12-Benzo(a)Pyren...	264.1692	8.033e5		0.000	12322.130	28.12	28.1	803000	0.0	65.190	
50												
51	Indeno(123-cd)Pyr...	276.0939	5.274e6	1.088e6	0.000		32.66	32.7		0.0		
52	13C-Indeno(123-cd...	282.1140	1.088e6	8.033e5	0.000		32.54	32.7		0.0		
53	Benzo(ghi)Perylene	276.0939	6.164e6	1.185e6	0.000		33.90	33.9		0.0		
54	13C-Benzo(ghi)Per...	288.1342	1.185e6	8.033e5	0.000		33.73	33.9		0.0		
55	d12-Benzo(a)Pyren...	264.1692	8.033e5		0.000	12322.130	28.12	28.1	803000	0.0	65.190	
56												
57	Dibenzo(a,h)Anthra...	278.1096	5.521e6	1.167e6	0.000		32.83	32.8		0.0		
58	d12-Benzo(a)Pyren...	264.1692	8.033e5		0.000	12322.130	28.12	28.1	803000	0.0	65.190	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00			0.0		
61	QC Check Ion Fn2	168.9888			0.000		0.00			0.0		
62	QC Check Ion Fn3	218.9856			0.000		0.00			0.0		
63	QC Check Ion Fn4	292.9824			0.000		0.00			0.0		

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032319B, Date: 09-Mar-2023, Time: 04:34:27, ID: SIDAF41, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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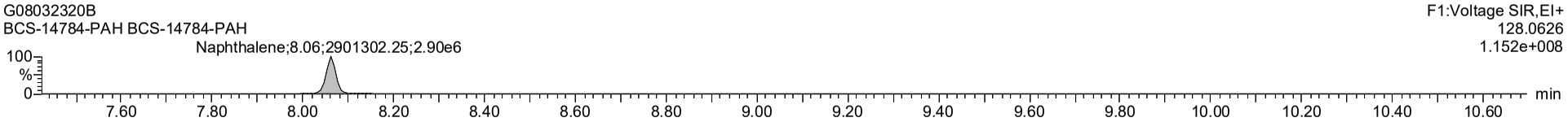
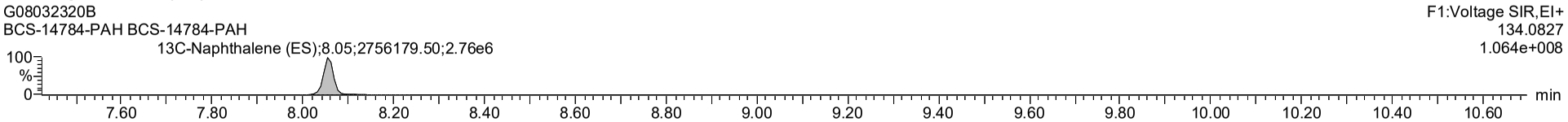
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

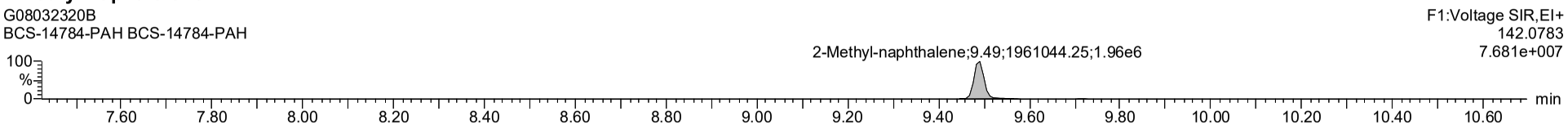
Naphthalene



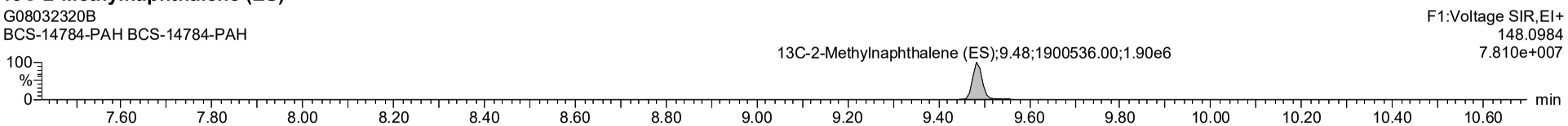
13C-Naphthalene (ES)



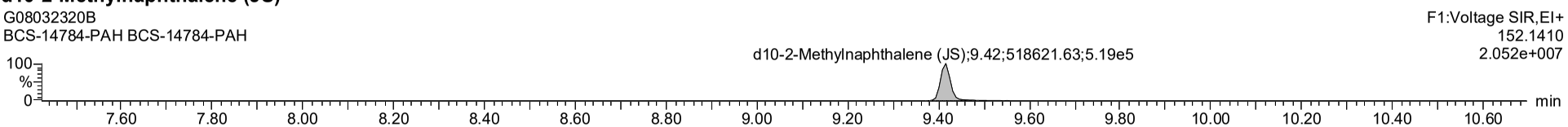
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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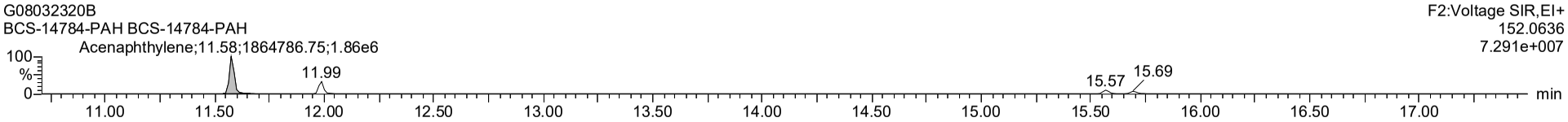
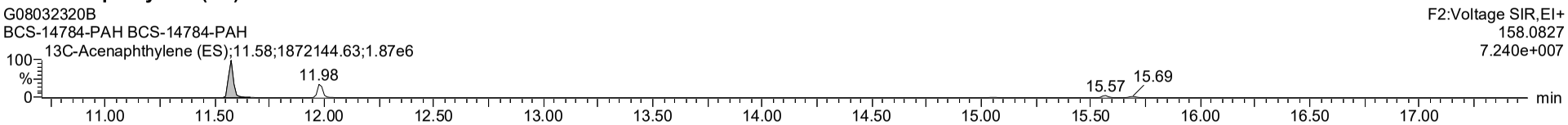
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

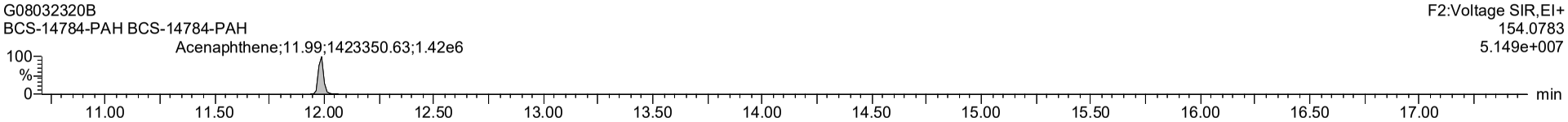
Acenaphthylene



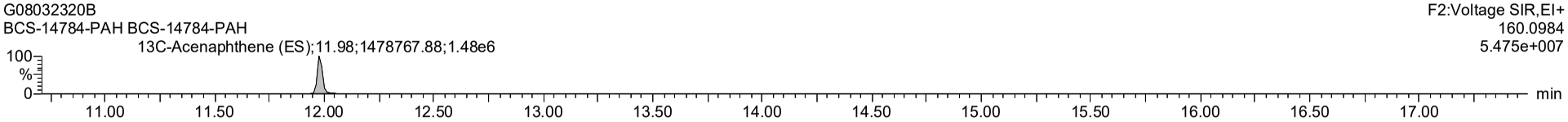
13C-Acenaphthylene (ES)



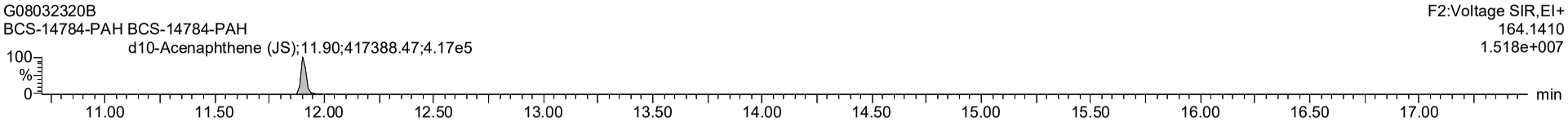
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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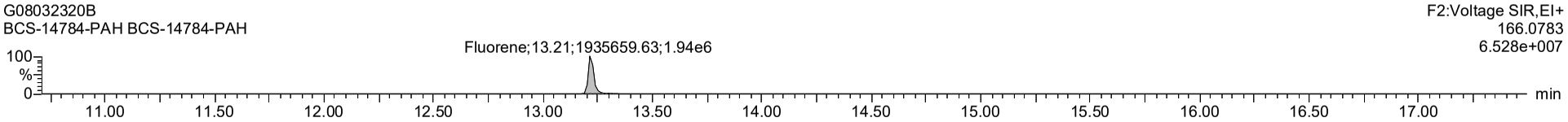
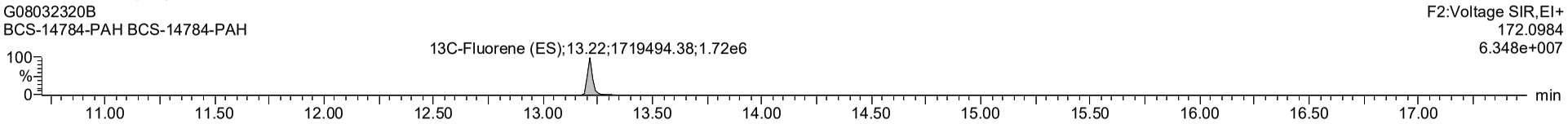
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

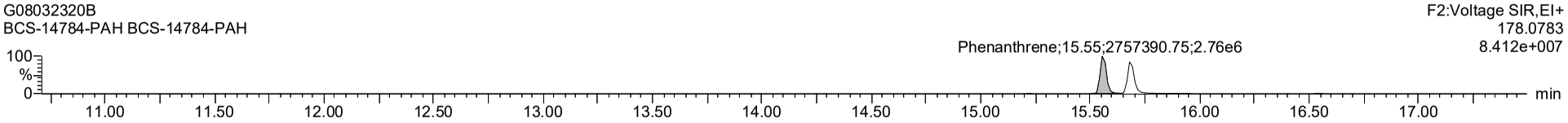
Fluorene



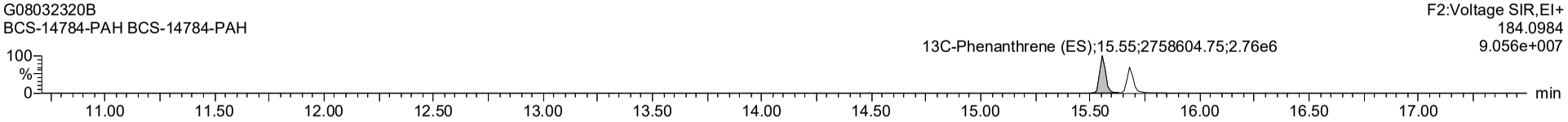
13C-Fluorene (ES)



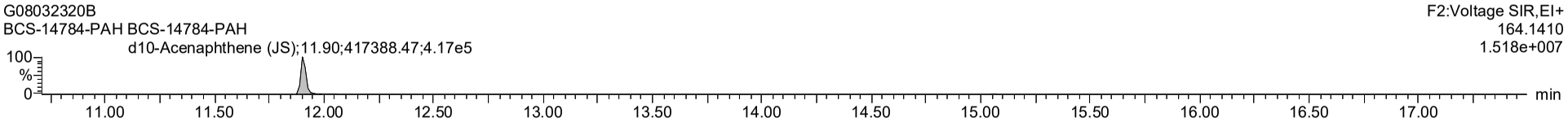
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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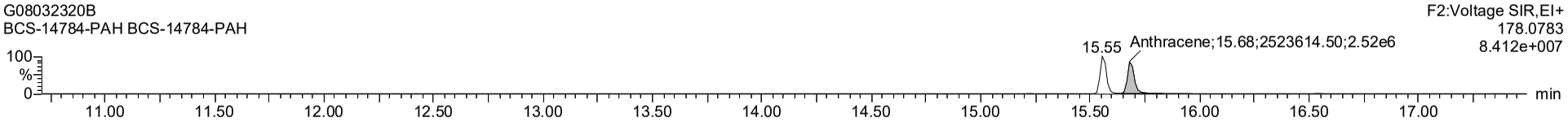
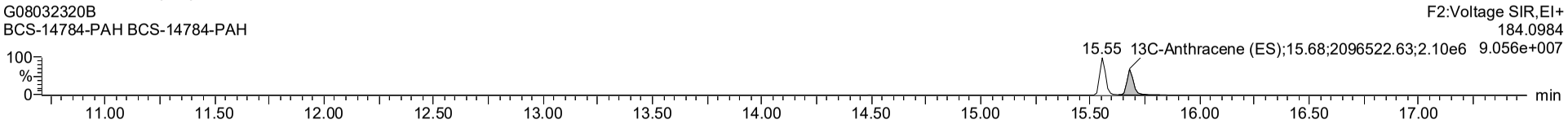
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

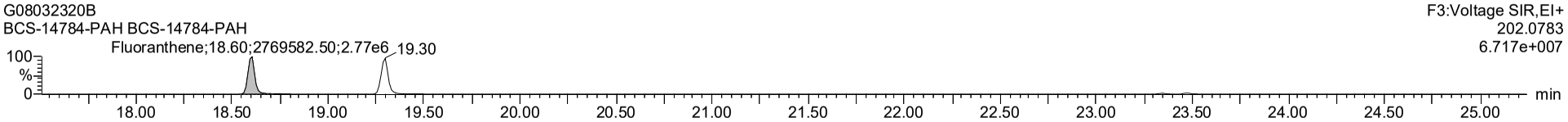
Anthracene



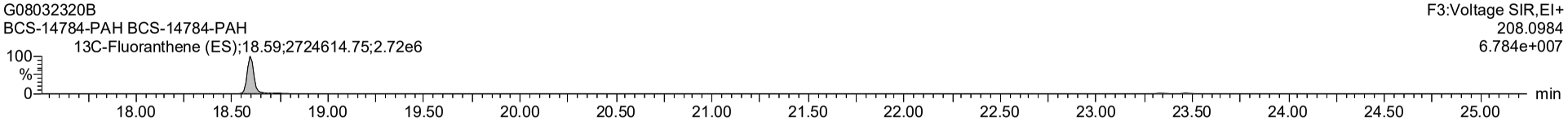
13C-Anthracene (ES)



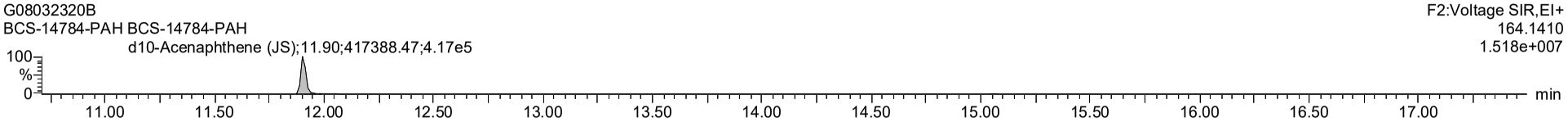
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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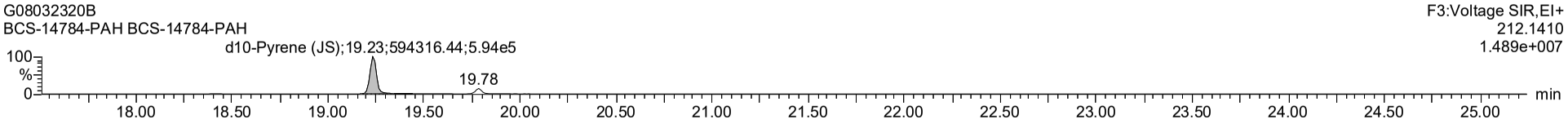
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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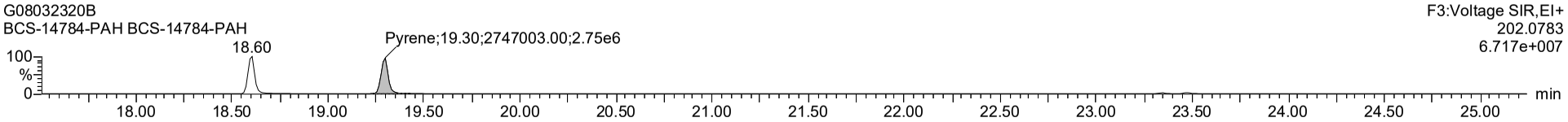
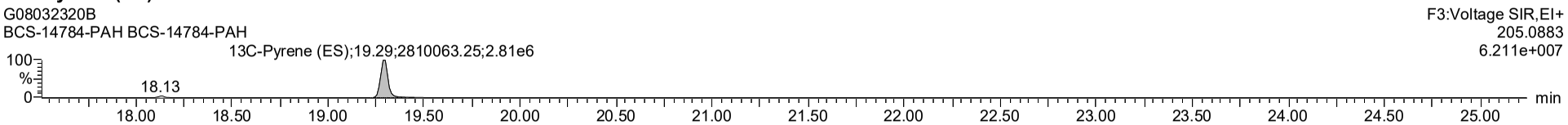
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

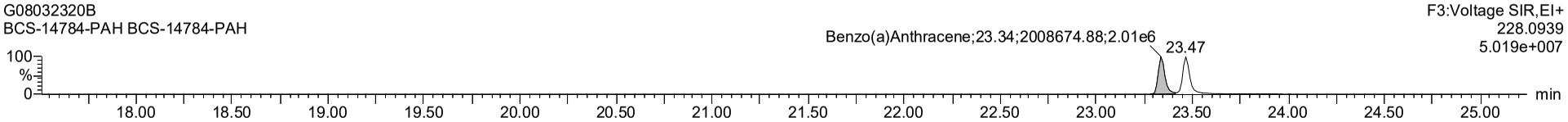
Pyrene



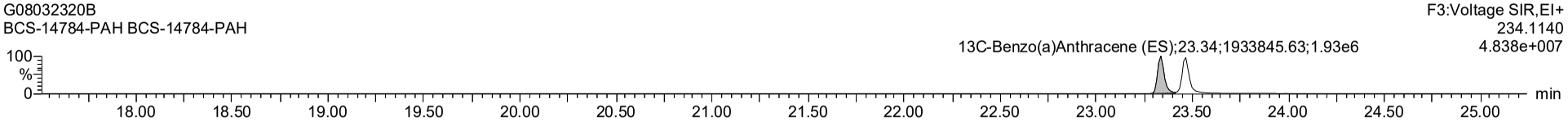
13C-Pyrene (ES)



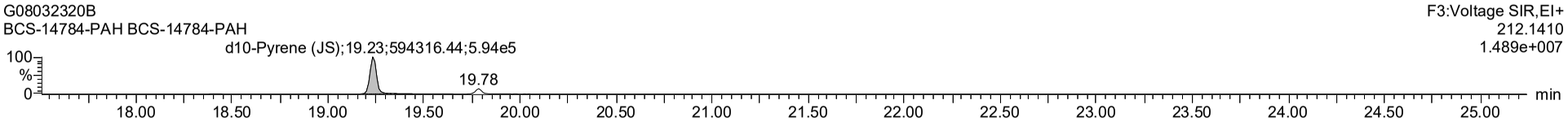
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



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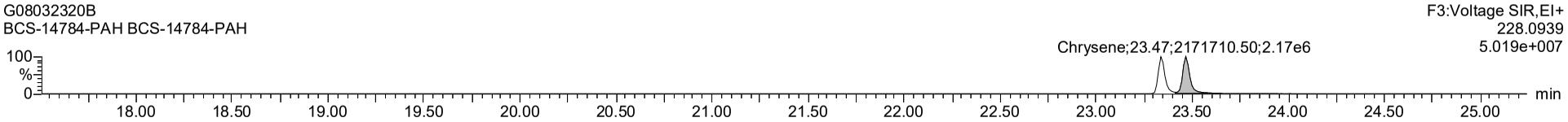
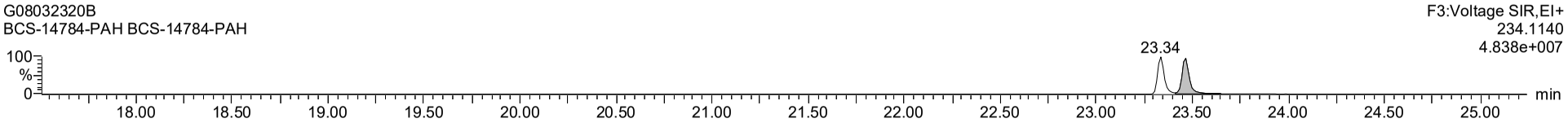
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

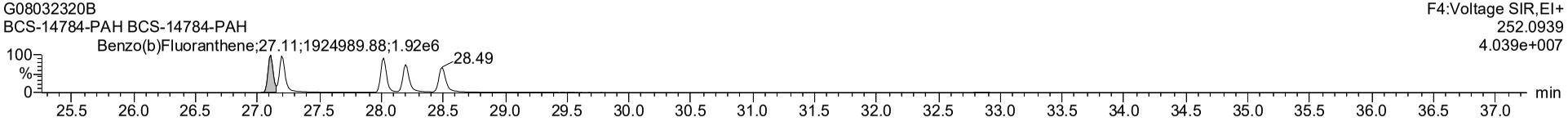
Chrysene



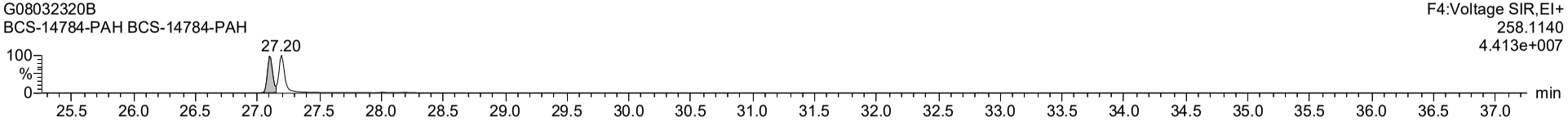
13C-Chrysene (ES)



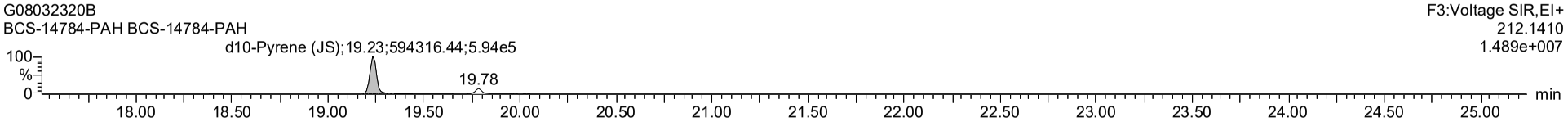
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



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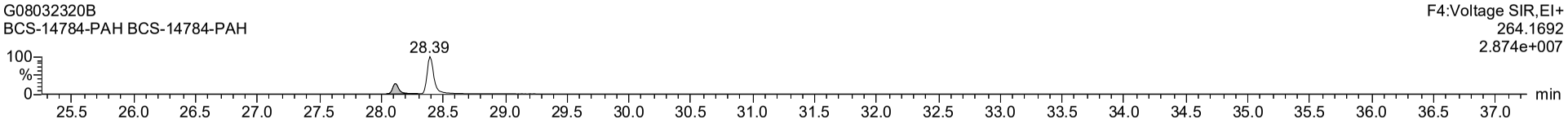
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

d12-Benzo(a)Pyrene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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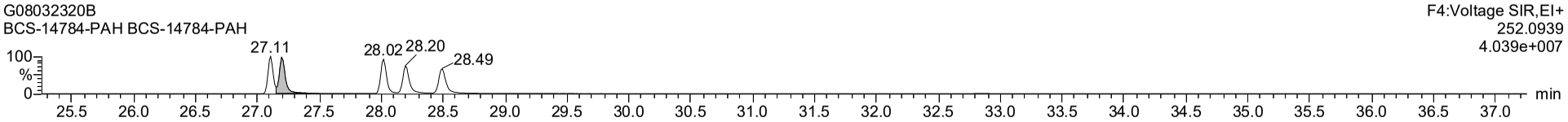
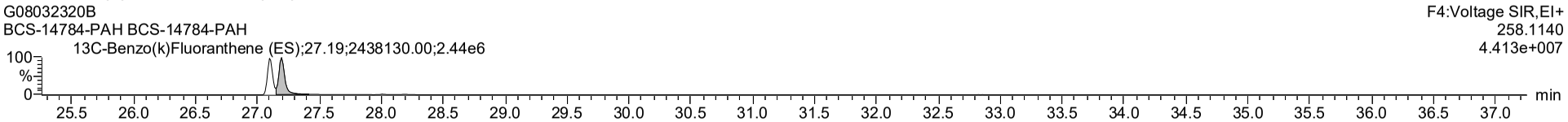
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

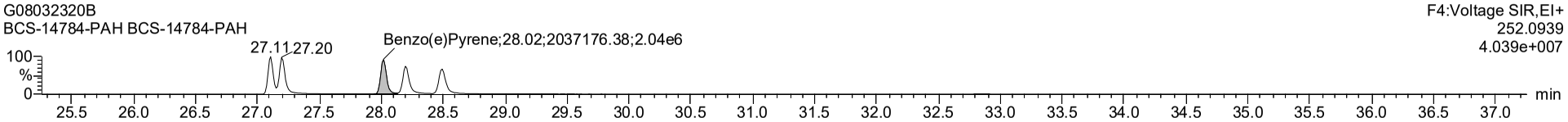
Benzo(k)Fluoranthene



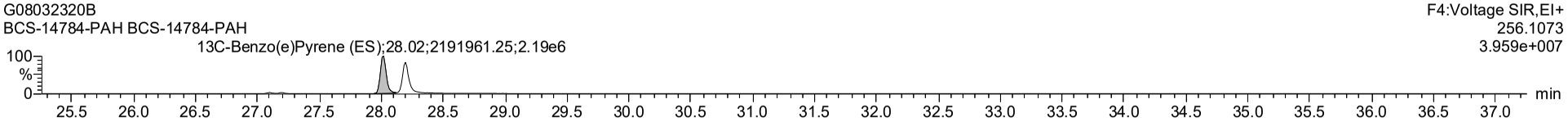
13C-Benzo(k)Fluoranthene (ES)



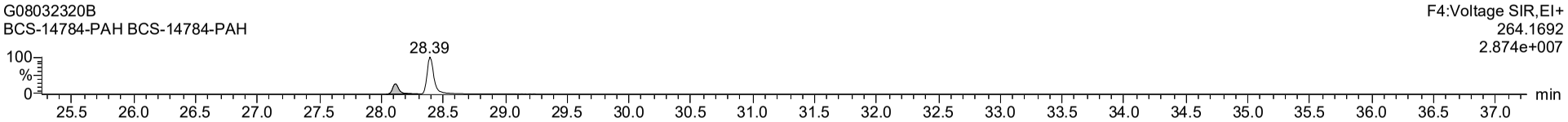
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



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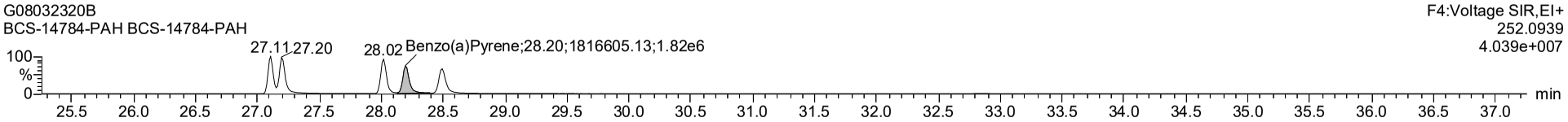
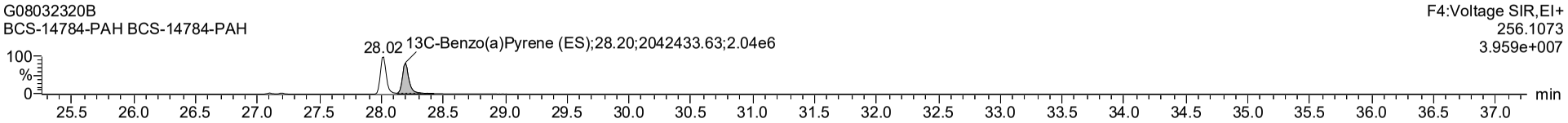
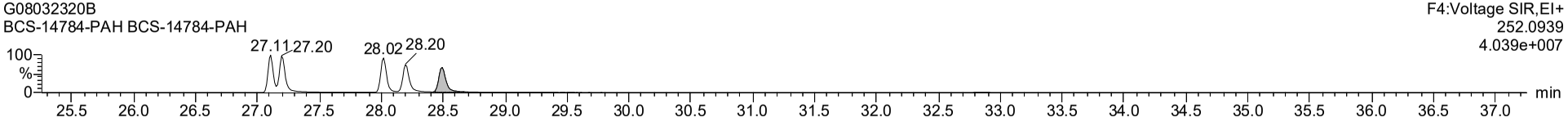
Benzo(a)Pyrene



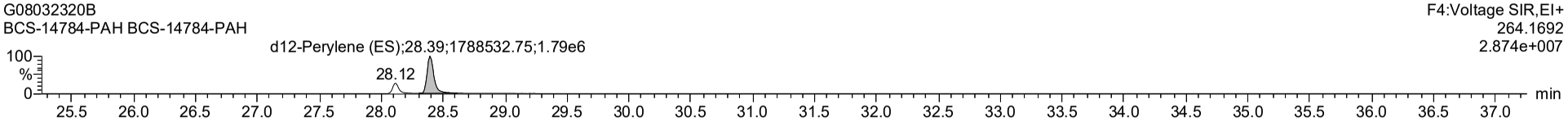
13C-Benzo(a)Pyrene (ES)



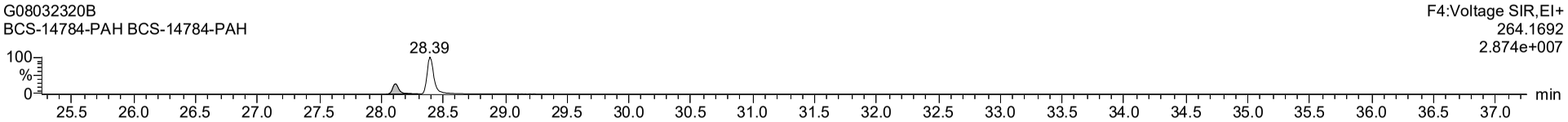
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



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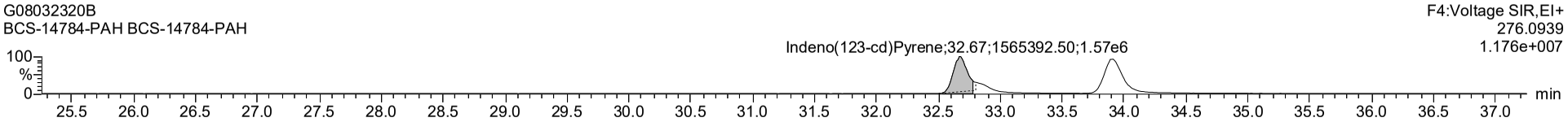
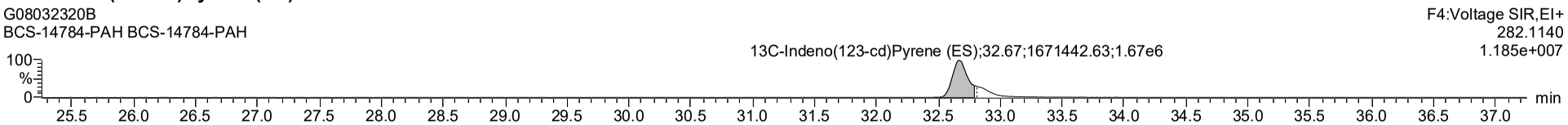
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

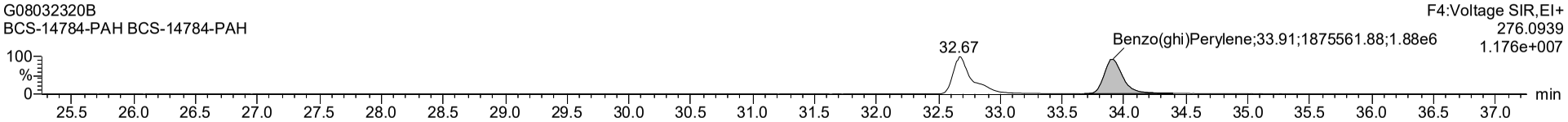
Indeno(123-cd)Pyrene



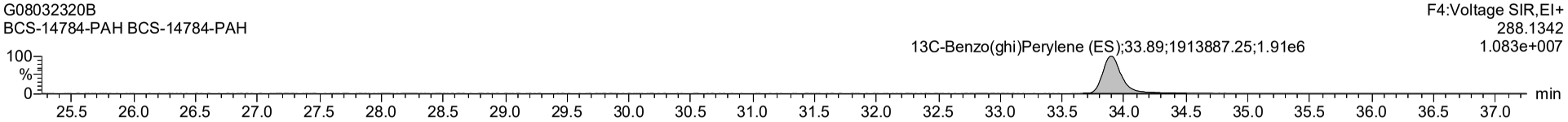
13C-Indeno(123-cd)Pyrene (ES)



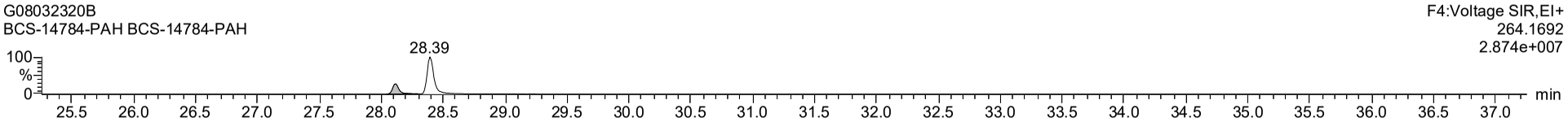
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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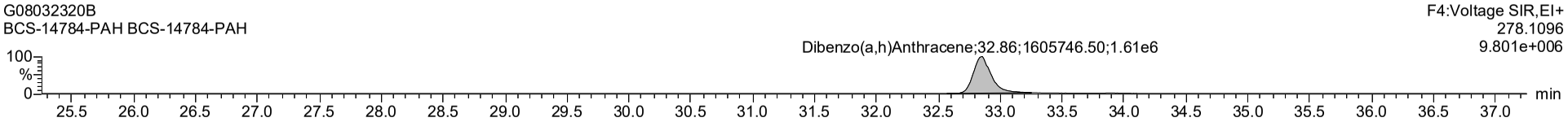
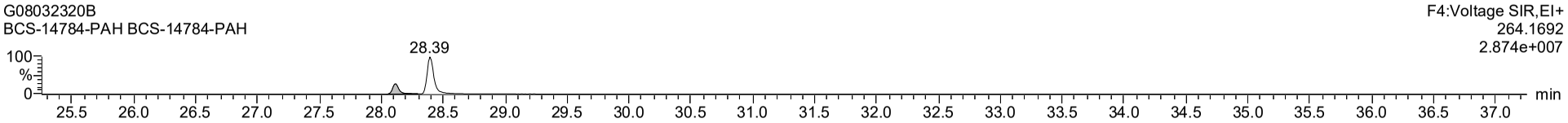
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



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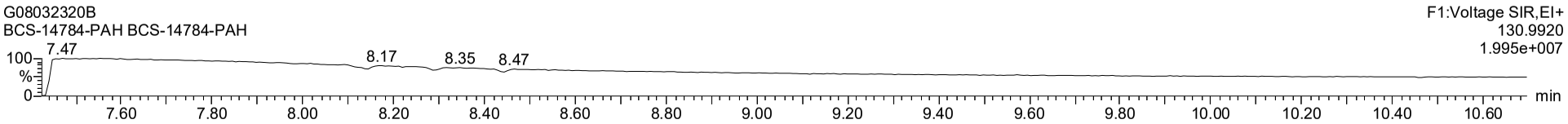
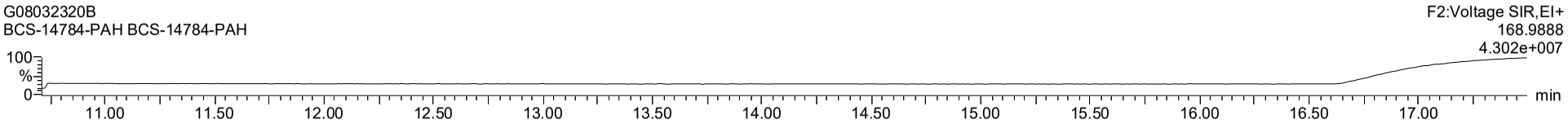
Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

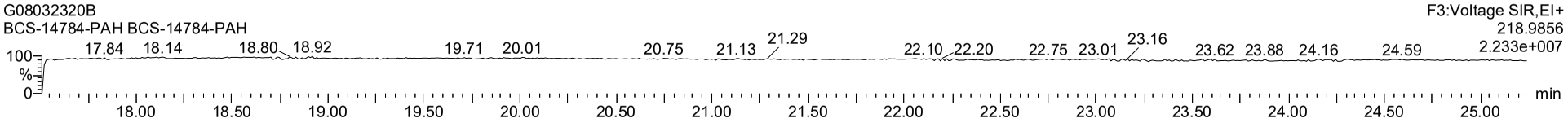
QC Check Ion Fn1



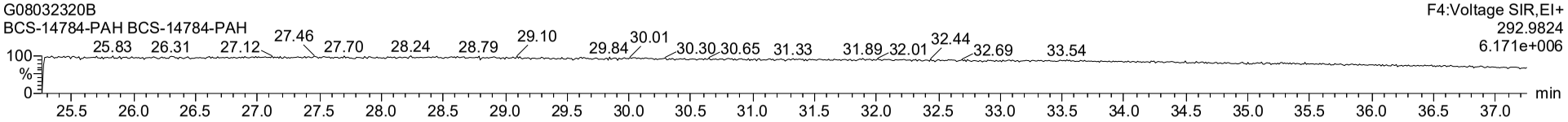
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.901e6	2.756e6	0.000		8.05	8.06		0.0		
2	13C-Naphthalene (...	134.0827	2.756e6	5.186e5	0.000		8.10	8.05		0.0		
3	2-Methyl-naphthale...	142.0783	1.961e6	1.901e6	0.000		9.48	9.49		0.0		
4	13C-2-Methylnapht...	148.0984	1.901e6	5.186e5	0.000		9.49	9.48		0.0		
5	d10-2-Methylnapht...	152.1410	5.186e5		0.000	18874.078	9.76	9.42	519000	0.0	27.478	
6												
7	Acenaphthylene	152.0636	1.865e6	1.872e6	0.000		11.58	11.6		0.0		
8	13C-Acenaphthyle...	158.0827	1.872e6	4.174e5	0.000		11.59	11.6		0.0		
9	Acenaphthene	154.0783	1.423e6	1.479e6	0.000		11.98	12.0		0.0		
10	13C-Acenaphthene...	160.0984	1.479e6	4.174e5	0.000		11.99	12.0		0.0		
11	d10-Acenaphthene...	164.1410	4.174e5		0.000	13122.905	12.25	11.9	417000	0.0	31.806	
12												
13	Fluorene	166.0783	1.936e6	1.719e6	0.000		13.22	13.2		0.0		
14	13C-Fluorene (ES)	172.0984	1.719e6	4.174e5	0.000		13.17	13.2		0.0		
15	Phenanthrene	178.0783	2.757e6	2.759e6	0.000		15.55	15.6		0.0		
16	13C-Phenanthrene...	184.0984	2.759e6	4.174e5	0.000		15.55	15.6		0.0		
17	d10-Acenaphthene...	164.1410	4.174e5		0.000	13122.905	12.25	11.9	417000	0.0	31.806	
18												
19	Anthracene	178.0783	2.524e6	2.097e6	0.000		15.68	15.7		0.0		
20	13C-Anthracene (E...	184.0984	2.097e6	4.174e5	0.000		15.67	15.7		0.0		
21	Fluoranthene	202.0783	2.770e6	2.725e6	0.000		18.59	18.6		0.0		
22	13C-Fluoranthene (...	208.0984	2.725e6	5.943e5	0.000		18.60	18.6		0.0		
23	d10-Acenaphthene...	164.1410	4.174e5		0.000	13122.905	12.25	11.9	417000	0.0	31.806	
24	d10-Pyrene (JS)	212.1410	5.943e5		0.000	19126.001	19.23	19.2	594000	0.0	31.074	
25												
26	Pyrene	202.0783	2.747e6	2.810e6	0.000		19.29	19.3		0.0		
27	13C-Pyrene (ES)	205.0883	2.810e6	5.943e5	0.000		19.29	19.3		0.0		
28	Benzo(a)Anthracene	228.0939	2.009e6	1.934e6	0.000		23.34	23.3		0.0		
29	13C-Benzo(a)Anthr...	234.1140	1.934e6	5.943e5	0.000		23.34	23.3		0.0		
30	d10-Pyrene (JS)	212.1410	5.943e5		0.000	19126.001	19.23	19.2	594000	0.0	31.074	
31												
32	Chrysene	228.0939	2.172e6	2.052e6	0.000		23.47	23.5		0.0		
33	13C-Chrysene (ES)	234.1140	2.052e6	5.943e5	0.000		23.47	23.5		0.0		
34	Benzo(b)Fluoranth...	252.0939	1.925e6	2.118e6	0.000		27.10	27.1		0.0		
35	13C-Benzo(b)Fluor...	258.1140	2.118e6	4.644e5	0.000		27.13	27.1		0.0		
36	d10-Pyrene (JS)	212.1410	5.943e5		0.000	19126.001	19.23	19.2	594000	0.0	31.074	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	4.644e5		0.000	12322.130	28.12	28.1	464000	0.0	37.688	
38												
39	Benzo(k)Fluoranth...	252.0939	2.230e6	2.438e6	0.000		27.19	27.2		0.0		
40	13C-Benzo(k)Fluor...	258.1140	2.438e6	4.644e5	0.000		27.22	27.2		0.0		
41	Benzo(e)Pyrene	252.0939	2.037e6	2.192e6	0.000		28.02	28.0		0.0		
42	13C-Benzo(e)Pyre...	256.1073	2.192e6	4.644e5	0.000		28.02	28.0		0.0		
43	d12-Benzo(a)Pyren...	264.1692	4.644e5		0.000	12322.130	28.12	28.1	464000	0.0	37.688	
44												
45	Benzo(a)Pyrene	252.0939	1.817e6	2.042e6	0.000		28.20	28.2		0.0		
46	13C-Benzo(a)Pyre...	256.1073	2.042e6	4.644e5	0.000		28.20	28.2		0.0		
47	Perylene	252.0939	1.804e6	1.789e6	0.000		28.39	28.5		0.0		
48	d12-Perylene (ES)	264.1692	1.789e6	4.644e5	0.000		28.49	28.4		0.0		
49	d12-Benzo(a)Pyren...	264.1692	4.644e5		0.000	12322.130	28.12	28.1	464000	0.0	37.688	
50												
51	Indeno(123-cd)Pyr...	276.0939	1.565e6	1.671e6	0.000		32.67	32.7		0.0		
52	13C-Indeno(123-cd...	282.1140	1.671e6	4.644e5	0.000		32.54	32.7		0.0		
53	Benzo(ghi)Perylene	276.0939	1.876e6	1.914e6	0.000		33.89	33.9		0.0		
54	13C-Benzo(ghi)Per...	288.1342	1.914e6	4.644e5	0.000		33.73	33.9		0.0		
55	d12-Benzo(a)Pyren...	264.1692	4.644e5		0.000	12322.130	28.12	28.1	464000	0.0	37.688	
56												
57	Dibenzo(a,h)Anthra...	278.1096	1.606e6	1.738e6	0.000		32.85	32.9		0.0		
58	d12-Benzo(a)Pyren...	264.1692	4.644e5		0.000	12322.130	28.12	28.1	464000	0.0	37.688	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00			0.0		
61	QC Check Ion Fn2	168.9888			0.000		0.00			0.0		
62	QC Check Ion Fn3	218.9856			0.000		0.00			0.0		
63	QC Check Ion Fn4	292.9824			0.000		0.00			0.0		

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032320B, Date: 09-Mar-2023, Time: 05:19:58, ID: BCS-14784-PAH, Description: BCS-14784-PAH

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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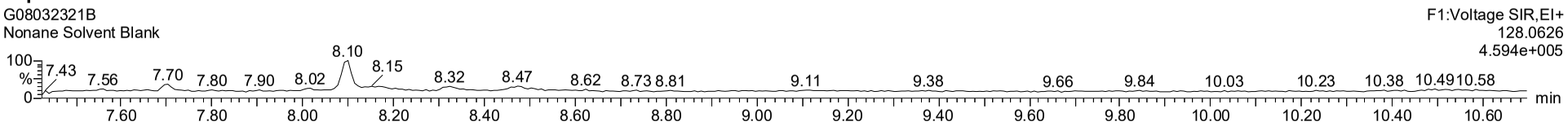
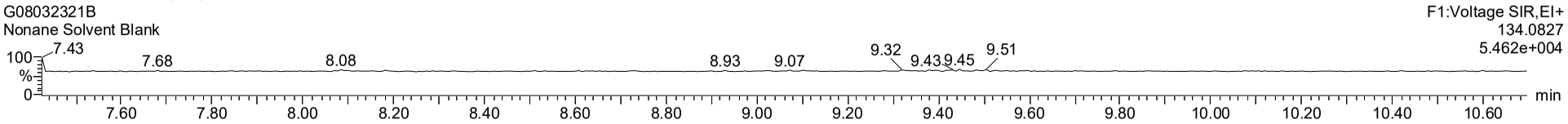
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

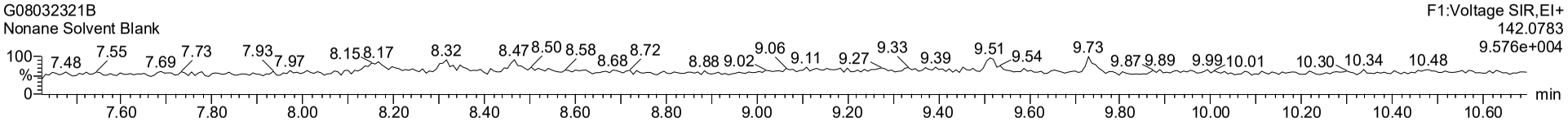
Naphthalene



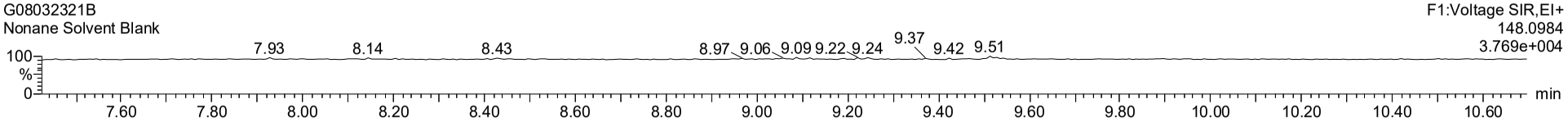
13C-Naphthalene (ES)



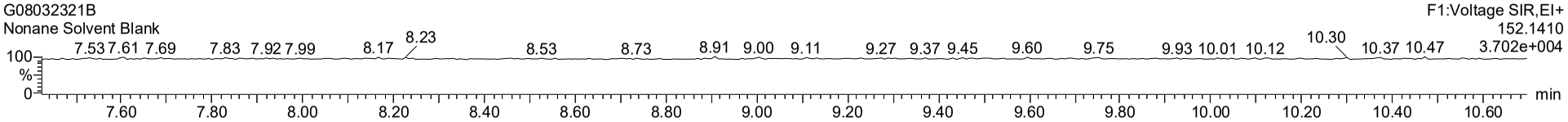
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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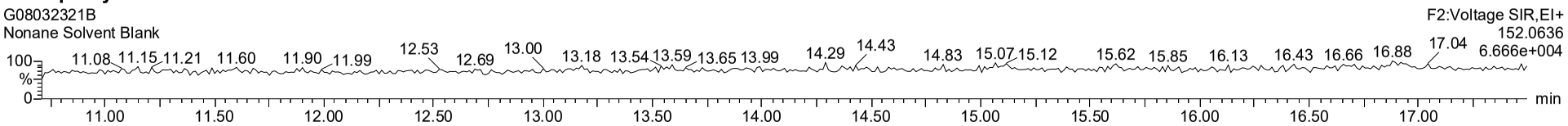
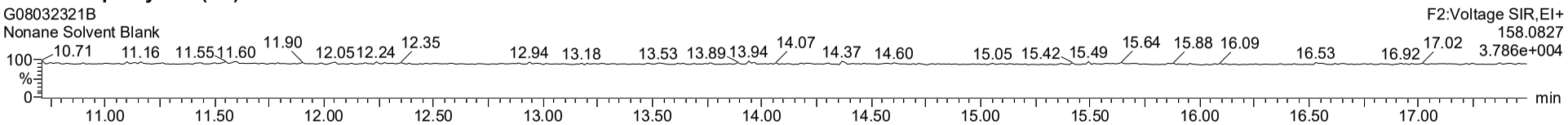
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

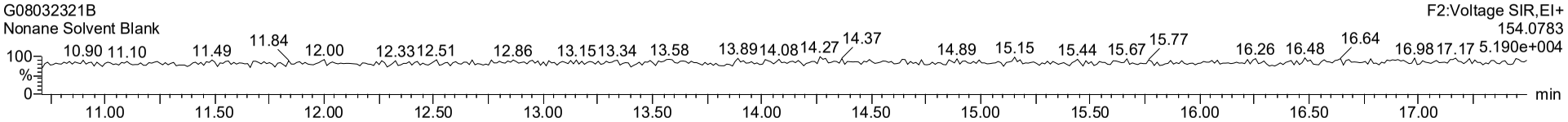
Acenaphthylene



13C-Acenaphthylene (ES)



Acenaphthene



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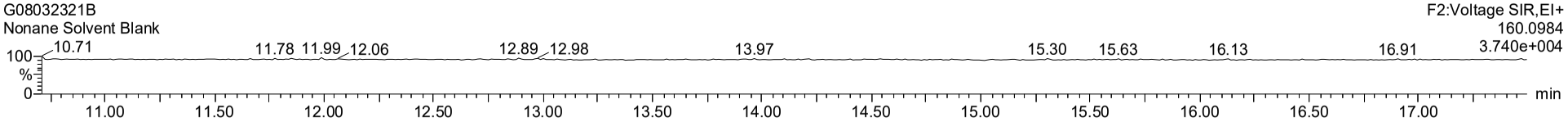
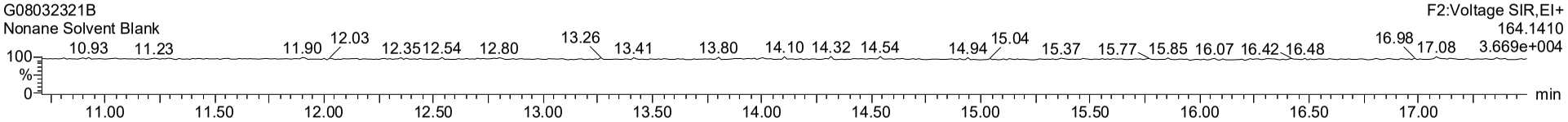


d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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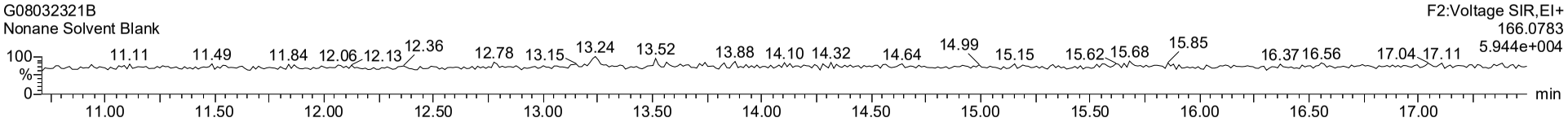
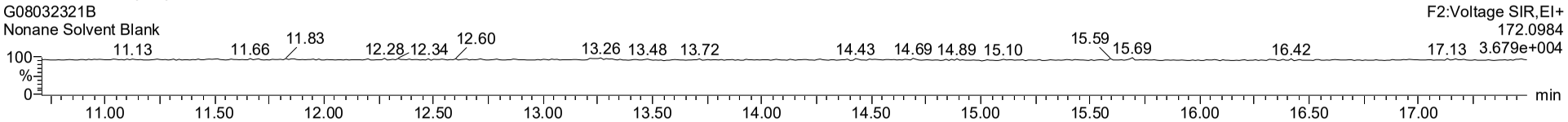
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

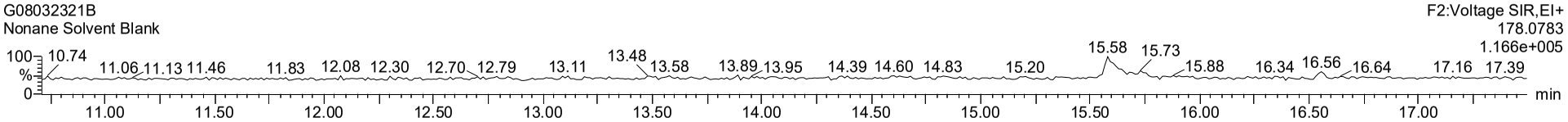
Fluorene



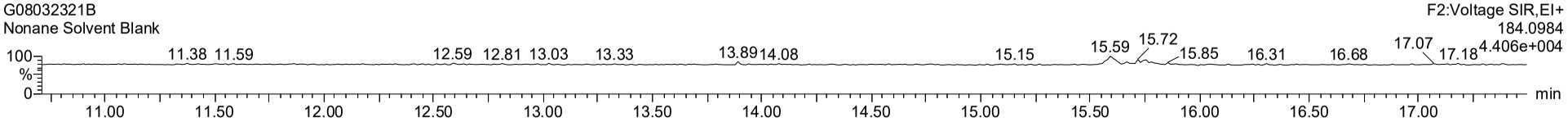
13C-Fluorene (ES)



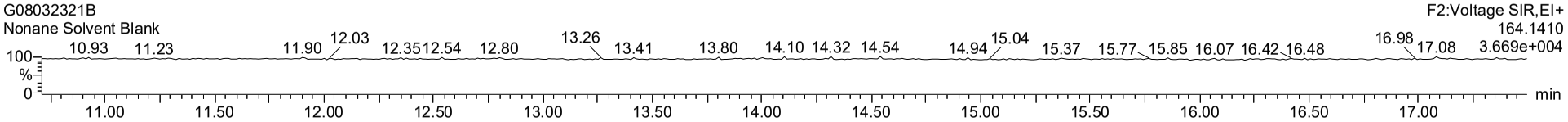
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



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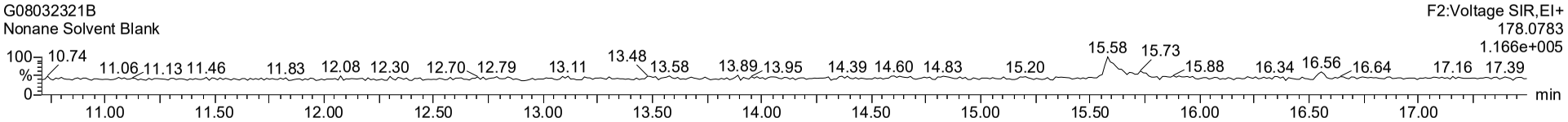
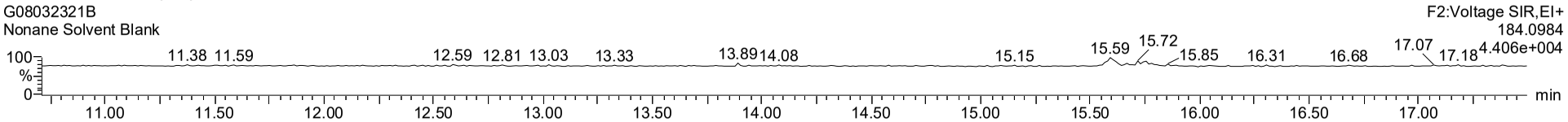
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

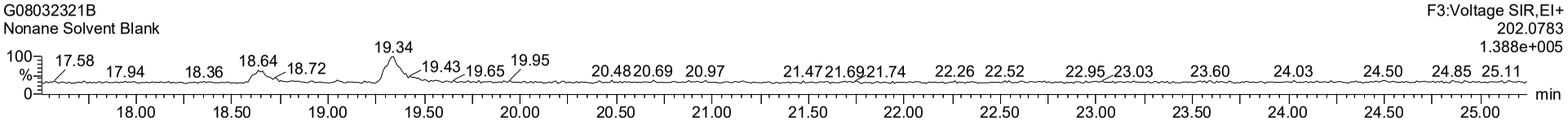
Anthracene



13C-Anthracene (ES)



Fluoranthene



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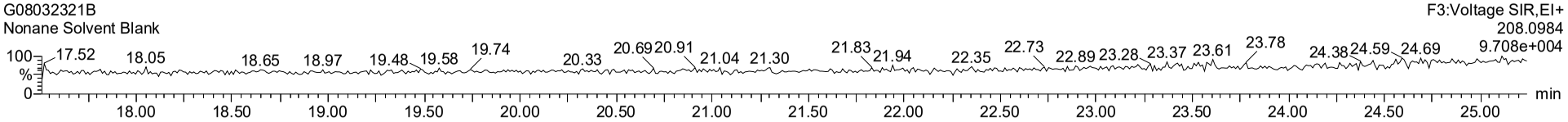
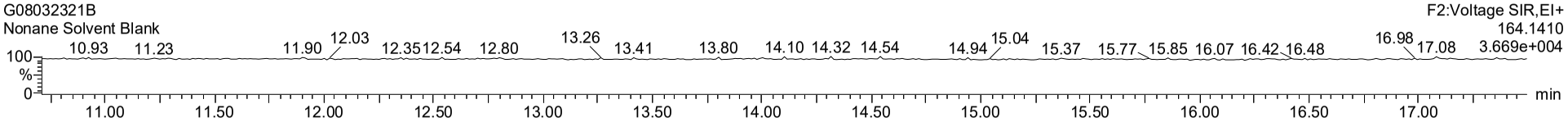


d10-Acenaphthene (JS)



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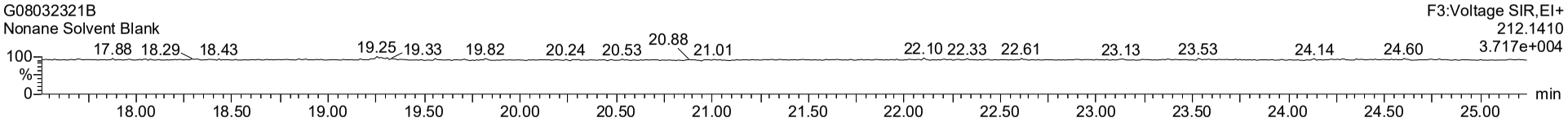
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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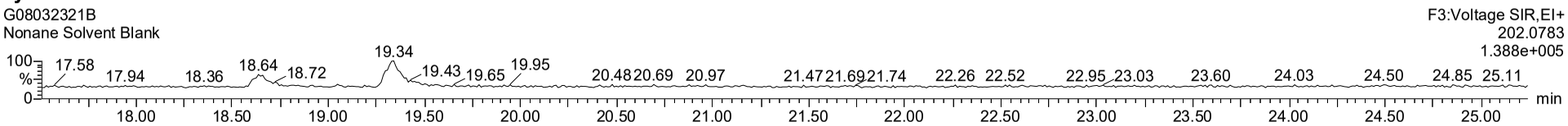
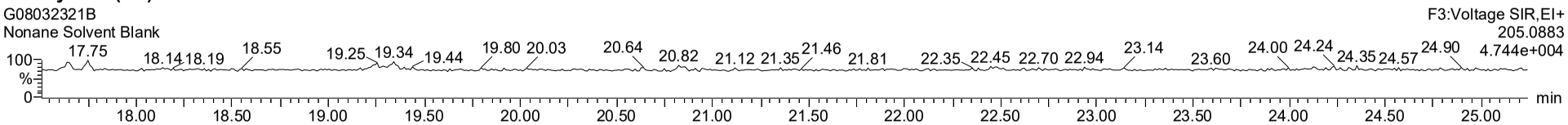
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

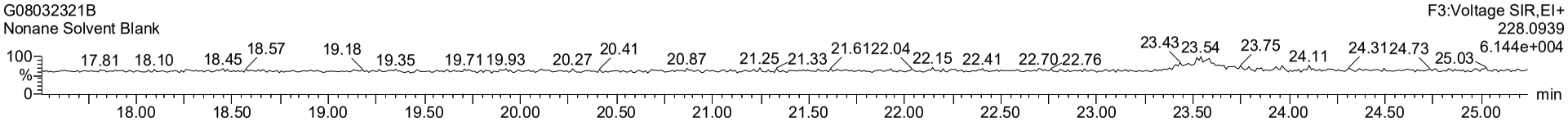
Pyrene



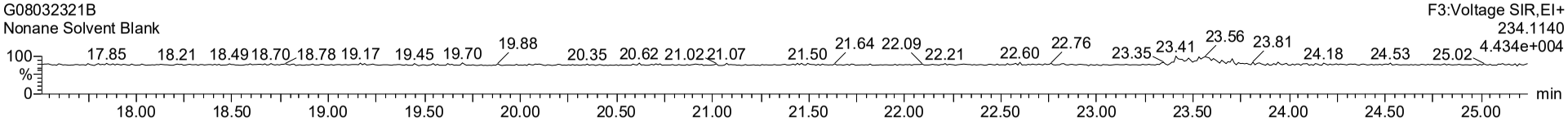
13C-Pyrene (ES)



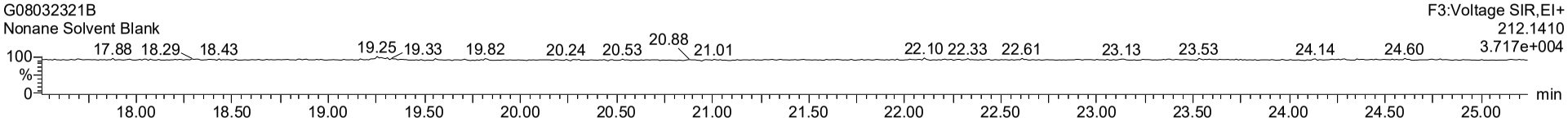
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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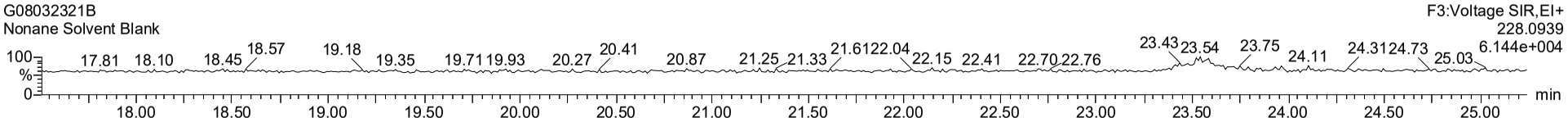
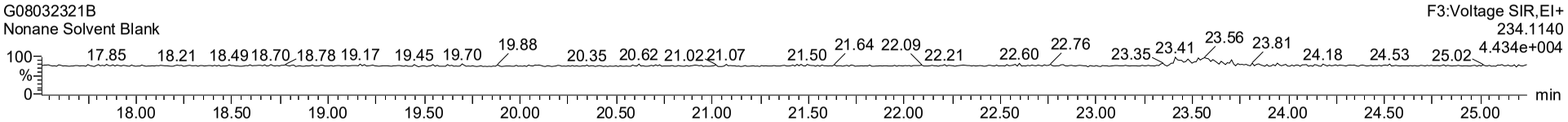
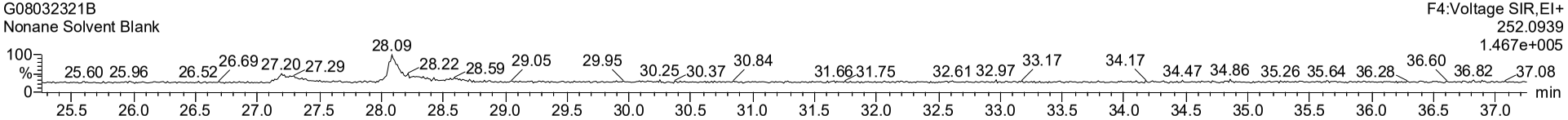
Chrysene



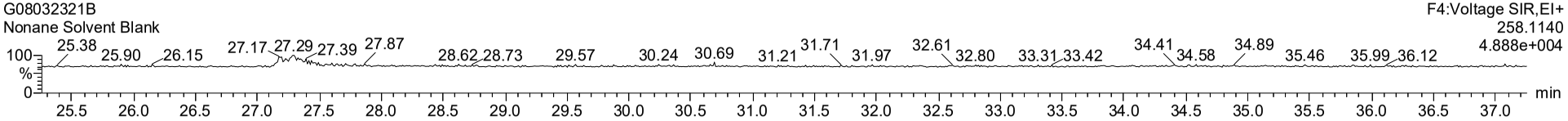
13C-Chrysene (ES)



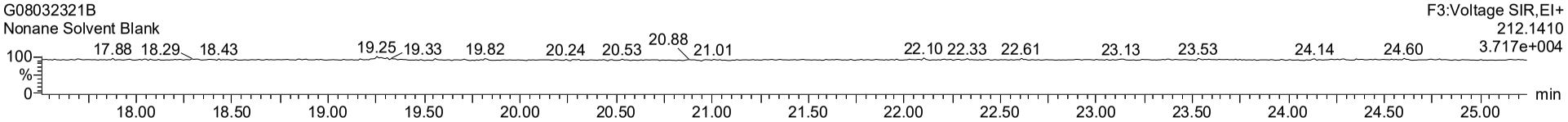
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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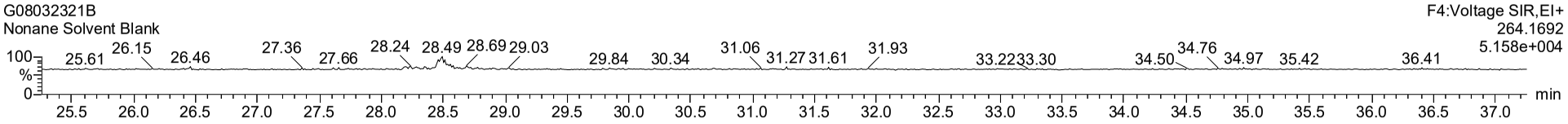
d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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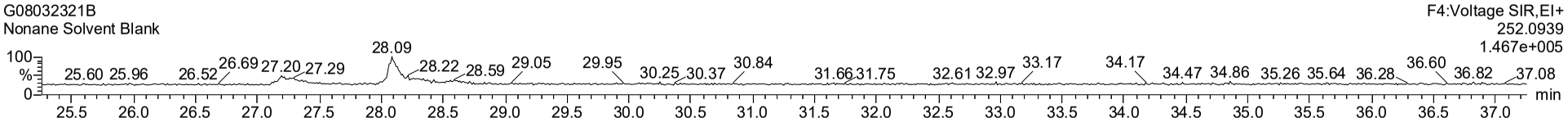
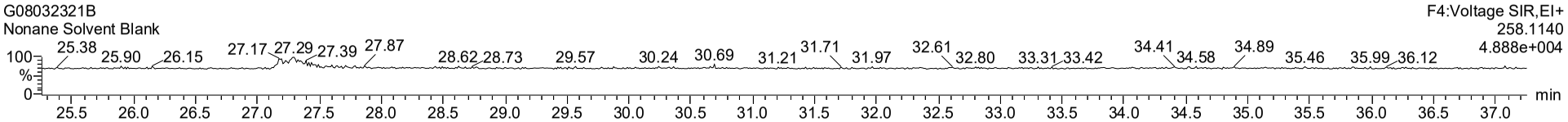
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

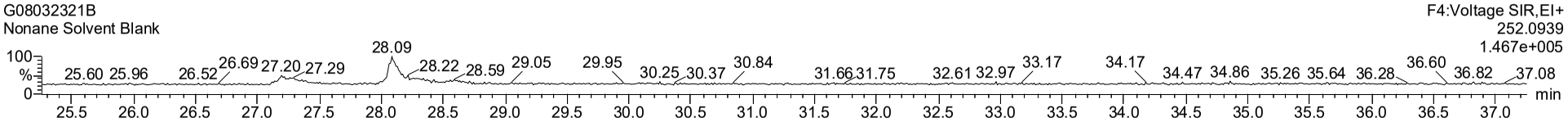
Benzo(k)Fluoranthene



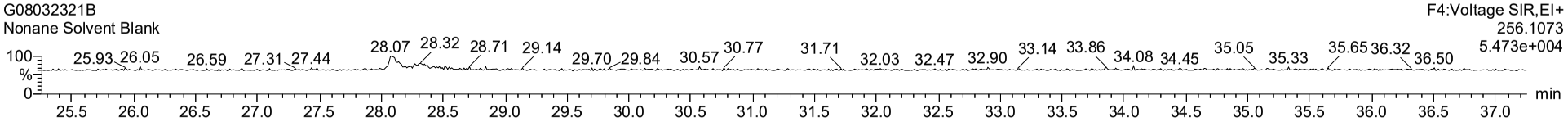
13C-Benzo(k)Fluoranthene (ES)



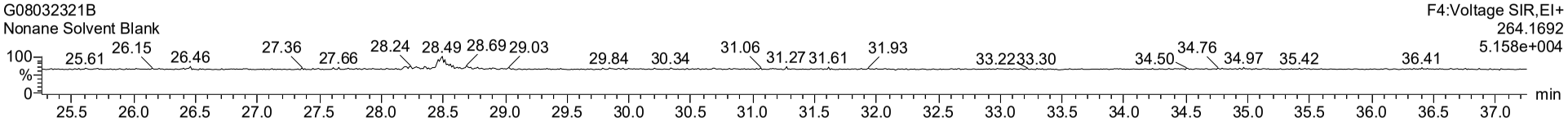
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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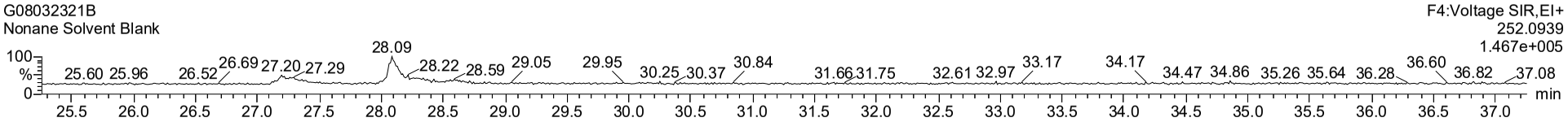
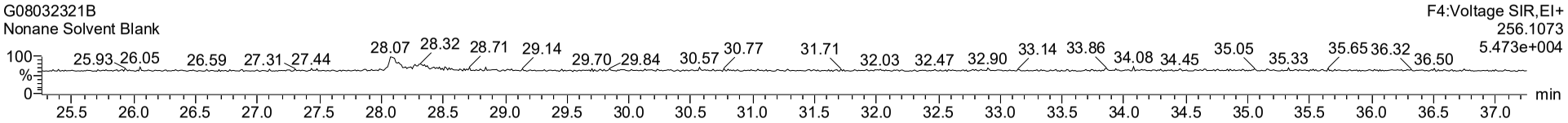
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

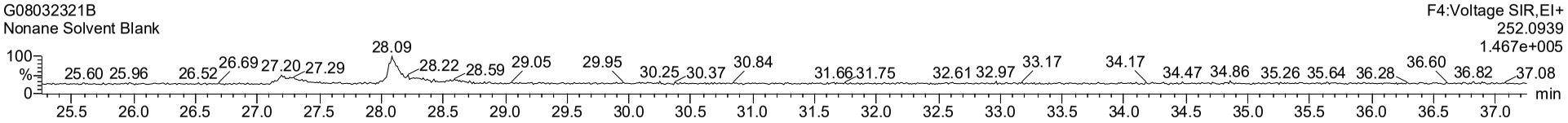
Benzo(a)Pyrene



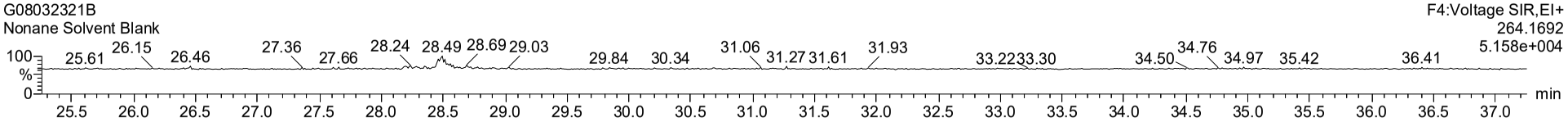
13C-Benzo(a)Pyrene (ES)



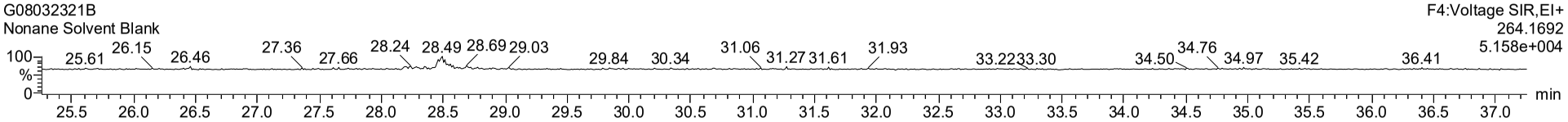
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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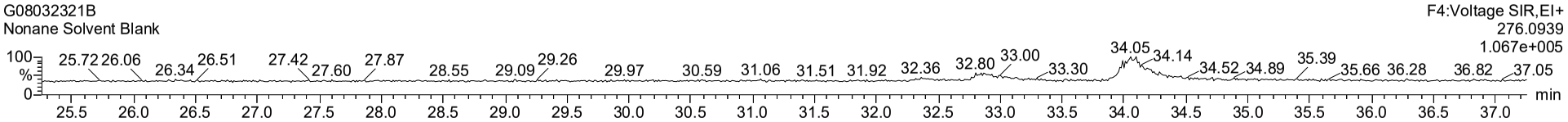
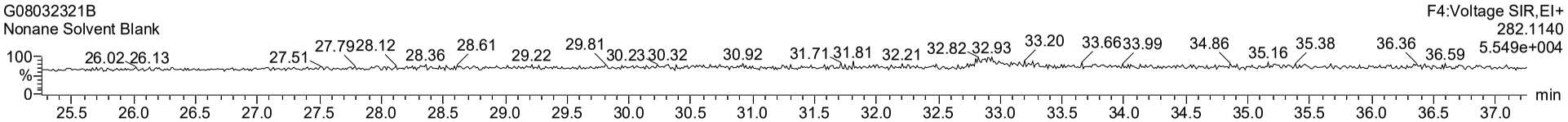
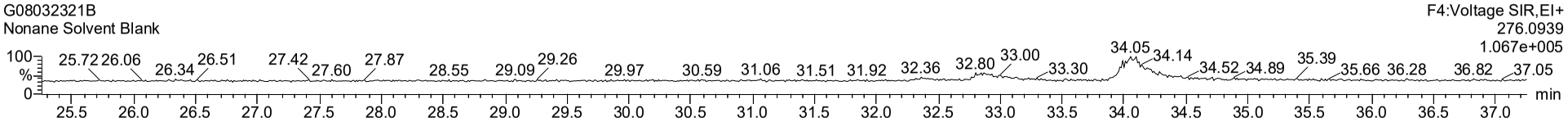
Indeno(123-cd)Pyrene



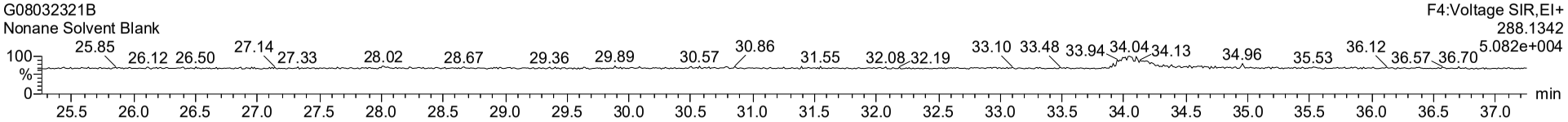
13C-Indeno(123-cd)Pyrene (ES)



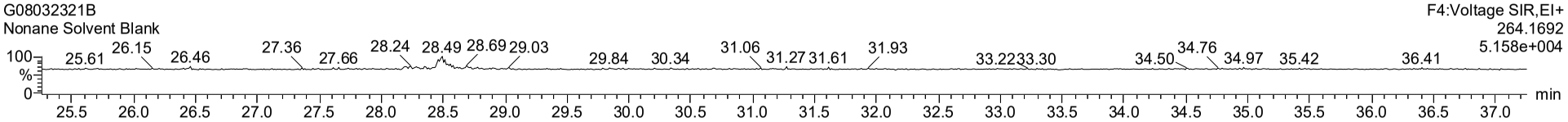
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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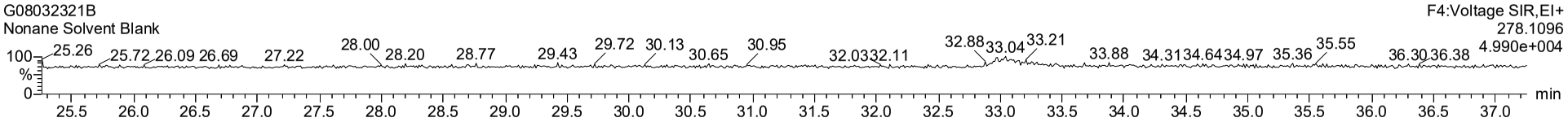
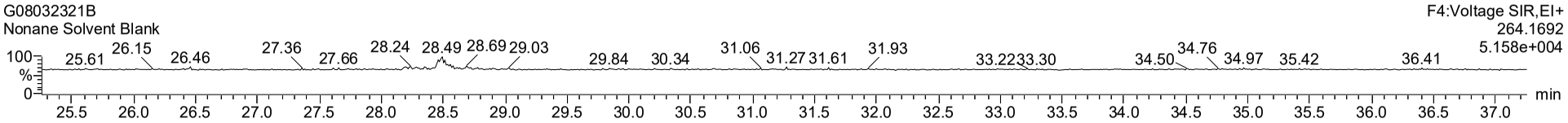
Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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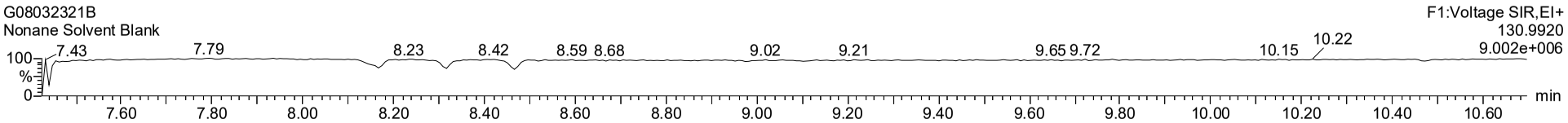
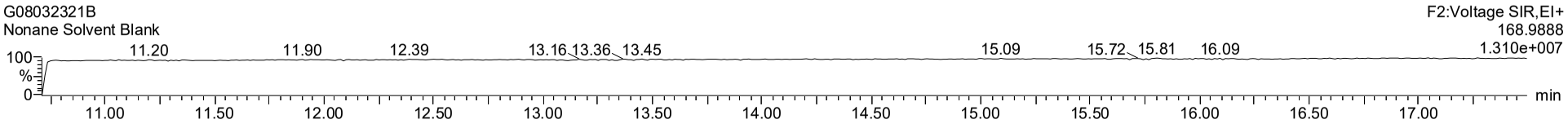
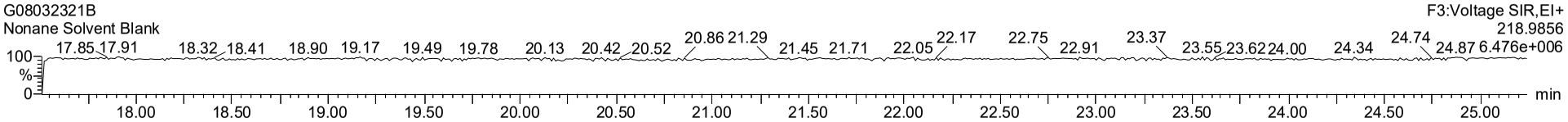
QC Check Ion Fn1



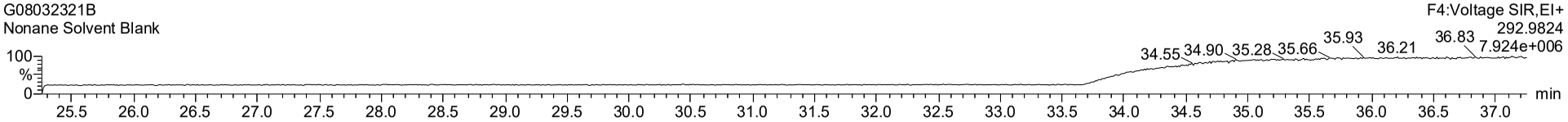
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626			0.000		0.00					
2	13C-Naphthalene (...	134.0827			0.000		0.00					
3	2-Methyl-naphthale...	142.0783			0.000		0.00					
4	13C-2-Methylnapht...	148.0984			0.000		0.00					
5	d10-2-Methylnapht...	152.1410			0.000	18874.078	9.76					
6												
7	Acenaphthylene	152.0636			0.000		0.00					
8	13C-Acenaphthyle...	158.0827			0.000		0.00					
9	Acenaphthene	154.0783			0.000		0.00					
10	13C-Acenaphthene...	160.0984			0.000		0.00					
11	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
12												
13	Fluorene	166.0783			0.000		0.00					
14	13C-Fluorene (ES)	172.0984			0.000		0.00					
15	Phenanthrene	178.0783			0.000		0.00					
16	13C-Phenanthrene...	184.0984			0.000		0.00					
17	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
18												
19	Anthracene	178.0783			0.000		0.00					
20	13C-Anthracene (E...	184.0984			0.000		0.00					
21	Fluoranthene	202.0783			0.000		0.00					
22	13C-Fluoranthene (...	208.0984			0.000		0.00					
23	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
24	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
25												
26	Pyrene	202.0783			0.000		0.00					
27	13C-Pyrene (ES)	205.0883			0.000		0.00					
28	Benzo(a)Anthracene	228.0939			0.000		0.00					
29	13C-Benzo(a)Anthr...	234.1140			0.000		0.00					
30	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
31												
32	Chrysene	228.0939			0.000		0.00					
33	13C-Chrysene (ES)	234.1140			0.000		0.00					
34	Benzo(b)Fluoranth...	252.0939			0.000		0.00					
35	13C-Benzo(b)Fluor...	258.1140			0.000		0.00					
36	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
38												
39	Benzo(k)Fluoranth...	252.0939			0.000		0.00					
40	13C-Benzo(k)Fluor...	258.1140			0.000		0.00					
41	Benzo(e)Pyrene	252.0939			0.000		0.00					
42	13C-Benzo(e)Pyre...	256.1073			0.000		0.00					
43	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
44												
45	Benzo(a)Pyrene	252.0939			0.000		0.00					
46	13C-Benzo(a)Pyre...	256.1073			0.000		0.00					
47	Perylene	252.0939			0.000		0.00					
48	d12-Perylene (ES)	264.1692			0.000		0.00					
49	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
50												
51	Indeno(123-cd)Pyr...	276.0939			0.000		0.00					
52	13C-Indeno(123-cd...	282.1140			0.000		0.00					
53	Benzo(ghi)Perylene	276.0939			0.000		0.00					
54	13C-Benzo(ghi)Per...	288.1342			0.000		0.00					
55	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
56												
57	Dibenzo(a,h)Anthra...	278.1096			0.000		0.00					
58	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032321B, Date: 09-Mar-2023, Time: 06:00:02, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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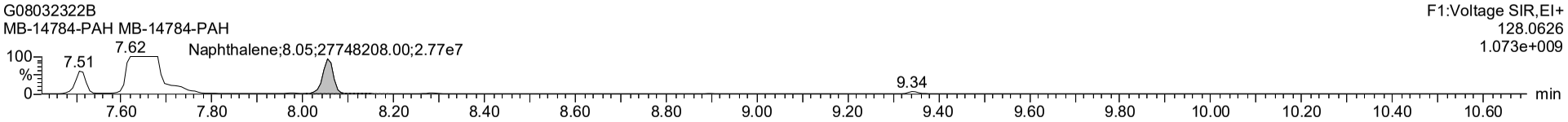
Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

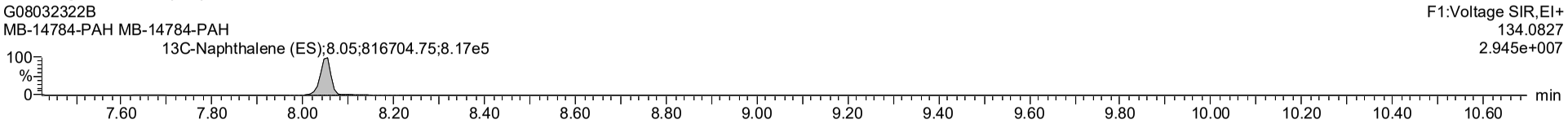
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

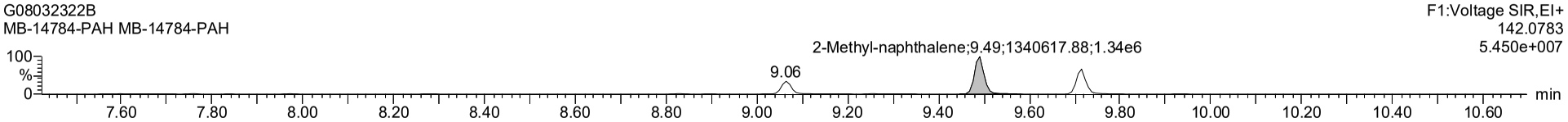
Naphthalene



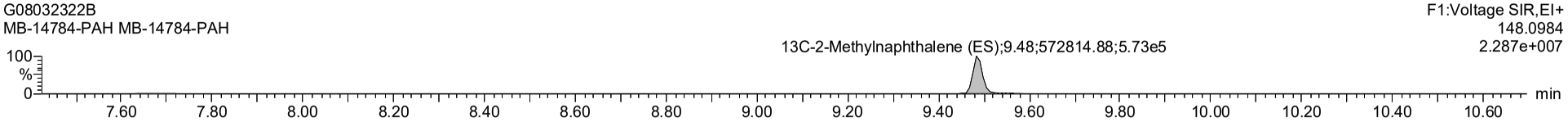
13C-Naphthalene (ES)



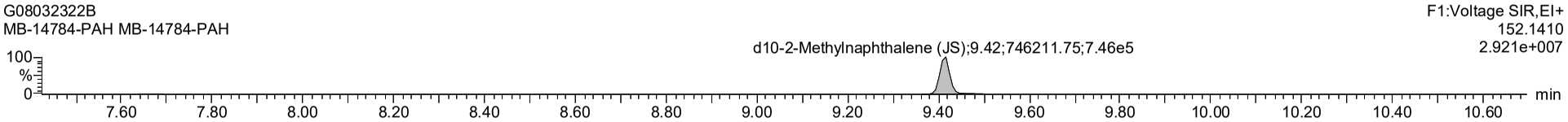
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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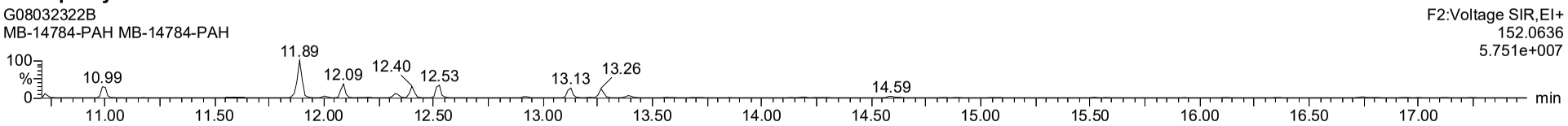
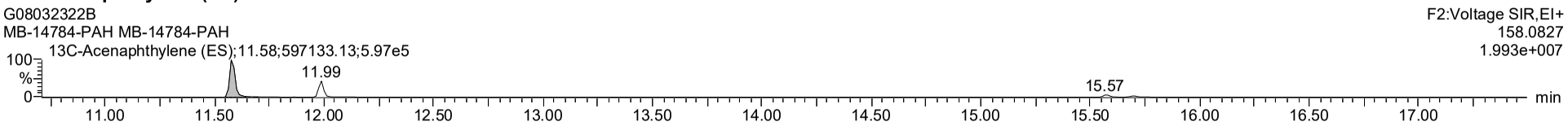
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

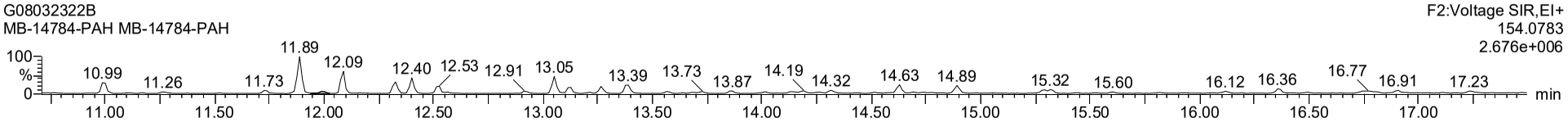
Acenaphthylene



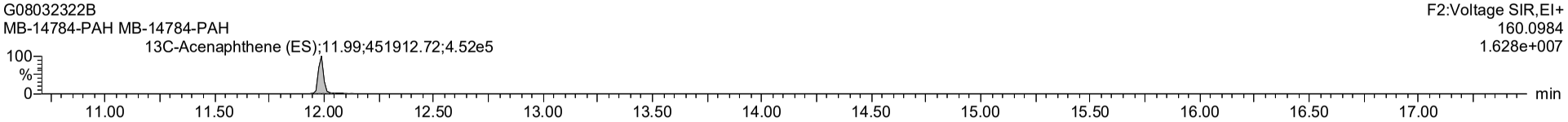
13C-Acenaphthylene (ES)



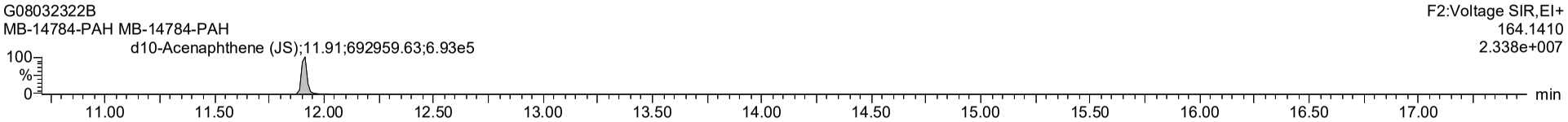
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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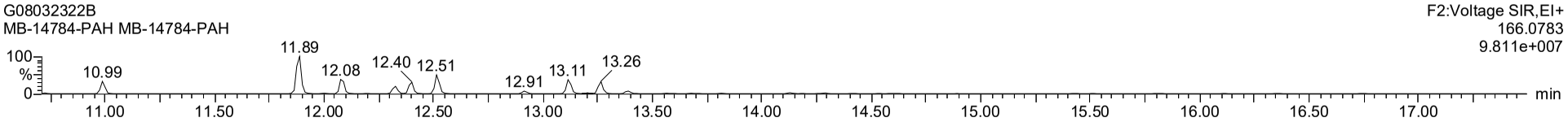
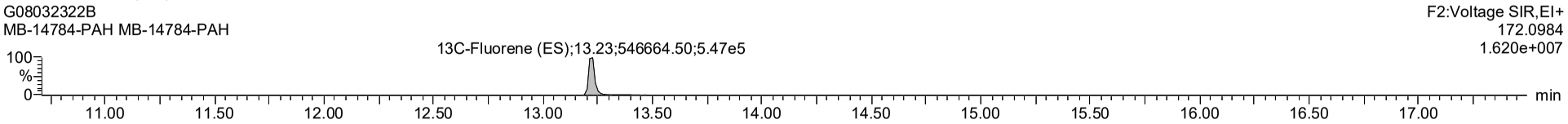
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

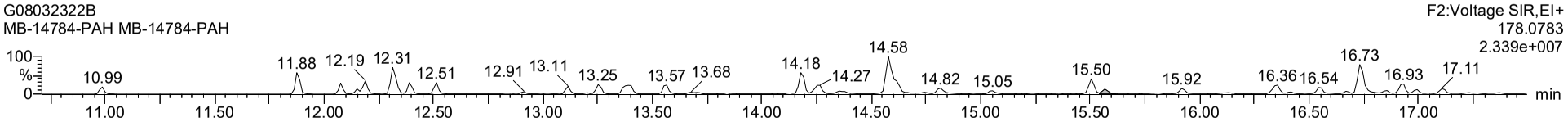
Fluorene



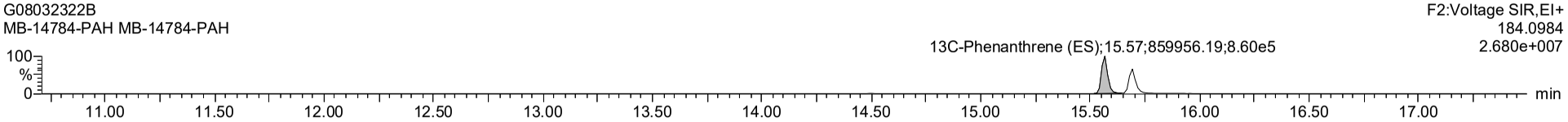
13C-Fluorene (ES)



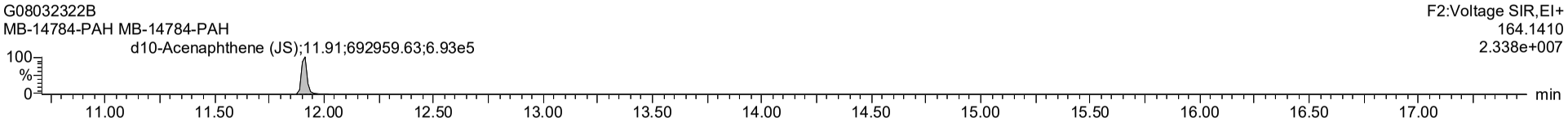
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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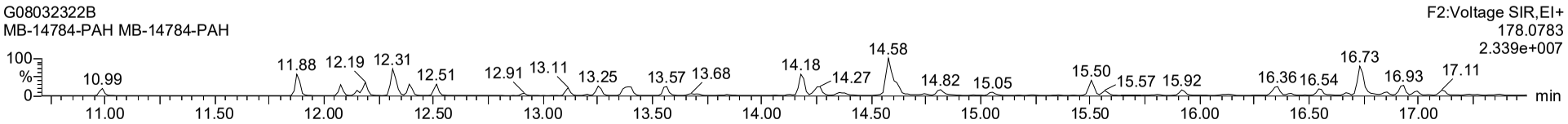
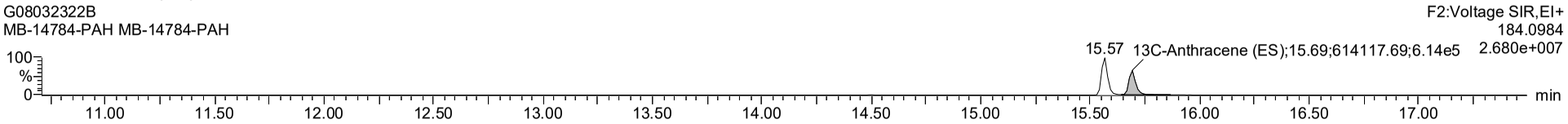
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

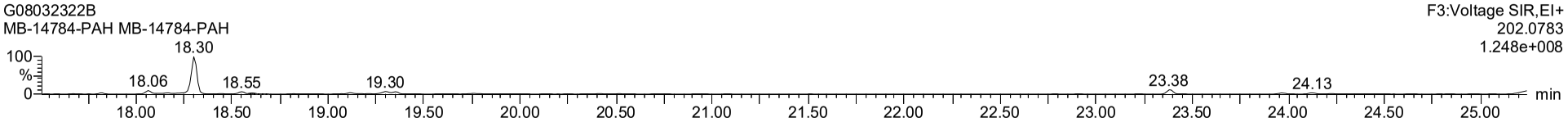
Anthracene



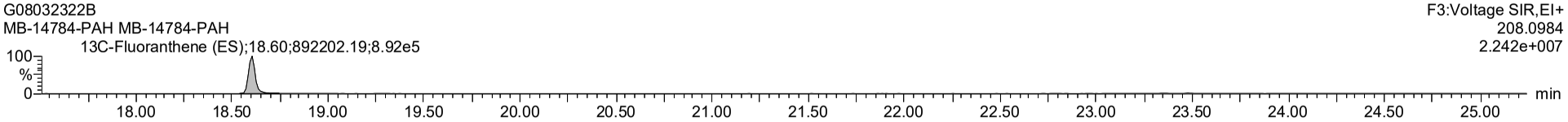
13C-Anthracene (ES)



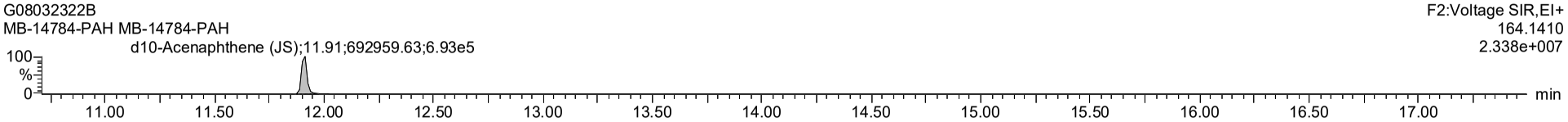
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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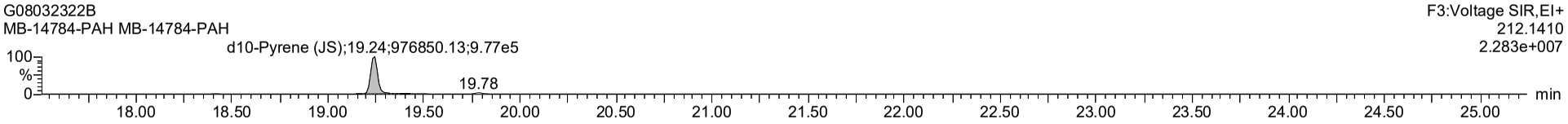
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

d10-Pyrene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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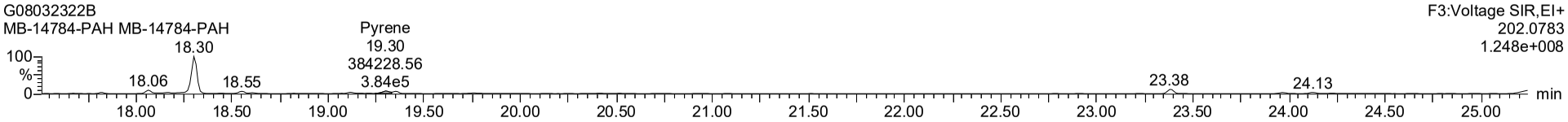
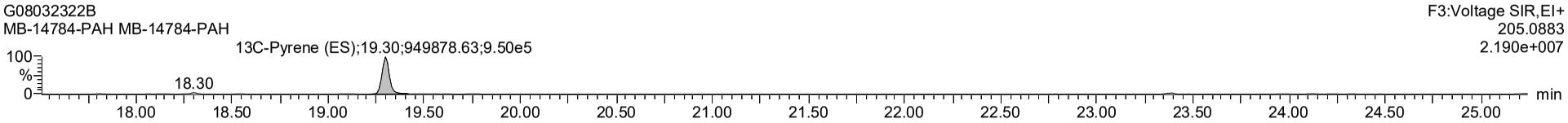
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

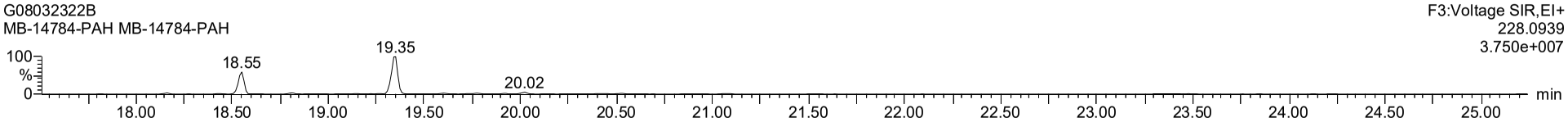
Pyrene



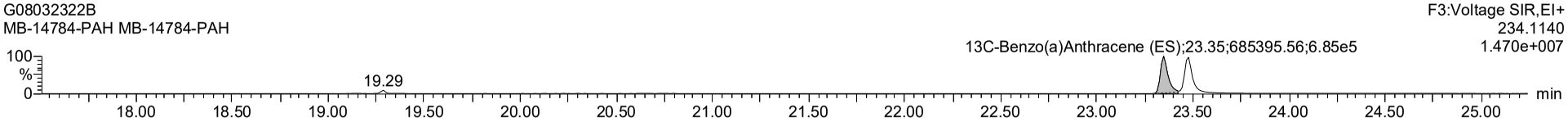
13C-Pyrene (ES)



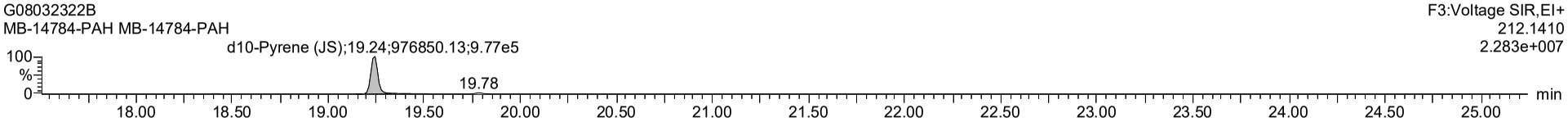
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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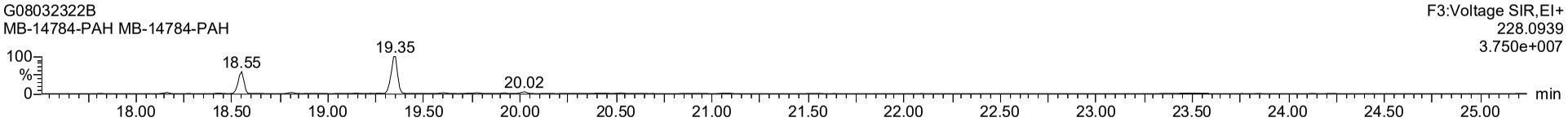
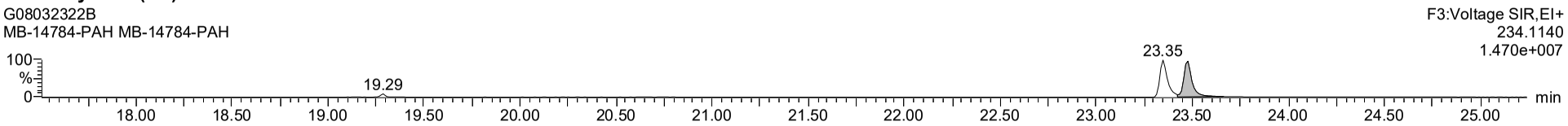
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

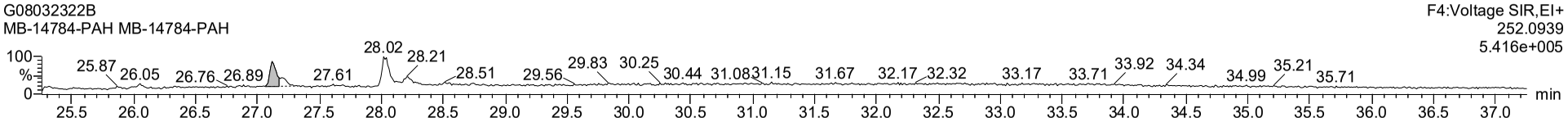
Chrysene



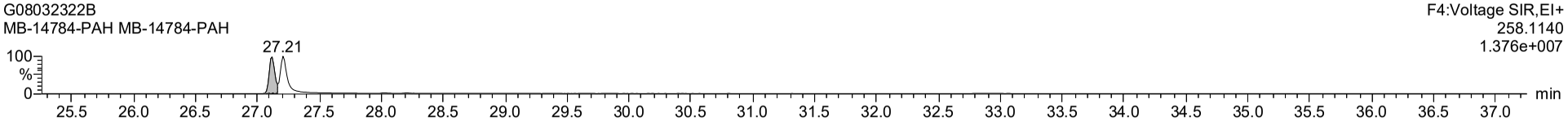
13C-Chrysene (ES)



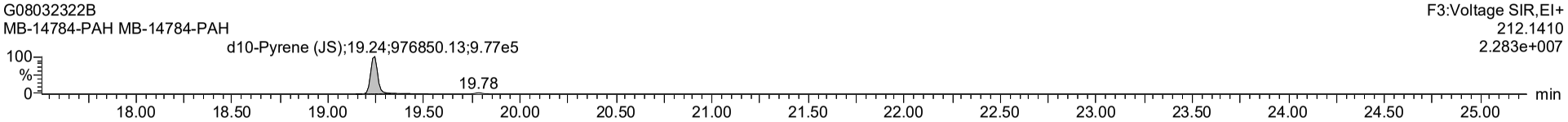
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



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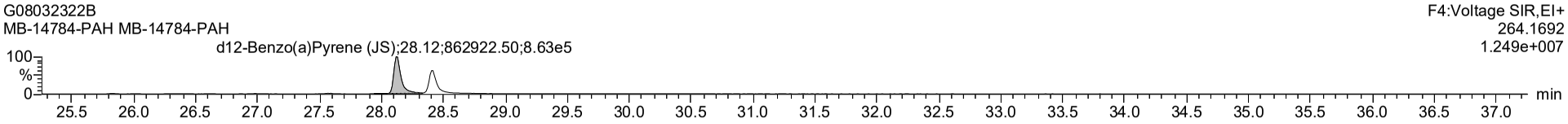
d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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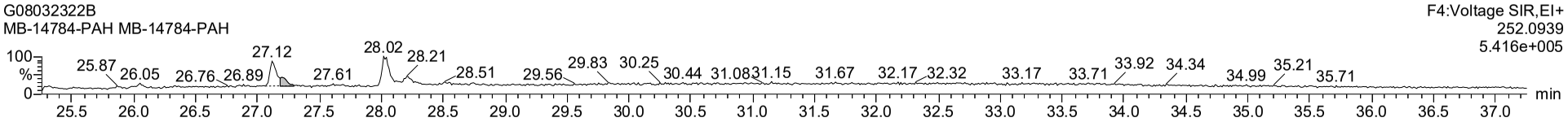
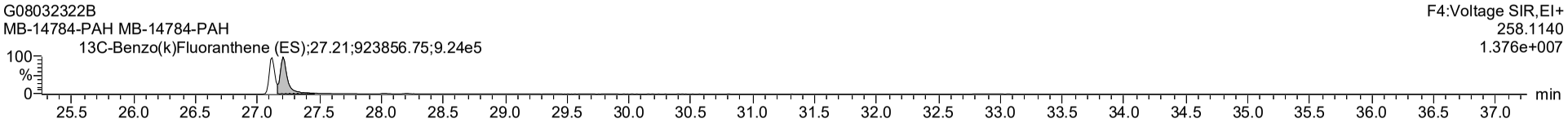
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

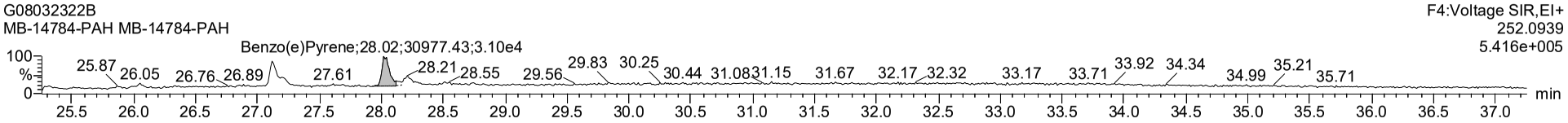
Benzo(k)Fluoranthene



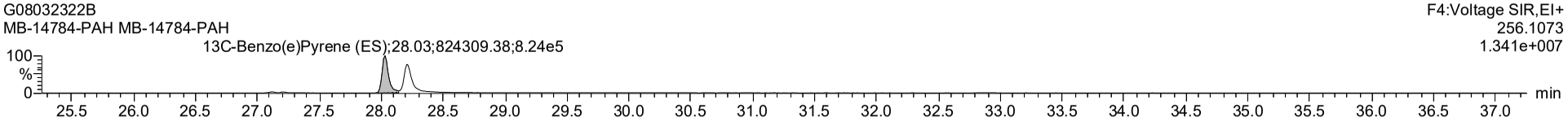
13C-Benzo(k)Fluoranthene (ES)



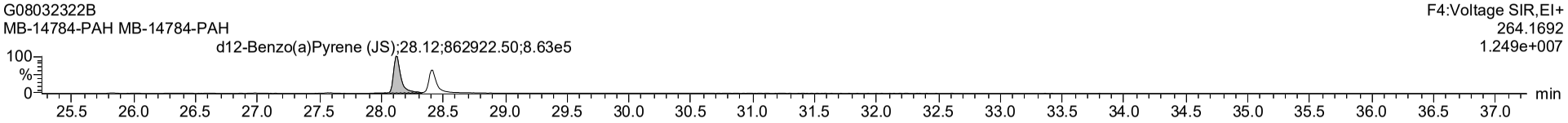
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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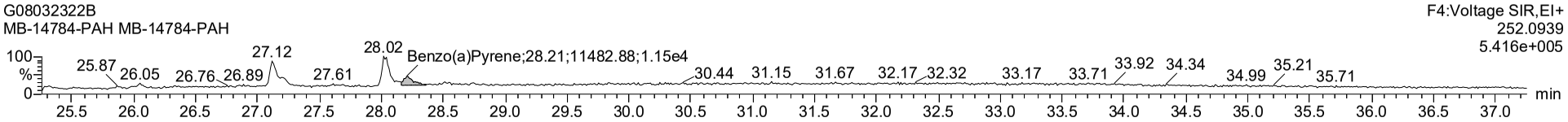
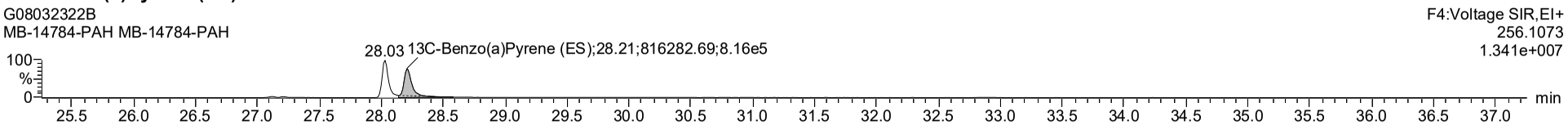
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

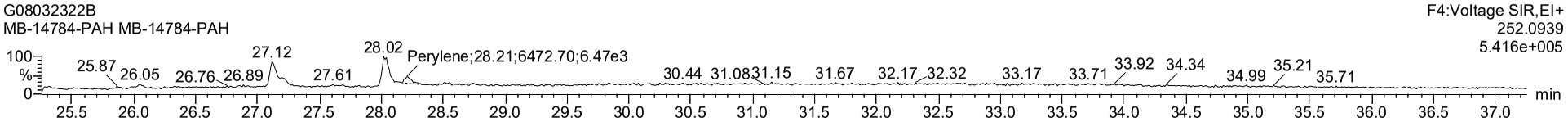
Benzo(a)Pyrene



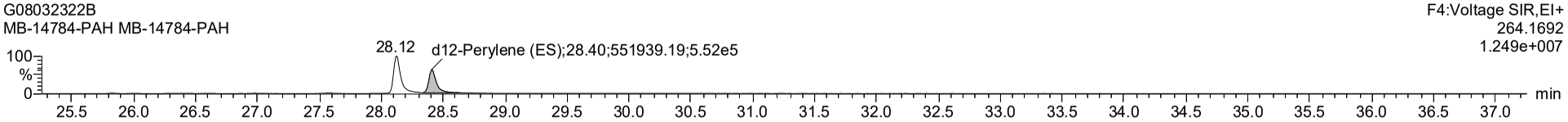
13C-Benzo(a)Pyrene (ES)



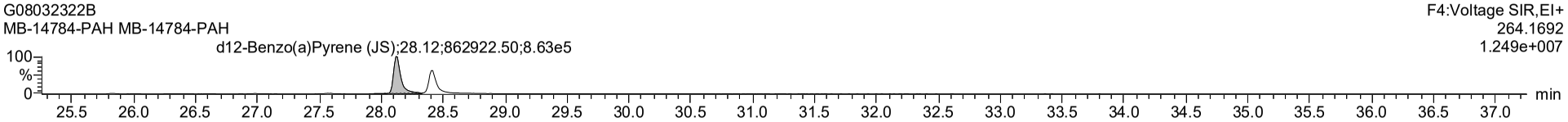
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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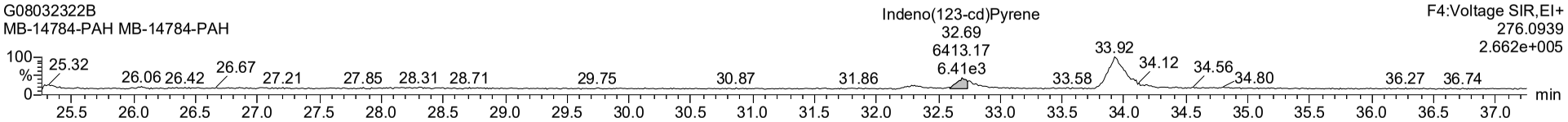
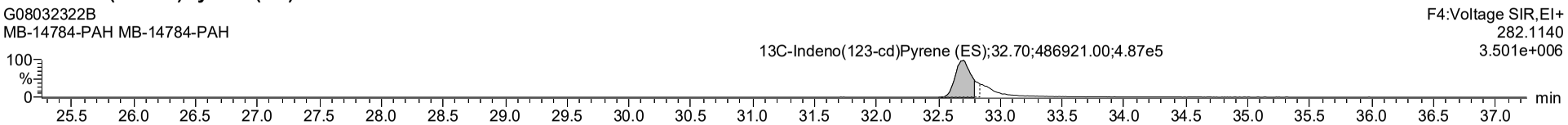
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

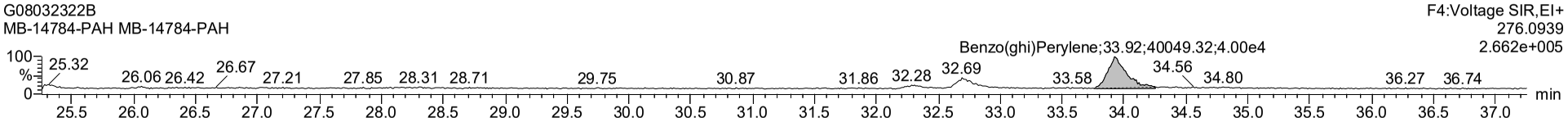
Indeno(123-cd)Pyrene



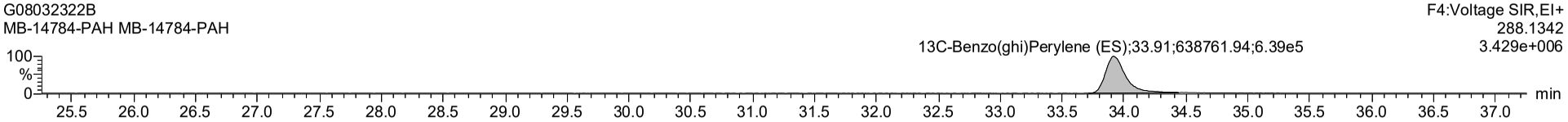
13C-Indeno(123-cd)Pyrene (ES)



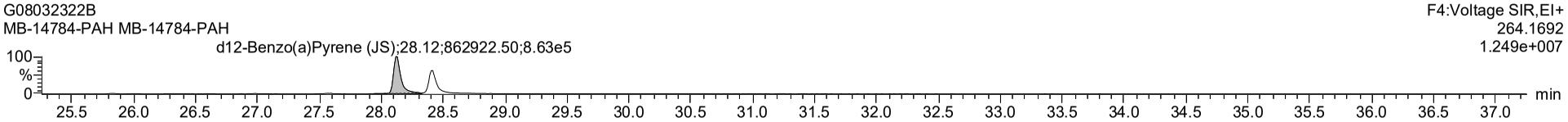
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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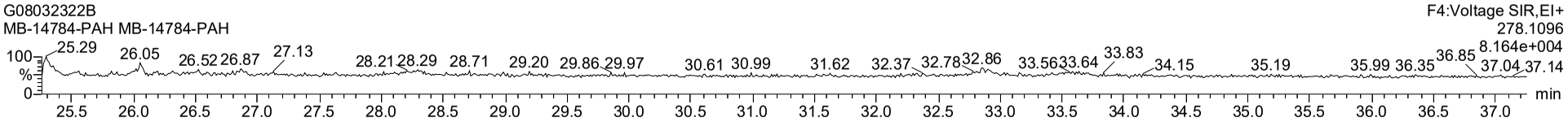
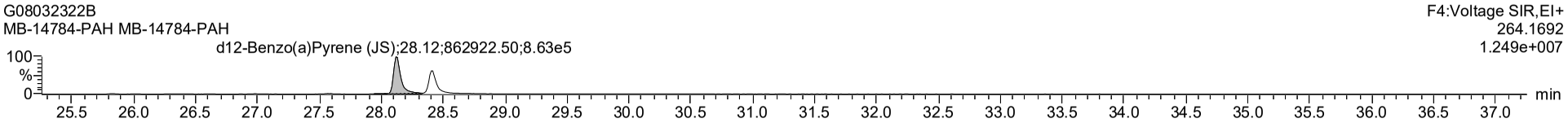
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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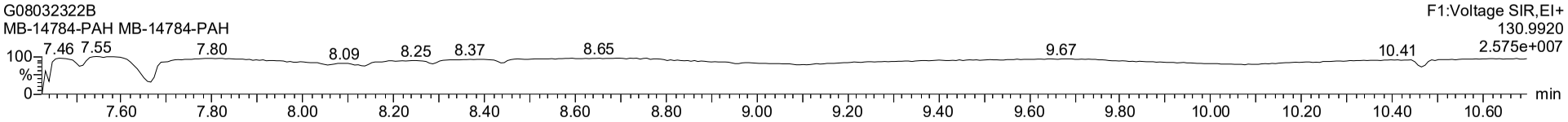
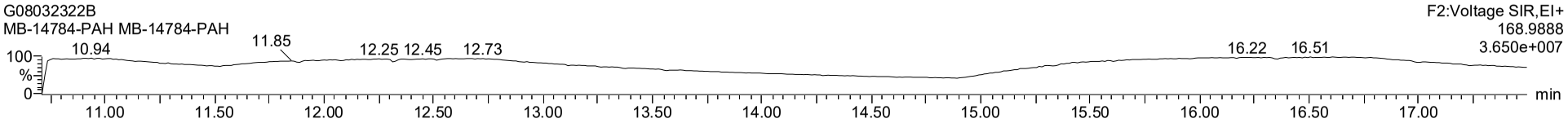
Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

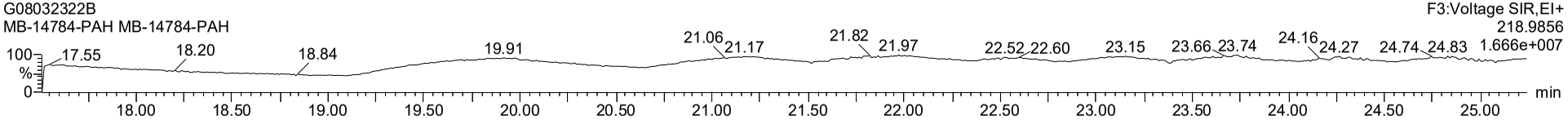
QC Check Ion Fn1



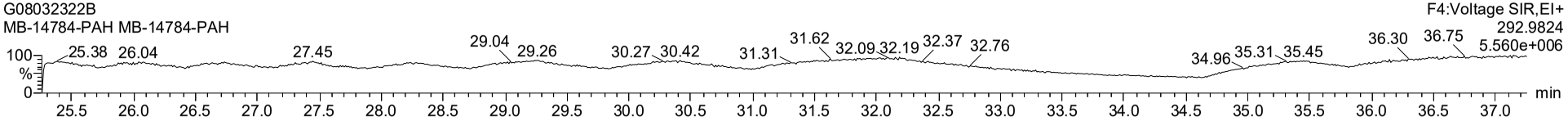
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.775e7	8.167e5	0.000		8.05	8.05				
2	13C-Naphthalene (...	134.0827	8.167e5	7.462e5	0.000		8.10	8.05				
3	2-Methyl-naphthale...	142.0783	1.341e6	5.728e5	0.000		9.48	9.49				
4	13C-2-Methylnapht...	148.0984	5.728e5	7.462e5	0.000		9.49	9.48				
5	d10-2-Methylnapht...	152.1410	7.462e5		0.000	18874.078	9.76	9.42	746000		158.145	
6												
7	Acenaphthylene	152.0636	4.710e3	5.971e5	0.000		11.58	11.6				
8	13C-Acenaphthyle...	158.0827	5.971e5	6.930e5	0.000		11.60	11.6				
9	Acenaphthene	154.0783	4.853e3	4.519e5	0.000		11.99	12.0				
10	13C-Acenaphthene...	160.0984	4.519e5	6.930e5	0.000		12.00	12.0				
11	d10-Acenaphthene...	164.1410	6.930e5		0.000	13122.905	12.25	11.9	693000		211.221	
12												
13	Fluorene	166.0783	4.865e4	5.467e5	0.000		13.23	13.2				
14	13C-Fluorene (ES)	172.0984	5.467e5	6.930e5	0.000		13.19	13.2				
15	Phenanthrene	178.0783	8.891e4	8.600e5	0.000		15.57	15.6				
16	13C-Phenanthrene...	184.0984	8.600e5	6.930e5	0.000		15.57	15.6				
17	d10-Acenaphthene...	164.1410	6.930e5		0.000	13122.905	12.25	11.9	693000		211.221	
18												
19	Anthracene	178.0783	7.345e3	6.141e5	0.000		15.69	15.7				
20	13C-Anthracene (E...	184.0984	6.141e5	6.930e5	0.000		15.68	15.7				
21	Fluoranthene	202.0783	1.118e5	8.922e5	0.000		18.60	18.6				
22	13C-Fluoranthene (...	208.0984	8.922e5	9.769e5	0.000		18.61	18.6				
23	d10-Acenaphthene...	164.1410	6.930e5		0.000	13122.905	12.25	11.9	693000		211.221	
24	d10-Pyrene (JS)	212.1410	9.769e5		0.000	19126.001	19.23	19.2	977000		204.298	
25												
26	Pyrene	202.0783	3.842e5	9.499e5	0.000		19.30	19.3				
27	13C-Pyrene (ES)	205.0883	9.499e5	9.769e5	0.000		19.30	19.3				
28	Benzo(a)Anthracene	228.0939	1.329e4	6.854e5	0.000		23.35	23.4				
29	13C-Benzo(a)Anthr...	234.1140	6.854e5	9.769e5	0.000		23.36	23.3				
30	d10-Pyrene (JS)	212.1410	9.769e5		0.000	19126.001	19.23	19.2	977000		204.298	
31												
32	Chrysene	228.0939	1.789e4	6.980e5	0.000		23.48	23.5				
33	13C-Chrysene (ES)	234.1140	6.980e5	9.769e5	0.000		23.49	23.5				
34	Benzo(b)Fluoranth...	252.0939	2.120e4	7.062e5	0.000		27.12	27.1				
35	13C-Benzo(b)Fluor...	258.1140	7.062e5	8.629e5	0.000		27.13	27.1				
36	d10-Pyrene (JS)	212.1410	9.769e5		0.000	19126.001	19.23	19.2	977000		204.298	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	8.629e5		0.000	12322.130	28.12	28.1	863000		280.121	
38												
39	Benzo(k)Fluoranth...	252.0939	7.931e3	9.239e5	0.000		27.21	27.2				
40	13C-Benzo(k)Fluor...	258.1140	9.239e5	8.629e5	0.000		27.22	27.2				
41	Benzo(e)Pyrene	252.0939	3.098e4	8.243e5	0.000		28.03	28.0				
42	13C-Benzo(e)Pyre...	256.1073	8.243e5	8.629e5	0.000		28.02	28.0				
43	d12-Benzo(a)Pyren...	264.1692	8.629e5		0.000	12322.130	28.12	28.1	863000		280.121	
44												
45	Benzo(a)Pyrene	252.0939	1.148e4	8.163e5	0.000		28.21	28.2				
46	13C-Benzo(a)Pyre...	256.1073	8.163e5	8.629e5	0.000		28.20	28.2				
47	Perylene	252.0939		5.519e5	0.000		28.40					
48	d12-Perylene (ES)	264.1692	5.519e5	8.629e5	0.000		28.49	28.4				
49	d12-Benzo(a)Pyren...	264.1692	8.629e5		0.000	12322.130	28.12	28.1	863000		280.121	
50												
51	Indeno(123-cd)Pyr...	276.0939	6.413e3	4.869e5	0.000		32.70	32.7				
52	13C-Indeno(123-cd...	282.1140	4.869e5	8.629e5	0.000		32.54	32.7				
53	Benzo(ghi)Perylene	276.0939	4.005e4	6.388e5	0.000		33.91	33.9				
54	13C-Benzo(ghi)Per...	288.1342	6.388e5	8.629e5	0.000		33.73	33.9				
55	d12-Benzo(a)Pyren...	264.1692	8.629e5		0.000	12322.130	28.12	28.1	863000		280.121	
56												
57	Dibenzo(a,h)Anthra...	278.1096		5.416e5	0.000		32.88					
58	d12-Benzo(a)Pyren...	264.1692	8.629e5		0.000	12322.130	28.12	28.1	863000		280.121	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032322B, Date: 09-Mar-2023, Time: 06:41:53, ID: MB-14784-PAH, Description: MB-14784-PAH

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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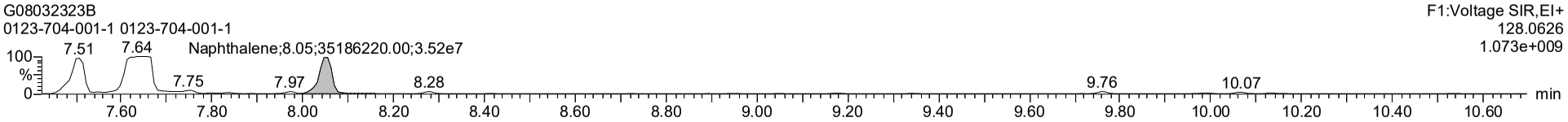
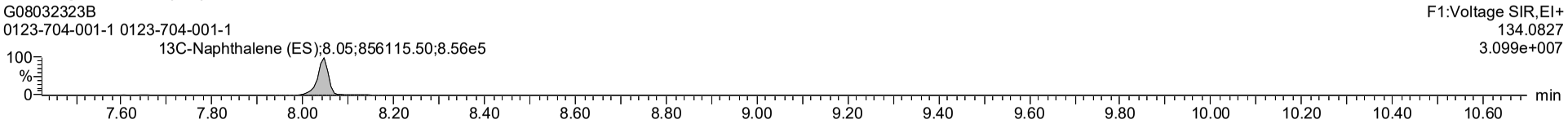
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

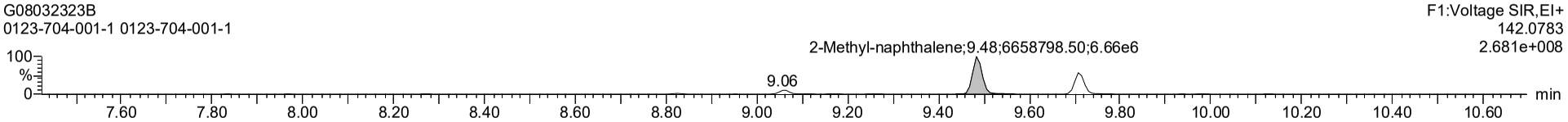
Naphthalene



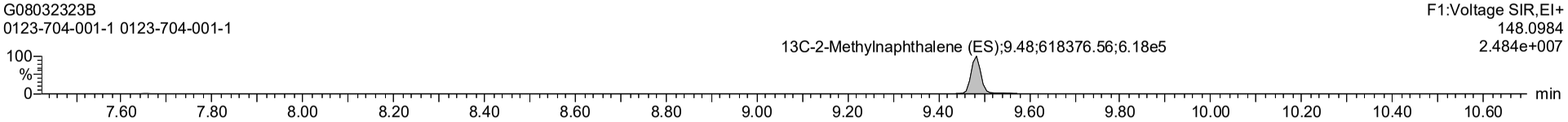
13C-Naphthalene (ES)



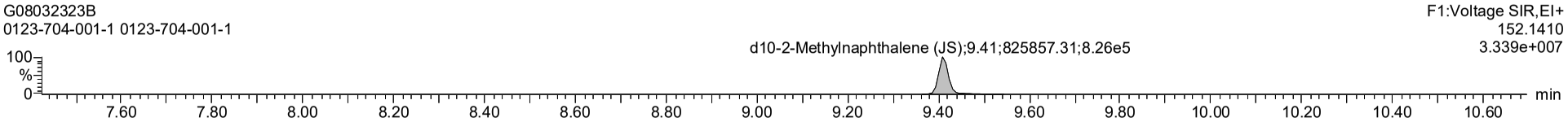
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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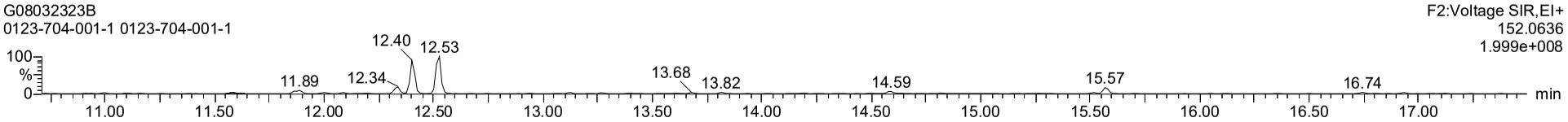
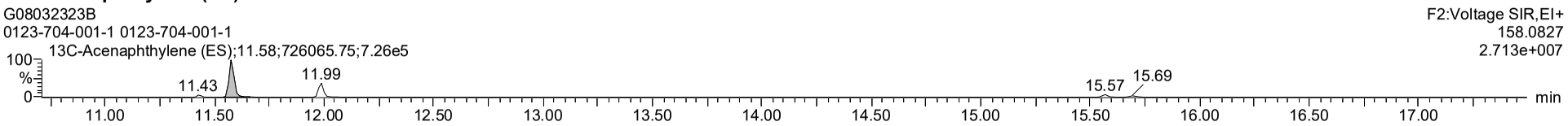
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

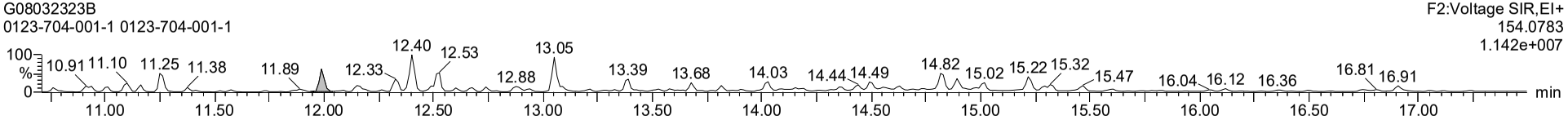
Acenaphthylene



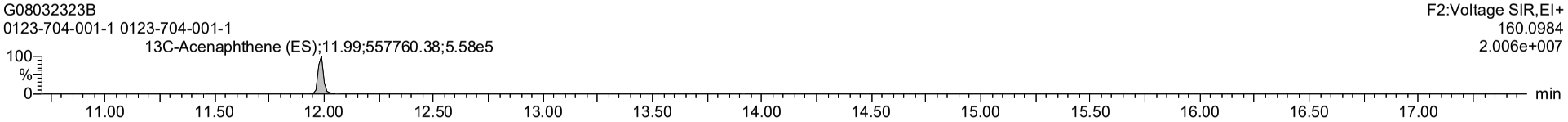
13C-Acenaphthylene (ES)



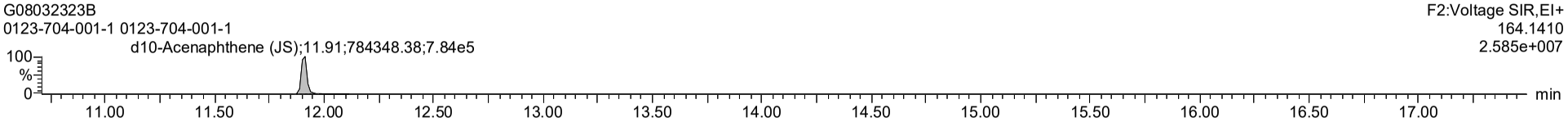
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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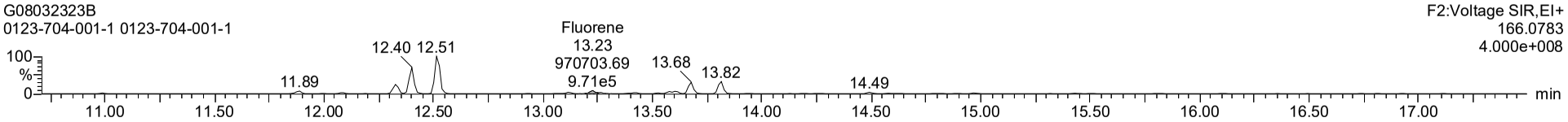
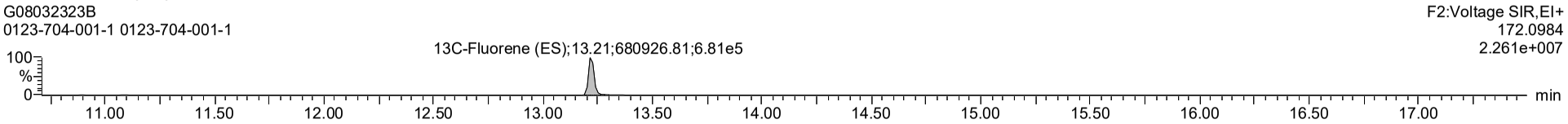
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

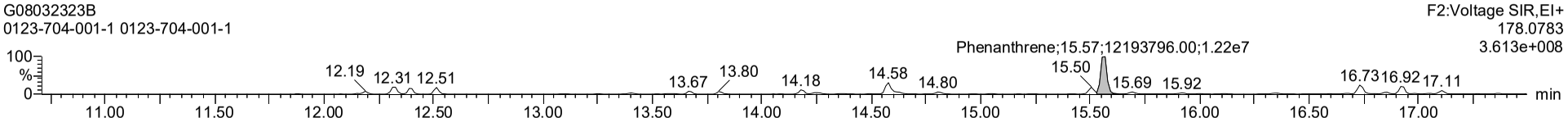
Fluorene



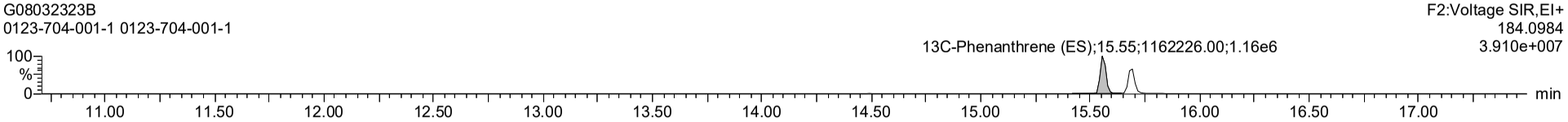
13C-Fluorene (ES)



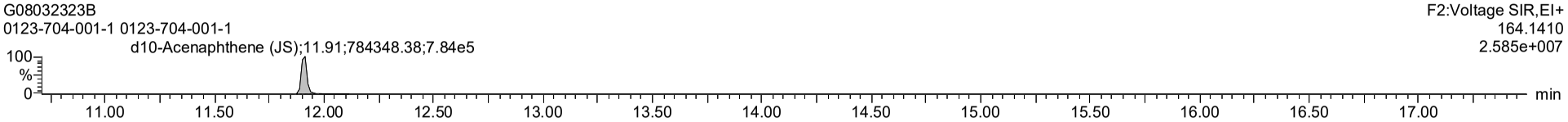
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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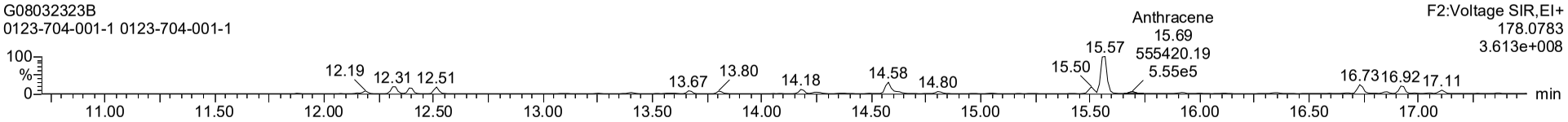
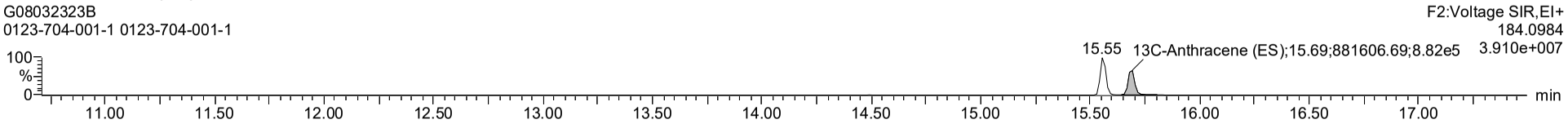
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

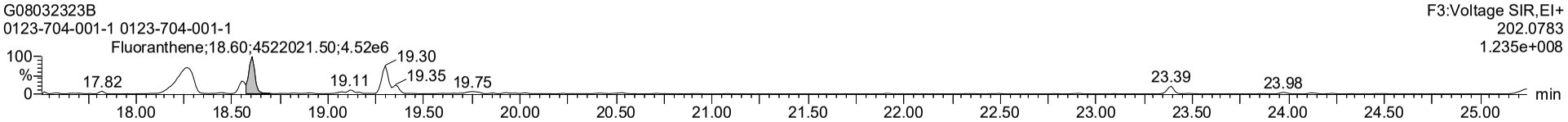
Anthracene



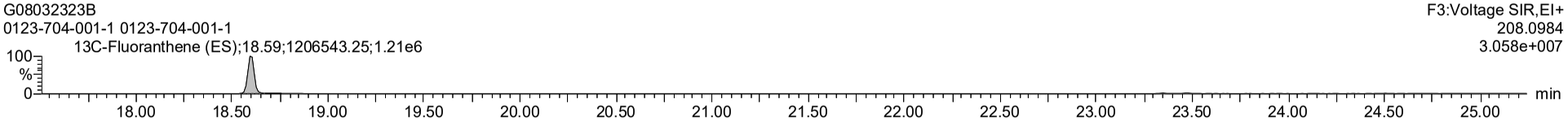
13C-Anthracene (ES)



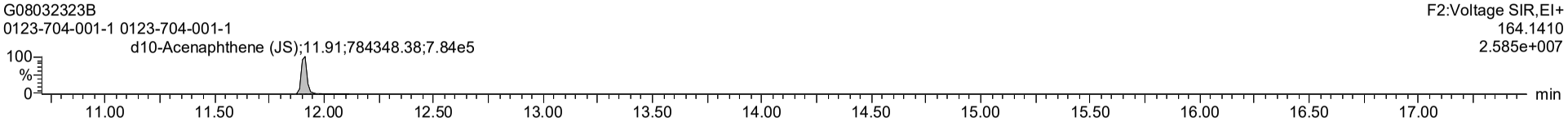
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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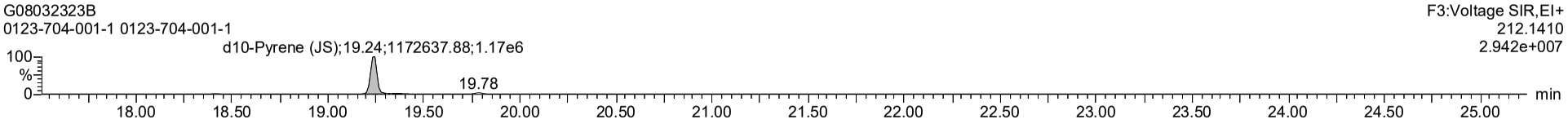
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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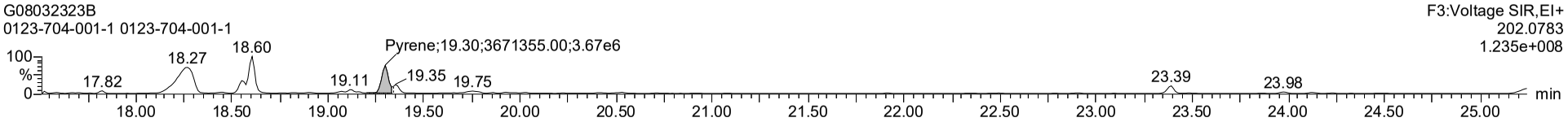
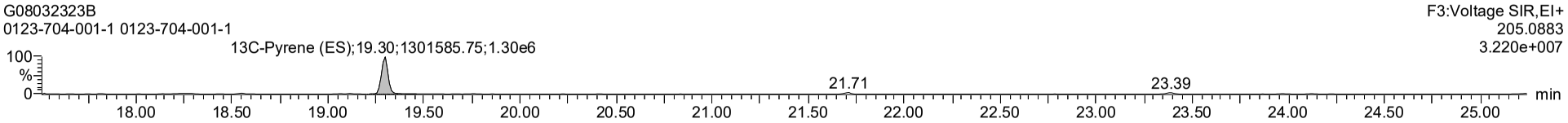
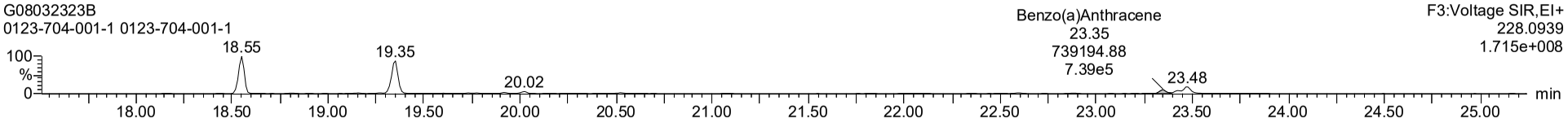
Pyrene



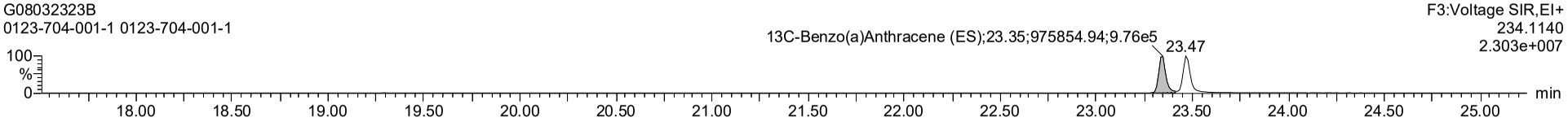
13C-Pyrene (ES)



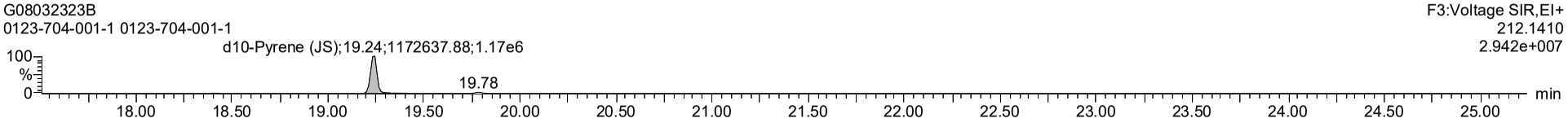
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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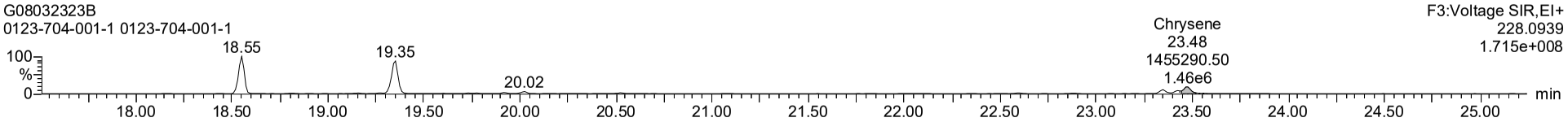
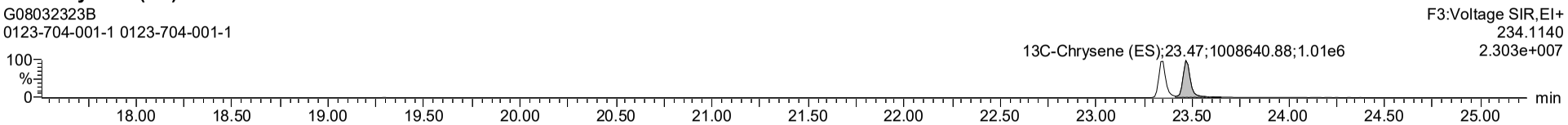
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

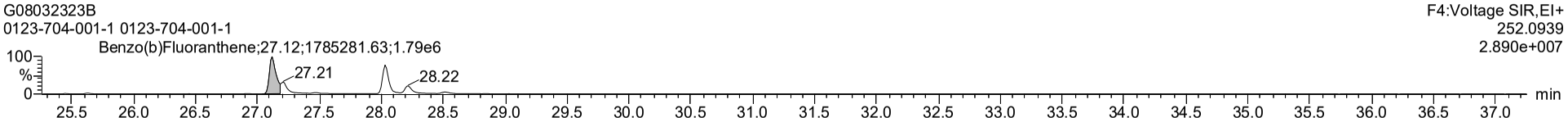
Chrysene



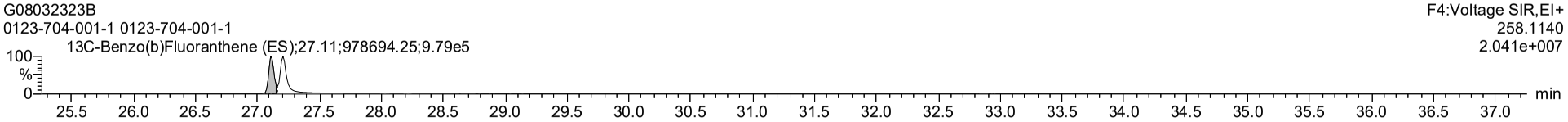
13C-Chrysene (ES)



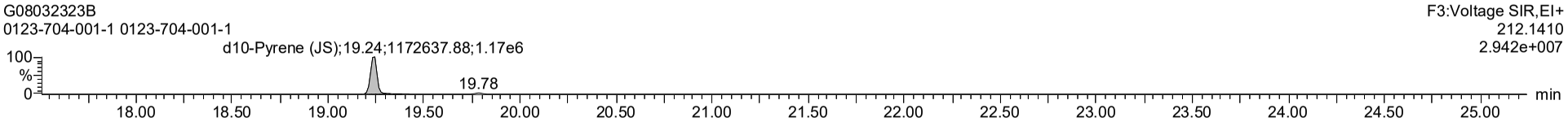
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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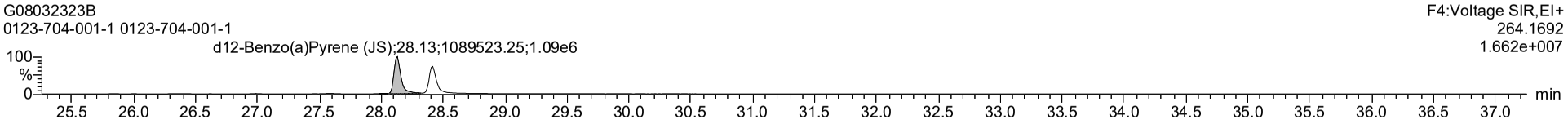
d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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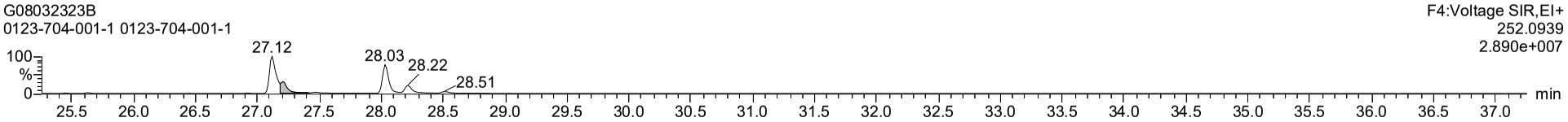
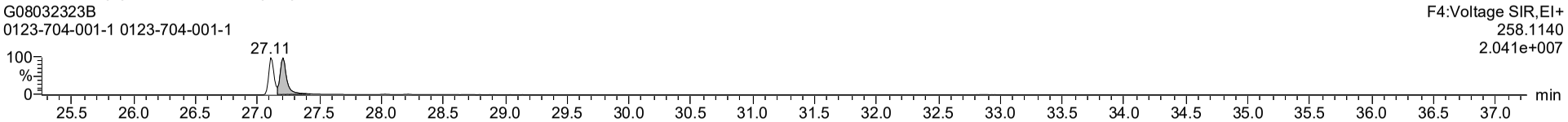
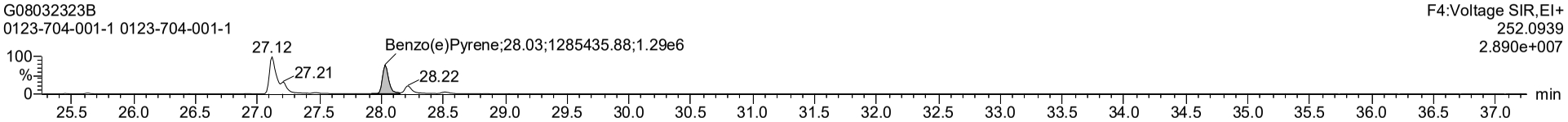
Benzo(k)Fluoranthene



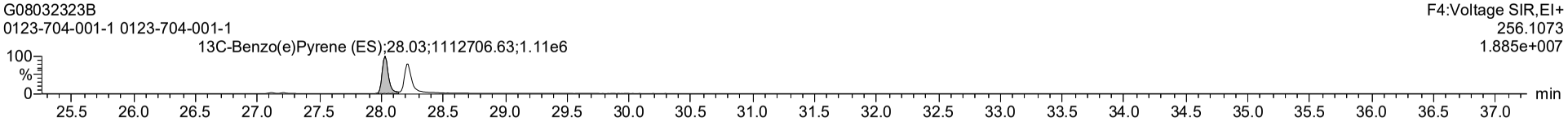
13C-Benzo(k)Fluoranthene (ES)



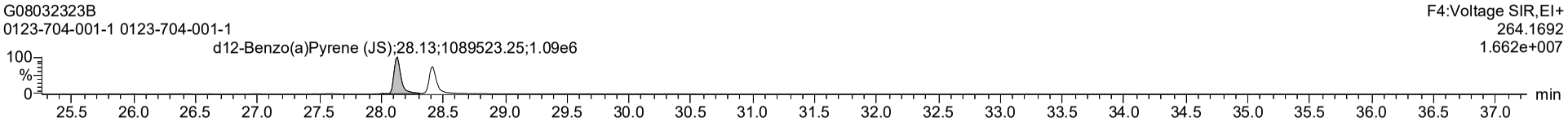
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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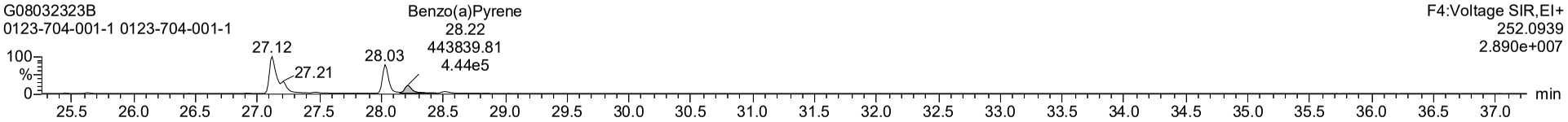
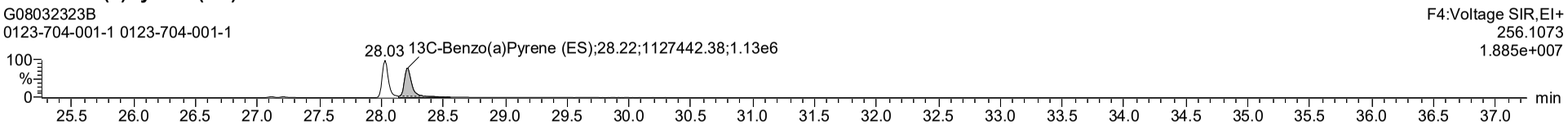
Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

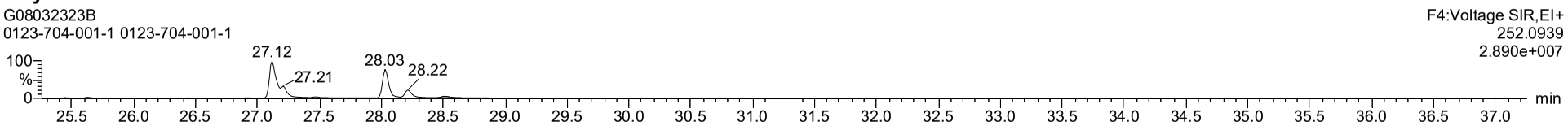
Benzo(a)Pyrene



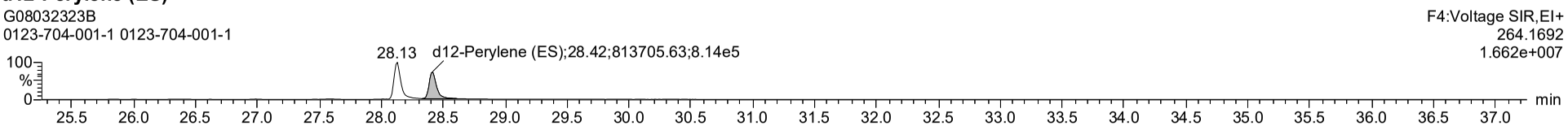
13C-Benzo(a)Pyrene (ES)



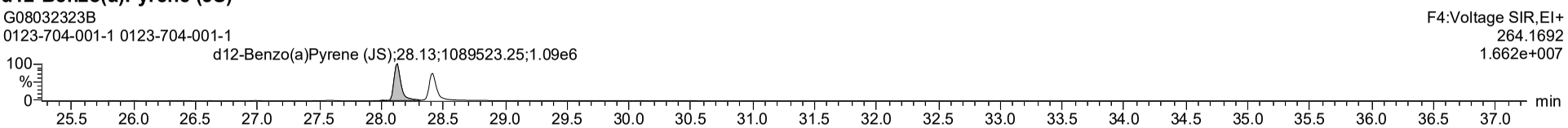
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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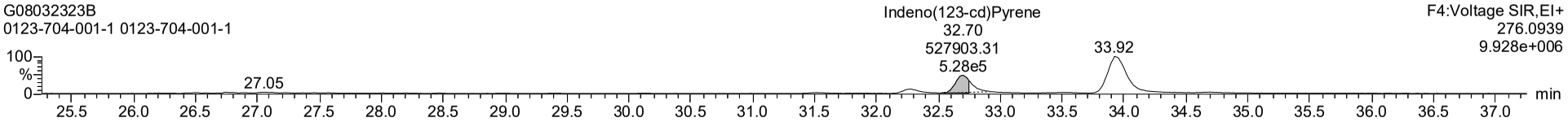
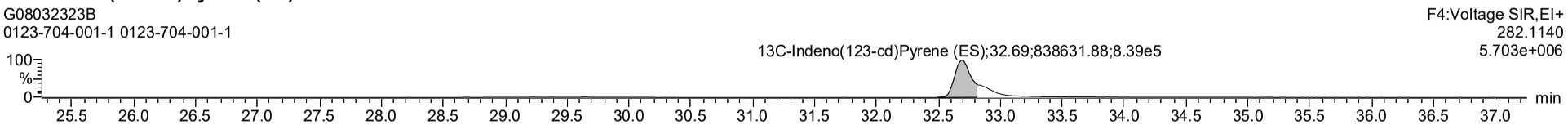
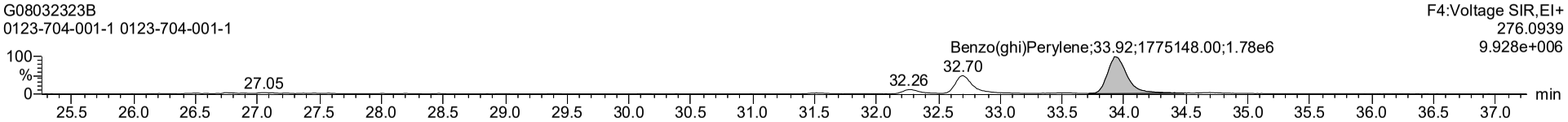
Indeno(123-cd)Pyrene



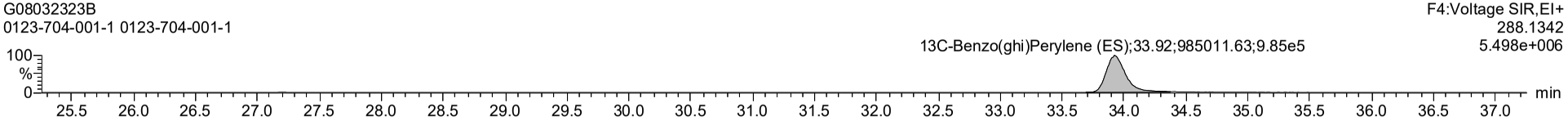
13C-Indeno(123-cd)Pyrene (ES)



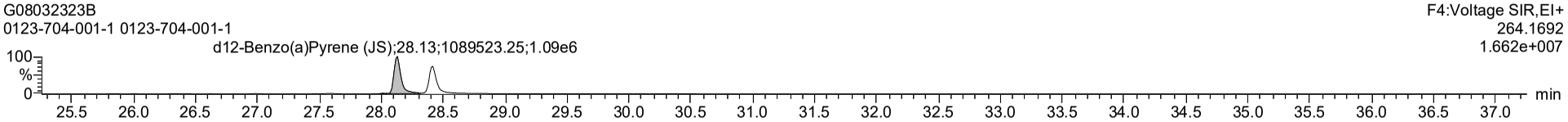
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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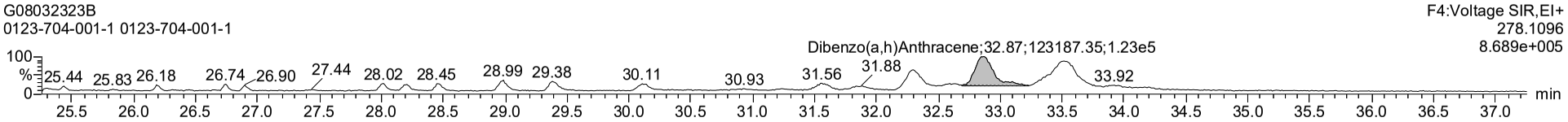
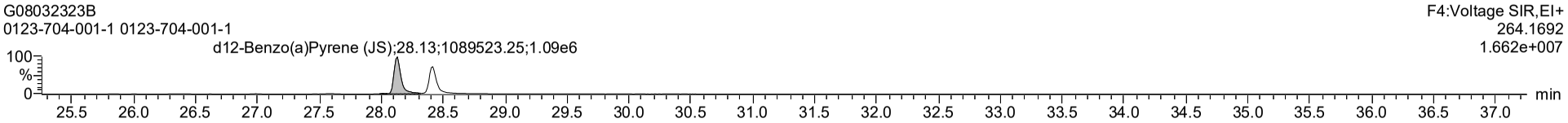
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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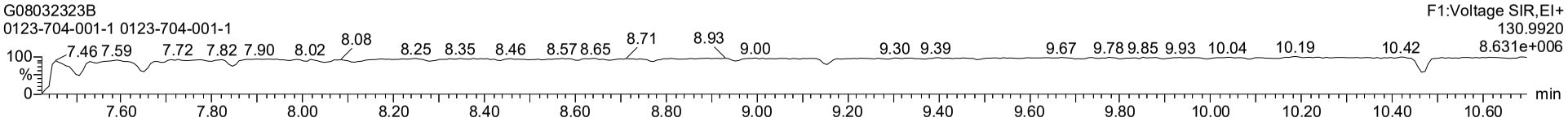
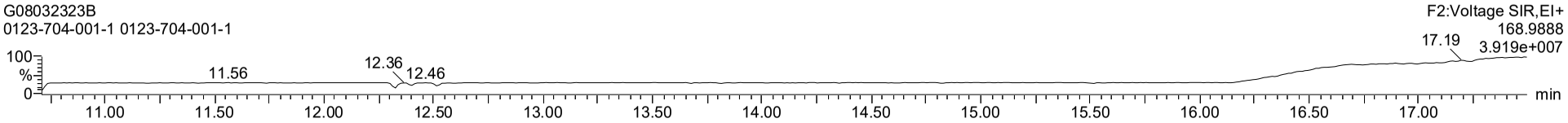
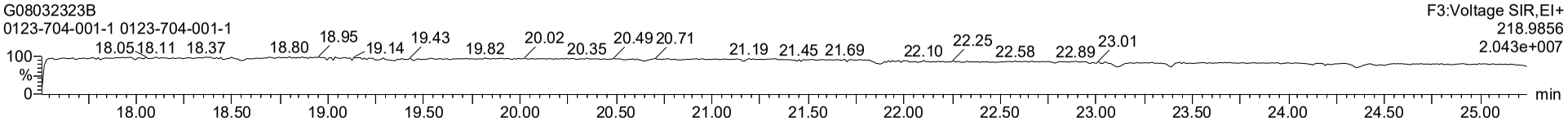
QC Check Ion Fn1



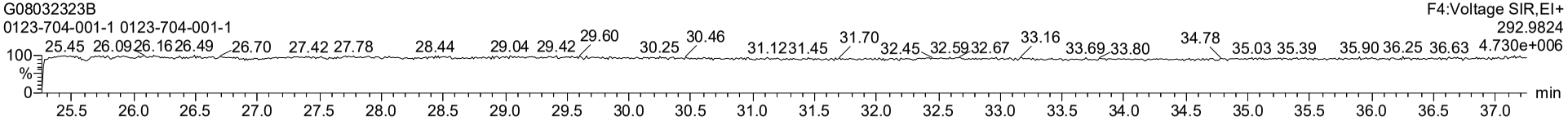
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	3.519e7	8.561e5	0.000		8.05	8.05				
2	13C-Naphthalene (...	134.0827	8.561e5	8.259e5	0.000		8.10	8.05				
3	2-Methyl-naphthale...	142.0783	6.659e6	6.184e5	0.000		9.48	9.48				
4	13C-2-Methylnapht...	148.0984	6.184e5	8.259e5	0.000		9.49	9.48				
5	d10-2-Methylnapht...	152.1410	8.259e5		0.000	18874.078	9.76	9.41	826000		175.025	
6												
7	Acenaphthylene	152.0636	1.859e5	7.261e5	0.000		11.58	11.6				
8	13C-Acenaphthyle...	158.0827	7.261e5	7.843e5	0.000		11.60	11.6				
9	Acenaphthene	154.0783	1.837e5	5.578e5	0.000		11.99	12.0				
10	13C-Acenaphthene...	160.0984	5.578e5	7.843e5	0.000		12.00	12.0				
11	d10-Acenaphthene...	164.1410	7.843e5		0.000	13122.905	12.25	11.9	784000		239.078	
12												
13	Fluorene	166.0783	9.707e5	6.809e5	0.000		13.21	13.2				
14	13C-Fluorene (ES)	172.0984	6.809e5	7.843e5	0.000		13.19	13.2				
15	Phenanthrene	178.0783	1.219e7	1.162e6	0.000		15.55	15.6				
16	13C-Phenanthrene...	184.0984	1.162e6	7.843e5	0.000		15.56	15.6				
17	d10-Acenaphthene...	164.1410	7.843e5		0.000	13122.905	12.25	11.9	784000		239.078	
18												
19	Anthracene	178.0783	5.554e5	8.816e5	0.000		15.69	15.7				
20	13C-Anthracene (E...	184.0984	8.816e5	7.843e5	0.000		15.68	15.7				
21	Fluoranthene	202.0783	4.522e6	1.207e6	0.000		18.59	18.6				
22	13C-Fluoranthene (...	208.0984	1.207e6	1.173e6	0.000		18.61	18.6				
23	d10-Acenaphthene...	164.1410	7.843e5		0.000	13122.905	12.25	11.9	784000		239.078	
24	d10-Pyrene (JS)	212.1410	1.173e6		0.000	19126.001	19.23	19.2	1170000		245.245	
25												
26	Pyrene	202.0783	3.671e6	1.302e6	0.000		19.30	19.3				
27	13C-Pyrene (ES)	205.0883	1.302e6	1.173e6	0.000		19.30	19.3				
28	Benzo(a)Anthracene	228.0939	7.392e5	9.759e5	0.000		23.35	23.3				
29	13C-Benzo(a)Anthr...	234.1140	9.759e5	1.173e6	0.000		23.36	23.3				
30	d10-Pyrene (JS)	212.1410	1.173e6		0.000	19126.001	19.23	19.2	1170000		245.245	
31												
32	Chrysene	228.0939	1.455e6	1.009e6	0.000		23.47	23.5				
33	13C-Chrysene (ES)	234.1140	1.009e6	1.173e6	0.000		23.49	23.5				
34	Benzo(b)Fluoranth...	252.0939	1.785e6	9.787e5	0.000		27.11	27.1				
35	13C-Benzo(b)Fluor...	258.1140	9.787e5	1.090e6	0.000		27.14	27.1				
36	d10-Pyrene (JS)	212.1410	1.173e6		0.000	19126.001	19.23	19.2	1170000		245.245	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.090e6		0.000	12322.130	28.12	28.1	1090000		353.680	
38												
39	Benzo(k)Fluoranth...	252.0939	5.765e5	1.236e6	0.000		27.21	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.236e6	1.090e6	0.000		27.23	27.2				
41	Benzo(e)Pyrene	252.0939	1.285e6	1.113e6	0.000		28.03	28.0				
42	13C-Benzo(e)Pyre...	256.1073	1.113e6	1.090e6	0.000		28.03	28.0				
43	d12-Benzo(a)Pyren...	264.1692	1.090e6		0.000	12322.130	28.12	28.1	1090000		353.680	
44												
45	Benzo(a)Pyrene	252.0939	4.438e5	1.127e6	0.000		28.22	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.127e6	1.090e6	0.000		28.21	28.2				
47	Perylene	252.0939	8.949e4	8.137e5	0.000		28.42	28.5				
48	d12-Perylene (ES)	264.1692	8.137e5	1.090e6	0.000		28.50	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.090e6		0.000	12322.130	28.12	28.1	1090000		353.680	
50												
51	Indeno(123-cd)Pyr...	276.0939	5.279e5	8.386e5	0.000		32.69	32.7				
52	13C-Indeno(123-cd...	282.1140	8.386e5	1.090e6	0.000		32.55	32.7				
53	Benzo(ghi)Perylene	276.0939	1.775e6	9.850e5	0.000		33.92	33.9				
54	13C-Benzo(ghi)Per...	288.1342	9.850e5	1.090e6	0.000		33.74	33.9				
55	d12-Benzo(a)Pyren...	264.1692	1.090e6		0.000	12322.130	28.12	28.1	1090000		353.680	
56												
57	Dibenzo(a,h)Anthra...	278.1096	1.232e5	9.000e5	0.000		32.87	32.9				
58	d12-Benzo(a)Pyren...	264.1692	1.090e6		0.000	12322.130	28.12	28.1	1090000		353.680	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032323B, Date: 09-Mar-2023, Time: 07:23:44, ID: 0123-704-001-1, Description: 0123-704-001-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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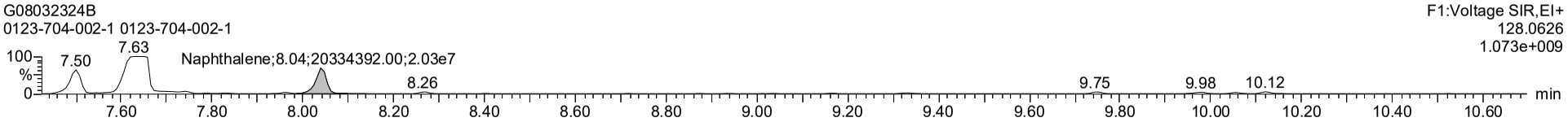
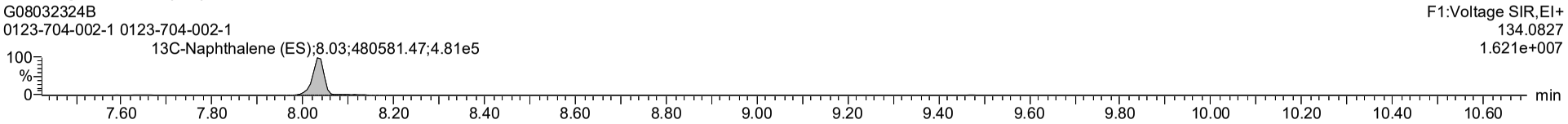
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

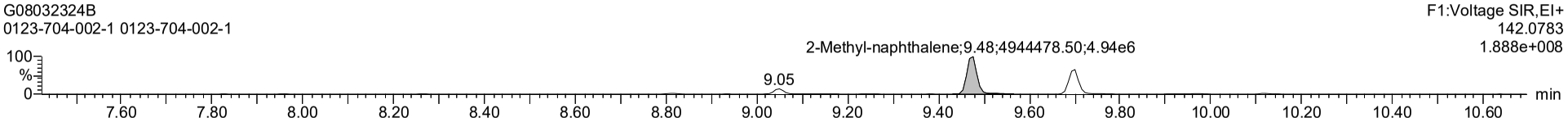
Naphthalene



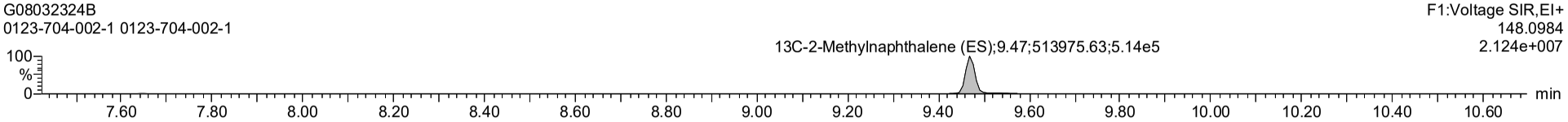
13C-Naphthalene (ES)



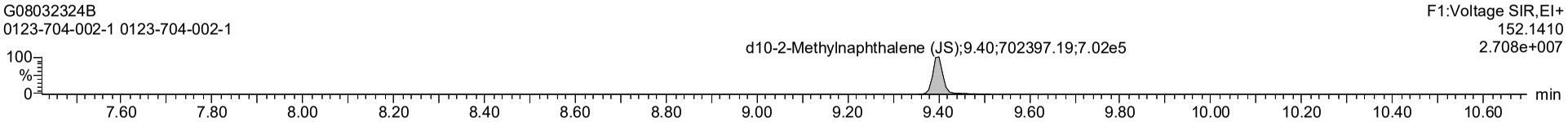
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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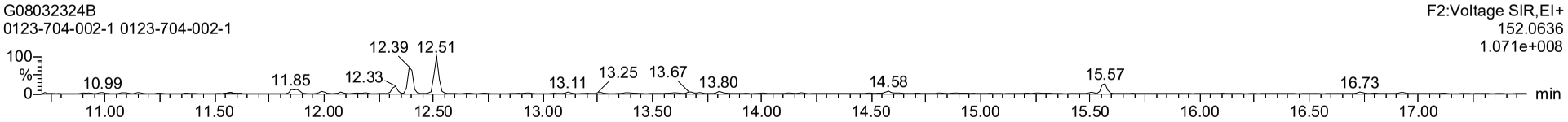
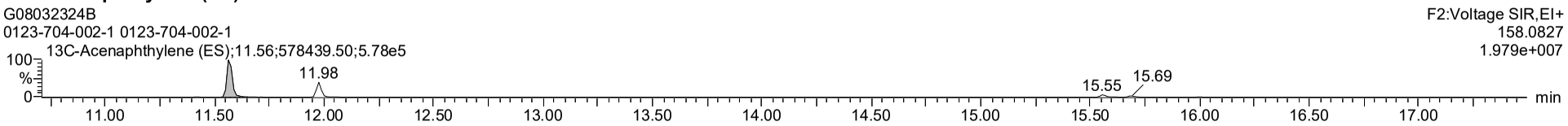
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

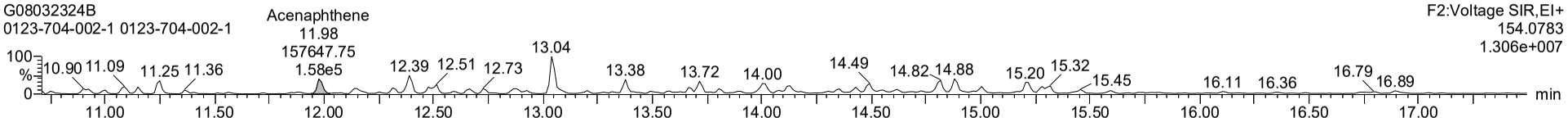
Acenaphthylene



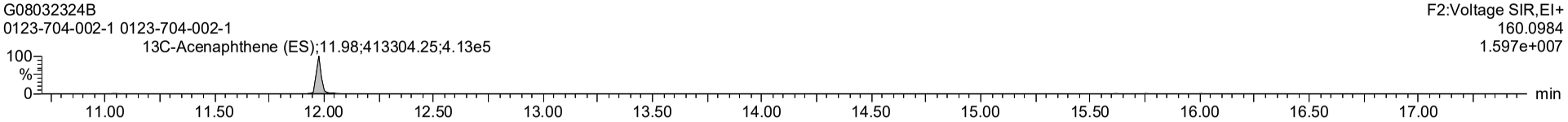
13C-Acenaphthylene (ES)



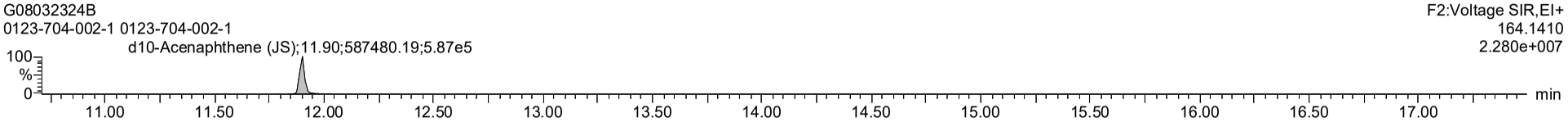
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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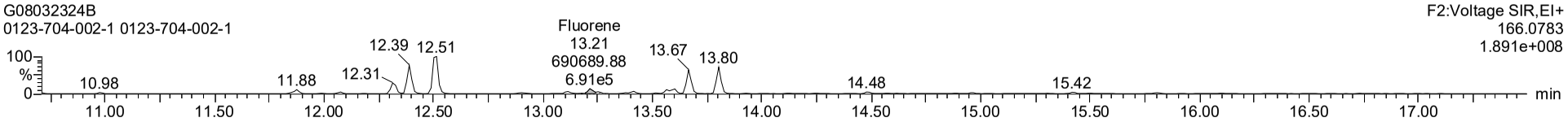
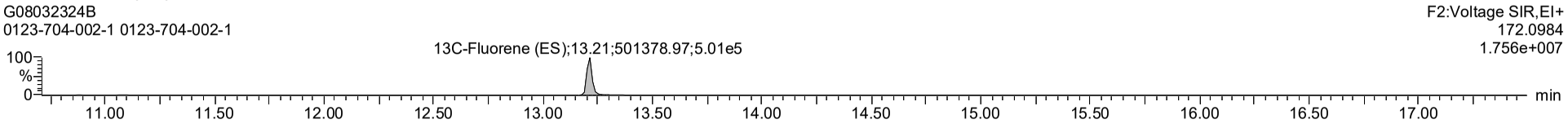
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

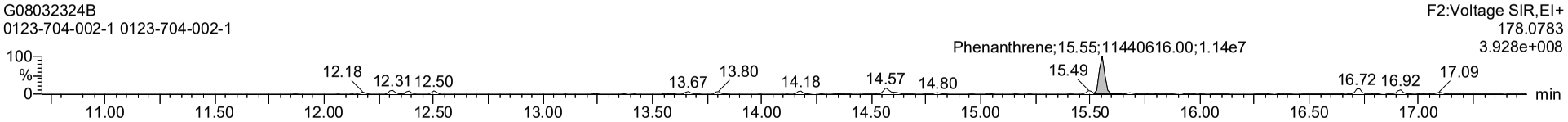
Fluorene



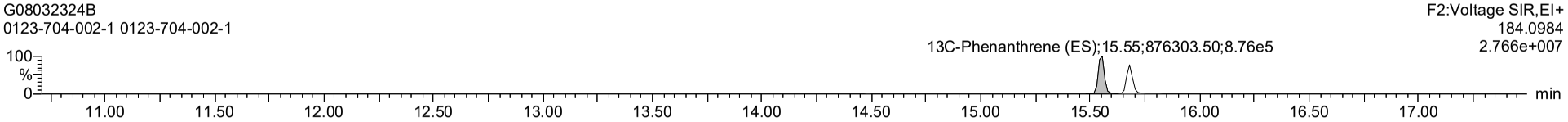
13C-Fluorene (ES)



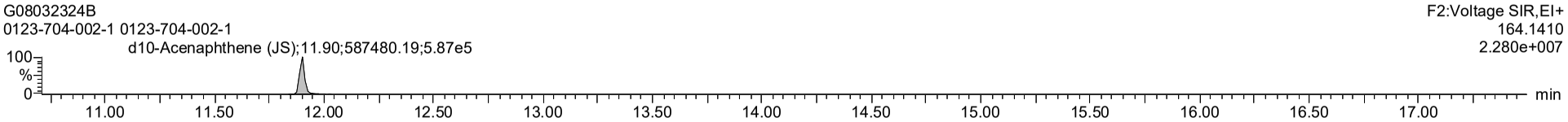
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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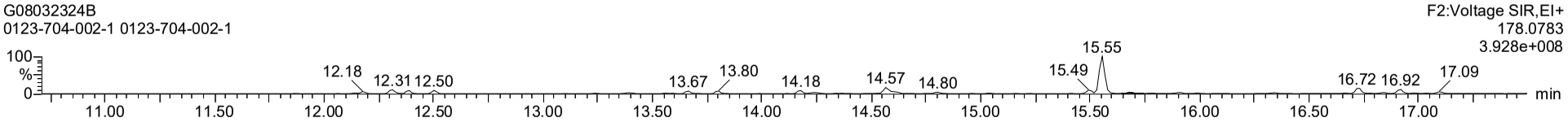
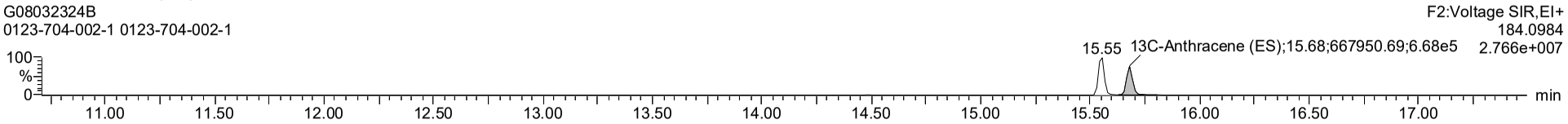
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

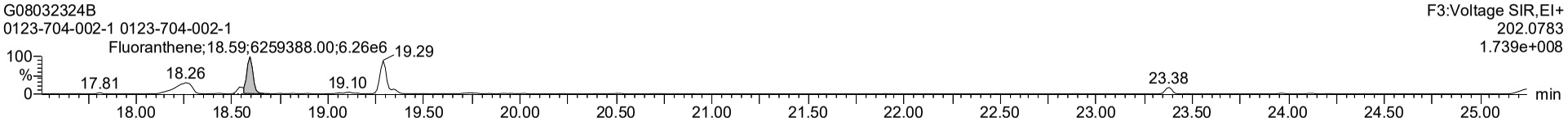
Anthracene



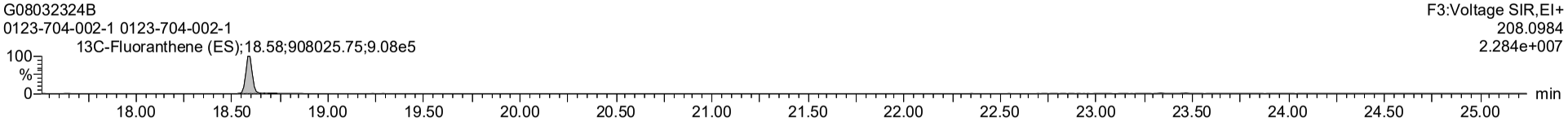
13C-Anthracene (ES)



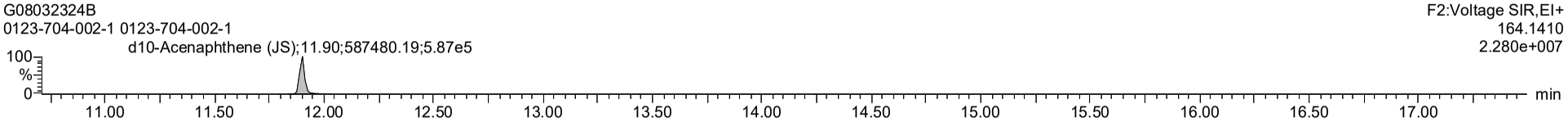
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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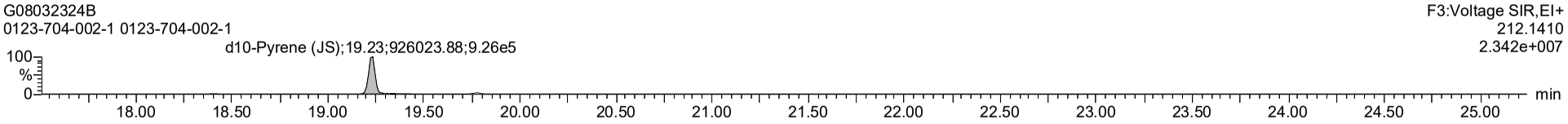
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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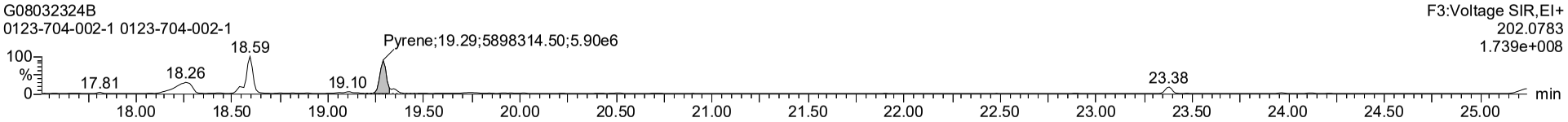
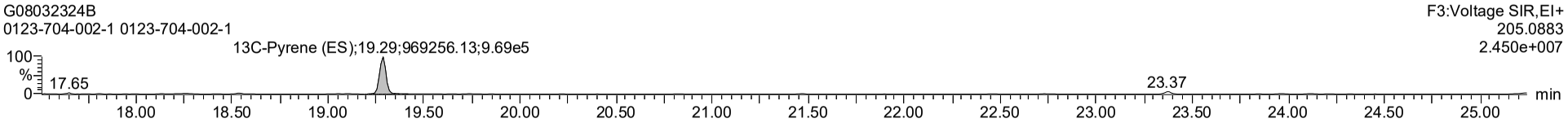
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

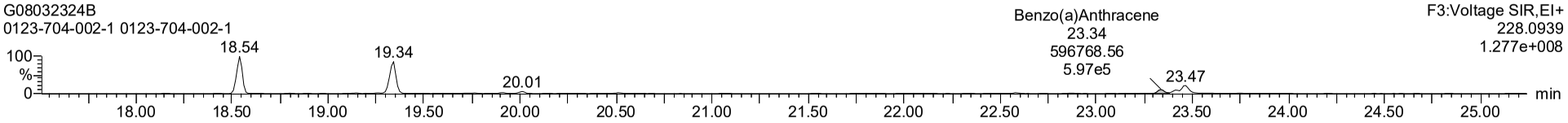
Pyrene



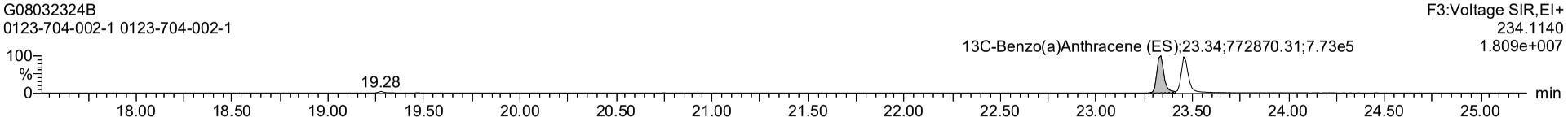
13C-Pyrene (ES)



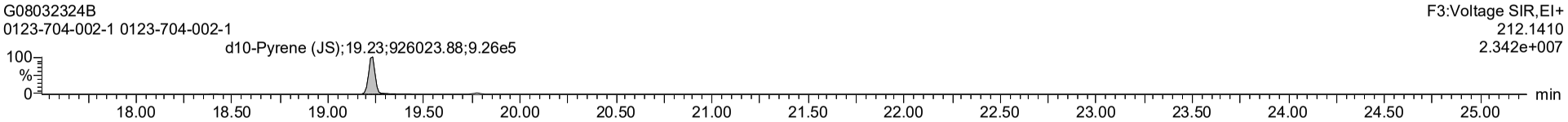
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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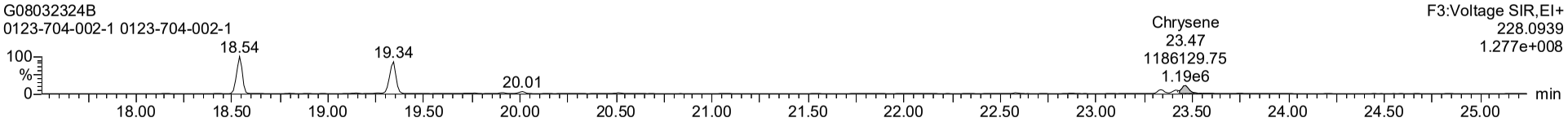
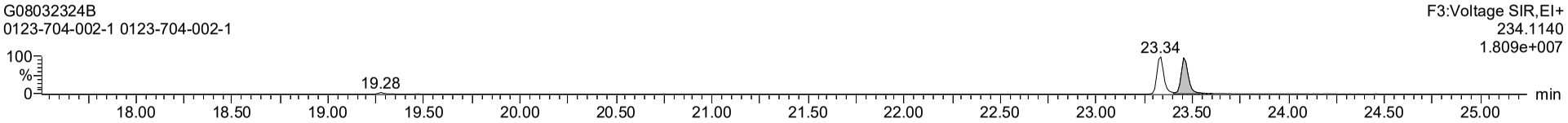
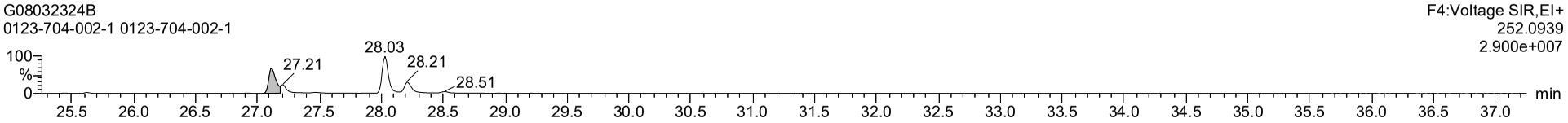
Chrysene



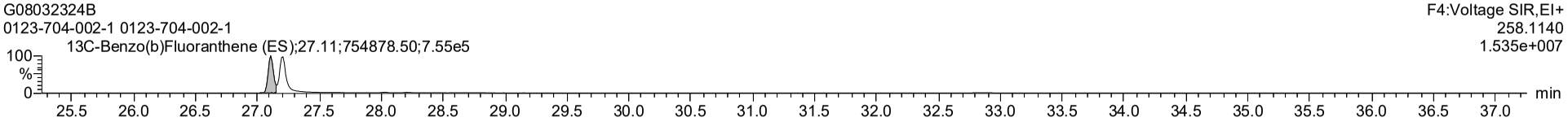
13C-Chrysene (ES)



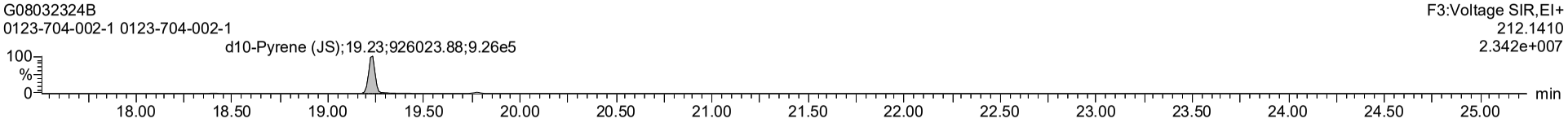
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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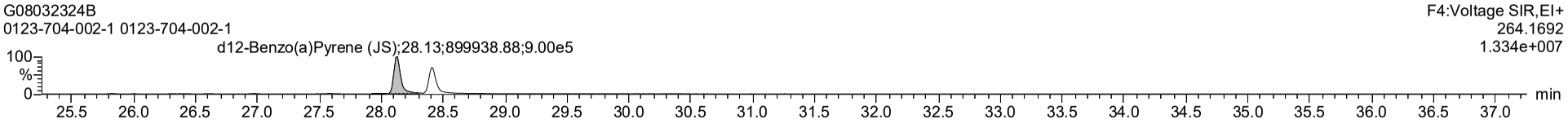
d12-Benzo(a)Pyrene (JS)



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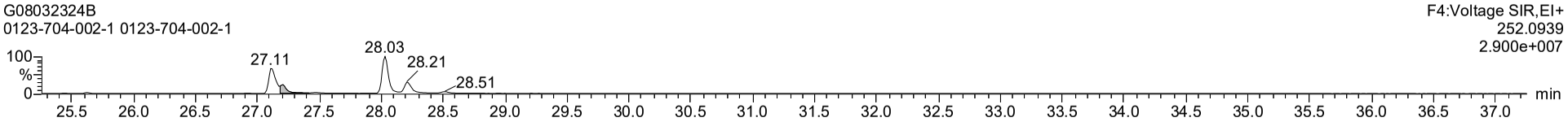
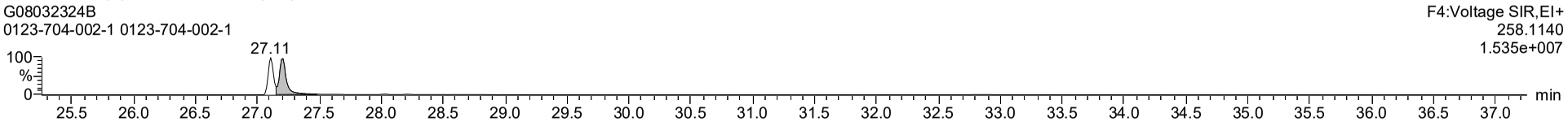
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

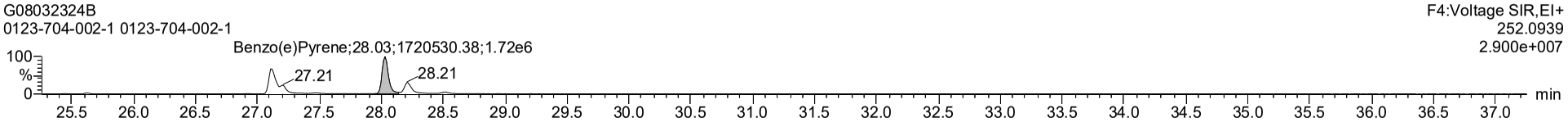
Benzo(k)Fluoranthene



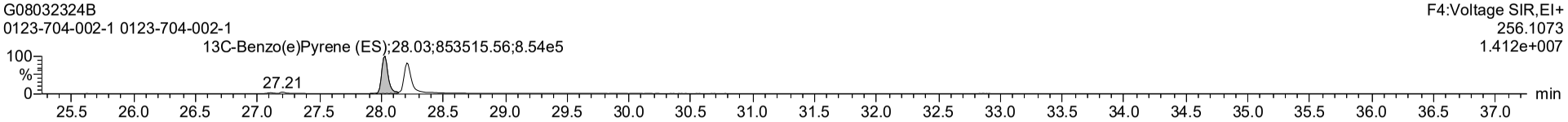
13C-Benzo(k)Fluoranthene (ES)



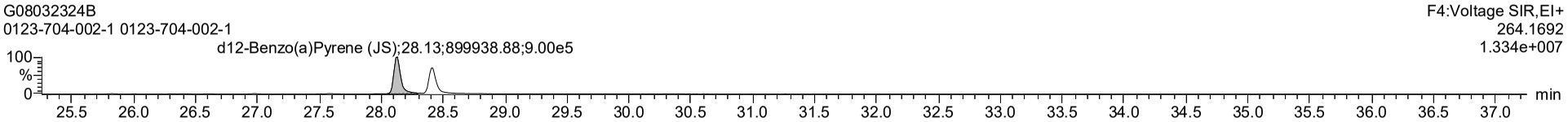
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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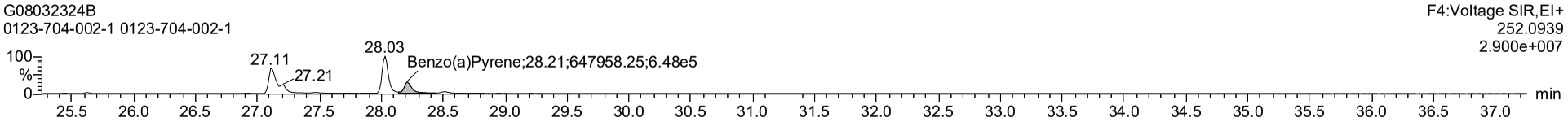
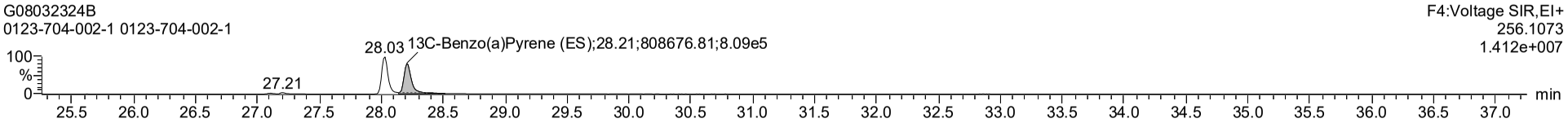
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

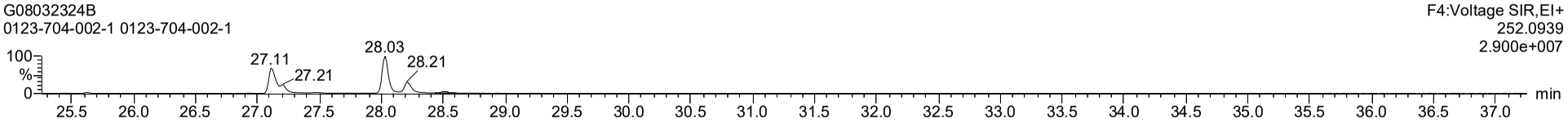
Benzo(a)Pyrene



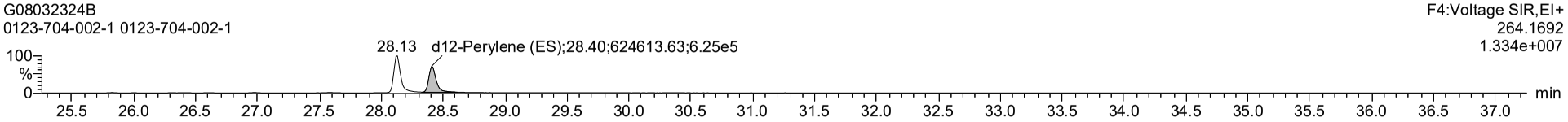
13C-Benzo(a)Pyrene (ES)



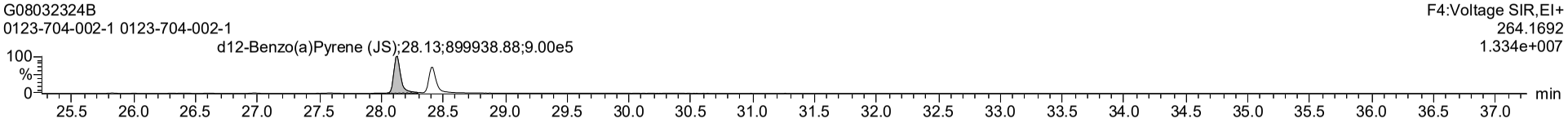
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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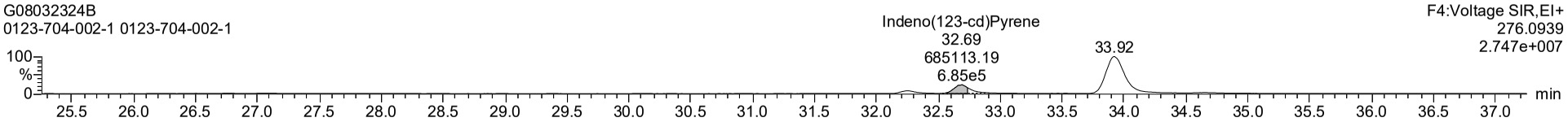
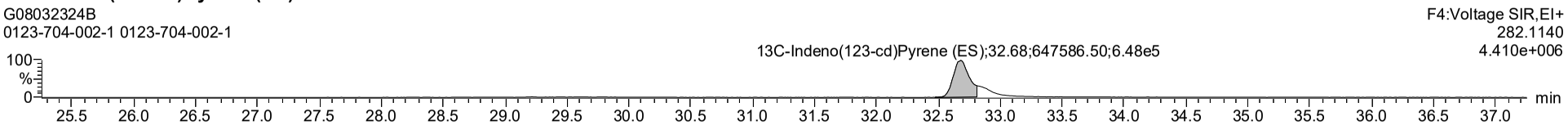
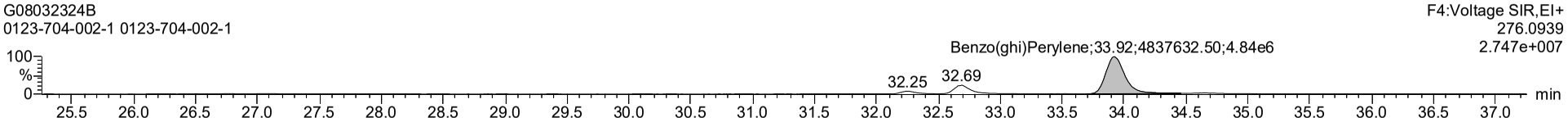
Indeno(123-cd)Pyrene



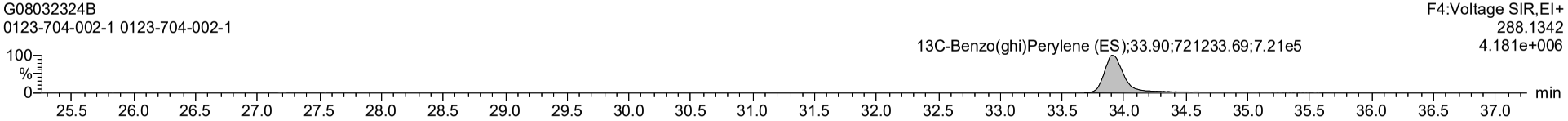
13C-Indeno(123-cd)Pyrene (ES)



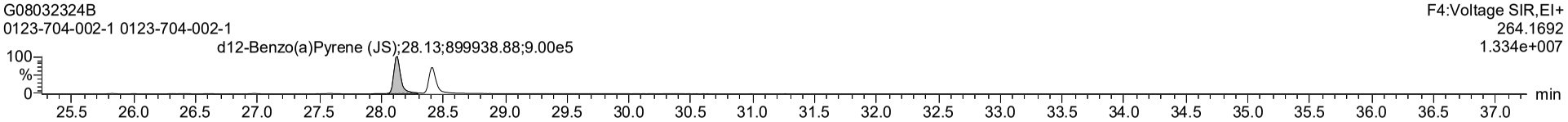
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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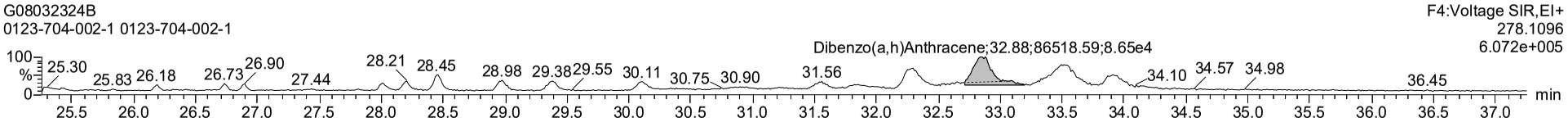
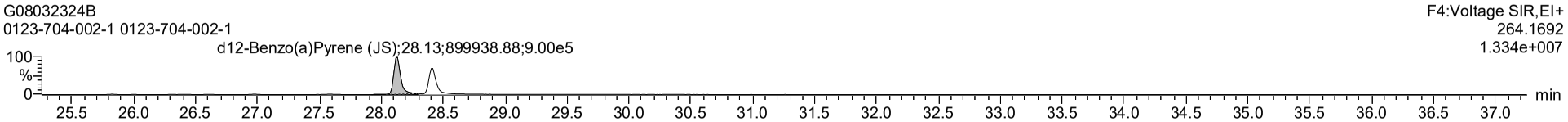
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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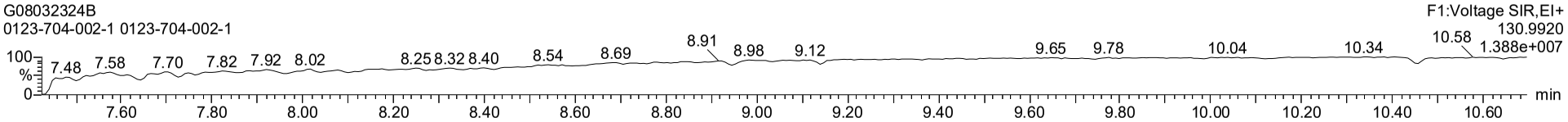
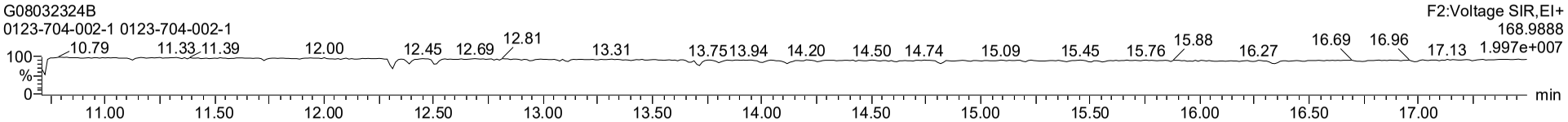
Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

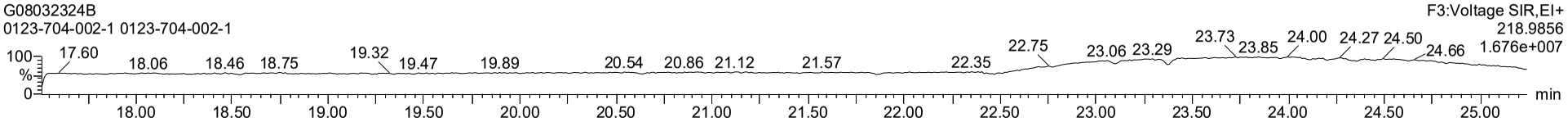
QC Check Ion Fn1



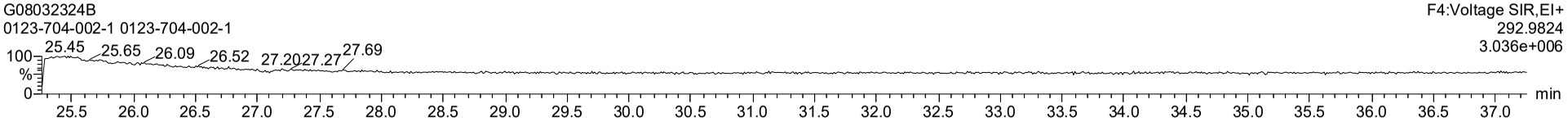
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.033e7	4.806e5	0.000		8.03	8.04				
2	13C-Naphthalene (...	134.0827	4.806e5	7.024e5	0.000		8.09	8.03				
3	2-Methyl-naphthale...	142.0783	4.944e6	5.140e5	0.000		9.47	9.48				
4	13C-2-Methylnapht...	148.0984	5.140e5	7.024e5	0.000		9.48	9.47				
5	d10-2-Methylnapht...	152.1410	7.024e5		0.000	18874.078	9.76	9.40	702000		148.860	
6												
7	Acenaphthylene	152.0636	8.405e4	5.784e5	0.000		11.56	11.6				
8	13C-Acenaphthyle...	158.0827	5.784e5	5.875e5	0.000		11.59	11.6				
9	Acenaphthene	154.0783	1.576e5	4.133e5	0.000		11.98	12.0				
10	13C-Acenaphthene...	160.0984	4.133e5	5.875e5	0.000		11.99	12.0				
11	d10-Acenaphthene...	164.1410	5.875e5		0.000	13122.905	12.25	11.9	587000		179.070	
12												
13	Fluorene	166.0783	6.907e5	5.014e5	0.000		13.21	13.2				
14	13C-Fluorene (ES)	172.0984	5.014e5	5.875e5	0.000		13.17	13.2				
15	Phenanthrene	178.0783	1.144e7	8.763e5	0.000		15.55	15.6				
16	13C-Phenanthrene...	184.0984	8.763e5	5.875e5	0.000		15.55	15.6				
17	d10-Acenaphthene...	164.1410	5.875e5		0.000	13122.905	12.25	11.9	587000		179.070	
18												
19	Anthracene	178.0783	4.103e5	6.680e5	0.000		15.68	15.7				
20	13C-Anthracene (E...	184.0984	6.680e5	5.875e5	0.000		15.67	15.7				
21	Fluoranthene	202.0783	6.259e6	9.080e5	0.000		18.58	18.6				
22	13C-Fluoranthene (...	208.0984	9.080e5	9.260e5	0.000		18.60	18.6				
23	d10-Acenaphthene...	164.1410	5.875e5		0.000	13122.905	12.25	11.9	587000		179.070	
24	d10-Pyrene (JS)	212.1410	9.260e5		0.000	19126.001	19.23	19.2	926000		193.668	
25												
26	Pyrene	202.0783	5.898e6	9.693e5	0.000		19.29	19.3				
27	13C-Pyrene (ES)	205.0883	9.693e5	9.260e5	0.000		19.29	19.3				
28	Benzo(a)Anthracene	228.0939	5.968e5	7.729e5	0.000		23.34	23.3				
29	13C-Benzo(a)Anthr...	234.1140	7.729e5	9.260e5	0.000		23.34	23.3				
30	d10-Pyrene (JS)	212.1410	9.260e5		0.000	19126.001	19.23	19.2	926000		193.668	
31												
32	Chrysene	228.0939	1.186e6	7.672e5	0.000		23.46	23.5				
33	13C-Chrysene (ES)	234.1140	7.672e5	9.260e5	0.000		23.47	23.5				
34	Benzo(b)Fluoranth...	252.0939	1.298e6	7.549e5	0.000		27.11	27.1				
35	13C-Benzo(b)Fluor...	258.1140	7.549e5	8.999e5	0.000		27.14	27.1				
36	d10-Pyrene (JS)	212.1410	9.260e5		0.000	19126.001	19.23	19.2	926000		193.668	

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Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	8.999e5		0.000	12322.130	28.12	28.1	900000		292.137	
38												
39	Benzo(k)Fluoranth...	252.0939	3.900e5	9.806e5	0.000		27.21	27.2				
40	13C-Benzo(k)Fluor...	258.1140	9.806e5	8.999e5	0.000		27.23	27.2				
41	Benzo(e)Pyrene	252.0939	1.721e6	8.535e5	0.000		28.03	28.0				
42	13C-Benzo(e)Pyre...	256.1073	8.535e5	8.999e5	0.000		28.03	28.0				
43	d12-Benzo(a)Pyren...	264.1692	8.999e5		0.000	12322.130	28.12	28.1	900000		292.137	
44												
45	Benzo(a)Pyrene	252.0939	6.480e5	8.087e5	0.000		28.21	28.2				
46	13C-Benzo(a)Pyre...	256.1073	8.087e5	8.999e5	0.000		28.21	28.2				
47	Perylene	252.0939	7.930e4	6.246e5	0.000		28.40	28.5				
48	d12-Perylene (ES)	264.1692	6.246e5	8.999e5	0.000		28.50	28.4				
49	d12-Benzo(a)Pyren...	264.1692	8.999e5		0.000	12322.130	28.12	28.1	900000		292.137	
50												
51	Indeno(123-cd)Pyr...	276.0939	6.851e5	6.476e5	0.000		32.68	32.7				
52	13C-Indeno(123-cd...	282.1140	6.476e5	8.999e5	0.000		32.55	32.7				
53	Benzo(ghi)Perylene	276.0939	4.838e6	7.212e5	0.000		33.90	33.9				
54	13C-Benzo(ghi)Per...	288.1342	7.212e5	8.999e5	0.000		33.74	33.9				
55	d12-Benzo(a)Pyren...	264.1692	8.999e5		0.000	12322.130	28.12	28.1	900000		292.137	
56												
57	Dibenzo(a,h)Anthra...	278.1096	8.652e4	6.392e5	0.000		32.86	32.9				
58	d12-Benzo(a)Pyren...	264.1692	8.999e5		0.000	12322.130	28.12	28.1	900000		292.137	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

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Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032324B, Date: 09-Mar-2023, Time: 08:05:35, ID: 0123-704-002-1, Description: 0123-704-002-1

	Summary Flag Reason
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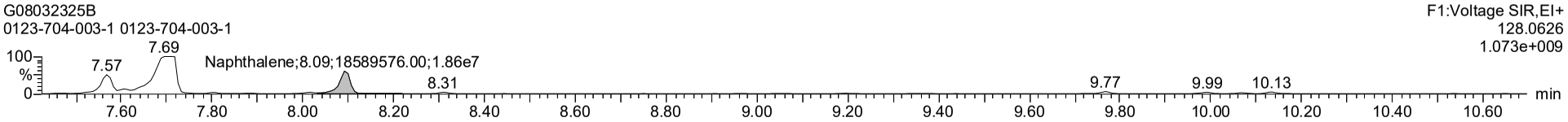
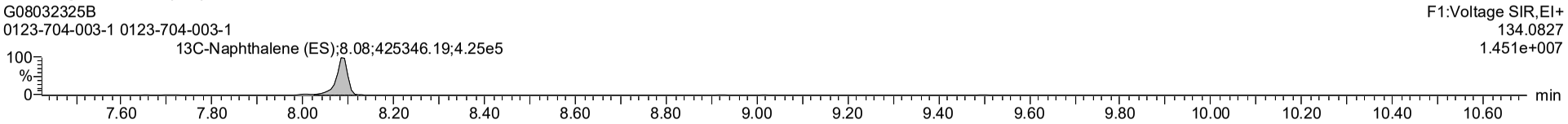
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

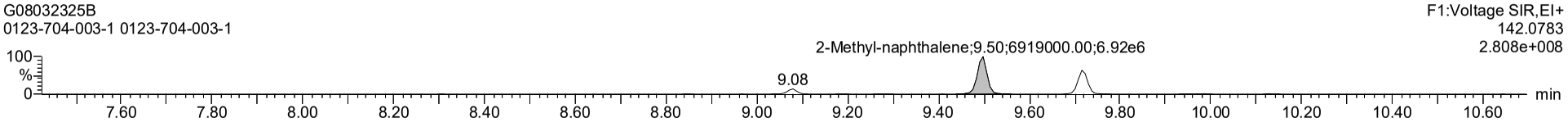
Naphthalene



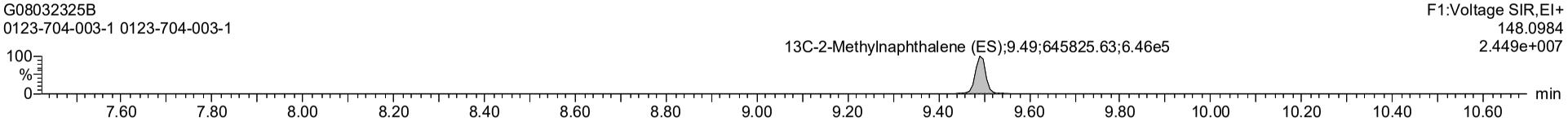
13C-Naphthalene (ES)



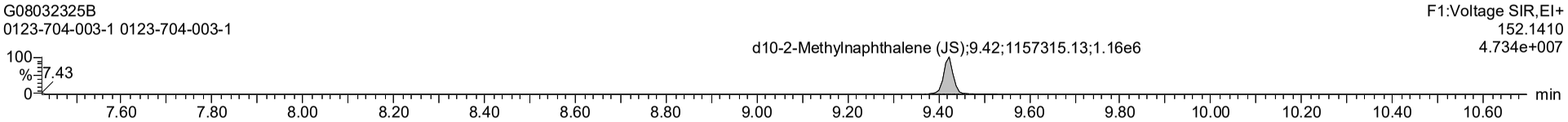
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



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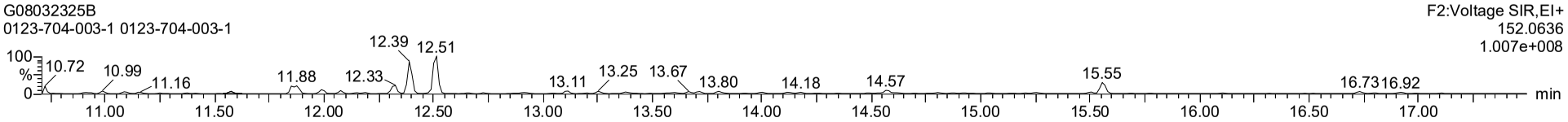
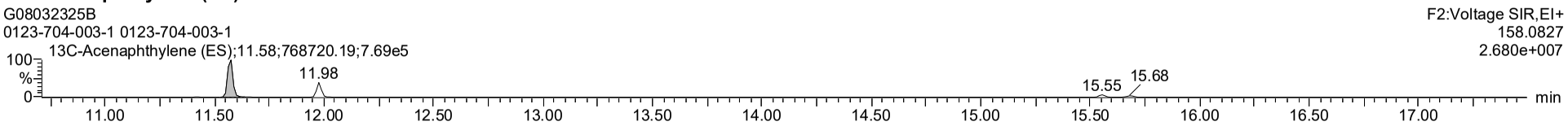
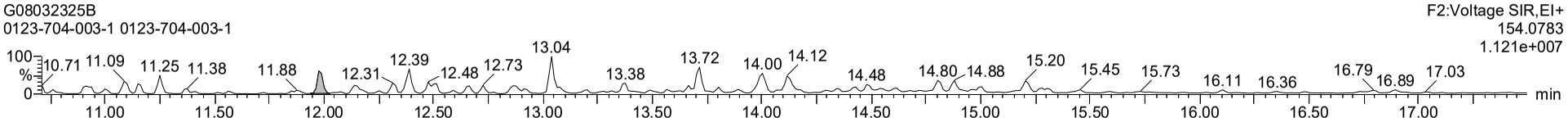
Acenaphthylene



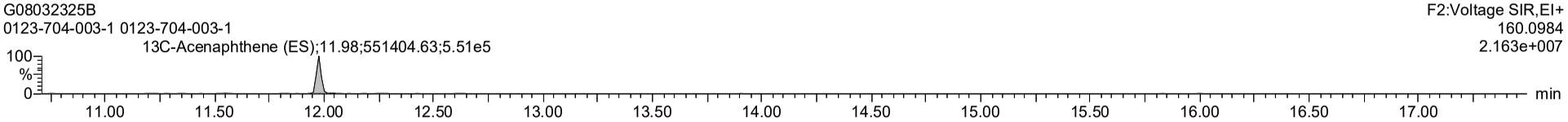
13C-Acenaphthylene (ES)



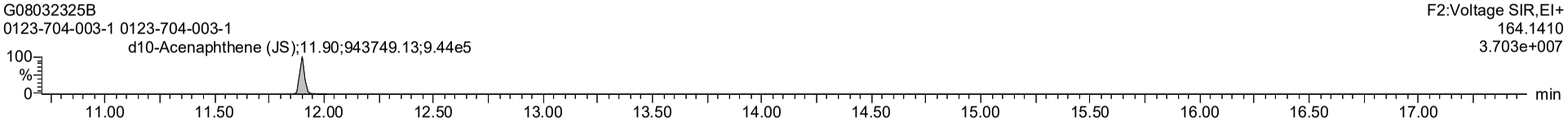
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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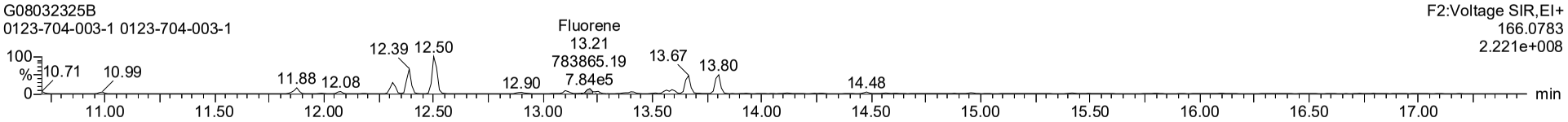
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

Fluorene



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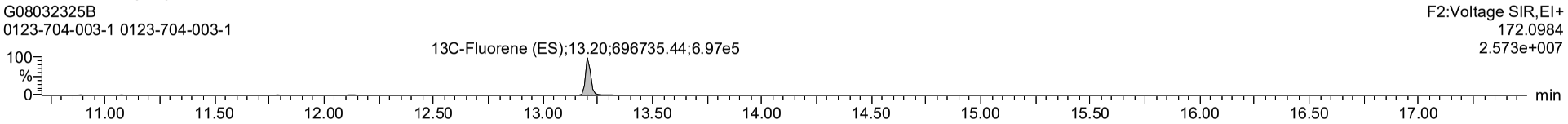
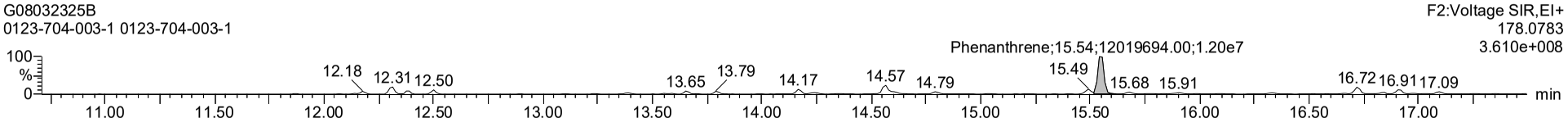
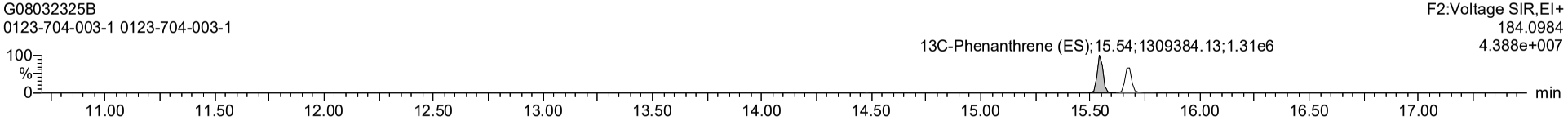


Phenanthrene



13C-Phenanthrene (ES)



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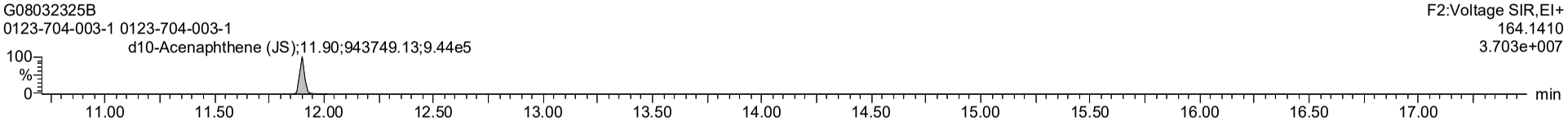

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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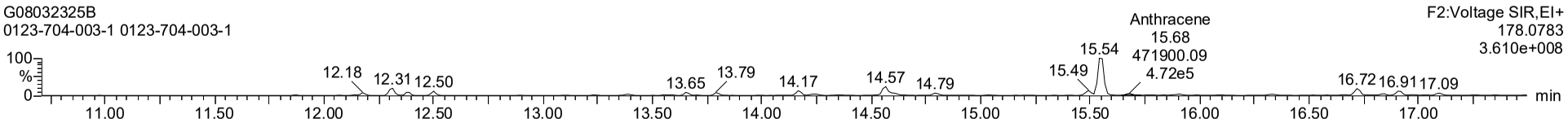
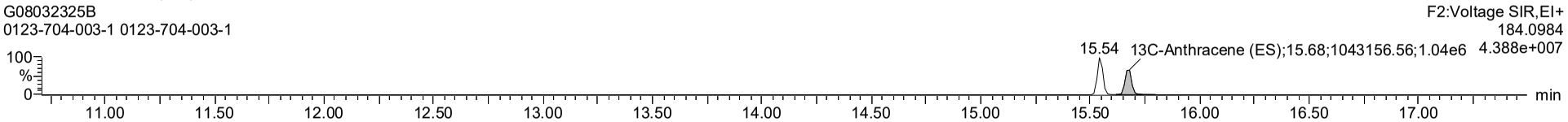
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

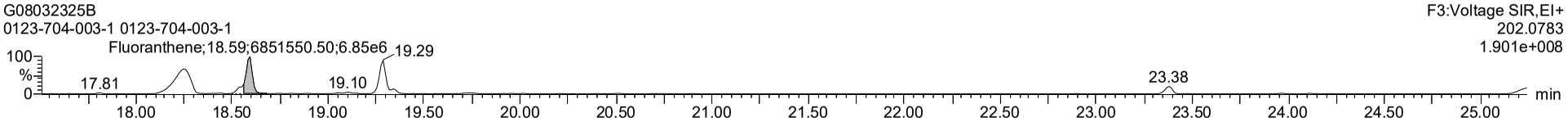
Anthracene



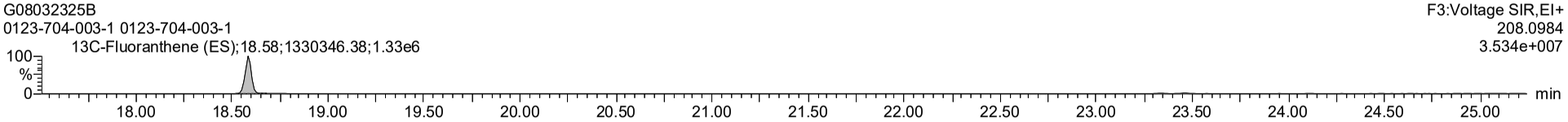
13C-Anthracene (ES)



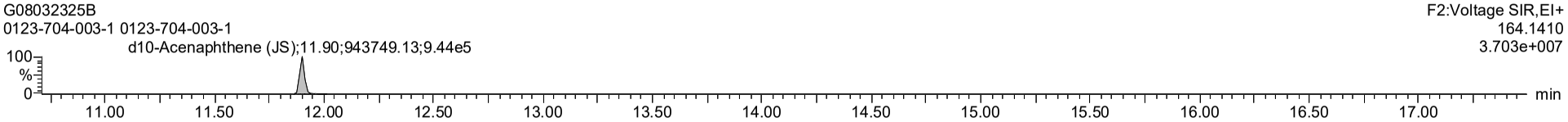
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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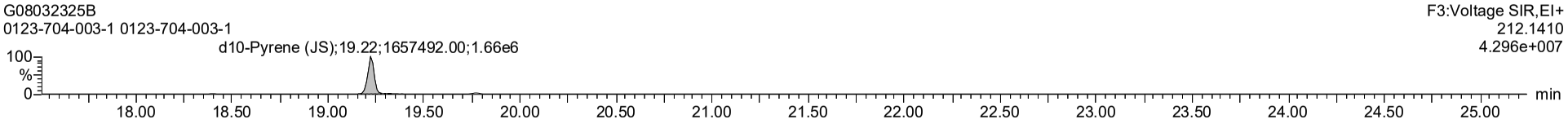
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

d10-Pyrene (JS)



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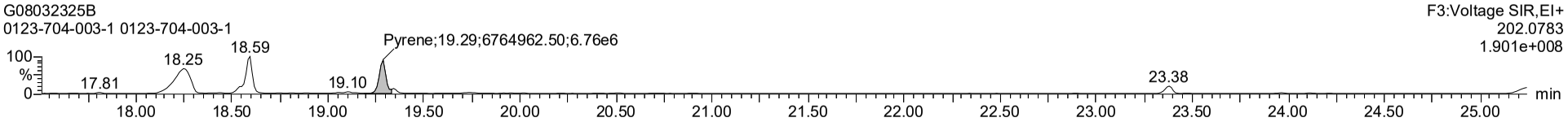
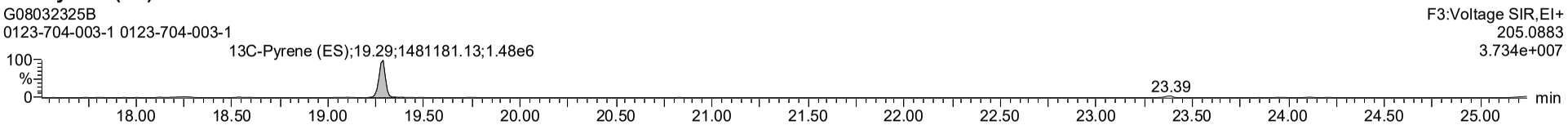
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

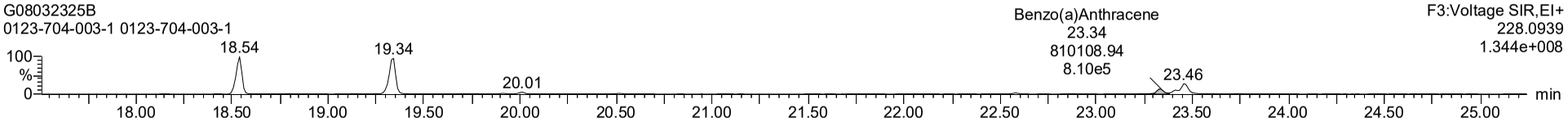
Pyrene



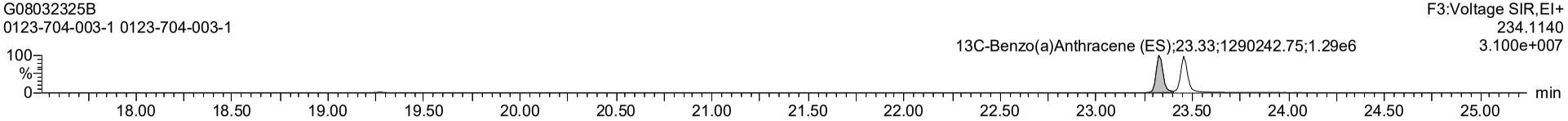
13C-Pyrene (ES)



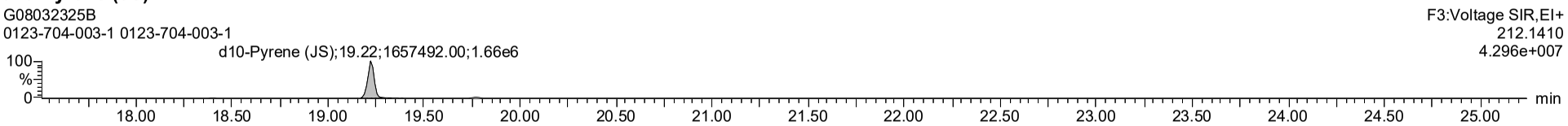
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



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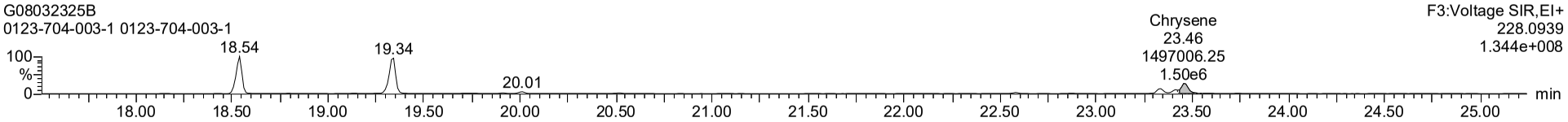
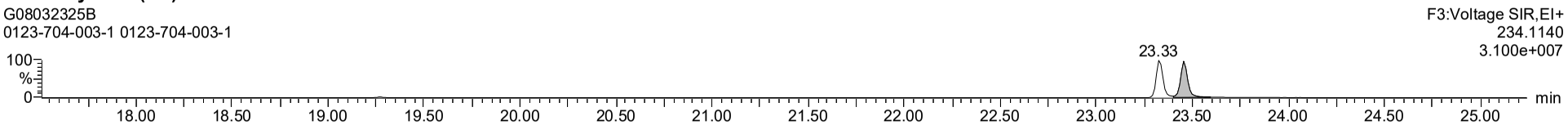
Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

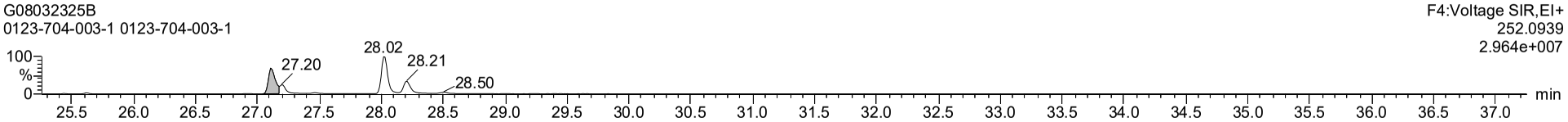
Chrysene



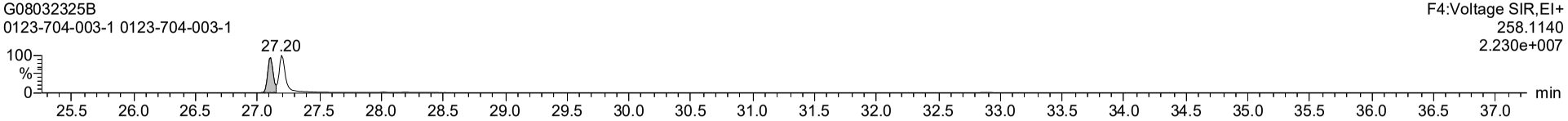
13C-Chrysene (ES)



Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



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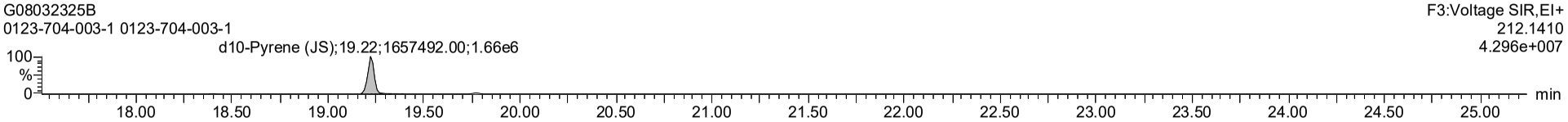

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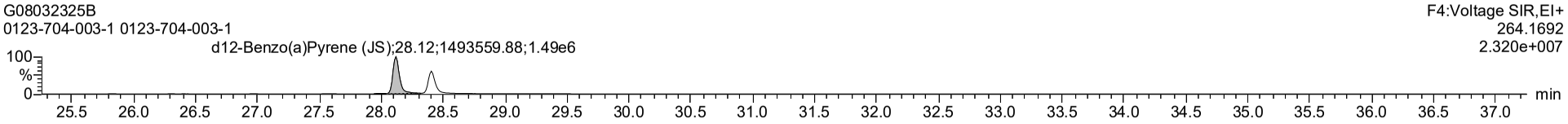
d12-Benzo(a)Pyrene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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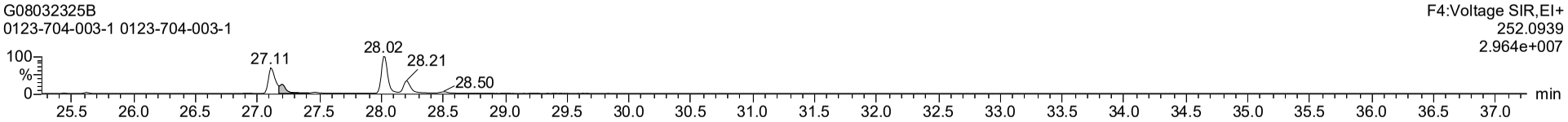
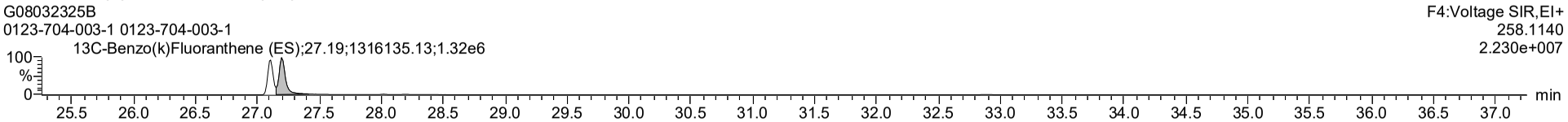
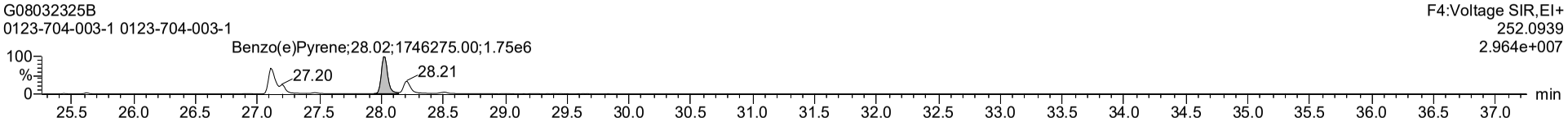
Benzo(k)Fluoranthene



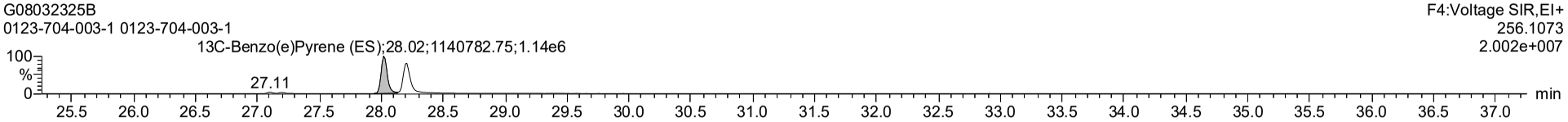
13C-Benzo(k)Fluoranthene (ES)



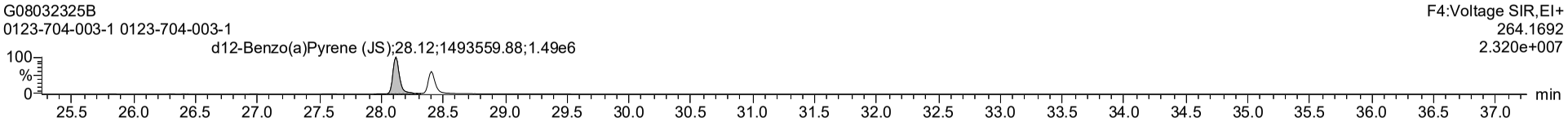
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



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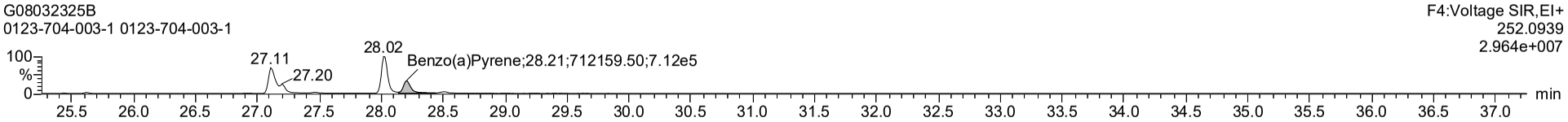
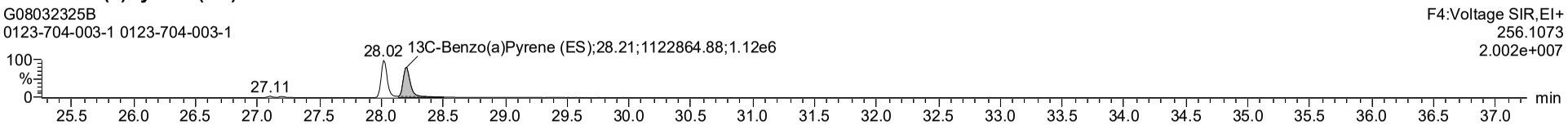
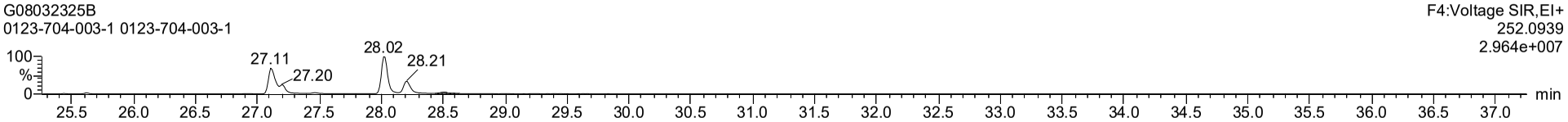
Benzo(a)Pyrene



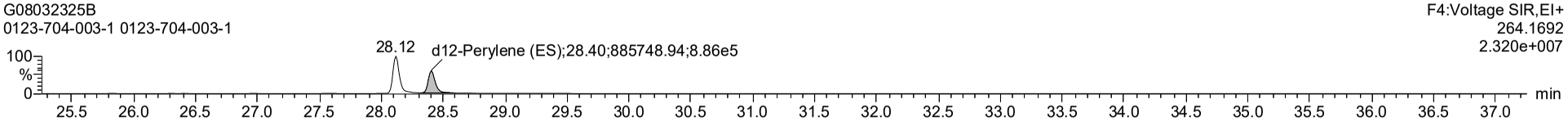
13C-Benzo(a)Pyrene (ES)



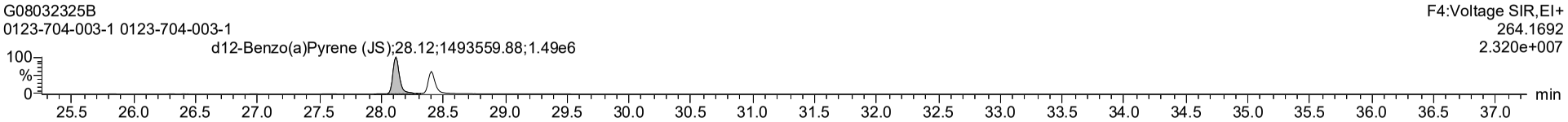
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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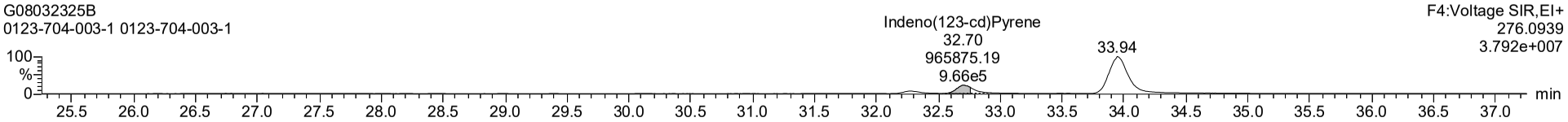
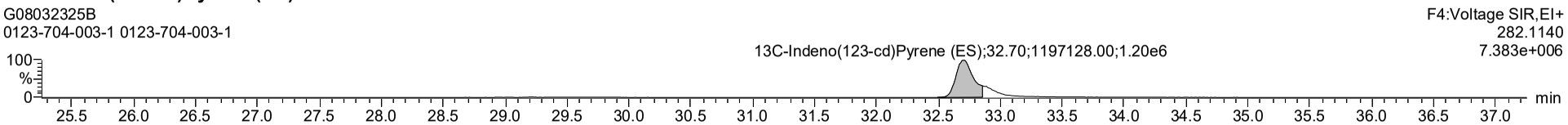
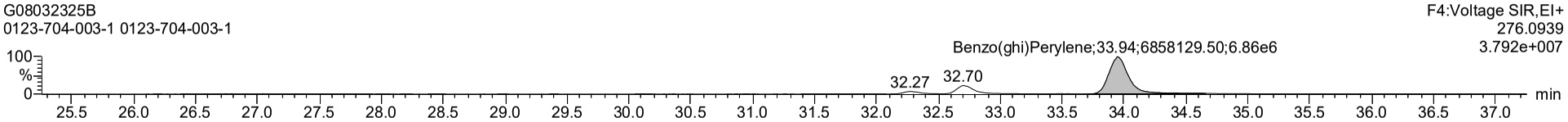
Indeno(123-cd)Pyrene



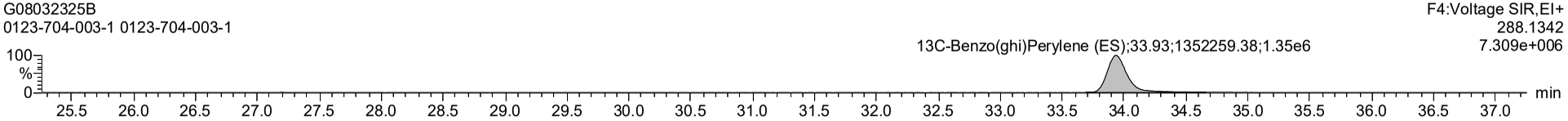
13C-Indeno(123-cd)Pyrene (ES)



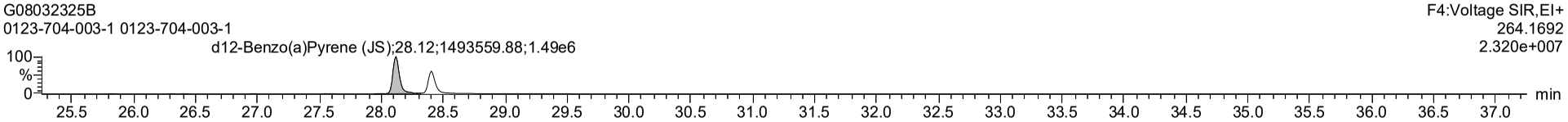
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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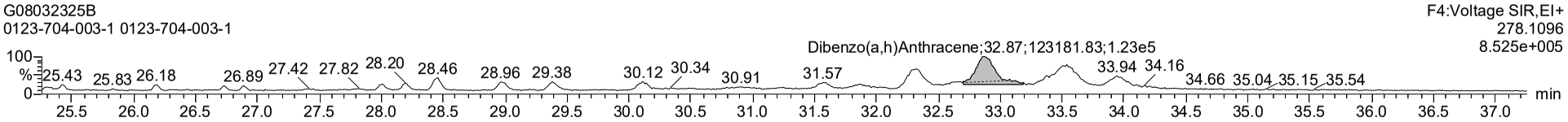
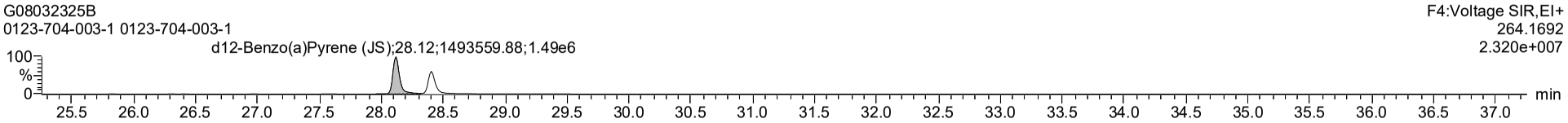
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



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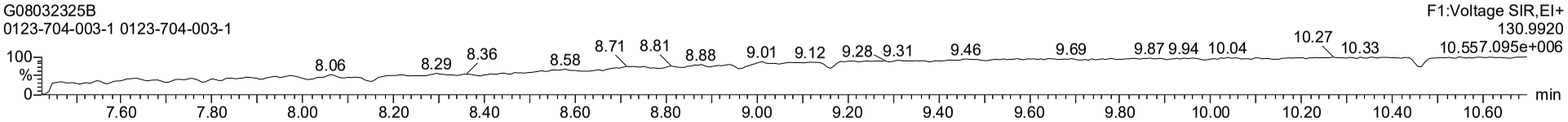
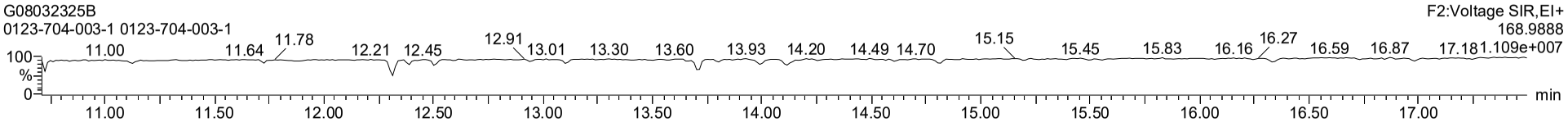
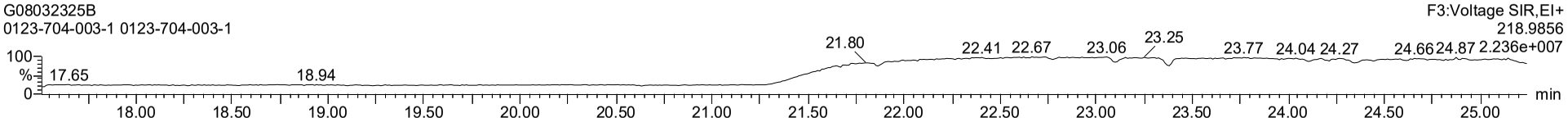
QC Check Ion Fn1



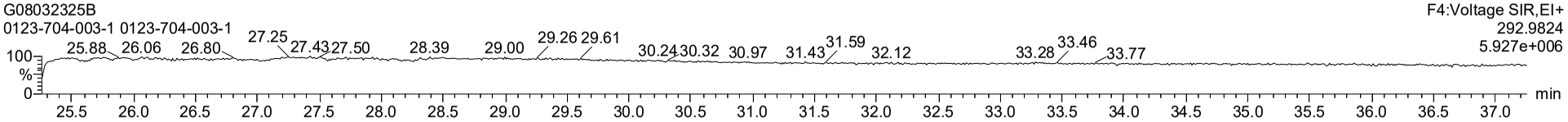
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	1.859e7	4.253e5	0.000		8.08	8.09				
2	13C-Naphthalene (...	134.0827	4.253e5	1.157e6	0.000		8.11	8.08				
3	2-Methyl-naphthale...	142.0783	6.919e6	6.458e5	0.000		9.49	9.50				
4	13C-2-Methylnapht...	148.0984	6.458e5	1.157e6	0.000		9.50	9.49				
5	d10-2-Methylnapht...	152.1410	1.157e6		0.000	18874.078	9.76	9.42	1160000		245.271	
6												
7	Acenaphthylene	152.0636	1.524e5	7.687e5	0.000		11.58	11.6				
8	13C-Acenaphthyle...	158.0827	7.687e5	9.437e5	0.000		11.59	11.6				
9	Acenaphthene	154.0783	2.015e5	5.514e5	0.000		11.98	12.0				
10	13C-Acenaphthene...	160.0984	5.514e5	9.437e5	0.000		11.99	12.0				
11	d10-Acenaphthene...	164.1410	9.437e5		0.000	13122.905	12.25	11.9	944000		287.665	
12												
13	Fluorene	166.0783	7.839e5	6.967e5	0.000		13.20	13.2				
14	13C-Fluorene (ES)	172.0984	6.967e5	9.437e5	0.000		13.17	13.2				
15	Phenanthrene	178.0783	1.202e7	1.309e6	0.000		15.54	15.5				
16	13C-Phenanthrene...	184.0984	1.309e6	9.437e5	0.000		15.55	15.5				
17	d10-Acenaphthene...	164.1410	9.437e5		0.000	13122.905	12.25	11.9	944000		287.665	
18												
19	Anthracene	178.0783	4.719e5	1.043e6	0.000		15.68	15.7				
20	13C-Anthracene (E...	184.0984	1.043e6	9.437e5	0.000		15.67	15.7				
21	Fluoranthene	202.0783	6.852e6	1.330e6	0.000		18.58	18.6				
22	13C-Fluoranthene (...	208.0984	1.330e6	1.657e6	0.000		18.59	18.6				
23	d10-Acenaphthene...	164.1410	9.437e5		0.000	13122.905	12.25	11.9	944000		287.665	
24	d10-Pyrene (JS)	212.1410	1.657e6		0.000	19126.001	19.23	19.2	1660000		346.647	
25												
26	Pyrene	202.0783	6.765e6	1.481e6	0.000		19.29	19.3				
27	13C-Pyrene (ES)	205.0883	1.481e6	1.657e6	0.000		19.28	19.3				
28	Benzo(a)Anthracene	228.0939	8.101e5	1.290e6	0.000		23.33	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.290e6	1.657e6	0.000		23.33	23.3				
30	d10-Pyrene (JS)	212.1410	1.657e6		0.000	19126.001	19.23	19.2	1660000		346.647	
31												
32	Chrysene	228.0939	1.497e6	1.278e6	0.000		23.46	23.5				
33	13C-Chrysene (ES)	234.1140	1.278e6	1.657e6	0.000		23.46	23.5				
34	Benzo(b)Fluoranth...	252.0939	1.293e6	1.074e6	0.000		27.11	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.074e6	1.494e6	0.000		27.13	27.1				
36	d10-Pyrene (JS)	212.1410	1.657e6		0.000	19126.001	19.23	19.2	1660000		346.647	

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Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.494e6		0.000	12322.130	28.12	28.1	1490000		484.838	
38												
39	Benzo(k)Fluoranth...	252.0939	4.457e5	1.316e6	0.000		27.19	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.316e6	1.494e6	0.000		27.22	27.2				
41	Benzo(e)Pyrene	252.0939	1.746e6	1.141e6	0.000		28.02	28.0				
42	13C-Benzo(e)Pyre...	256.1073	1.141e6	1.494e6	0.000		28.02	28.0				
43	d12-Benzo(a)Pyren...	264.1692	1.494e6		0.000	12322.130	28.12	28.1	1490000		484.838	
44												
45	Benzo(a)Pyrene	252.0939	7.122e5	1.123e6	0.000		28.21	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.123e6	1.494e6	0.000		28.20	28.2				
47	Perylene	252.0939	8.307e4	8.857e5	0.000		28.40	28.5				
48	d12-Perylene (ES)	264.1692	8.857e5	1.494e6	0.000		28.49	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.494e6		0.000	12322.130	28.12	28.1	1490000		484.838	
50												
51	Indeno(123-cd)Pyr...	276.0939	9.659e5	1.197e6	0.000		32.70	32.7				
52	13C-Indeno(123-cd...	282.1140	1.197e6	1.494e6	0.000		32.54	32.7				
53	Benzo(ghi)Perylene	276.0939	6.858e6	1.352e6	0.000		33.93	33.9				
54	13C-Benzo(ghi)Per...	288.1342	1.352e6	1.494e6	0.000		33.73	33.9				
55	d12-Benzo(a)Pyren...	264.1692	1.494e6		0.000	12322.130	28.12	28.1	1490000		484.838	
56												
57	Dibenzo(a,h)Anthra...	278.1096	1.232e5	1.171e6	0.000		32.88	32.9				
58	d12-Benzo(a)Pyren...	264.1692	1.494e6		0.000	12322.130	28.12	28.1	1490000		484.838	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032325B, Date: 09-Mar-2023, Time: 08:47:31, ID: 0123-704-003-1, Description: 0123-704-003-1

	Summary Flag Reason
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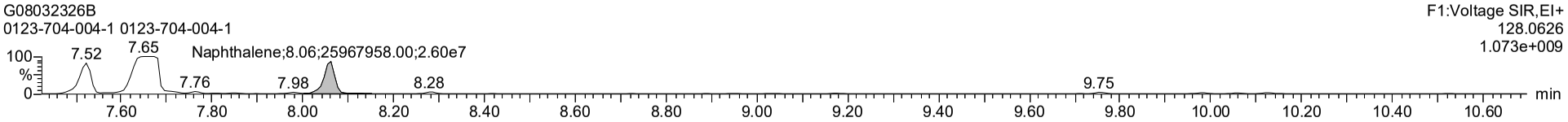
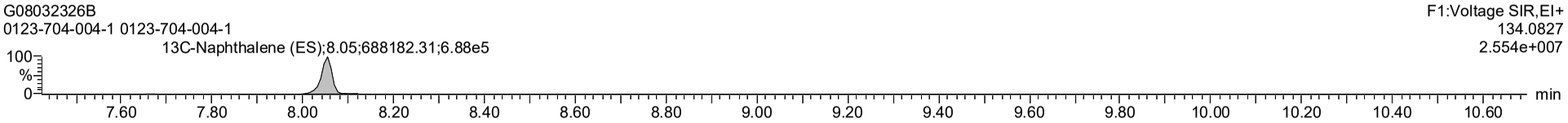
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

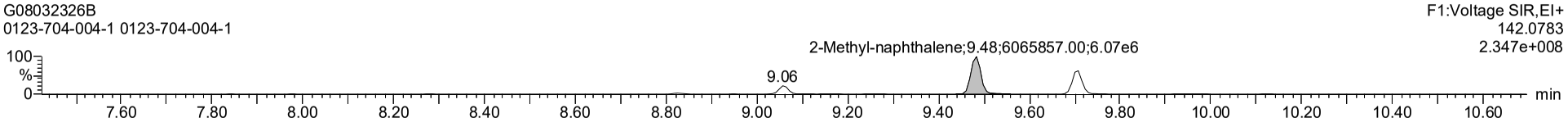
Naphthalene



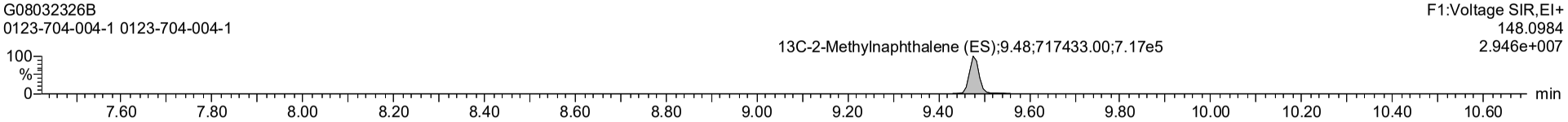
13C-Naphthalene (ES)



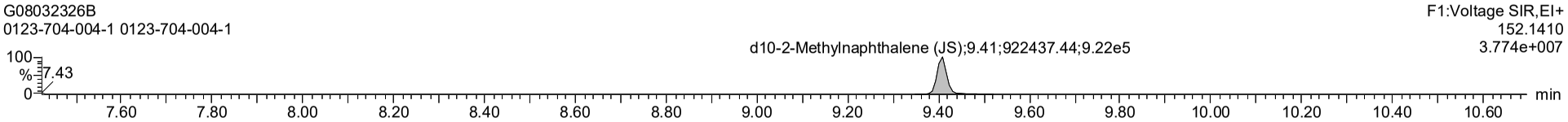
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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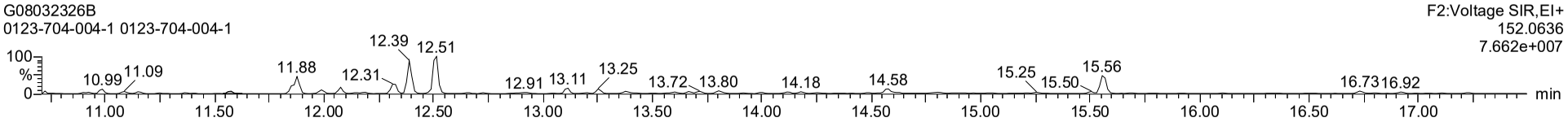
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

Acenaphthylene



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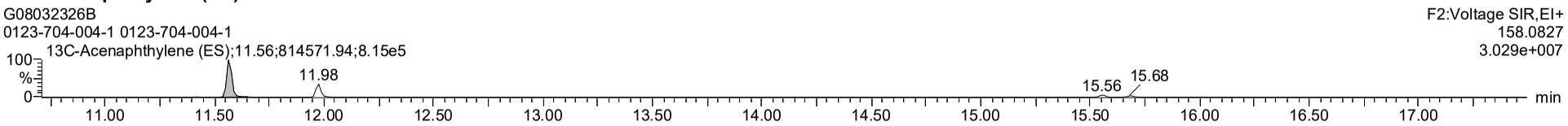
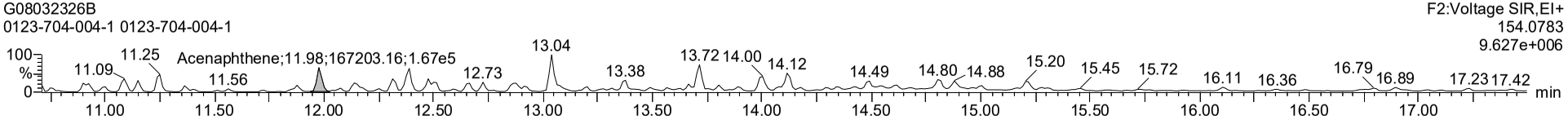


Acenaphthene



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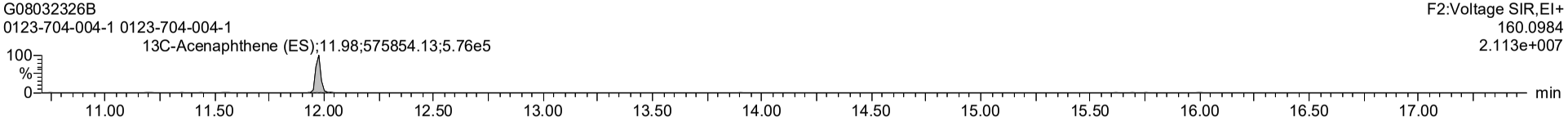
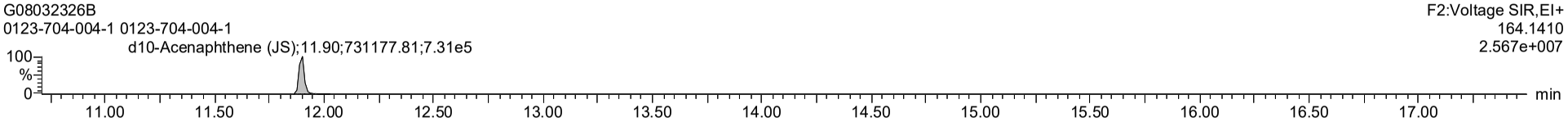


d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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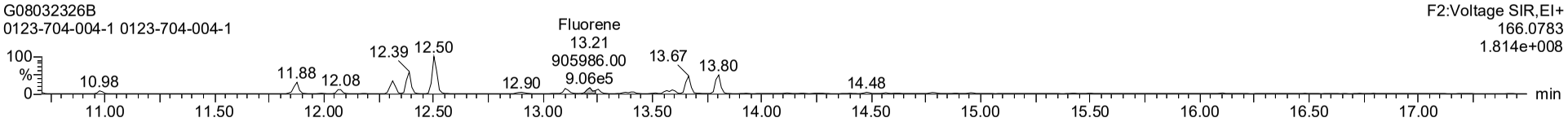
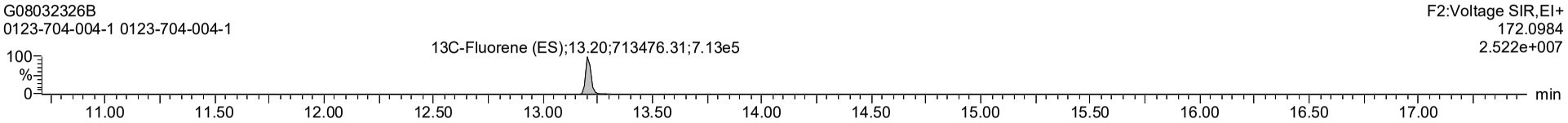
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

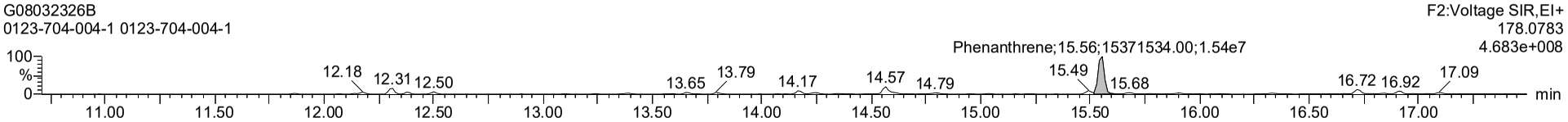
Fluorene



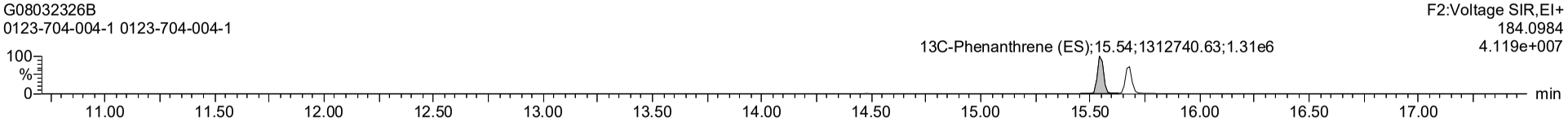
13C-Fluorene (ES)



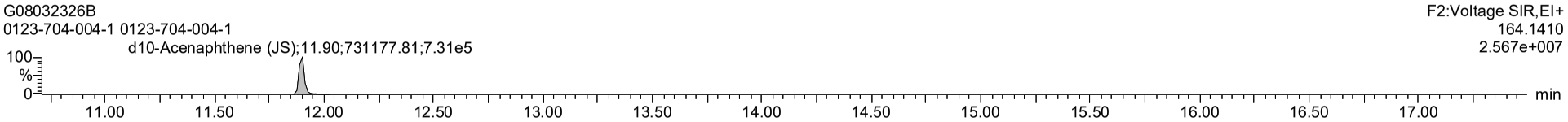
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



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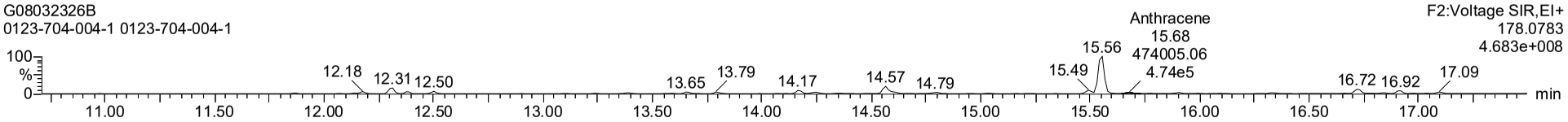
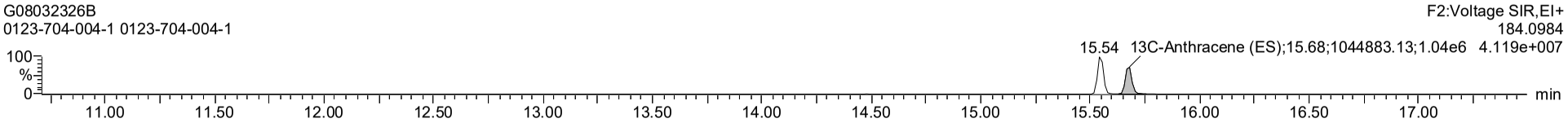
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

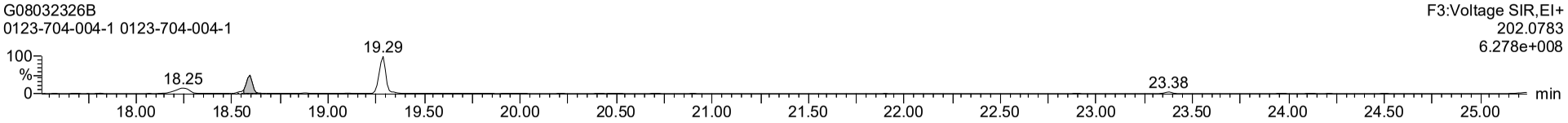
Anthracene



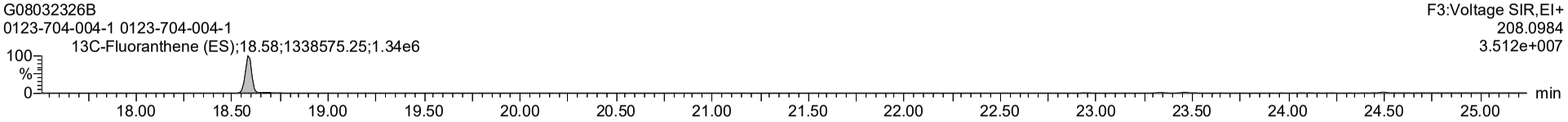
13C-Anthracene (ES)



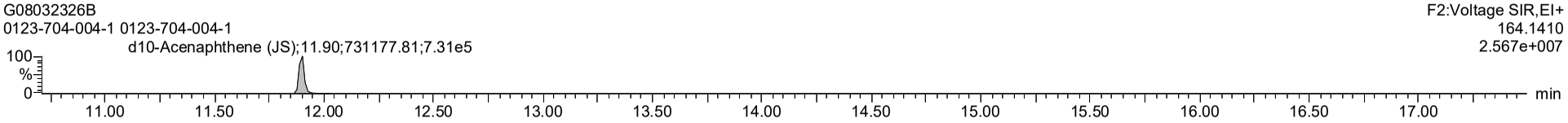
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



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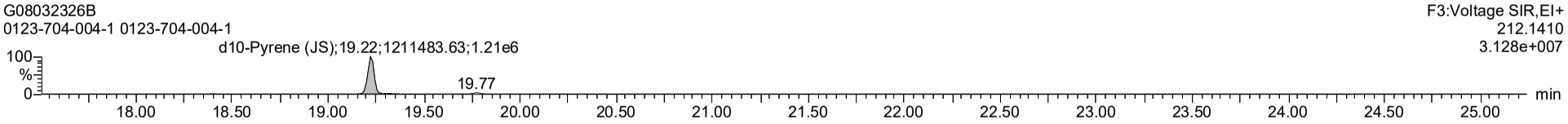
d10-Pyrene (JS)



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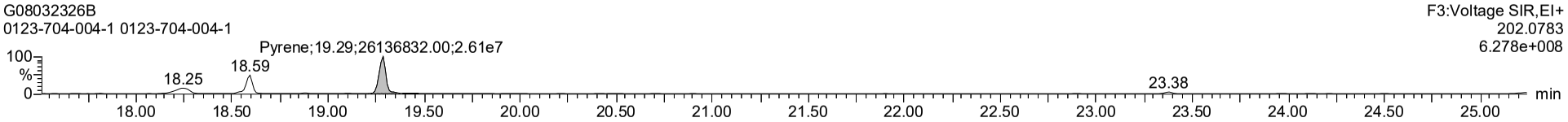
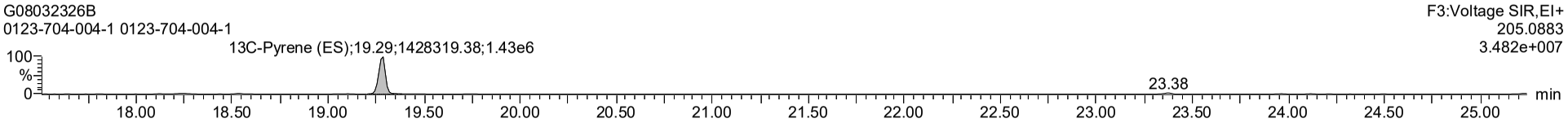
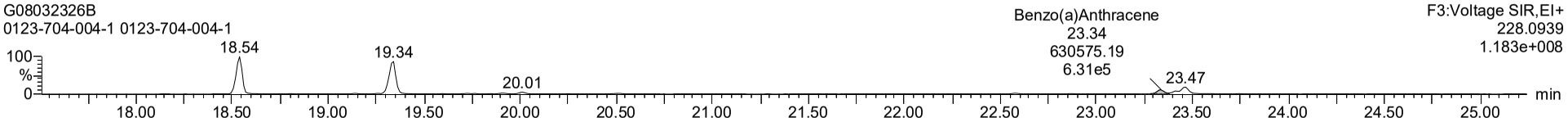
Pyrene



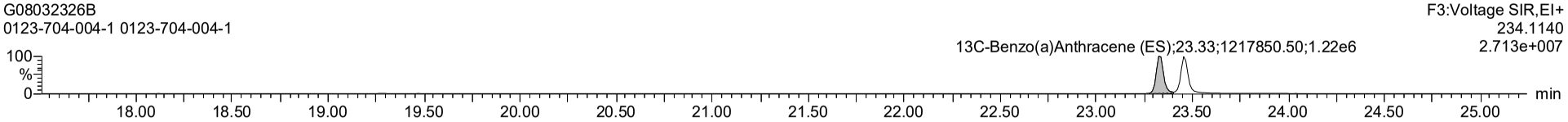
13C-Pyrene (ES)



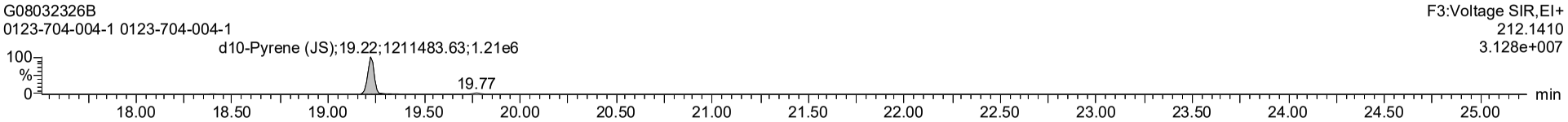
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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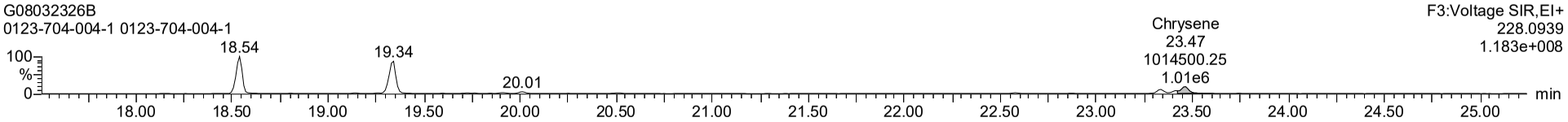
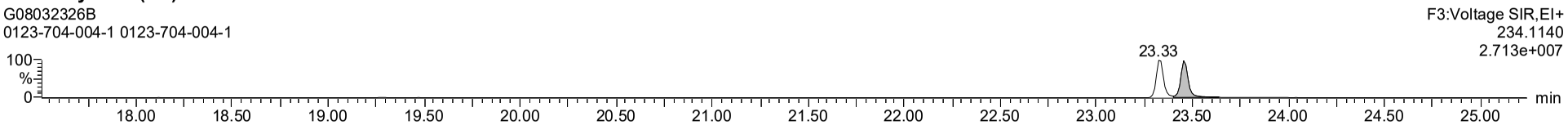
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

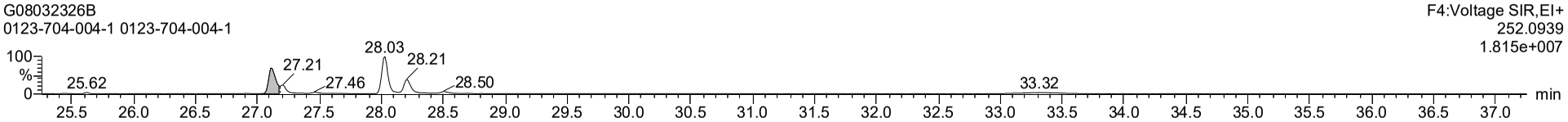
Chrysene



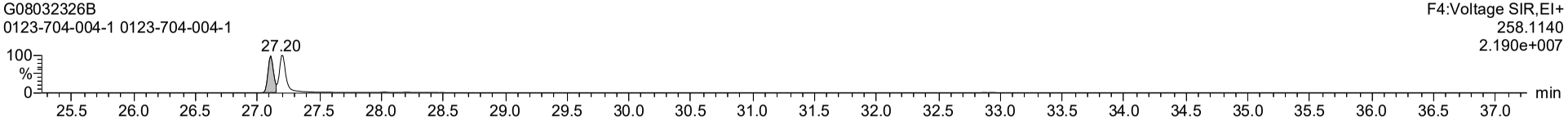
13C-Chrysene (ES)



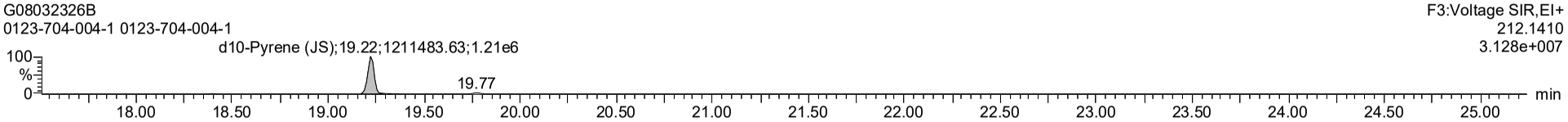
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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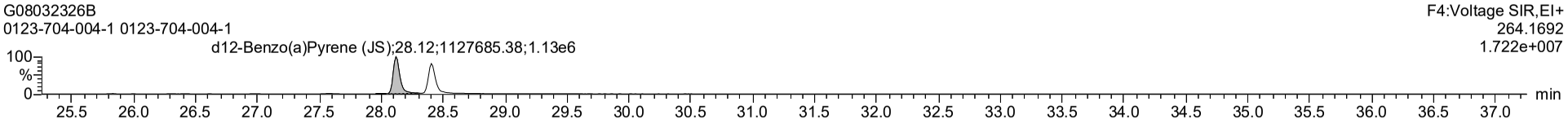
d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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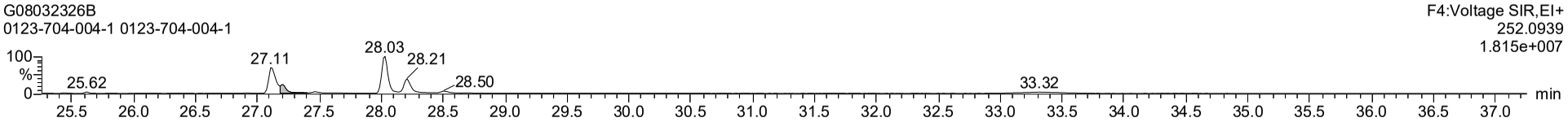
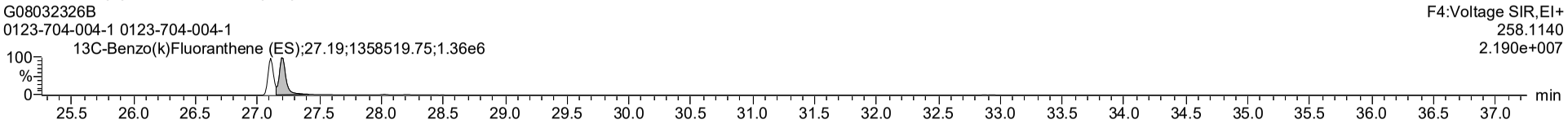
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

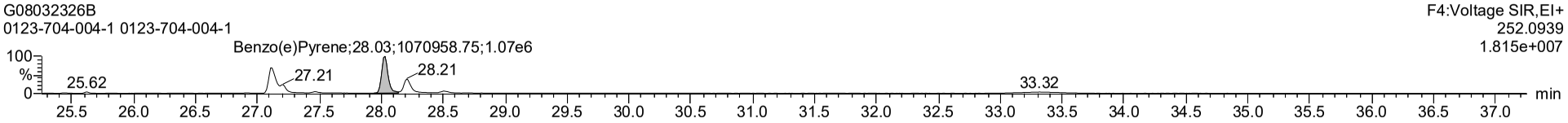
Benzo(k)Fluoranthene



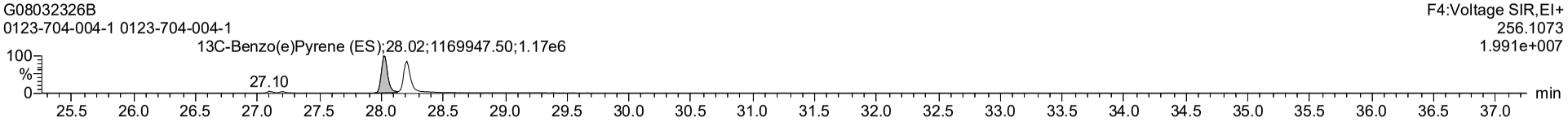
13C-Benzo(k)Fluoranthene (ES)



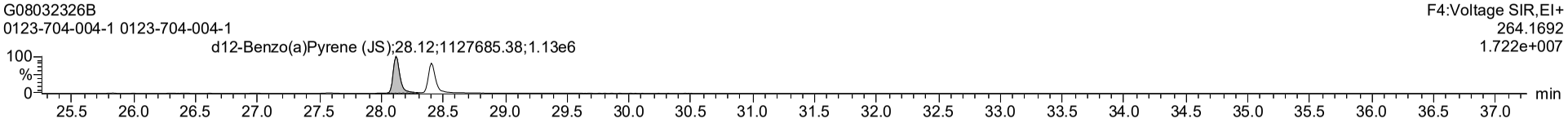
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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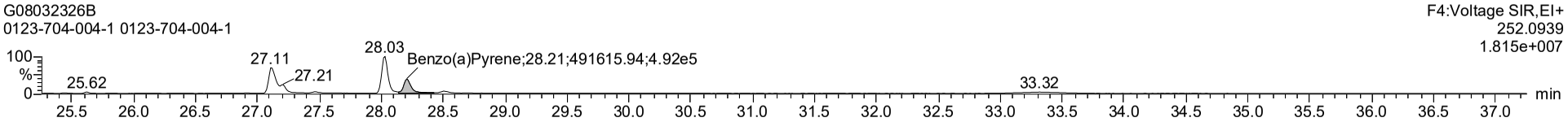
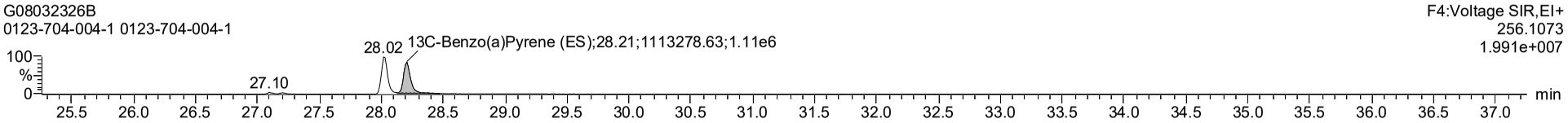
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

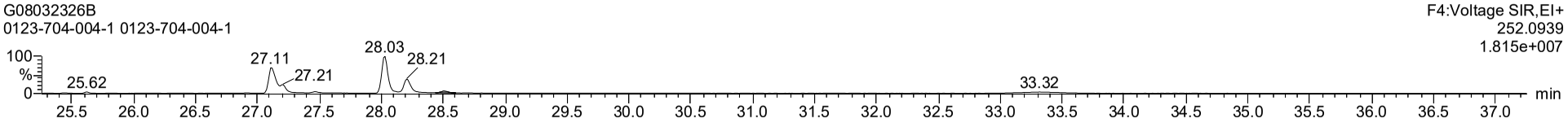
Benzo(a)Pyrene



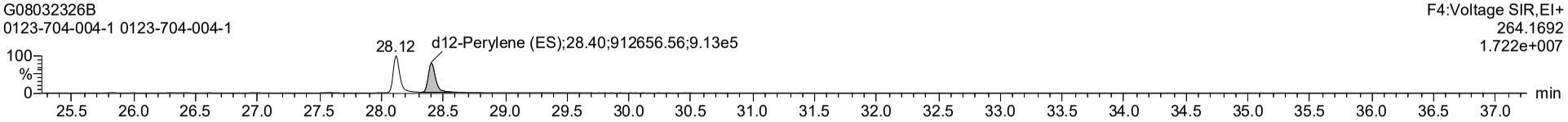
13C-Benzo(a)Pyrene (ES)



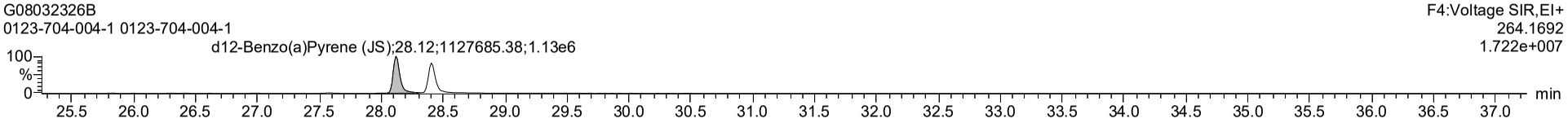
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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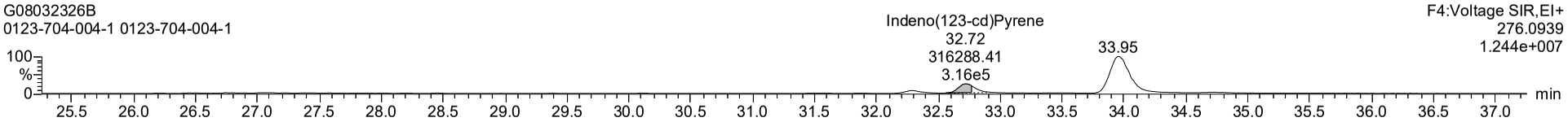
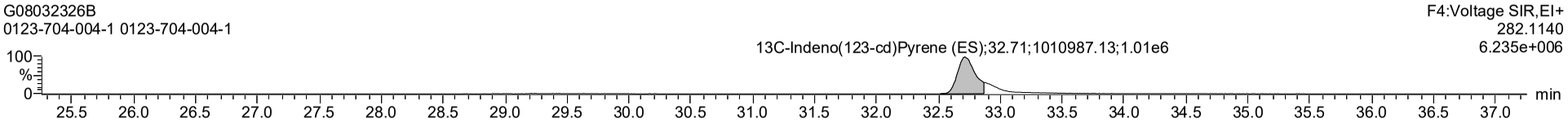
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

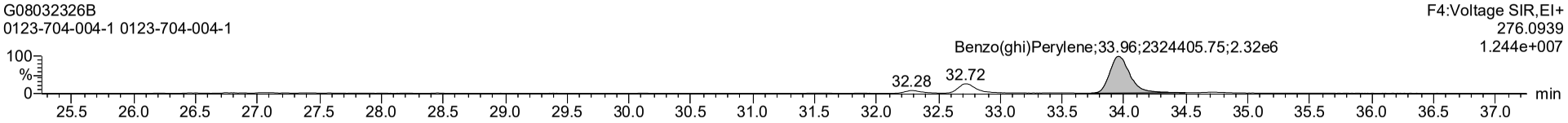
Indeno(123-cd)Pyrene



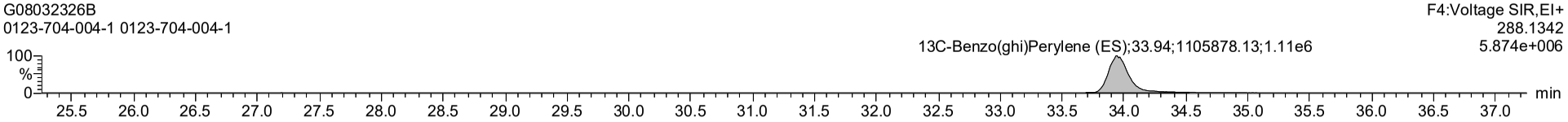
13C-Indeno(123-cd)Pyrene (ES)



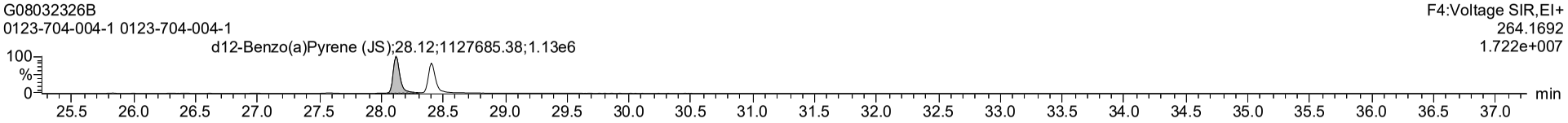
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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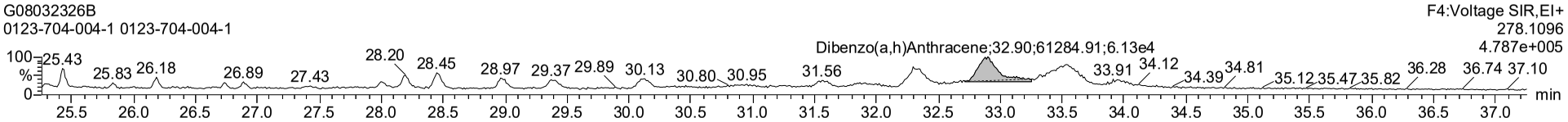
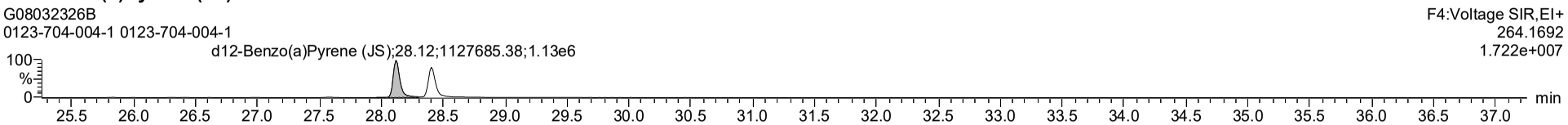
Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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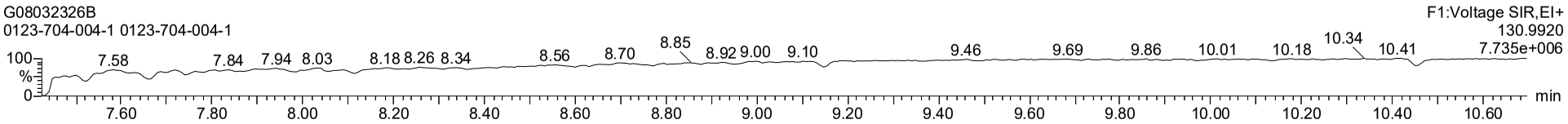
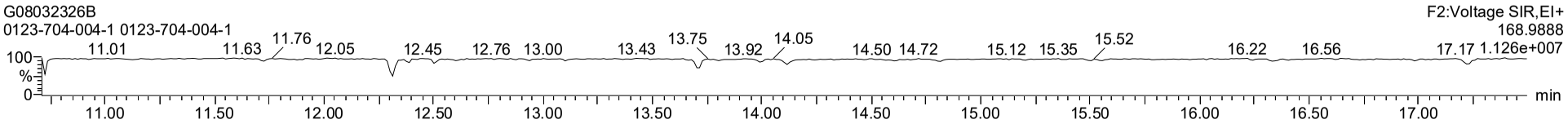
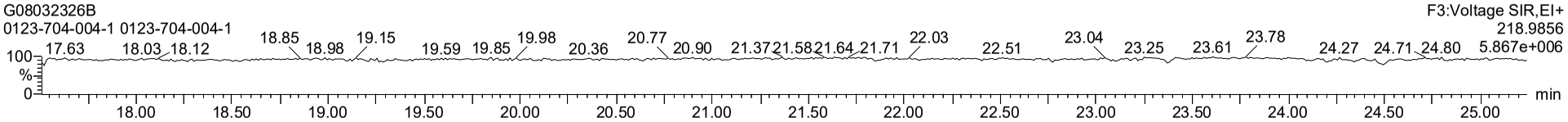
QC Check Ion Fn1



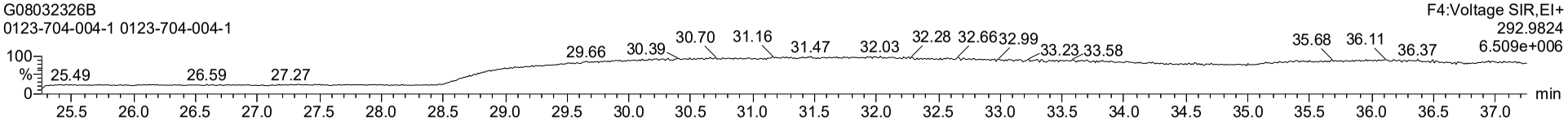
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.597e7	6.882e5	0.000		8.05	8.06				
2	13C-Naphthalene (...	134.0827	6.882e5	9.224e5	0.000		8.10	8.05				
3	2-Methyl-naphthale...	142.0783	6.066e6	7.174e5	0.000		9.48	9.48				
4	13C-2-Methylnapht...	148.0984	7.174e5	9.224e5	0.000		9.49	9.48				
5	d10-2-Methylnapht...	152.1410	9.224e5		0.000	18874.078	9.76	9.41	922000		195.493	
6												
7	Acenaphthylene	152.0636	1.362e5	8.146e5	0.000		11.56	11.6				
8	13C-Acenaphthyle...	158.0827	8.146e5	7.312e5	0.000		11.59	11.6				
9	Acenaphthene	154.0783	1.672e5	5.759e5	0.000		11.98	12.0				
10	13C-Acenaphthene...	160.0984	5.759e5	7.312e5	0.000		11.99	12.0				
11	d10-Acenaphthene...	164.1410	7.312e5		0.000	13122.905	12.25	11.9	731000		222.871	
12												
13	Fluorene	166.0783	9.060e5	7.135e5	0.000		13.20	13.2				
14	13C-Fluorene (ES)	172.0984	7.135e5	7.312e5	0.000		13.17	13.2				
15	Phenanthrene	178.0783	1.537e7	1.313e6	0.000		15.54	15.6				
16	13C-Phenanthrene...	184.0984	1.313e6	7.312e5	0.000		15.55	15.5				
17	d10-Acenaphthene...	164.1410	7.312e5		0.000	13122.905	12.25	11.9	731000		222.871	
18												
19	Anthracene	178.0783	4.740e5	1.045e6	0.000		15.68	15.7				
20	13C-Anthracene (E...	184.0984	1.045e6	7.312e5	0.000		15.67	15.7				
21	Fluoranthene	202.0783	1.070e7	1.339e6	0.000		18.58	18.6				
22	13C-Fluoranthene (...	208.0984	1.339e6	1.211e6	0.000		18.59	18.6				
23	d10-Acenaphthene...	164.1410	7.312e5		0.000	13122.905	12.25	11.9	731000		222.871	
24	d10-Pyrene (JS)	212.1410	1.211e6		0.000	19126.001	19.23	19.2	1210000		253.369	
25												
26	Pyrene	202.0783	2.614e7	1.428e6	0.000		19.29	19.3				
27	13C-Pyrene (ES)	205.0883	1.428e6	1.211e6	0.000		19.28	19.3				
28	Benzo(a)Anthracene	228.0939	6.306e5	1.218e6	0.000		23.33	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.218e6	1.211e6	0.000		23.33	23.3				
30	d10-Pyrene (JS)	212.1410	1.211e6		0.000	19126.001	19.23	19.2	1210000		253.369	
31												
32	Chrysene	228.0939	1.015e6	1.198e6	0.000		23.46	23.5				
33	13C-Chrysene (ES)	234.1140	1.198e6	1.211e6	0.000		23.46	23.5				
34	Benzo(b)Fluoranth...	252.0939	8.100e5	1.093e6	0.000		27.11	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.093e6	1.128e6	0.000		27.13	27.1				
36	d10-Pyrene (JS)	212.1410	1.211e6		0.000	19126.001	19.23	19.2	1210000		253.369	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.128e6		0.000	12322.130	28.12	28.1	1130000		366.068	
38												
39	Benzo(k)Fluoranth...	252.0939	2.334e5	1.359e6	0.000		27.19	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.359e6	1.128e6	0.000		27.22	27.2				
41	Benzo(e)Pyrene	252.0939	1.071e6	1.170e6	0.000		28.02	28.0				
42	13C-Benzo(e)Pyre...	256.1073	1.170e6	1.128e6	0.000		28.02	28.0				
43	d12-Benzo(a)Pyren...	264.1692	1.128e6		0.000	12322.130	28.12	28.1	1130000		366.068	
44												
45	Benzo(a)Pyrene	252.0939	4.916e5	1.113e6	0.000		28.21	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.113e6	1.128e6	0.000		28.20	28.2				
47	Perylene	252.0939	5.664e4	9.127e5	0.000		28.40	28.5				
48	d12-Perylene (ES)	264.1692	9.127e5	1.128e6	0.000		28.49	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.128e6		0.000	12322.130	28.12	28.1	1130000		366.068	
50												
51	Indeno(123-cd)Pyr...	276.0939	3.163e5	1.011e6	0.000		32.71	32.7				
52	13C-Indeno(123-cd...	282.1140	1.011e6	1.128e6	0.000		32.54	32.7				
53	Benzo(ghi)Perylene	276.0939	2.324e6	1.106e6	0.000		33.94	34.0				
54	13C-Benzo(ghi)Per...	288.1342	1.106e6	1.128e6	0.000		33.73	33.9				
55	d12-Benzo(a)Pyren...	264.1692	1.128e6		0.000	12322.130	28.12	28.1	1130000		366.068	
56												
57	Dibenzo(a,h)Anthra...	278.1096	6.128e4	1.008e6	0.000		32.89	32.9				
58	d12-Benzo(a)Pyren...	264.1692	1.128e6		0.000	12322.130	28.12	28.1	1130000		366.068	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032326B, Date: 09-Mar-2023, Time: 09:29:30, ID: 0123-704-004-1, Description: 0123-704-004-1

	Summary Flag Reason
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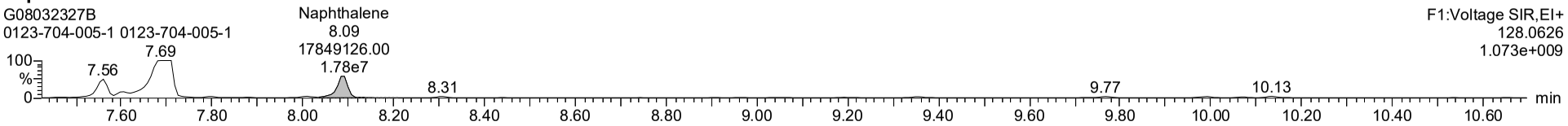
Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

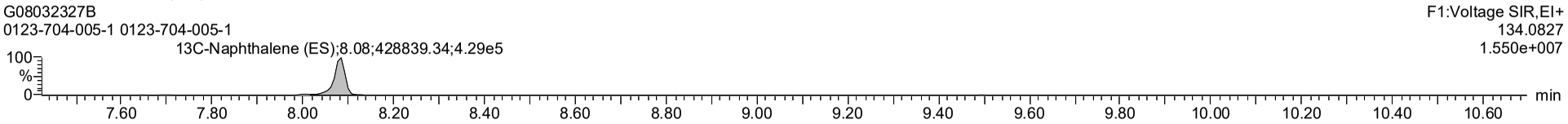
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

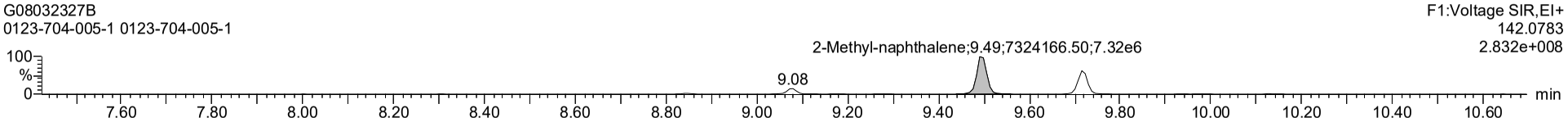
Naphthalene



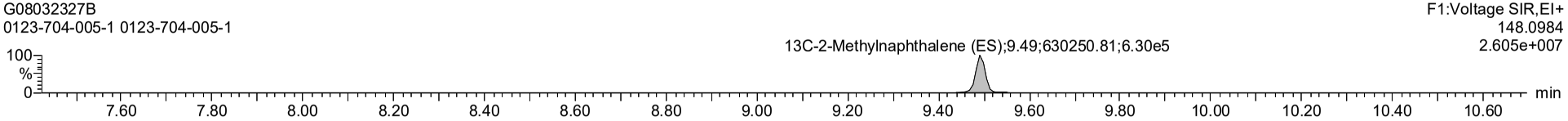
13C-Naphthalene (ES)



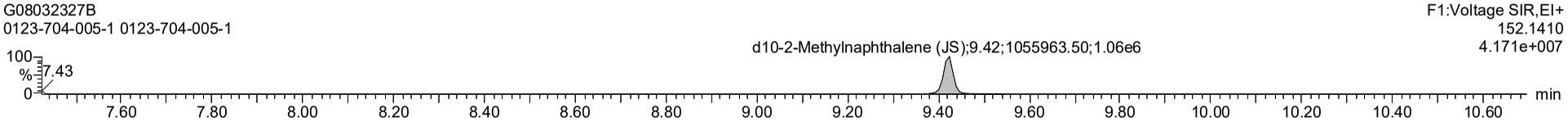
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

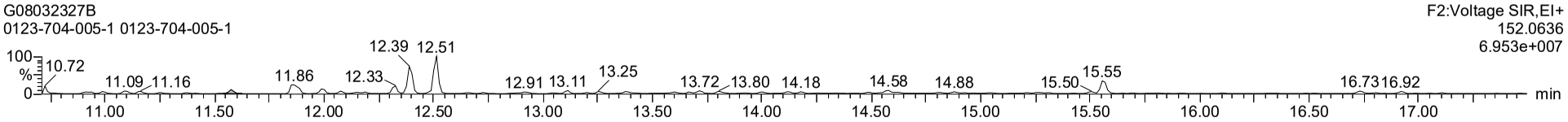


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

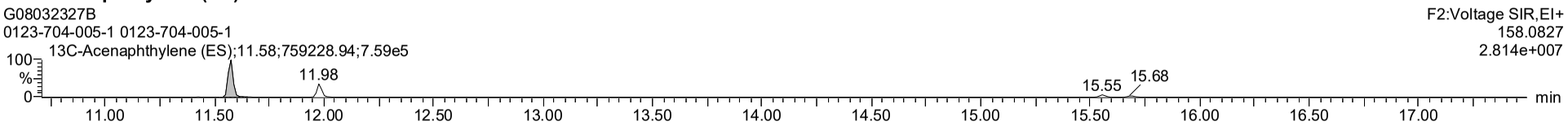
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

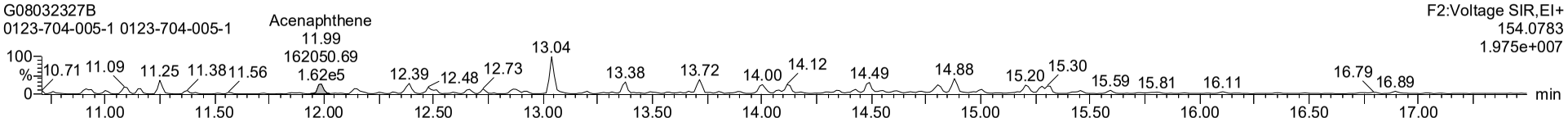
Acenaphthylene



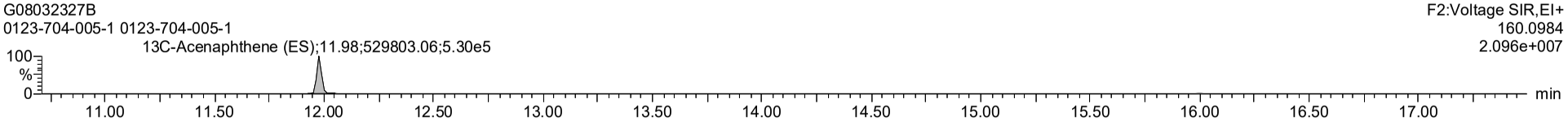
13C-Acenaphthylene (ES)



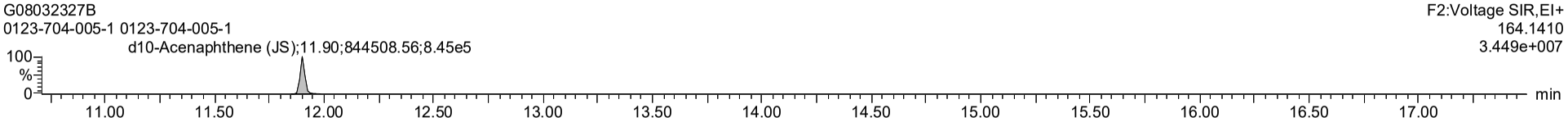
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)

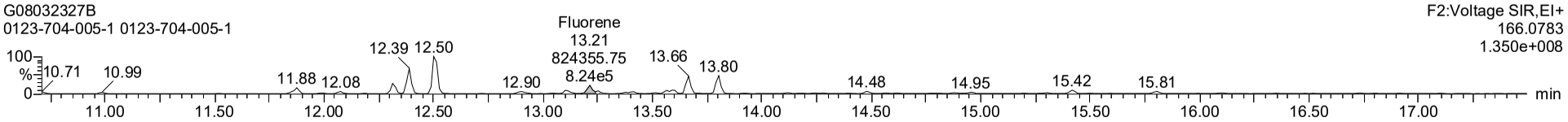


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

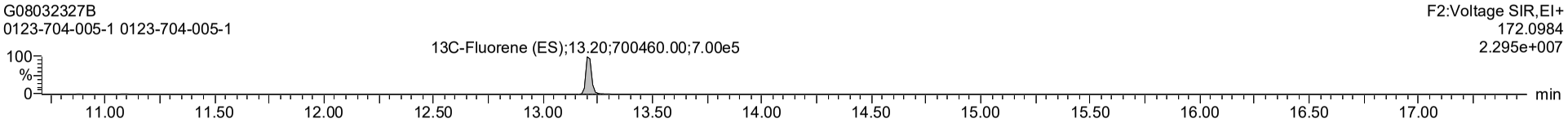
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

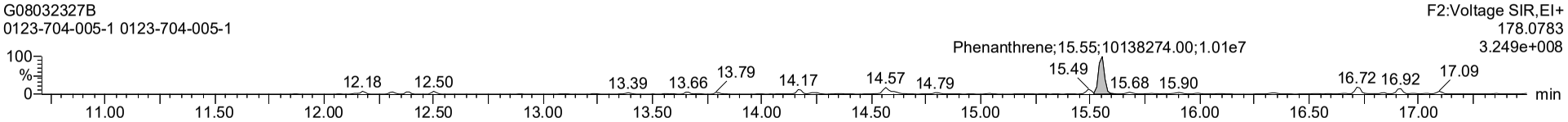
Fluorene



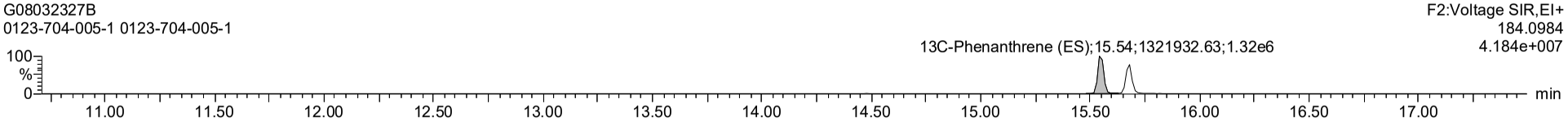
13C-Fluorene (ES)



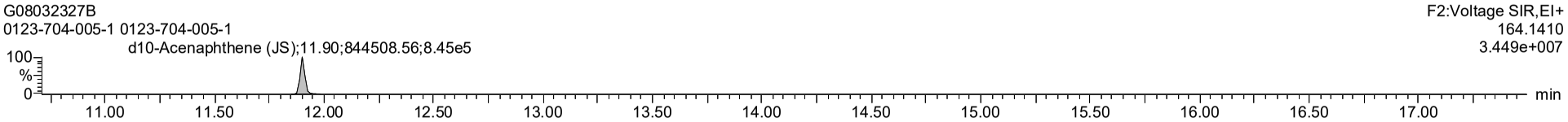
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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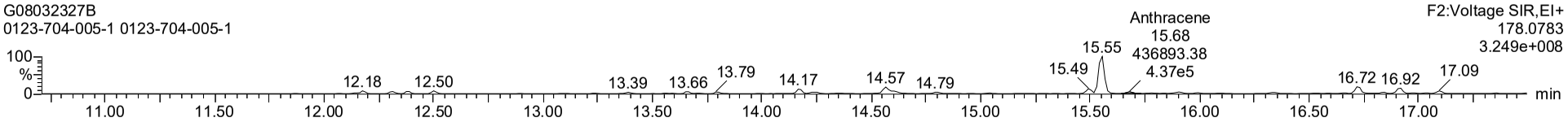
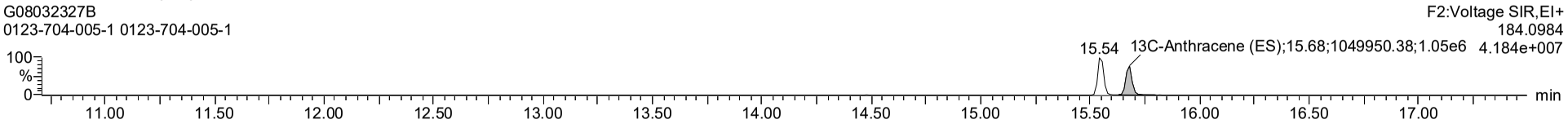
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

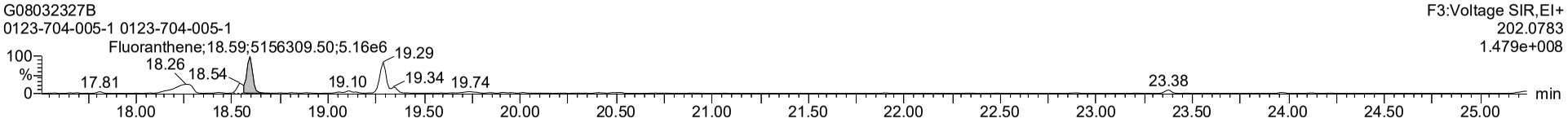
Anthracene



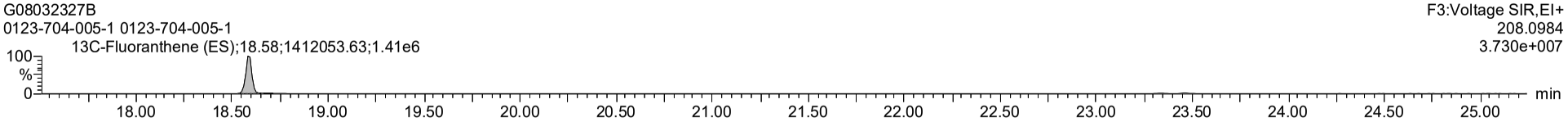
13C-Anthracene (ES)



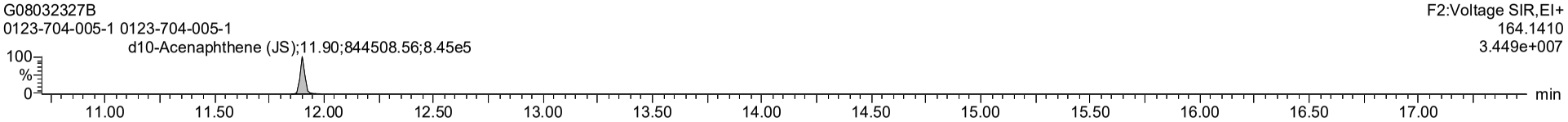
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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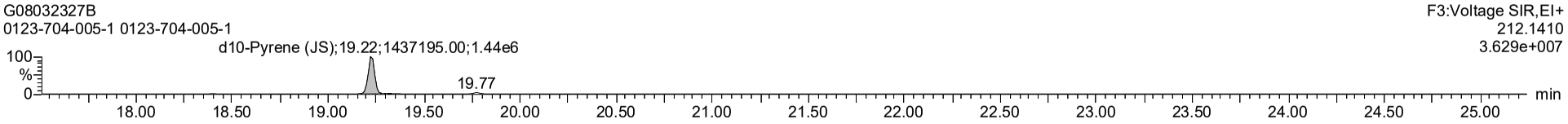
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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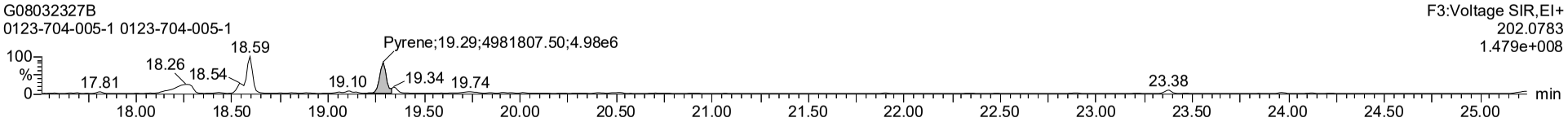
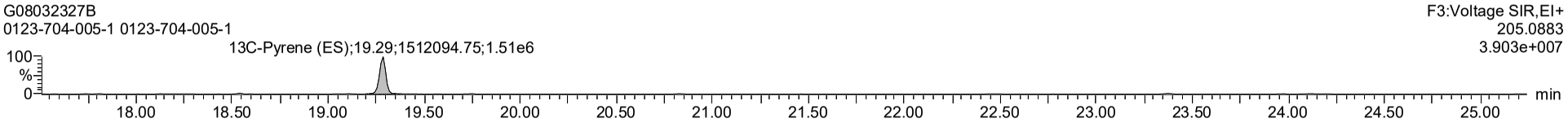
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

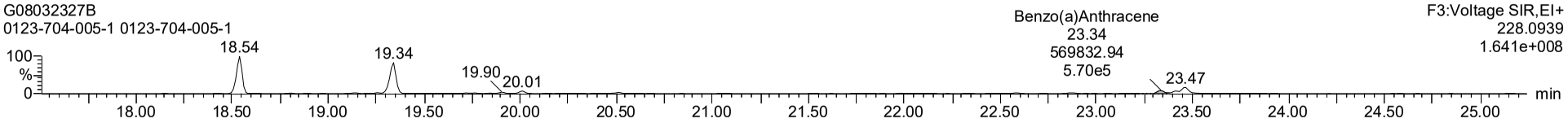
Pyrene



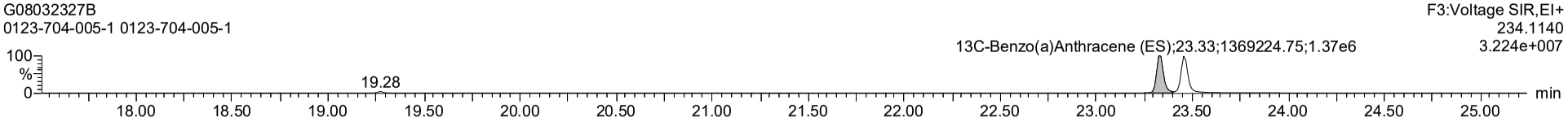
13C-Pyrene (ES)



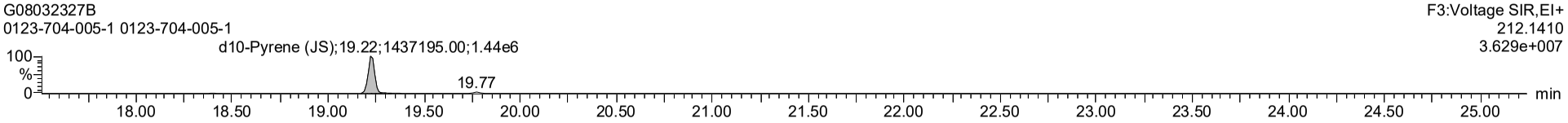
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



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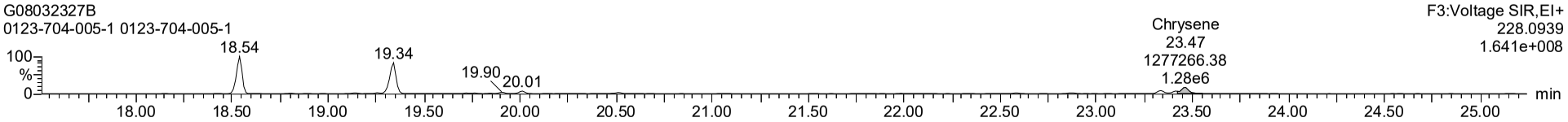
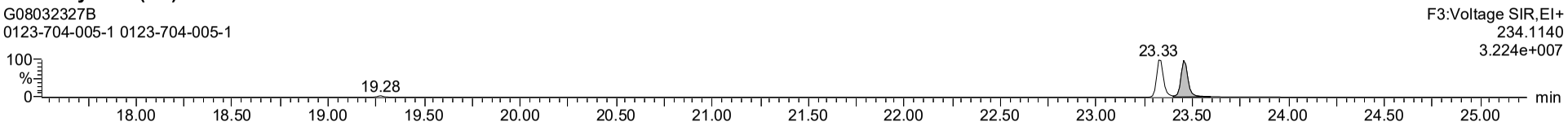
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

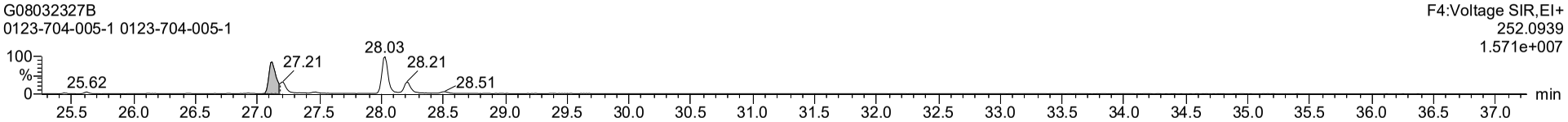
Chrysene



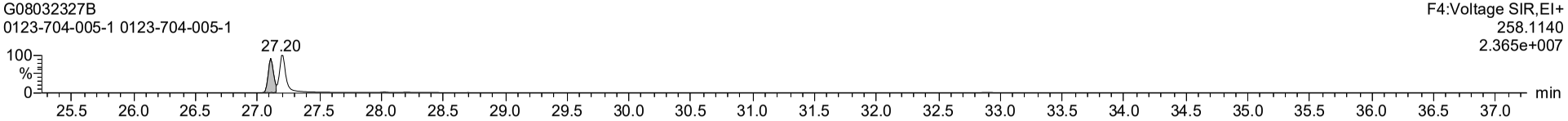
13C-Chrysene (ES)



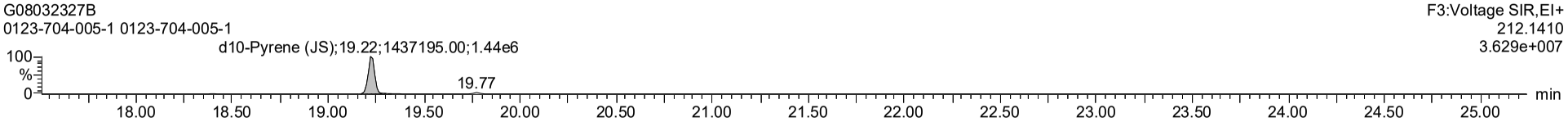
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



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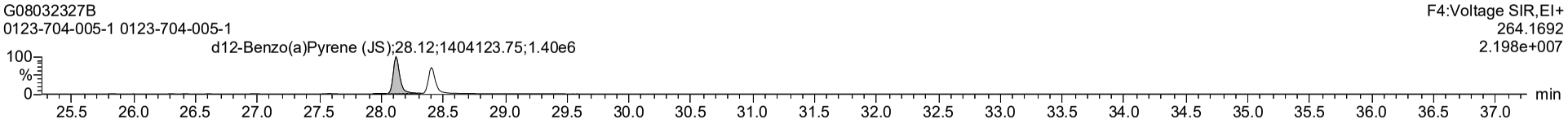
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

d12-Benzo(a)Pyrene (JS)



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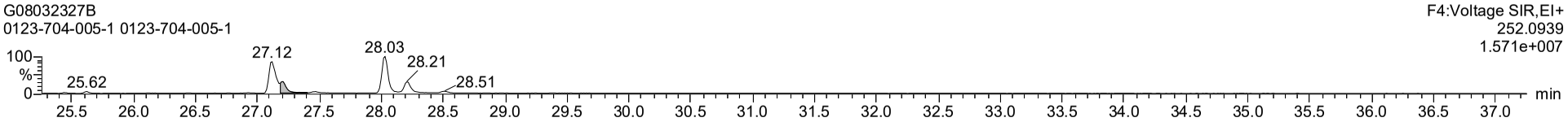
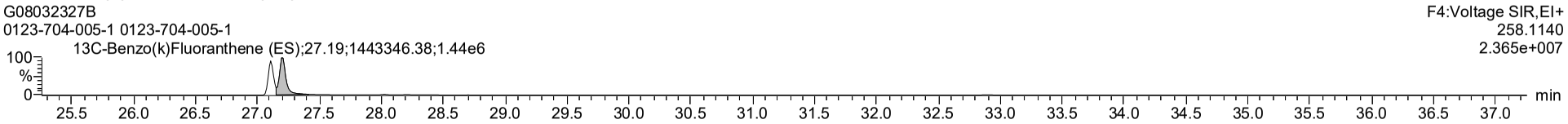
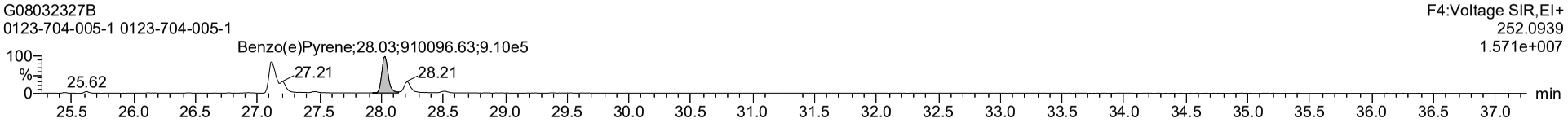
Benzo(k)Fluoranthene



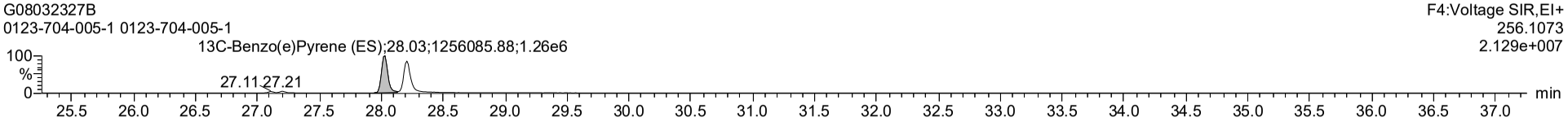
13C-Benzo(k)Fluoranthene (ES)



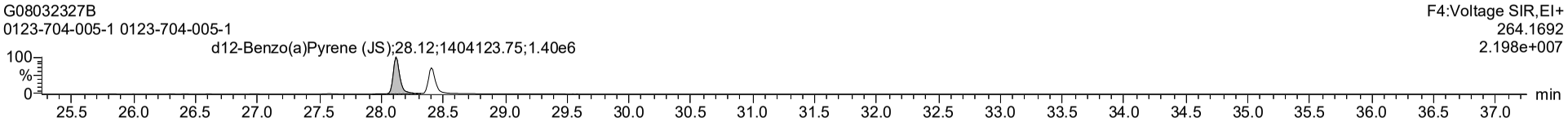
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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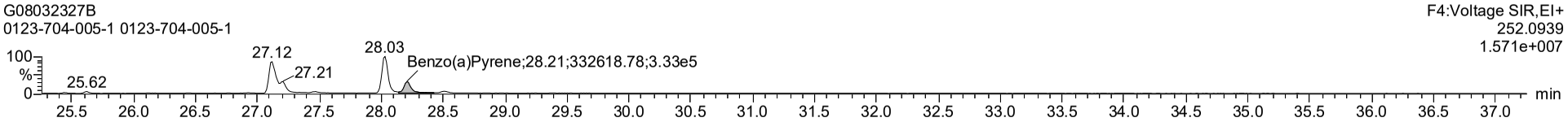
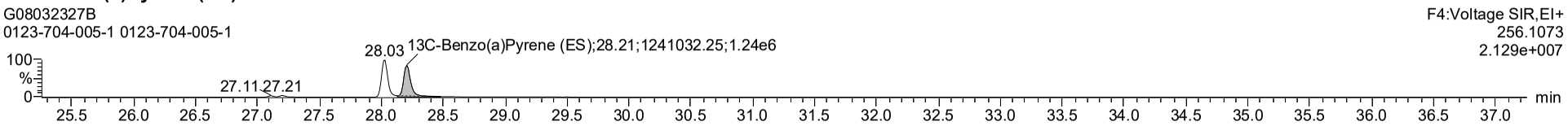
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

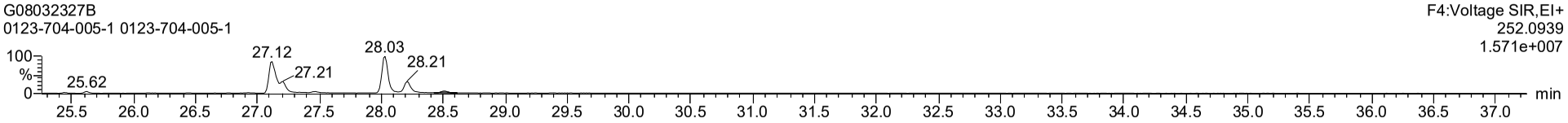
Benzo(a)Pyrene



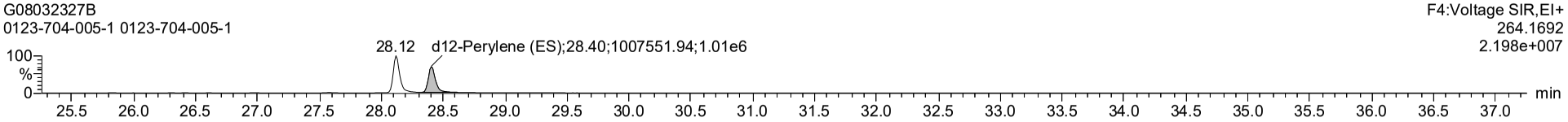
13C-Benzo(a)Pyrene (ES)



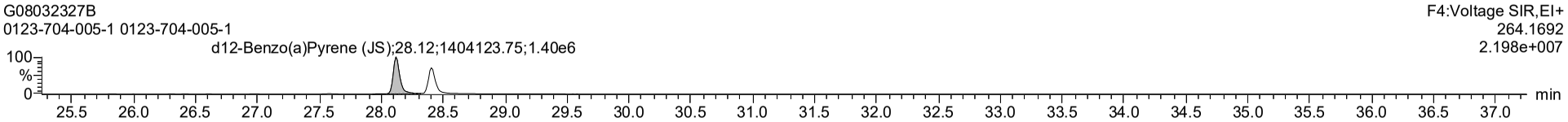
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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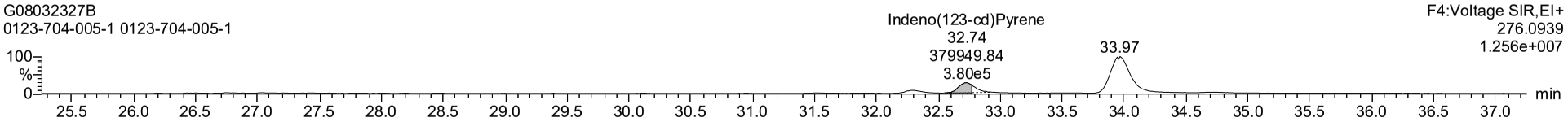
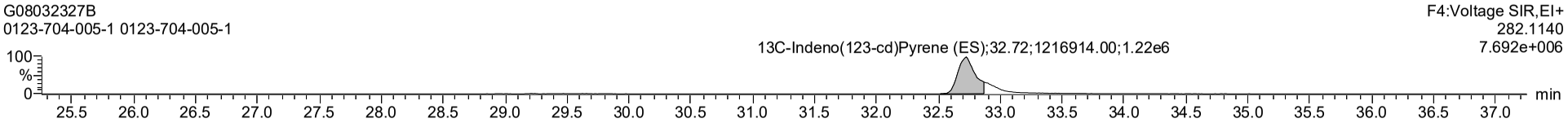
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

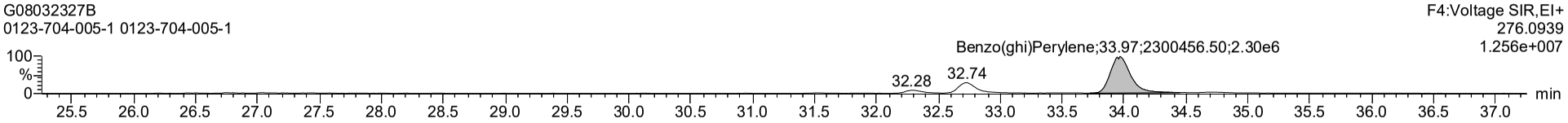
Indeno(123-cd)Pyrene



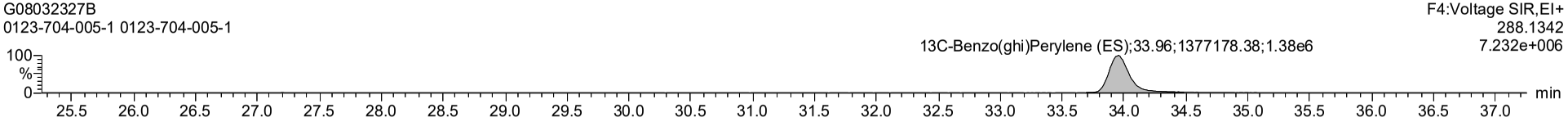
13C-Indeno(123-cd)Pyrene (ES)



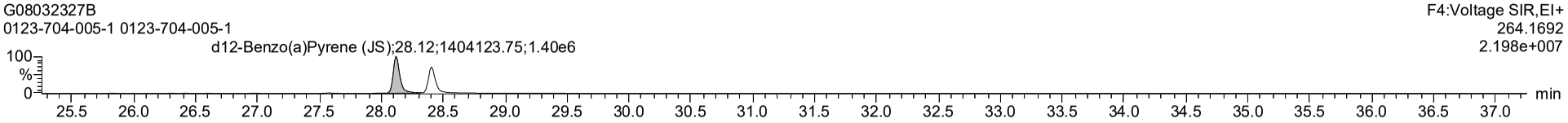
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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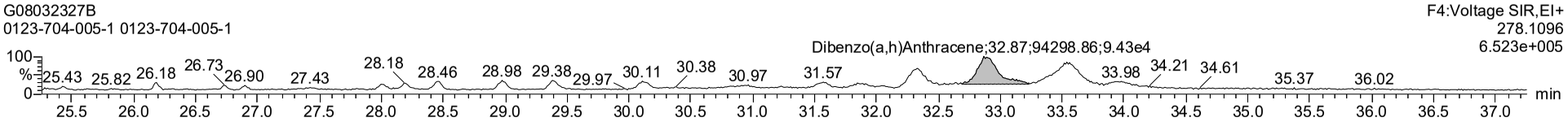
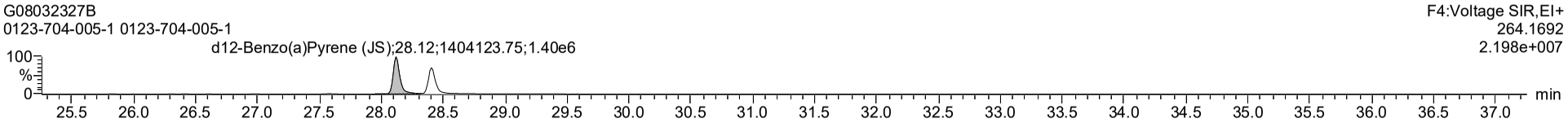
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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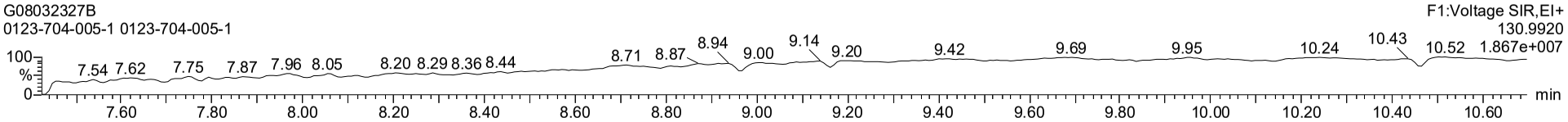
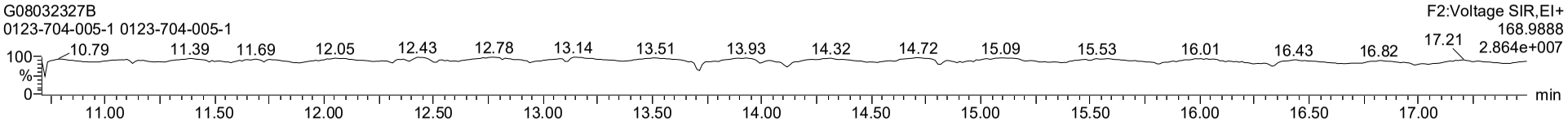
Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

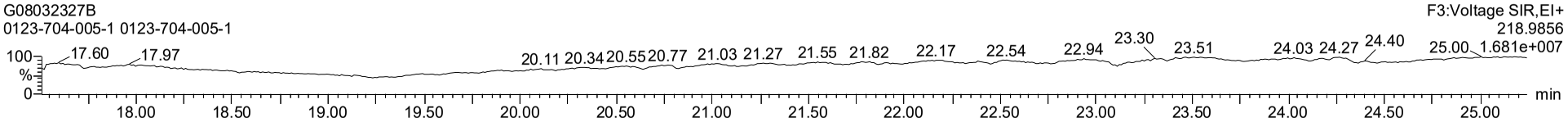
QC Check Ion Fn1



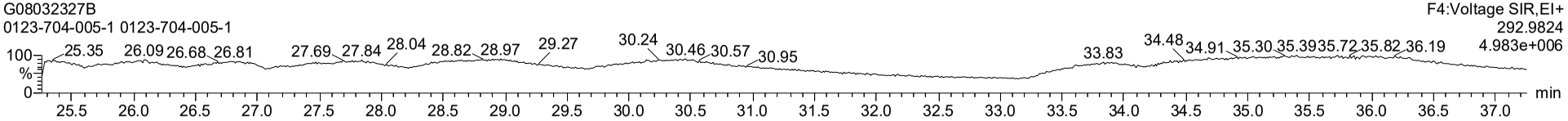
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	1.785e7	4.288e5	0.000		8.08	8.09				
2	13C-Naphthalene (...	134.0827	4.288e5	1.056e6	0.000		8.11	8.08				
3	2-Methyl-naphthale...	142.0783	7.324e6	6.303e5	0.000		9.49	9.49				
4	13C-2-Methylnapht...	148.0984	6.303e5	1.056e6	0.000		9.50	9.49				
5	d10-2-Methylnapht...	152.1410	1.056e6		0.000	18874.078	9.76	9.42	1060000		223.791	
6												
7	Acenaphthylene	152.0636	1.775e5	7.592e5	0.000		11.58	11.6				
8	13C-Acenaphthyle...	158.0827	7.592e5	8.445e5	0.000		11.59	11.6				
9	Acenaphthene	154.0783	1.621e5	5.298e5	0.000		11.98	12.0				
10	13C-Acenaphthene...	160.0984	5.298e5	8.445e5	0.000		11.99	12.0				
11	d10-Acenaphthene...	164.1410	8.445e5		0.000	13122.905	12.25	11.9	845000		257.415	
12												
13	Fluorene	166.0783	8.244e5	7.005e5	0.000		13.20	13.2				
14	13C-Fluorene (ES)	172.0984	7.005e5	8.445e5	0.000		13.17	13.2				
15	Phenanthrene	178.0783	1.014e7	1.322e6	0.000		15.54	15.6				
16	13C-Phenanthrene...	184.0984	1.322e6	8.445e5	0.000		15.55	15.5				
17	d10-Acenaphthene...	164.1410	8.445e5		0.000	13122.905	12.25	11.9	845000		257.415	
18												
19	Anthracene	178.0783	4.369e5	1.050e6	0.000		15.68	15.7				
20	13C-Anthracene (E...	184.0984	1.050e6	8.445e5	0.000		15.67	15.7				
21	Fluoranthene	202.0783	5.156e6	1.412e6	0.000		18.58	18.6				
22	13C-Fluoranthene (...	208.0984	1.412e6	1.437e6	0.000		18.59	18.6				
23	d10-Acenaphthene...	164.1410	8.445e5		0.000	13122.905	12.25	11.9	845000		257.415	
24	d10-Pyrene (JS)	212.1410	1.437e6		0.000	19126.001	19.23	19.2	1440000		300.574	
25												
26	Pyrene	202.0783	4.982e6	1.512e6	0.000		19.29	19.3				
27	13C-Pyrene (ES)	205.0883	1.512e6	1.437e6	0.000		19.28	19.3				
28	Benzo(a)Anthracene	228.0939	5.698e5	1.369e6	0.000		23.33	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.369e6	1.437e6	0.000		23.33	23.3				
30	d10-Pyrene (JS)	212.1410	1.437e6		0.000	19126.001	19.23	19.2	1440000		300.574	
31												
32	Chrysene	228.0939	1.277e6	1.339e6	0.000		23.46	23.5				
33	13C-Chrysene (ES)	234.1140	1.339e6	1.437e6	0.000		23.46	23.5				
34	Benzo(b)Fluoranth...	252.0939	8.705e5	1.068e6	0.000		27.11	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.068e6	1.404e6	0.000		27.13	27.1				
36	d10-Pyrene (JS)	212.1410	1.437e6		0.000	19126.001	19.23	19.2	1440000		300.574	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.404e6		0.000	12322.130	28.12	28.1	1400000		455.806	
38												
39	Benzo(k)Fluoranth...	252.0939	2.753e5	1.443e6	0.000		27.19	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.443e6	1.404e6	0.000		27.22	27.2				
41	Benzo(e)Pyrene	252.0939	9.101e5	1.256e6	0.000		28.03	28.0				
42	13C-Benzo(e)Pyre...	256.1073	1.256e6	1.404e6	0.000		28.02	28.0				
43	d12-Benzo(a)Pyren...	264.1692	1.404e6		0.000	12322.130	28.12	28.1	1400000		455.806	
44												
45	Benzo(a)Pyrene	252.0939	3.326e5	1.241e6	0.000		28.21	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.241e6	1.404e6	0.000		28.20	28.2				
47	Perylene	252.0939	4.247e4	1.008e6	0.000		28.40	28.5				
48	d12-Perylene (ES)	264.1692	1.008e6	1.404e6	0.000		28.49	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.404e6		0.000	12322.130	28.12	28.1	1400000		455.806	
50												
51	Indeno(123-cd)Pyr...	276.0939	3.799e5	1.217e6	0.000		32.72	32.7				
52	13C-Indeno(123-cd...	282.1140	1.217e6	1.404e6	0.000		32.54	32.7				
53	Benzo(ghi)Perylene	276.0939	2.300e6	1.377e6	0.000		33.96	34.0				
54	13C-Benzo(ghi)Per...	288.1342	1.377e6	1.404e6	0.000		33.73	34.0				
55	d12-Benzo(a)Pyren...	264.1692	1.404e6		0.000	12322.130	28.12	28.1	1400000		455.806	
56												
57	Dibenzo(a,h)Anthra...	278.1096	9.430e4	1.247e6	0.000		32.90	32.9				
58	d12-Benzo(a)Pyren...	264.1692	1.404e6		0.000	12322.130	28.12	28.1	1400000		455.806	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032327B, Date: 09-Mar-2023, Time: 10:11:29, ID: 0123-704-005-1, Description: 0123-704-005-1

	Summary Flag Reason
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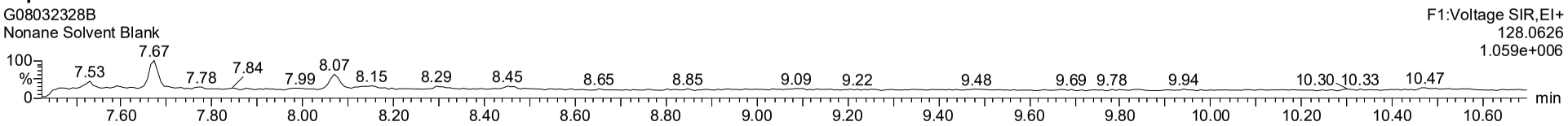
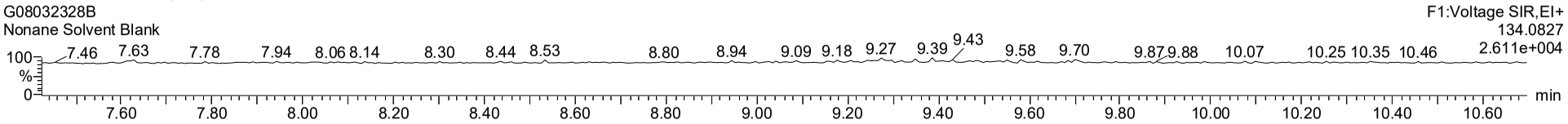
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

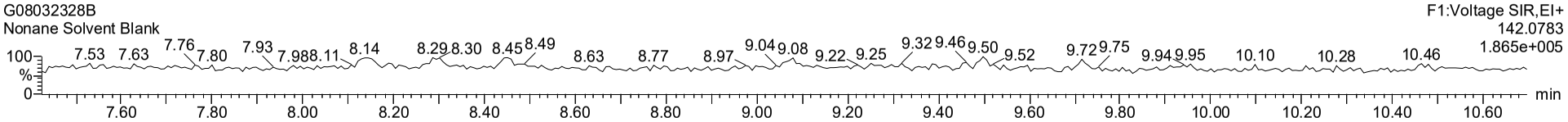
Naphthalene



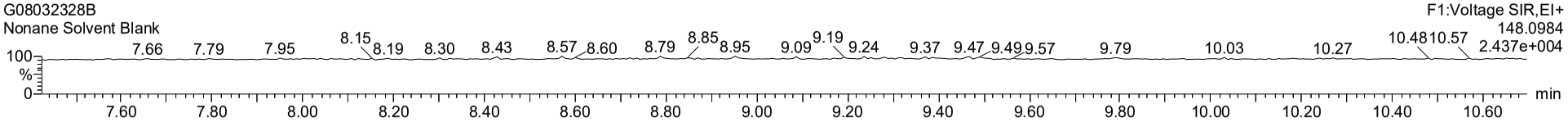
13C-Naphthalene (ES)



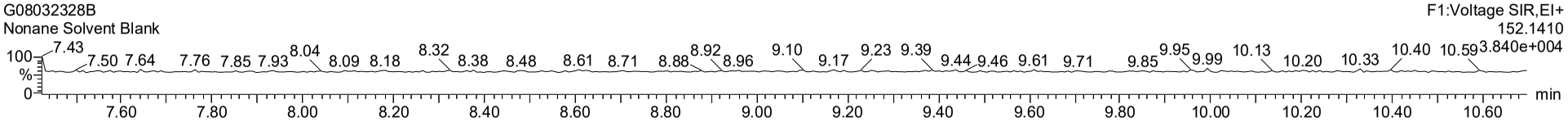
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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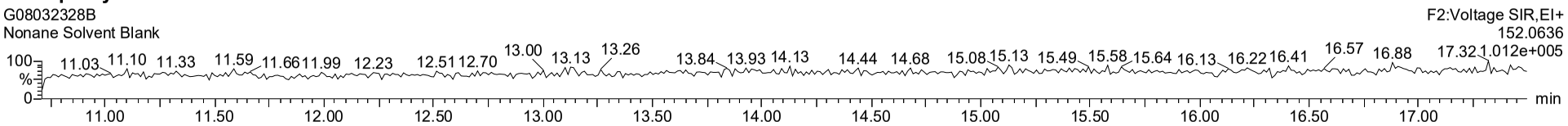
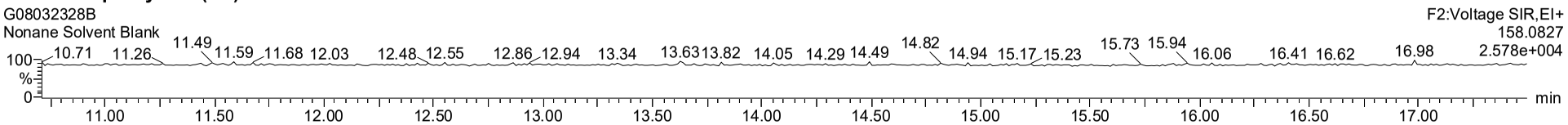
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

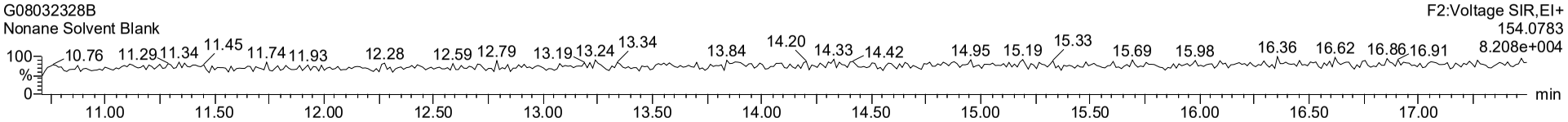
Acenaphthylene



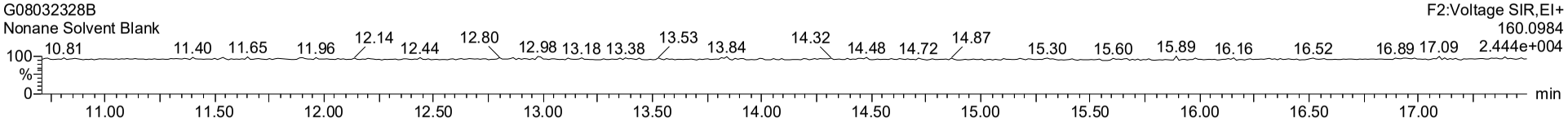
13C-Acenaphthylene (ES)



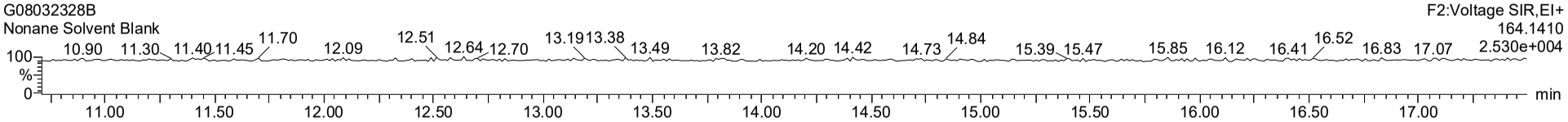
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)

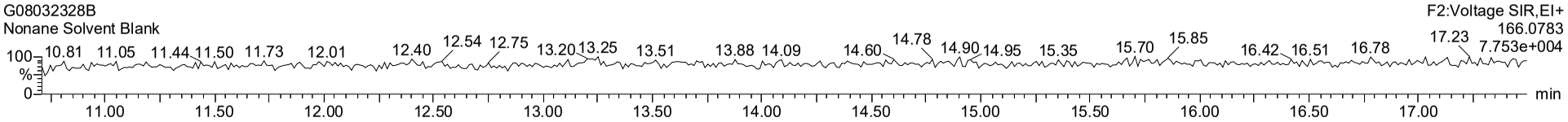


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

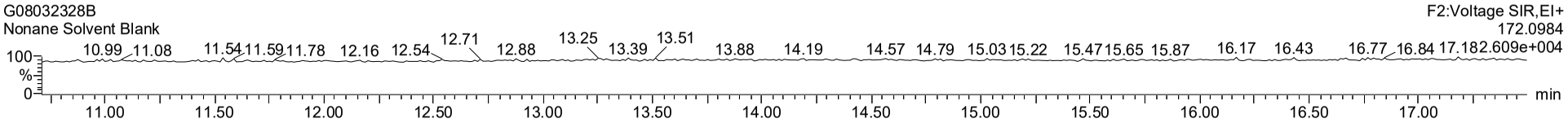
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

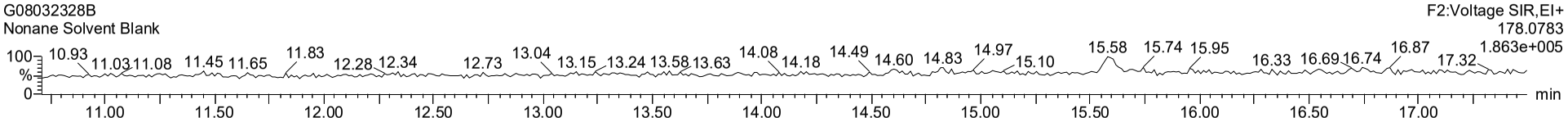
Fluorene



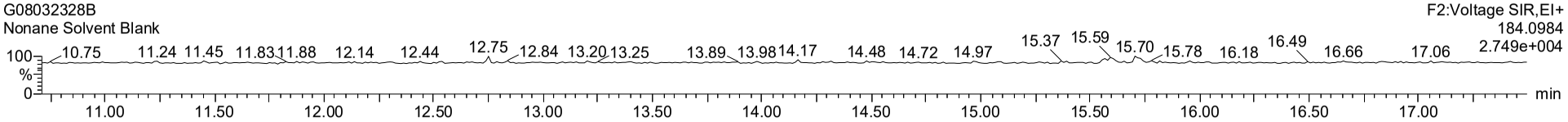
13C-Fluorene (ES)



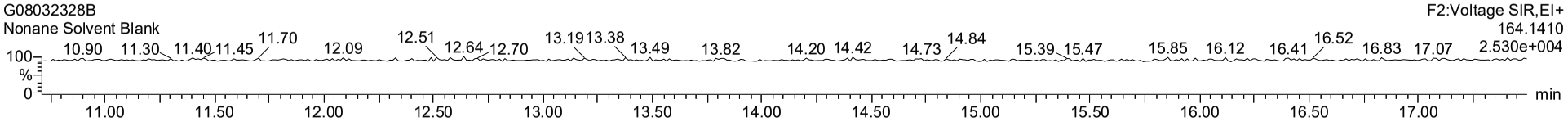
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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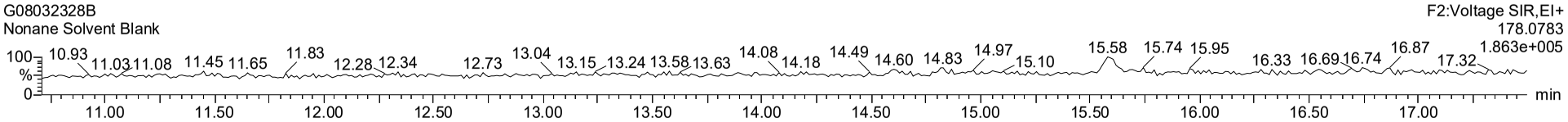
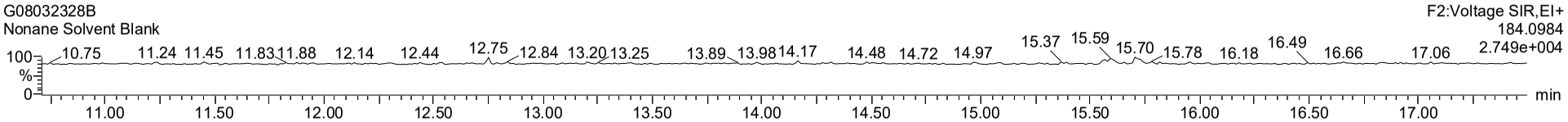
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

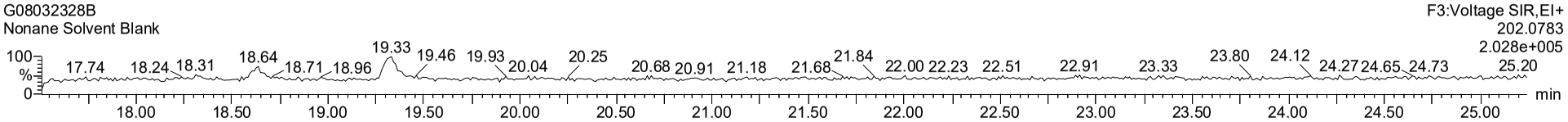
Anthracene



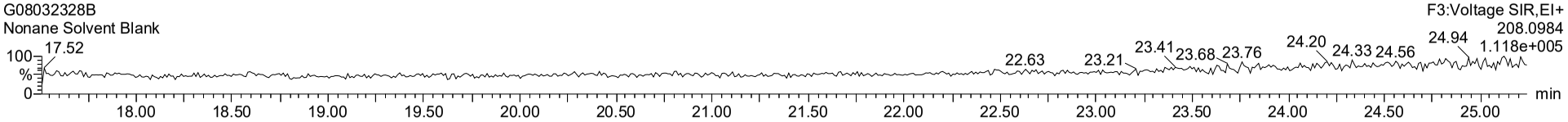
13C-Anthracene (ES)



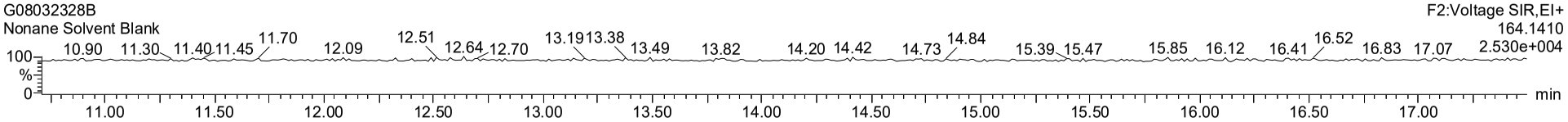
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)

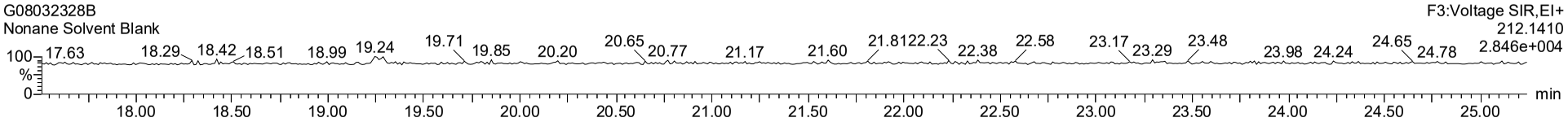


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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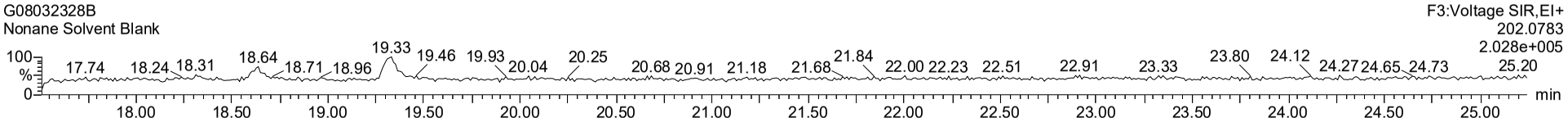
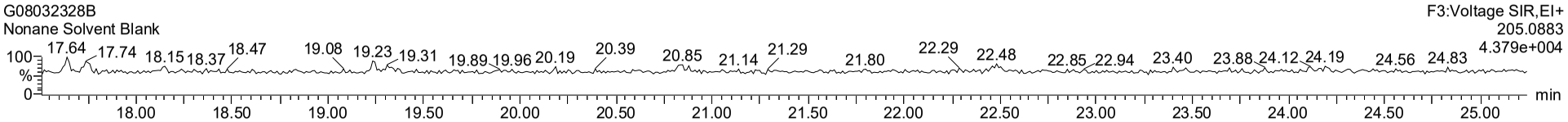
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

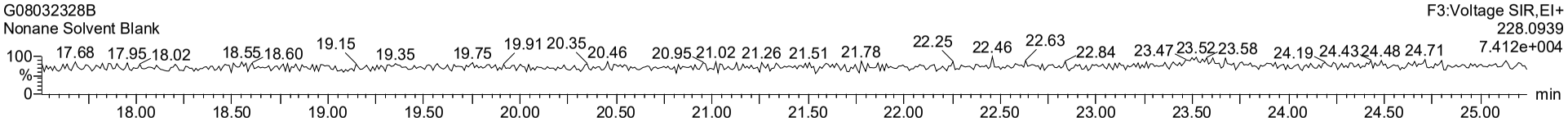
Pyrene



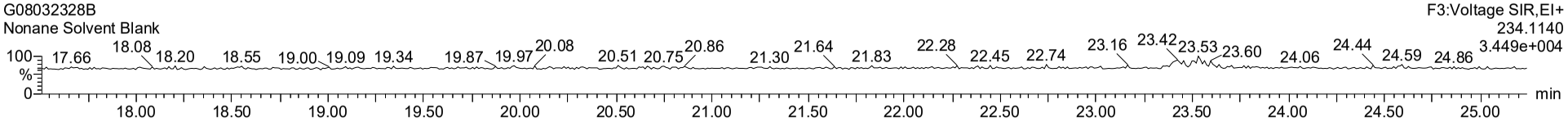
13C-Pyrene (ES)



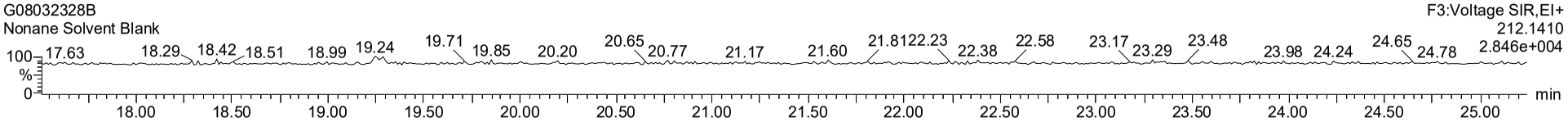
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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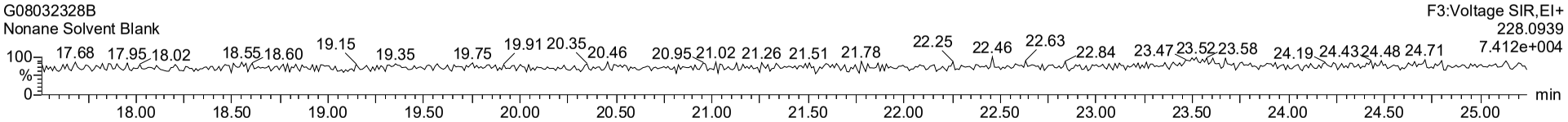
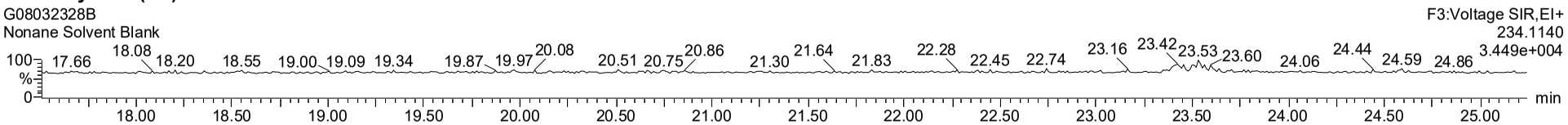
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

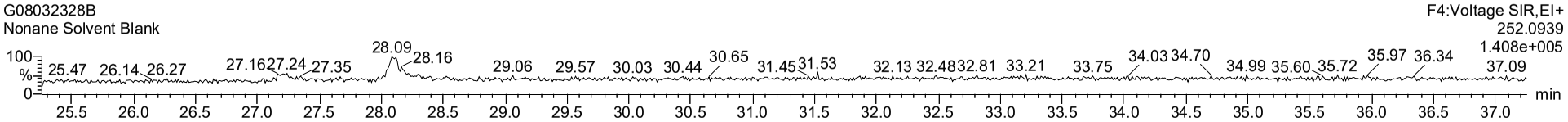
Chrysene



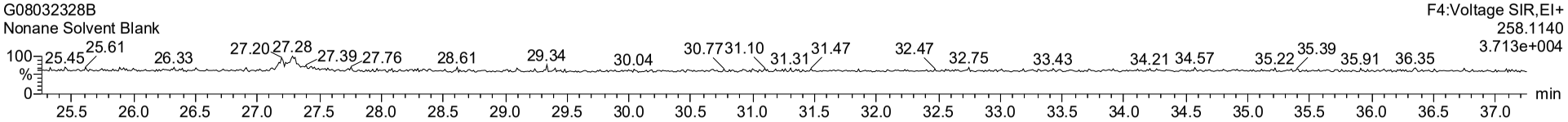
13C-Chrysene (ES)



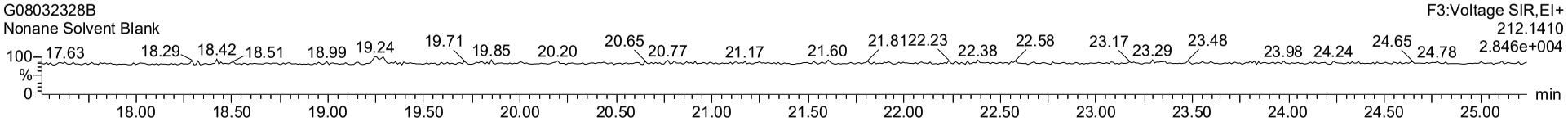
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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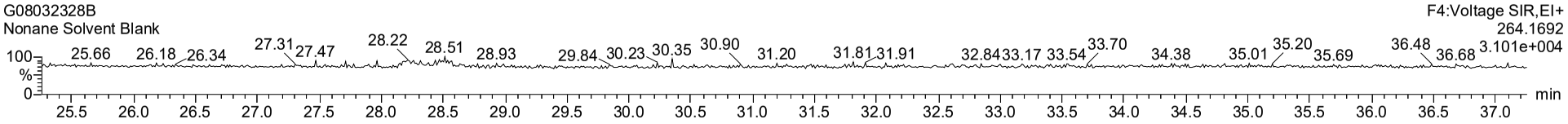
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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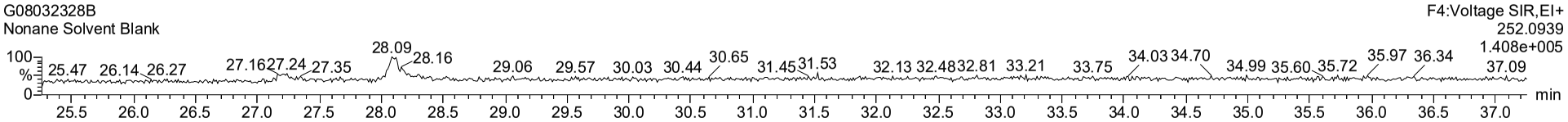
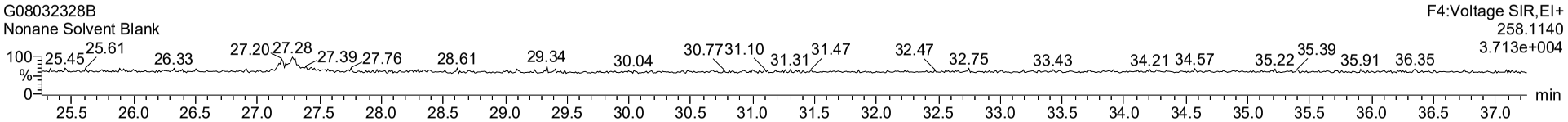
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

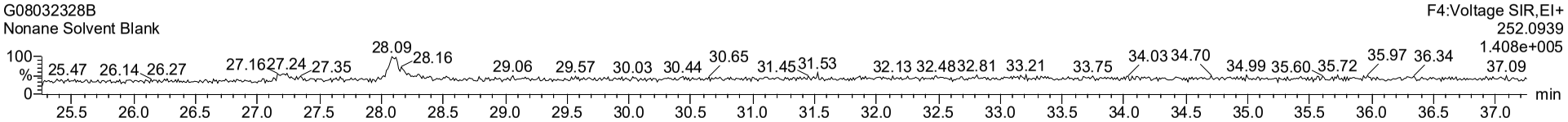
Benzo(k)Fluoranthene



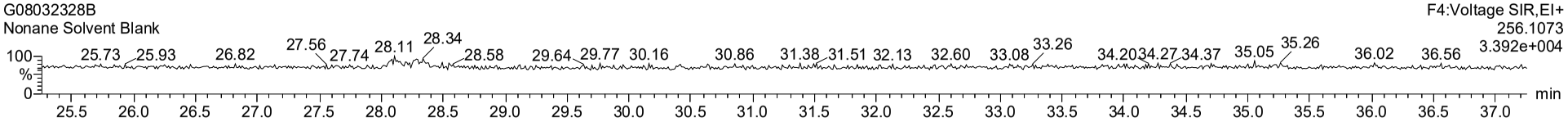
13C-Benzo(k)Fluoranthene (ES)



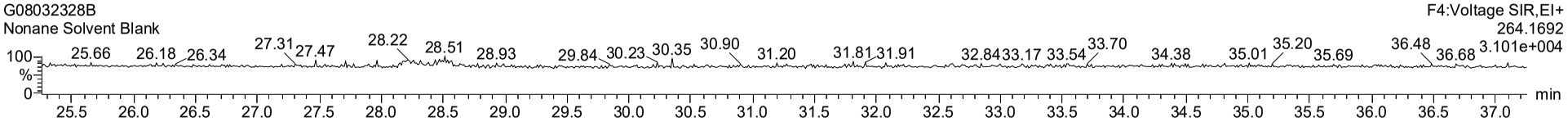
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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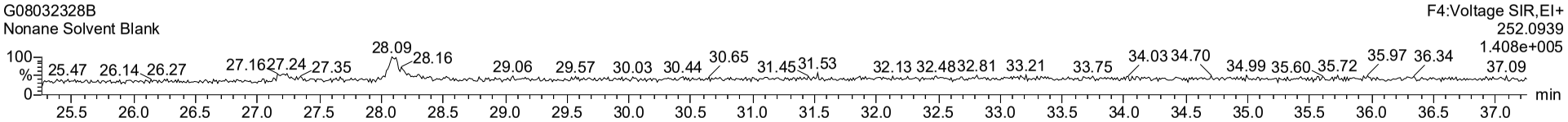
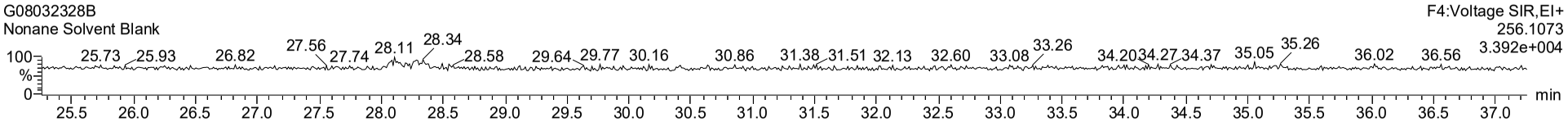
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

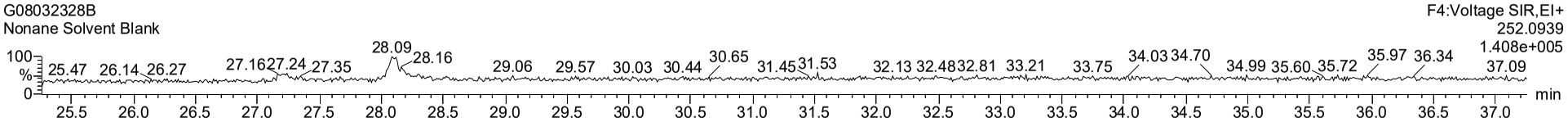
Benzo(a)Pyrene



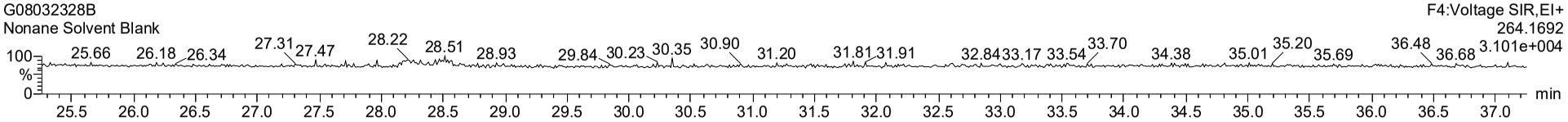
13C-Benzo(a)Pyrene (ES)



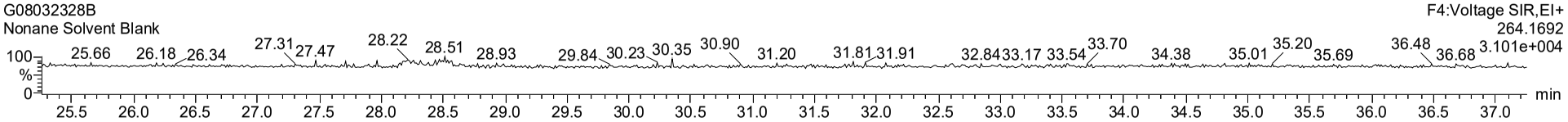
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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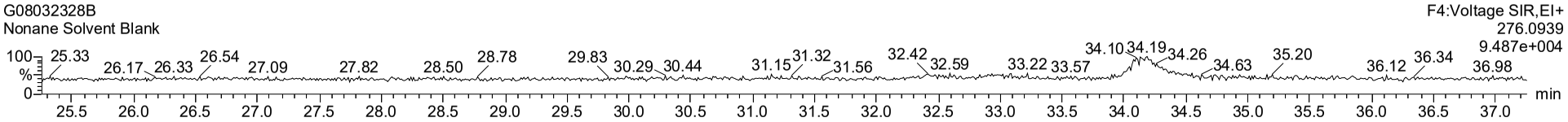
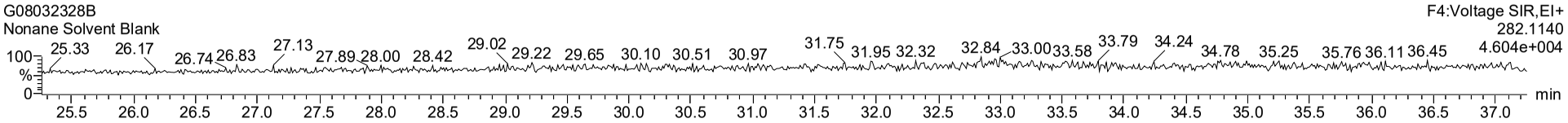
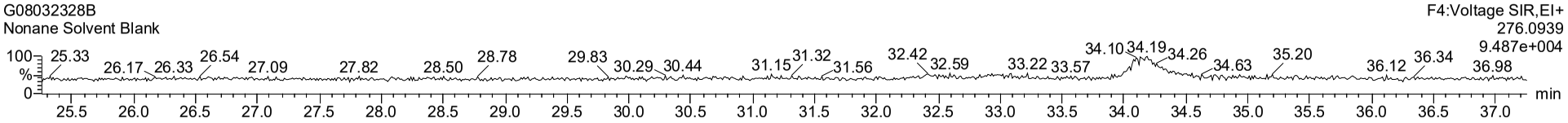
Indeno(123-cd)Pyrene



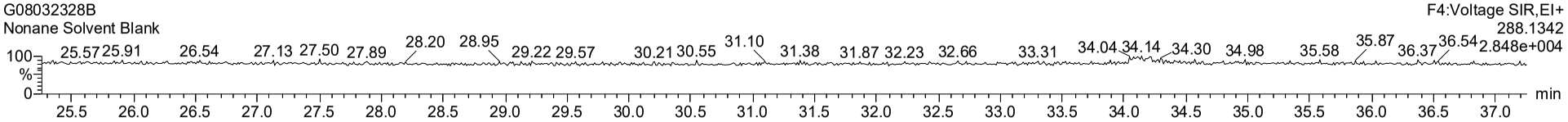
13C-Indeno(123-cd)Pyrene (ES)



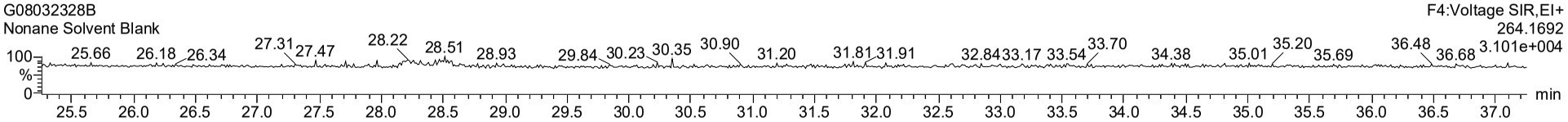
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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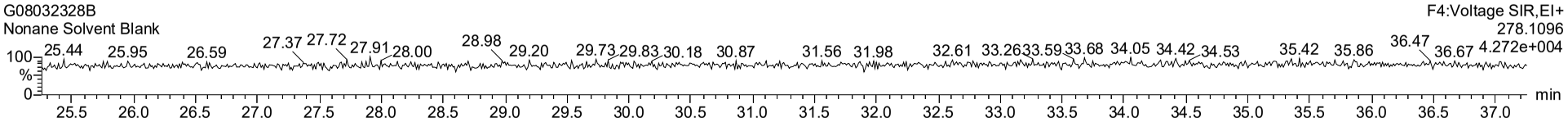
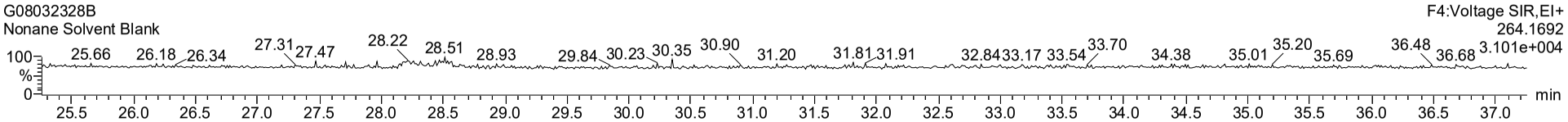
Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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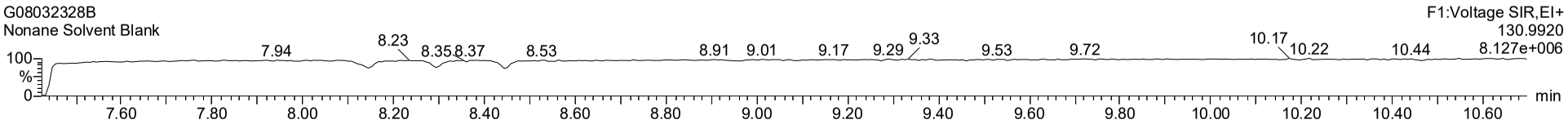
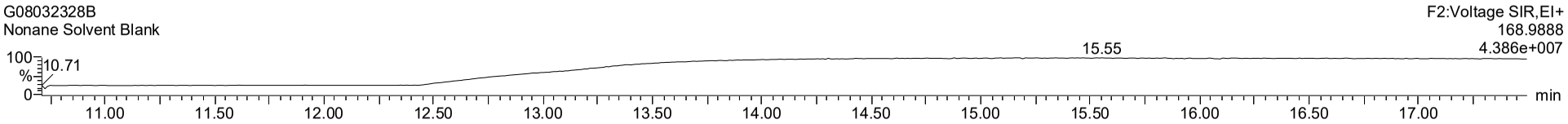
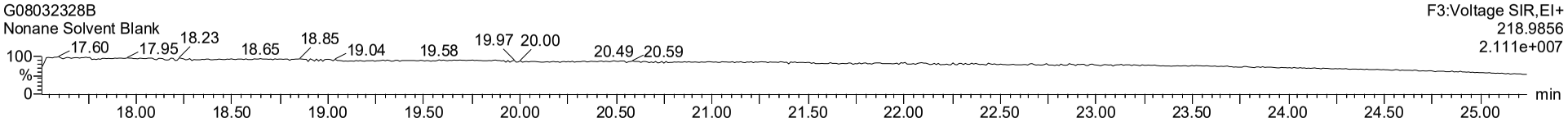
QC Check Ion Fn1



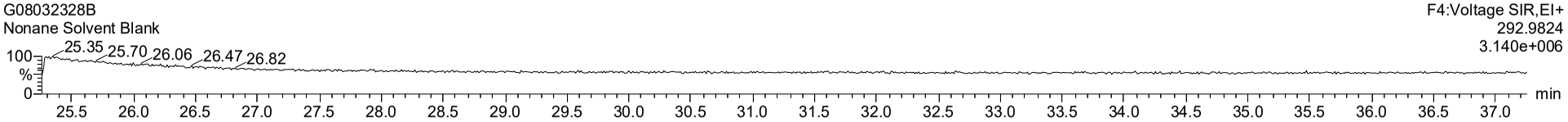
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626			0.000		0.00					
2	13C-Naphthalene (...	134.0827			0.000		0.00					
3	2-Methyl-naphthale...	142.0783			0.000		0.00					
4	13C-2-Methylnapht...	148.0984			0.000		0.00					
5	d10-2-Methylnapht...	152.1410			0.000	18874.078	9.76					
6												
7	Acenaphthylene	152.0636			0.000		0.00					
8	13C-Acenaphthyle...	158.0827			0.000		0.00					
9	Acenaphthene	154.0783			0.000		0.00					
10	13C-Acenaphthene...	160.0984			0.000		0.00					
11	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
12												
13	Fluorene	166.0783			0.000		0.00					
14	13C-Fluorene (ES)	172.0984			0.000		0.00					
15	Phenanthrene	178.0783			0.000		0.00					
16	13C-Phenanthrene...	184.0984			0.000		0.00					
17	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
18												
19	Anthracene	178.0783			0.000		0.00					
20	13C-Anthracene (E...	184.0984			0.000		0.00					
21	Fluoranthene	202.0783			0.000		0.00					
22	13C-Fluoranthene (...	208.0984			0.000		0.00					
23	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
24	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
25												
26	Pyrene	202.0783			0.000		0.00					
27	13C-Pyrene (ES)	205.0883			0.000		0.00					
28	Benzo(a)Anthracene	228.0939			0.000		0.00					
29	13C-Benzo(a)Anthr...	234.1140			0.000		0.00					
30	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
31												
32	Chrysene	228.0939			0.000		0.00					
33	13C-Chrysene (ES)	234.1140			0.000		0.00					
34	Benzo(b)Fluoranth...	252.0939			0.000		0.00					
35	13C-Benzo(b)Fluor...	258.1140			0.000		0.00					
36	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
38												
39	Benzo(k)Fluoranth...	252.0939			0.000		0.00					
40	13C-Benzo(k)Fluor...	258.1140			0.000		0.00					
41	Benzo(e)Pyrene	252.0939			0.000		0.00					
42	13C-Benzo(e)Pyre...	256.1073			0.000		0.00					
43	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
44												
45	Benzo(a)Pyrene	252.0939			0.000		0.00					
46	13C-Benzo(a)Pyre...	256.1073			0.000		0.00					
47	Perylene	252.0939			0.000		0.00					
48	d12-Perylene (ES)	264.1692			0.000		0.00					
49	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
50												
51	Indeno(123-cd)Pyr...	276.0939			0.000		0.00					
52	13C-Indeno(123-cd...	282.1140			0.000		0.00					
53	Benzo(ghi)Perylene	276.0939			0.000		0.00					
54	13C-Benzo(ghi)Per...	288.1342			0.000		0.00					
55	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
56												
57	Dibenzo(a,h)Anthra...	278.1096			0.000		0.00					
58	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032328B, Date: 09-Mar-2023, Time: 10:53:28, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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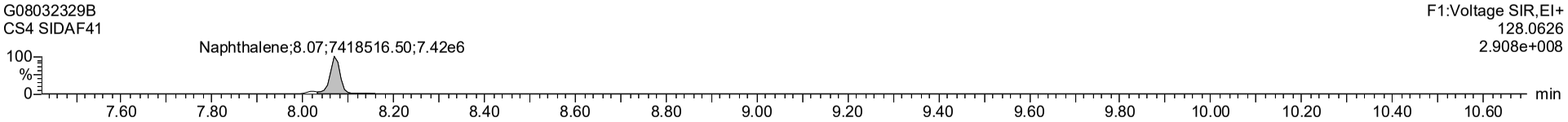
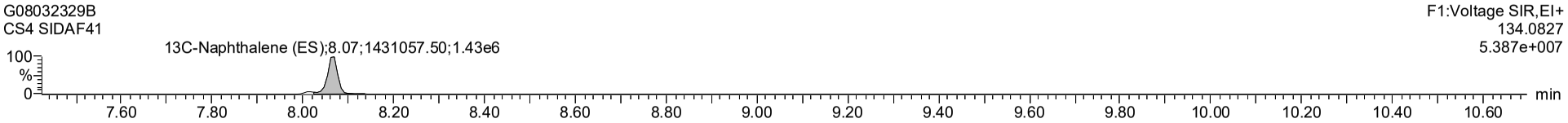
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

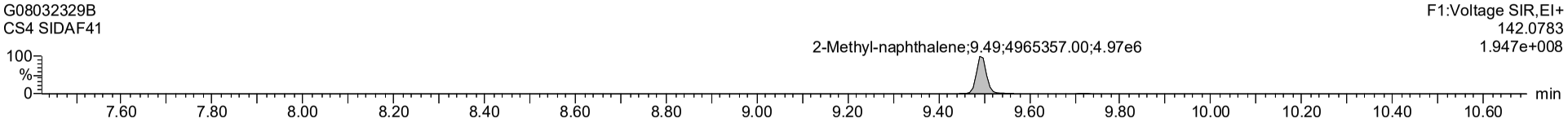
Naphthalene



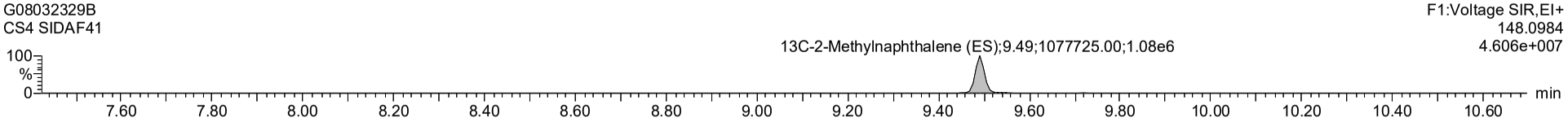
13C-Naphthalene (ES)



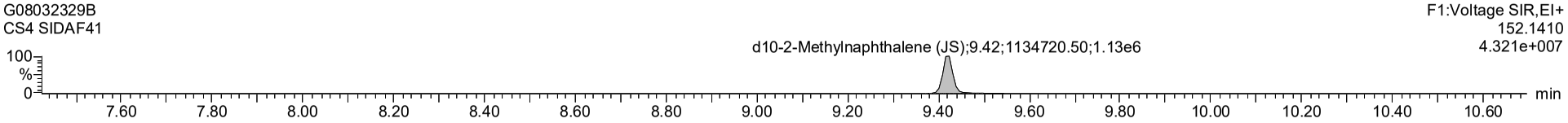
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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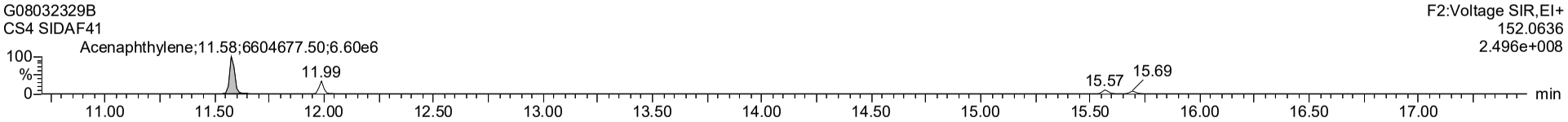
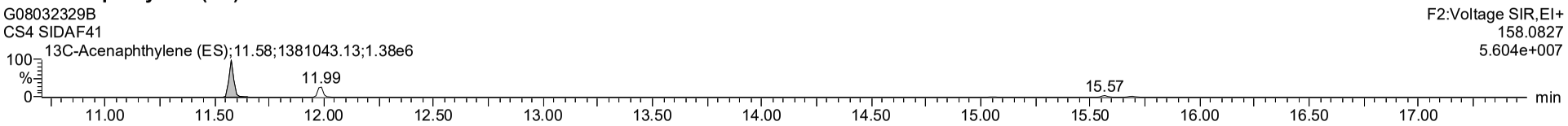
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

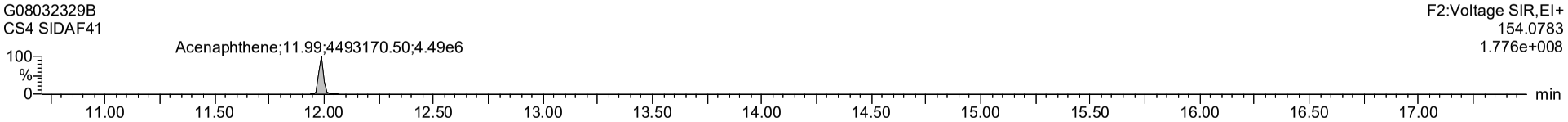
Acenaphthylene



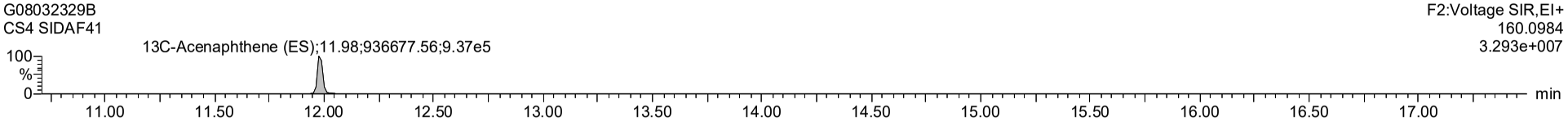
13C-Acenaphthylene (ES)



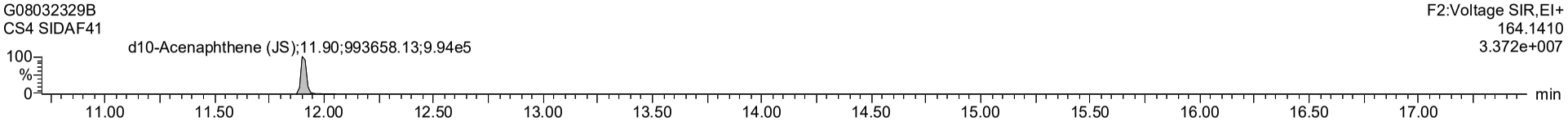
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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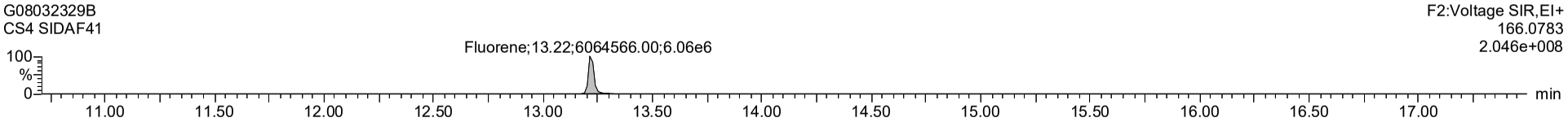
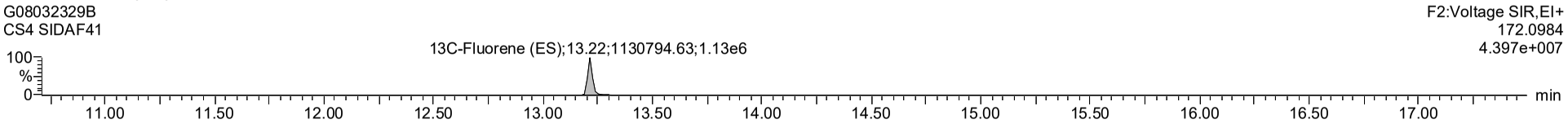
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

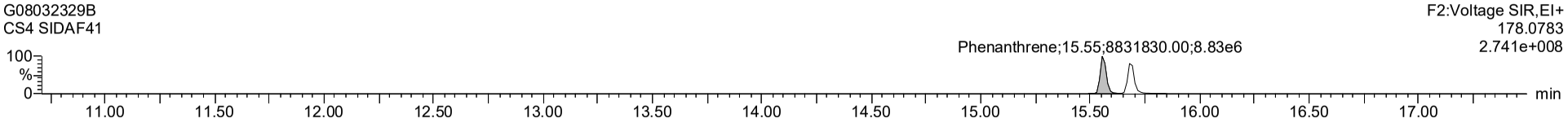
Fluorene



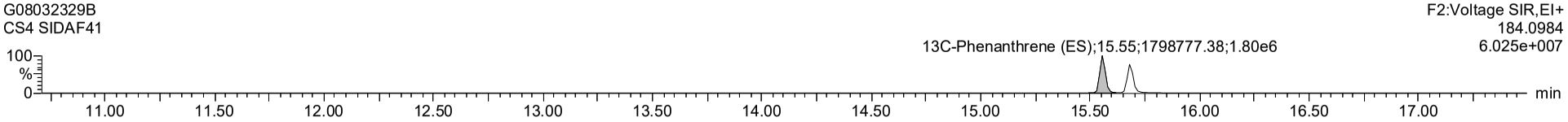
13C-Fluorene (ES)



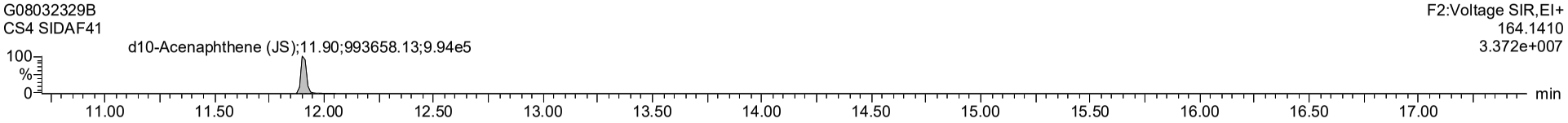
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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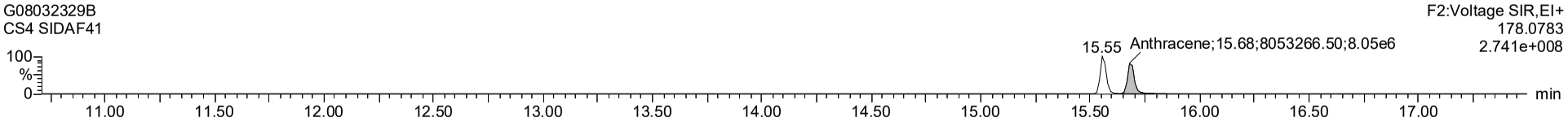
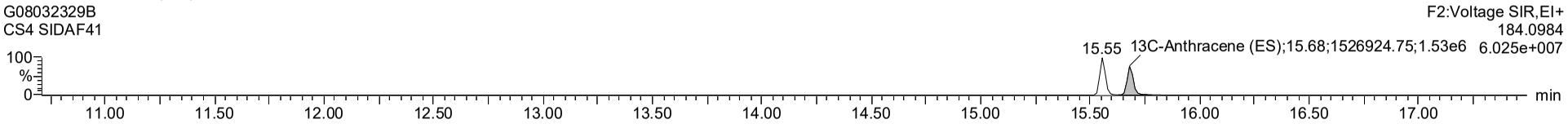
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

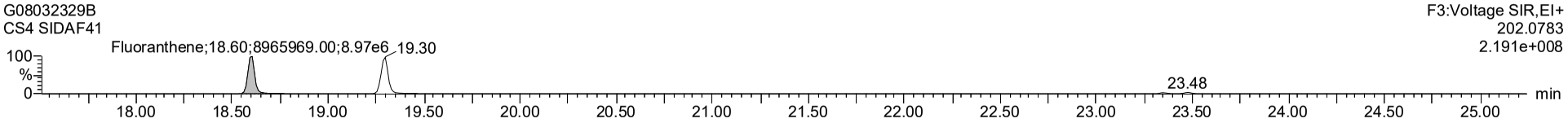
Anthracene



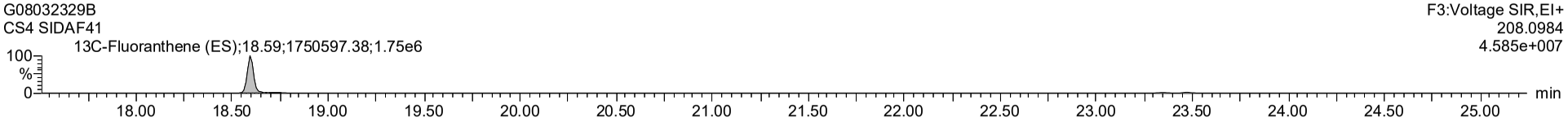
13C-Anthracene (ES)



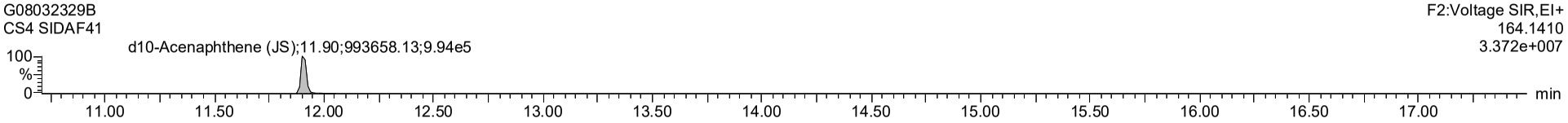
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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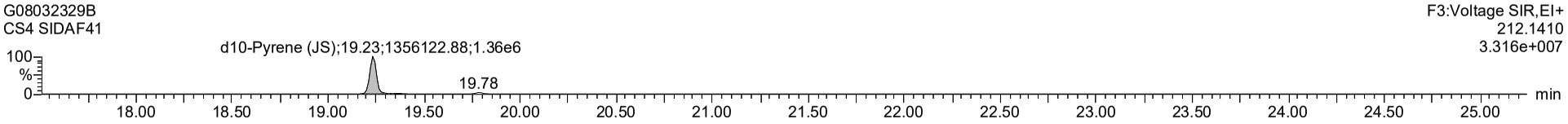
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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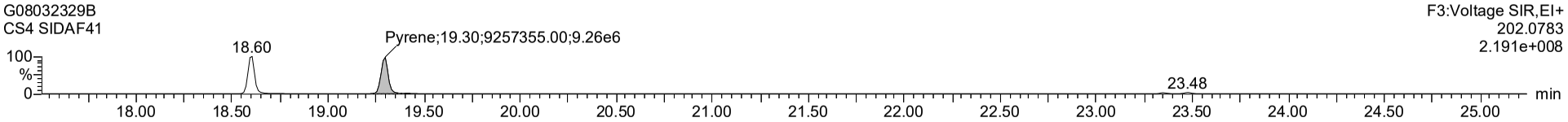
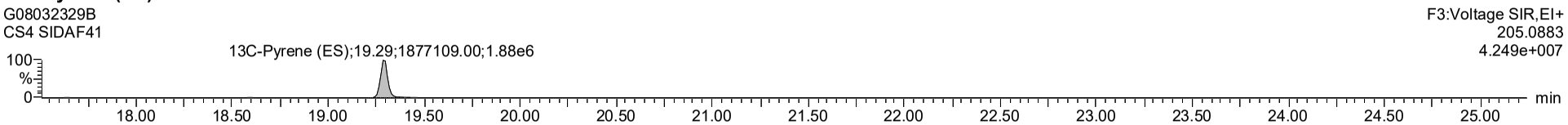
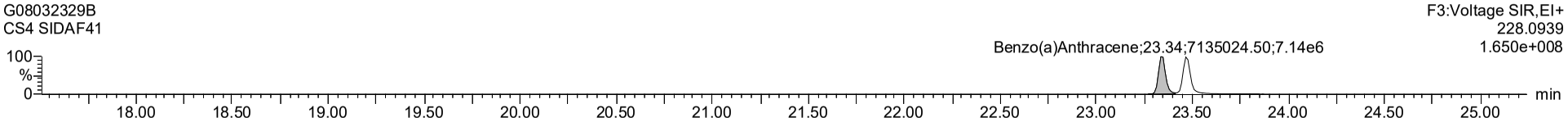
Pyrene



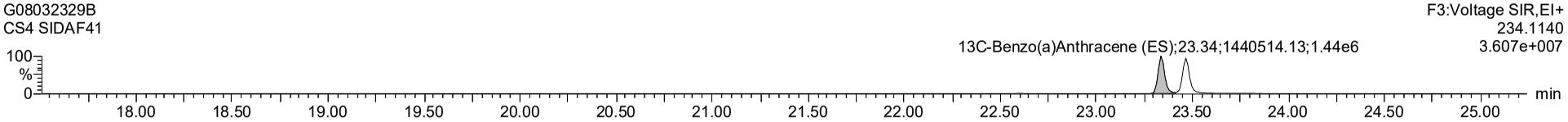
13C-Pyrene (ES)



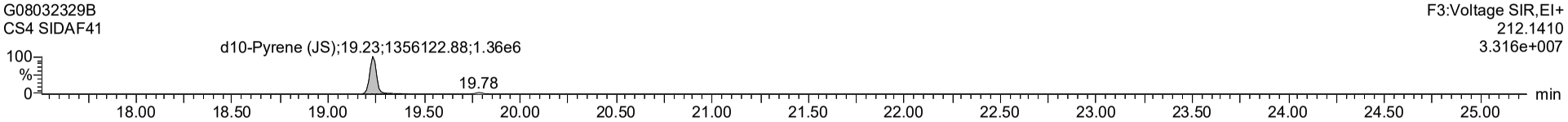
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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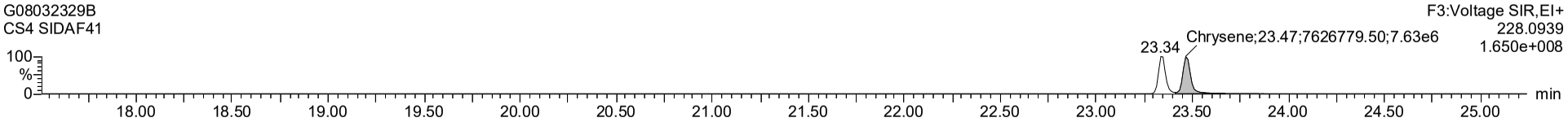
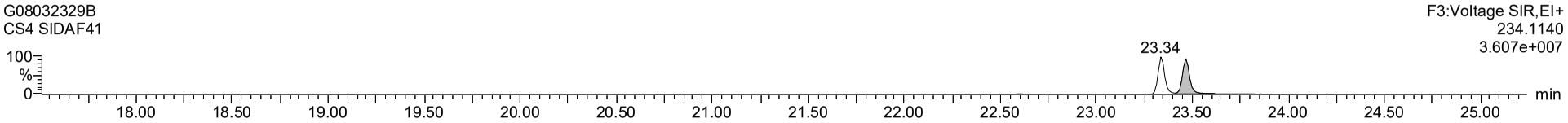
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

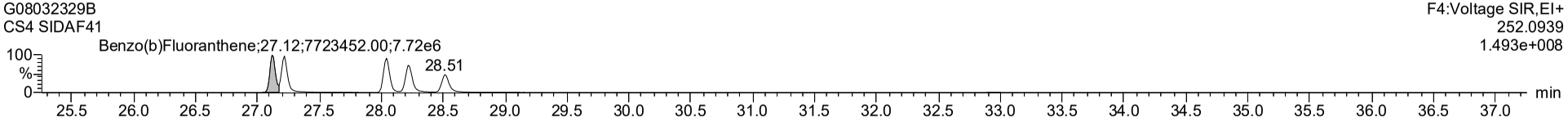
Chrysene



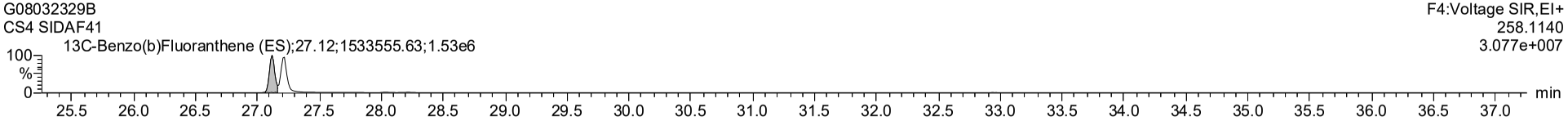
13C-Chrysene (ES)



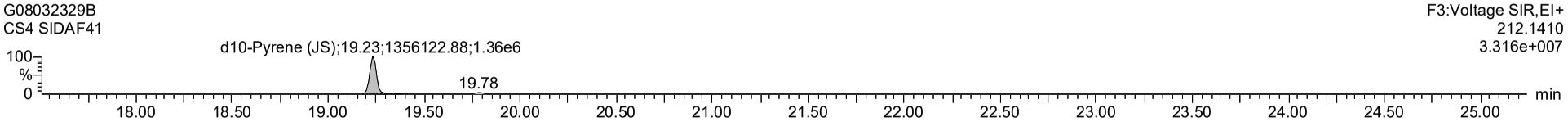
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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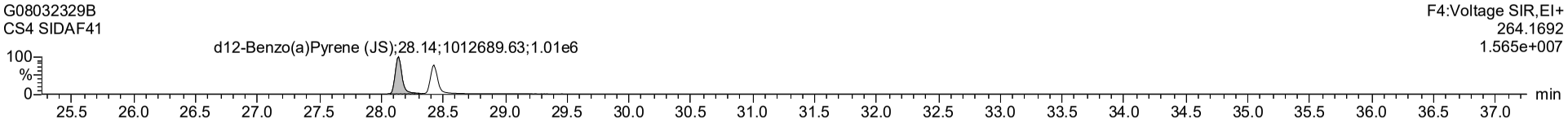
d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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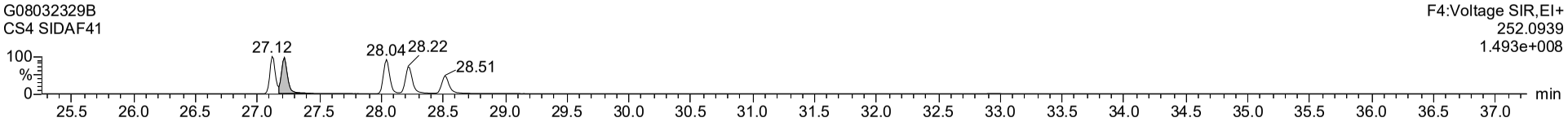
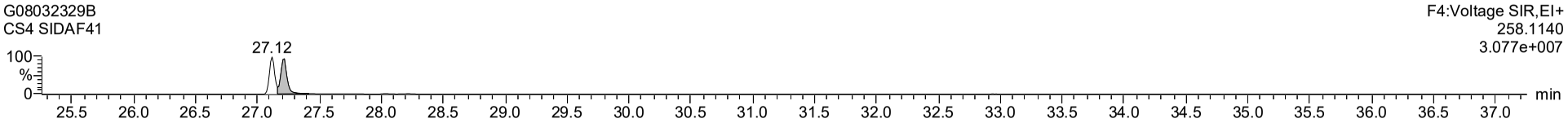
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

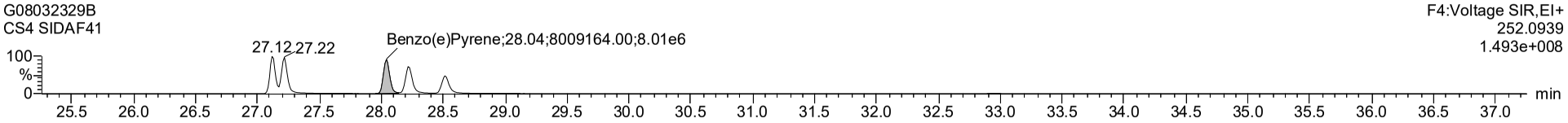
Benzo(k)Fluoranthene



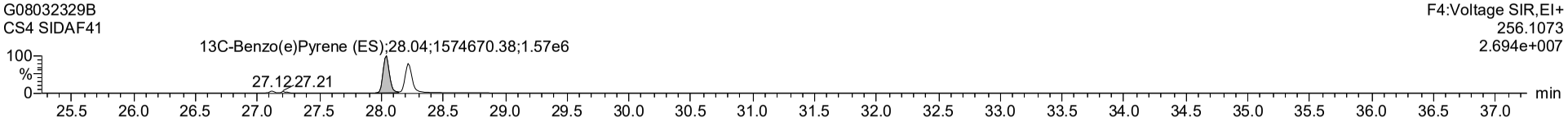
13C-Benzo(k)Fluoranthene (ES)



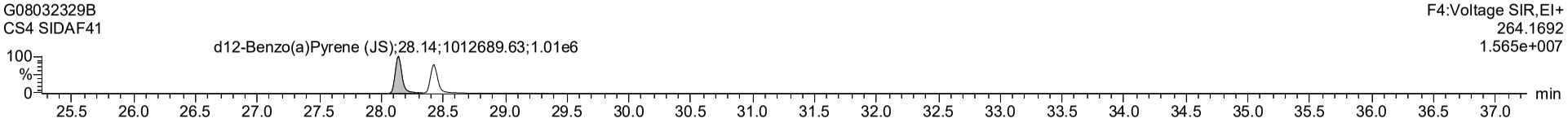
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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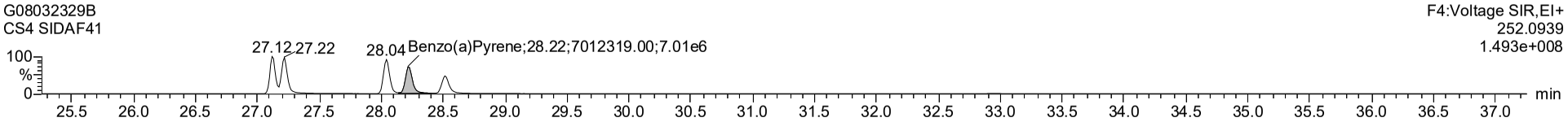
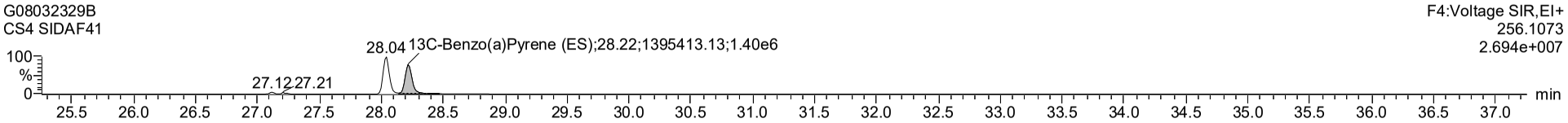
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

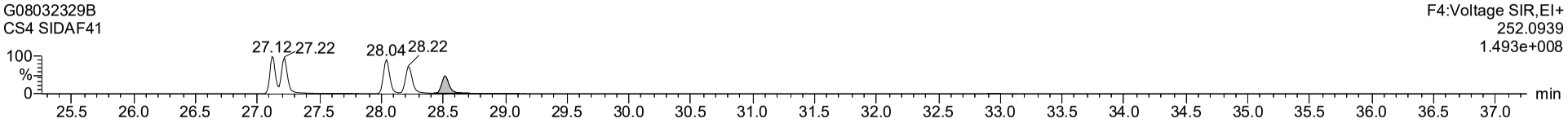
Benzo(a)Pyrene



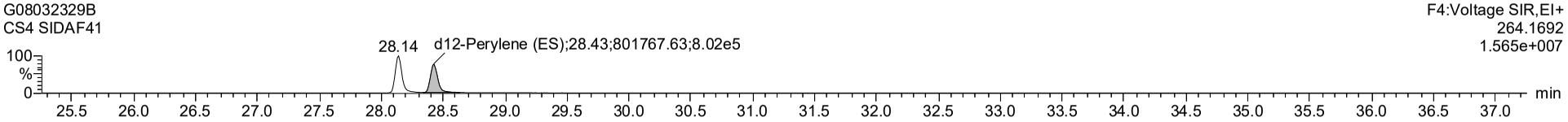
13C-Benzo(a)Pyrene (ES)



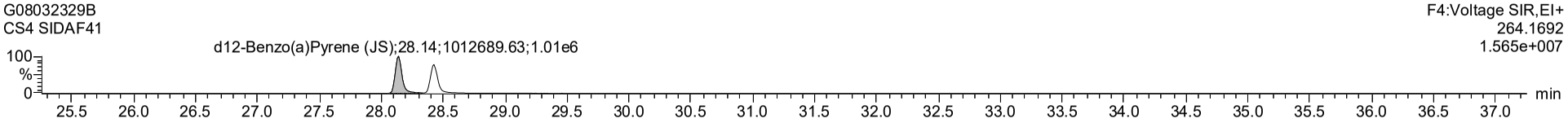
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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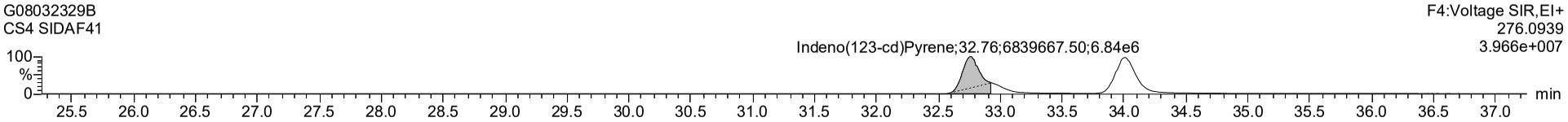
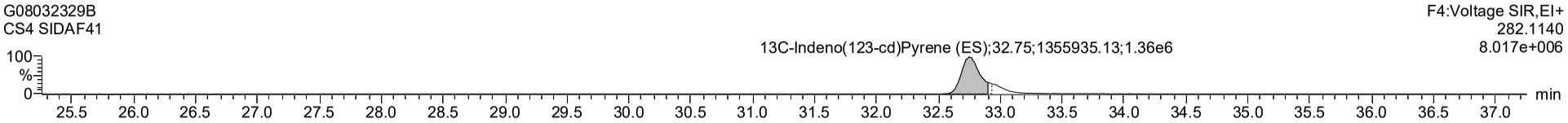
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

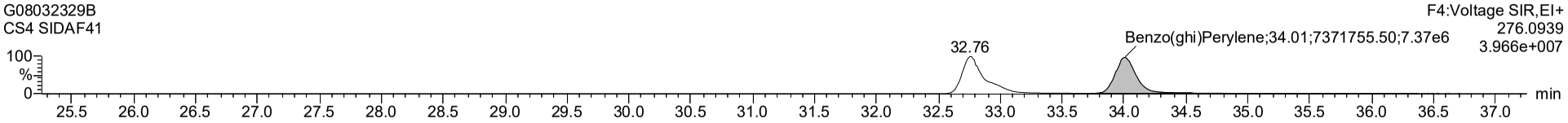
Indeno(123-cd)Pyrene



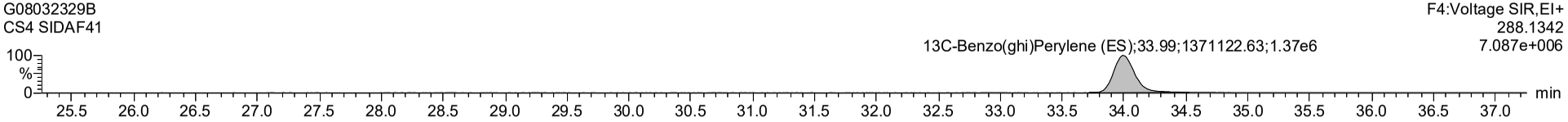
13C-Indeno(123-cd)Pyrene (ES)



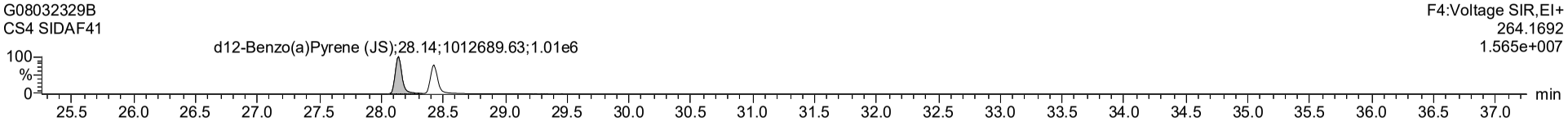
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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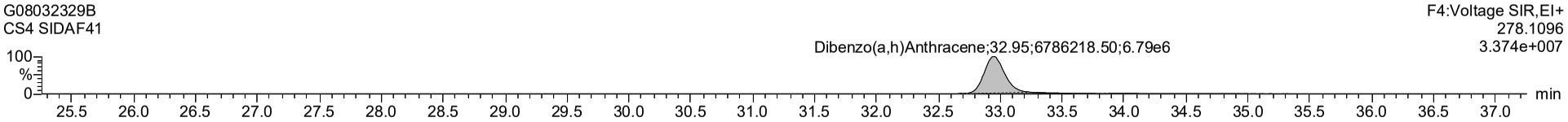
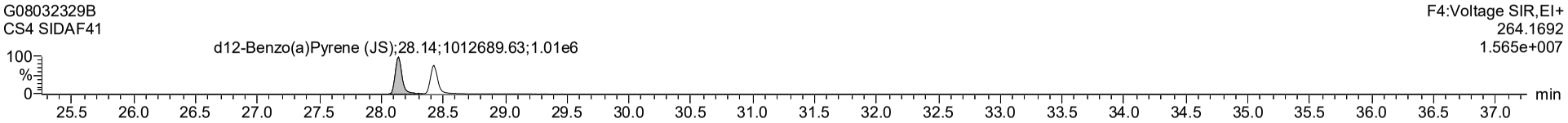
Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)

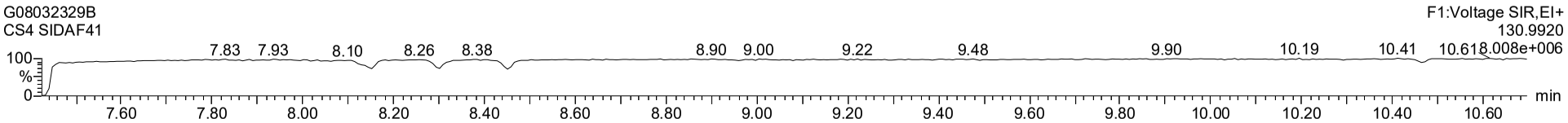


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

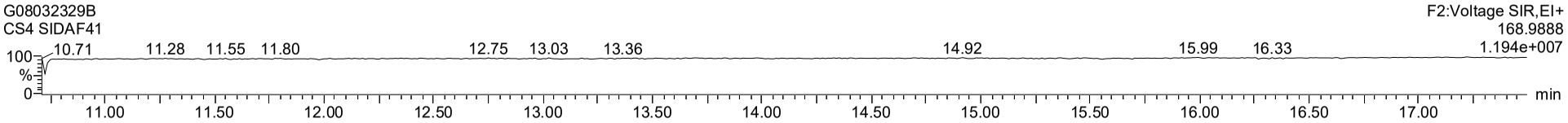
Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

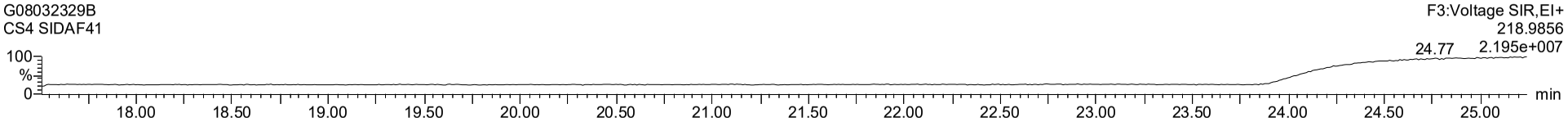
QC Check Ion Fn1



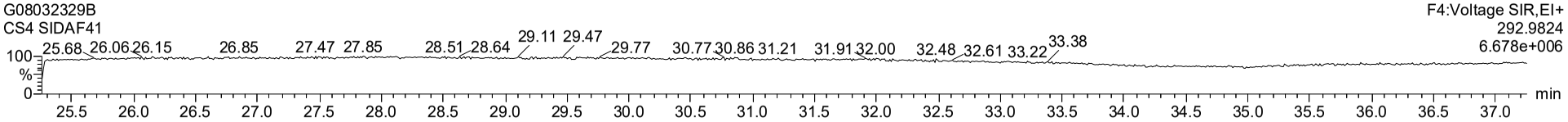
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
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Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	7.419e6	1.431e6	0.000		8.07	8.07		0.0		
2	13C-Naphthalene (...	134.0827	1.431e6	1.135e6	0.000		8.11	8.07		0.0		
3	2-Methyl-naphthale...	142.0783	4.965e6	1.078e6	0.000		9.49	9.49		0.0		
4	13C-2-Methylnapht...	148.0984	1.078e6	1.135e6	0.000		9.50	9.49		0.0		
5	d10-2-Methylnapht...	152.1410	1.135e6		0.000	18874.078	9.76	9.42	1130000	0.0	60.121	
6												
7	Acenaphthylene	152.0636	6.605e6	1.381e6	0.000		11.58	11.6		0.0		
8	13C-Acenaphthyle...	158.0827	1.381e6	9.937e5	0.000		11.59	11.6		0.0		
9	Acenaphthene	154.0783	4.493e6	9.367e5	0.000		11.98	12.0		0.0		
10	13C-Acenaphthene...	160.0984	9.367e5	9.937e5	0.000		11.99	12.0		0.0		
11	d10-Acenaphthene...	164.1410	9.937e5		0.000	13122.905	12.25	11.9	994000	0.0	75.719	
12												
13	Fluorene	166.0783	6.065e6	1.131e6	0.000		13.22	13.2		0.0		
14	13C-Fluorene (ES)	172.0984	1.131e6	9.937e5	0.000		13.17	13.2		0.0		
15	Phenanthrene	178.0783	8.832e6	1.799e6	0.000		15.55	15.6		0.0		
16	13C-Phenanthrene...	184.0984	1.799e6	9.937e5	0.000		15.55	15.6		0.0		
17	d10-Acenaphthene...	164.1410	9.937e5		0.000	13122.905	12.25	11.9	994000	0.0	75.719	
18												
19	Anthracene	178.0783	8.053e6	1.527e6	0.000		15.68	15.7		0.0		
20	13C-Anthracene (E...	184.0984	1.527e6	9.937e5	0.000		15.67	15.7		0.0		
21	Fluoranthene	202.0783	8.966e6	1.751e6	0.000		18.59	18.6		0.0		
22	13C-Fluoranthene (...	208.0984	1.751e6	1.356e6	0.000		18.60	18.6		0.0		
23	d10-Acenaphthene...	164.1410	9.937e5		0.000	13122.905	12.25	11.9	994000	0.0	75.719	
24	d10-Pyrene (JS)	212.1410	1.356e6		0.000	19126.001	19.23	19.2	1360000	0.0	70.905	
25												
26	Pyrene	202.0783	9.257e6	1.877e6	0.000		19.29	19.3		0.0		
27	13C-Pyrene (ES)	205.0883	1.877e6	1.356e6	0.000		19.29	19.3		0.0		
28	Benzo(a)Anthracene	228.0939	7.135e6	1.441e6	0.000		23.34	23.3		0.0		
29	13C-Benzo(a)Anthr...	234.1140	1.441e6	1.356e6	0.000		23.34	23.3		0.0		
30	d10-Pyrene (JS)	212.1410	1.356e6		0.000	19126.001	19.23	19.2	1360000	0.0	70.905	
31												
32	Chrysene	228.0939	7.627e6	1.458e6	0.000		23.47	23.5		0.0		
33	13C-Chrysene (ES)	234.1140	1.458e6	1.356e6	0.000		23.47	23.5		0.0		
34	Benzo(b)Fluoranth...	252.0939	7.723e6	1.534e6	0.000		27.12	27.1		0.0		
35	13C-Benzo(b)Fluor...	258.1140	1.534e6	1.013e6	0.000		27.15	27.1		0.0		
36	d10-Pyrene (JS)	212.1410	1.356e6		0.000	19126.001	19.23	19.2	1360000	0.0	70.905	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.013e6		0.000	12322.130	28.12	28.1	1010000	0.0	82.185	
38												
39	Benzo(k)Fluoranth...	252.0939	8.174e6	1.704e6	0.000		27.22	27.2		0.0		
40	13C-Benzo(k)Fluor...	258.1140	1.704e6	1.013e6	0.000		27.24	27.2		0.0		
41	Benzo(e)Pyrene	252.0939	8.009e6	1.575e6	0.000		28.04	28.0		0.0		
42	13C-Benzo(e)Pyre...	256.1073	1.575e6	1.013e6	0.000		28.04	28.0		0.0		
43	d12-Benzo(a)Pyren...	264.1692	1.013e6		0.000	12322.130	28.12	28.1	1010000	0.0	82.185	
44												
45	Benzo(a)Pyrene	252.0939	7.012e6	1.395e6	0.000		28.22	28.2		0.0		
46	13C-Benzo(a)Pyre...	256.1073	1.395e6	1.013e6	0.000		28.22	28.2		0.0		
47	Perylene	252.0939	4.799e6	8.018e5	0.000		28.43	28.5		0.0		
48	d12-Perylene (ES)	264.1692	8.018e5	1.013e6	0.000		28.51	28.4		0.0		
49	d12-Benzo(a)Pyren...	264.1692	1.013e6		0.000	12322.130	28.12	28.1	1010000	0.0	82.185	
50												
51	Indeno(123-cd)Pyr...	276.0939	6.840e6	1.356e6	0.000		32.75	32.8		0.0		
52	13C-Indeno(123-cd...	282.1140	1.356e6	1.013e6	0.000		32.56	32.7		0.0		
53	Benzo(ghi)Perylene	276.0939	7.372e6	1.371e6	0.000		33.99	34.0		0.0		
54	13C-Benzo(ghi)Per...	288.1342	1.371e6	1.013e6	0.000		33.76	34.0		0.0		
55	d12-Benzo(a)Pyren...	264.1692	1.013e6		0.000	12322.130	28.12	28.1	1010000	0.0	82.185	
56												
57	Dibenzo(a,h)Anthra...	278.1096	6.786e6	1.371e6	0.000		32.93	33.0		0.0		
58	d12-Benzo(a)Pyren...	264.1692	1.013e6		0.000	12322.130	28.12	28.1	1010000	0.0	82.185	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00			0.0		
61	QC Check Ion Fn2	168.9888			0.000		0.00			0.0		
62	QC Check Ion Fn3	218.9856			0.000		0.00			0.0		
63	QC Check Ion Fn4	292.9824			0.000		0.00			0.0		

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

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Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_1 (no recoveries).qld

Last Altered: Friday, March 10, 2023 07:50:58 Eastern Standard Time
Printed: Friday, March 10, 2023 07:52:18 Eastern Standard Time

Name: G08032329B, Date: 09-Mar-2023, Time: 11:35:25, ID: SIDAF41, Description: CS4

	Summary Flag Reason
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Quantify Sample Report **MassLynx 4.2 SCN1035**
Enthalpy Ultratracel Laboratory

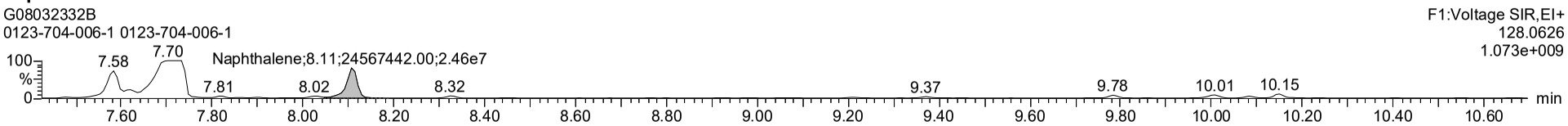
Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

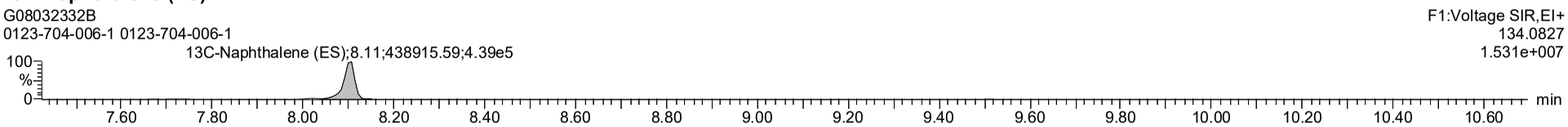
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_PAHs-TLX_v2 03_08_23.mdb 08 Mar 2023 17:04:15
Calibration: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\Gandolf iCAL 2022-calibration file v4 reprocess 8-18-22.cdb 18 Aug 2022 12:31:07

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

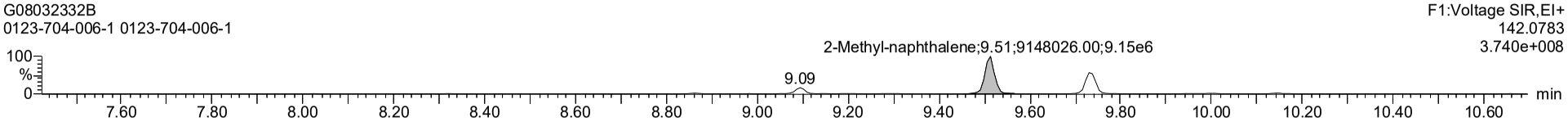
Naphthalene



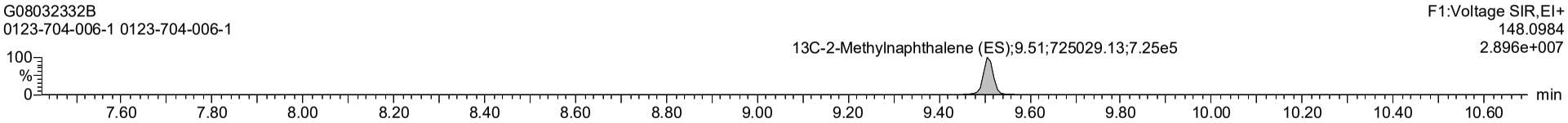
13C-Naphthalene (ES)



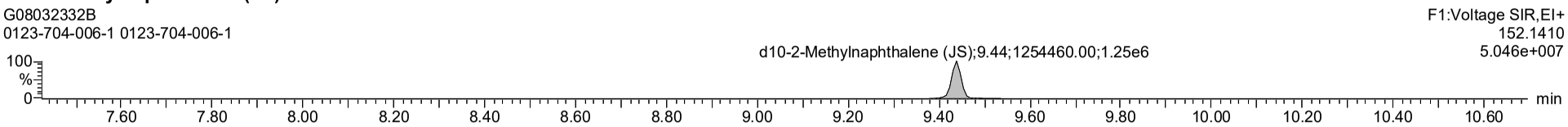
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

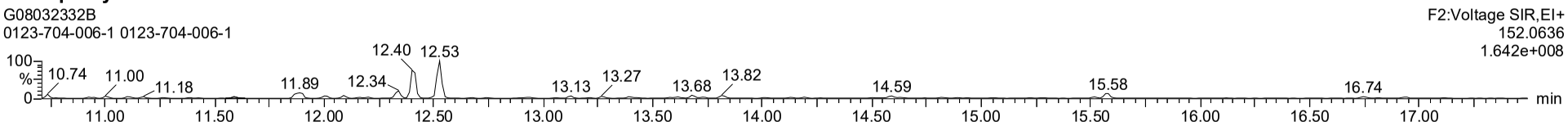


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

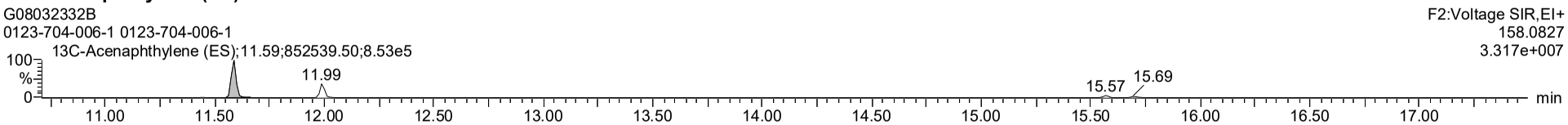
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

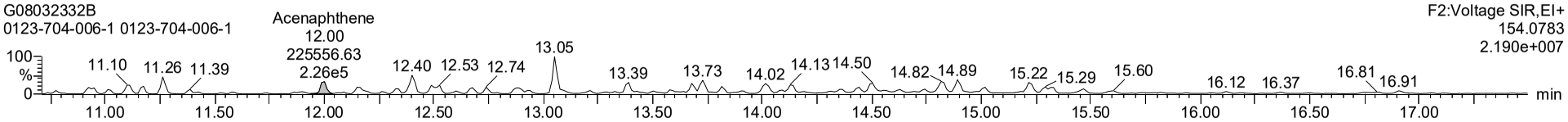
Acenaphthylene



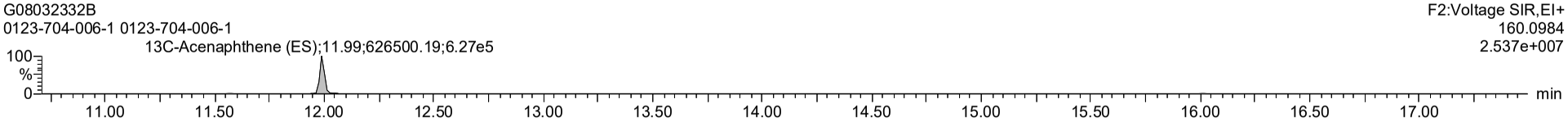
13C-Acenaphthylene (ES)



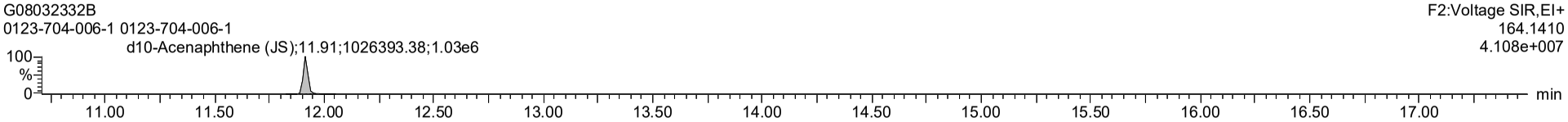
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Enthalpy Ultratracel Laboratory

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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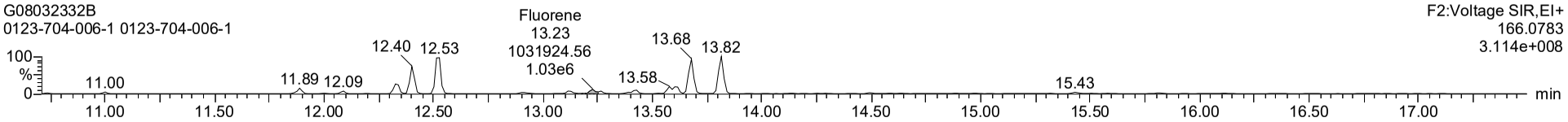
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

Fluorene



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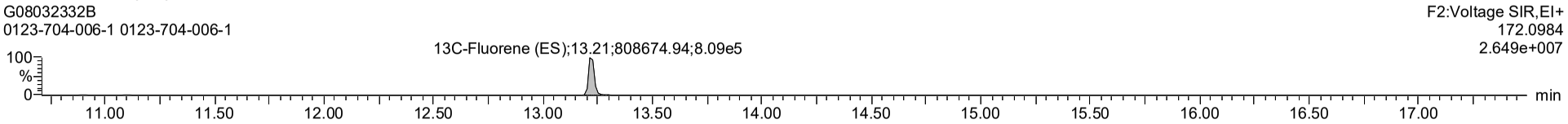
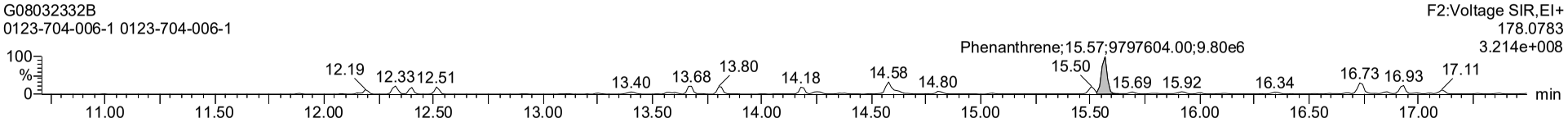
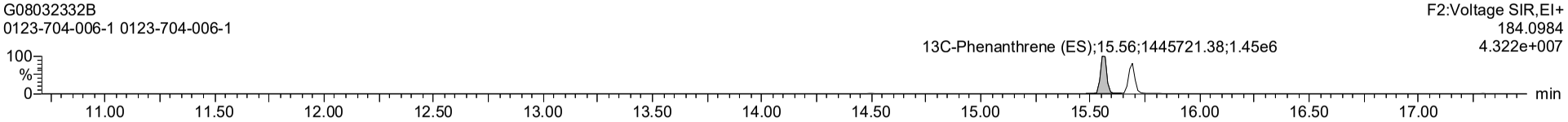


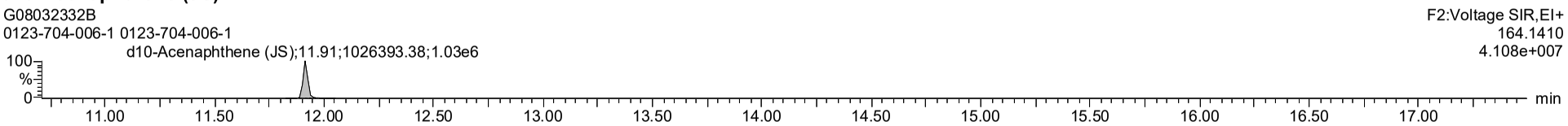
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)

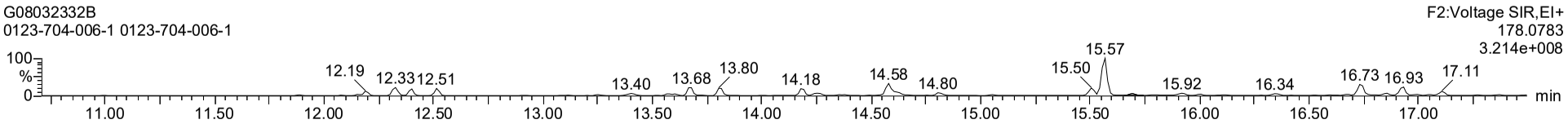


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

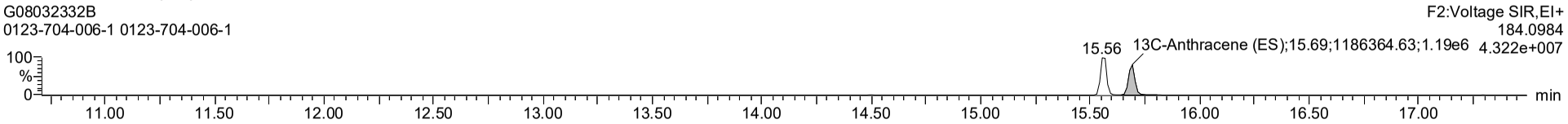
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

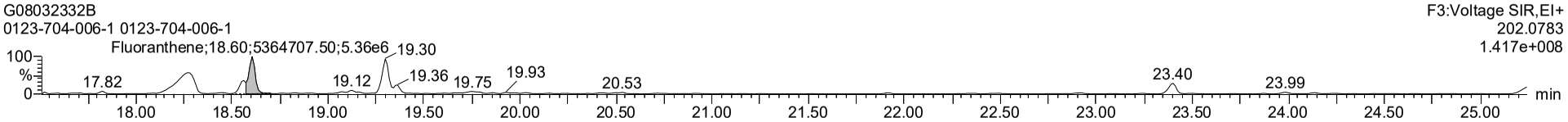
Anthracene



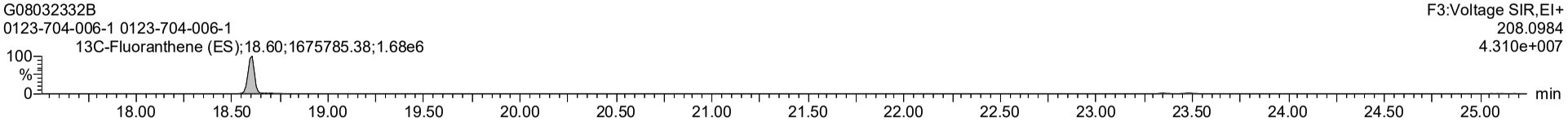
13C-Anthracene (ES)



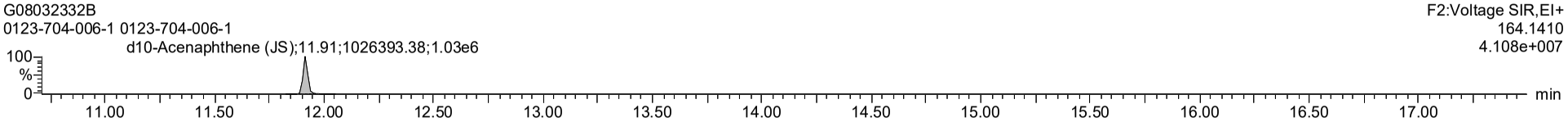
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



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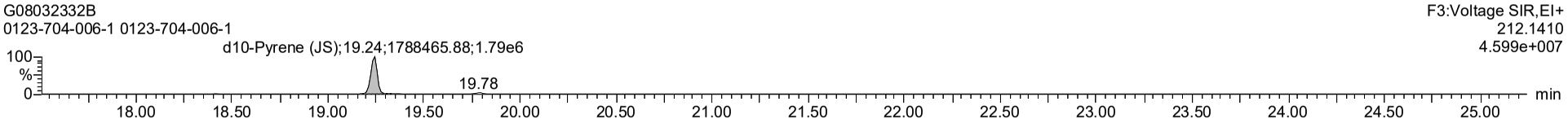
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

d10-Pyrene (JS)



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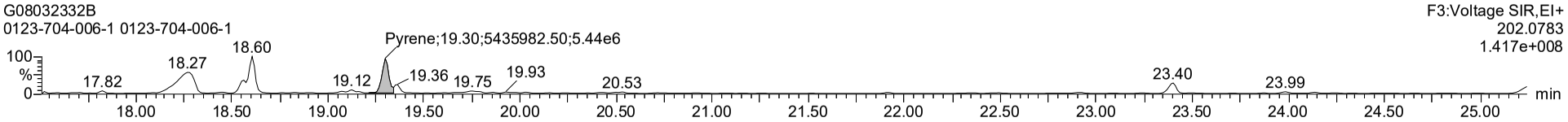
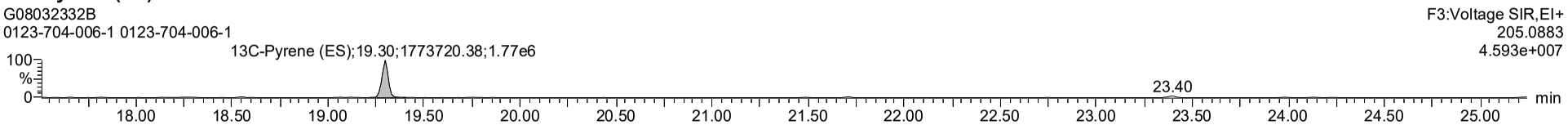
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

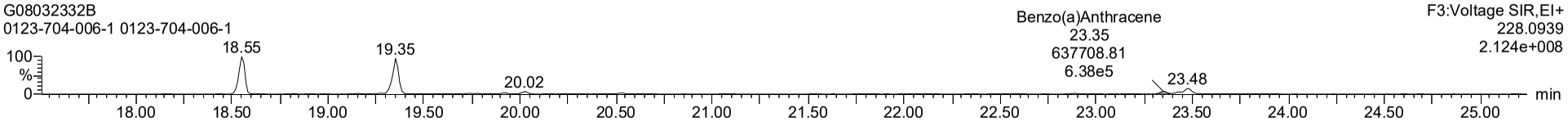
Pyrene



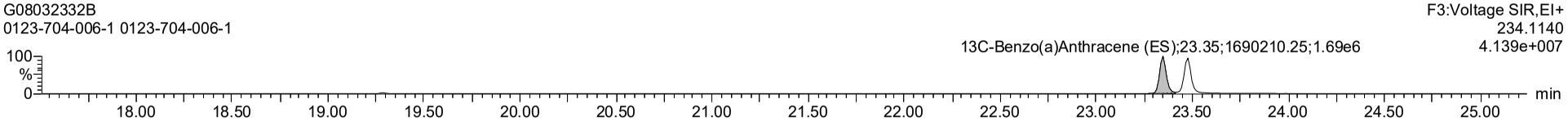
13C-Pyrene (ES)



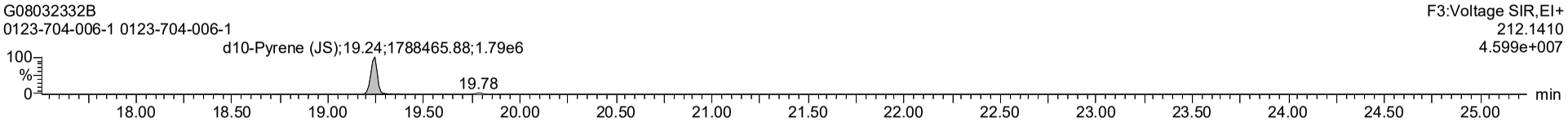
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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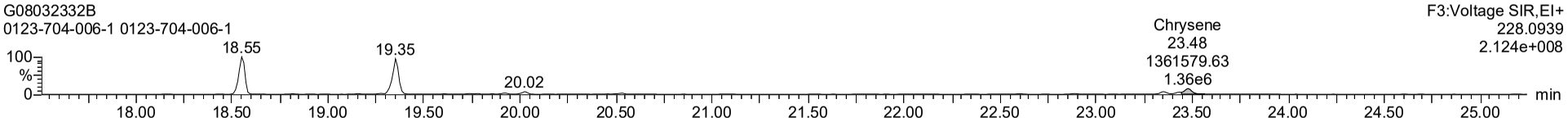
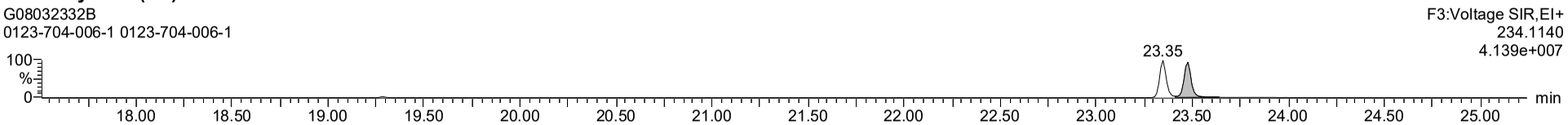
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

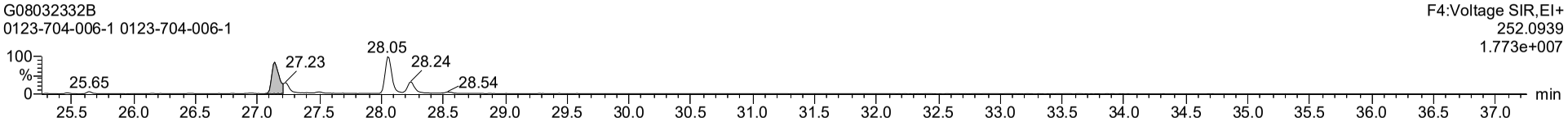
Chrysene



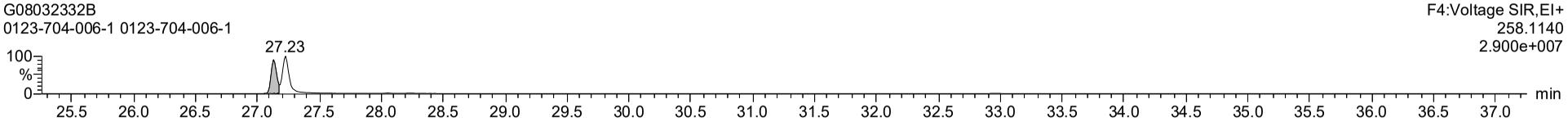
13C-Chrysene (ES)



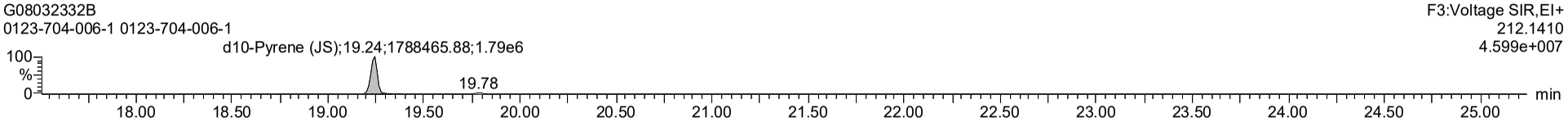
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)

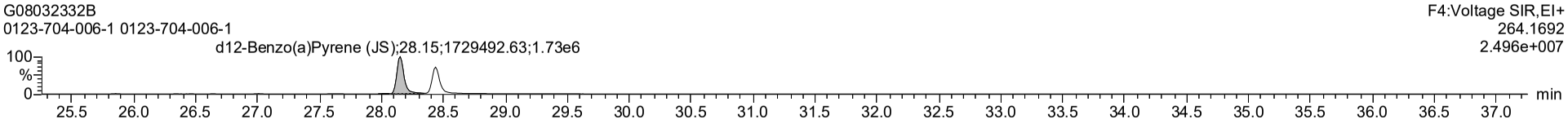


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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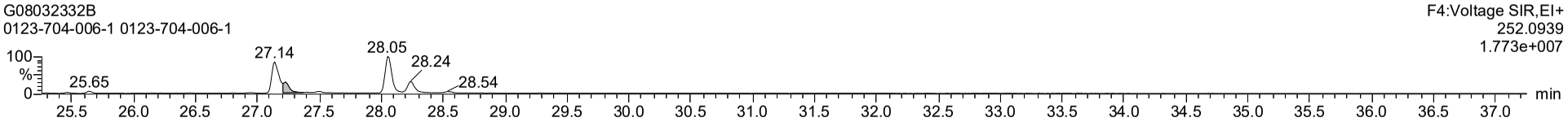
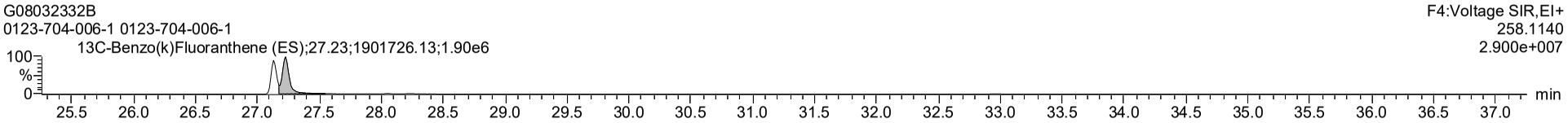
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

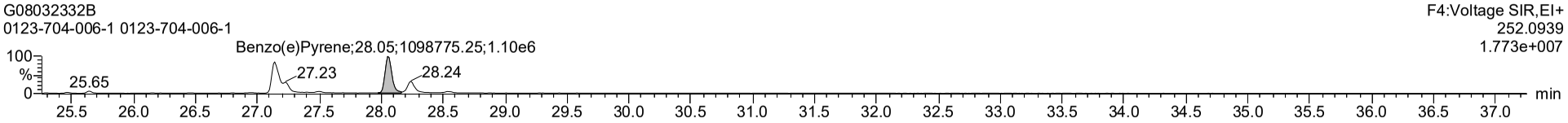
Benzo(k)Fluoranthene



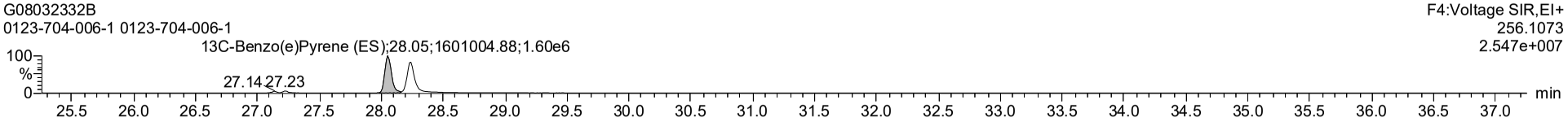
13C-Benzo(k)Fluoranthene (ES)



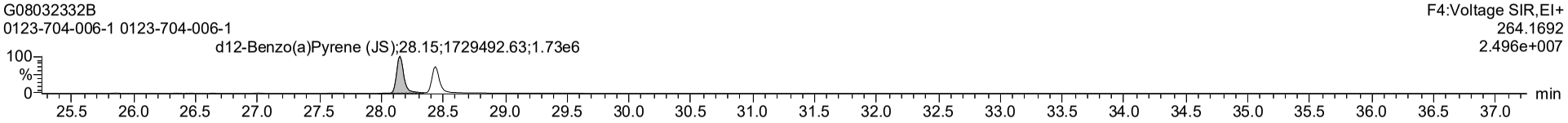
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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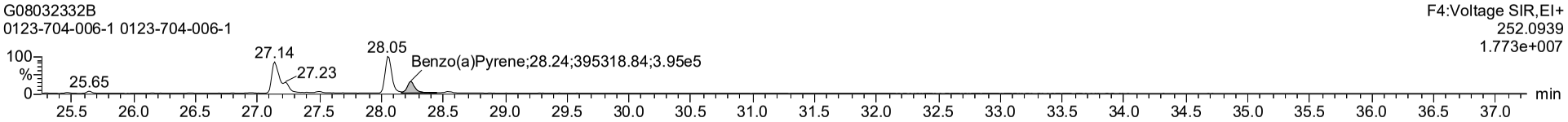
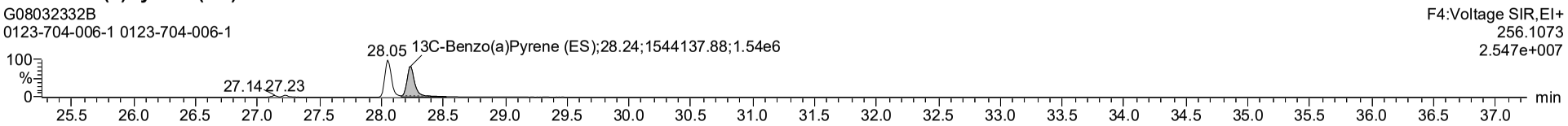
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

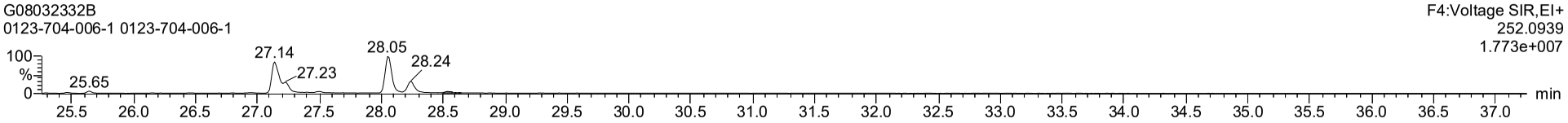
Benzo(a)Pyrene



13C-Benzo(a)Pyrene (ES)



Perylene



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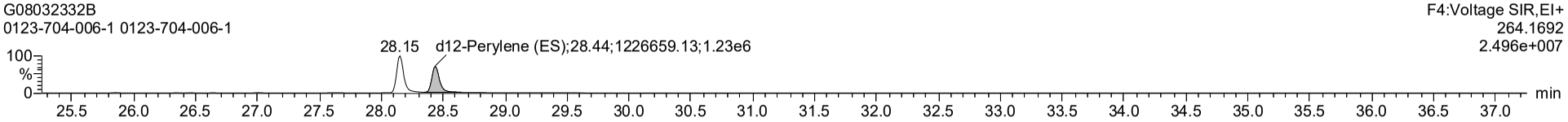
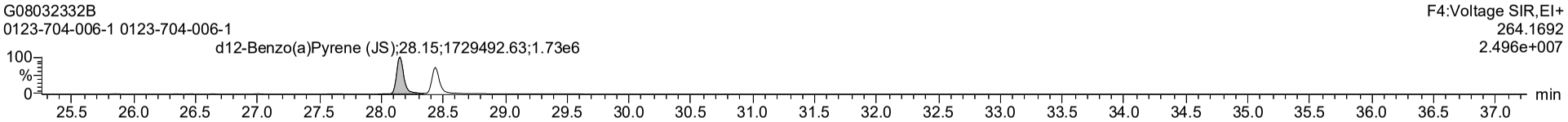


d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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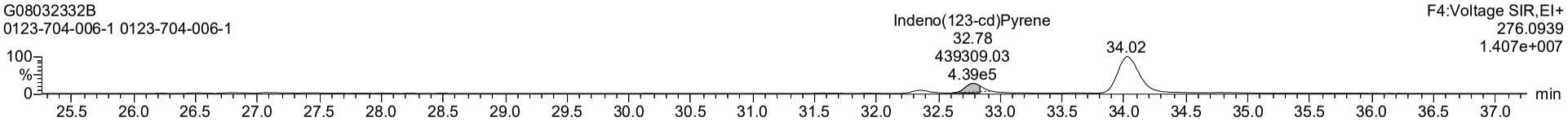
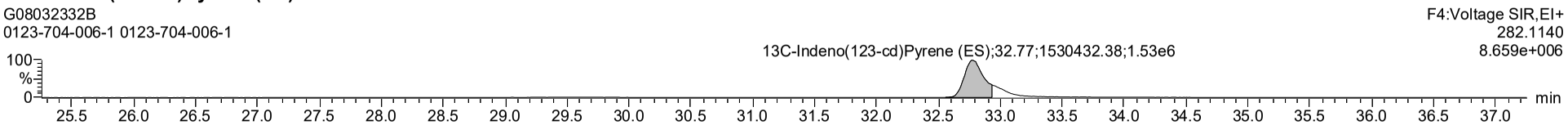
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

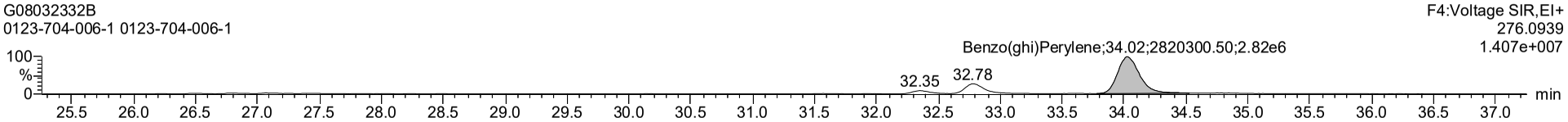
Indeno(123-cd)Pyrene



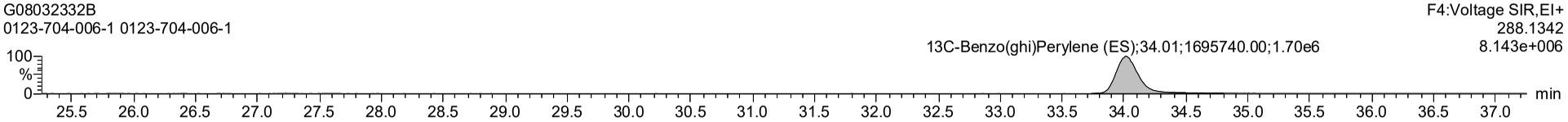
13C-Indeno(123-cd)Pyrene (ES)



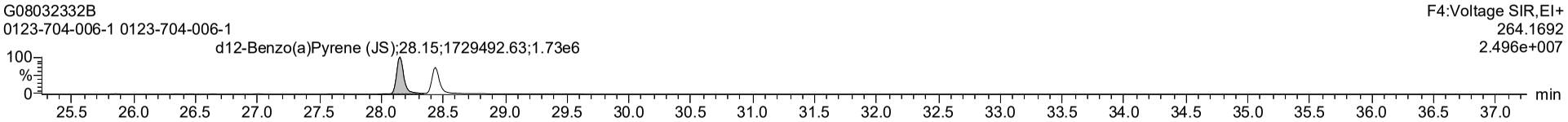
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)

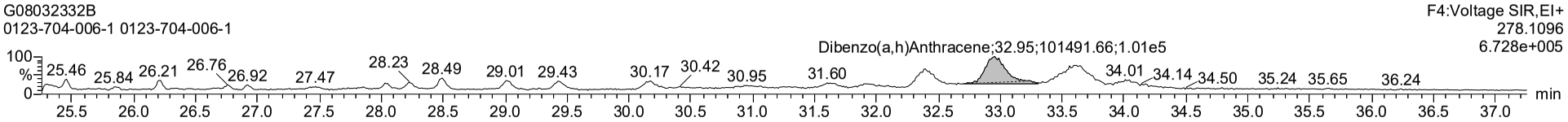


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

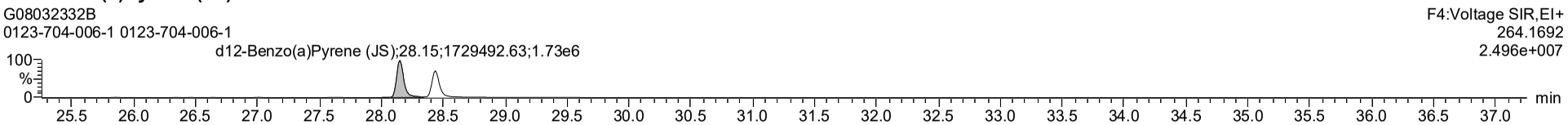
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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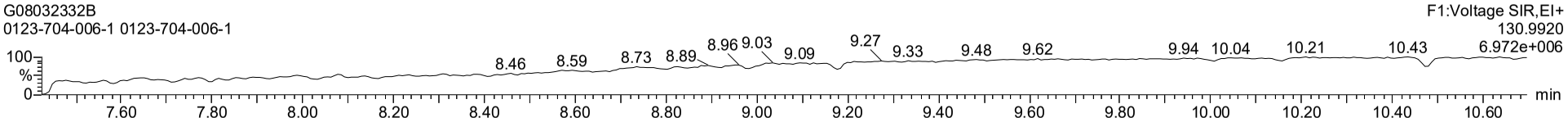
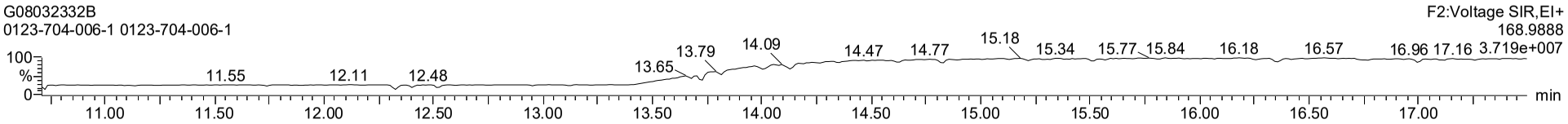
Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

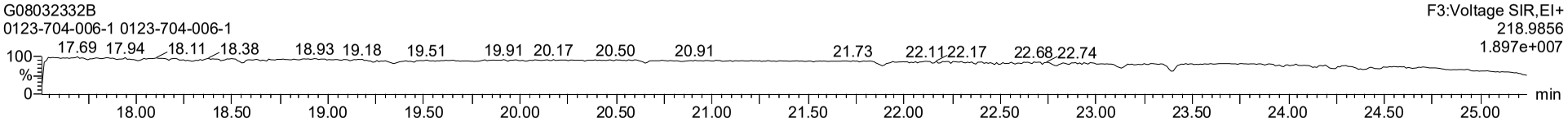
QC Check Ion Fn1



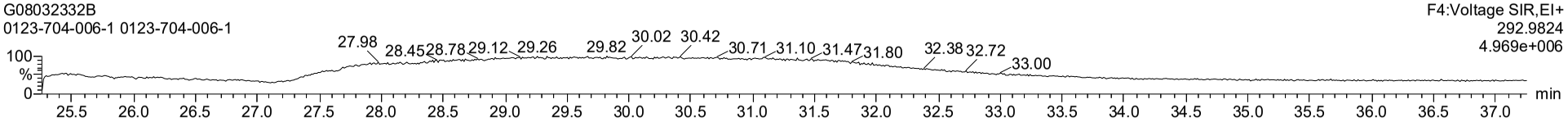
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



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Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.457e7	4.389e5	0.000		8.11	8.11				
2	13C-Naphthalene (...	134.0827	4.389e5	1.254e6	0.000		8.12	8.11				
3	2-Methyl-naphthale...	142.0783	9.148e6	7.250e5	0.000		9.51	9.51				
4	13C-2-Methylnapht...	148.0984	7.250e5	1.254e6	0.000		9.52	9.51				
5	d10-2-Methylnapht...	152.1410	1.254e6		0.000	18874.078	9.76	9.44	1250000		265.859	
6												
7	Acenaphthylene	152.0636	1.829e5	8.525e5	0.000		11.59	11.6				
8	13C-Acenaphthyle...	158.0827	8.525e5	1.026e6	0.000		11.60	11.6				
9	Acenaphthene	154.0783	2.256e5	6.265e5	0.000		11.99	12.0				
10	13C-Acenaphthene...	160.0984	6.265e5	1.026e6	0.000		12.00	12.0				
11	d10-Acenaphthene...	164.1410	1.026e6		0.000	13122.905	12.25	11.9	1030000		312.856	
12												
13	Fluorene	166.0783	1.032e6	8.087e5	0.000		13.21	13.2				
14	13C-Fluorene (ES)	172.0984	8.087e5	1.026e6	0.000		13.19	13.2				
15	Phenanthrene	178.0783	9.798e6	1.446e6	0.000		15.56	15.6				
16	13C-Phenanthrene...	184.0984	1.446e6	1.026e6	0.000		15.57	15.6				
17	d10-Acenaphthene...	164.1410	1.026e6		0.000	13122.905	12.25	11.9	1030000		312.856	
18												
19	Anthracene	178.0783	4.627e5	1.186e6	0.000		15.69	15.7				
20	13C-Anthracene (E...	184.0984	1.186e6	1.026e6	0.000		15.68	15.7				
21	Fluoranthene	202.0783	5.365e6	1.676e6	0.000		18.60	18.6				
22	13C-Fluoranthene (...	208.0984	1.676e6	1.788e6	0.000		18.61	18.6				
23	d10-Acenaphthene...	164.1410	1.026e6		0.000	13122.905	12.25	11.9	1030000		312.856	
24	d10-Pyrene (JS)	212.1410	1.788e6		0.000	19126.001	19.23	19.2	1790000		374.039	
25												
26	Pyrene	202.0783	5.436e6	1.774e6	0.000		19.30	19.3				
27	13C-Pyrene (ES)	205.0883	1.774e6	1.788e6	0.000		19.30	19.3				
28	Benzo(a)Anthracene	228.0939	6.377e5	1.690e6	0.000		23.35	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.690e6	1.788e6	0.000		23.36	23.3				
30	d10-Pyrene (JS)	212.1410	1.788e6		0.000	19126.001	19.23	19.2	1790000		374.039	
31												
32	Chrysene	228.0939	1.362e6	1.704e6	0.000		23.48	23.5				
33	13C-Chrysene (ES)	234.1140	1.704e6	1.788e6	0.000		23.49	23.5				
34	Benzo(b)Fluoranth...	252.0939	1.019e6	1.341e6	0.000		27.13	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.341e6	1.729e6	0.000		27.16	27.1				
36	d10-Pyrene (JS)	212.1410	1.788e6		0.000	19126.001	19.23	19.2	1790000		374.039	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.729e6		0.000	12322.130	28.12	28.2	1730000		561.427	
38												
39	Benzo(k)Fluoranth...	252.0939	2.767e5	1.902e6	0.000		27.23	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.902e6	1.729e6	0.000		27.25	27.2				
41	Benzo(e)Pyrene	252.0939	1.099e6	1.601e6	0.000		28.05	28.1				
42	13C-Benzo(e)Pyre...	256.1073	1.601e6	1.729e6	0.000		28.05	28.1				
43	d12-Benzo(a)Pyren...	264.1692	1.729e6		0.000	12322.130	28.12	28.2	1730000		561.427	
44												
45	Benzo(a)Pyrene	252.0939	3.953e5	1.544e6	0.000		28.24	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.544e6	1.729e6	0.000		28.23	28.2				
47	Perylene	252.0939	4.964e4	1.227e6	0.000		28.44	28.5				
48	d12-Perylene (ES)	264.1692	1.227e6	1.729e6	0.000		28.52	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.729e6		0.000	12322.130	28.12	28.2	1730000		561.427	
50												
51	Indeno(123-cd)Pyr...	276.0939	4.393e5	1.530e6	0.000		32.77	32.8				
52	13C-Indeno(123-cd...	282.1140	1.530e6	1.729e6	0.000		32.57	32.8				
53	Benzo(ghi)Perylene	276.0939	2.820e6	1.696e6	0.000		34.01	34.0				
54	13C-Benzo(ghi)Per...	288.1342	1.696e6	1.729e6	0.000		33.77	34.0				
55	d12-Benzo(a)Pyren...	264.1692	1.729e6		0.000	12322.130	28.12	28.2	1730000		561.427	
56												
57	Dibenzo(a,h)Anthra...	278.1096	1.015e5	1.508e6	0.000		32.98	33.0				
58	d12-Benzo(a)Pyren...	264.1692	1.729e6		0.000	12322.130	28.12	28.2	1730000		561.427	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032332B, Date: 09-Mar-2023, Time: 13:43:03, ID: 0123-704-006-1, Description: 0123-704-006-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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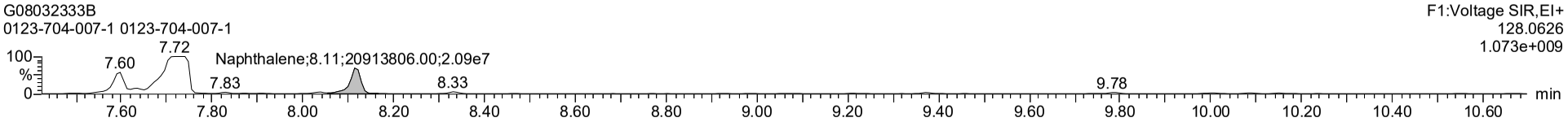
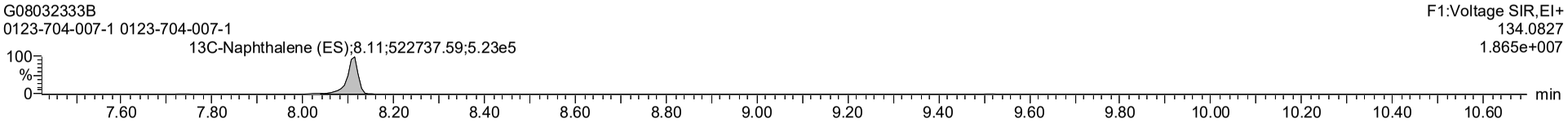
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

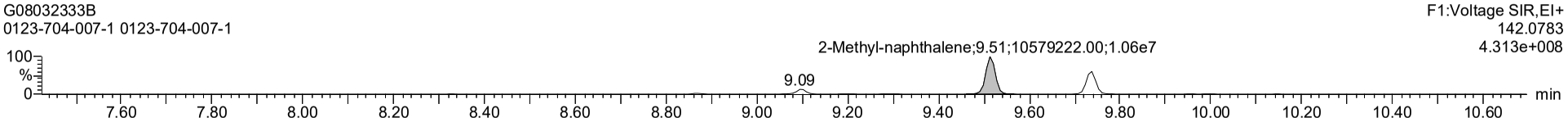
Naphthalene



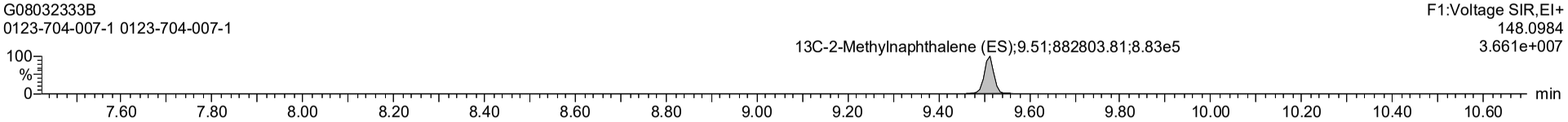
13C-Naphthalene (ES)



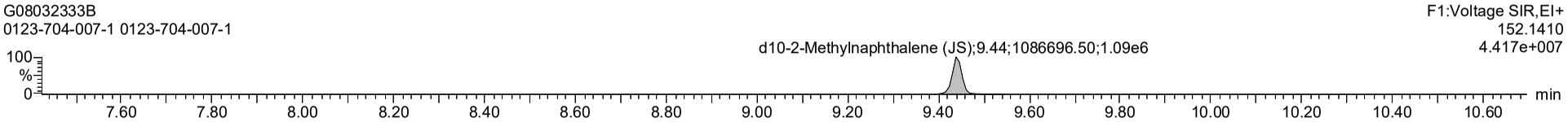
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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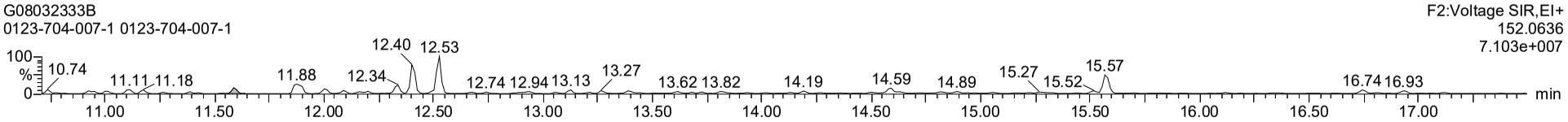
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

Acenaphthylene



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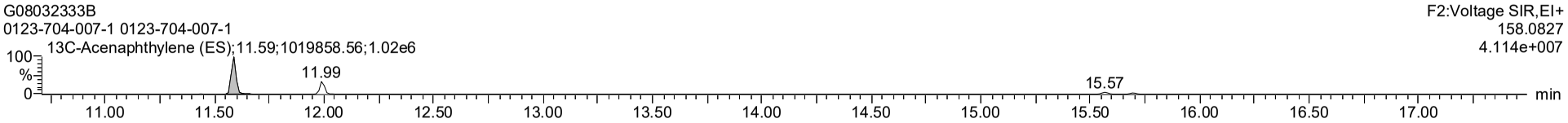
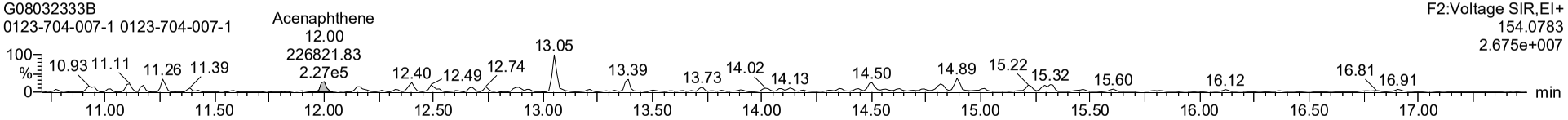


Acenaphthene



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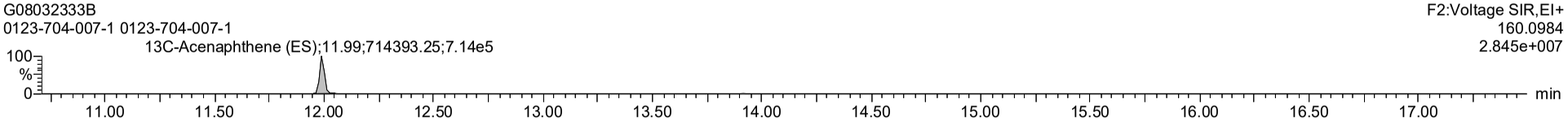
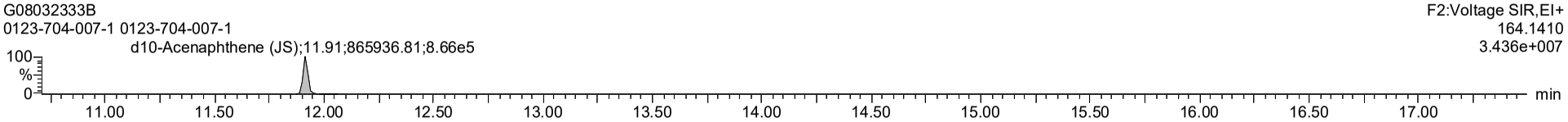


d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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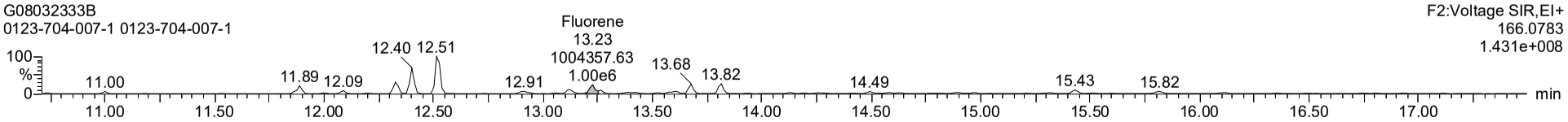
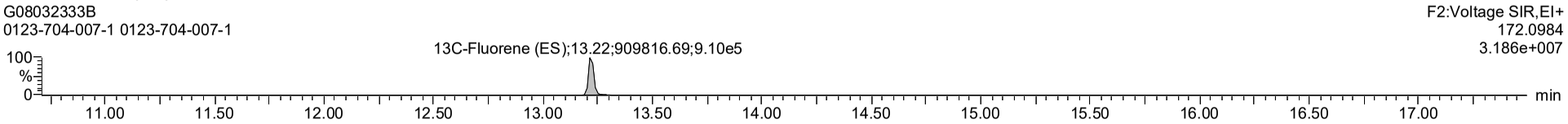
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

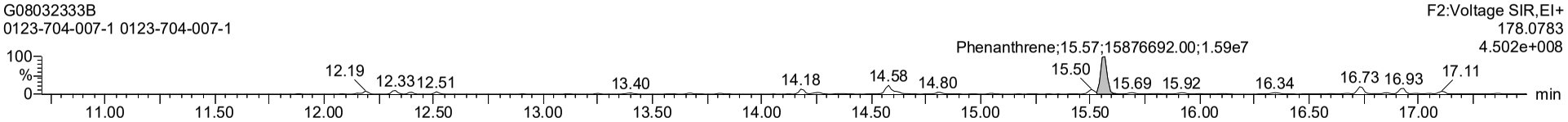
Fluorene



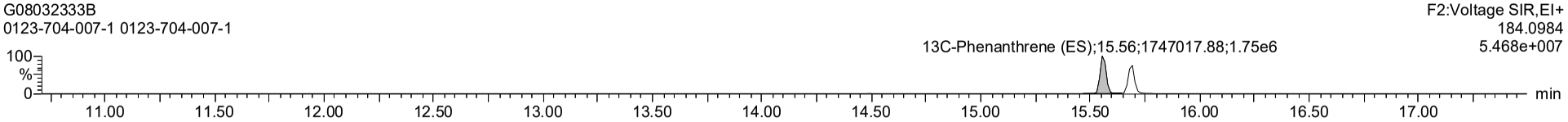
13C-Fluorene (ES)



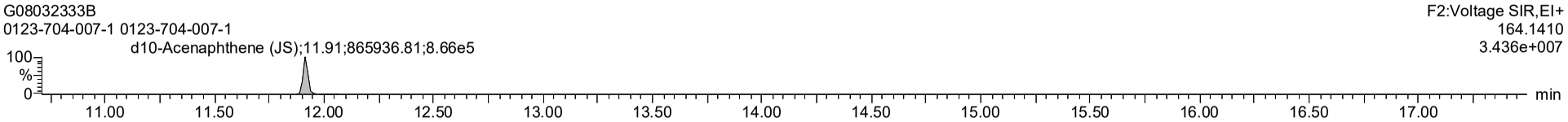
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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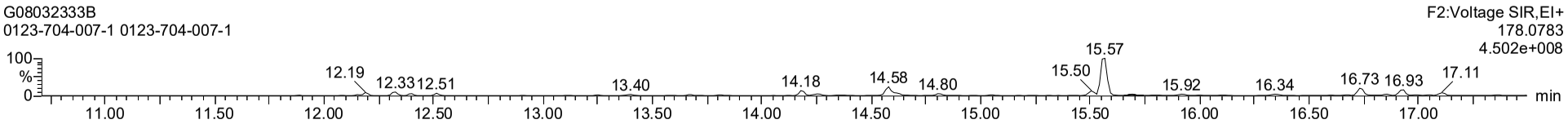
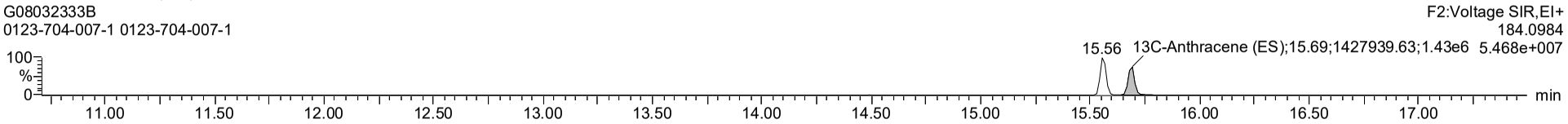
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

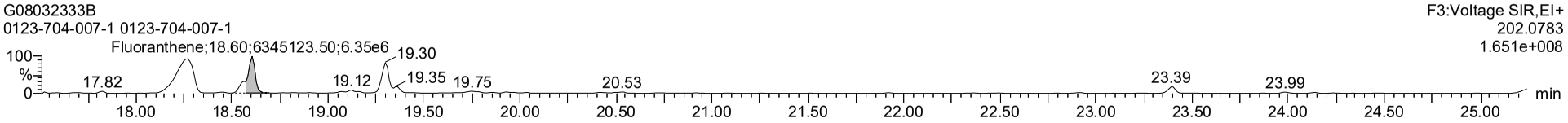
Anthracene



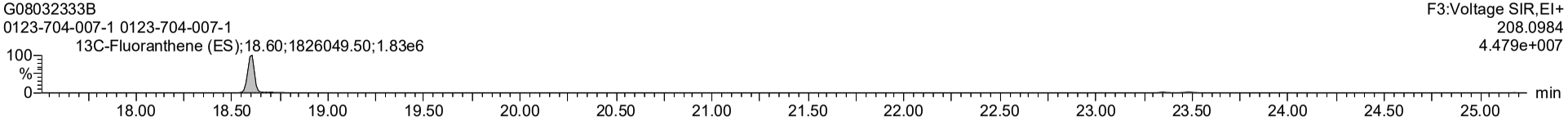
13C-Anthracene (ES)



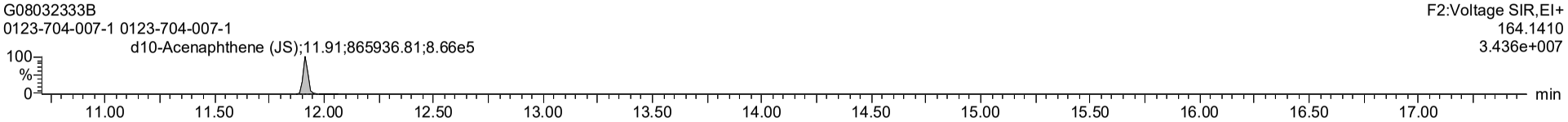
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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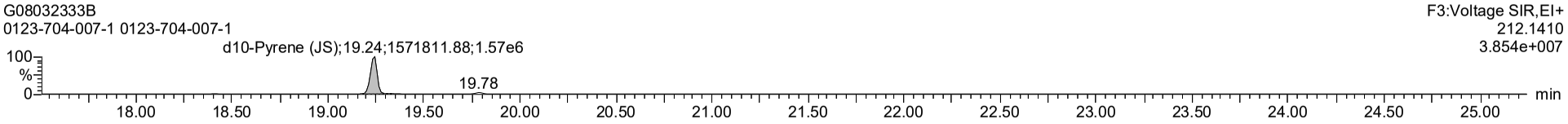
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

d10-Pyrene (JS)



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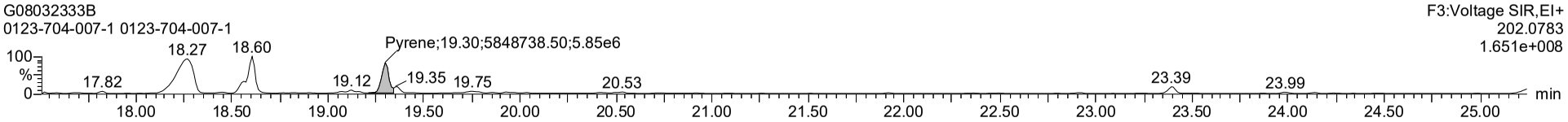
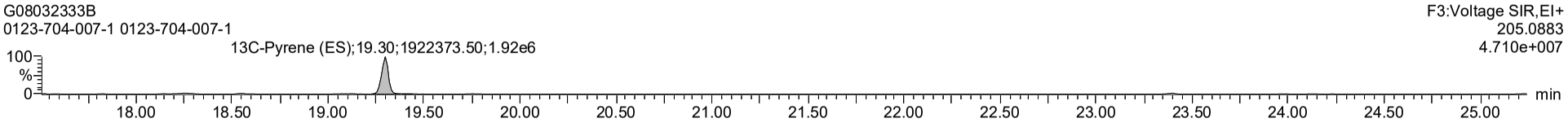
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

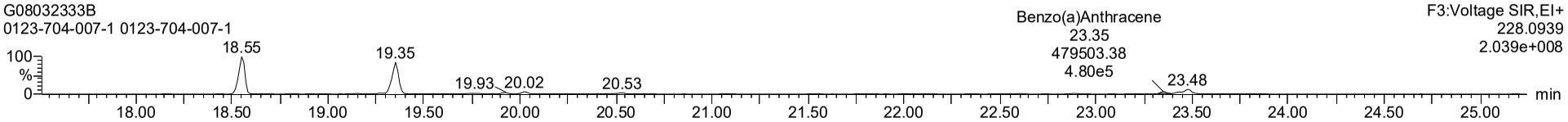
Pyrene



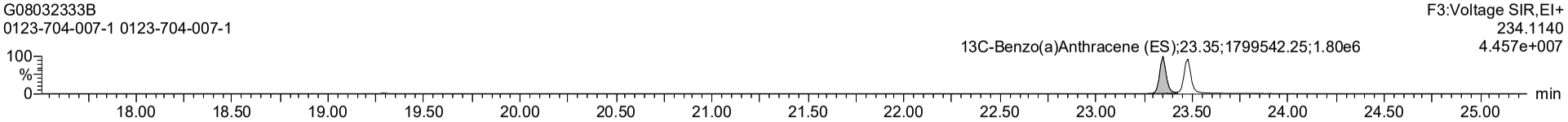
13C-Pyrene (ES)



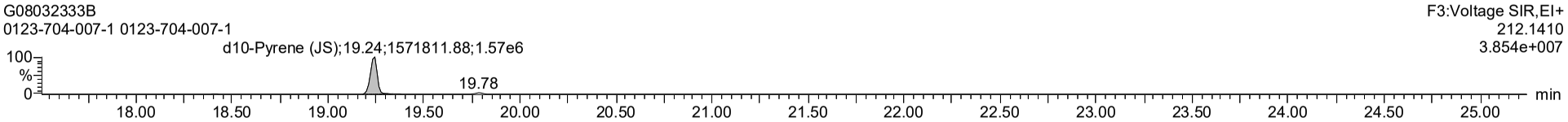
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Enthalpy Ultratracel Laboratory

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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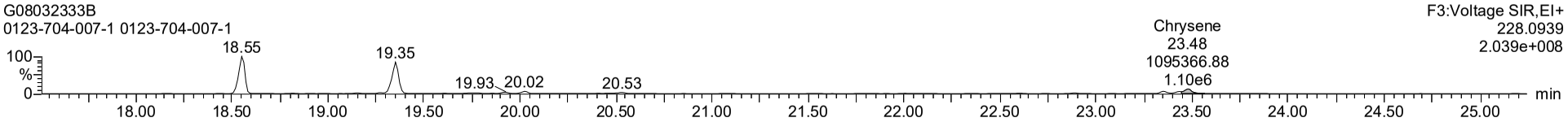
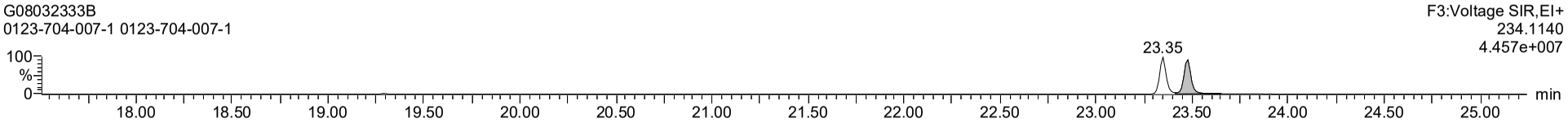
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

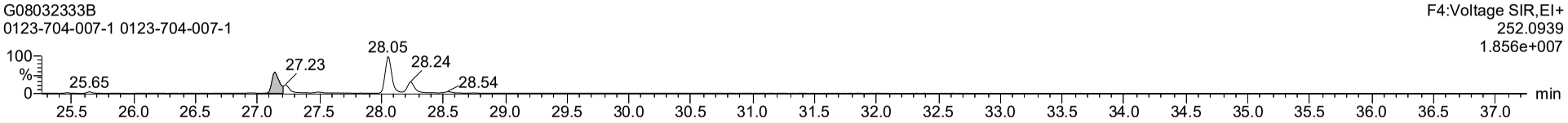
Chrysene



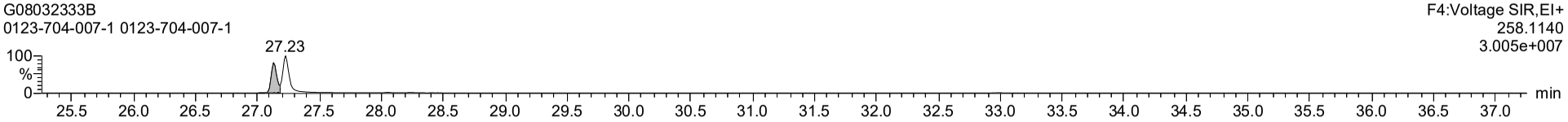
13C-Chrysene (ES)



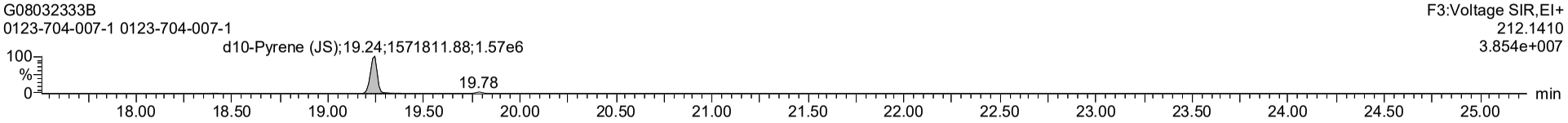
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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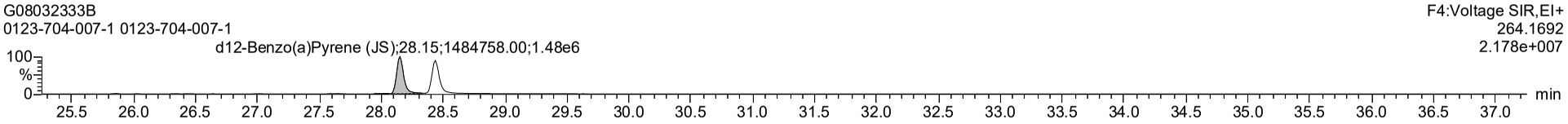
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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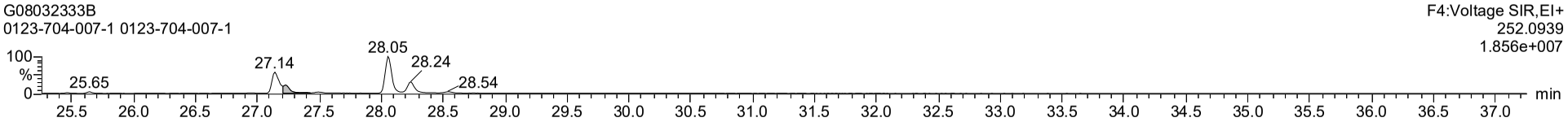
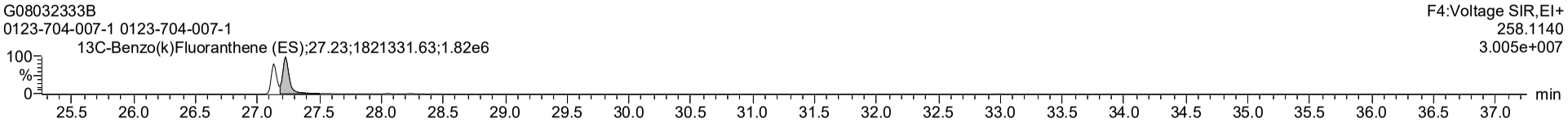
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

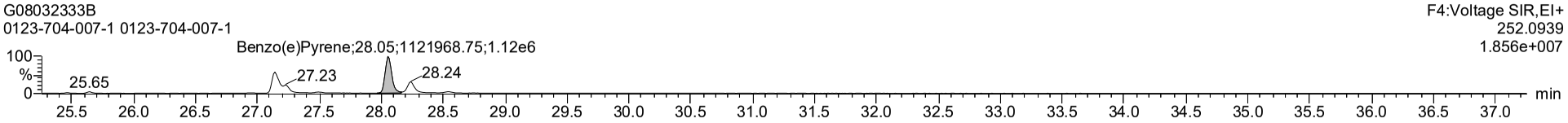
Benzo(k)Fluoranthene



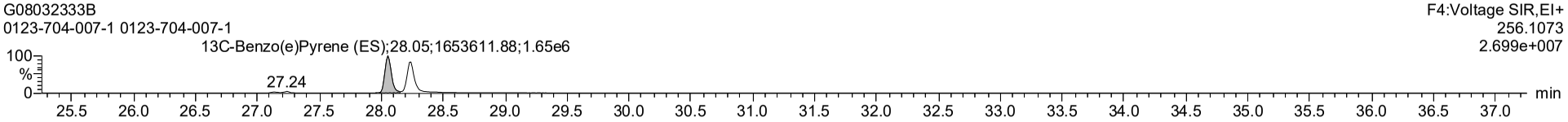
13C-Benzo(k)Fluoranthene (ES)



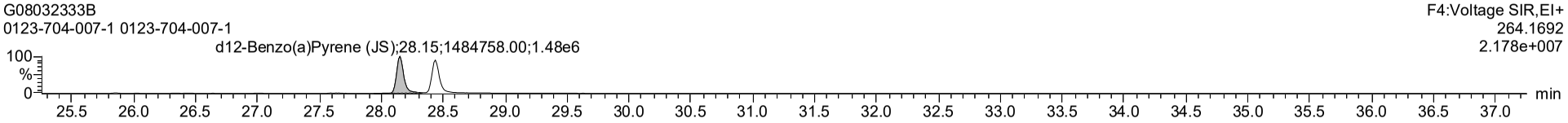
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)

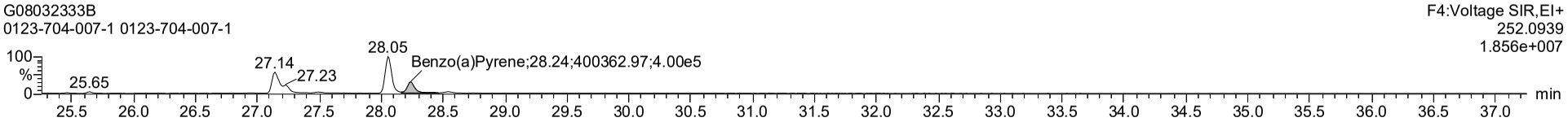


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

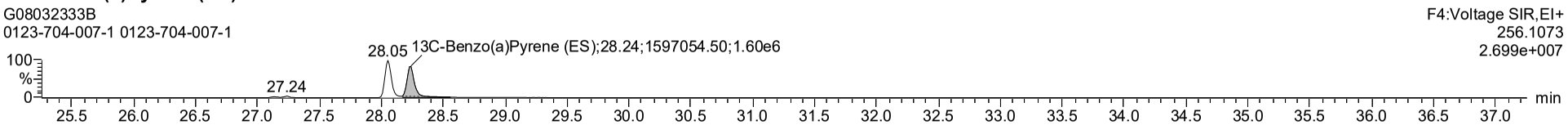
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

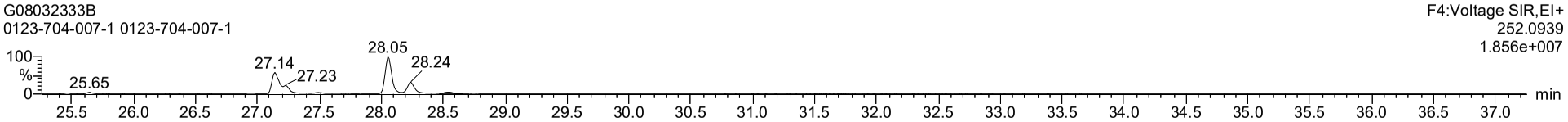
Benzo(a)Pyrene



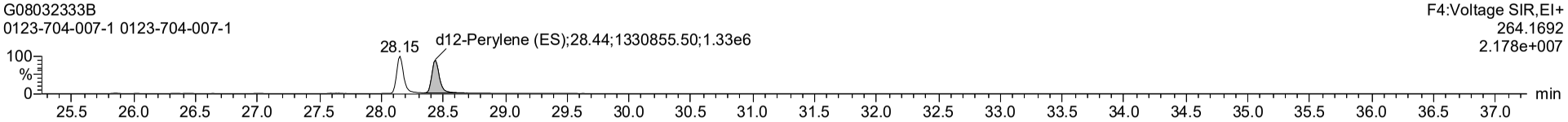
13C-Benzo(a)Pyrene (ES)



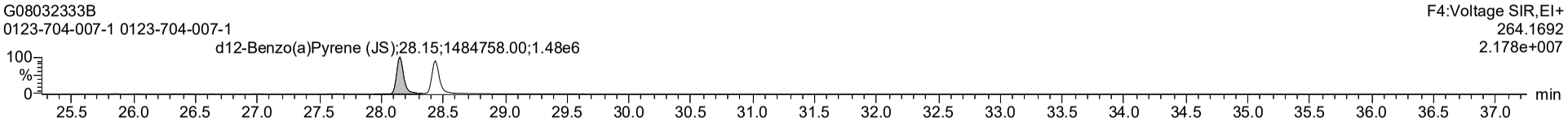
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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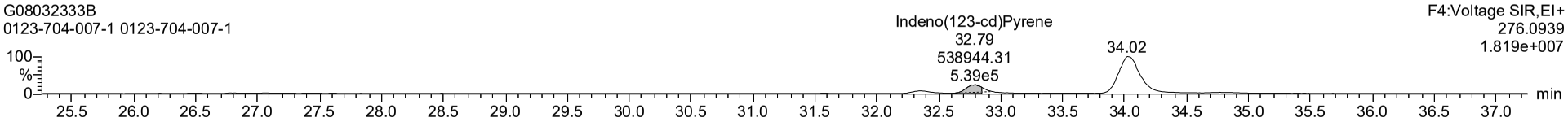
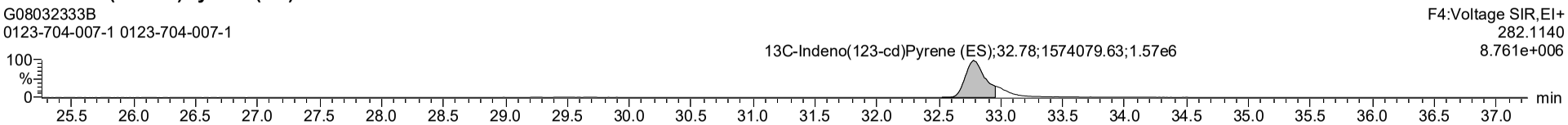
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

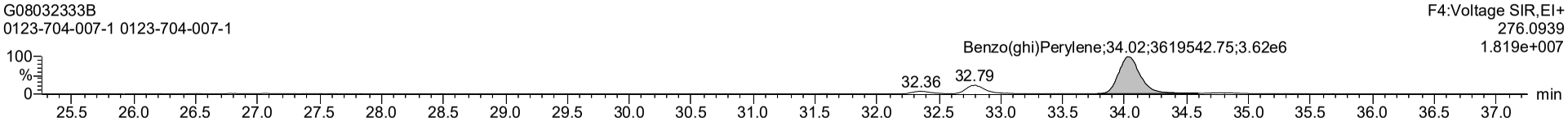
Indeno(123-cd)Pyrene



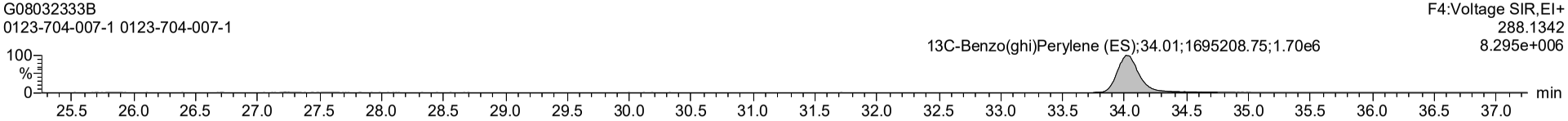
13C-Indeno(123-cd)Pyrene (ES)



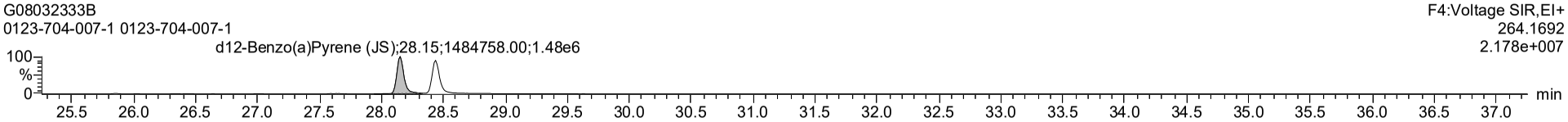
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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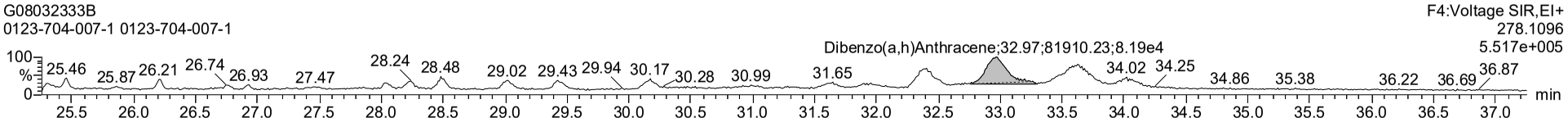
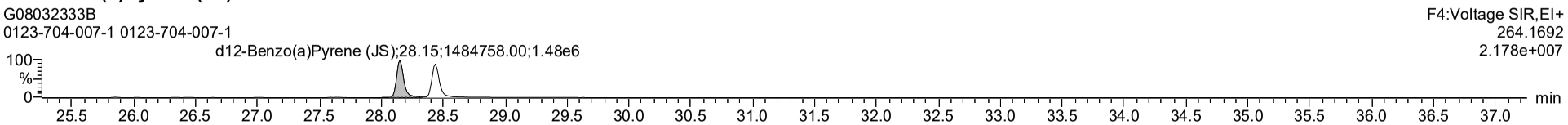
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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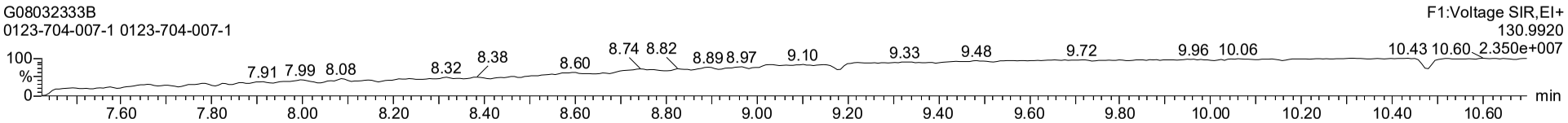
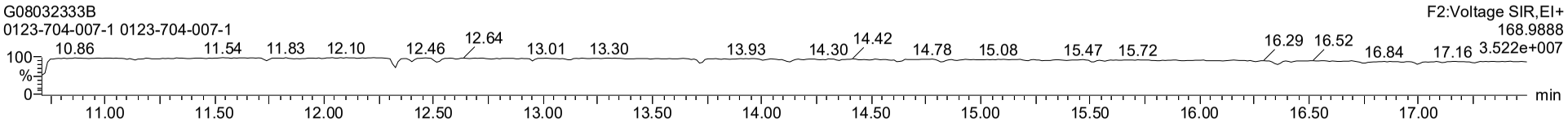
Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

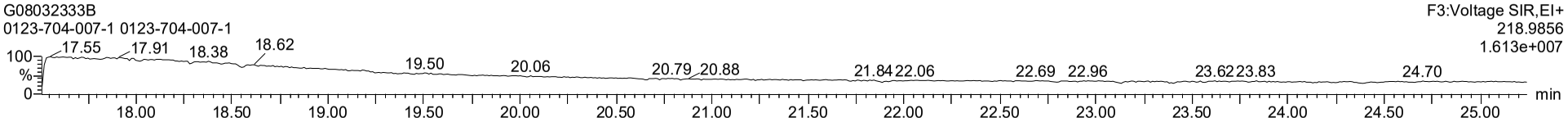
QC Check Ion Fn1



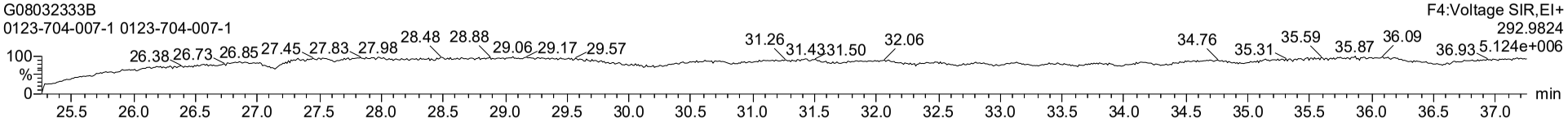
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.091e7	5.227e5	0.000		8.11	8.11				
2	13C-Naphthalene (...	134.0827	5.227e5	1.087e6	0.000		8.12	8.11				
3	2-Methyl-naphthale...	142.0783	1.058e7	8.828e5	0.000		9.51	9.51				
4	13C-2-Methylnapht...	148.0984	8.828e5	1.087e6	0.000		9.52	9.51				
5	d10-2-Methylnapht...	152.1410	1.087e6		0.000	18874.078	9.76	9.44	1090000		230.305	
6												
7	Acenaphthylene	152.0636	3.054e5	1.020e6	0.000		11.59	11.6				
8	13C-Acenaphthyle...	158.0827	1.020e6	8.659e5	0.000		11.60	11.6				
9	Acenaphthene	154.0783	2.268e5	7.144e5	0.000		11.99	12.0				
10	13C-Acenaphthene...	160.0984	7.144e5	8.659e5	0.000		12.00	12.0				
11	d10-Acenaphthene...	164.1410	8.659e5		0.000	13122.905	12.25	11.9	866000		263.947	
12												
13	Fluorene	166.0783	1.004e6	9.098e5	0.000		13.22	13.2				
14	13C-Fluorene (ES)	172.0984	9.098e5	8.659e5	0.000		13.19	13.2				
15	Phenanthrene	178.0783	1.588e7	1.747e6	0.000		15.56	15.6				
16	13C-Phenanthrene...	184.0984	1.747e6	8.659e5	0.000		15.56	15.6				
17	d10-Acenaphthene...	164.1410	8.659e5		0.000	13122.905	12.25	11.9	866000		263.947	
18												
19	Anthracene	178.0783	4.473e5	1.428e6	0.000		15.69	15.7				
20	13C-Anthracene (E...	184.0984	1.428e6	8.659e5	0.000		15.68	15.7				
21	Fluoranthene	202.0783	6.345e6	1.826e6	0.000		18.60	18.6				
22	13C-Fluoranthene (...	208.0984	1.826e6	1.572e6	0.000		18.61	18.6				
23	d10-Acenaphthene...	164.1410	8.659e5		0.000	13122.905	12.25	11.9	866000		263.947	
24	d10-Pyrene (JS)	212.1410	1.572e6		0.000	19126.001	19.23	19.2	1570000		328.728	
25												
26	Pyrene	202.0783	5.849e6	1.922e6	0.000		19.30	19.3				
27	13C-Pyrene (ES)	205.0883	1.922e6	1.572e6	0.000		19.30	19.3				
28	Benzo(a)Anthracene	228.0939	4.795e5	1.800e6	0.000		23.35	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.800e6	1.572e6	0.000		23.36	23.3				
30	d10-Pyrene (JS)	212.1410	1.572e6		0.000	19126.001	19.23	19.2	1570000		328.728	
31												
32	Chrysene	228.0939	1.095e6	1.788e6	0.000		23.48	23.5				
33	13C-Chrysene (ES)	234.1140	1.788e6	1.572e6	0.000		23.49	23.5				
34	Benzo(b)Fluoranth...	252.0939	7.190e5	1.290e6	0.000		27.13	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.290e6	1.485e6	0.000		27.16	27.1				
36	d10-Pyrene (JS)	212.1410	1.572e6		0.000	19126.001	19.23	19.2	1570000		328.728	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.485e6		0.000	12322.130	28.12	28.2	1480000		481.981	
38												
39	Benzo(k)Fluoranth...	252.0939	2.428e5	1.821e6	0.000		27.23	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.821e6	1.485e6	0.000		27.25	27.2				
41	Benzo(e)Pyrene	252.0939	1.122e6	1.654e6	0.000		28.05	28.1				
42	13C-Benzo(e)Pyre...	256.1073	1.654e6	1.485e6	0.000		28.05	28.1				
43	d12-Benzo(a)Pyren...	264.1692	1.485e6		0.000	12322.130	28.12	28.2	1480000		481.981	
44												
45	Benzo(a)Pyrene	252.0939	4.004e5	1.597e6	0.000		28.24	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.597e6	1.485e6	0.000		28.23	28.2				
47	Perylene	252.0939	4.428e4	1.331e6	0.000		28.44	28.5				
48	d12-Perylene (ES)	264.1692	1.331e6	1.485e6	0.000		28.52	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.485e6		0.000	12322.130	28.12	28.2	1480000		481.981	
50												
51	Indeno(123-cd)Pyr...	276.0939	5.389e5	1.574e6	0.000		32.78	32.8				
52	13C-Indeno(123-cd...	282.1140	1.574e6	1.485e6	0.000		32.57	32.8				
53	Benzo(ghi)Perylene	276.0939	3.620e6	1.695e6	0.000		34.01	34.0				
54	13C-Benzo(ghi)Per...	288.1342	1.695e6	1.485e6	0.000		33.77	34.0				
55	d12-Benzo(a)Pyren...	264.1692	1.485e6		0.000	12322.130	28.12	28.2	1480000		481.981	
56												
57	Dibenzo(a,h)Anthra...	278.1096	8.191e4	1.531e6	0.000		32.98	33.0				
58	d12-Benzo(a)Pyren...	264.1692	1.485e6		0.000	12322.130	28.12	28.2	1480000		481.981	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032333B, Date: 09-Mar-2023, Time: 14:25:01, ID: 0123-704-007-1, Description: 0123-704-007-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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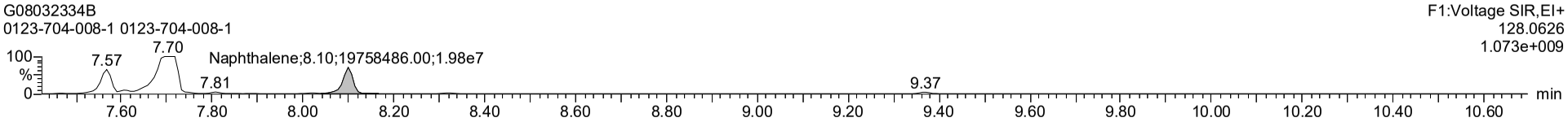
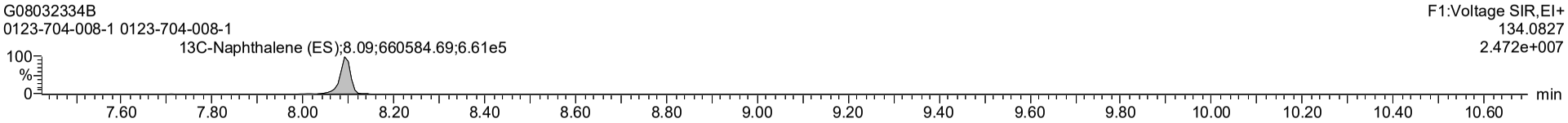
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

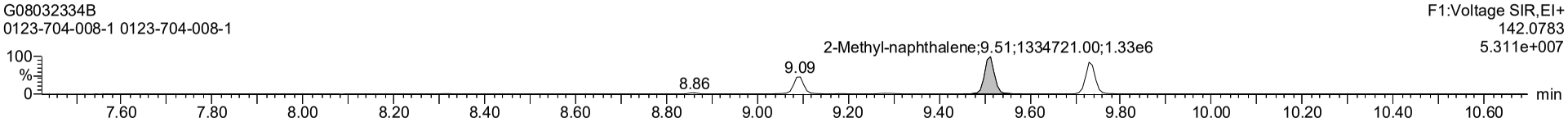
Naphthalene



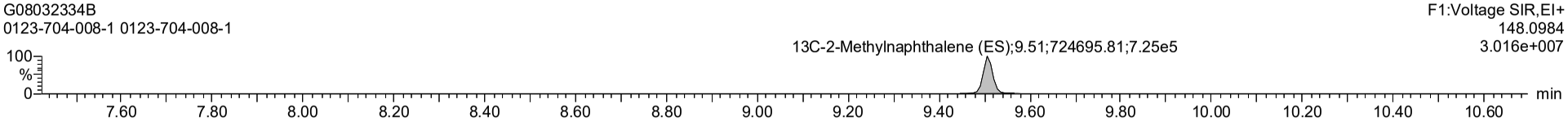
13C-Naphthalene (ES)



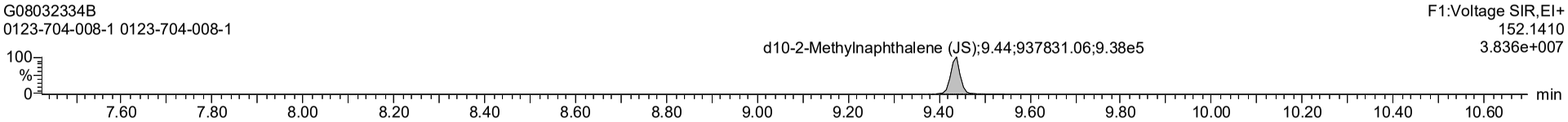
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

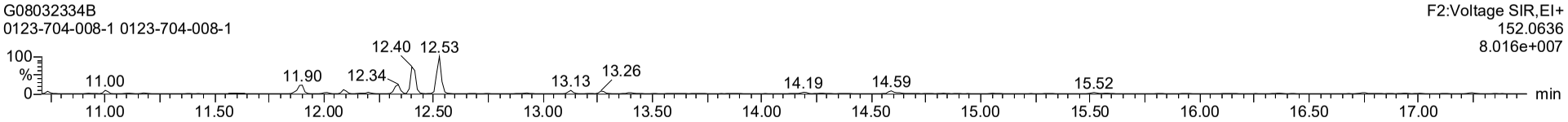


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

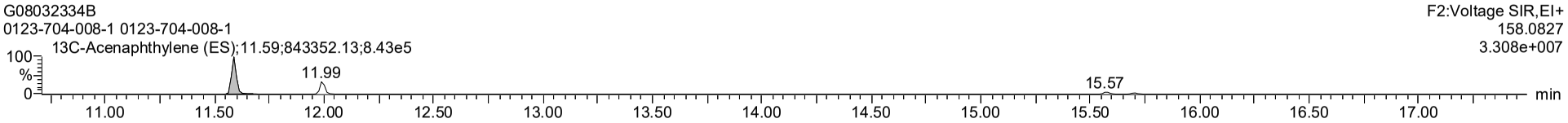
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

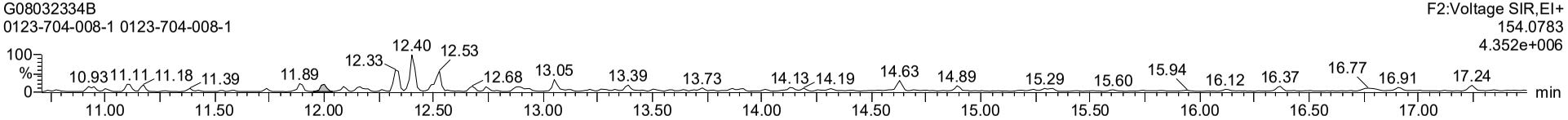
Acenaphthylene



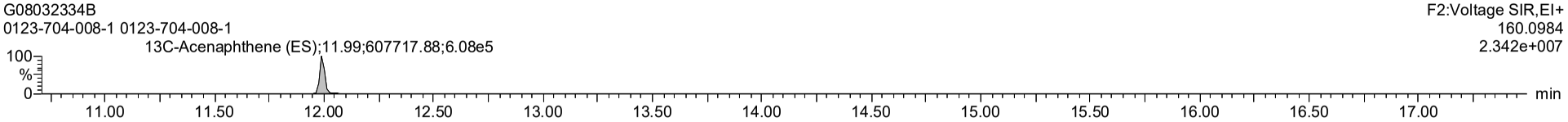
13C-Acenaphthylene (ES)



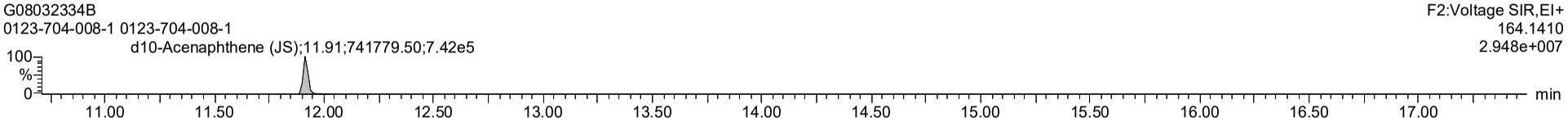
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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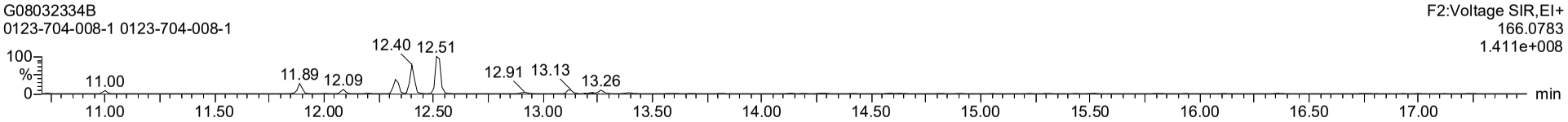
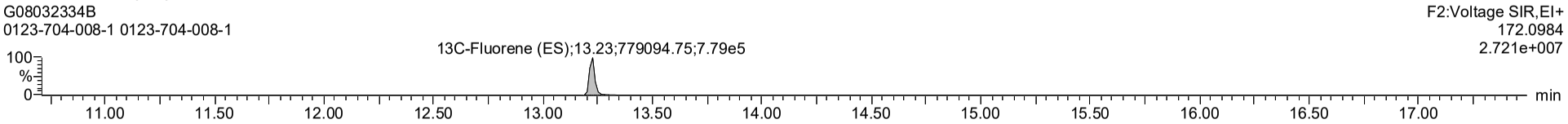
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

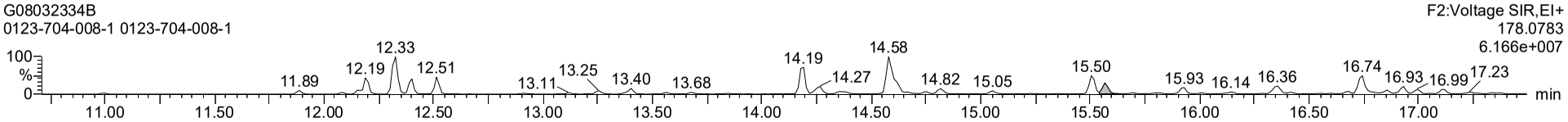
Fluorene



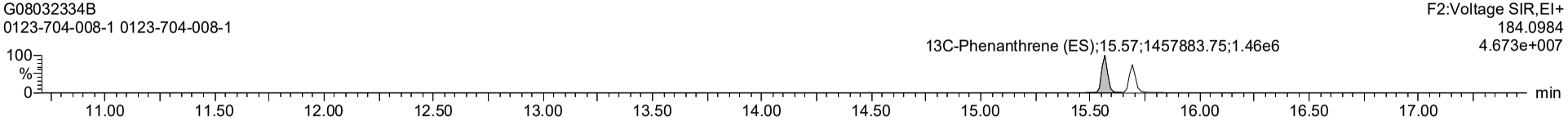
13C-Fluorene (ES)



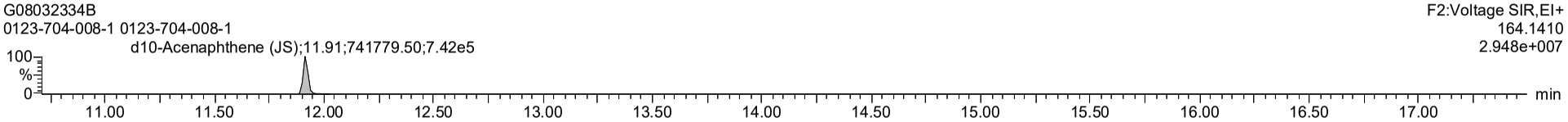
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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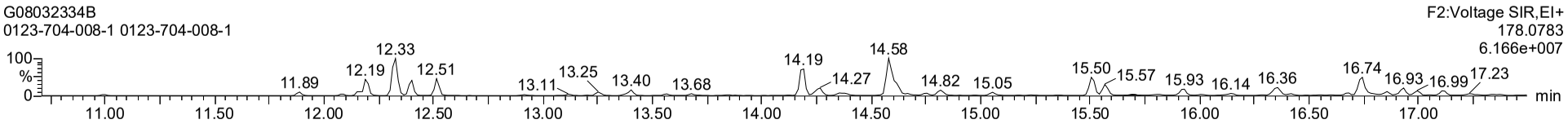
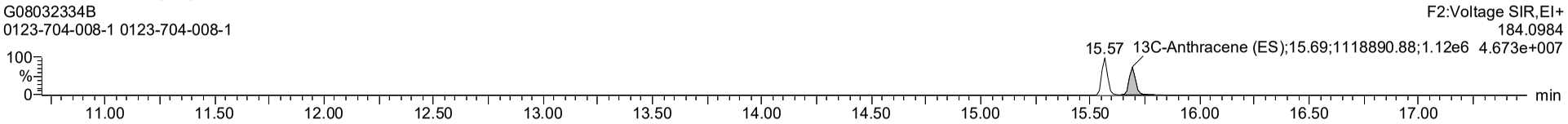
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

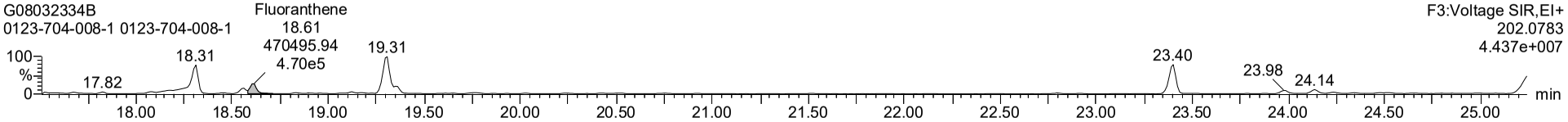
Anthracene



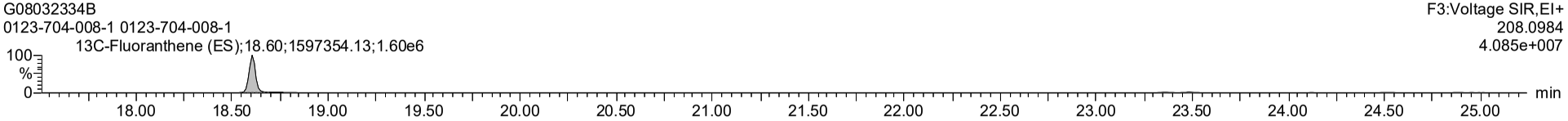
13C-Anthracene (ES)



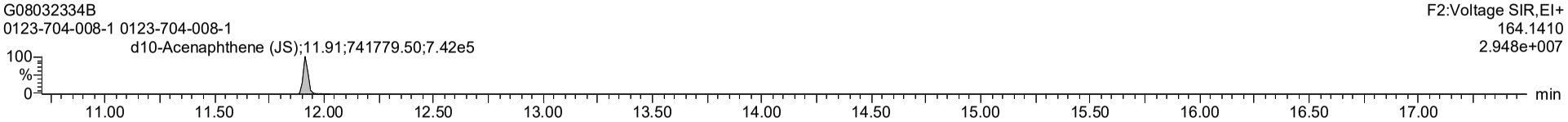
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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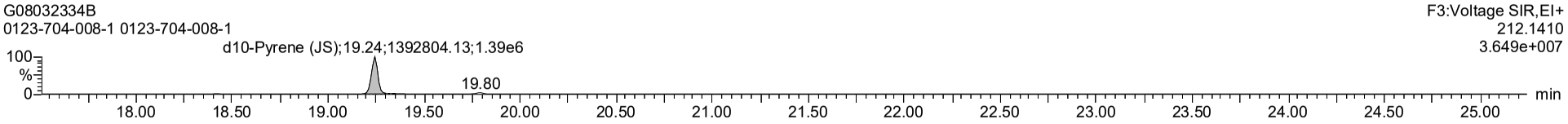
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

d10-Pyrene (JS)



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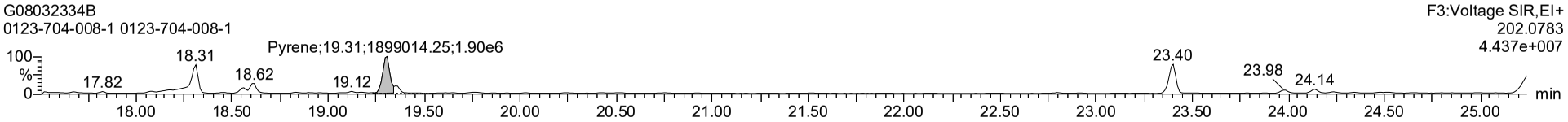
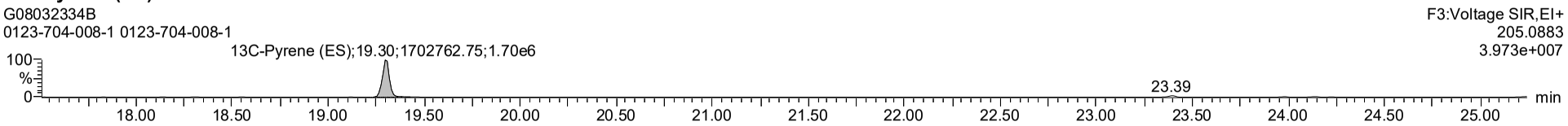
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

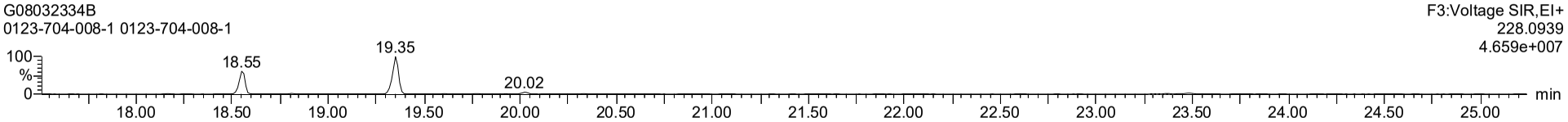
Pyrene



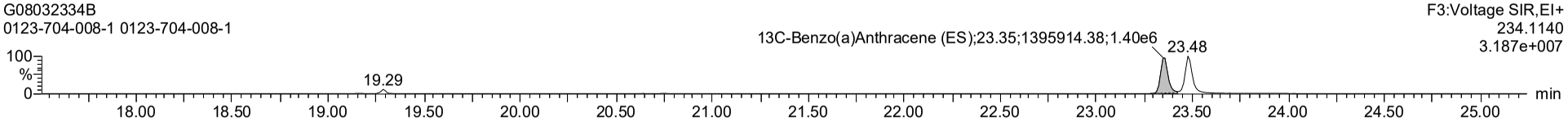
13C-Pyrene (ES)



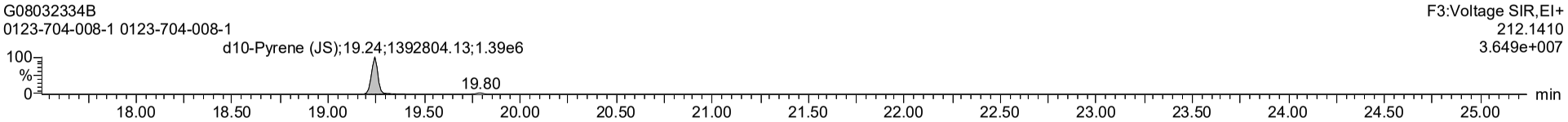
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)

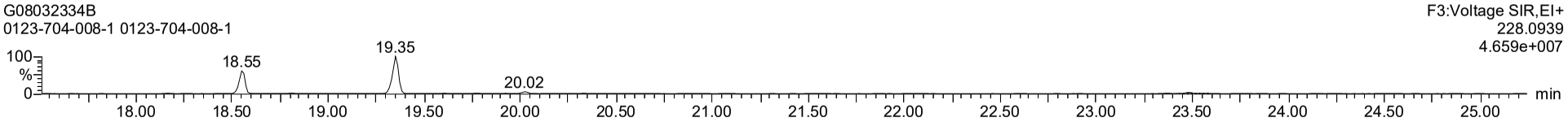


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

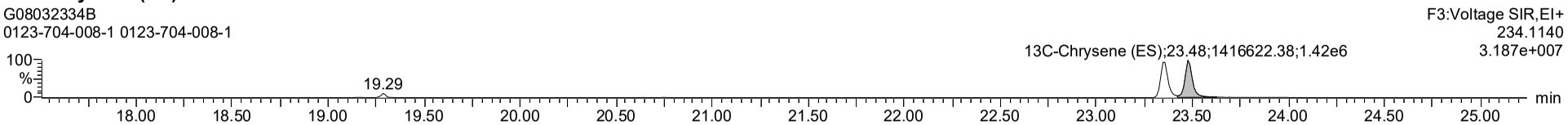
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

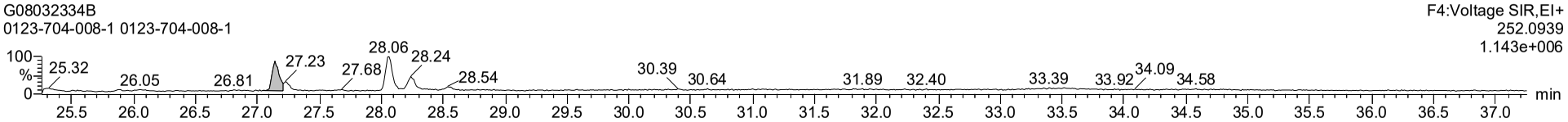
Chrysene



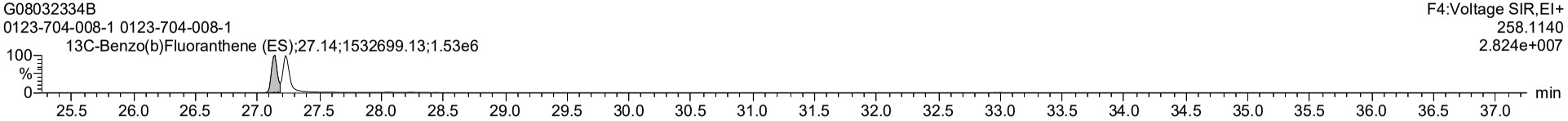
13C-Chrysene (ES)



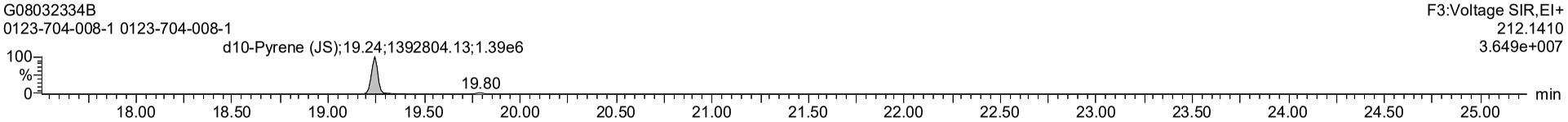
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)

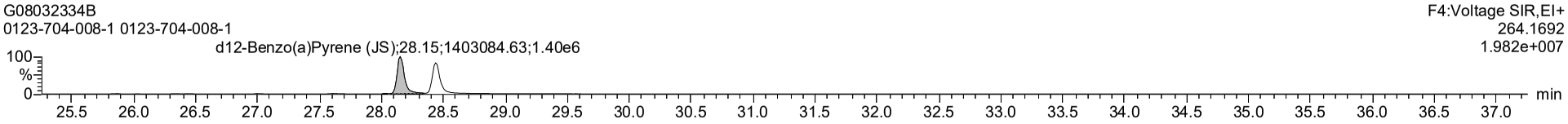


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

d12-Benzo(a)Pyrene (JS)



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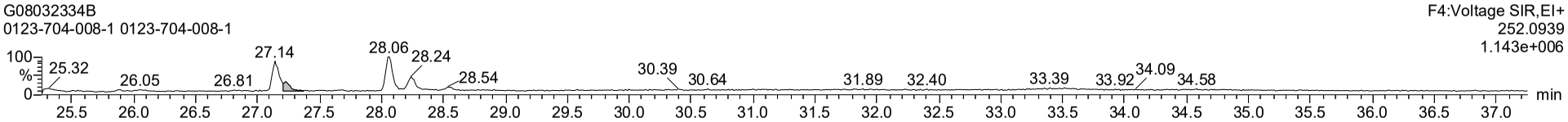
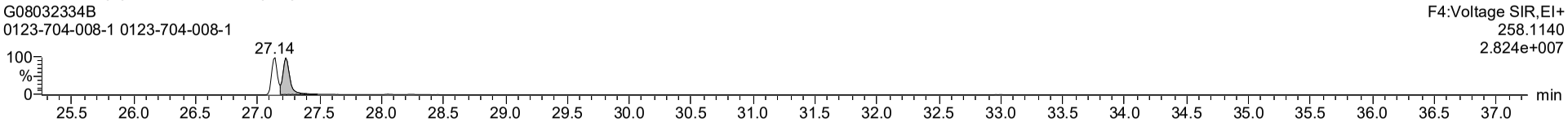
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

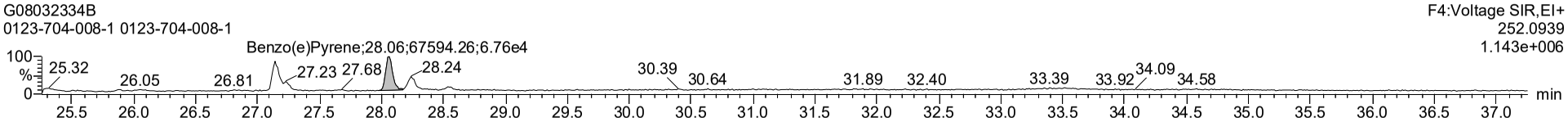
Benzo(k)Fluoranthene



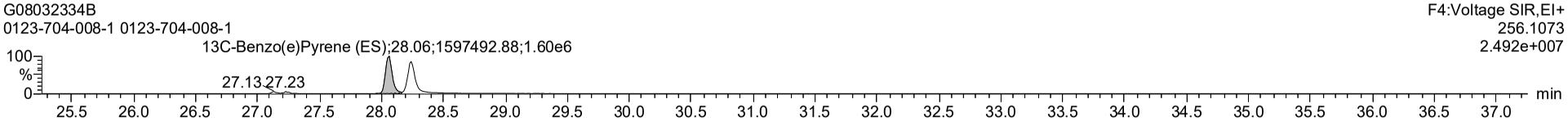
13C-Benzo(k)Fluoranthene (ES)



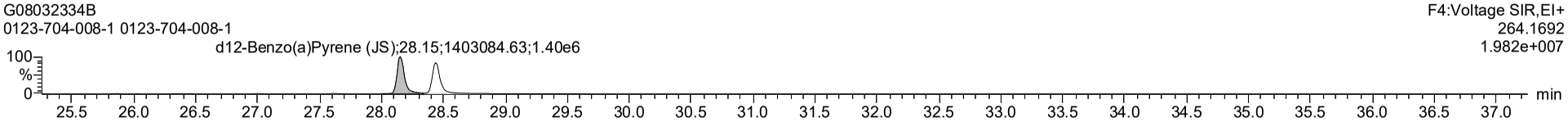
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)

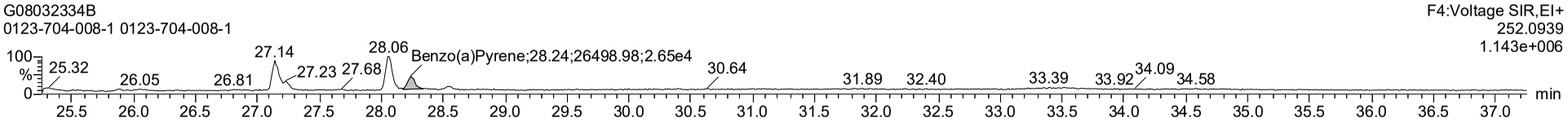


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

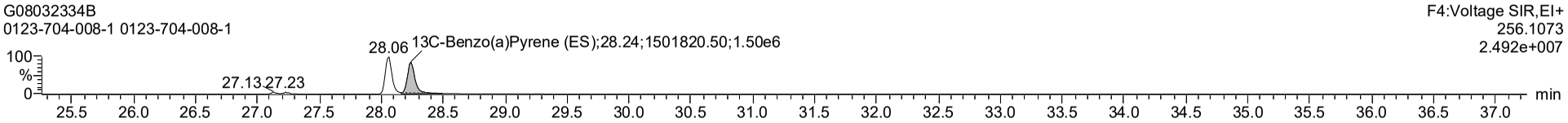
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

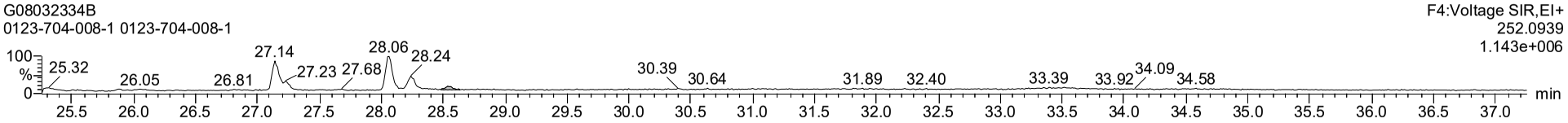
Benzo(a)Pyrene



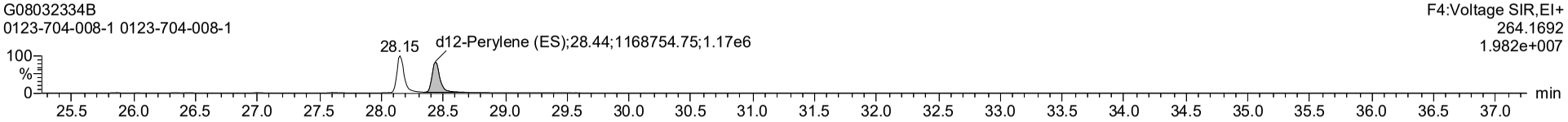
13C-Benzo(a)Pyrene (ES)



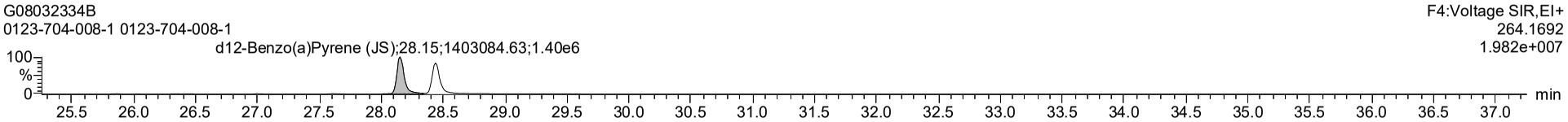
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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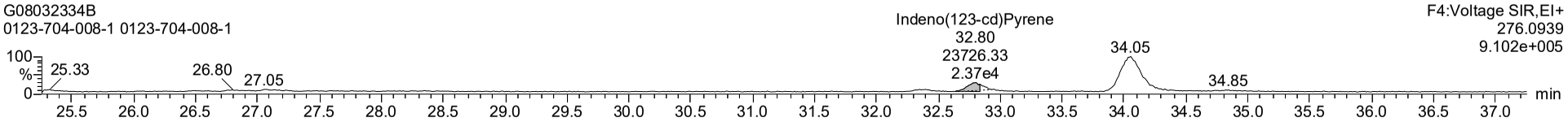
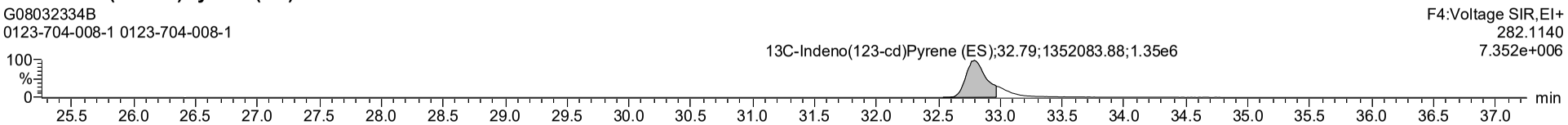
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

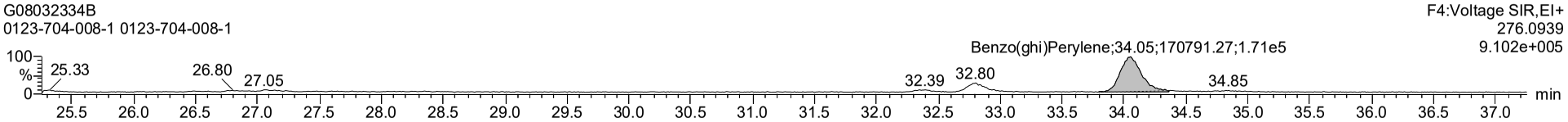
Indeno(123-cd)Pyrene



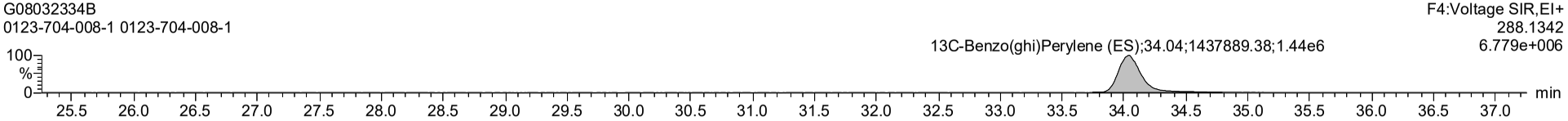
13C-Indeno(123-cd)Pyrene (ES)



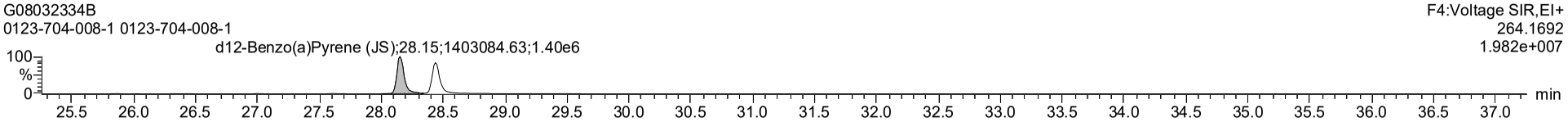
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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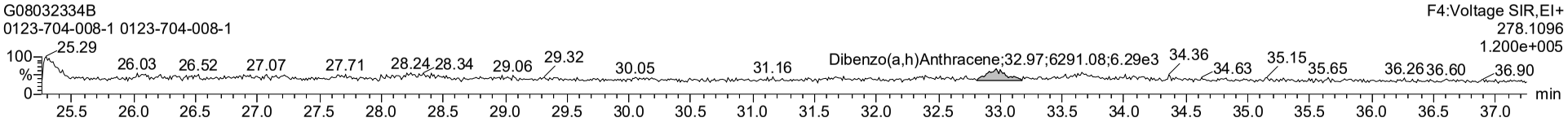
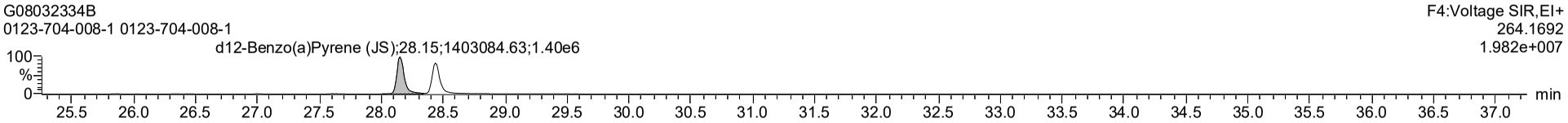
Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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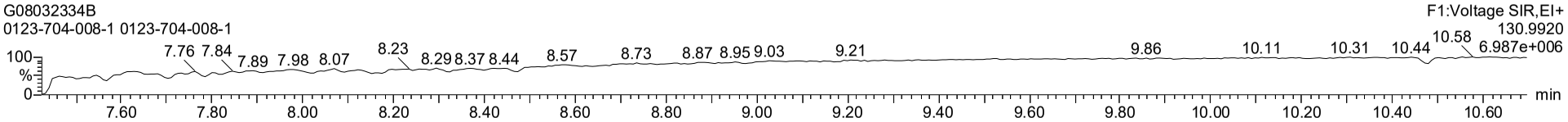
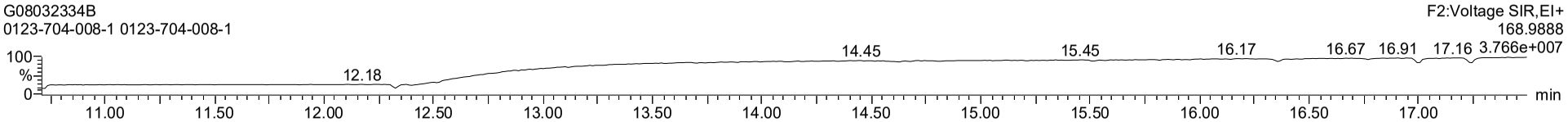
Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

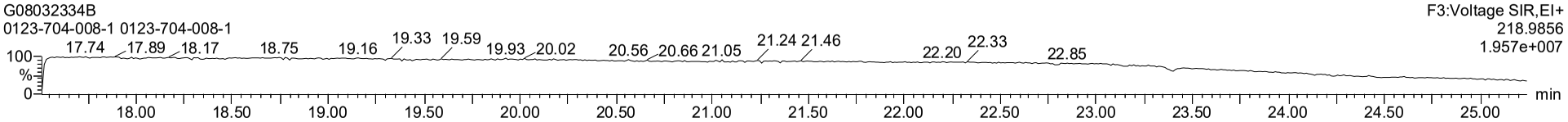
QC Check Ion Fn1



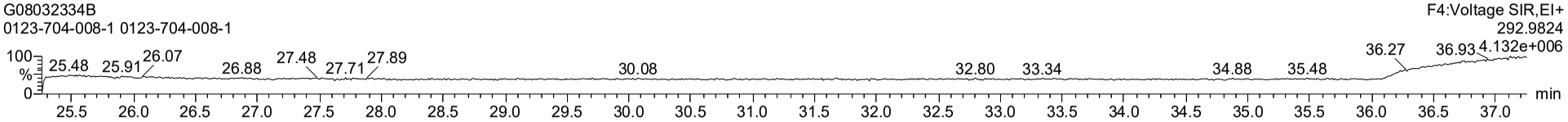
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	1.976e7	6.606e5	0.000		8.09	8.10				
2	13C-Naphthalene (...	134.0827	6.606e5	9.378e5	0.000		8.12	8.09				
3	2-Methyl-naphthale...	142.0783	1.335e6	7.247e5	0.000		9.51	9.51				
4	13C-2-Methylnapht...	148.0984	7.247e5	9.378e5	0.000		9.52	9.51				
5	d10-2-Methylnapht...	152.1410	9.378e5		0.000	18874.078	9.76	9.44	938000		198.755	
6												
7	Acenaphthylene	152.0636	2.284e4	8.434e5	0.000		11.59	11.6				
8	13C-Acenaphthyle...	158.0827	8.434e5	7.418e5	0.000		11.60	11.6				
9	Acenaphthene	154.0783	2.734e4	6.077e5	0.000		11.99	12.0				
10	13C-Acenaphthene...	160.0984	6.077e5	7.418e5	0.000		12.00	12.0				
11	d10-Acenaphthene...	164.1410	7.418e5		0.000	13122.905	12.25	11.9	742000		226.102	
12												
13	Fluorene	166.0783	9.678e4	7.791e5	0.000		13.23	13.2				
14	13C-Fluorene (ES)	172.0984	7.791e5	7.418e5	0.000		13.19	13.2				
15	Phenanthrene	178.0783	5.318e5	1.458e6	0.000		15.57	15.6				
16	13C-Phenanthrene...	184.0984	1.458e6	7.418e5	0.000		15.56	15.6				
17	d10-Acenaphthene...	164.1410	7.418e5		0.000	13122.905	12.25	11.9	742000		226.102	
18												
19	Anthracene	178.0783	3.937e4	1.119e6	0.000		15.69	15.7				
20	13C-Anthracene (E...	184.0984	1.119e6	7.418e5	0.000		15.68	15.7				
21	Fluoranthene	202.0783	4.705e5	1.597e6	0.000		18.60	18.6				
22	13C-Fluoranthene (...	208.0984	1.597e6	1.393e6	0.000		18.61	18.6				
23	d10-Acenaphthene...	164.1410	7.418e5		0.000	13122.905	12.25	11.9	742000		226.102	
24	d10-Pyrene (JS)	212.1410	1.393e6		0.000	19126.001	19.23	19.2	1390000		291.290	
25												
26	Pyrene	202.0783	1.899e6	1.703e6	0.000		19.30	19.3				
27	13C-Pyrene (ES)	205.0883	1.703e6	1.393e6	0.000		19.30	19.3				
28	Benzo(a)Anthracene	228.0939	2.156e4	1.396e6	0.000		23.35	23.4				
29	13C-Benzo(a)Anthr...	234.1140	1.396e6	1.393e6	0.000		23.36	23.3				
30	d10-Pyrene (JS)	212.1410	1.393e6		0.000	19126.001	19.23	19.2	1390000		291.290	
31												
32	Chrysene	228.0939	4.889e4	1.417e6	0.000		23.48	23.5				
33	13C-Chrysene (ES)	234.1140	1.417e6	1.393e6	0.000		23.49	23.5				
34	Benzo(b)Fluoranth...	252.0939	5.806e4	1.533e6	0.000		27.14	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.533e6	1.403e6	0.000		27.16	27.1				
36	d10-Pyrene (JS)	212.1410	1.393e6		0.000	19126.001	19.23	19.2	1390000		291.290	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.403e6		0.000	12322.130	28.12	28.2	1400000		455.468	
38												
39	Benzo(k)Fluoranth...	252.0939	1.667e4	1.815e6	0.000		27.23	27.2				
40	13C-Benzo(k)Fluor...	258.1140	1.815e6	1.403e6	0.000		27.25	27.2				
41	Benzo(e)Pyrene	252.0939	6.759e4	1.597e6	0.000		28.06	28.1				
42	13C-Benzo(e)Pyre...	256.1073	1.597e6	1.403e6	0.000		28.05	28.1				
43	d12-Benzo(a)Pyren...	264.1692	1.403e6		0.000	12322.130	28.12	28.2	1400000		455.468	
44												
45	Benzo(a)Pyrene	252.0939	2.650e4	1.502e6	0.000		28.24	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.502e6	1.403e6	0.000		28.23	28.2				
47	Perylene	252.0939	8.106e3	1.169e6	0.000		28.44	28.5				
48	d12-Perylene (ES)	264.1692	1.169e6	1.403e6	0.000		28.52	28.4				
49	d12-Benzo(a)Pyren...	264.1692	1.403e6		0.000	12322.130	28.12	28.2	1400000		455.468	
50												
51	Indeno(123-cd)Pyr...	276.0939	2.373e4	1.352e6	0.000		32.79	32.8				
52	13C-Indeno(123-cd...	282.1140	1.352e6	1.403e6	0.000		32.57	32.8				
53	Benzo(ghi)Perylene	276.0939	1.708e5	1.438e6	0.000		34.04	34.1				
54	13C-Benzo(ghi)Per...	288.1342	1.438e6	1.403e6	0.000		33.77	34.0				
55	d12-Benzo(a)Pyren...	264.1692	1.403e6		0.000	12322.130	28.12	28.2	1400000		455.468	
56												
57	Dibenzo(a,h)Anthra...	278.1096	6.291e3	1.345e6	0.000		32.98	33.0				
58	d12-Benzo(a)Pyren...	264.1692	1.403e6		0.000	12322.130	28.12	28.2	1400000		455.468	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032334B, Date: 09-Mar-2023, Time: 15:06:58, ID: 0123-704-008-1, Description: 0123-704-008-1

	Summary Flag Reason
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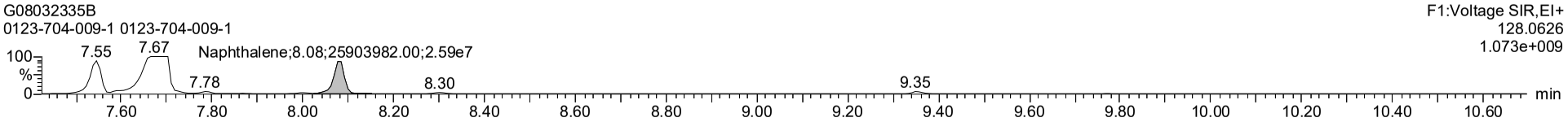
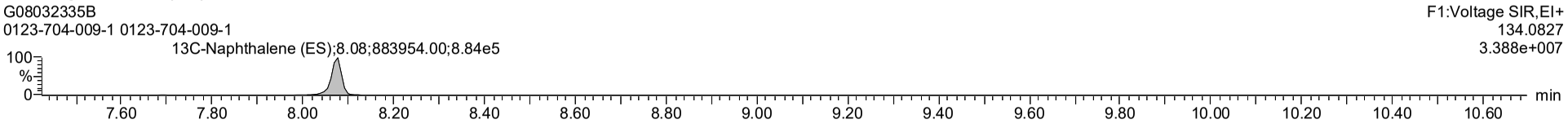
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

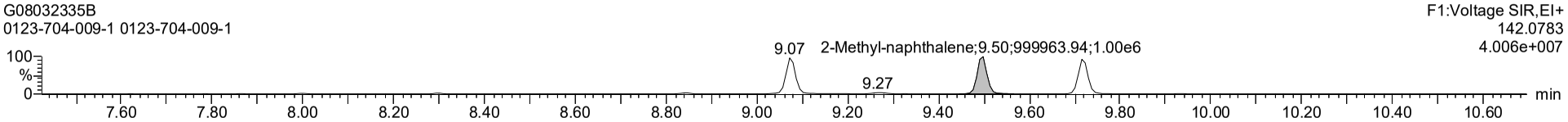
Naphthalene



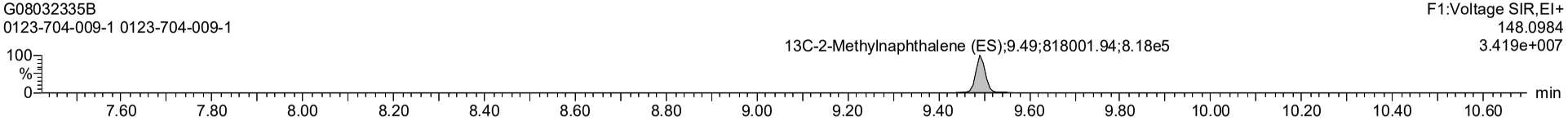
13C-Naphthalene (ES)



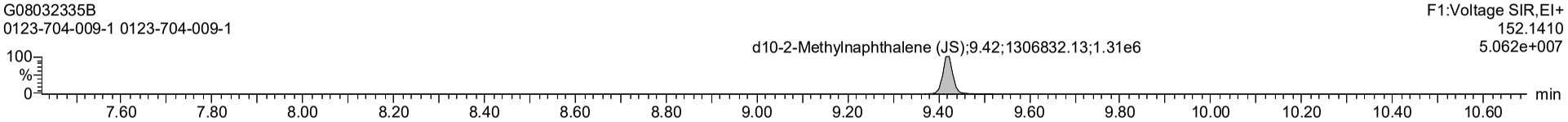
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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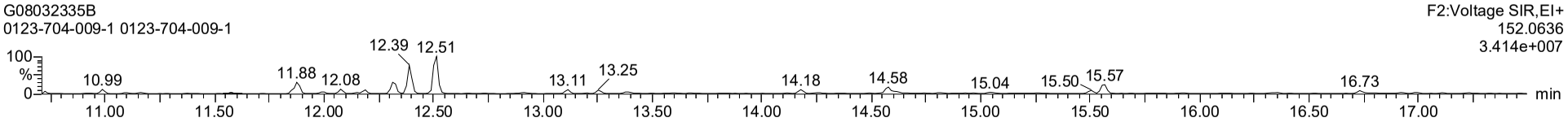
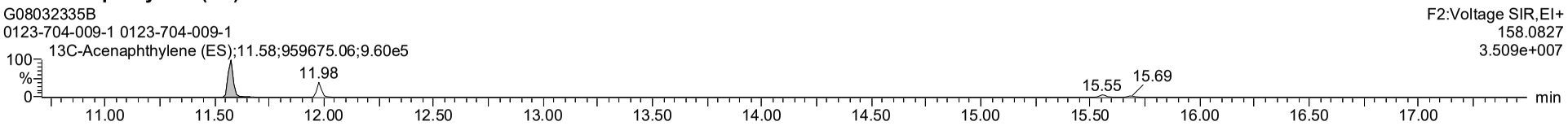
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

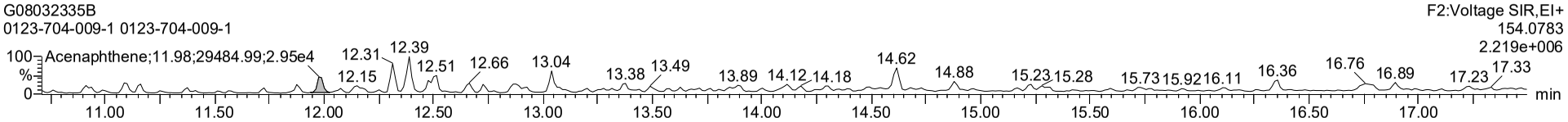
Acenaphthylene



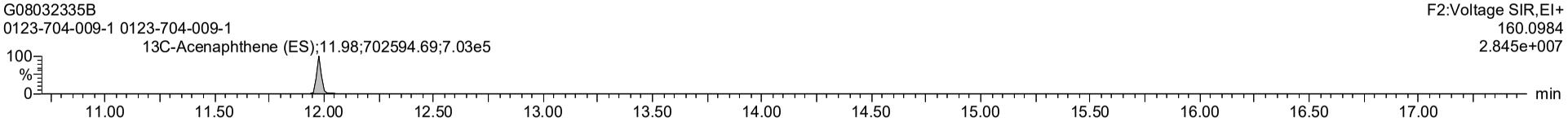
13C-Acenaphthylene (ES)



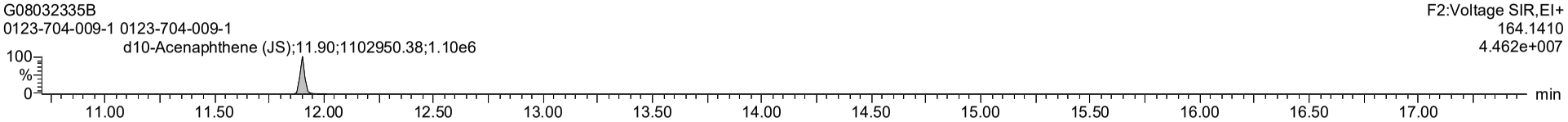
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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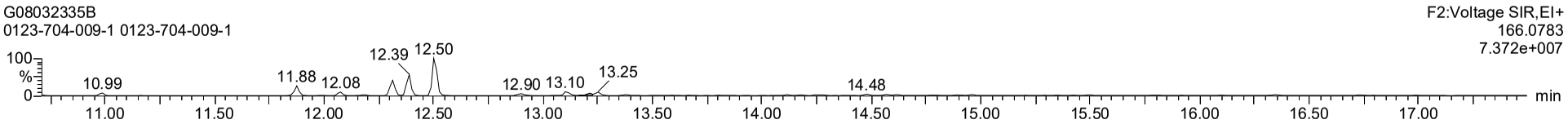
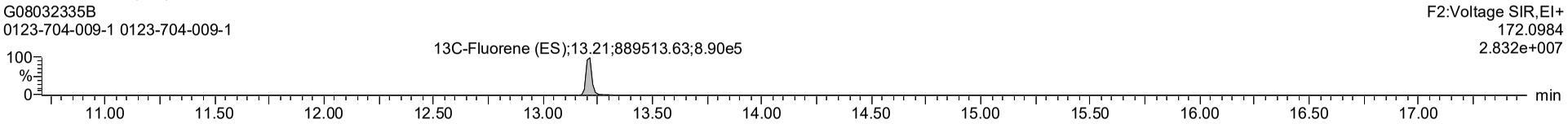
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

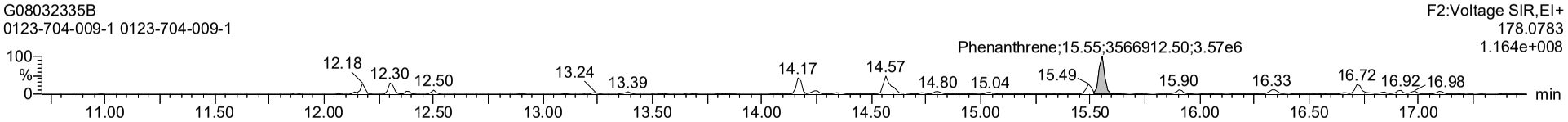
Fluorene



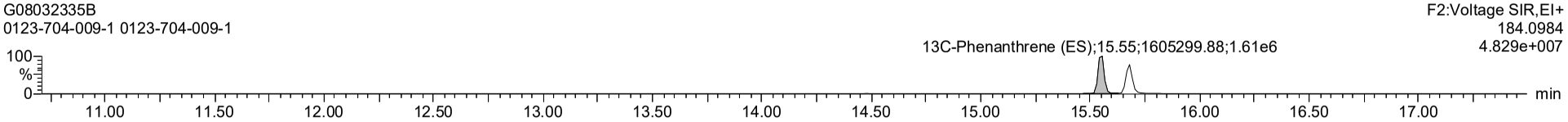
13C-Fluorene (ES)



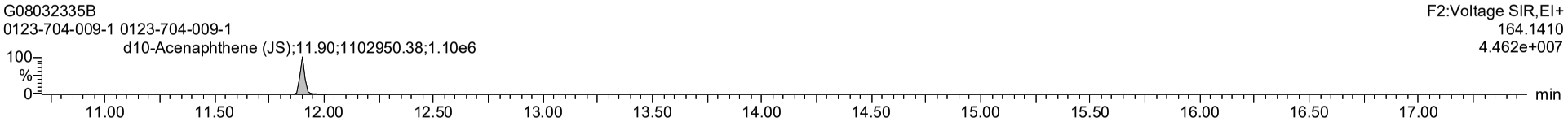
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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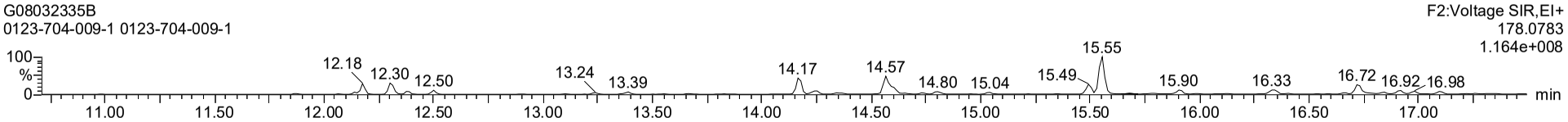
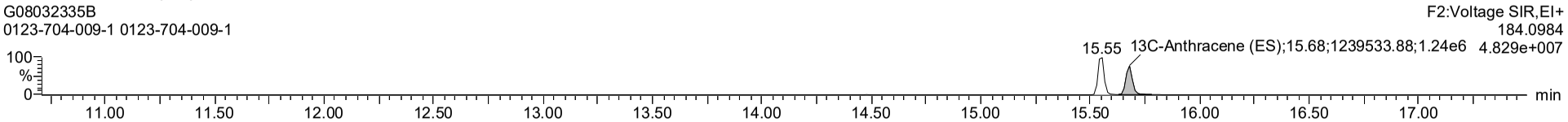
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

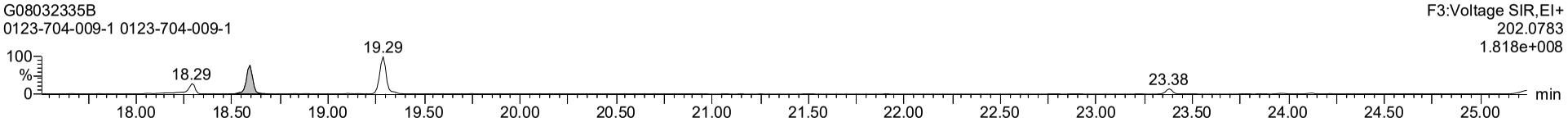
Anthracene



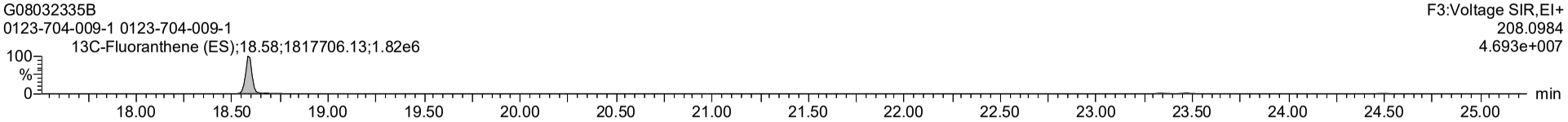
13C-Anthracene (ES)



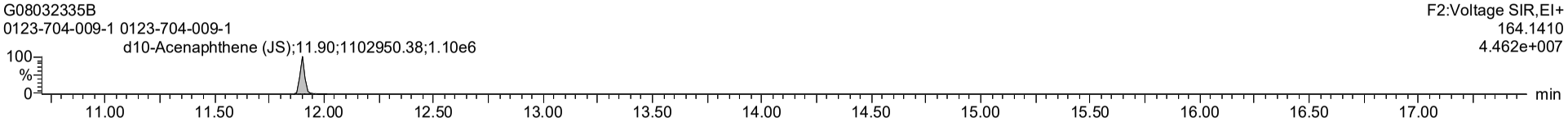
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



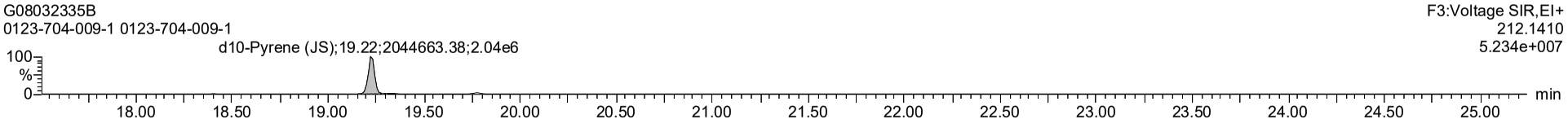
Enthalpy Ultratracel Laboratory

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

d10-Pyrene (JS)

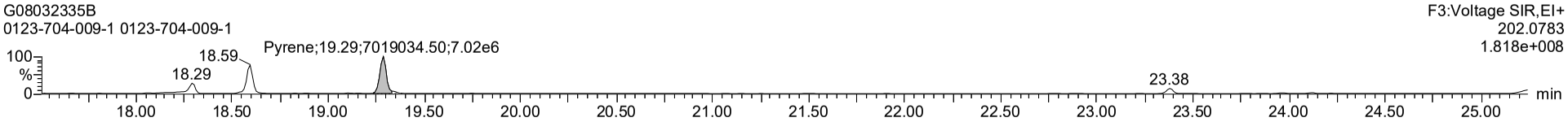


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

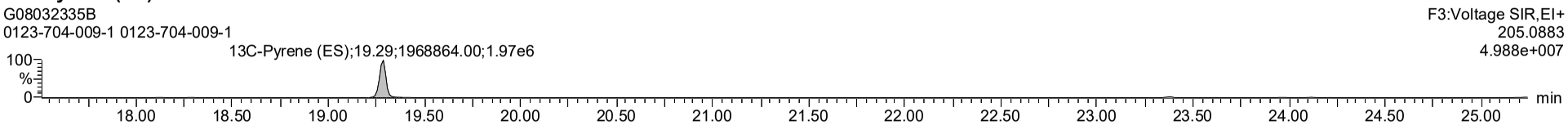
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

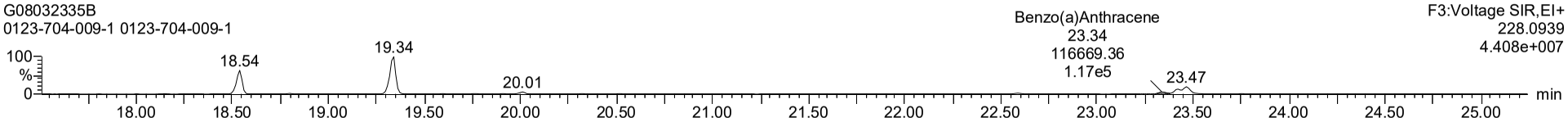
Pyrene



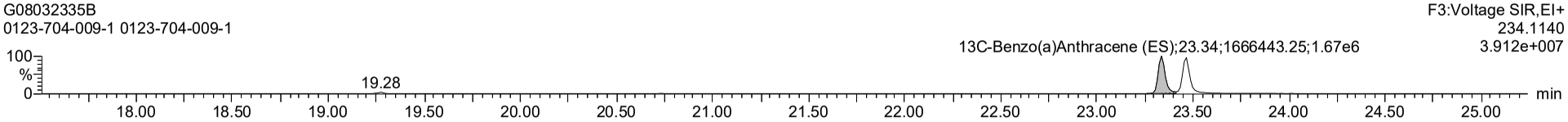
13C-Pyrene (ES)



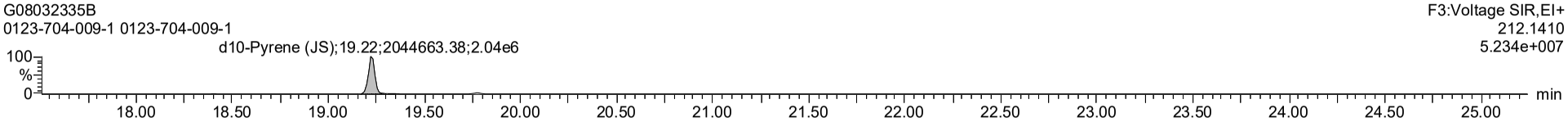
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)

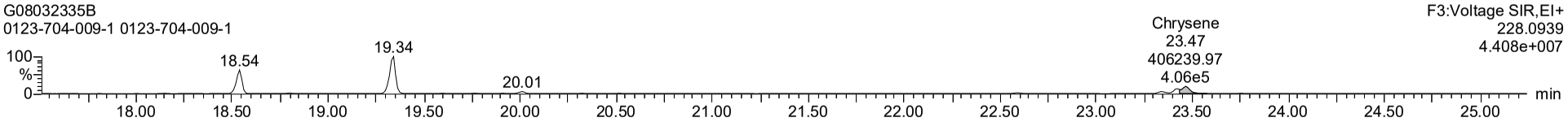


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

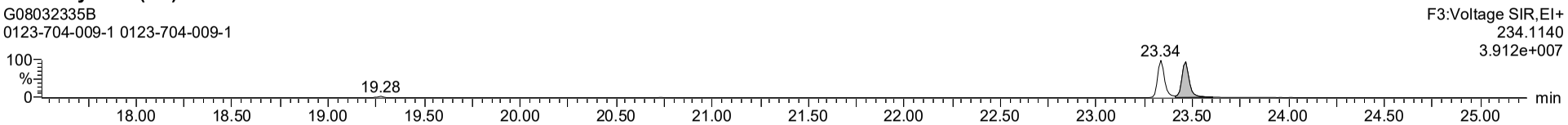
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

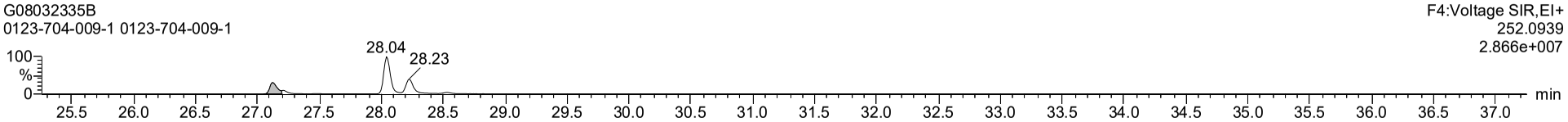
Chrysene



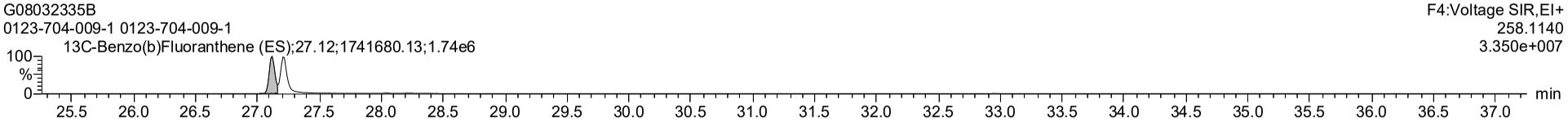
13C-Chrysene (ES)



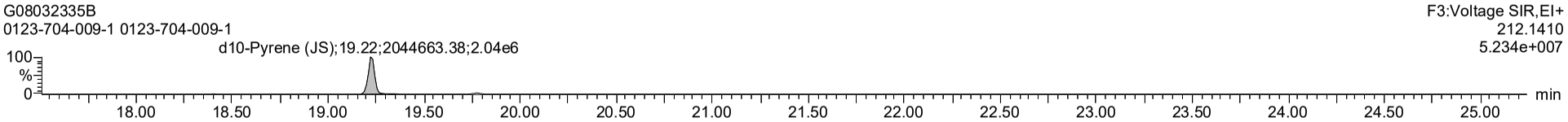
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)

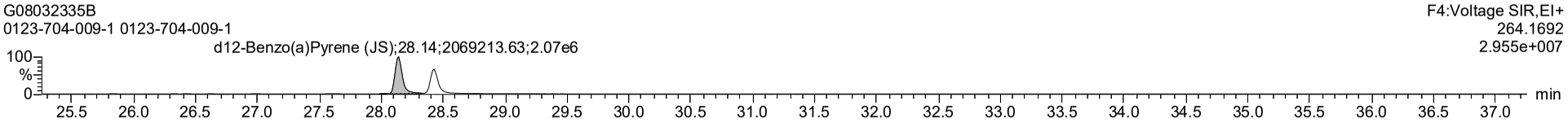


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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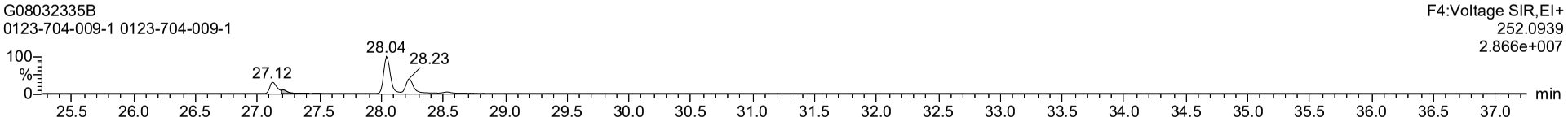
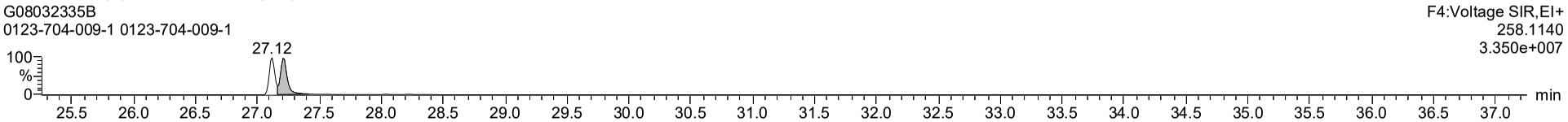
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

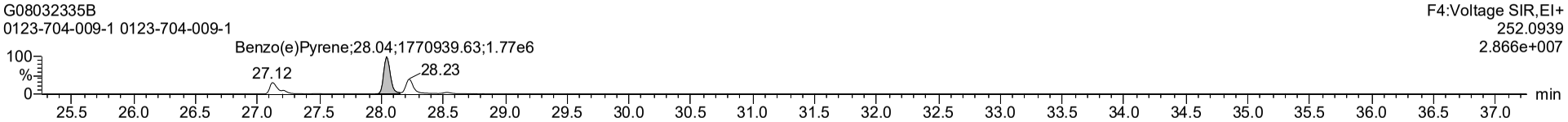
Benzo(k)Fluoranthene



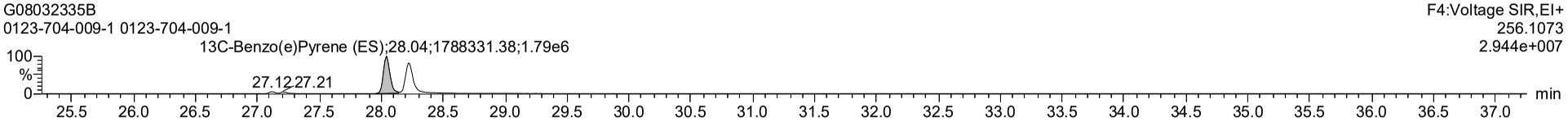
13C-Benzo(k)Fluoranthene (ES)



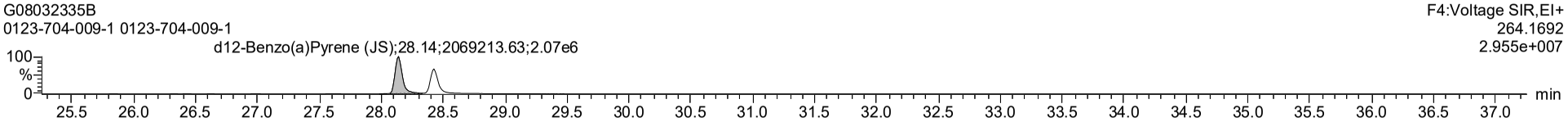
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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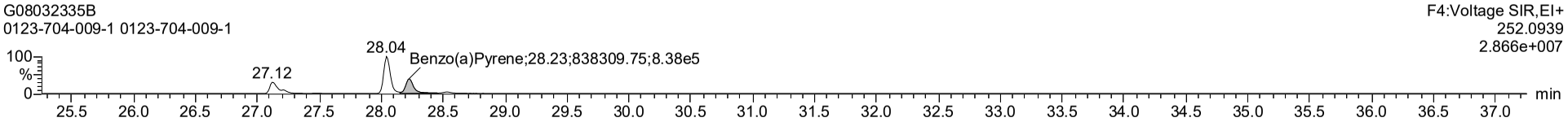
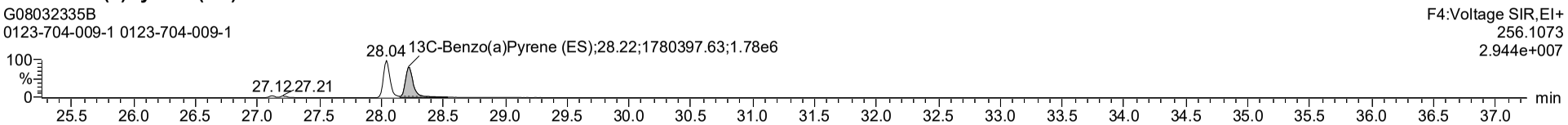
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

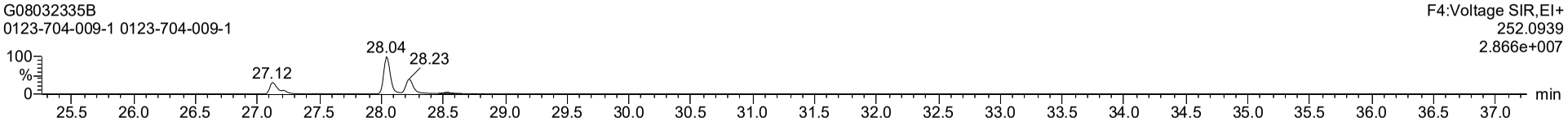
Benzo(a)Pyrene



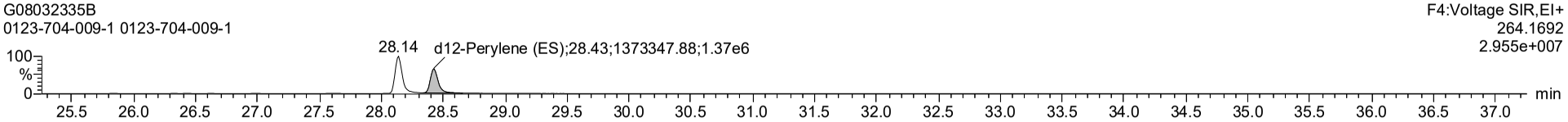
13C-Benzo(a)Pyrene (ES)



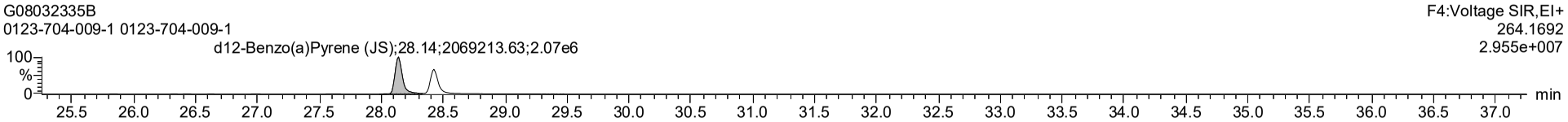
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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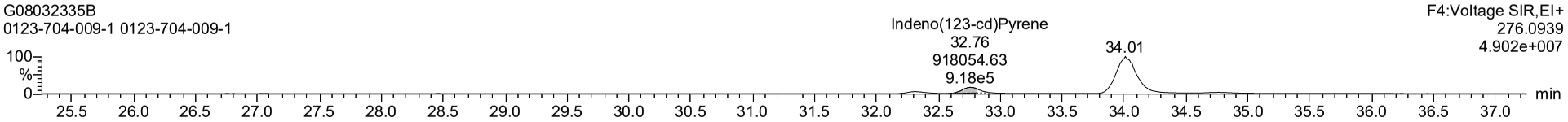
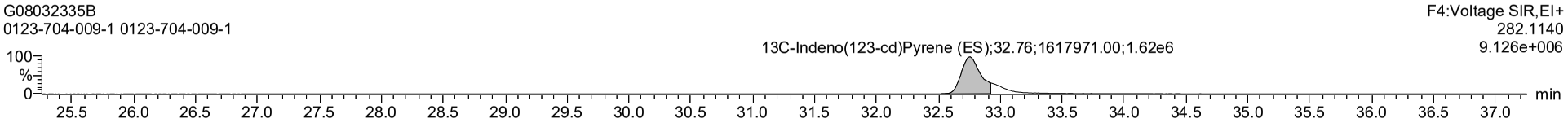
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

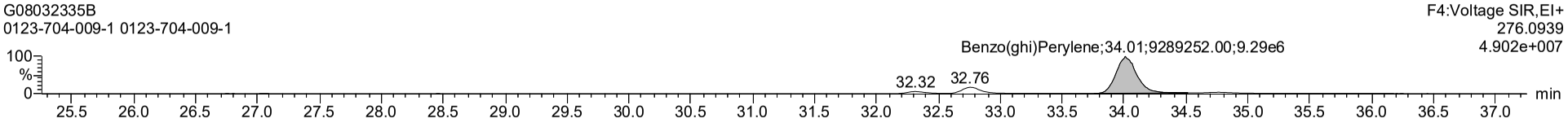
Indeno(123-cd)Pyrene



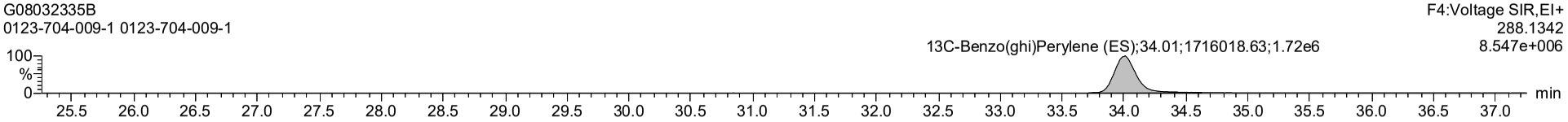
13C-Indeno(123-cd)Pyrene (ES)



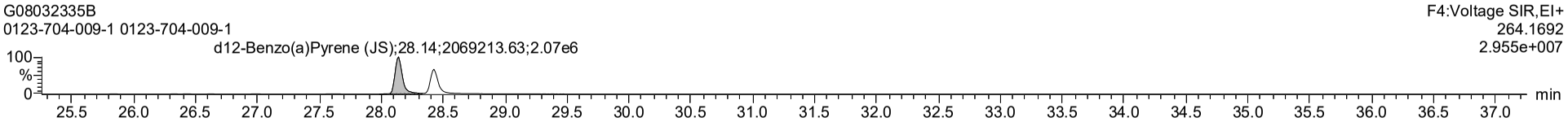
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)

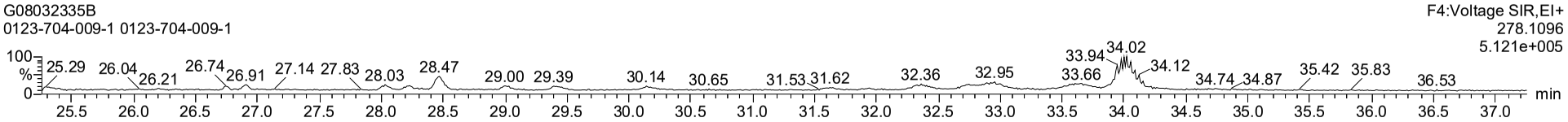


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

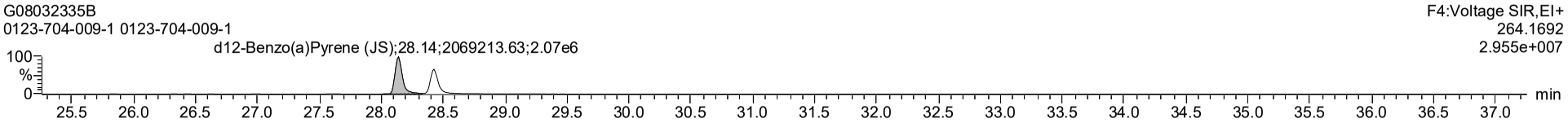
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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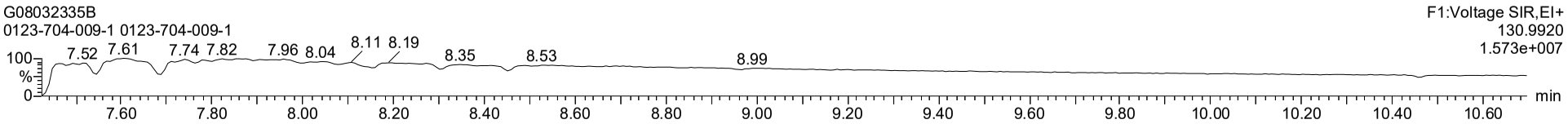
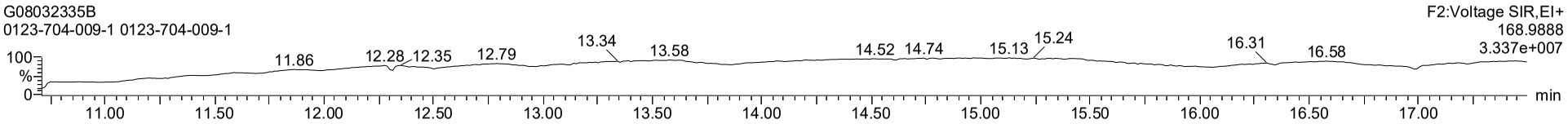
Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

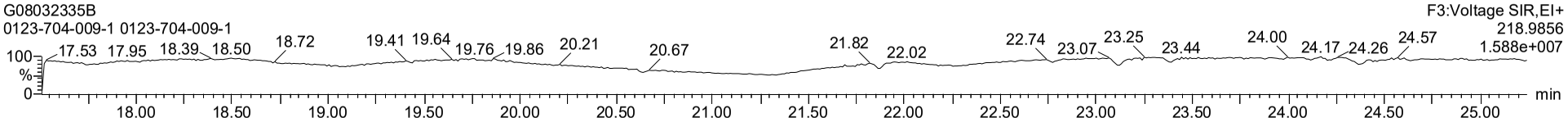
QC Check Ion Fn1



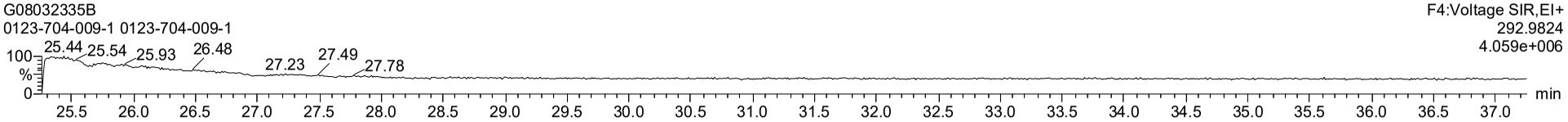
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	2.590e7	8.840e5	0.000		8.08	8.08				
2	13C-Naphthalene (...	134.0827	8.840e5	1.307e6	0.000		8.11	8.08				
3	2-Methyl-naphthale...	142.0783	1.000e6	8.180e5	0.000		9.49	9.50				
4	13C-2-Methylnapht...	148.0984	8.180e5	1.307e6	0.000		9.50	9.49				
5	d10-2-Methylnapht...	152.1410	1.307e6		0.000	18874.078	9.76	9.42	1310000		276.958	
6												
7	Acenaphthylene	152.0636	2.357e4	9.597e5	0.000		11.58	11.6				
8	13C-Acenaphthyle...	158.0827	9.597e5	1.103e6	0.000		11.59	11.6				
9	Acenaphthene	154.0783	2.948e4	7.026e5	0.000		11.98	12.0				
10	13C-Acenaphthene...	160.0984	7.026e5	1.103e6	0.000		11.99	12.0				
11	d10-Acenaphthene...	164.1410	1.103e6		0.000	13122.905	12.25	11.9	1100000		336.191	
12												
13	Fluorene	166.0783	1.175e5	8.895e5	0.000		13.21	13.2				
14	13C-Fluorene (ES)	172.0984	8.895e5	1.103e6	0.000		13.17	13.2				
15	Phenanthrene	178.0783	3.567e6	1.605e6	0.000		15.55	15.6				
16	13C-Phenanthrene...	184.0984	1.605e6	1.103e6	0.000		15.55	15.6				
17	d10-Acenaphthene...	164.1410	1.103e6		0.000	13122.905	12.25	11.9	1100000		336.191	
18												
19	Anthracene	178.0783	6.118e4	1.240e6	0.000		15.68	15.7				
20	13C-Anthracene (E...	184.0984	1.240e6	1.103e6	0.000		15.67	15.7				
21	Fluoranthene	202.0783	5.395e6	1.818e6	0.000		18.58	18.6				
22	13C-Fluoranthene (...	208.0984	1.818e6	2.045e6	0.000		18.59	18.6				
23	d10-Acenaphthene...	164.1410	1.103e6		0.000	13122.905	12.25	11.9	1100000		336.191	
24	d10-Pyrene (JS)	212.1410	2.045e6		0.000	19126.001	19.23	19.2	2040000		427.620	
25												
26	Pyrene	202.0783	7.019e6	1.969e6	0.000		19.29	19.3				
27	13C-Pyrene (ES)	205.0883	1.969e6	2.045e6	0.000		19.28	19.3				
28	Benzo(a)Anthracene	228.0939	1.167e5	1.666e6	0.000		23.34	23.3				
29	13C-Benzo(a)Anthr...	234.1140	1.666e6	2.045e6	0.000		23.33	23.3				
30	d10-Pyrene (JS)	212.1410	2.045e6		0.000	19126.001	19.23	19.2	2040000		427.620	
31												
32	Chrysene	228.0939	4.062e5	1.647e6	0.000		23.47	23.5				
33	13C-Chrysene (ES)	234.1140	1.647e6	2.045e6	0.000		23.46	23.5				
34	Benzo(b)Fluoranth...	252.0939	5.946e5	1.742e6	0.000		27.12	27.1				
35	13C-Benzo(b)Fluor...	258.1140	1.742e6	2.069e6	0.000		27.15	27.1				
36	d10-Pyrene (JS)	212.1410	2.045e6		0.000	19126.001	19.23	19.2	2040000		427.620	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	2.069e6		0.000	12322.130	28.12	28.1	2070000		671.706	
38												
39	Benzo(k)Fluoranth...	252.0939	1.484e5	2.066e6	0.000		27.21	27.2				
40	13C-Benzo(k)Fluor...	258.1140	2.066e6	2.069e6	0.000		27.24	27.2				
41	Benzo(e)Pyrene	252.0939	1.771e6	1.788e6	0.000		28.04	28.0				
42	13C-Benzo(e)Pyre...	256.1073	1.788e6	2.069e6	0.000		28.04	28.0				
43	d12-Benzo(a)Pyren...	264.1692	2.069e6		0.000	12322.130	28.12	28.1	2070000		671.706	
44												
45	Benzo(a)Pyrene	252.0939	8.383e5	1.780e6	0.000		28.22	28.2				
46	13C-Benzo(a)Pyre...	256.1073	1.780e6	2.069e6	0.000		28.22	28.2				
47	Perylene	252.0939	7.122e4	1.373e6	0.000		28.43	28.5				
48	d12-Perylene (ES)	264.1692	1.373e6	2.069e6	0.000		28.51	28.4				
49	d12-Benzo(a)Pyren...	264.1692	2.069e6		0.000	12322.130	28.12	28.1	2070000		671.706	
50												
51	Indeno(123-cd)Pyr...	276.0939	9.181e5	1.618e6	0.000		32.76	32.8				
52	13C-Indeno(123-cd...	282.1140	1.618e6	2.069e6	0.000		32.56	32.8				
53	Benzo(ghi)Perylene	276.0939	9.289e6	1.716e6	0.000		34.01	34.0				
54	13C-Benzo(ghi)Per...	288.1342	1.716e6	2.069e6	0.000		33.76	34.0				
55	d12-Benzo(a)Pyren...	264.1692	2.069e6		0.000	12322.130	28.12	28.1	2070000		671.706	
56												
57	Dibenzo(a,h)Anthra...	278.1096		1.580e6	0.000		32.96					
58	d12-Benzo(a)Pyren...	264.1692	2.069e6		0.000	12322.130	28.12	28.1	2070000		671.706	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032335B, Date: 09-Mar-2023, Time: 15:48:56, ID: 0123-704-009-1, Description: 0123-704-009-1

	Summary Flag Reason
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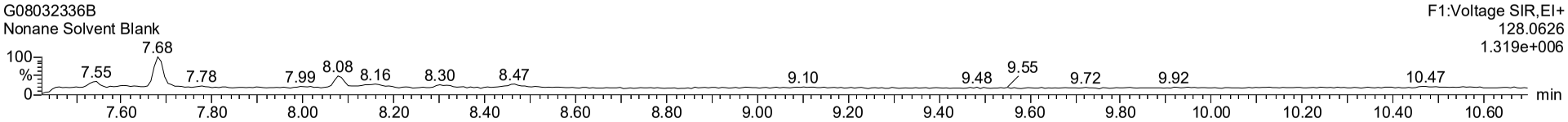
Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

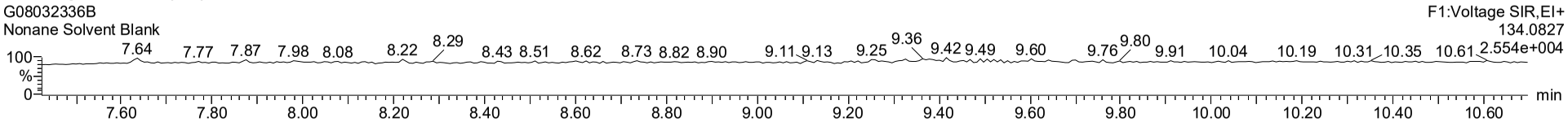
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

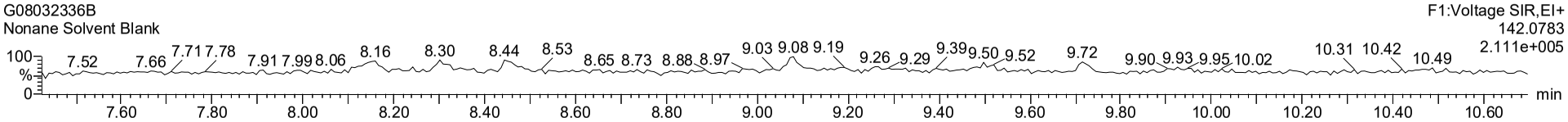
Naphthalene



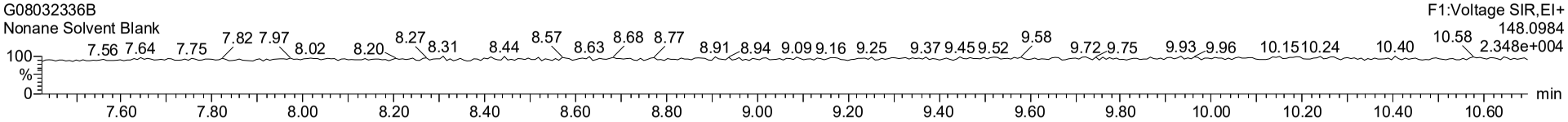
13C-Naphthalene (ES)



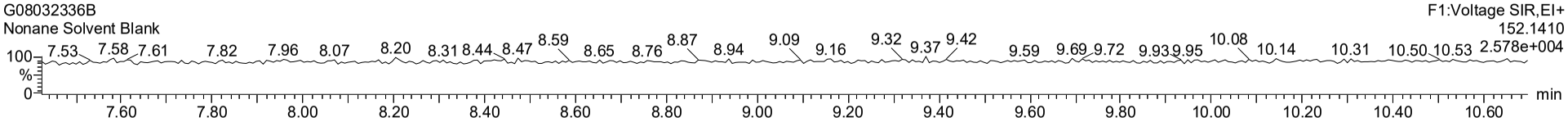
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

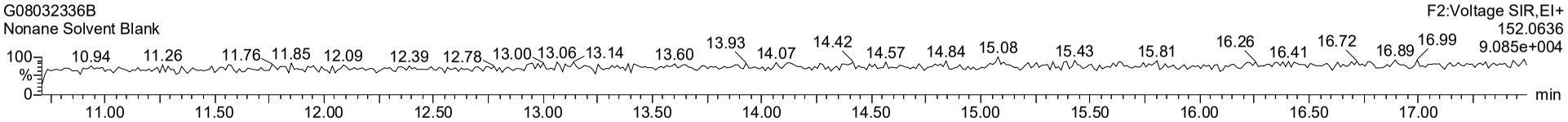


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

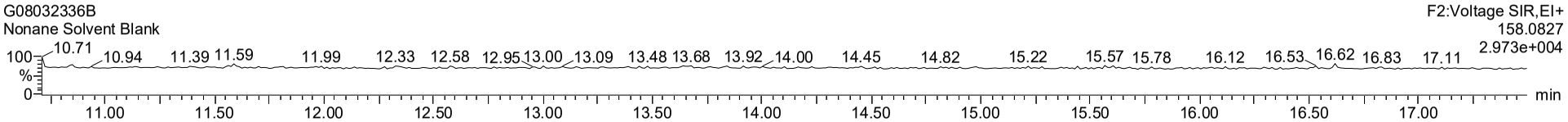
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

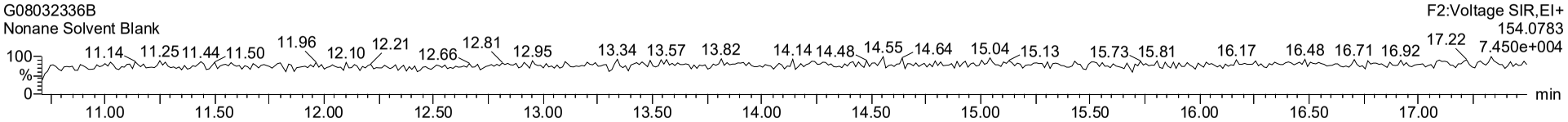
Acenaphthylene



13C-Acenaphthylene (ES)



Acenaphthene



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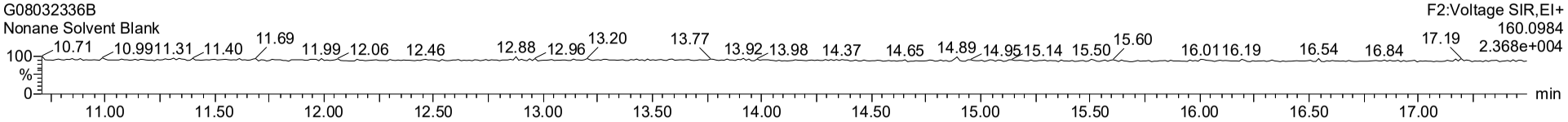
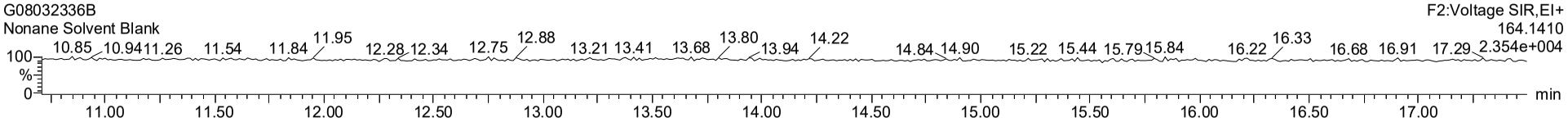


d10-Acenaphthene (JS)

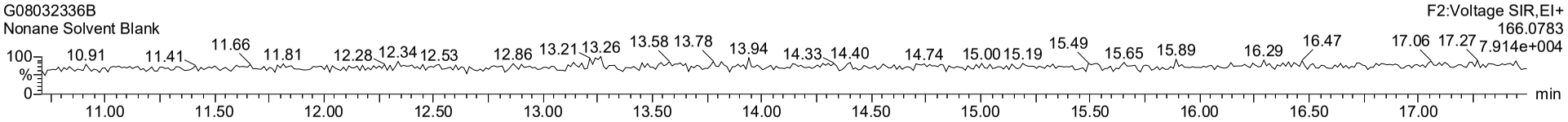


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

Fluorene



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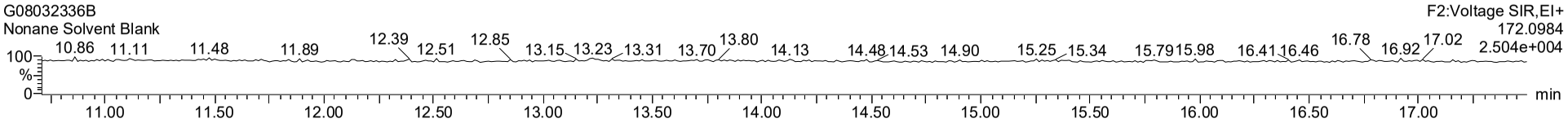
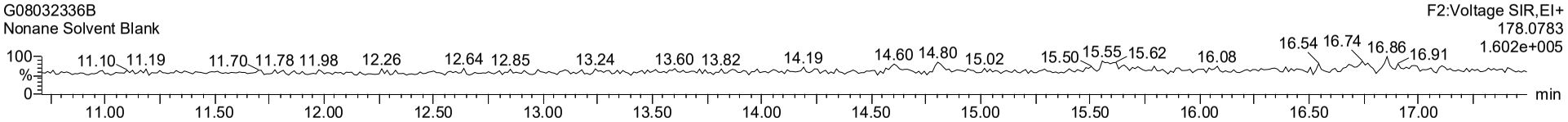


Phenanthrene



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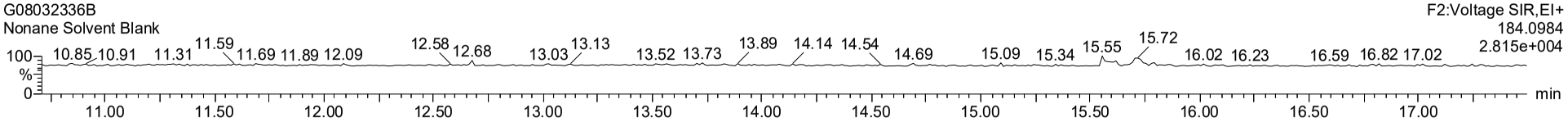
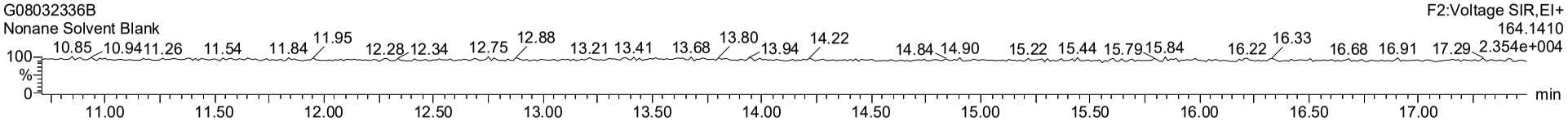


d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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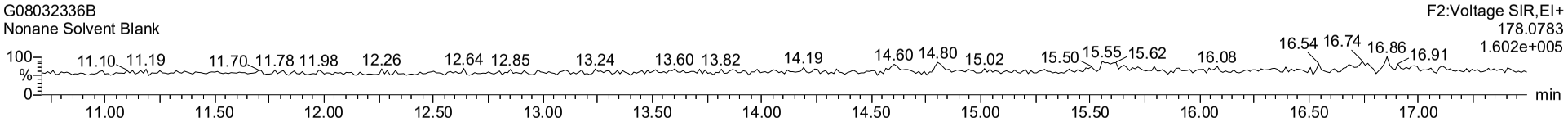
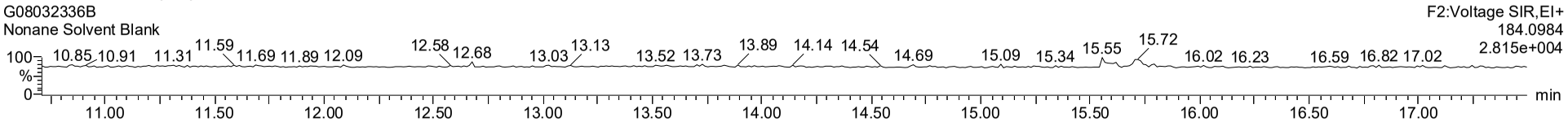
Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

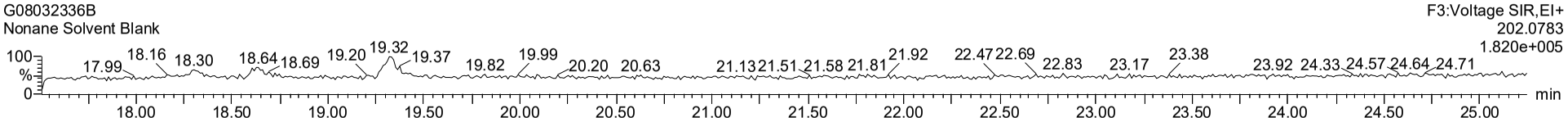
Anthracene



13C-Anthracene (ES)



Fluoranthene



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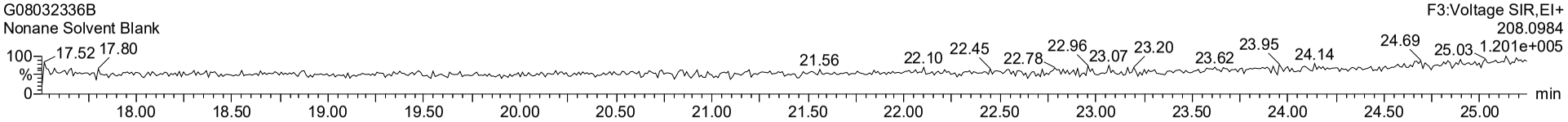
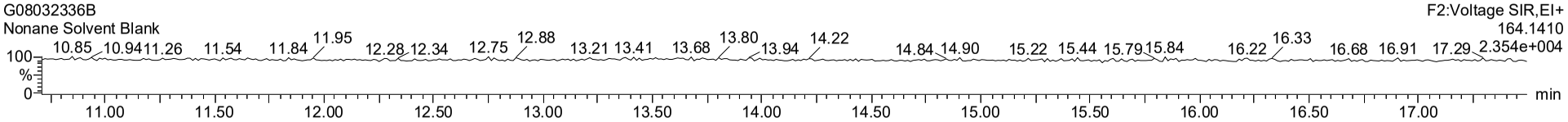


d10-Acenaphthene (JS)



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Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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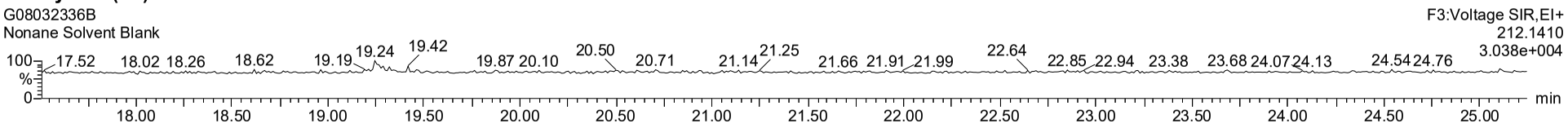
Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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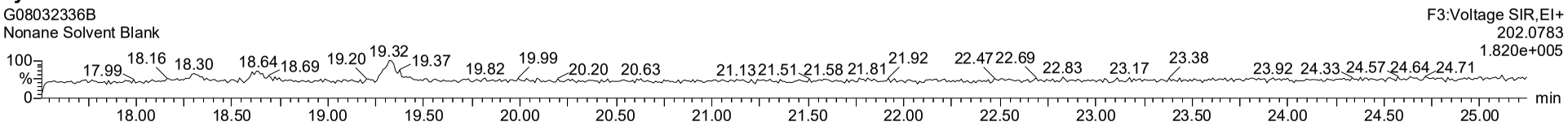
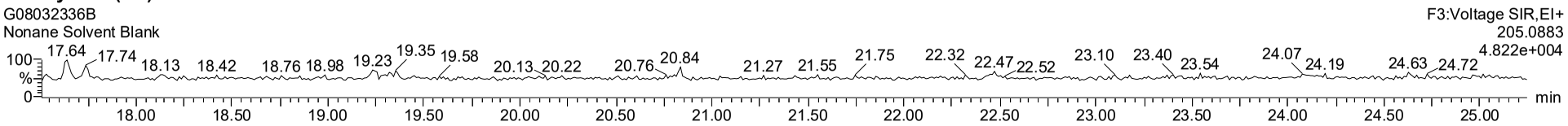
Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

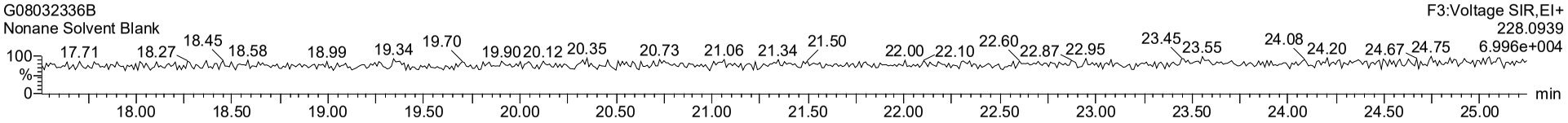
Pyrene



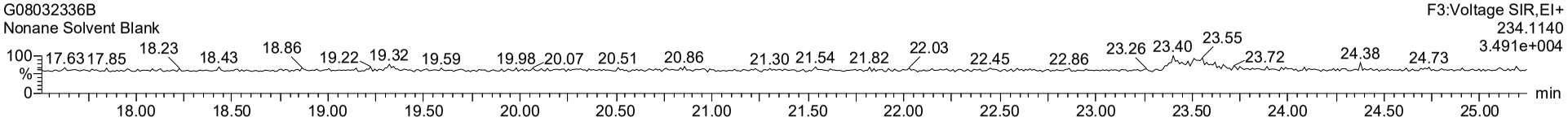
13C-Pyrene (ES)



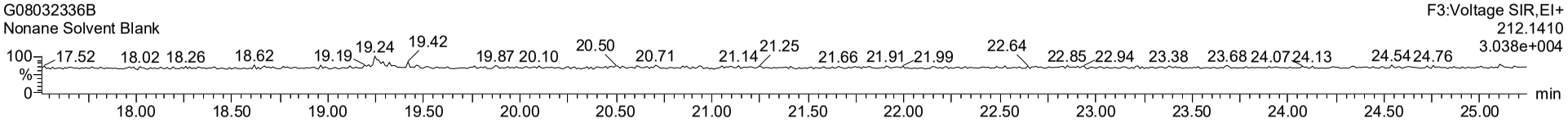
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)

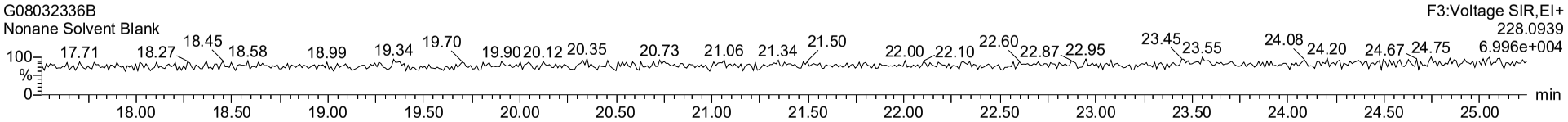


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

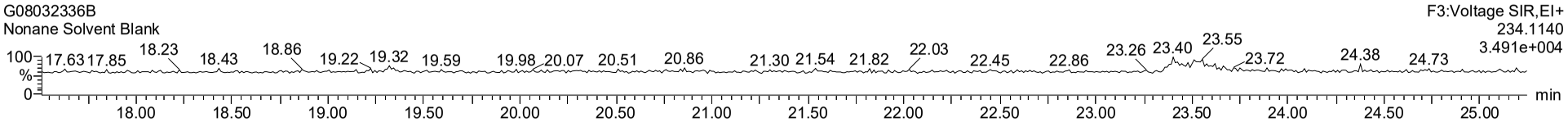
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

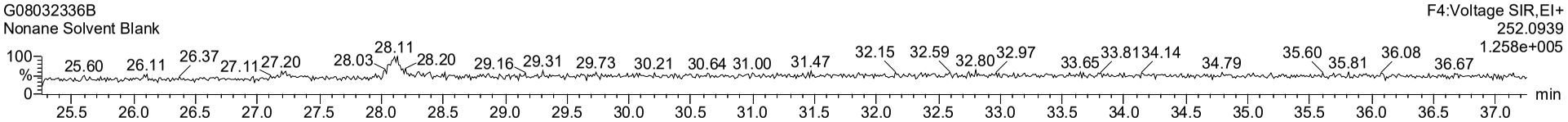
Chrysene



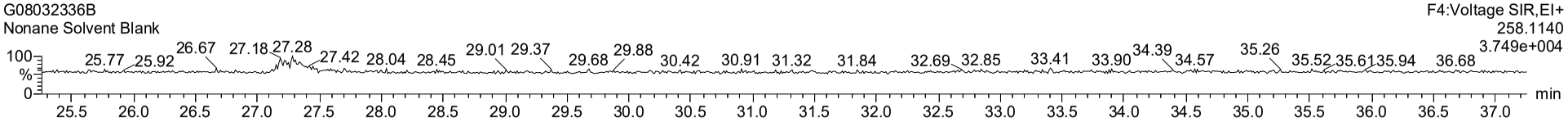
13C-Chrysene (ES)



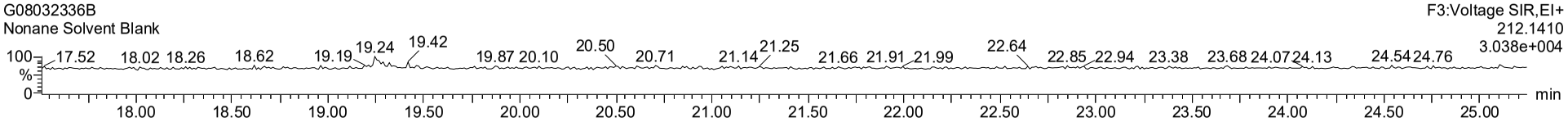
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)



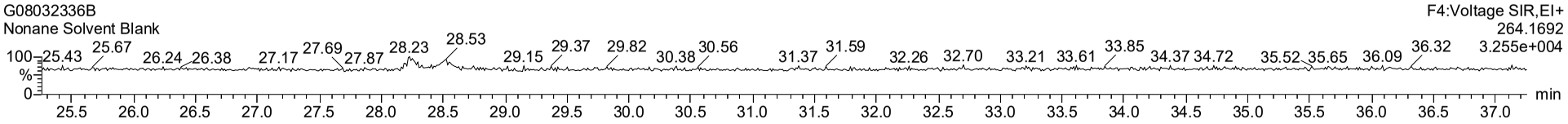
Enthalpy Ultratracel Laboratory

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

d12-Benzo(a)Pyrene (JS)

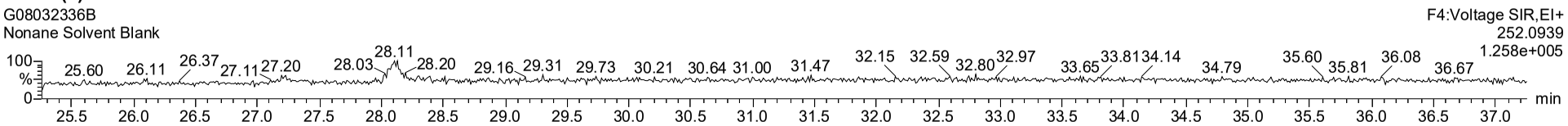


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

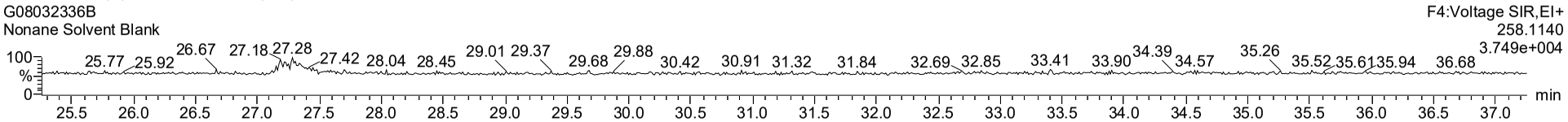
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

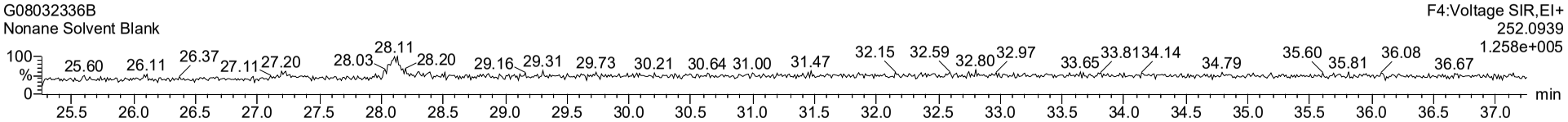
Benzo(k)Fluoranthene



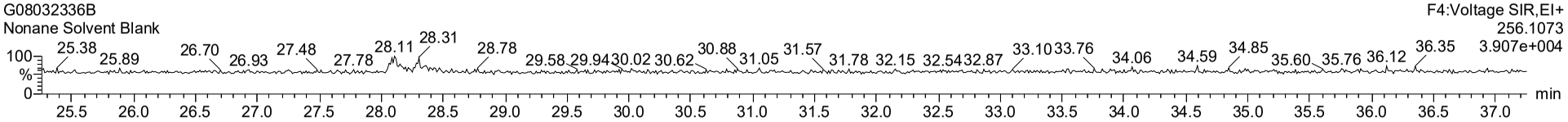
13C-Benzo(k)Fluoranthene (ES)



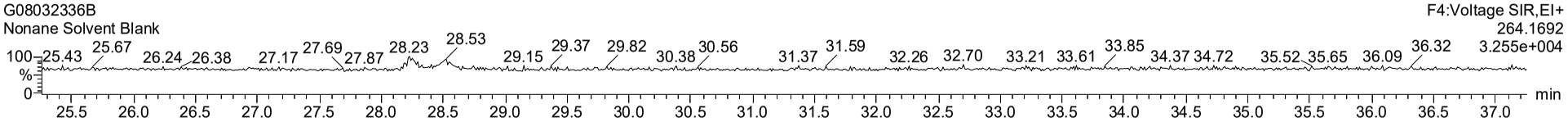
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)

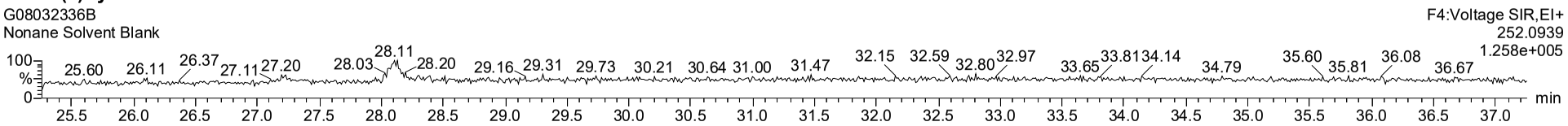


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

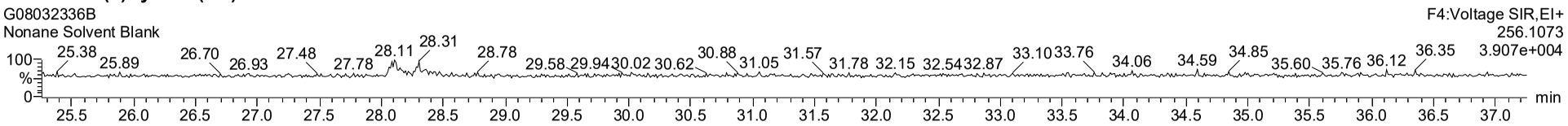
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

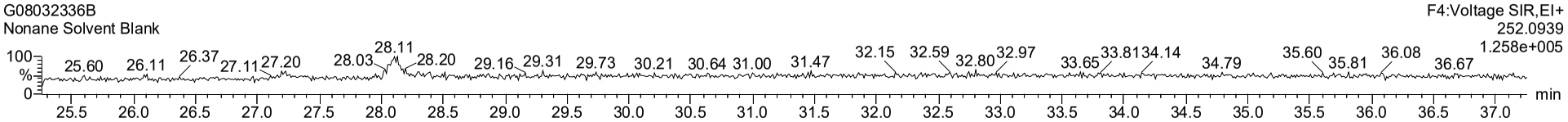
Benzo(a)Pyrene



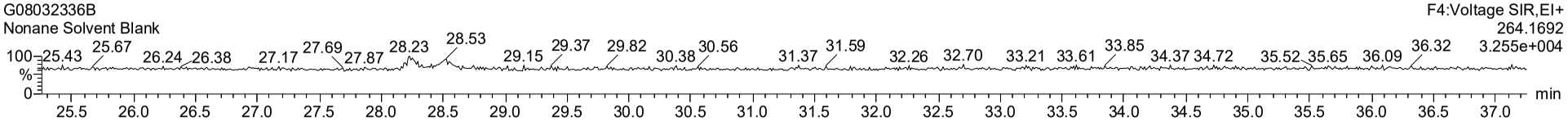
13C-Benzo(a)Pyrene (ES)



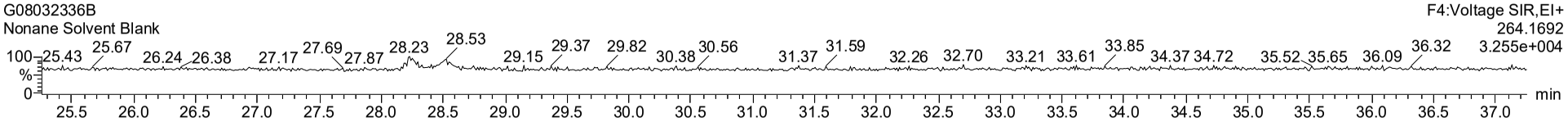
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)

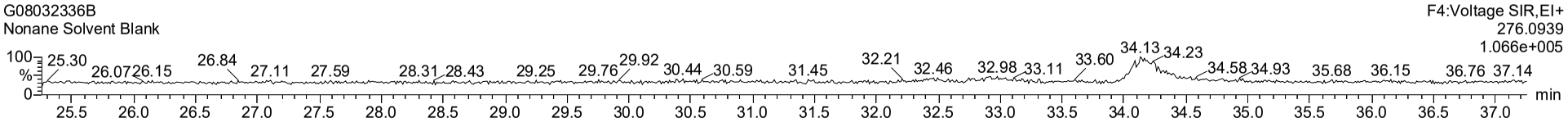


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

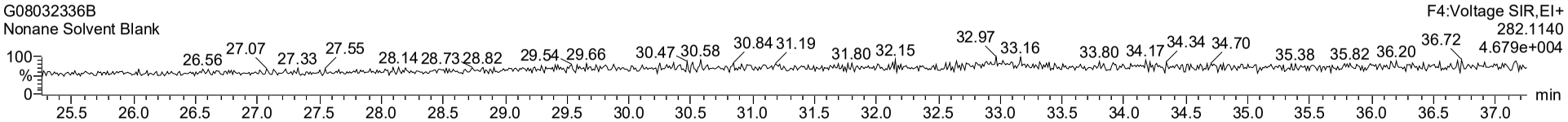
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

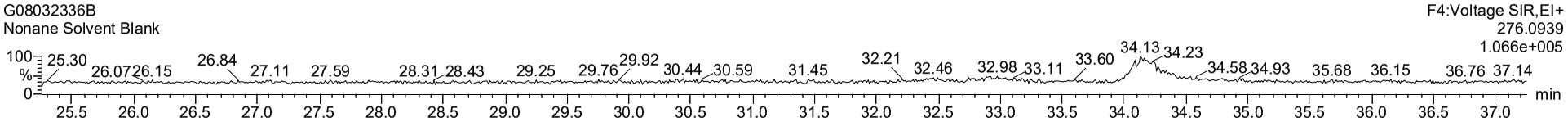
Indeno(123-cd)Pyrene



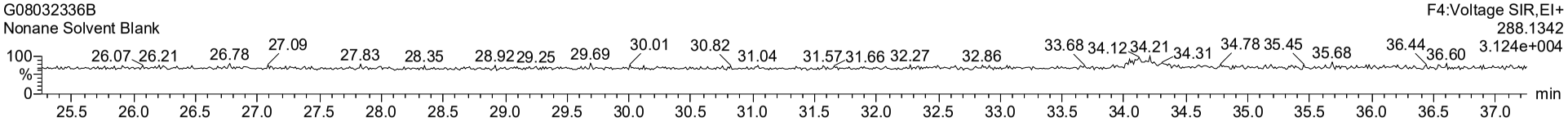
13C-Indeno(123-cd)Pyrene (ES)



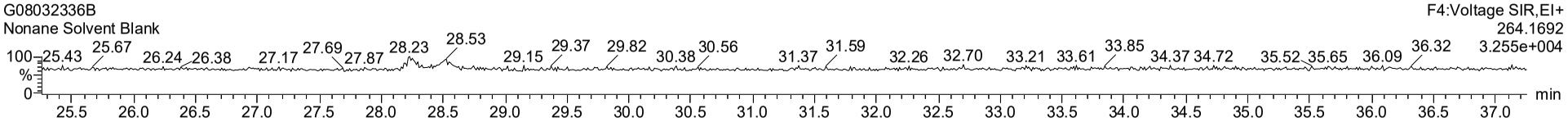
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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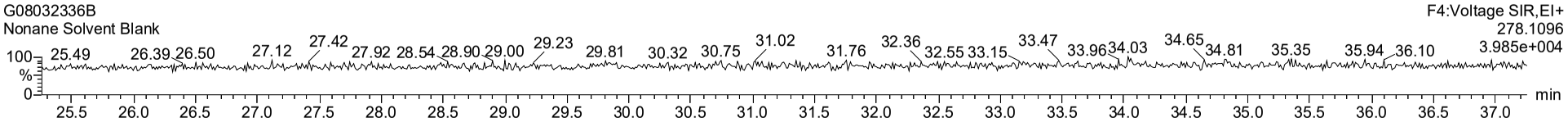
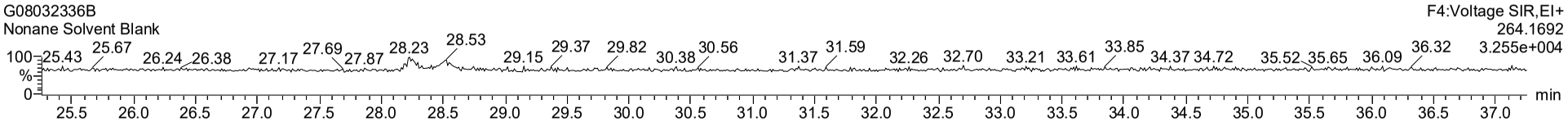
Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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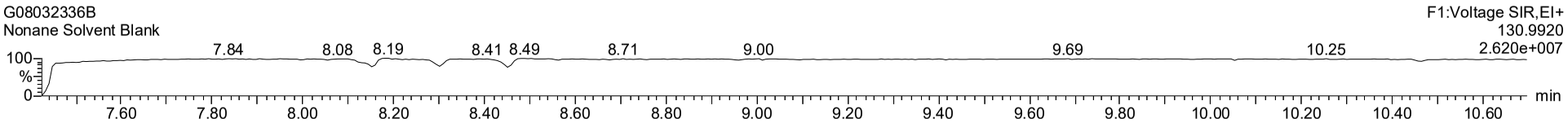
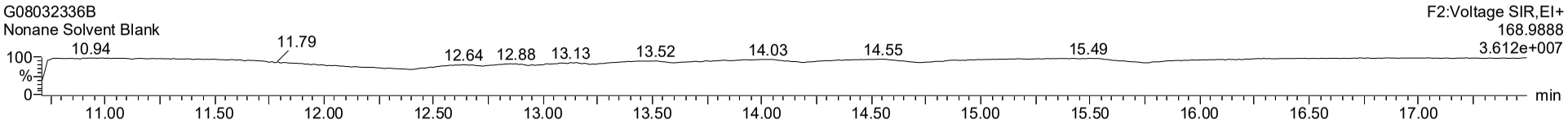
Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

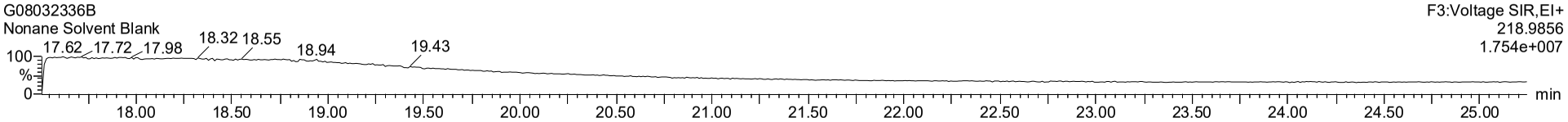
QC Check Ion Fn1



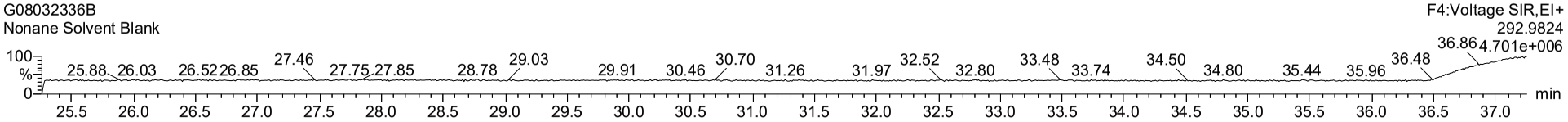
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626			0.000		0.00					
2	13C-Naphthalene (...	134.0827			0.000		0.00					
3	2-Methyl-naphthale...	142.0783			0.000		0.00					
4	13C-2-Methylnapht...	148.0984			0.000		0.00					
5	d10-2-Methylnapht...	152.1410			0.000	18874.078	9.76					
6												
7	Acenaphthylene	152.0636			0.000		0.00					
8	13C-Acenaphthyle...	158.0827			0.000		0.00					
9	Acenaphthene	154.0783			0.000		0.00					
10	13C-Acenaphthene...	160.0984			0.000		0.00					
11	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
12												
13	Fluorene	166.0783			0.000		0.00					
14	13C-Fluorene (ES)	172.0984			0.000		0.00					
15	Phenanthrene	178.0783			0.000		0.00					
16	13C-Phenanthrene...	184.0984			0.000		0.00					
17	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
18												
19	Anthracene	178.0783			0.000		0.00					
20	13C-Anthracene (E...	184.0984			0.000		0.00					
21	Fluoranthene	202.0783			0.000		0.00					
22	13C-Fluoranthene (...	208.0984			0.000		0.00					
23	d10-Acenaphthene...	164.1410			0.000	13122.905	12.25					
24	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
25												
26	Pyrene	202.0783			0.000		0.00					
27	13C-Pyrene (ES)	205.0883			0.000		0.00					
28	Benzo(a)Anthracene	228.0939			0.000		0.00					
29	13C-Benzo(a)Anthr...	234.1140			0.000		0.00					
30	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					
31												
32	Chrysene	228.0939			0.000		0.00					
33	13C-Chrysene (ES)	234.1140			0.000		0.00					
34	Benzo(b)Fluoranth...	252.0939			0.000		0.00					
35	13C-Benzo(b)Fluor...	258.1140			0.000		0.00					
36	d10-Pyrene (JS)	212.1410			0.000	19126.001	19.23					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
38												
39	Benzo(k)Fluoranth...	252.0939			0.000		0.00					
40	13C-Benzo(k)Fluor...	258.1140			0.000		0.00					
41	Benzo(e)Pyrene	252.0939			0.000		0.00					
42	13C-Benzo(e)Pyre...	256.1073			0.000		0.00					
43	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
44												
45	Benzo(a)Pyrene	252.0939			0.000		0.00					
46	13C-Benzo(a)Pyre...	256.1073			0.000		0.00					
47	Perylene	252.0939			0.000		0.00					
48	d12-Perylene (ES)	264.1692			0.000		0.00					
49	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
50												
51	Indeno(123-cd)Pyr...	276.0939			0.000		0.00					
52	13C-Indeno(123-cd...	282.1140			0.000		0.00					
53	Benzo(ghi)Perylene	276.0939			0.000		0.00					
54	13C-Benzo(ghi)Per...	288.1342			0.000		0.00					
55	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
56												
57	Dibenzo(a,h)Anthra...	278.1096			0.000		0.00					
58	d12-Benzo(a)Pyren...	264.1692			0.000	12322.130	28.12					
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00					
61	QC Check Ion Fn2	168.9888			0.000		0.00					
62	QC Check Ion Fn3	218.9856			0.000		0.00					
63	QC Check Ion Fn4	292.9824			0.000		0.00					

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032336B, Date: 09-Mar-2023, Time: 16:30:55, ID: Solvent Blank, Description: Nonane

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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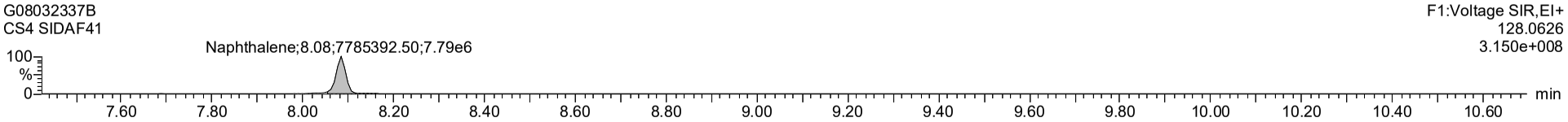
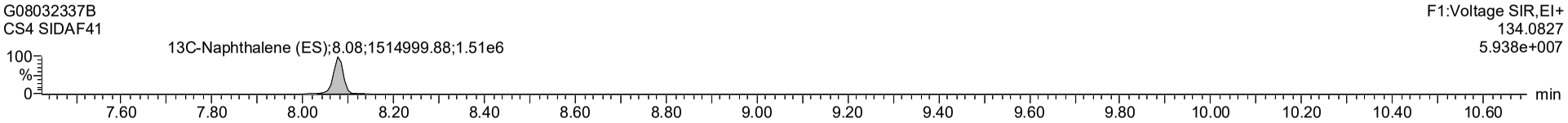
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

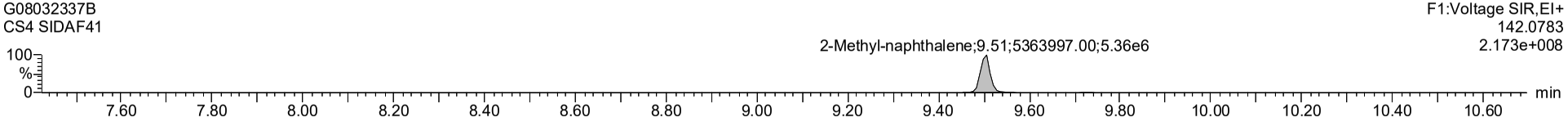
Naphthalene



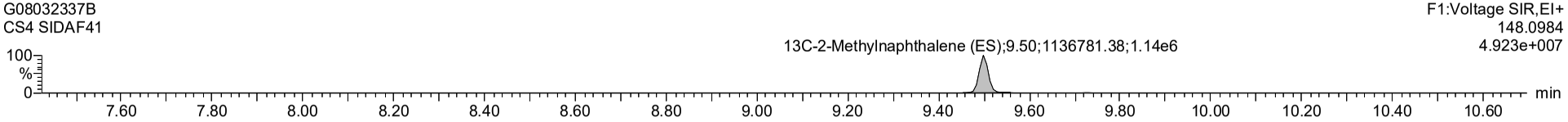
13C-Naphthalene (ES)



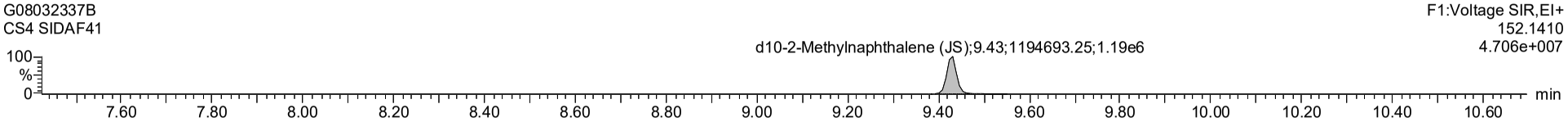
2-Methyl-naphthalene



13C-2-Methylnaphthalene (ES)



d10-2-Methylnaphthalene (JS)

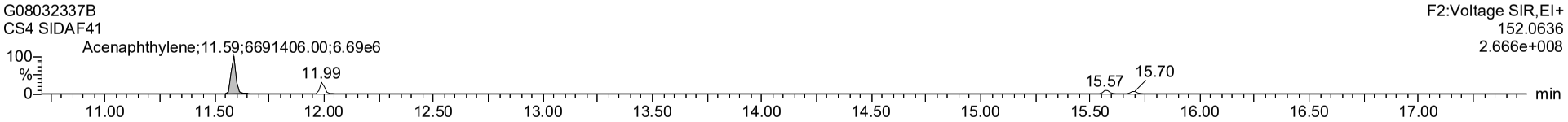


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

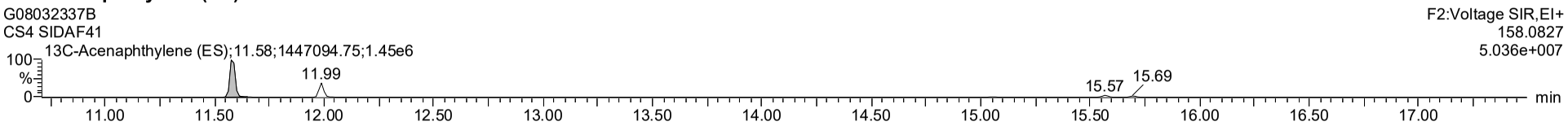
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

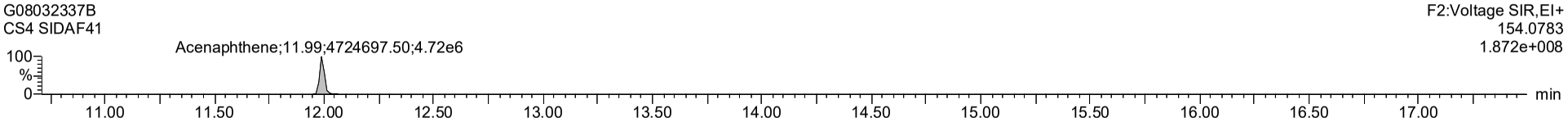
Acenaphthylene



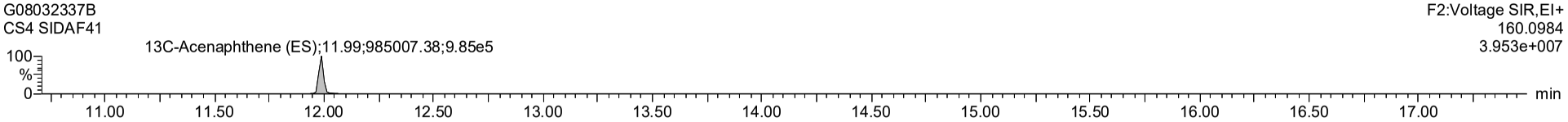
13C-Acenaphthylene (ES)



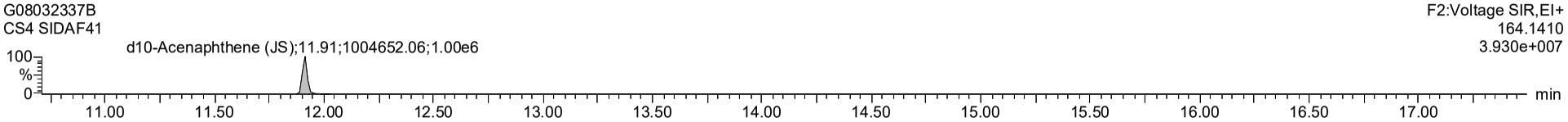
Acenaphthene



13C-Acenaphthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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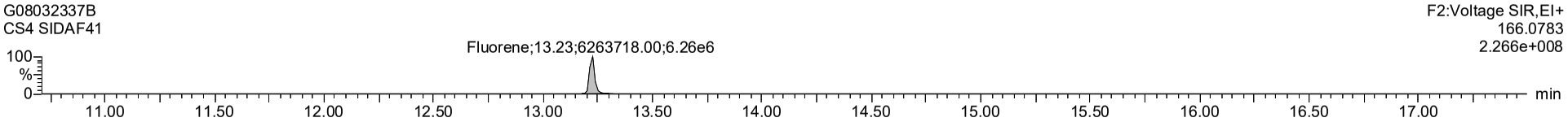
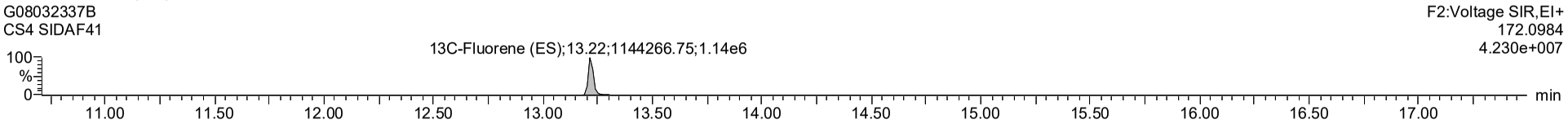
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

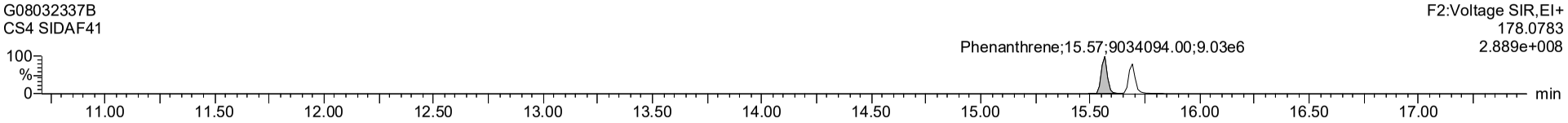
Fluorene



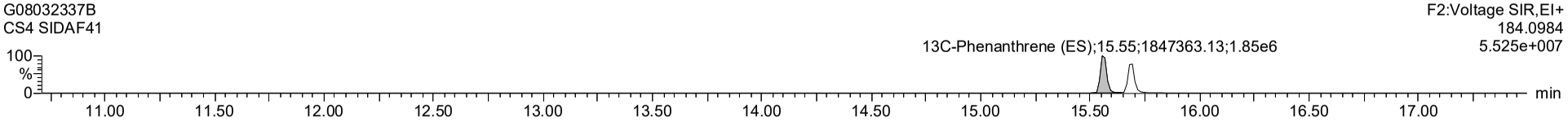
13C-Fluorene (ES)



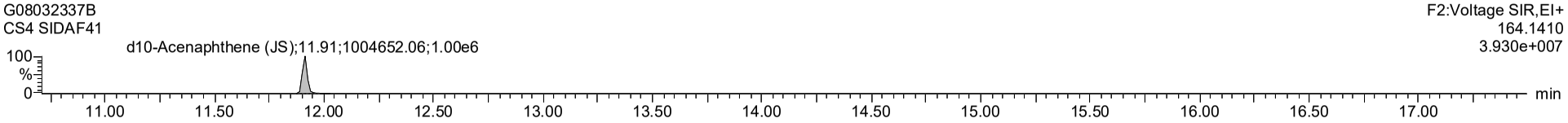
Phenanthrene



13C-Phenanthrene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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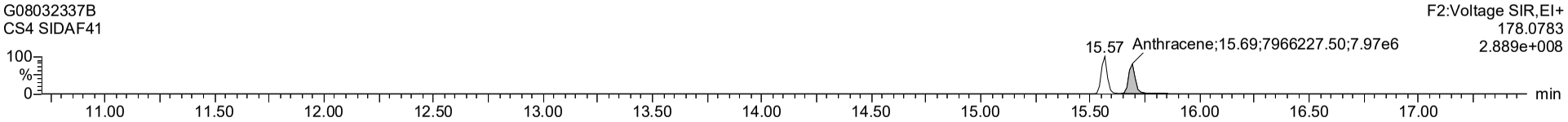
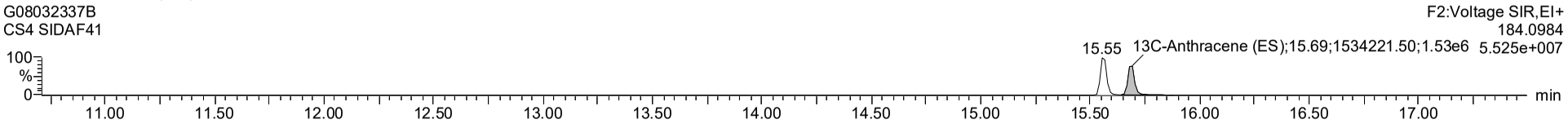
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

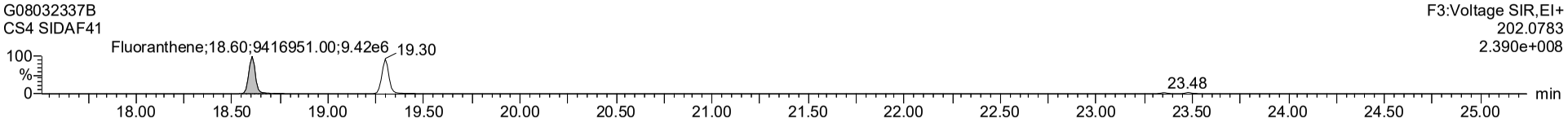
Anthracene



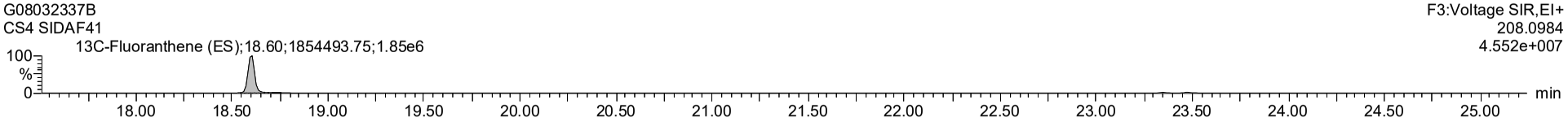
13C-Anthracene (ES)



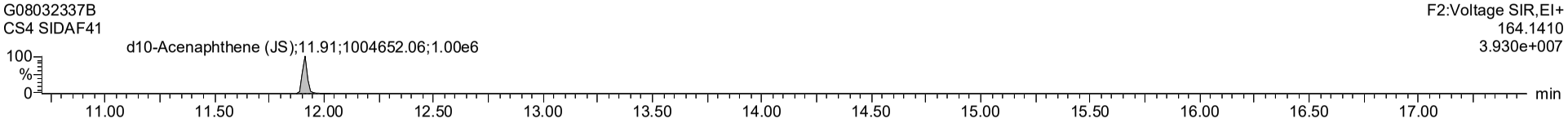
Fluoranthene



13C-Fluoranthene (ES)



d10-Acenaphthene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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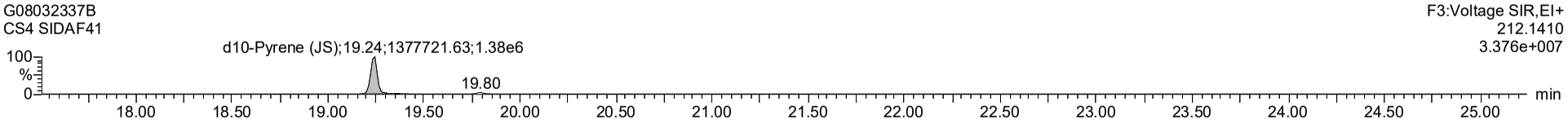
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

d10-Pyrene (JS)

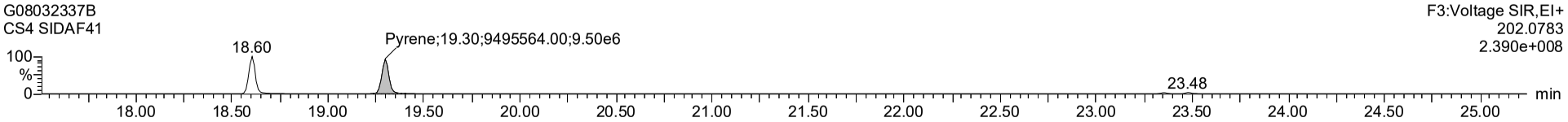


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

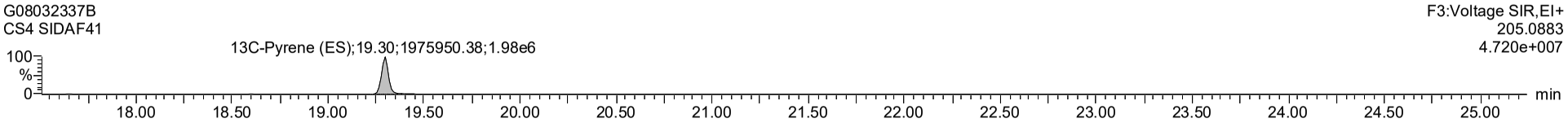
Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

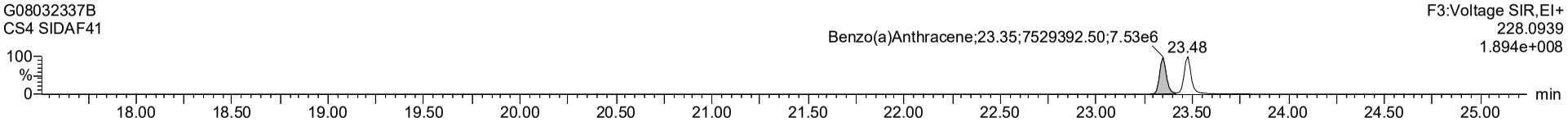
Pyrene



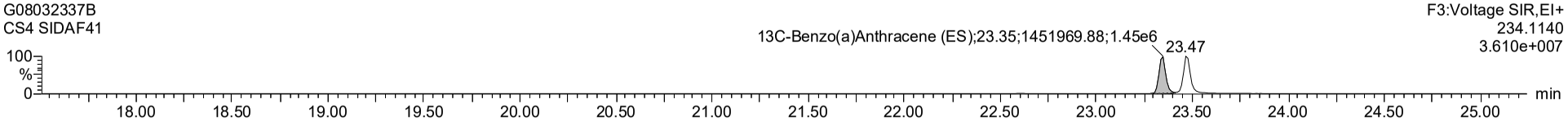
13C-Pyrene (ES)



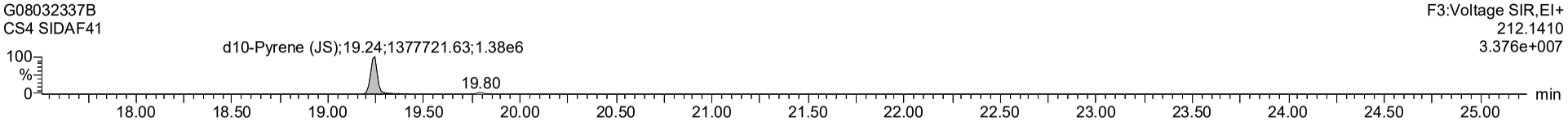
Benzo(a)Anthracene



13C-Benzo(a)Anthracene (ES)



d10-Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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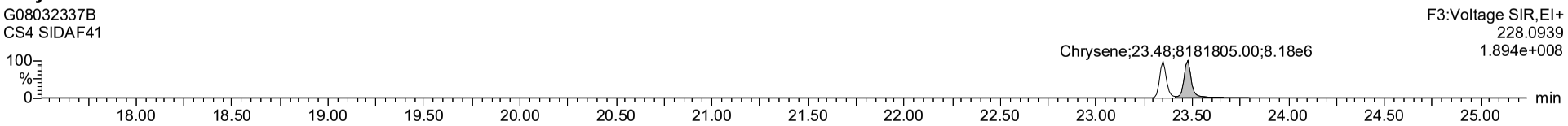
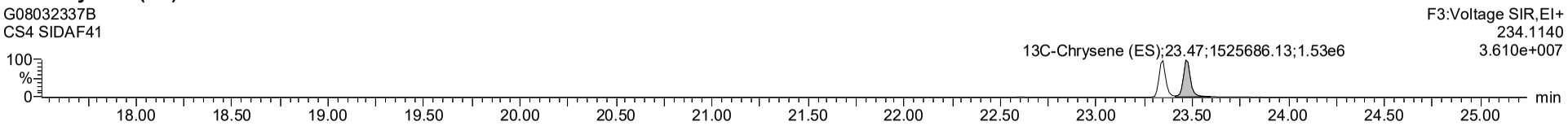
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

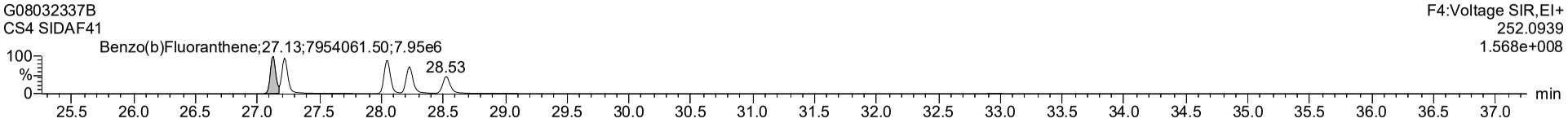
Chrysene



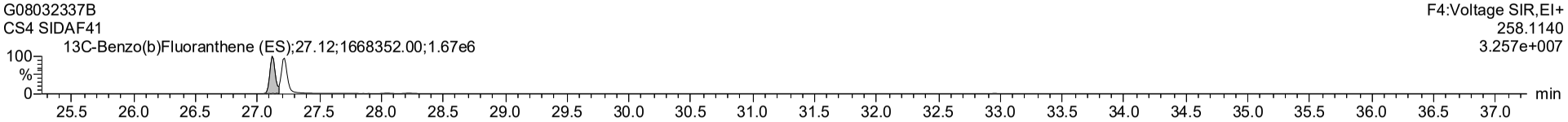
13C-Chrysene (ES)



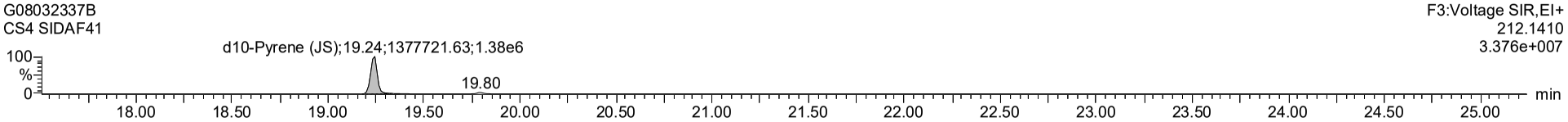
Benzo(b)Fluoranthene



13C-Benzo(b)Fluoranthene (ES)



d10-Pyrene (JS)

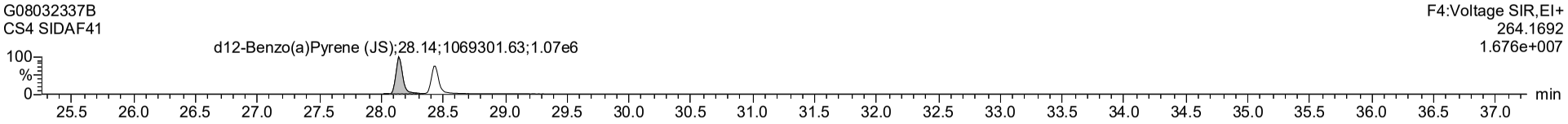


Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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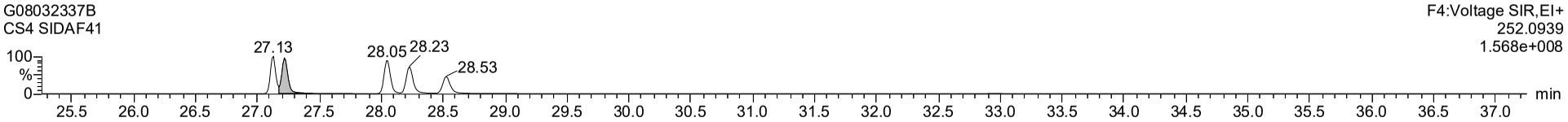
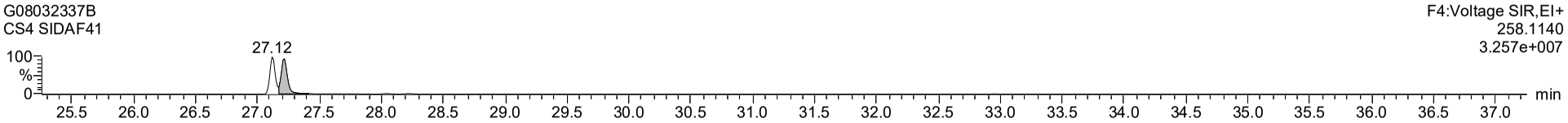
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

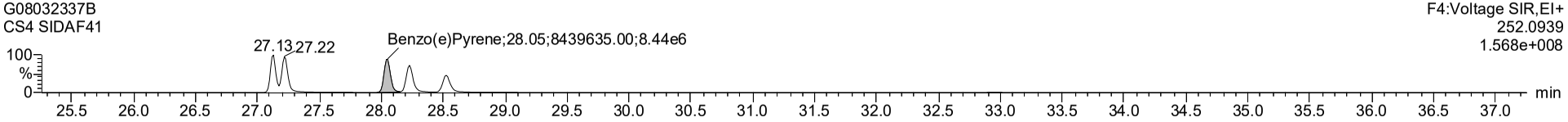
Benzo(k)Fluoranthene



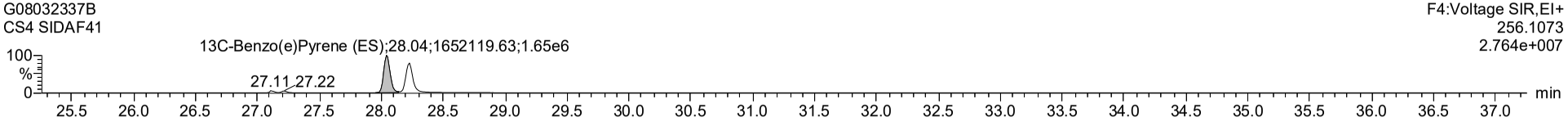
13C-Benzo(k)Fluoranthene (ES)



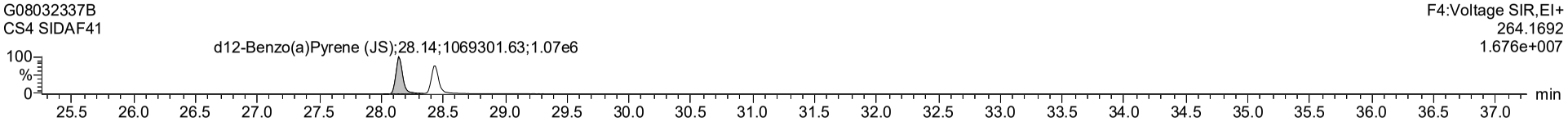
Benzo(e)Pyrene



13C-Benzo(e)Pyrene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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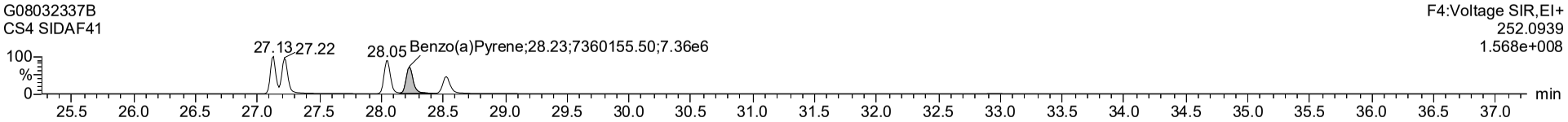
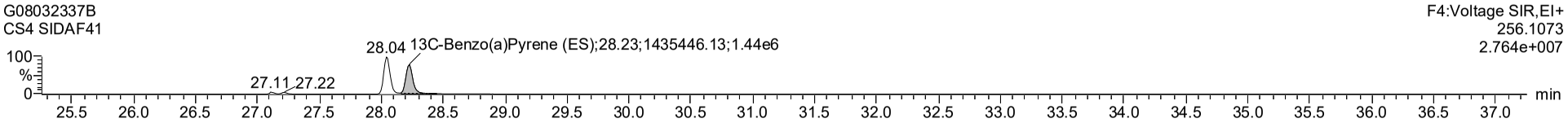
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

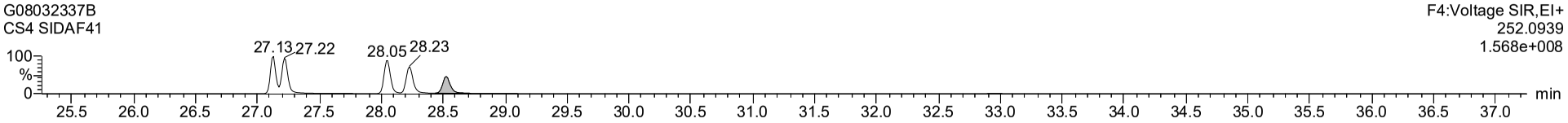
Benzo(a)Pyrene



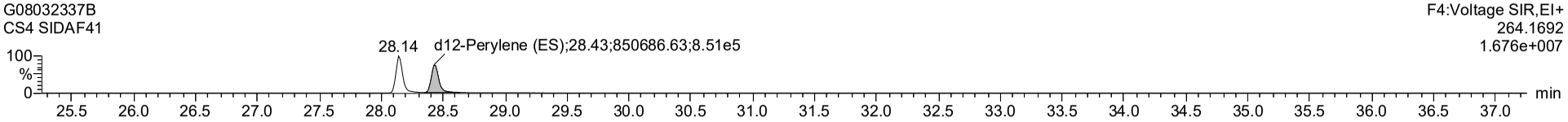
13C-Benzo(a)Pyrene (ES)



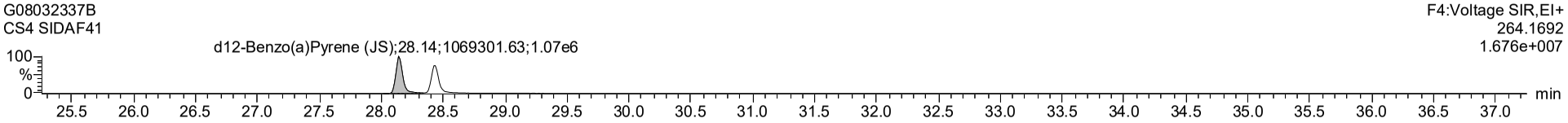
Perylene



d12-Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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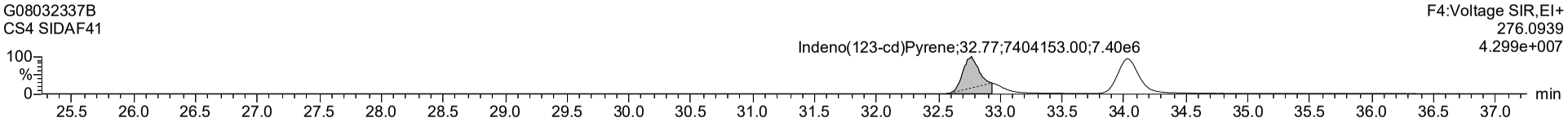
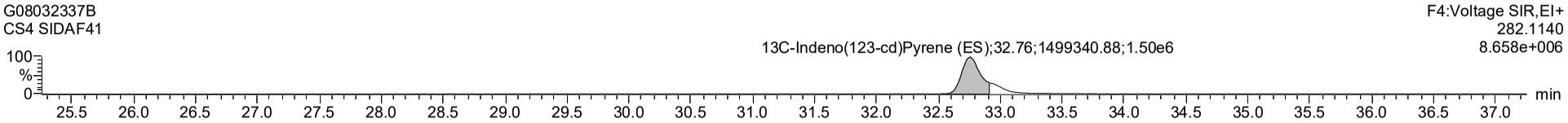
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

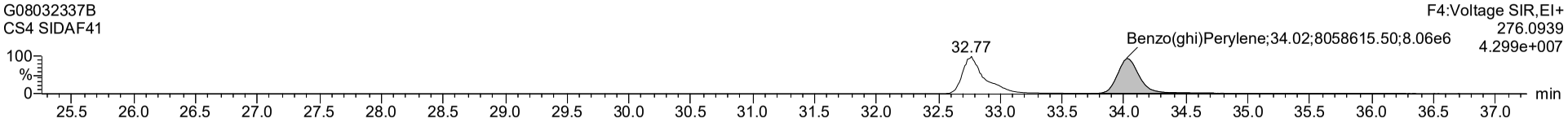
Indeno(123-cd)Pyrene



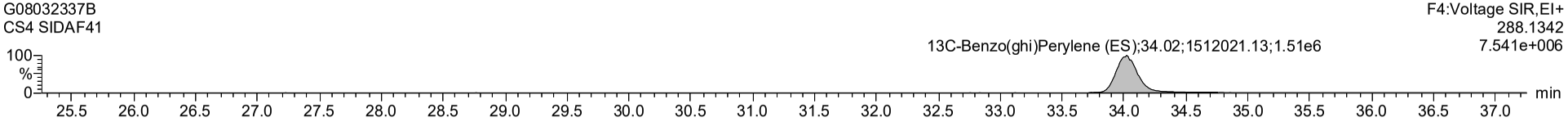
13C-Indeno(123-cd)Pyrene (ES)



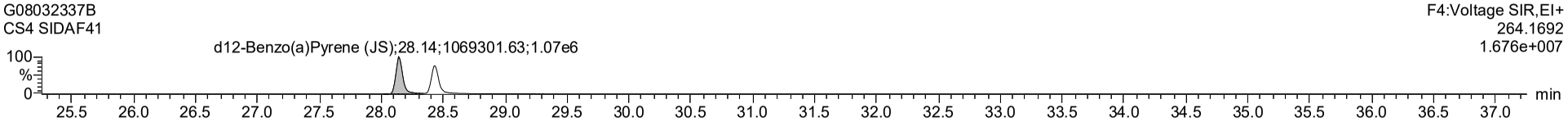
Benzo(ghi)Perylene



13C-Benzo(ghi)Perylene (ES)



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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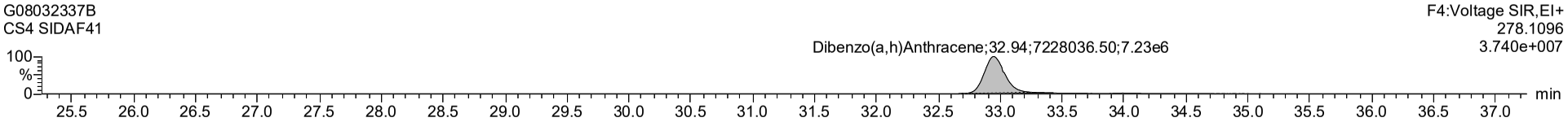
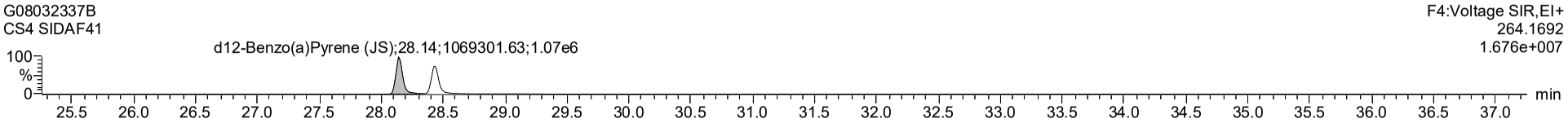
Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

Dibenzo(a,h)Anthracene



d12-Benzo(a)Pyrene (JS)



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

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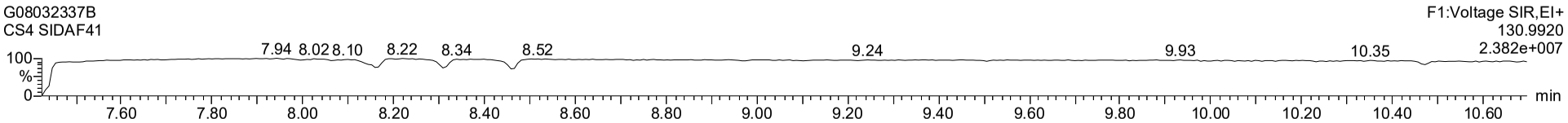
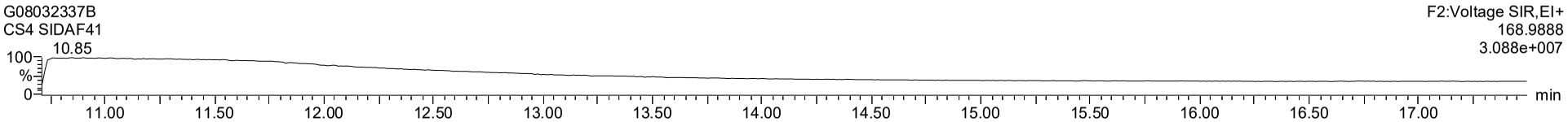
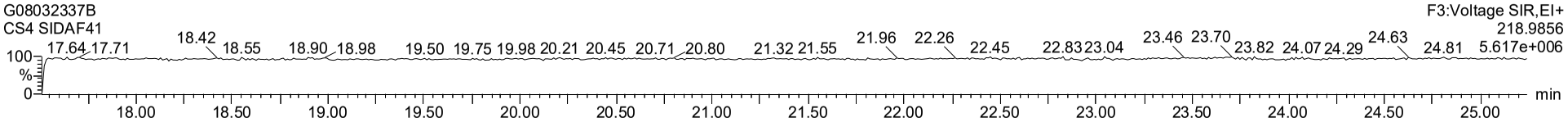
QC Check Ion Fn1



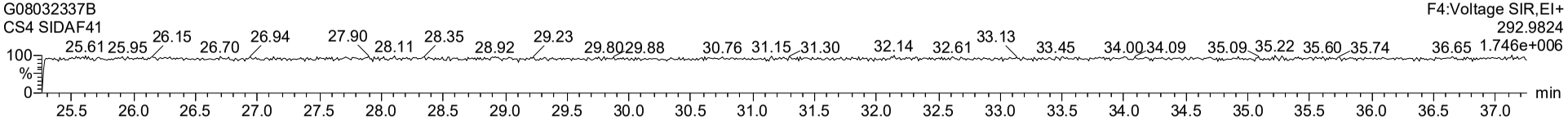
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
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Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
1	Naphthalene	128.0626	7.785e6	1.515e6	0.000		8.08	8.08		0.0		
2	13C-Naphthalene (...	134.0827	1.515e6	1.195e6	0.000		8.12	8.08		0.0		
3	2-Methyl-naphthale...	142.0783	5.364e6	1.137e6	0.000		9.50	9.51		0.0		
4	13C-2-Methylnapht...	148.0984	1.137e6	1.195e6	0.000		9.51	9.50		0.0		
5	d10-2-Methylnapht...	152.1410	1.195e6		0.000	18874.078	9.76	9.43	1190000	0.0	63.298	
6												
7	Acenaphthylene	152.0636	6.691e6	1.447e6	0.000		11.58	11.6		0.0		
8	13C-Acenaphthyle...	158.0827	1.447e6	1.005e6	0.000		11.60	11.6		0.0		
9	Acenaphthene	154.0783	4.725e6	9.850e5	0.000		11.99	12.0		0.0		
10	13C-Acenaphthene...	160.0984	9.850e5	1.005e6	0.000		12.00	12.0		0.0		
11	d10-Acenaphthene...	164.1410	1.005e6		0.000	13122.905	12.25	11.9	1000000	0.0	76.557	
12												
13	Fluorene	166.0783	6.264e6	1.144e6	0.000		13.22	13.2		0.0		
14	13C-Fluorene (ES)	172.0984	1.144e6	1.005e6	0.000		13.19	13.2		0.0		
15	Phenanthrene	178.0783	9.034e6	1.847e6	0.000		15.55	15.6		0.0		
16	13C-Phenanthrene...	184.0984	1.847e6	1.005e6	0.000		15.56	15.6		0.0		
17	d10-Acenaphthene...	164.1410	1.005e6		0.000	13122.905	12.25	11.9	1000000	0.0	76.557	
18												
19	Anthracene	178.0783	7.966e6	1.534e6	0.000		15.69	15.7		0.0		
20	13C-Anthracene (E...	184.0984	1.534e6	1.005e6	0.000		15.68	15.7		0.0		
21	Fluoranthene	202.0783	9.417e6	1.854e6	0.000		18.60	18.6		0.0		
22	13C-Fluoranthene (...	208.0984	1.854e6	1.378e6	0.000		18.61	18.6		0.0		
23	d10-Acenaphthene...	164.1410	1.005e6		0.000	13122.905	12.25	11.9	1000000	0.0	76.557	
24	d10-Pyrene (JS)	212.1410	1.378e6		0.000	19126.001	19.23	19.2	1380000	0.0	72.034	
25												
26	Pyrene	202.0783	9.496e6	1.976e6	0.000		19.30	19.3		0.0		
27	13C-Pyrene (ES)	205.0883	1.976e6	1.378e6	0.000		19.30	19.3		0.0		
28	Benzo(a)Anthracene	228.0939	7.529e6	1.452e6	0.000		23.35	23.3		0.0		
29	13C-Benzo(a)Anthr...	234.1140	1.452e6	1.378e6	0.000		23.36	23.3		0.0		
30	d10-Pyrene (JS)	212.1410	1.378e6		0.000	19126.001	19.23	19.2	1380000	0.0	72.034	
31												
32	Chrysene	228.0939	8.182e6	1.526e6	0.000		23.47	23.5		0.0		
33	13C-Chrysene (ES)	234.1140	1.526e6	1.378e6	0.000		23.49	23.5		0.0		
34	Benzo(b)Fluoranth...	252.0939	7.954e6	1.668e6	0.000		27.12	27.1		0.0		
35	13C-Benzo(b)Fluor...	258.1140	1.668e6	1.069e6	0.000		27.15	27.1		0.0		
36	d10-Pyrene (JS)	212.1410	1.378e6		0.000	19126.001	19.23	19.2	1380000	0.0	72.034	

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

	Name	Trace	Area	IS Area	Wt/Vol	RRF Mean	Pred.RT	RT	Response	Std. Conc	Conc.	%Rec
37	d12-Benzo(a)Pyren...	264.1692	1.069e6		0.000	12322.130	28.12	28.1	1070000	0.0	86.779	
38												
39	Benzo(k)Fluoranth...	252.0939	8.685e6	1.763e6	0.000		27.22	27.2		0.0		
40	13C-Benzo(k)Fluor...	258.1140	1.763e6	1.069e6	0.000		27.24	27.2		0.0		
41	Benzo(e)Pyrene	252.0939	8.440e6	1.652e6	0.000		28.04	28.1		0.0		
42	13C-Benzo(e)Pyre...	256.1073	1.652e6	1.069e6	0.000		28.04	28.0		0.0		
43	d12-Benzo(a)Pyren...	264.1692	1.069e6		0.000	12322.130	28.12	28.1	1070000	0.0	86.779	
44												
45	Benzo(a)Pyrene	252.0939	7.360e6	1.435e6	0.000		28.23	28.2		0.0		
46	13C-Benzo(a)Pyre...	256.1073	1.435e6	1.069e6	0.000		28.22	28.2		0.0		
47	Perylene	252.0939	4.987e6	8.507e5	0.000		28.43	28.5		0.0		
48	d12-Perylene (ES)	264.1692	8.507e5	1.069e6	0.000		28.51	28.4		0.0		
49	d12-Benzo(a)Pyren...	264.1692	1.069e6		0.000	12322.130	28.12	28.1	1070000	0.0	86.779	
50												
51	Indeno(123-cd)Pyr...	276.0939	7.404e6	1.499e6	0.000		32.76	32.8		0.0		
52	13C-Indeno(123-cd...	282.1140	1.499e6	1.069e6	0.000		32.56	32.8		0.0		
53	Benzo(ghi)Perylene	276.0939	8.059e6	1.512e6	0.000		34.02	34.0		0.0		
54	13C-Benzo(ghi)Per...	288.1342	1.512e6	1.069e6	0.000		33.76	34.0		0.0		
55	d12-Benzo(a)Pyren...	264.1692	1.069e6		0.000	12322.130	28.12	28.1	1070000	0.0	86.779	
56												
57	Dibenzo(a,h)Anthra...	278.1096	7.228e6	1.503e6	0.000		32.93	32.9		0.0		
58	d12-Benzo(a)Pyren...	264.1692	1.069e6		0.000	12322.130	28.12	28.1	1070000	0.0	86.779	
59												
60	QC Check Ion Fn1	130.9920			0.000		0.00			0.0		
61	QC Check Ion Fn2	168.9888			0.000		0.00			0.0		
62	QC Check Ion Fn3	218.9856			0.000		0.00			0.0		
63	QC Check Ion Fn4	292.9824			0.000		0.00			0.0		

Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

	Summary Flag Reason
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Dataset: J:\Instrument Data\Batches\14784- TRC\PAH\14784 PAH QLD_2 (no recoveries).qld

Last Altered: Friday, March 10, 2023 08:23:03 Eastern Standard Time
Printed: Friday, March 10, 2023 08:23:45 Eastern Standard Time

Name: G08032337B, Date: 09-Mar-2023, Time: 17:12:51, ID: SIDAF41, Description: CS4

	Summary Flag Reason
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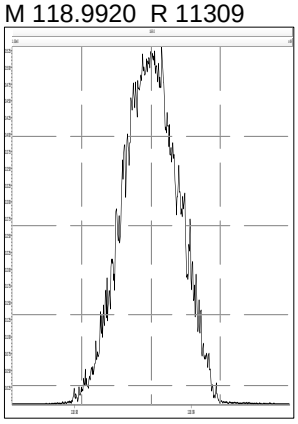
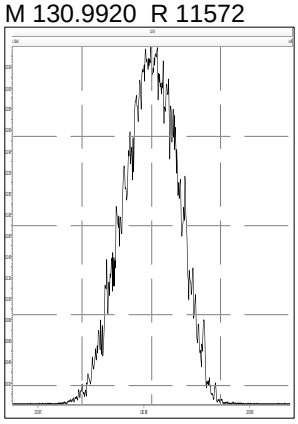
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 1 @ 200 (ppm)

Printed: Wednesday, March 08, 2023 15:53:45 Eastern Standard Time

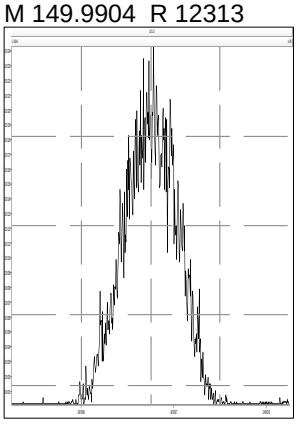
M 118.9920 R 11309



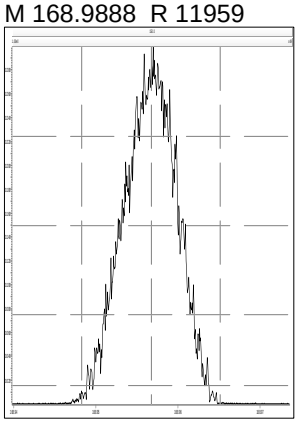
M 130.9920 R 11572



M 149.9904 R 12313



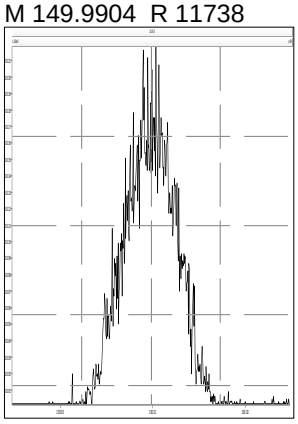
M 168.9888 R 11959



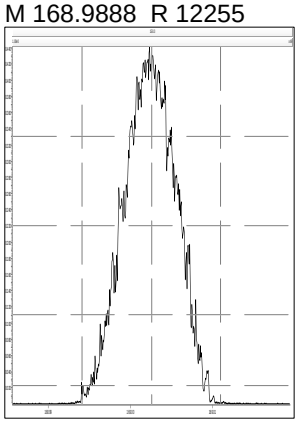
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 2 @ 200 (ppm)

Printed: Wednesday, March 08, 2023 15:54:23 Eastern Standard Time

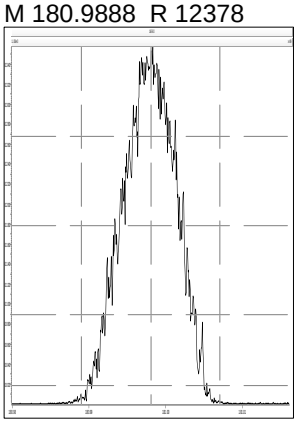
M 149.9904 R 11738



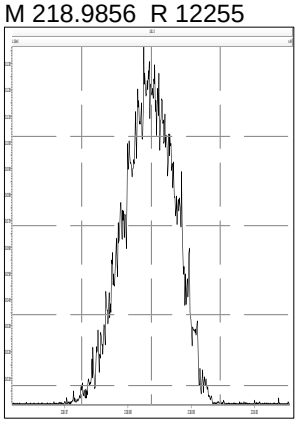
M 168.9888 R 12255



M 180.9888 R 12378



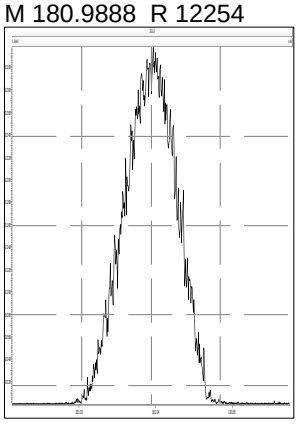
M 218.9856 R 12255



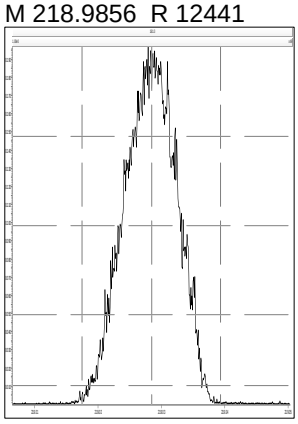
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 3 @ 200 (ppm)

Printed: Wednesday, March 08, 2023 15:55:21 Eastern Standard Time

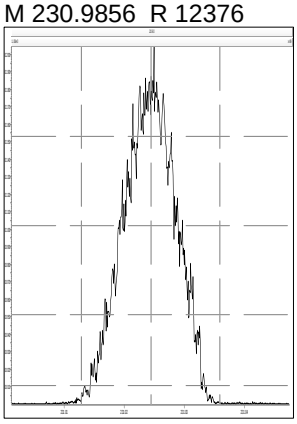
M 180.9888 R 12254



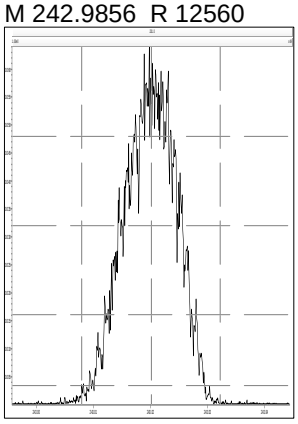
M 218.9856 R 12441



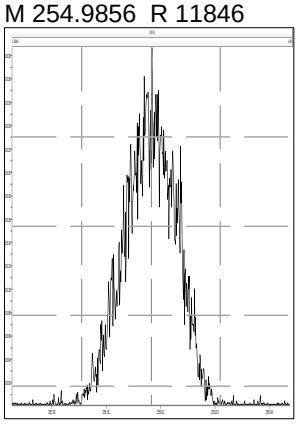
M 230.9856 R 12376



M 242.9856 R 12560



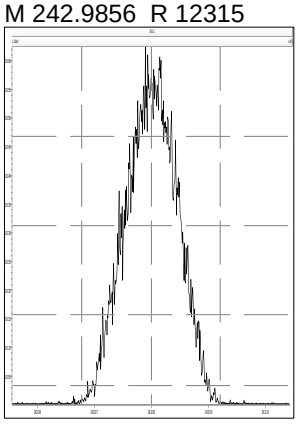
M 254.9856 R 11846



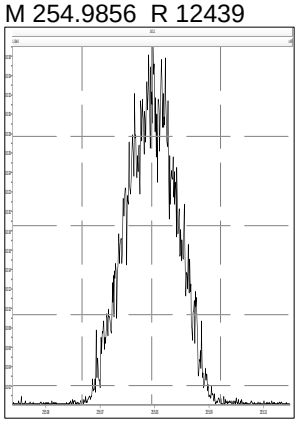
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 4 @ 200 (ppm)

Printed: Wednesday, March 08, 2023 15:56:11 Eastern Standard Time

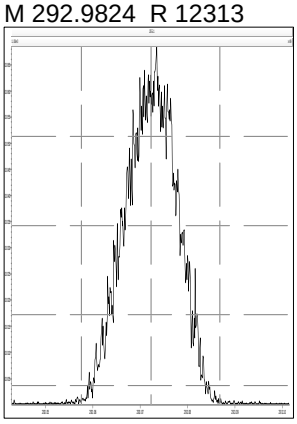
M 242.9856 R 12315



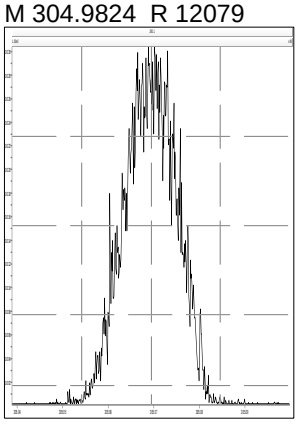
M 254.9856 R 12439



M 292.9824 R 12313

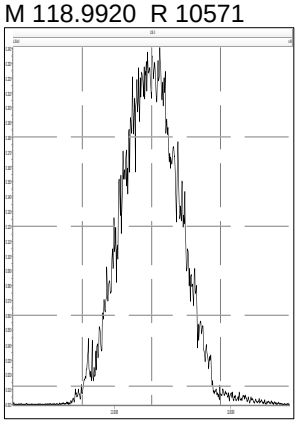


M 304.9824 R 12079

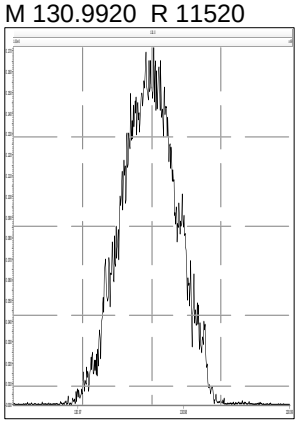


Printed: Wednesday, March 08, 2023 16:41:48 Eastern Standard Time

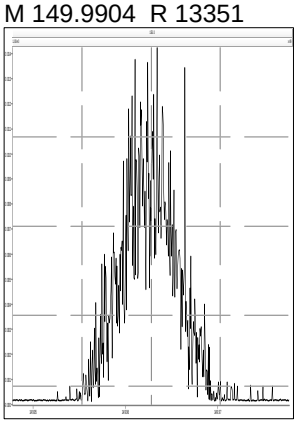
M 118.9920 R 10571



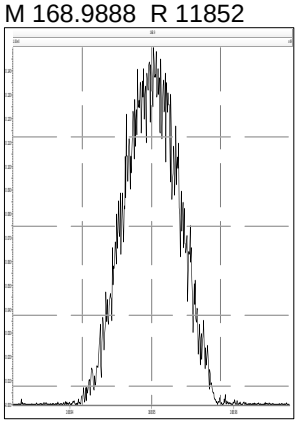
M 130.9920 R 11520



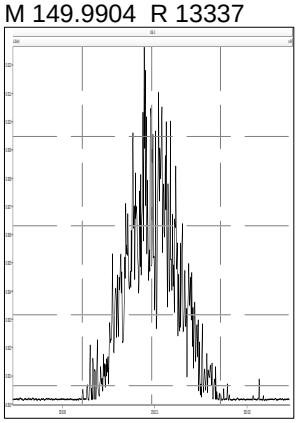
M 149.9904 R 13351



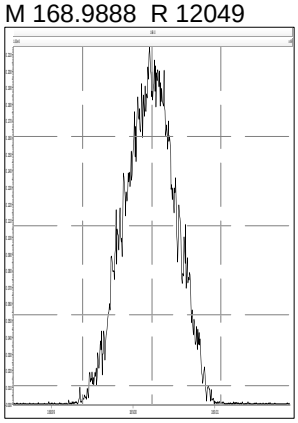
M 168.9888 R 11852



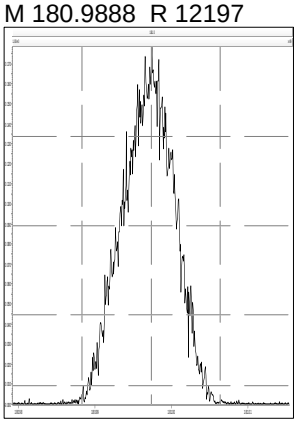
M 149.9904 R 13337



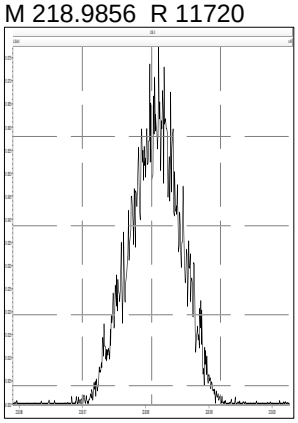
M 168.9888 R 12049



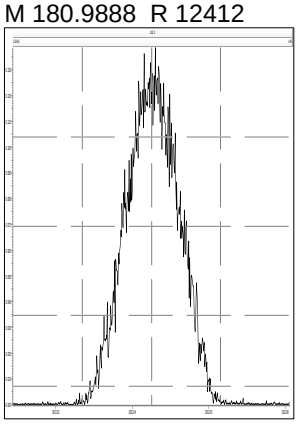
M 180.9888 R 12197



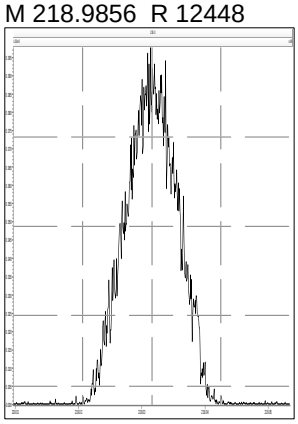
M 218.9856 R 11720



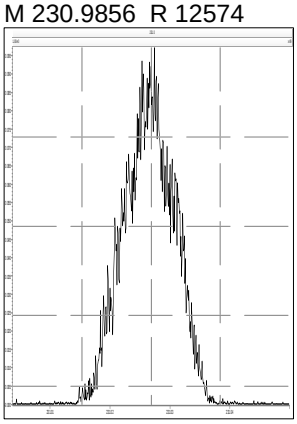
M 180.9888 R 12412



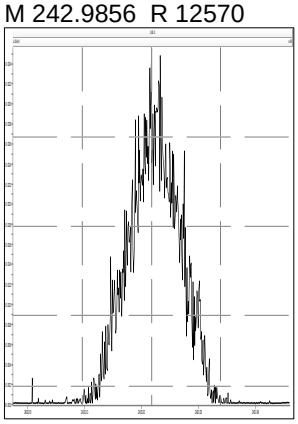
M 218.9856 R 12448



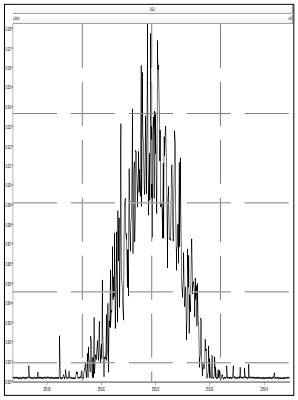
M 230.9856 R 12574



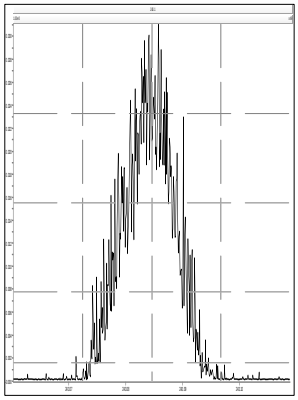
M 242.9856 R 12570



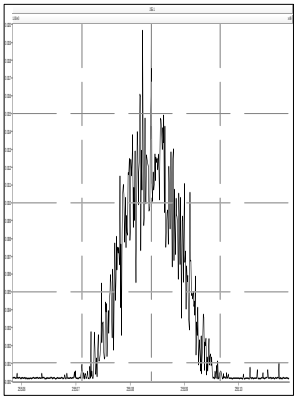
M 254.9856 R 13782



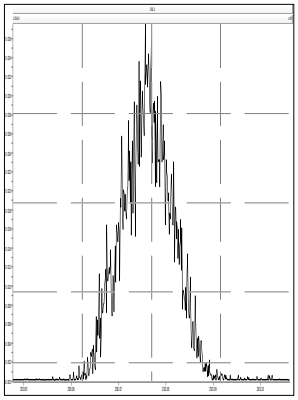
M 242.9856 R 13213



M 254.9856 R 13404



M 292.9824 R 12724



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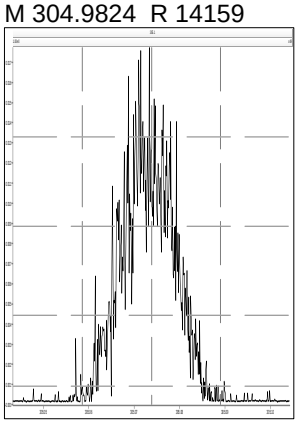
M 304.9824 R 14159



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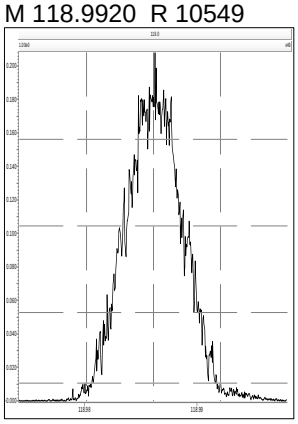
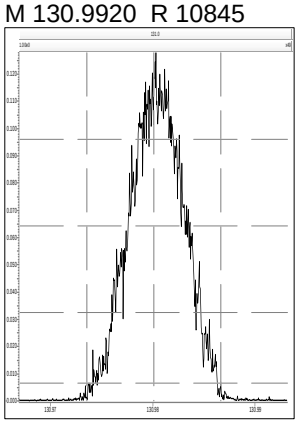
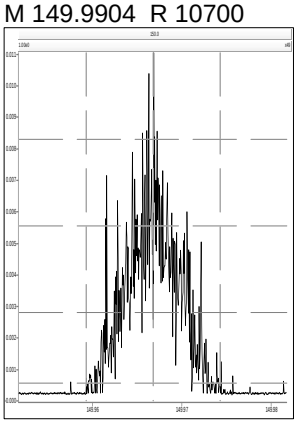
M 118.9920 R 10549



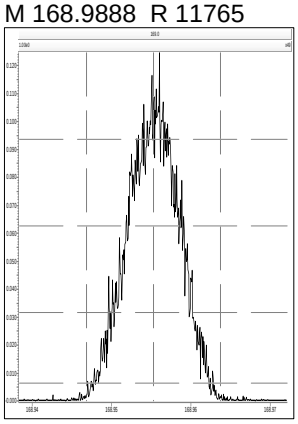
M 130.9920 R 10845



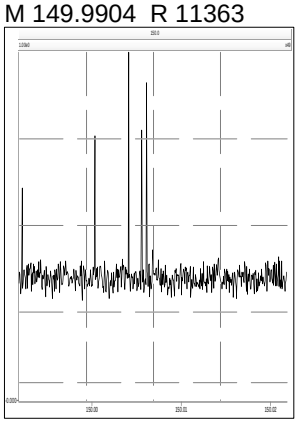
M 149.9904 R 10700



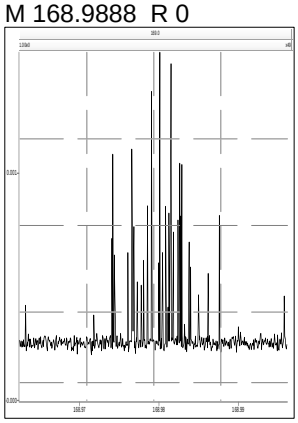
M 168.9888 R 11765



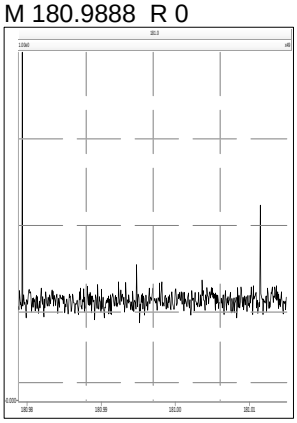
M 149.9904 R 11363



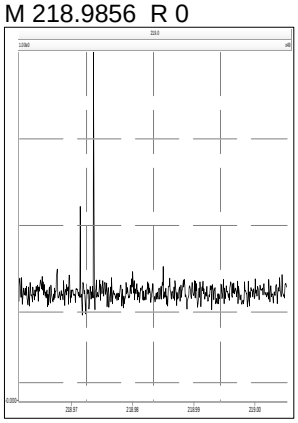
M 168.9888 R 0



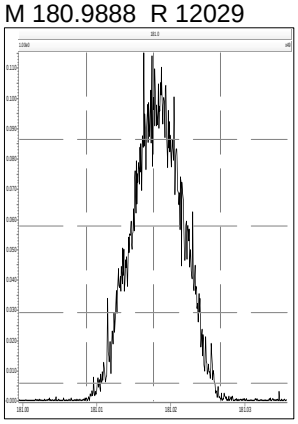
M 180.9888 R 0



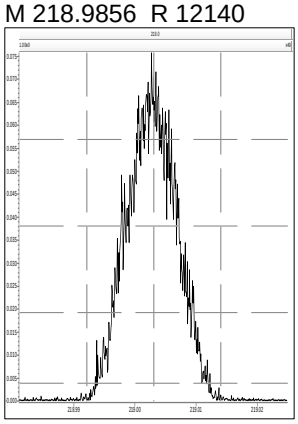
M 218.9856 R 0



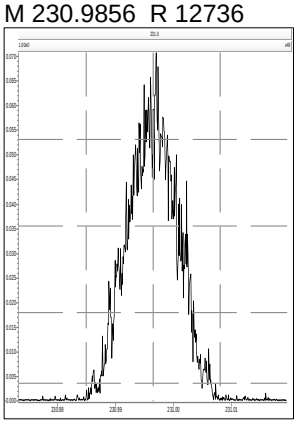
M 180.9888 R 12029



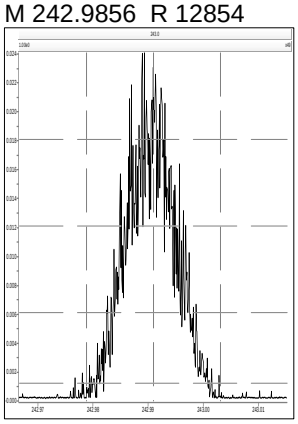
M 218.9856 R 12140



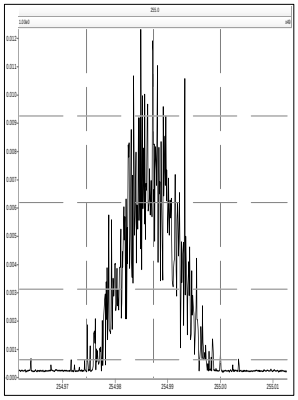
M 230.9856 R 12736



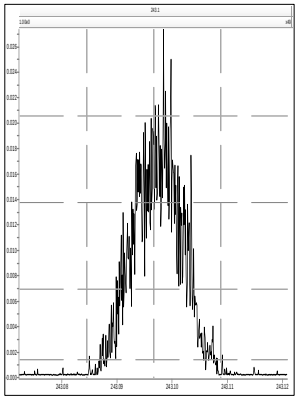
M 242.9856 R 12854



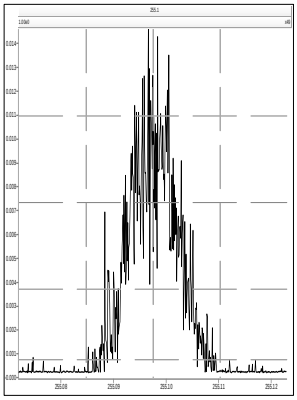
M 254.9856 R 13812



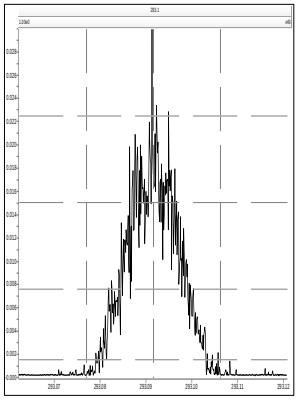
M 242.9856 R 13387



M 254.9856 R 14169



M 292.9824 R 12658



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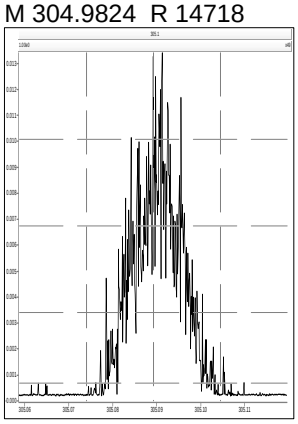
M 304.9824 R 14718



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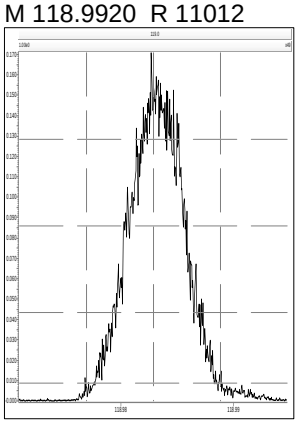
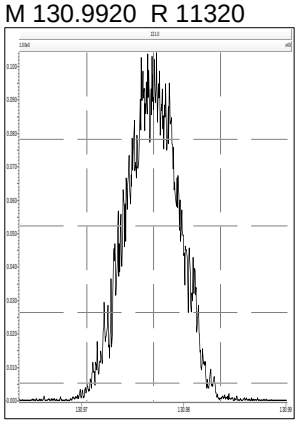
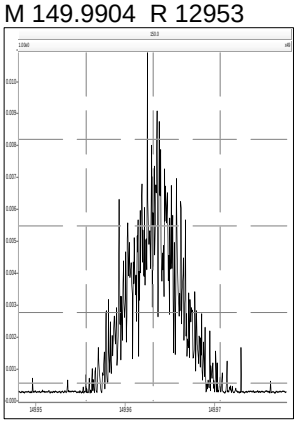
M 118.9920 R 11012



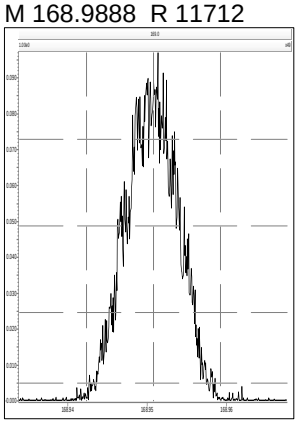
M 130.9920 R 11320



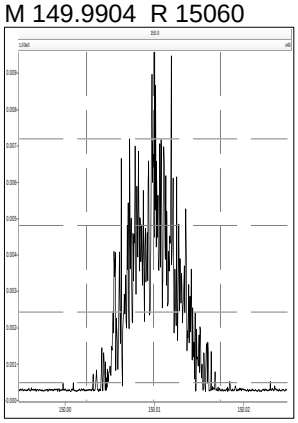
M 149.9904 R 12953



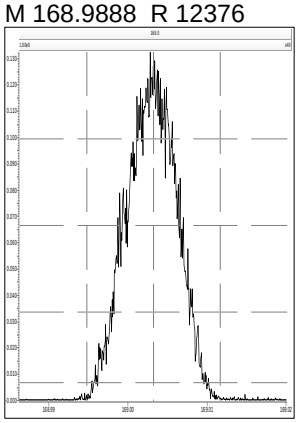
M 168.9888 R 11712



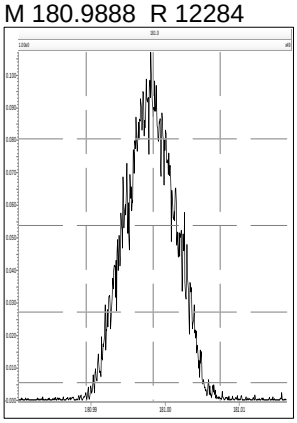
M 149.9904 R 15060



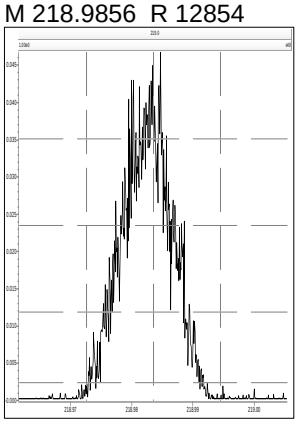
M 168.9888 R 12376



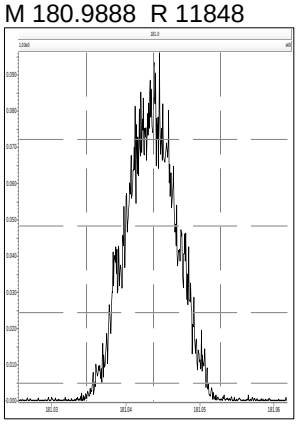
M 180.9888 R 12284



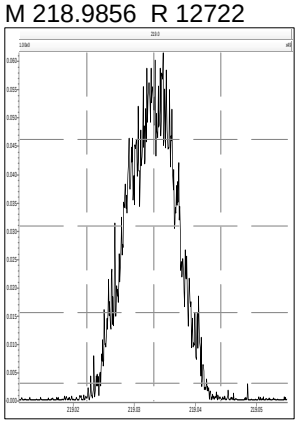
M 218.9856 R 12854



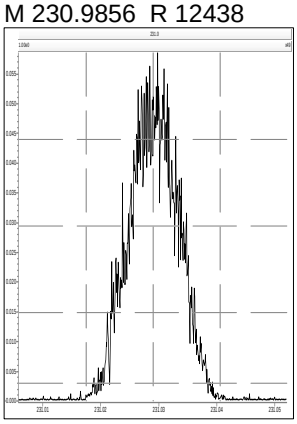
M 180.9888 R 11848



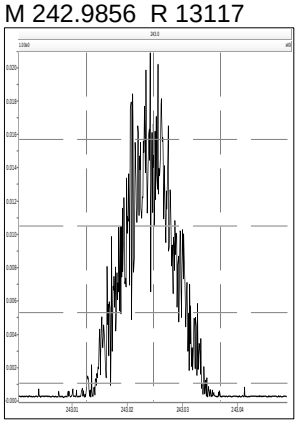
M 218.9856 R 12722



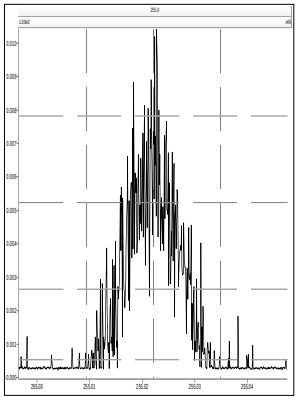
M 230.9856 R 12438



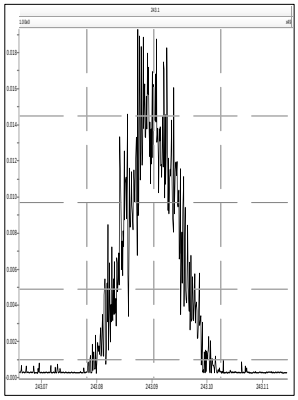
M 242.9856 R 13117



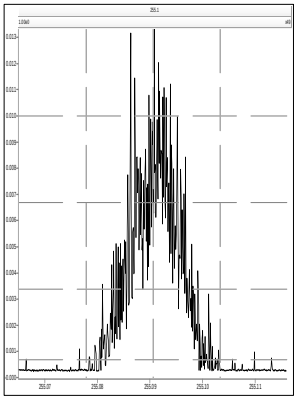
M 254.9856 R 7142



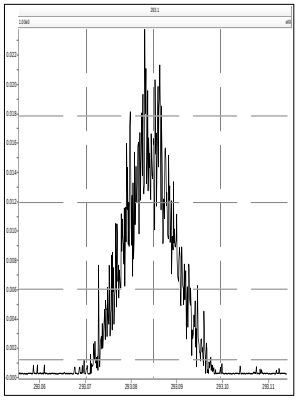
M 242.9856 R 12501



M 254.9856 R 13945



M 292.9824 R 12759



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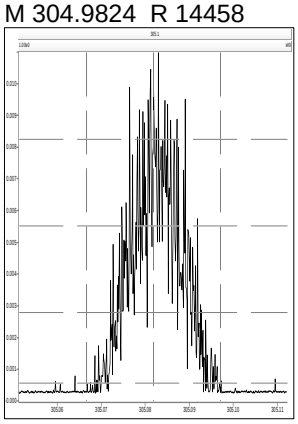
M 304.9824 R 14458



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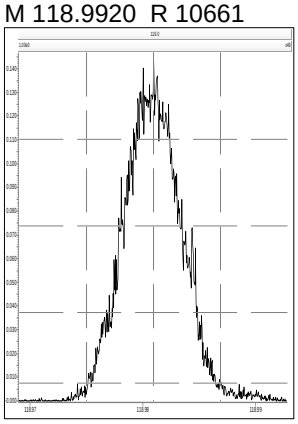
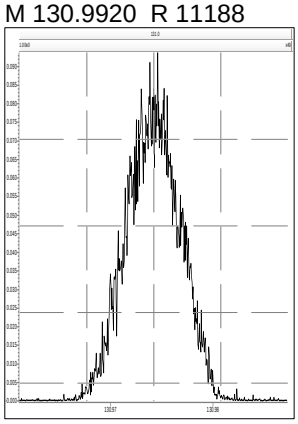
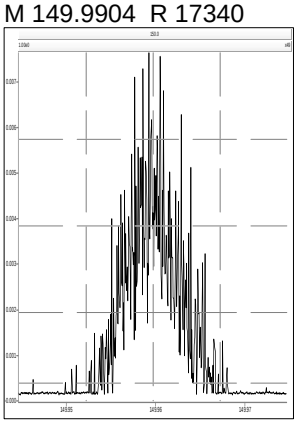
M 118.9920 R 10661



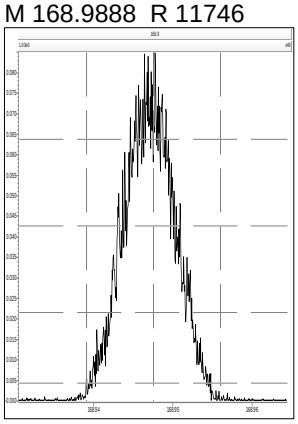
M 130.9920 R 11188



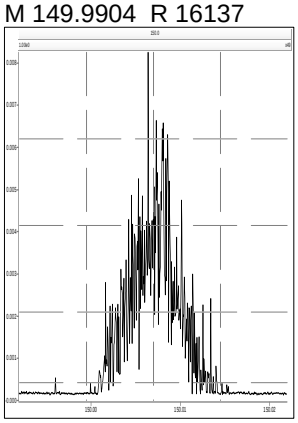
M 149.9904 R 17340



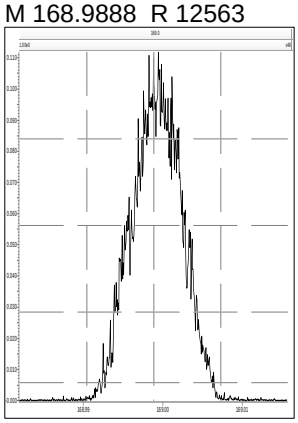
M 168.9888 R 11746



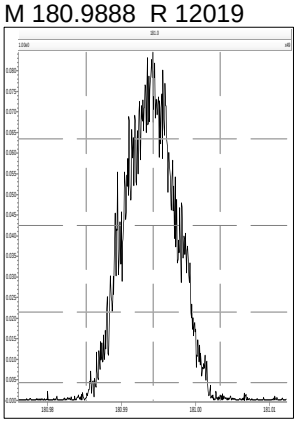
M 149.9904 R 16137



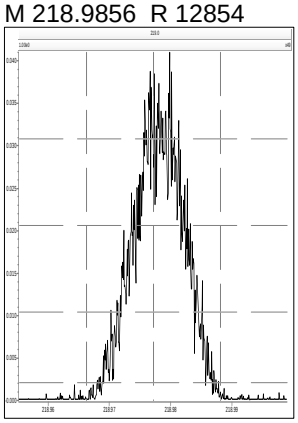
M 168.9888 R 12563



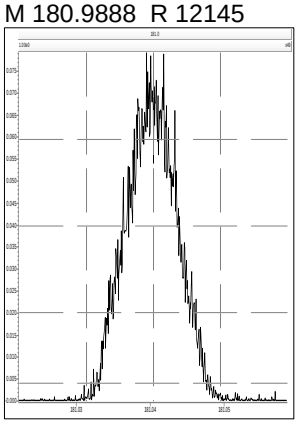
M 180.9888 R 12019



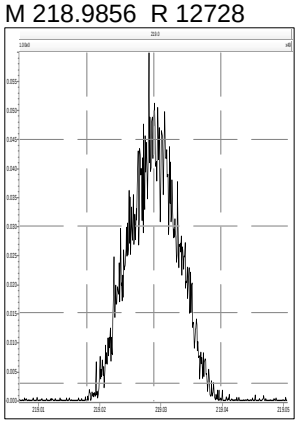
M 218.9856 R 12854



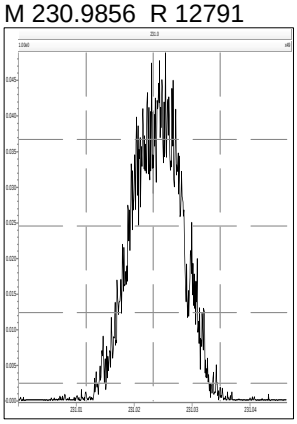
M 180.9888 R 12145



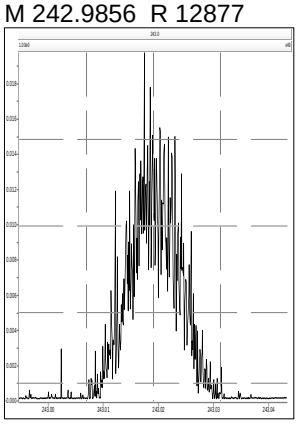
M 218.9856 R 12728



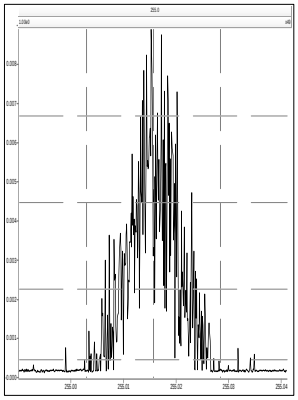
M 230.9856 R 12791



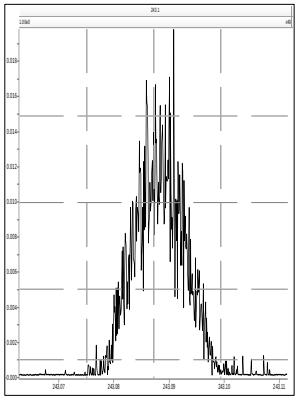
M 242.9856 R 12877



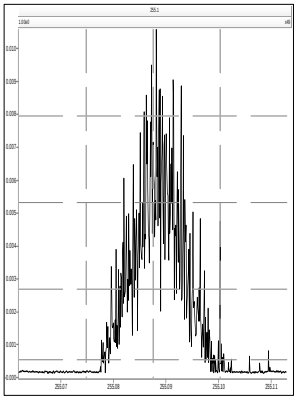
M 254.9856 R 14764



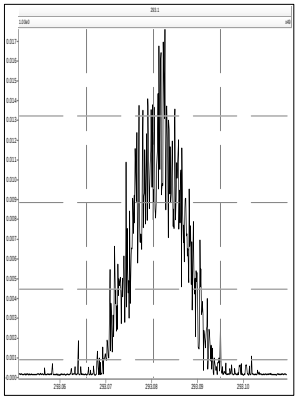
M 242.9856 R 12607



M 254.9856 R 11022

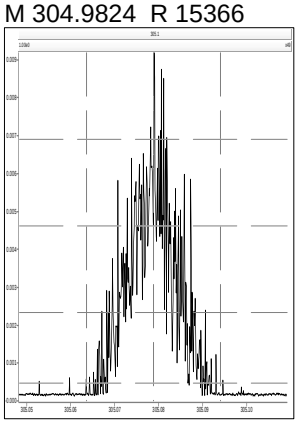


M 292.9824 R 13196



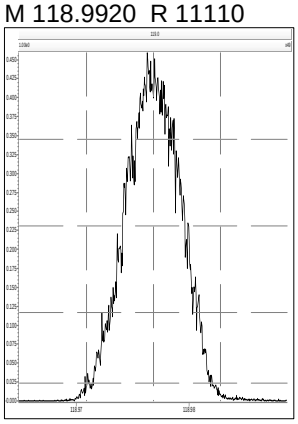
Printed: Thursday, March 09, 2023 17:58:26 Eastern Standard Time

M 304.9824 R 15366

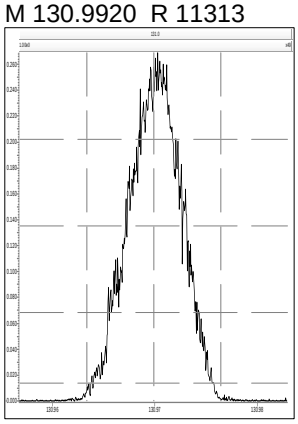


Printed: Thursday, March 09, 2023 12:20:59 Eastern Standard Time

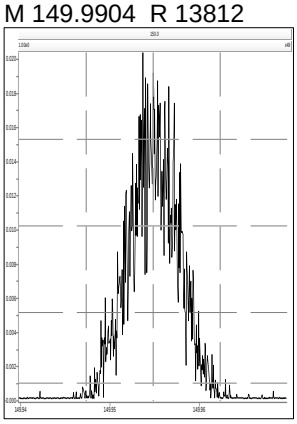
M 118.9920 R 11110



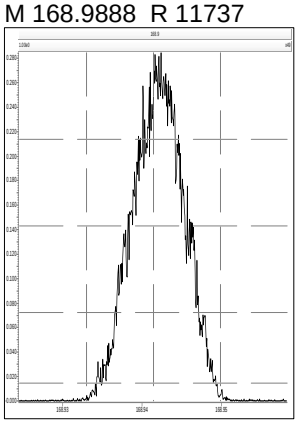
M 130.9920 R 11313



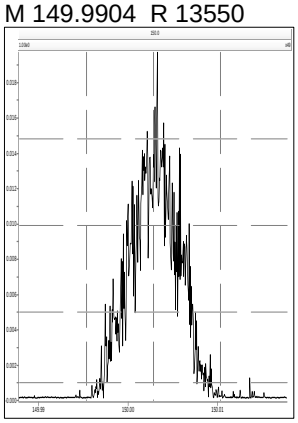
M 149.9904 R 13812



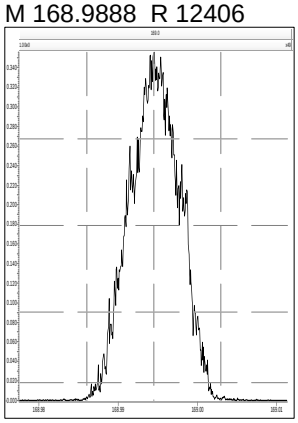
M 168.9888 R 11737



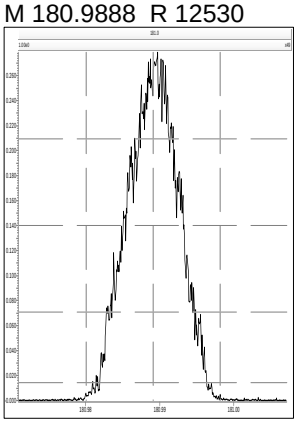
M 149.9904 R 13550



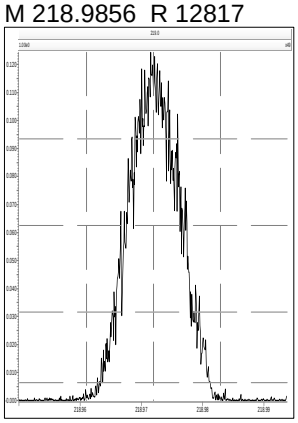
M 168.9888 R 12406



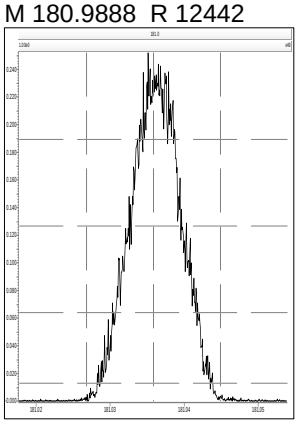
M 180.9888 R 12530



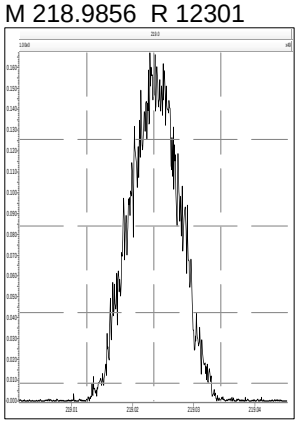
M 218.9856 R 12817



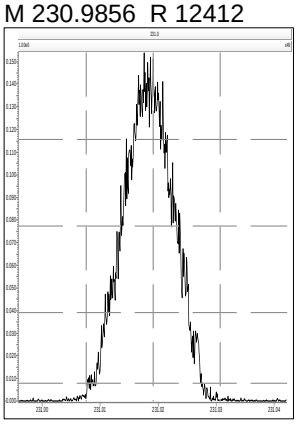
M 180.9888 R 12442



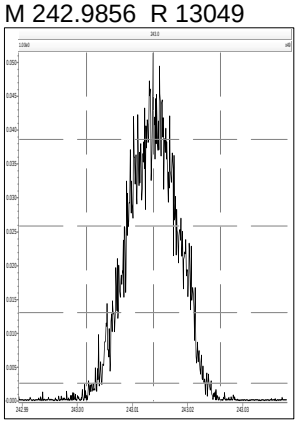
M 218.9856 R 12301



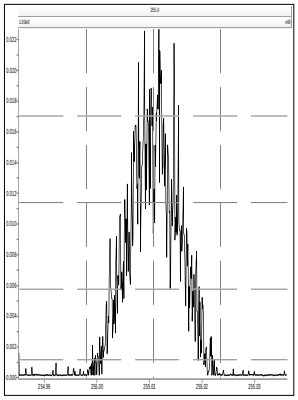
M 230.9856 R 12412



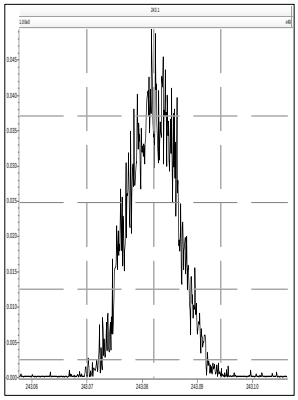
M 242.9856 R 13049



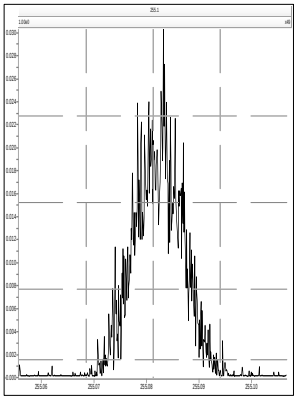
M 254.9856 R 12956



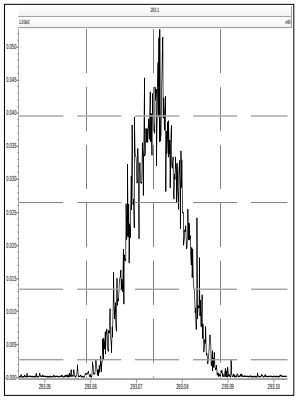
M 242.9856 R 12821



M 254.9856 R 13444



M 292.9824 R 12165



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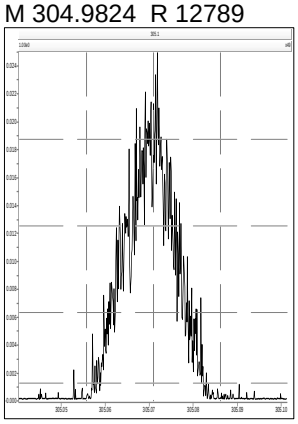
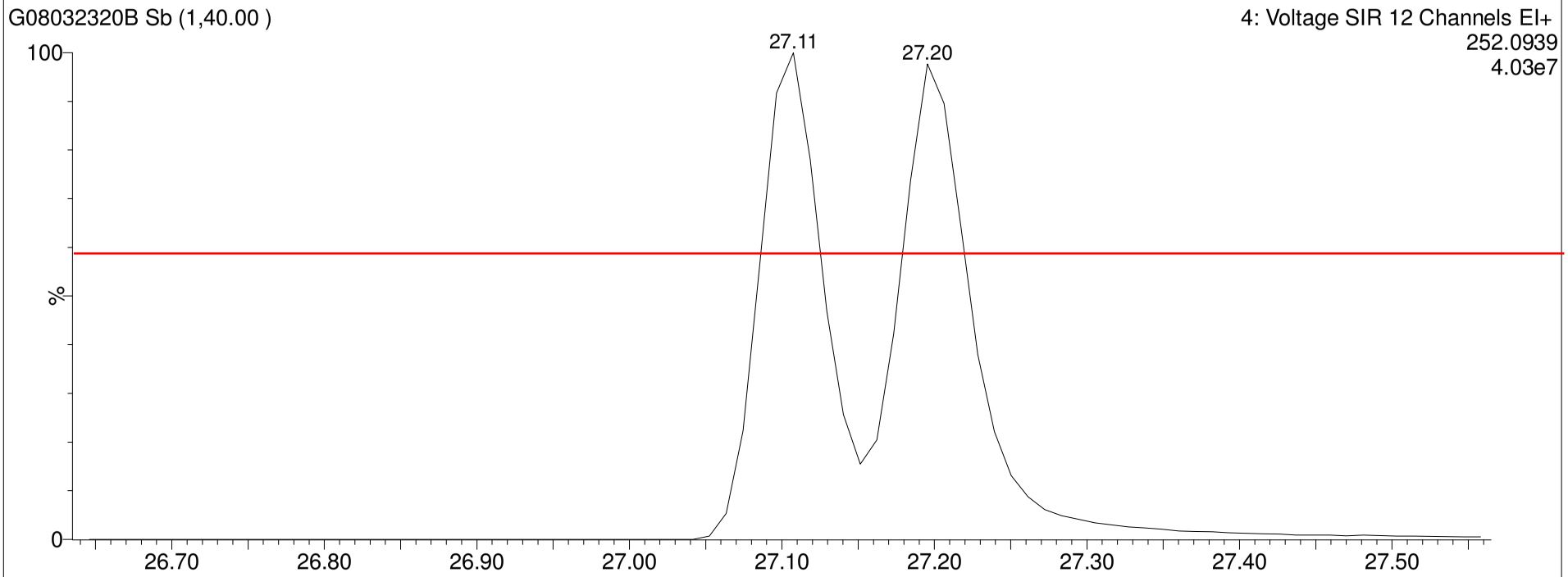
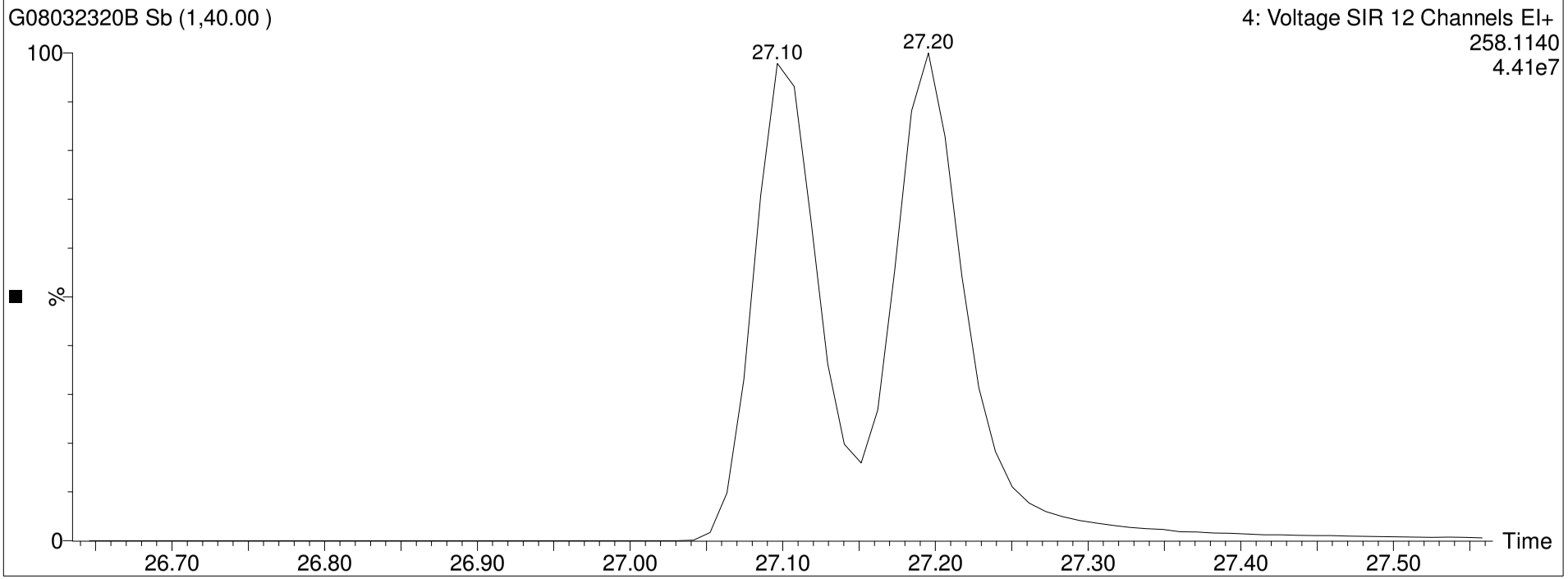
M 304.9824 R 12789

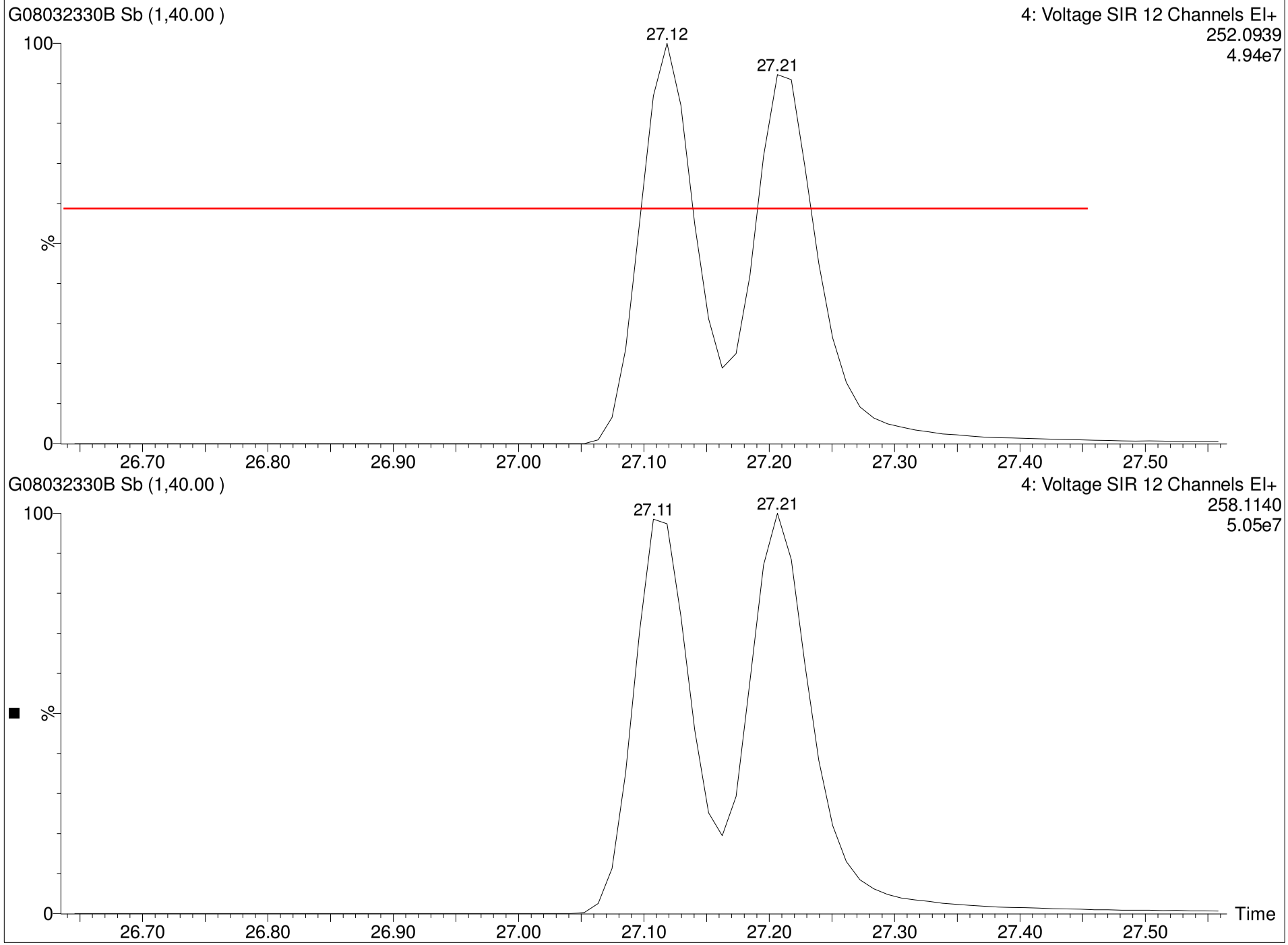


BCS-14784-PAH





BCS-14784-PAH



Initial Calibration

ENTHALPY
ANALYTICAL

Initial Calibration — Gandalf_ICAL_05-May-22 — PCDD/Fs

	CS0	CS1	CS2	CS3	CS4	CS5	CS6		
Concentration (pg/µL)	0.25	0.5	2	10	40	200	500		
Standard ID	SIDAH66	SIDAH67	SIDAH68	SIDAJ58	SIDAH70	SIDAH71	SIDAH72		
Acquisition Date	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22		
Acquisition Time	17:04:48	17:54:33	18:44:17	19:34:01	20:23:45	21:13:30	22:03:13		
Analyte	RRF	RRF	RRF	RRF	RRF	RRF	RRF	Average	RSD
2,3,7,8-TCDD	1.20	1.17	1.08	1.08	1.13	1.17	1.14	1.14	4.2%
1,2,3,7,8-PeCDD	1.02	1.05	1.00	0.99	1.05	1.00	0.99	1.01	2.6%
1,2,3,4,7,8-HxCDD	1.05	1.12	1.03	1.04	1.05	1.05	1.05	1.06	2.8%
1,2,3,6,7,8-HxCDD	1.11	1.15	1.07	1.10	1.11	1.11	1.06	1.1	2.6%
1,2,3,7,8,9-HxCDD	1.09	1.08	1.01	1.04	1.02	1.06	1.03	1.05	3.1%
1,2,3,4,6,7,8-HpCDD	1.06	1.09	1.03	1.04	1.06	1.06	1.01	1.05	2.5%
OCDD	1.10	1.16	1.08	1.18	1.17	1.15	1.12	1.14	3.3%
2,3,7,8-TCDF	1.07	1.16	1.10	1.07	1.13	1.12	1.12	1.11	3.0%
1,2,3,7,8-PeCDF	1.06	1.07	1.02	1.08	1.10	1.10	1.10	1.07	2.8%
2,3,4,7,8-PeCDF	1.02	1.06	1.05	1.10	1.10	1.03	1.05	1.06	3.0%
1,2,3,4,7,8-HxCDF	1.24	1.33	1.33	1.31	1.32	1.31	1.28	1.3	2.5%
1,2,3,6,7,8-HxCDF	1.14	1.25	1.16	1.25	1.22	1.22	1.21	1.21	3.4%
2,3,4,6,7,8-HxCDF	1.22	1.29	1.18	1.29	1.25	1.26	1.22	1.24	3.3%
1,2,3,7,8,9-HxCDF	1.20	1.28	1.19	1.19	1.25	1.22	1.21	1.22	2.6%
1,2,3,4,6,7,8-HpCDF	1.43	1.49	1.45	1.52	1.51	1.48	1.44	1.47	2.3%
1,2,3,4,7,8,9-HpCDF	1.38	1.49	1.41	1.39	1.37	1.36	1.34	1.39	3.5%
OCDF	1.10	1.24	1.14	1.20	1.22	1.19	1.16	1.18	3.9%
ES 2,3,7,8-TCDD	0.93	0.94	0.95	0.86	0.95	0.99	0.95	0.94	4.1%
ES 1,2,3,7,8-PeCDD	0.80	0.80	0.82	0.75	0.83	0.86	0.84	0.82	4.3%
ES 1,2,3,4,7,8-HxCDD	1.04	0.99	0.99	1.12	1.10	1.04	1.05	1.05	4.7%
ES 1,2,3,6,7,8-HxCDD	0.96	0.92	0.97	1.02	1.02	1.00	1.04	0.99	4.3%
ES 1,2,3,7,8,9-HxCDD	1.11	1.02	1.07	1.15	1.17	1.11	1.16	1.11	4.8%
ES 1,2,3,4,6,7,8-HpCDD	0.91	0.87	0.89	0.96	0.95	0.91	0.95	0.92	3.7%
ES OCDD	0.70	0.66	0.68	0.71	0.73	0.72	0.74	0.71	4.0%
ES 2,3,7,8-TCDF	1.00	0.98	0.96	1.01	0.97	0.99	1.00	0.99	1.9%
ES 1,2,3,7,8-PeCDF	0.88	0.86	0.88	0.88	0.87	0.88	0.85	0.87	1.3%
ES 2,3,4,7,8-PeCDF	0.82	0.85	0.83	0.81	0.85	0.89	0.88	0.85	3.9%
ES 1,2,3,4,7,8-HxCDF	1.19	1.11	1.13	1.24	1.21	1.17	1.23	1.18	4.3%
ES 1,2,3,6,7,8-HxCDF	1.43	1.37	1.39	1.46	1.48	1.41	1.42	1.42	2.6%
ES 2,3,4,6,7,8-HxCDF	1.34	1.25	1.28	1.26	1.36	1.28	1.30	1.29	3.1%
ES 1,2,3,7,8,9-HxCDF	1.17	1.11	1.13	1.22	1.22	1.19	1.23	1.18	3.9%
ES 1,2,3,4,6,7,8-HpCDF	0.99	0.92	0.92	1.00	0.99	0.96	1.00	0.97	3.7%
ES 1,2,3,4,7,8,9-HpCDF	0.89	0.83	0.82	0.89	0.90	0.88	0.90	0.87	4.0%
ES OCDF	0.87	0.81	0.82	0.87	0.89	0.88	0.91	0.86	4.5%

Initial Calibration — Galadriel_ICAL_05-May-22 — PCDD/Fs

	CS0	CS1	CS2	CS3	CS4	CS5	CS6		
Concentration (pg/µL)	0.25	0.5	2	10	40	200	500		
Standard ID	SIDAH66	SIDAH67	SIDAH68	SIDAJ58	SIDAH70	SIDAH71	SIDAH72		
Acquisition Date	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22	05-May-22		
Acquisition Time	17:04:48	17:54:33	18:44:17	19:34:01	20:23:45	21:13:30	22:03:13		
Analyte	RRF	RRF	RRF	RRF	RRF	RRF	RRF	Average	RSD
CS 37Cl-2378-TCDD	-	1.06	1.17	1.03	1.16	1.19	-	1.12	6.5%
CS 12347-PeCDD	0.89	0.90	0.92	0.74	0.92	0.88	0.90	0.88	7.0%
CS 12346-PeCDF	0.88	0.86	0.88	0.88	0.87	0.88	0.85	0.87	1.3%
CS 123469-HxCDF	1.29	1.16	1.21	1.31	1.25	1.20	1.21	1.23	4.2%
CS 1234689-HpCDF	1.02	0.92	0.94	1.01	0.99	0.93	0.94	0.96	4.4%
SS 37Cl-2378-TCDD	-	1.13	1.23	1.20	1.22	1.21	-	1.2	3.2%
SS 12347-PeCDD	1.09	1.08	1.10	0.98	1.08	0.99	1.05	1.05	4.6%
SS 12346-PeCDF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.0%
SS 123469-HxCDF	0.89	0.83	0.86	0.88	0.85	0.84	0.85	0.85	2.7%
SS 1234689-HpCDF	1.03	1.00	1.02	1.01	0.99	0.97	0.94	0.99	3.2%
AS 1368-TCDD	1.05	1.06	1.06	1.00	1.06	1.05	1.02	1.04	2.3%
AS 1368-TCDF	1.16	1.13	1.16	1.15	1.14	1.13	1.12	1.14	1.4%
Analyte	Area	Area	Area	Area	Area	Area	Area		
JS 1234-TCDD	2702906	2694078	2692616	2955878	2962654	2949105	3150972		
JS 1234-TCDF	3656965	3677075	3742120	3764650	4079828	4051562	4232612		
JS 123467-HxCDD	956073	995459	1001393	938828	1055754	1130829	1137503		

ICV Comparison — Batch: SID AH95 — PCDD/Fs

	ICV
Concentration (pg/µL)	10
Acquisition Date	06-May-22
Acquisition Time	11:06:22

Analyte	Conc. (pg/µL)	RRF	Avg. CS3 RRF	PD (BCS vs. CS3) (%)	Limit (%)	In Limit?
2,3,7,8-TCDD	10.2	1.18	1.14	3.3	20.0	Y
1,2,3,7,8-PeCDD	45.6	1.02	1.01	1.4	20.0	Y
1,2,3,4,7,8-HxCDD	48.6	1.11	1.06	5.0	20.0	Y
1,2,3,6,7,8-HxCDD	50.3	1.19	1.10	7.8	20.0	Y
1,2,3,7,8,9-HxCDD	52.2	1.13	1.05	7.2	20.0	Y
1,2,3,4,6,7,8-HpCDD	50.8	1.06	1.05	0.9	20.0	Y
OCDD	104	1.24	1.14	8.8	20.0	Y
2,3,7,8-TCDF	10.2	1.14	1.11	2.7	20.0	Y
1,2,3,7,8-PeCDF	49.7	1.08	1.07	0.8	20.0	Y
2,3,4,7,8-PeCDF	52.6	1.23	1.06	15.6	20.0	Y
1,2,3,4,7,8-HxCDF	51.3	1.38	1.30	5.8	20.0	Y
1,2,3,6,7,8-HxCDF	50.0	1.25	1.21	2.9	20.0	Y
2,3,4,6,7,8-HxCDF	49.3	1.28	1.24	3.4	20.0	Y
1,2,3,7,8,9-HxCDF	49.8	1.21	1.22	-1.0	20.0	Y
1,2,3,4,6,7,8-HpCDF	51.8	1.58	1.47	7.3	20.0	Y
1,2,3,4,7,8,9-HpCDF	52.5	1.53	1.39	9.7	20.0	Y
OCDF	101.0	1.22	1.18	3.3	20.0	Y
ES 2,3,7,8-TCDD	104	0.91	0.94	-3.0	30.0	Y
ES 1,2,3,7,8-PeCDD	107	0.73	0.82	-10.6	30.0	Y
ES 1,2,3,4,7,8-HxCDD	98.5	1.05	1.05	0.2	30.0	Y
ES 1,2,3,6,7,8-HxCDD	99.0	1.06	0.99	6.8	30.0	Y
ES 1,2,3,7,8,9-HxCDD	96.1	1.14	1.11	2.7	30.0	Y
ES 1,2,3,4,6,7,8-HpCDD	96	0.98	0.92	7.0	30.0	Y
ES OCDD	198	0.78	0.71	10.1	30.0	Y
ES 2,3,7,8-TCDF	99	0.97	0.99	-2.3	30.0	Y
ES 1,2,3,7,8-PeCDF	100	0.92	0.87	5.6	30.0	Y
ES 2,3,4,7,8-PeCDF	102	0.88	0.85	3.4	30.0	Y
ES 1,2,3,4,7,8-HxCDF	93.9	1.27	1.18	7.5	30.0	Y
ES 1,2,3,6,7,8-HxCDF	97.4	1.58	1.42	11.0	30.0	Y
ES 2,3,4,6,7,8-HxCDF	102.0	1.44	1.29	11.9	30.0	Y
ES 1,2,3,7,8,9-HxCDF	100	1.37	1.18	15.9	30.0	Y
ES 1,2,3,4,6,7,8-HpCDF	94.7	0.96	0.97	-1.5	30.0	Y
ES 1,2,3,4,7,8,9-HpCDF	95	0.84	0.87	-3.6	30.0	Y
ES OCDF	197	0.95	0.86	10.9	30.0	Y

Batch Control Spike — Batch: SID AH95

	BCS
Acquisition Date	06-May-22
Acquisition Time	11:06:22

Analyte	Conc. (pg/µL)	RRF	Avg. CS3 RRF	PD (BCS vs. CS3) (%)	Limit (%)	In Limit?
CS 37Cl-2378-TCDD	10.3	1.06	1.12	-5.3	30.0	Y
CS 12347-PeCDD	100.0	0.68	0.88	-22.5	30.0	Y
CS 12346-PeCDF	100	0.92	0.87	5.6	30.0	Y
CS 123469-HxCDF	94.4	1.35	1.23	10.1	30.0	Y
CS 1234689-HpCDF	95.5	0.97	0.96	0.6	30.0	Y
SS 37Cl-2378-TCDD	25.0	1.16	1.20	-3.1	30.0	Y
SS 12347-PeCDD	97.0	0.91	1.05	-13.2	30.0	Y
SS 12346-PeCDF	101.0	1.00	1.00	0.0	30.0	Y
SS 123469-HxCDF	102	0.84	0.85	-1.2	30.0	Y
SS 1234689-HpCDF	101	1.01	0.99	2.2	30.0	Y
AS 1368-TCDD	102	1.03	1.04	-1.4	30.0	Y
AS 1368-TCDF	101	1.14	1.14	0.2	30.0	Y
Analyte	Area					
JS 1234-TCDD	1664460					
JS 1234-TCDF	2042692					
JS 123467-HxCDD	700035					

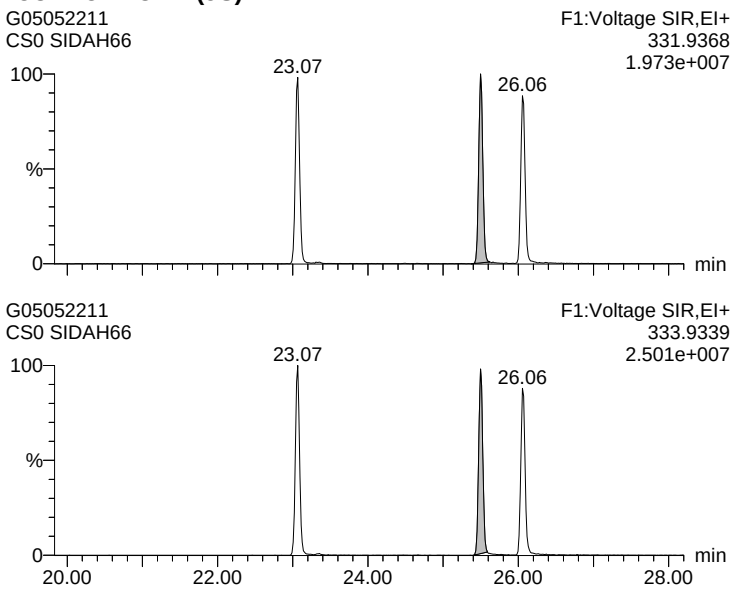
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

REVIEWED
hallen , 8/16/2022 ,11:19:58 AM

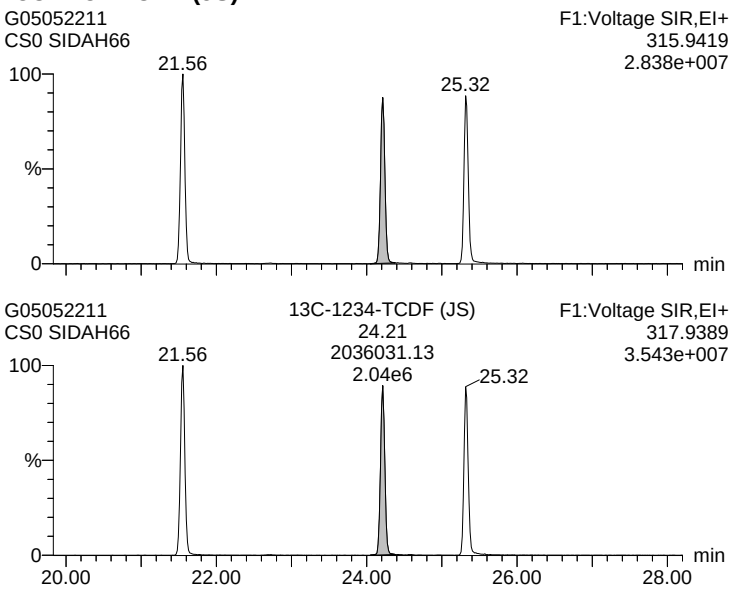
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8.mdb 06 May 2022 07:27:57
Calibration: 06 May 2022 10:14:37

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

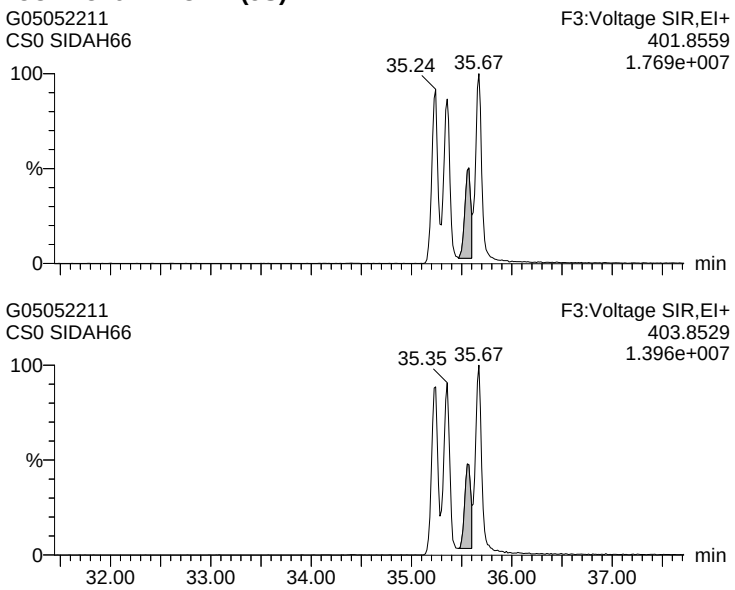
13C-1234-TCDD (JS)



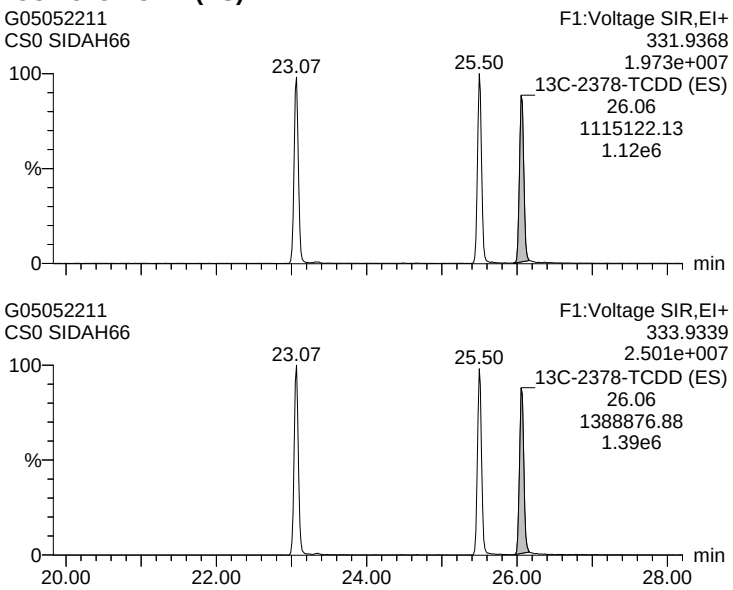
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



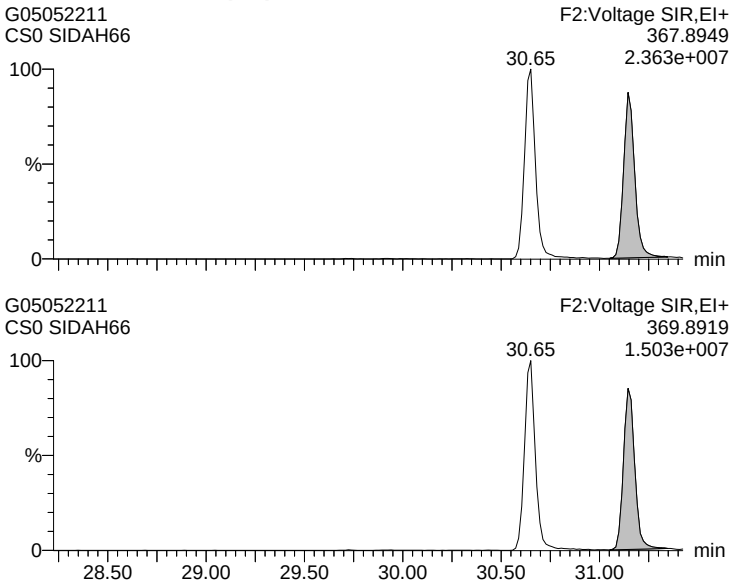
13C-2378-TCDD (ES)



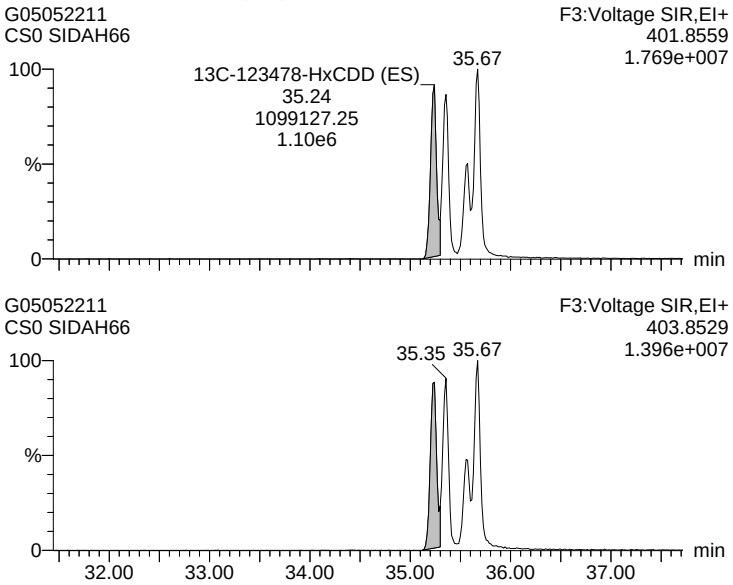
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

13C-12378-PeCDD (ES)



13C-123478-HxCDD (ES)



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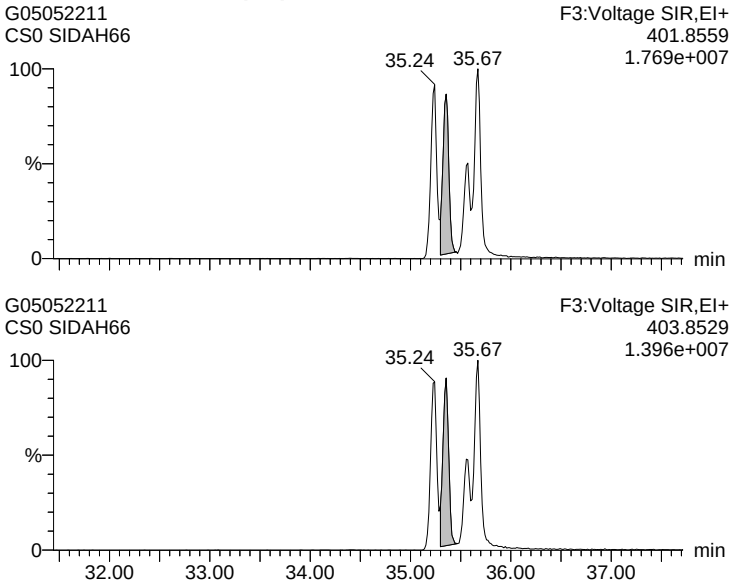
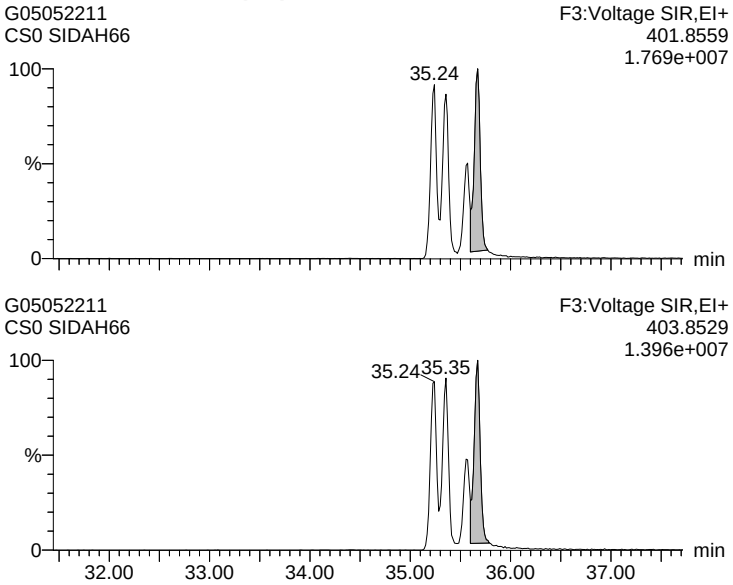


13C-123789-HxCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

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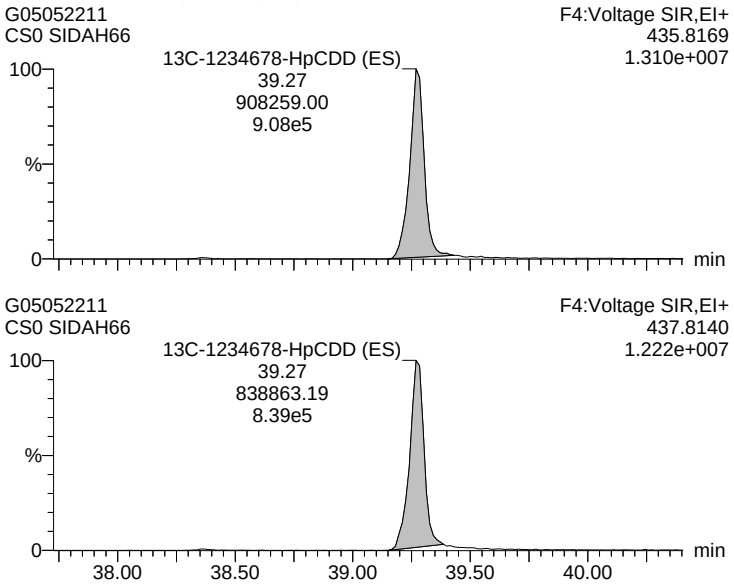
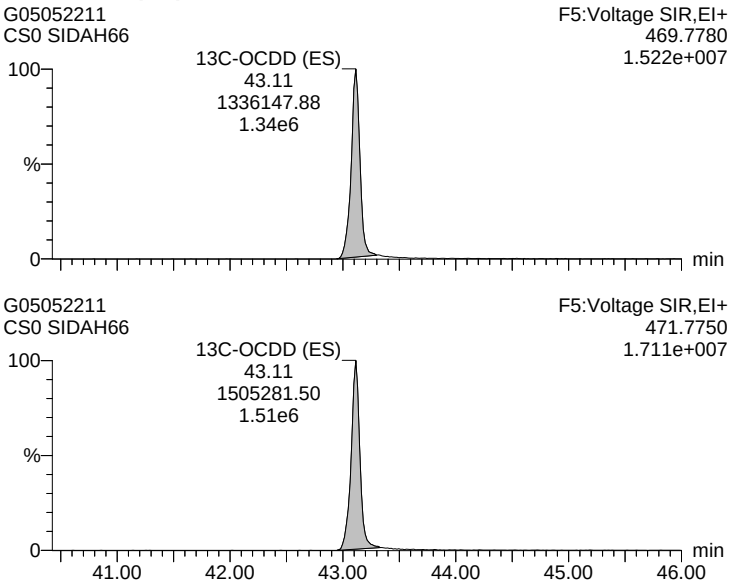
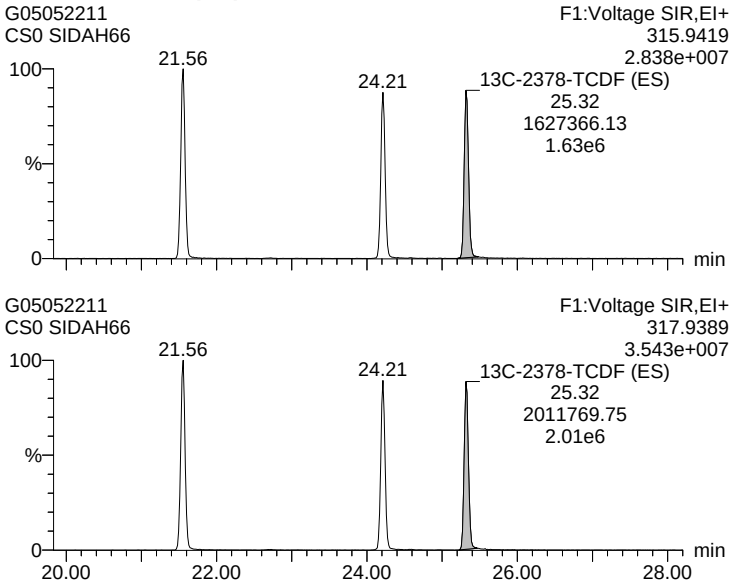


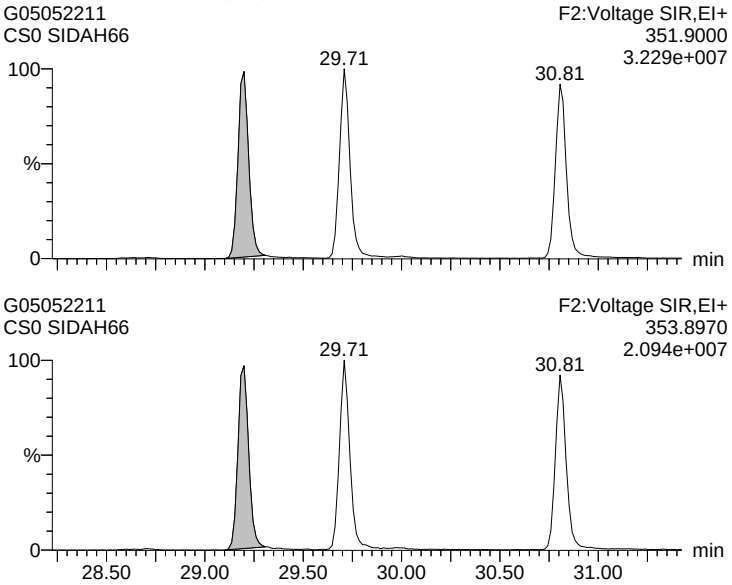
13C-OCDD (ES)



13C-2378-TCDF (ES)



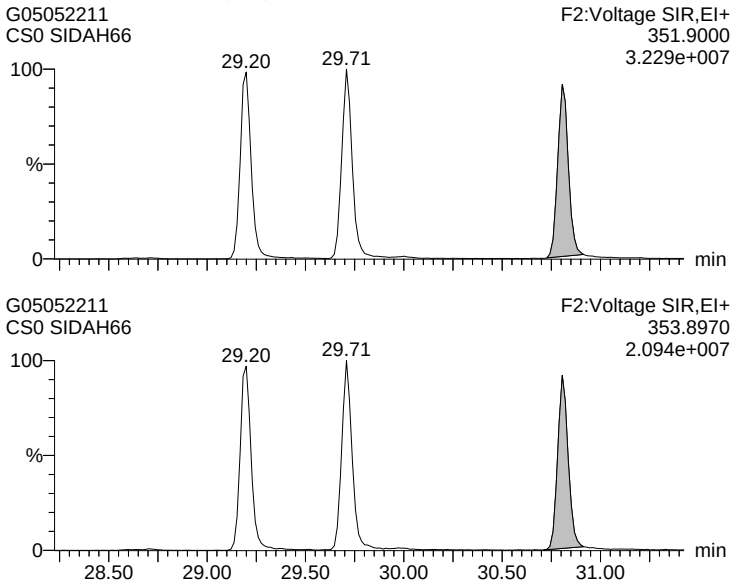
13C-12378-PeCDF (ES)



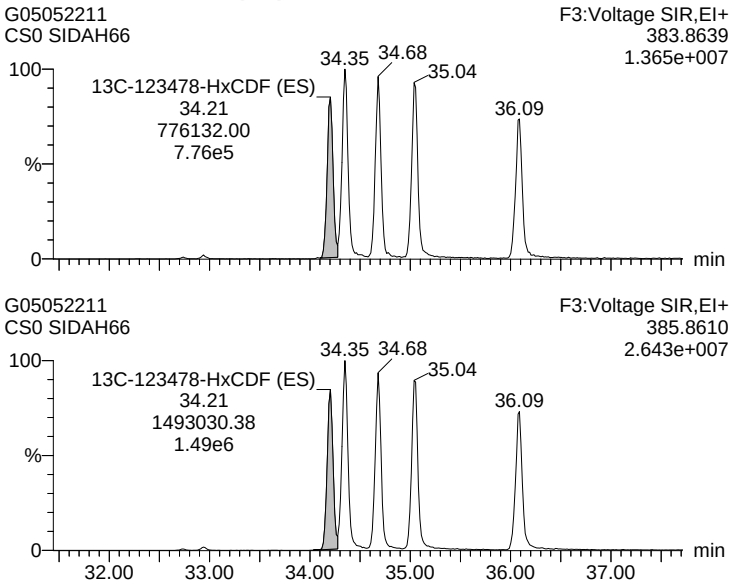
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

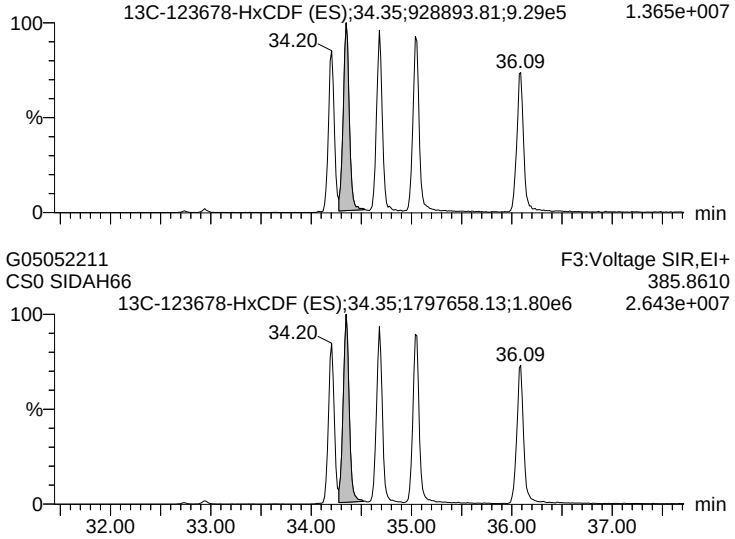
13C-23478-PeCDF (ES)



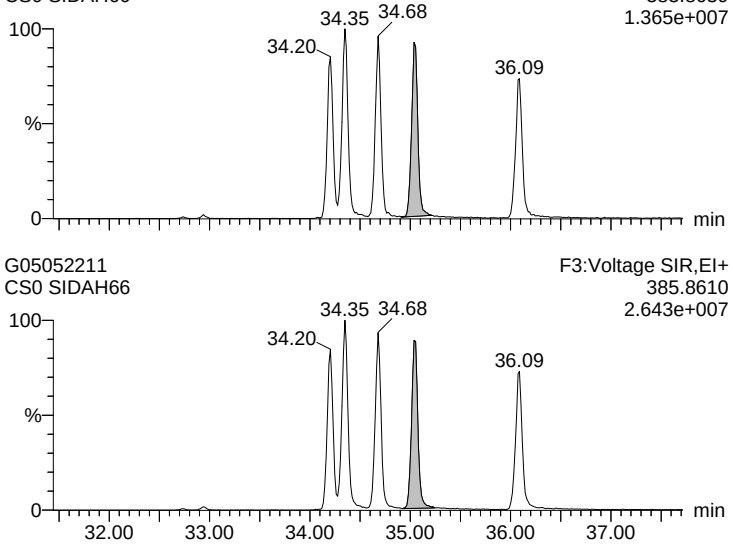
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



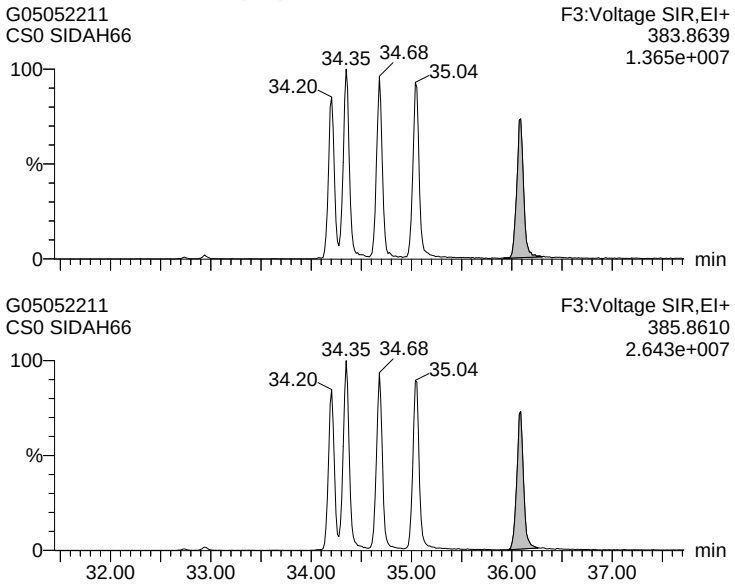
13C-234678-HxCDF (ES)



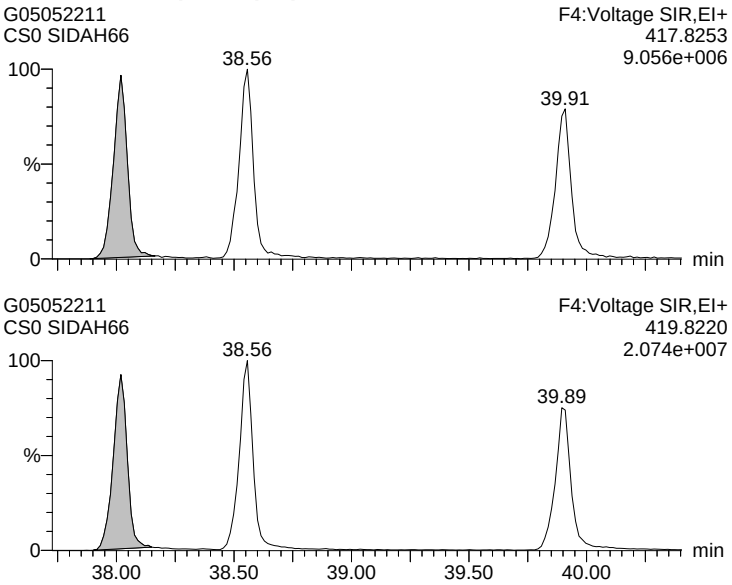
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

13C-123789-HxCDF (ES)



13C-1234678-HpCDF (ES)



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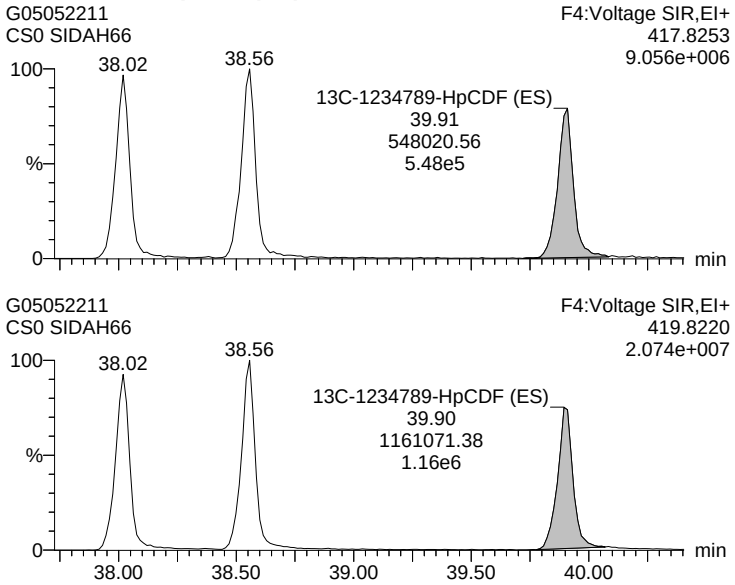
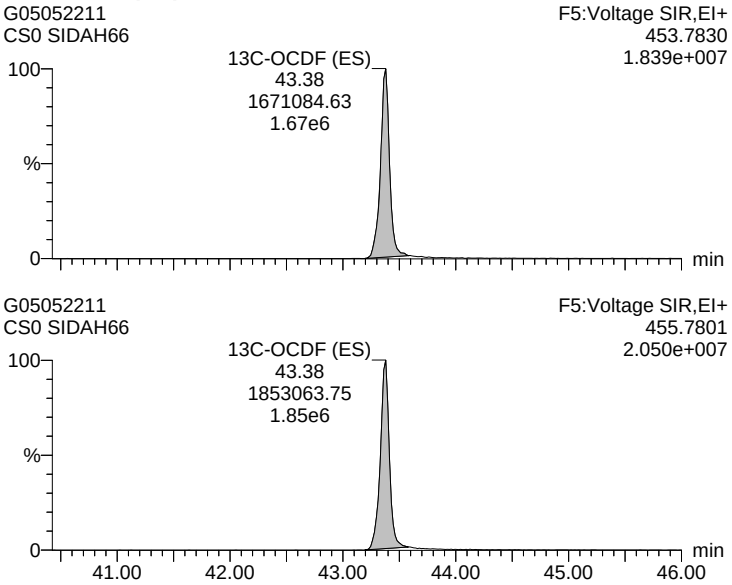


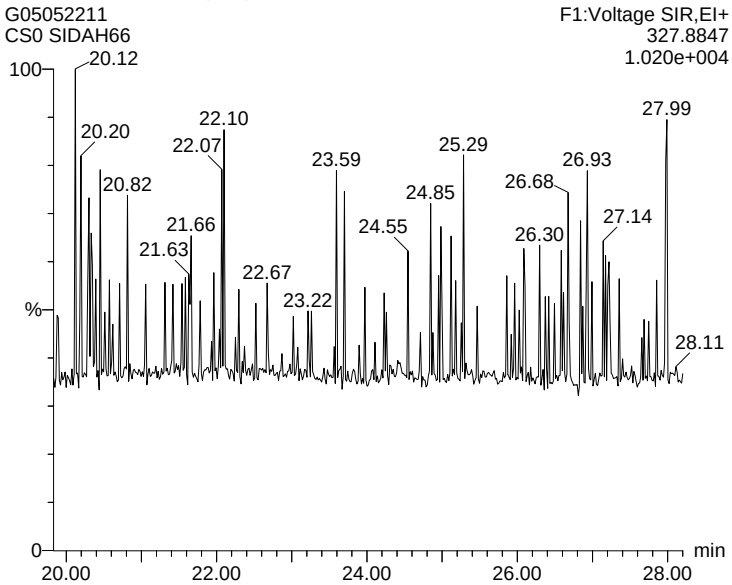
13C-OCDF (ES)



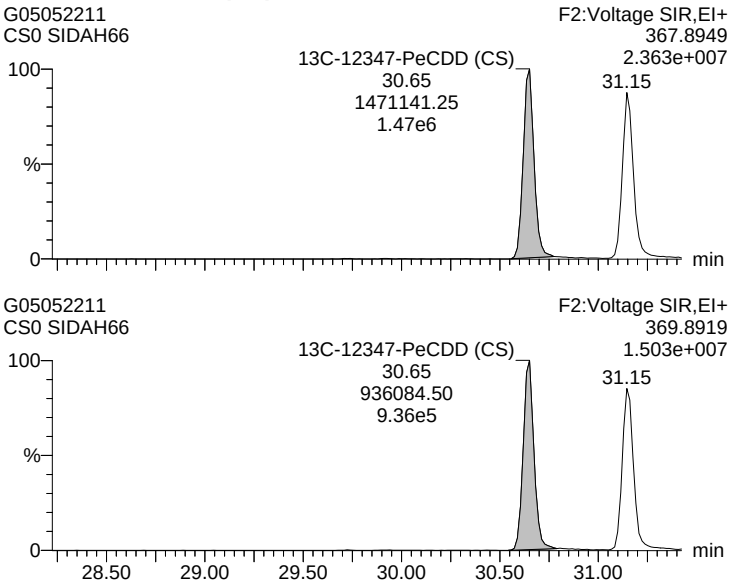
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

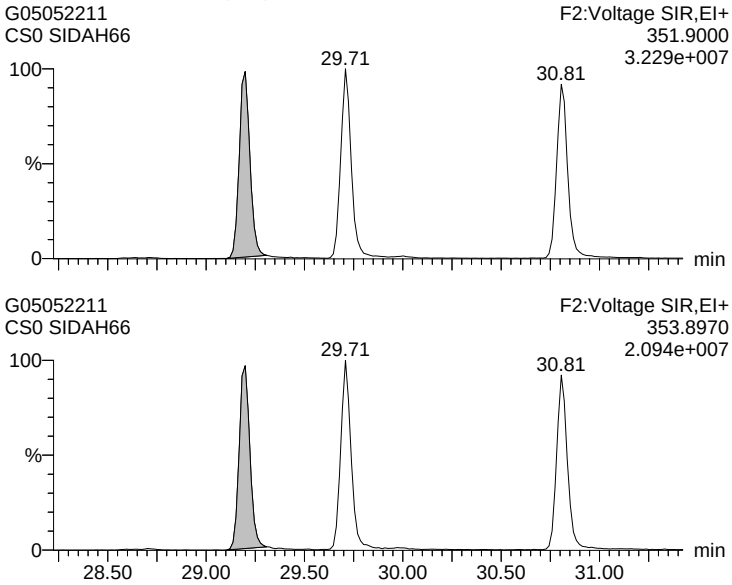
37Cl-2378-TCDD (CS)



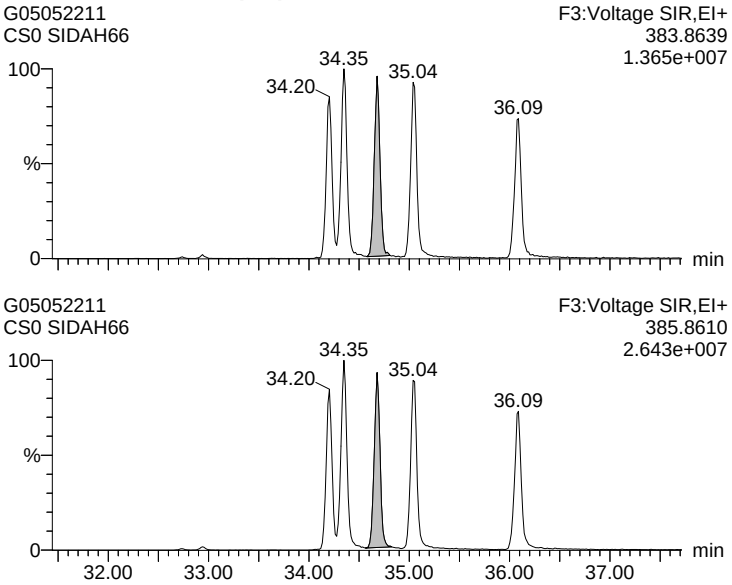
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

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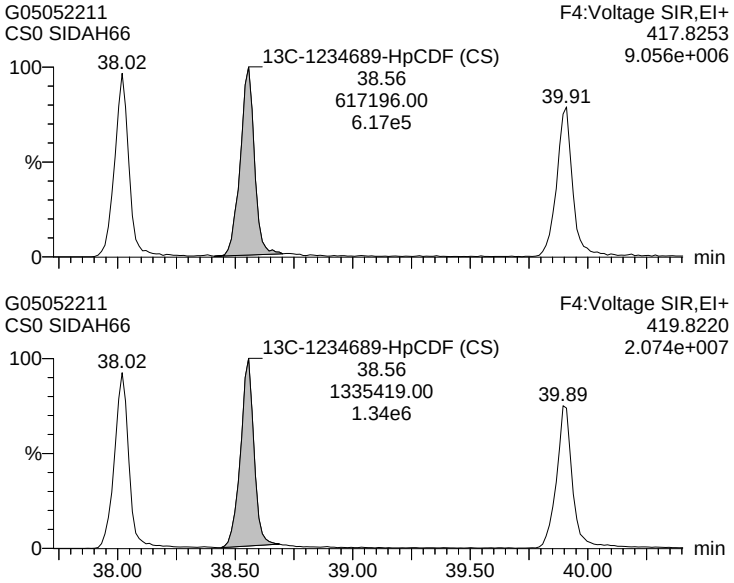
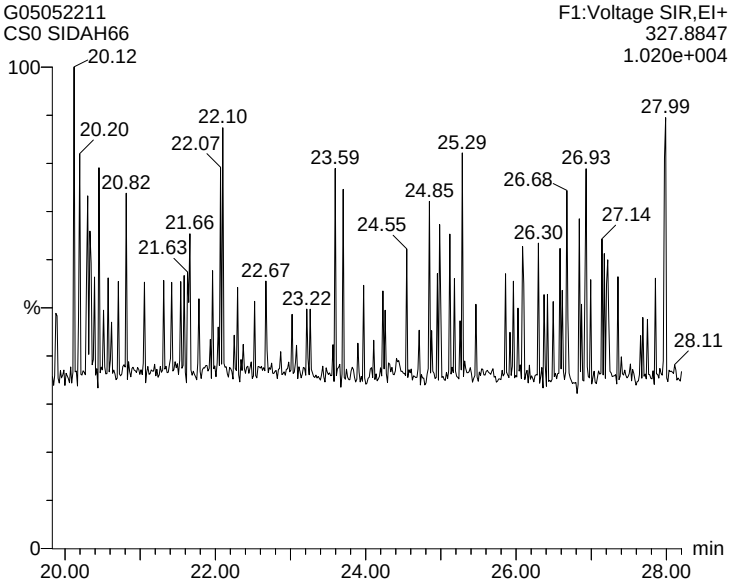


37Cl-2378-TCDD (SS)



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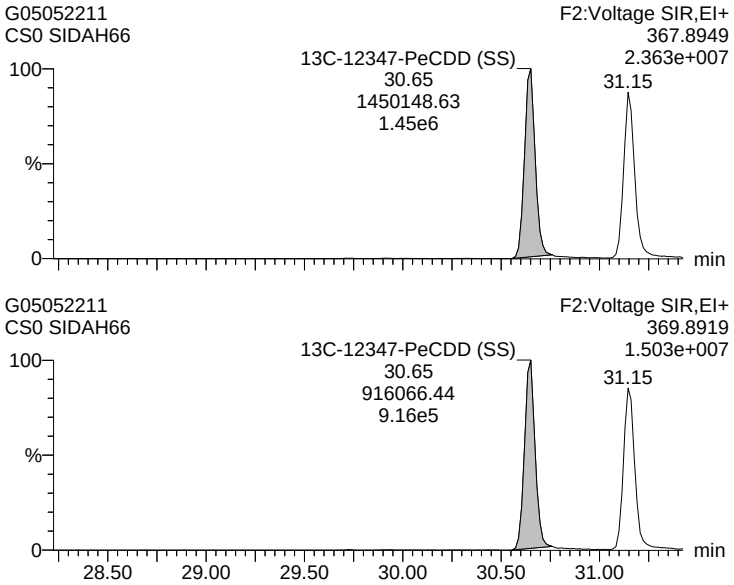
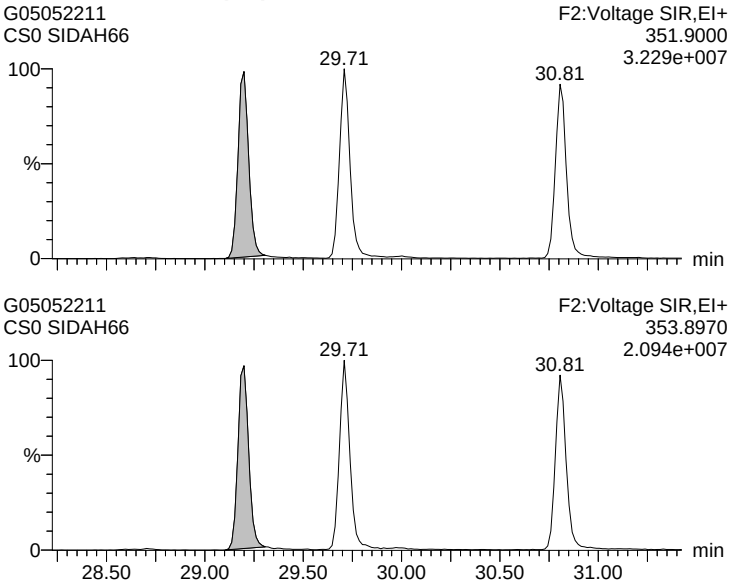


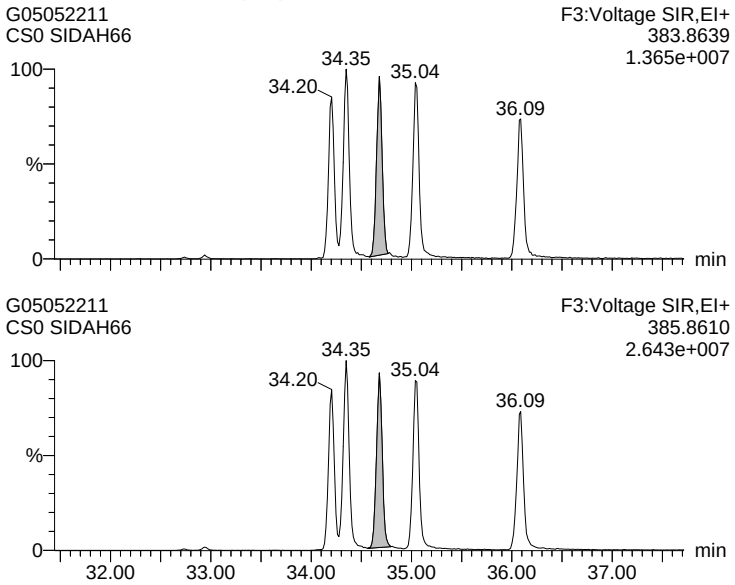
13C-12346-PeCDF (SS)



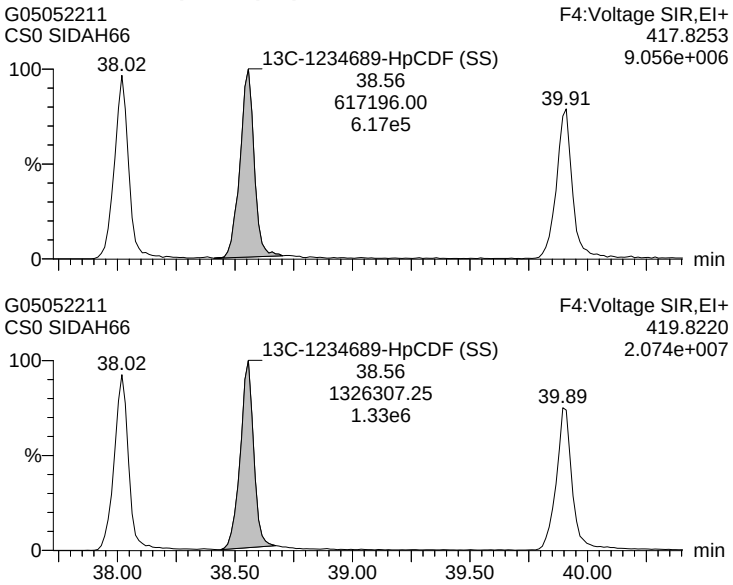
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

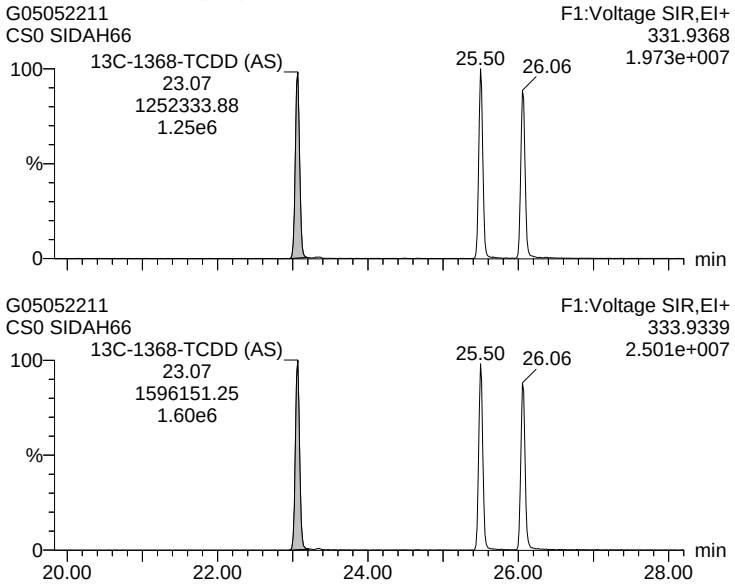
13C-123469-HxCDF (SS)



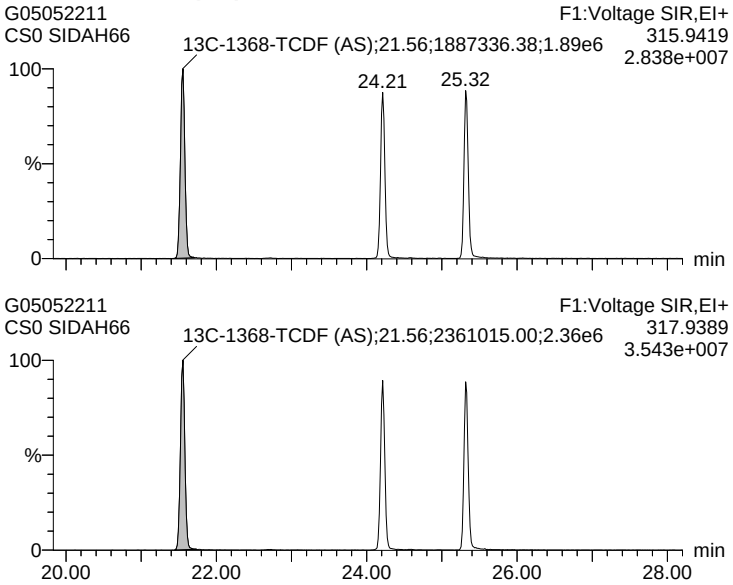
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



13C-1368-TCDF (AS)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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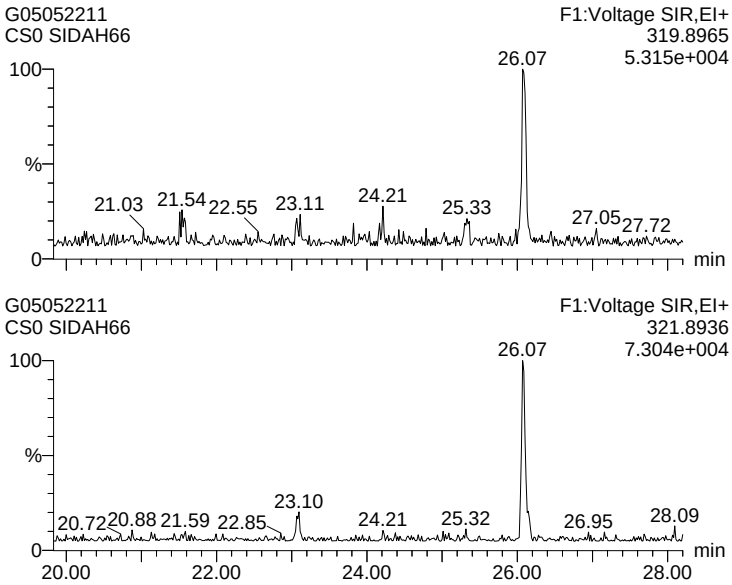
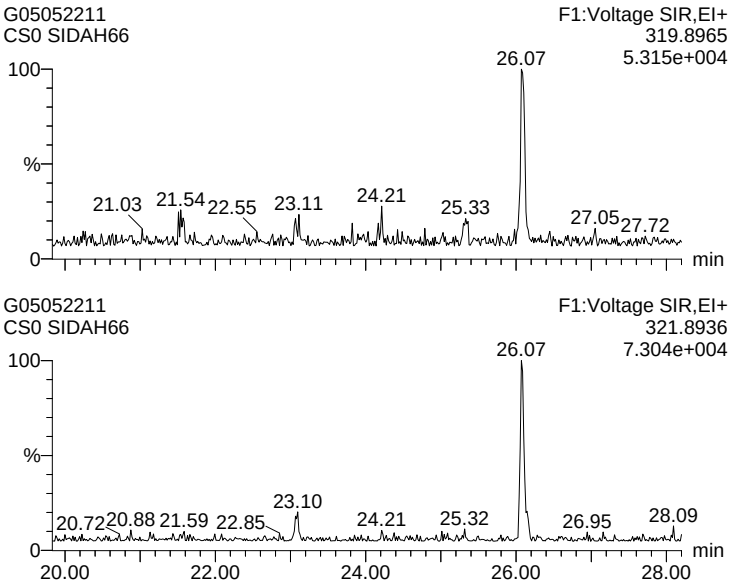
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

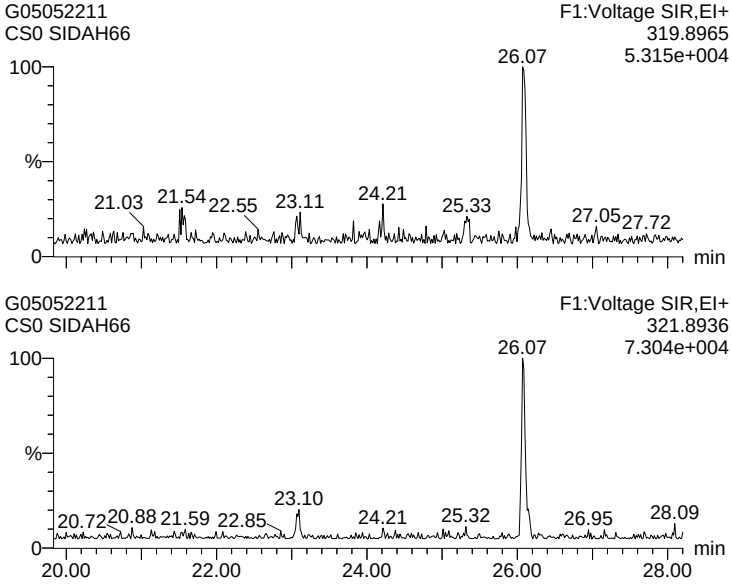
1368-TCDD



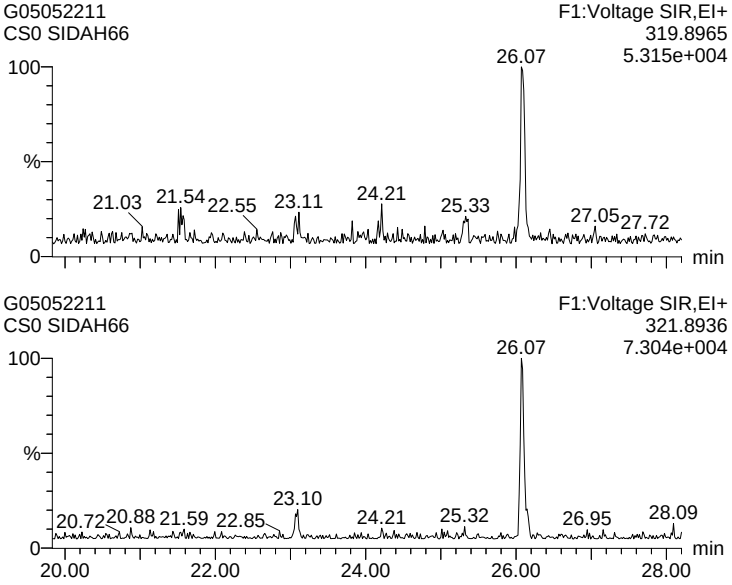
1379-TCDD



1369-TCDD



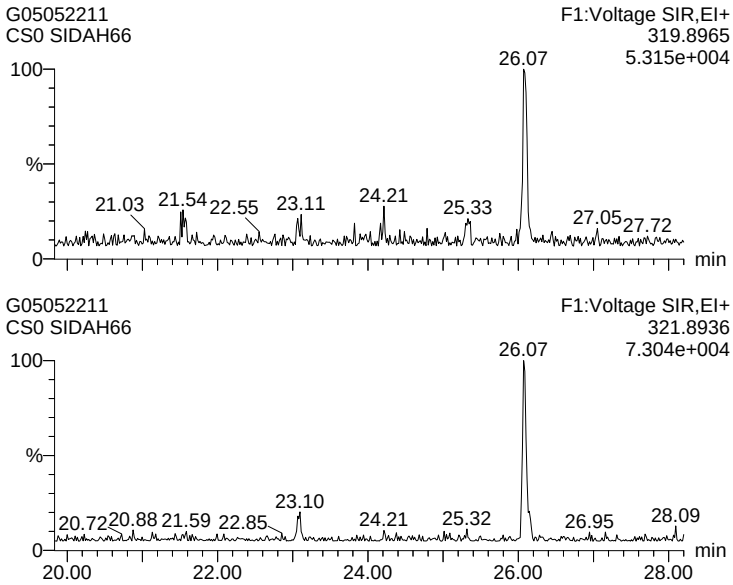
1469-TCDD



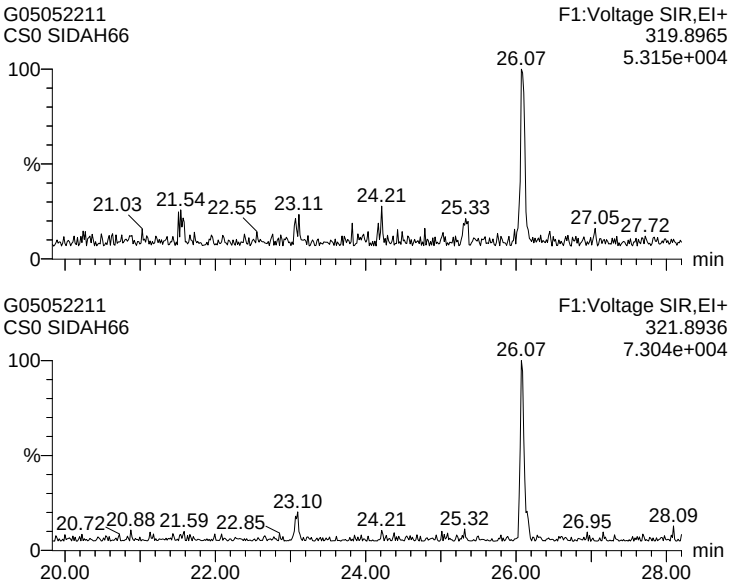
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

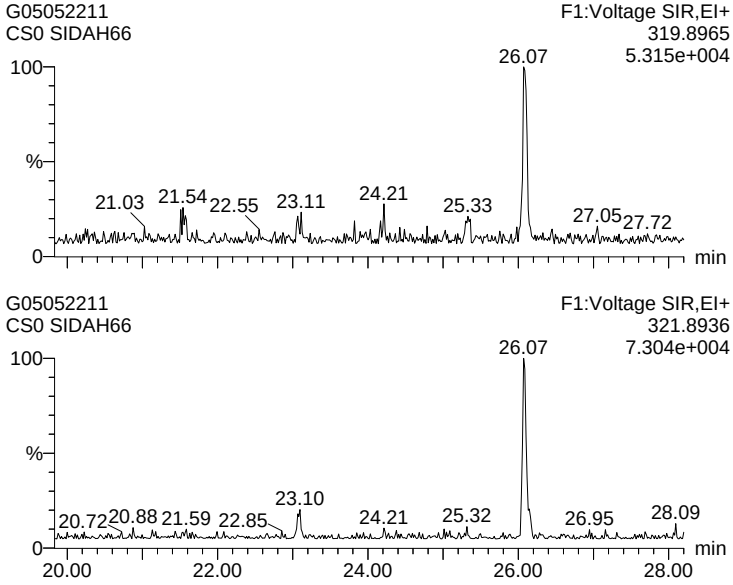
1247/1246/1248/1249-TCDD



1378-TCDD



1268-TCDD



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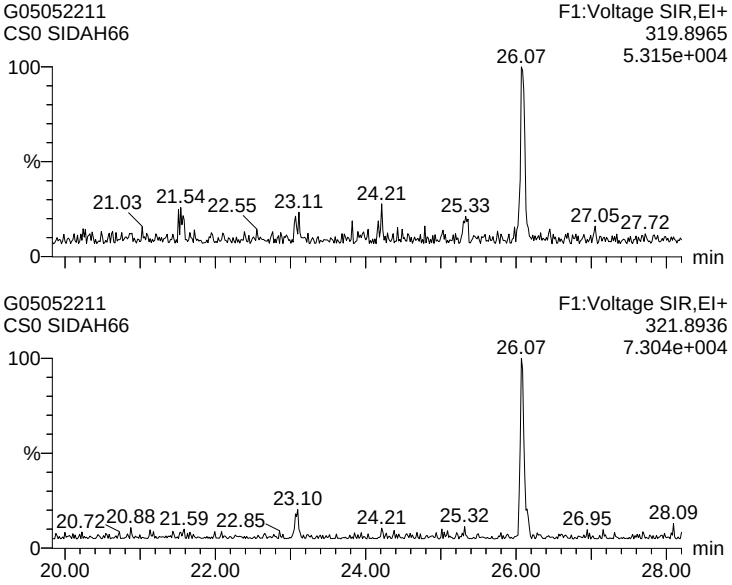

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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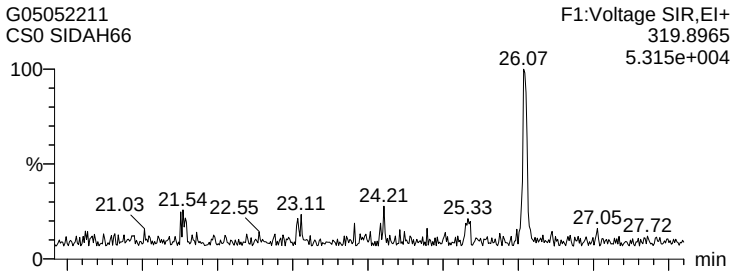
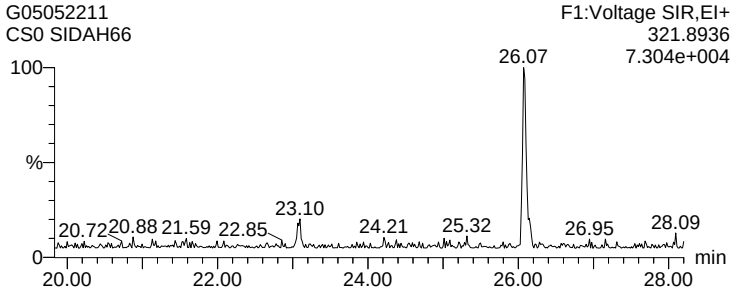
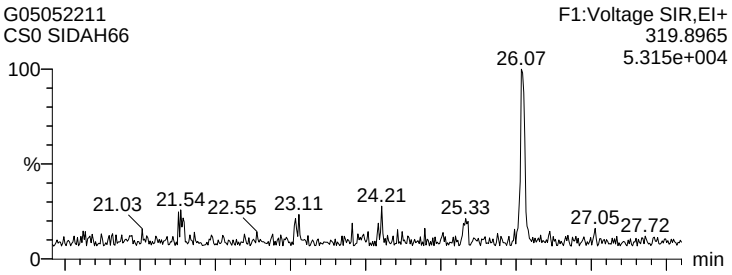
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

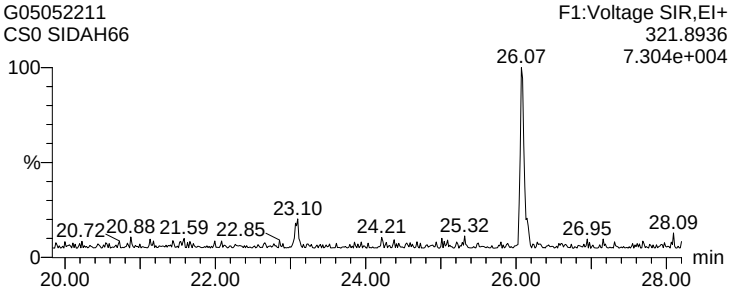
1279-TCDD



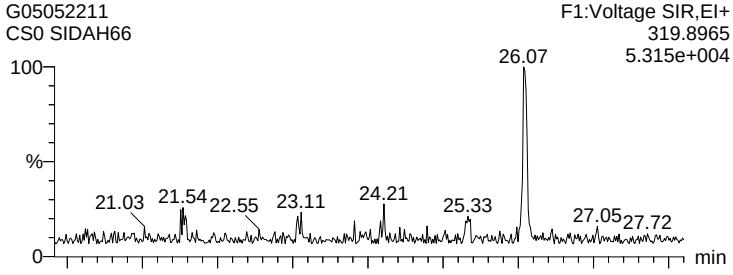


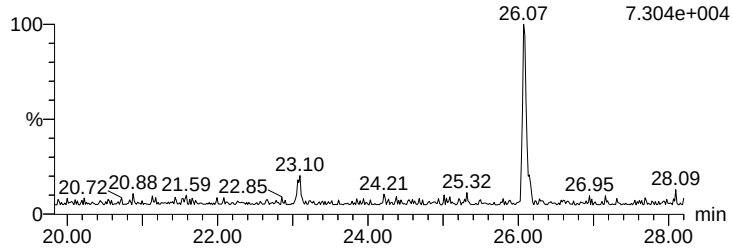
1234/1269-TCDD



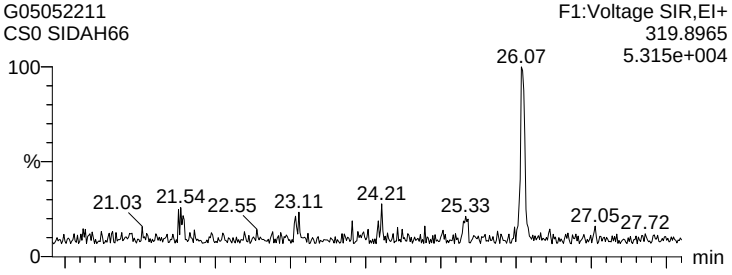


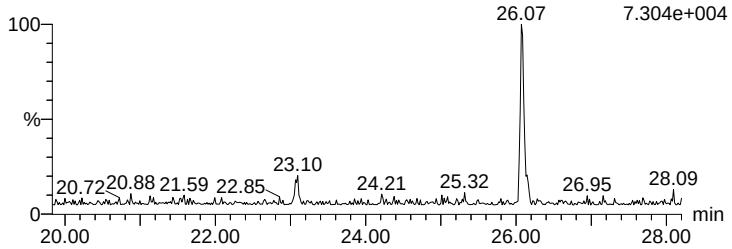
1236-TCDD





1237/1238-TCDD

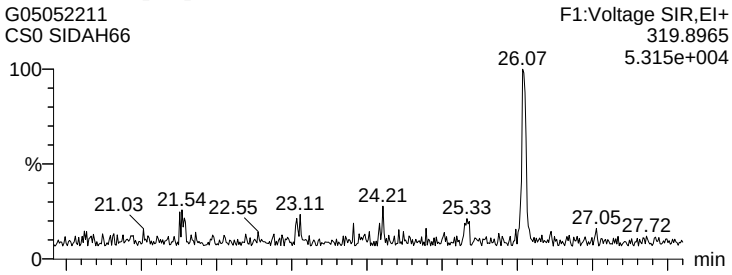


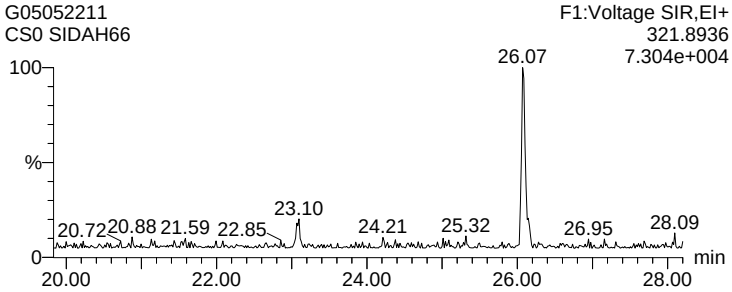


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

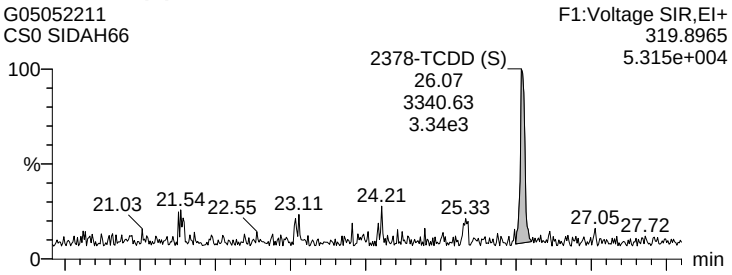
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

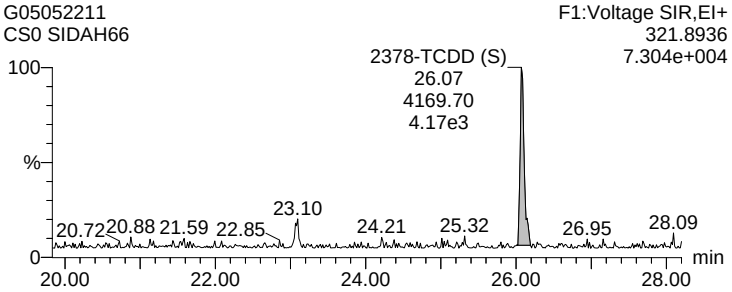
1239-TCDD [CE]



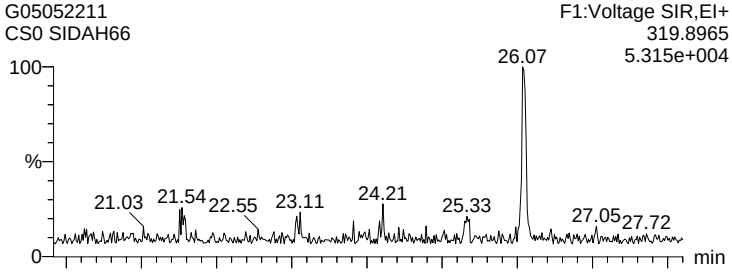


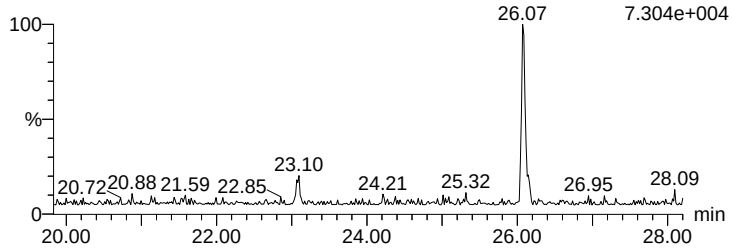
2378-TCDD (S)



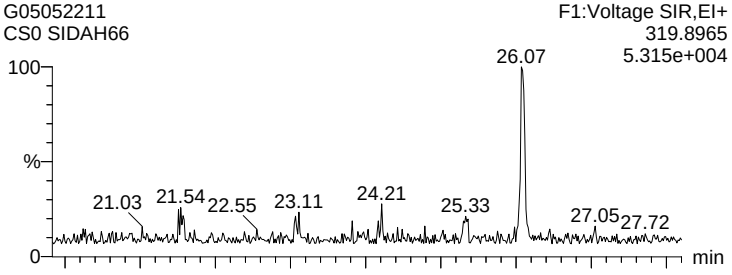


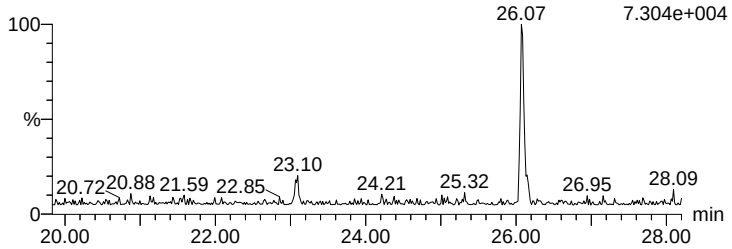
1278-TCDD





1267-TCDD

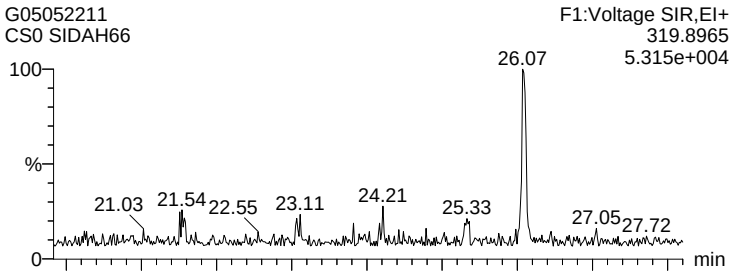


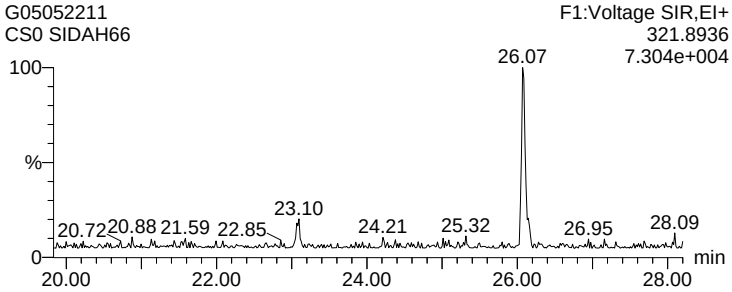


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

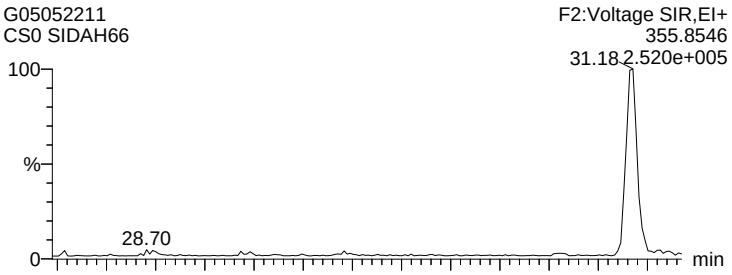
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

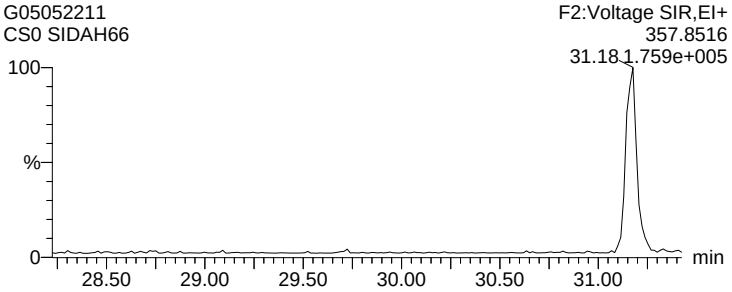
1289-TCDD



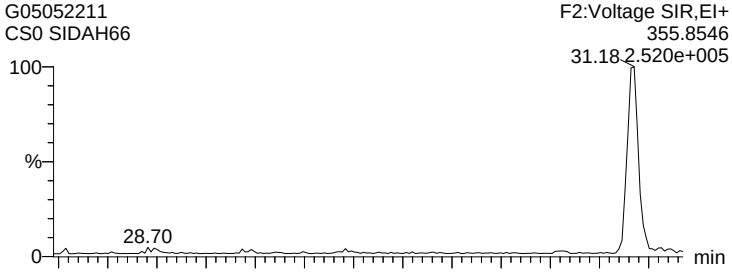


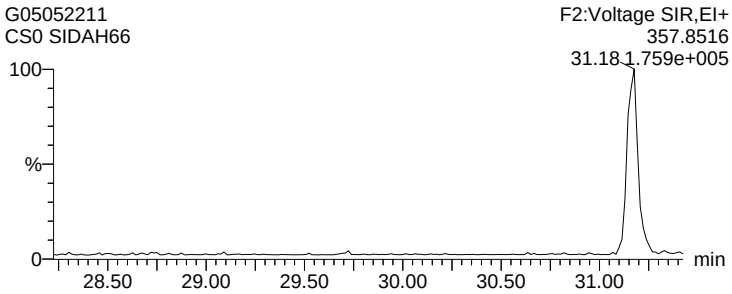
12479/12468-PeCDD



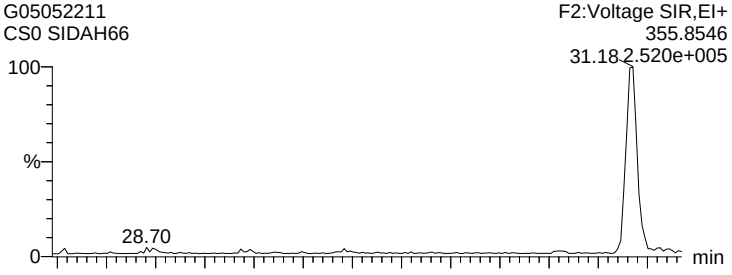


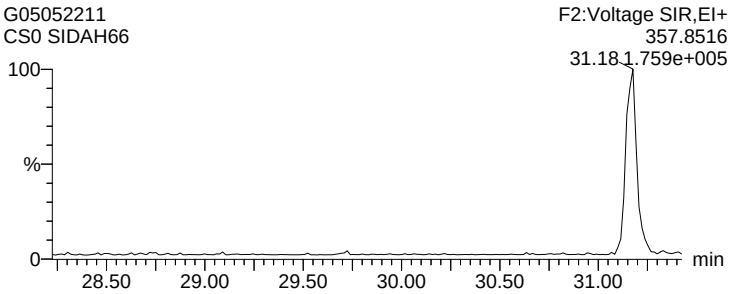
12469-PeCDD





12368-PeCDD

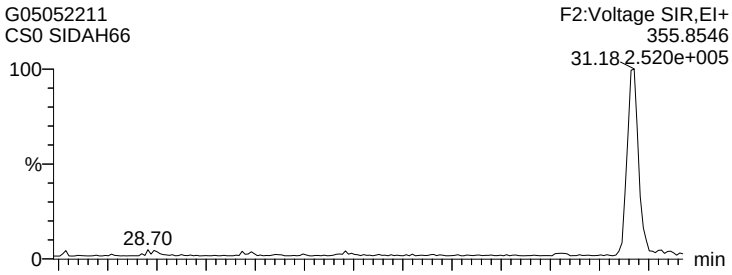


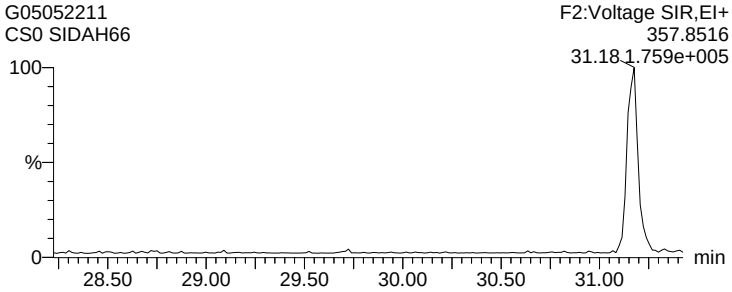


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

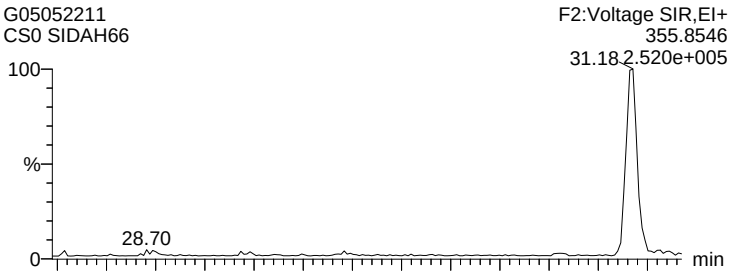
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

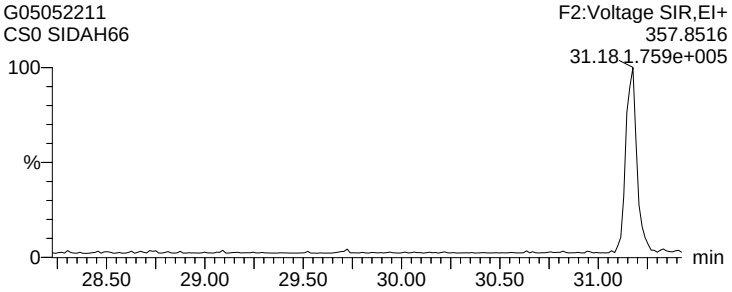
12478-PeCDD



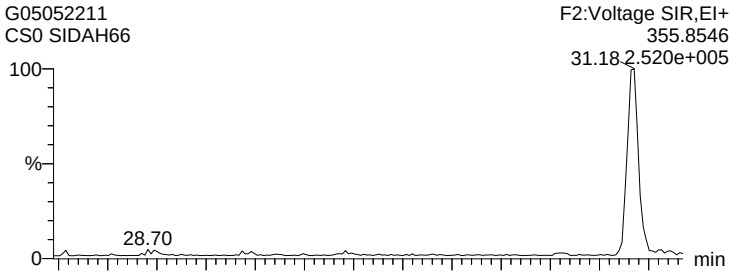


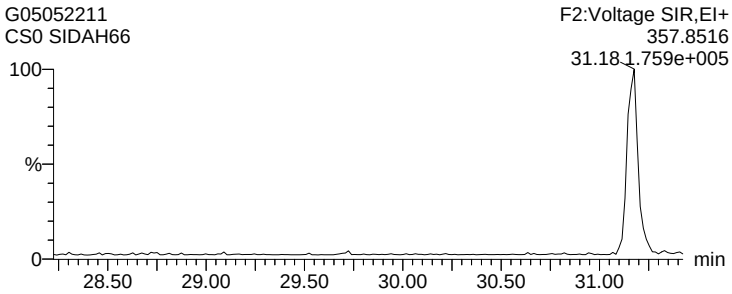
12379-PeCDD



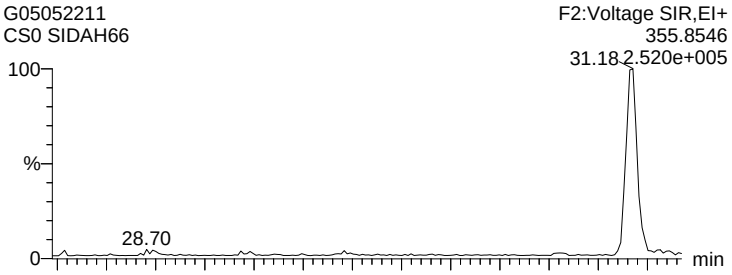


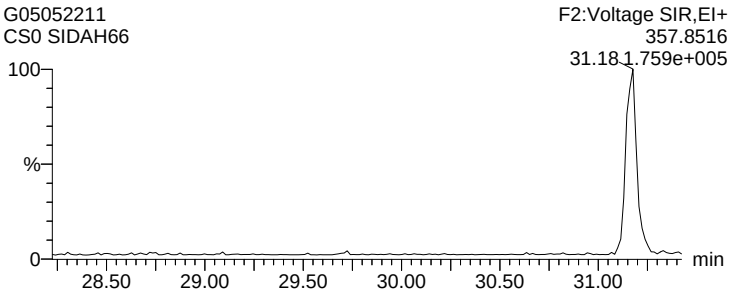
12369/12467/12489-PeCDD





12346/12347-PeCDD

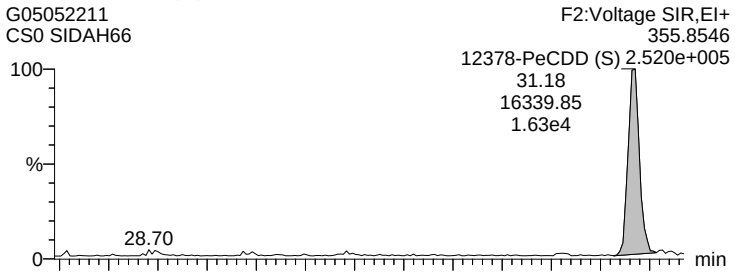


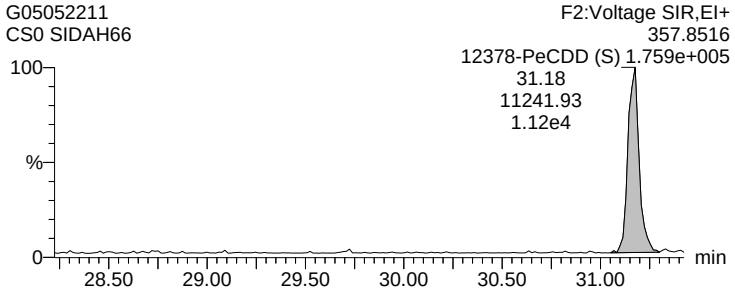


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

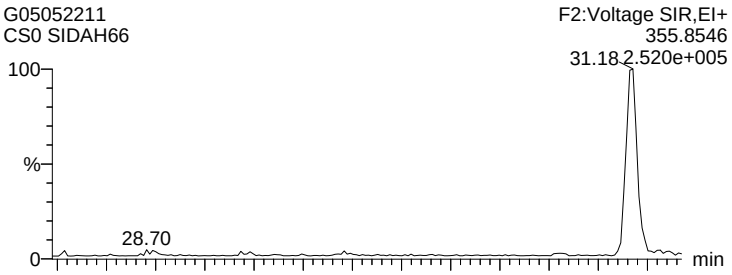
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

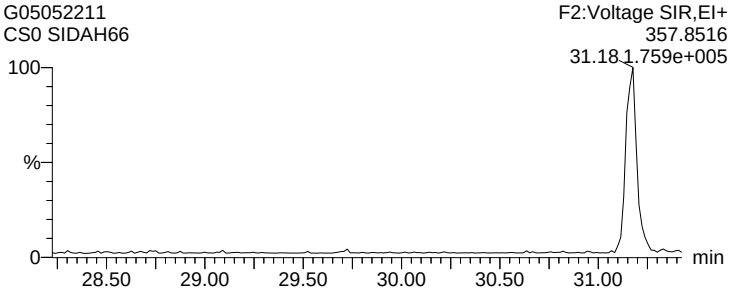
12378-PeCDD (S)



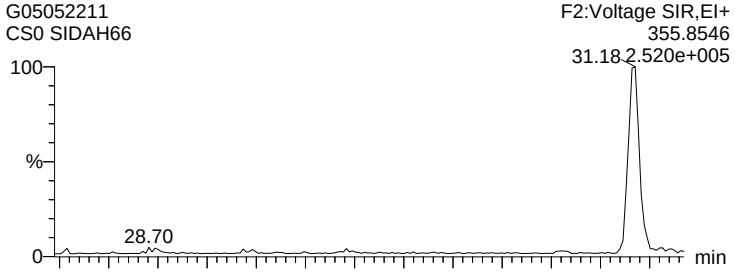


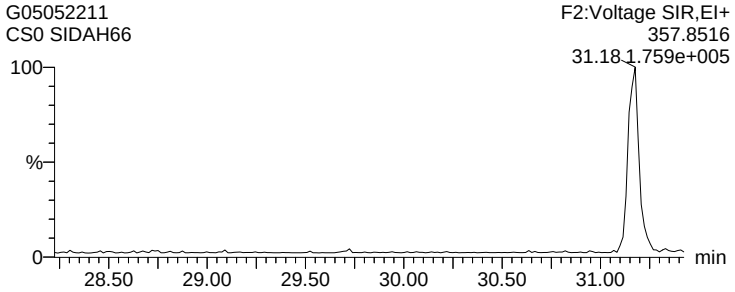
12367-PeCDD



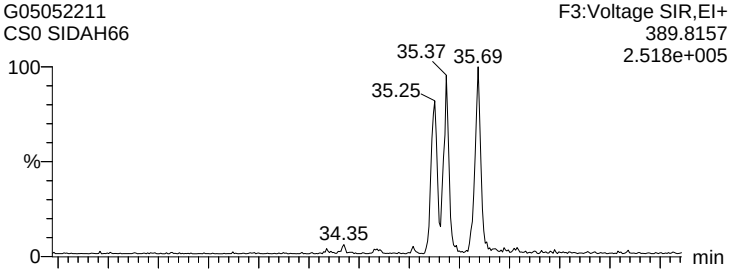


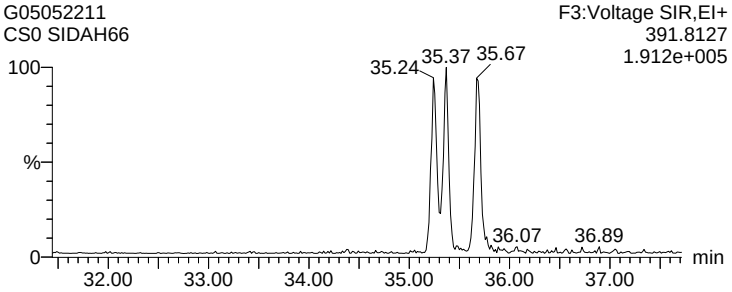
12389-PeCDD





124679/124689-HxCDD

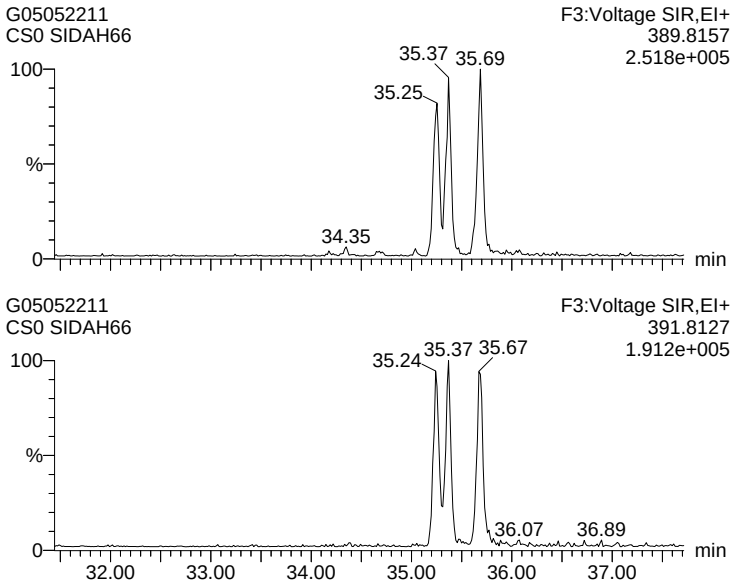




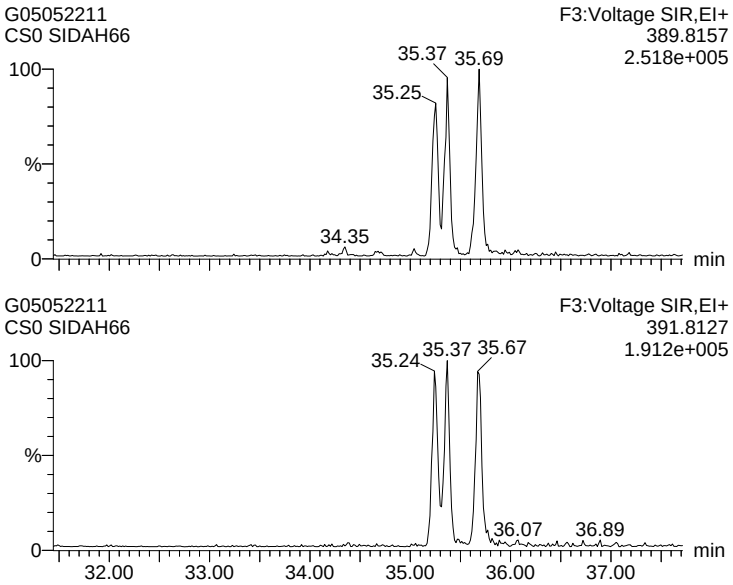
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

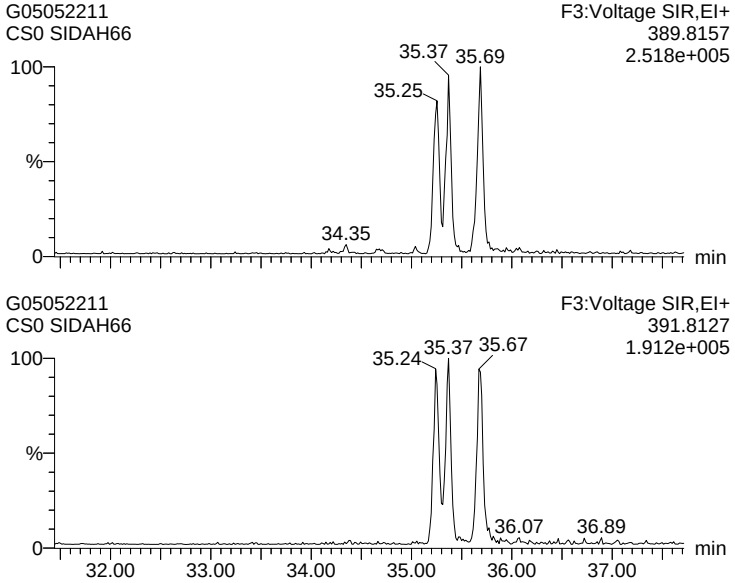
123468-HxCDD



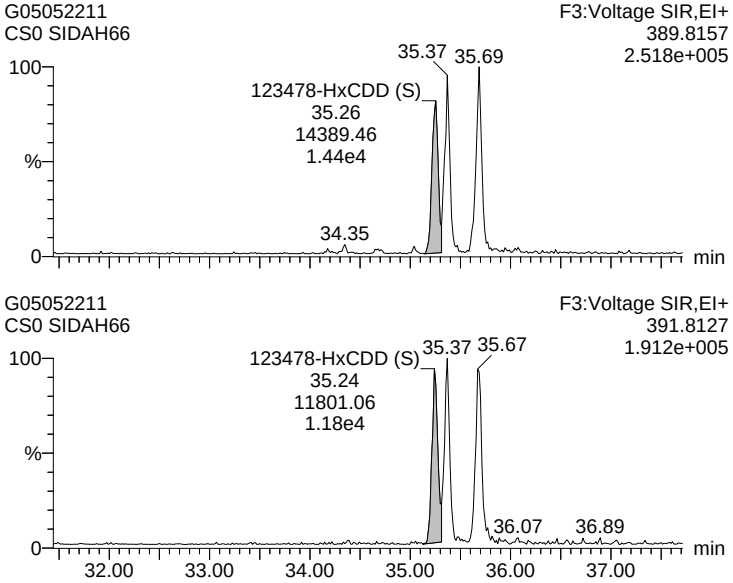
123679/123689-HxCDD



123469-HxCDD



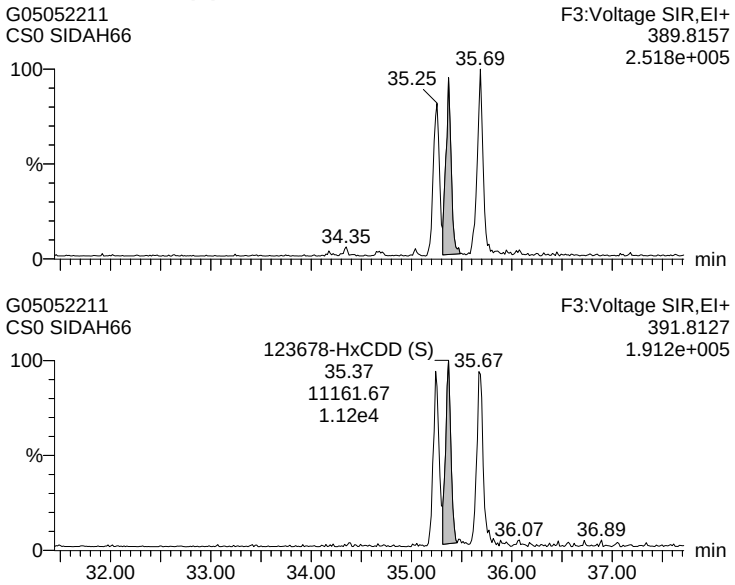
123478-HxCDD (S)



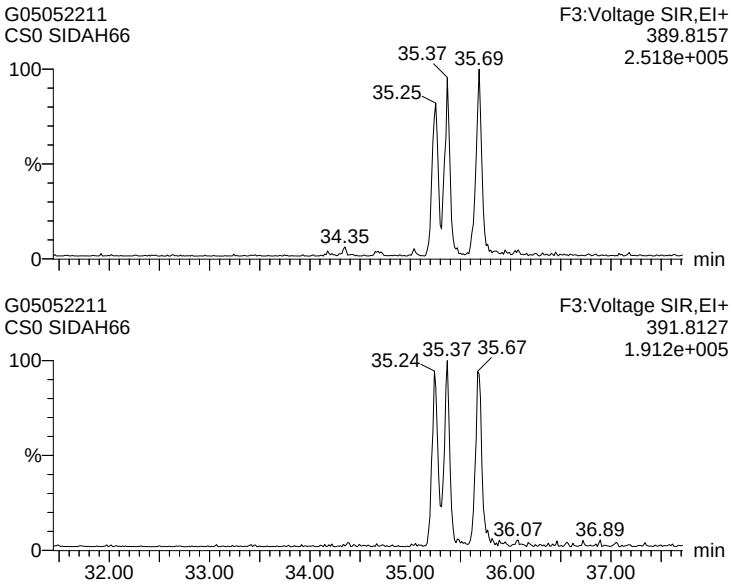
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

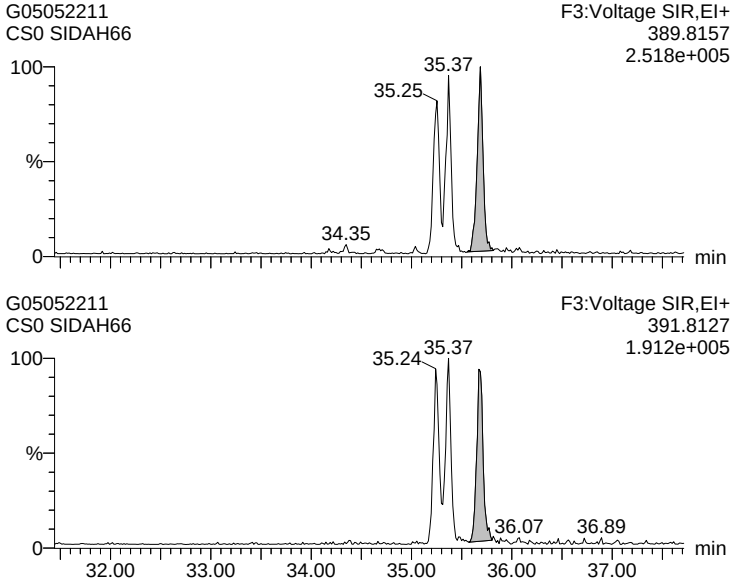
123678-HxCDD (S)



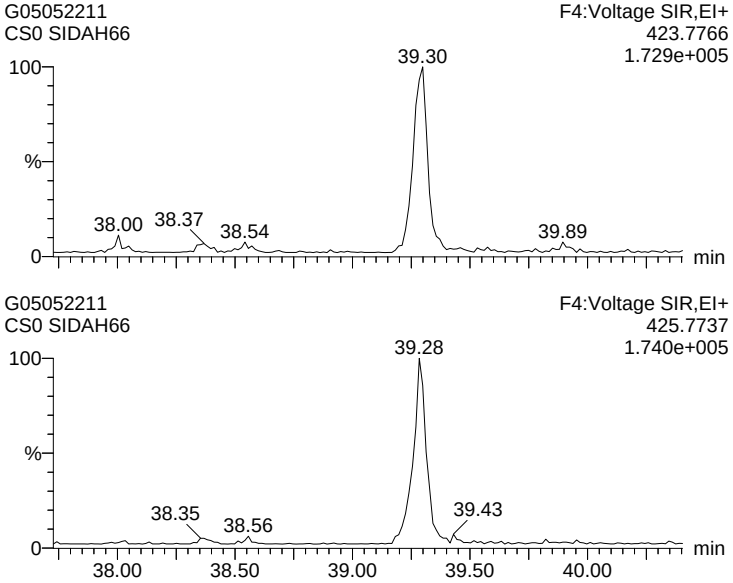
123467-HxCDD



123789-HxCDD (S)



1234679-HpCDD



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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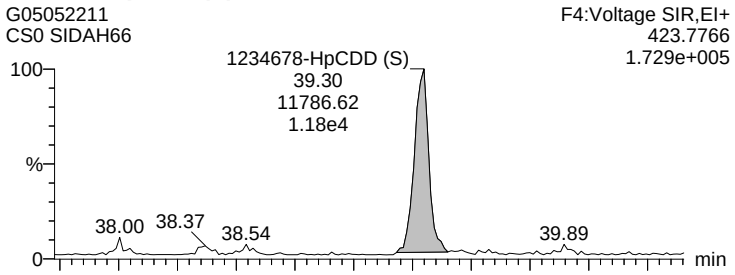
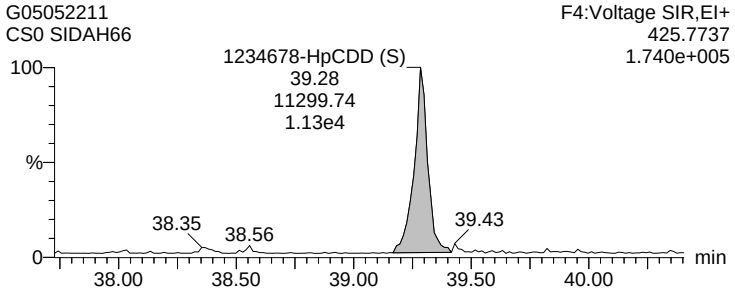
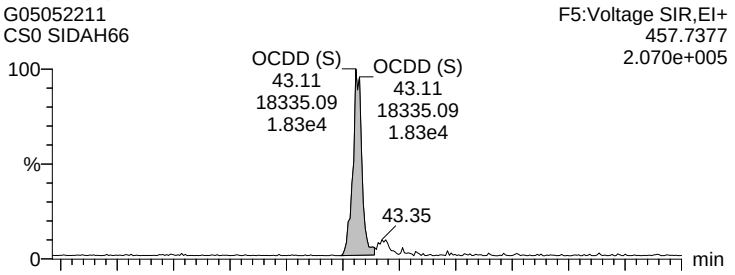
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

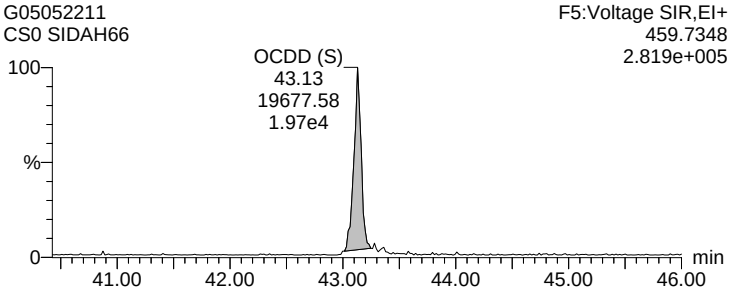
1234678-HpCDD (S)



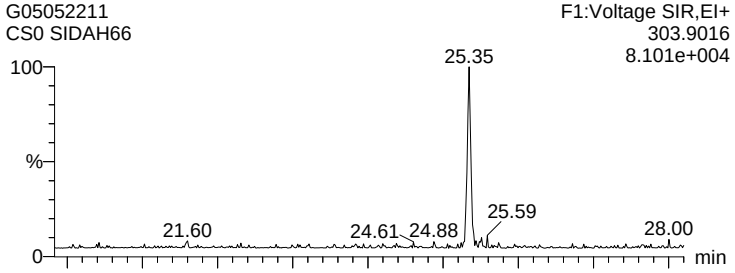


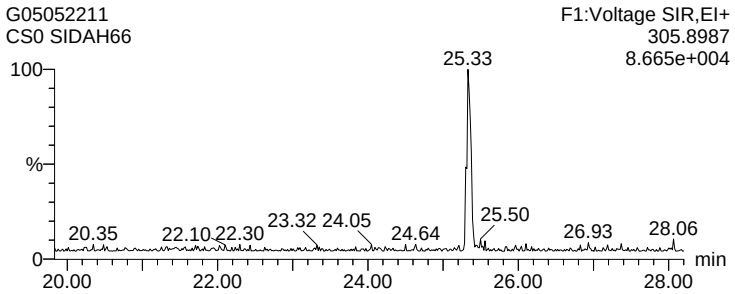
OCDD (S)



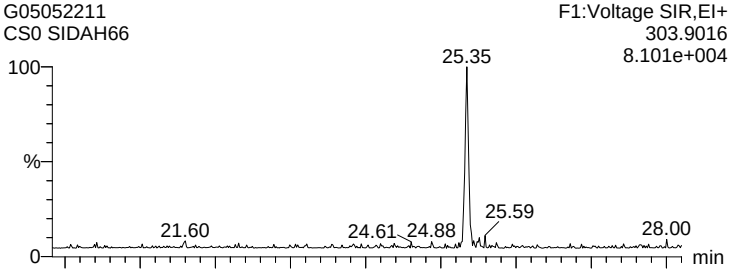


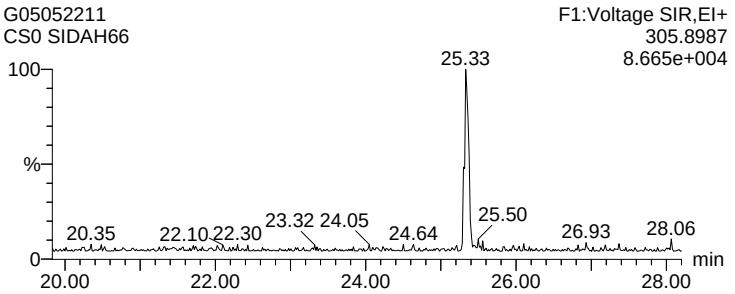
1368-TCDF





1468-TCDF

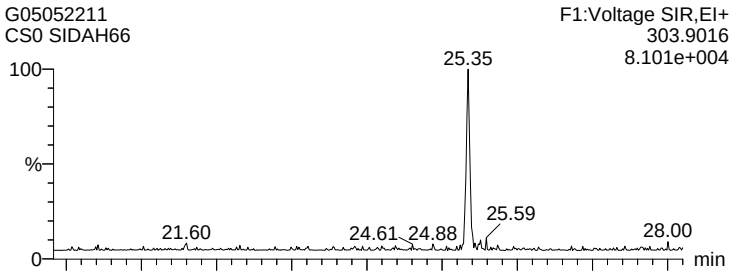


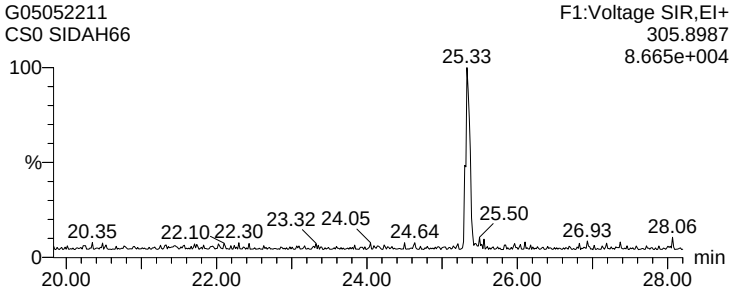


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

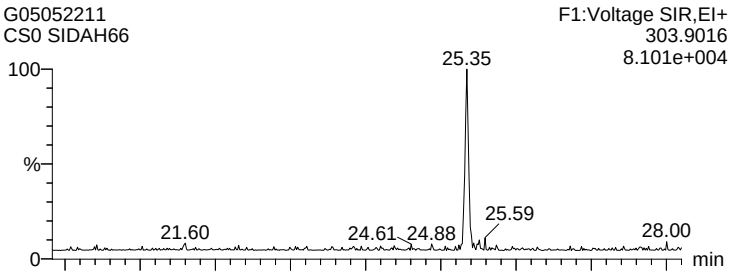
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

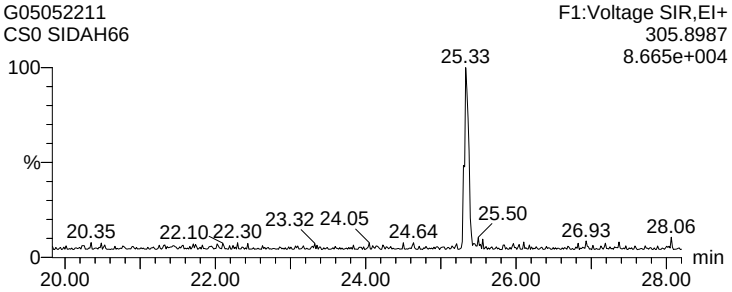
2468-TCDF



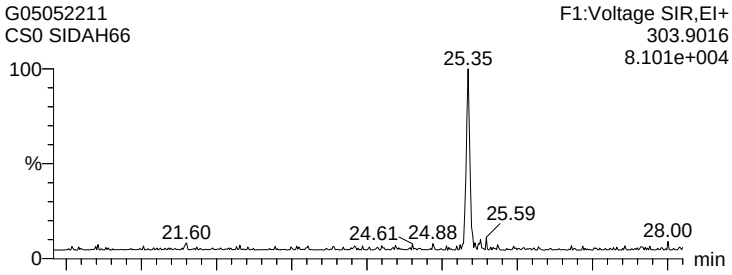


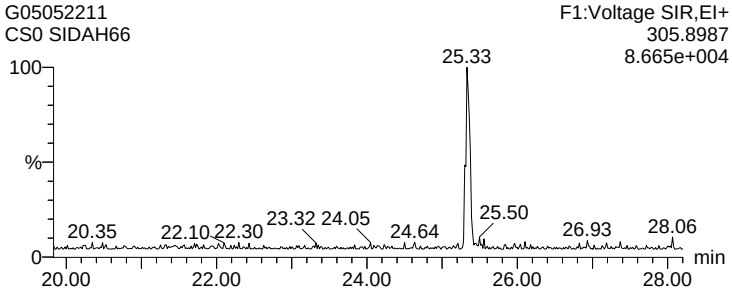
1346/1246-TCDF



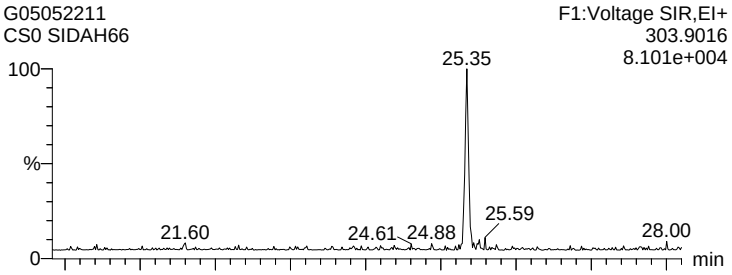


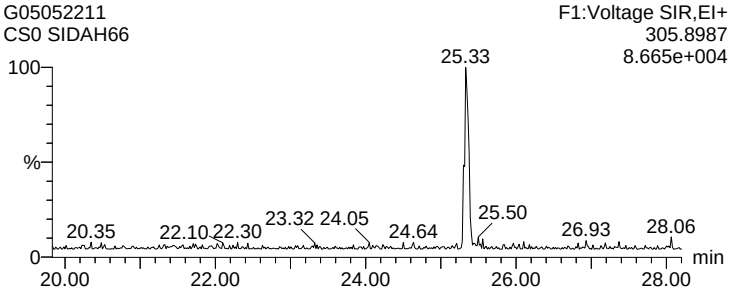
1347/1378/1247-TCDF





1348-TCDF

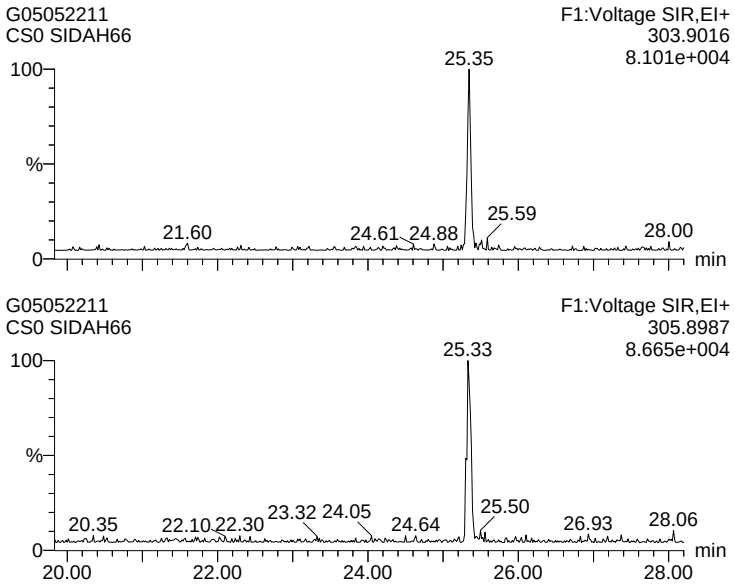




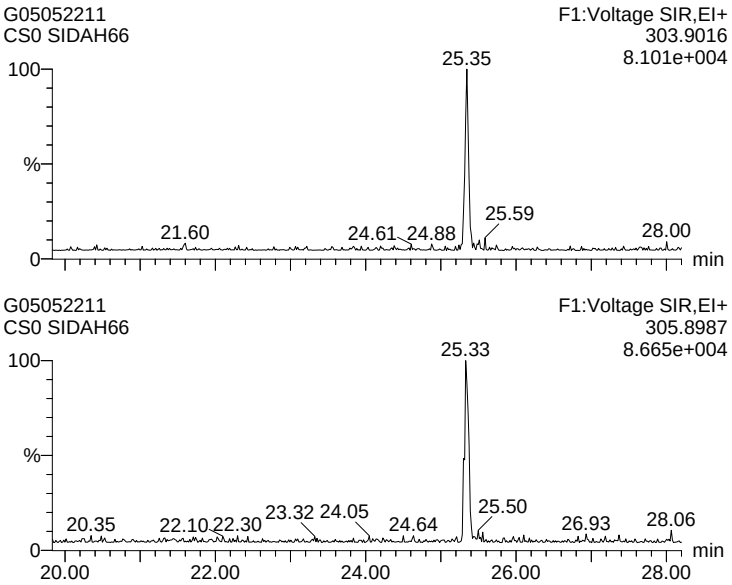
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

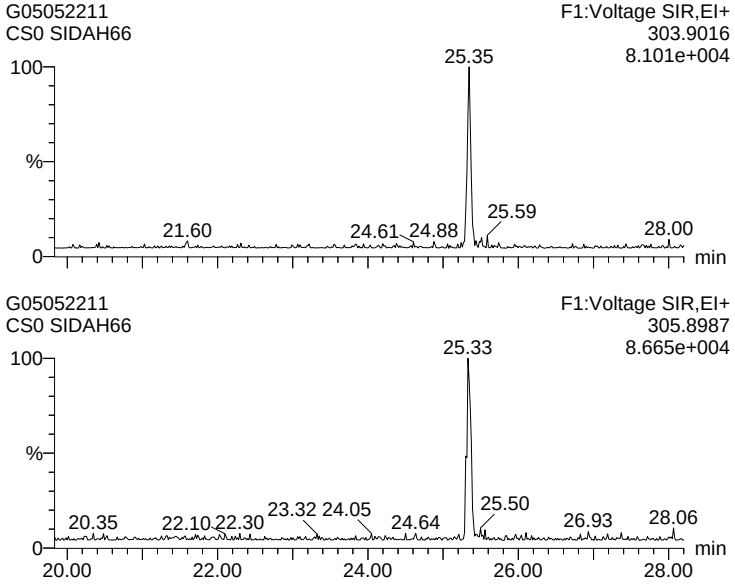
1248/1367/1379-TCDF



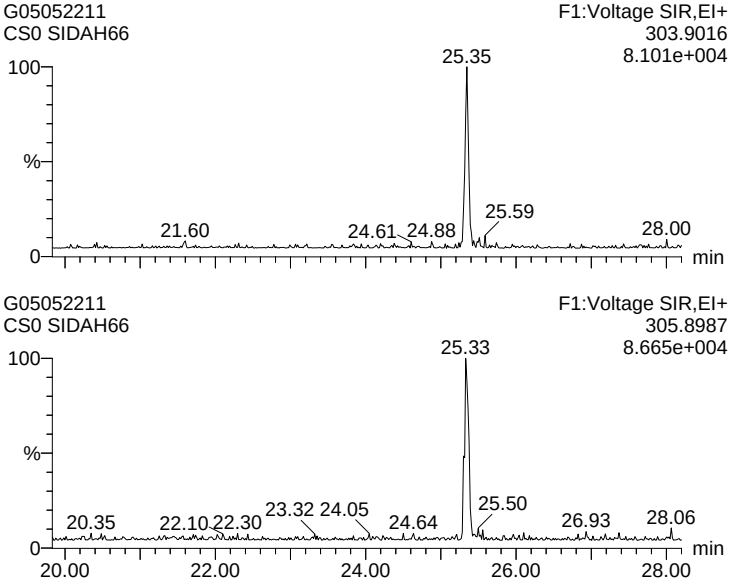
1268-TCDF



1467-TCDF



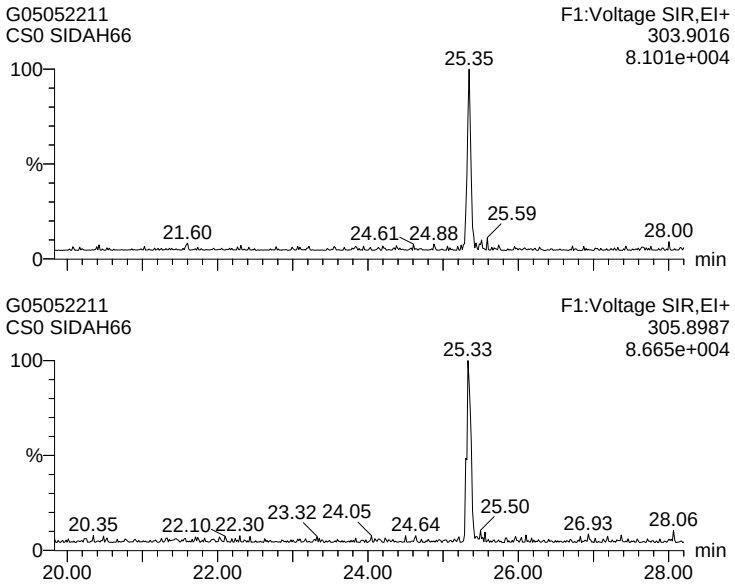
1478-TCDF



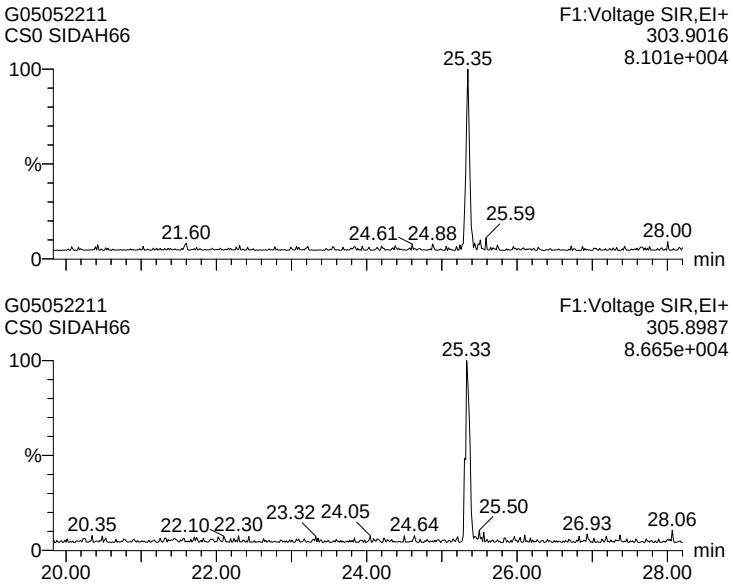
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

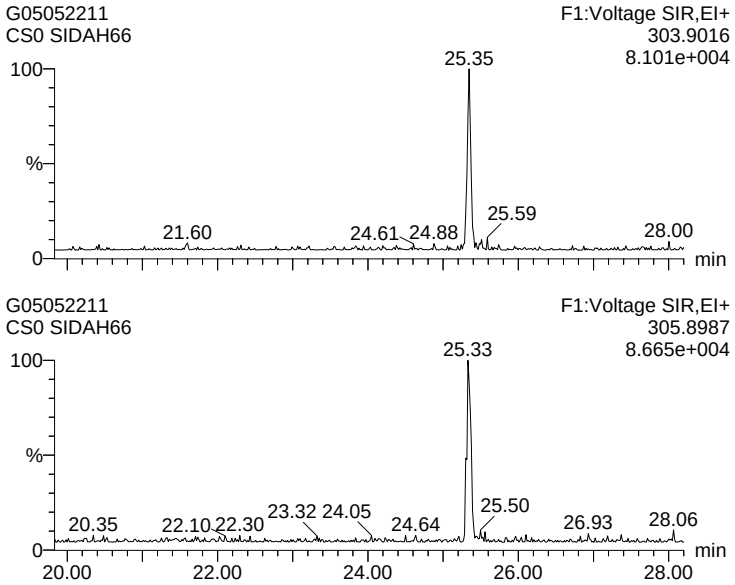
1369/1237-TCDF



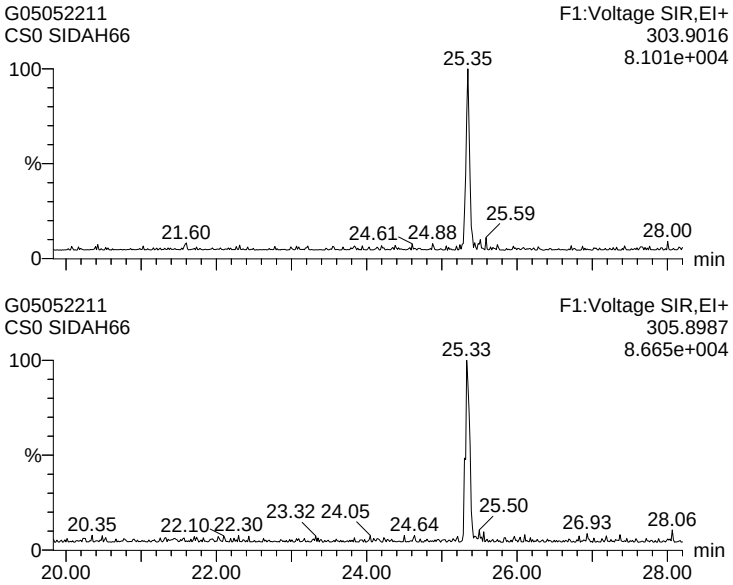
2467-TCDF



2368-TCDF



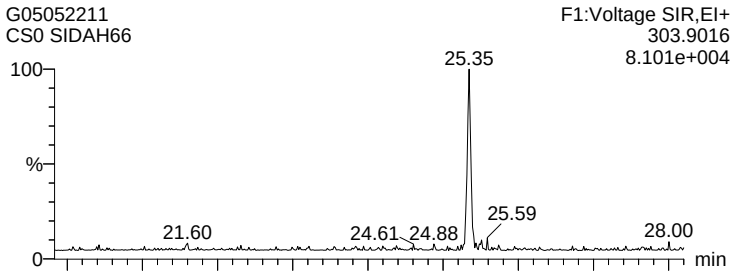
1238/1234/1678/1469/1236-TCDF

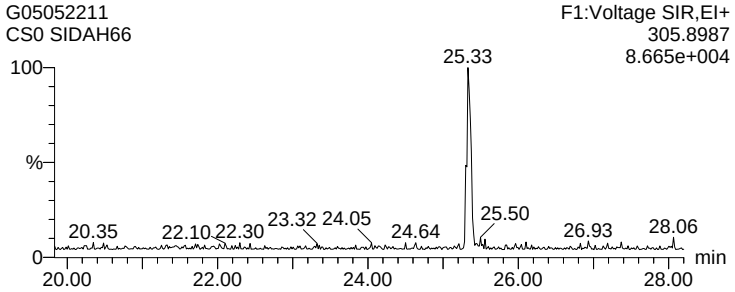


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

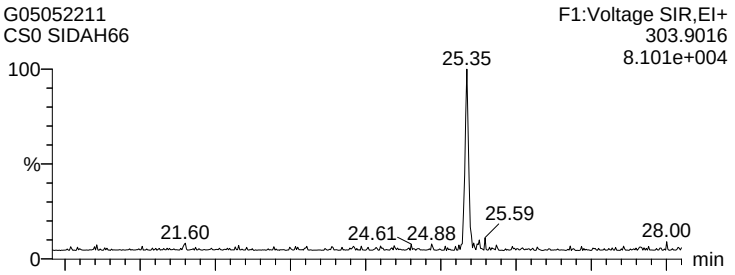
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

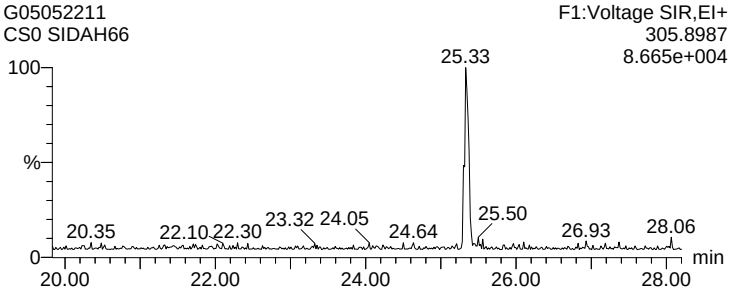
1278-TCDF



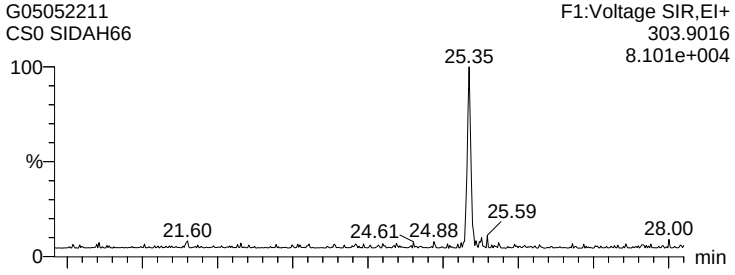


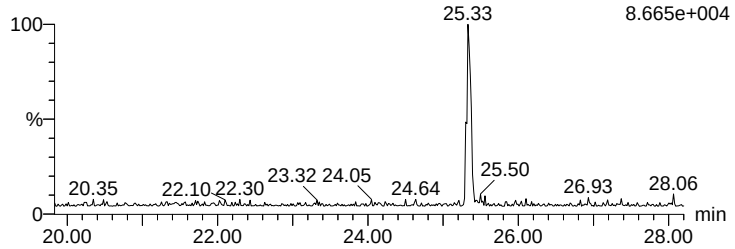
1349-TCDF



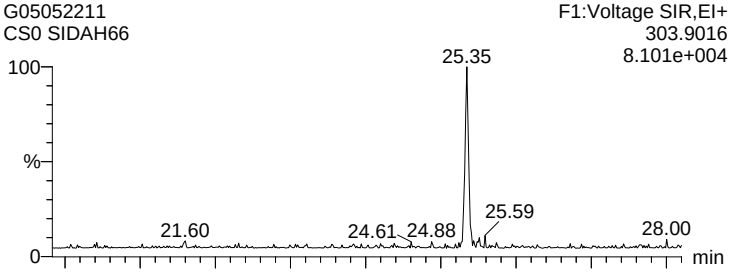


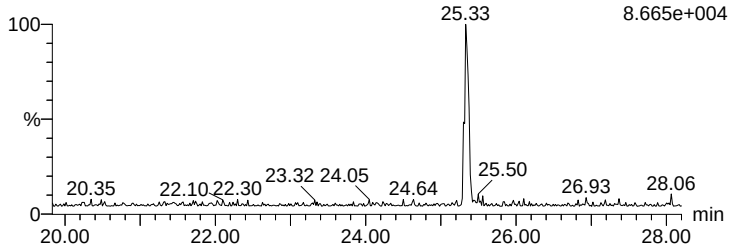
1267-TCDF





2346/1249-TCDF

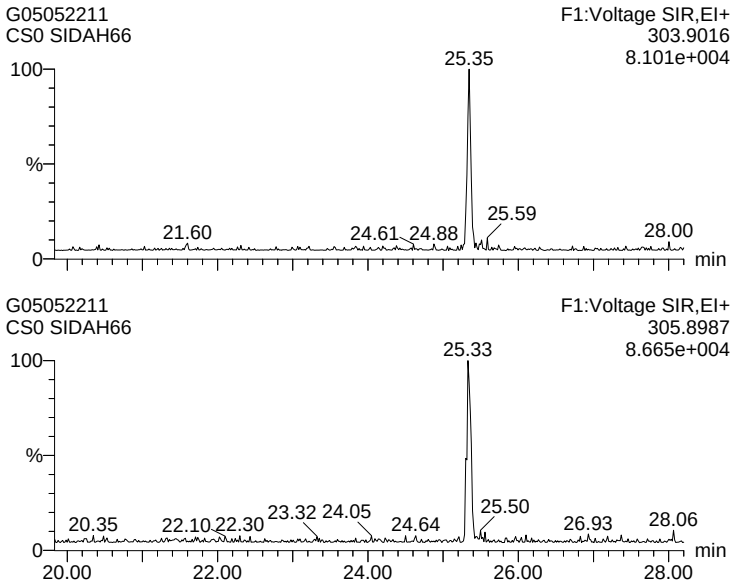




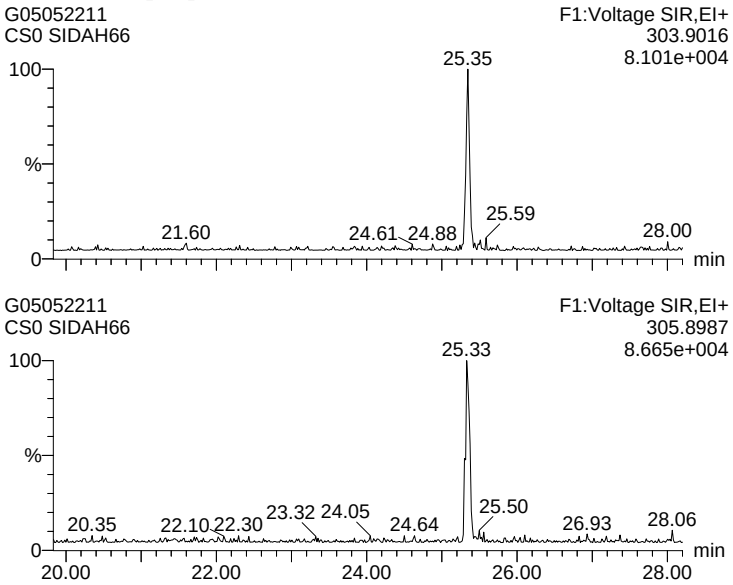
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

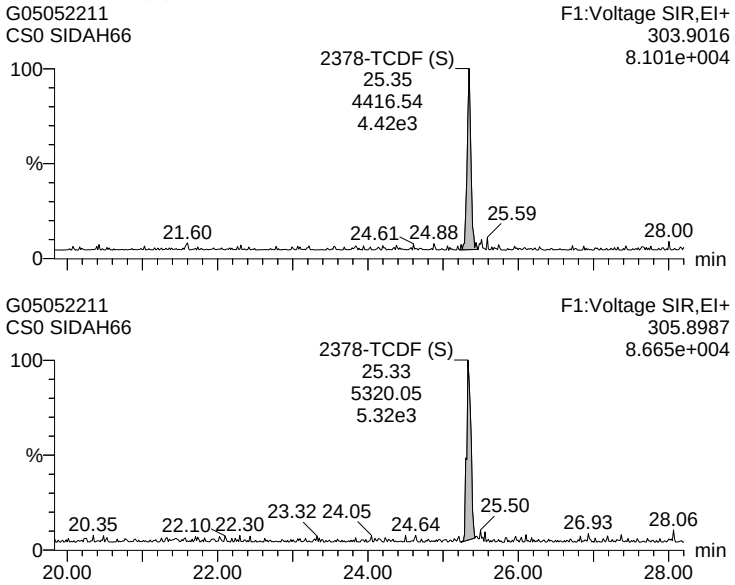
2347/1279-TCDF



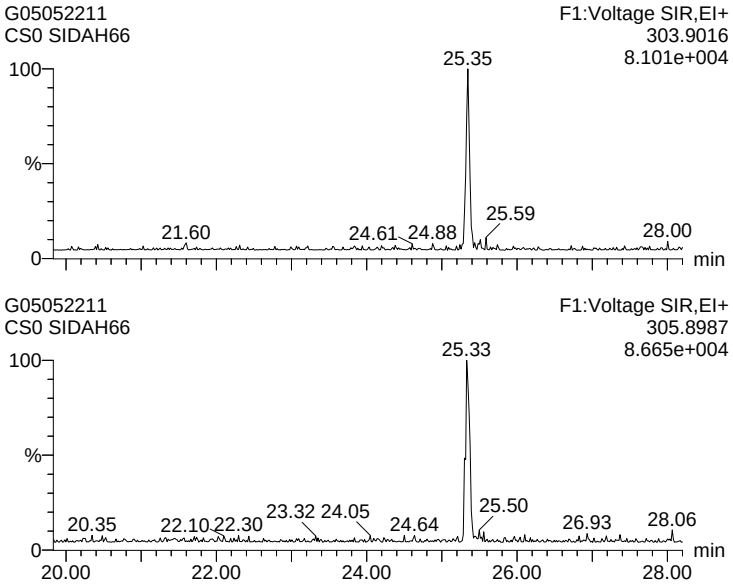
2348-TCDF [CE]



2378-TCDF (S)



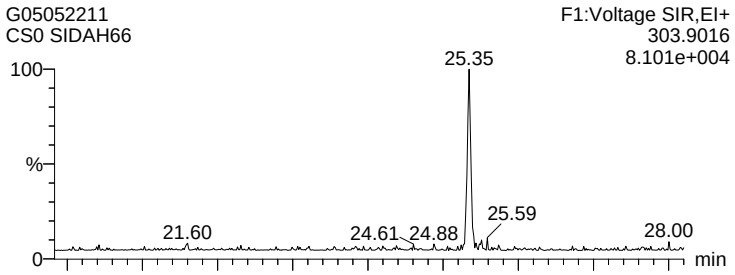
2367/3467-TCDF

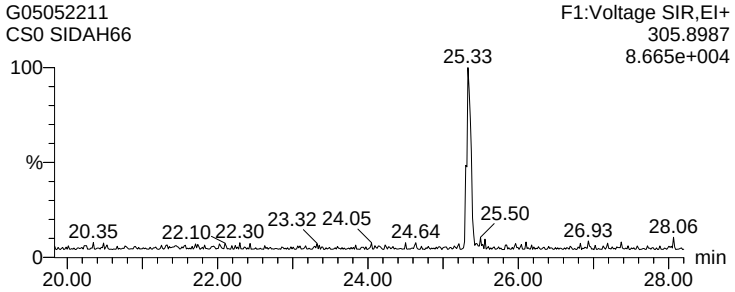


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

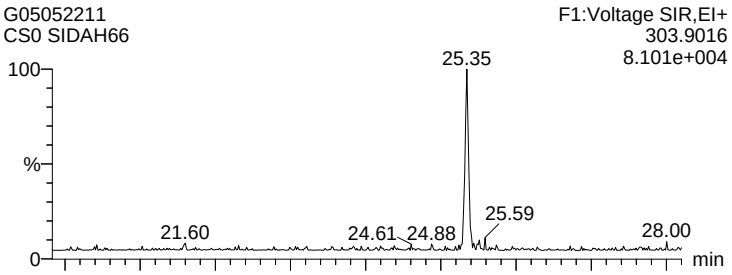
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

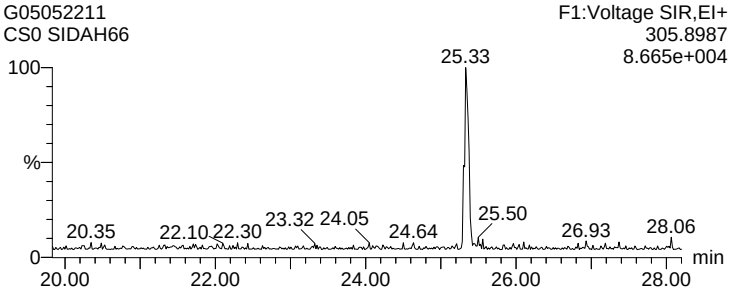
1269-TCDF



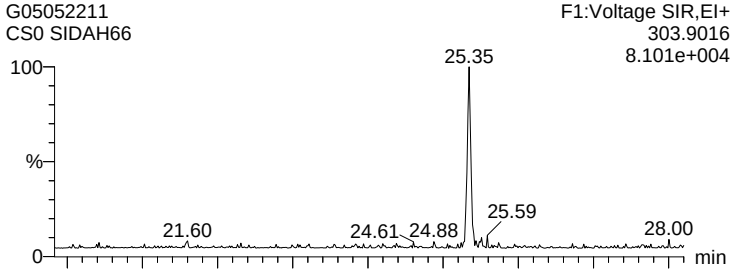


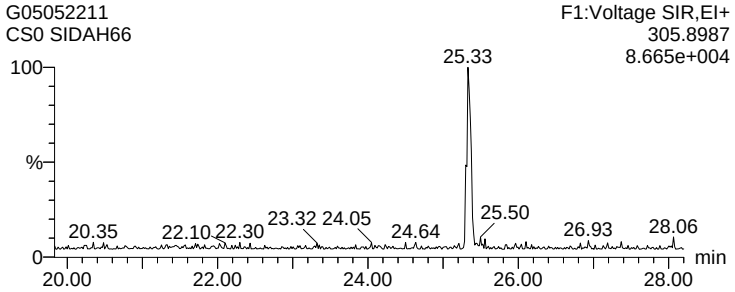
1239-TCDF



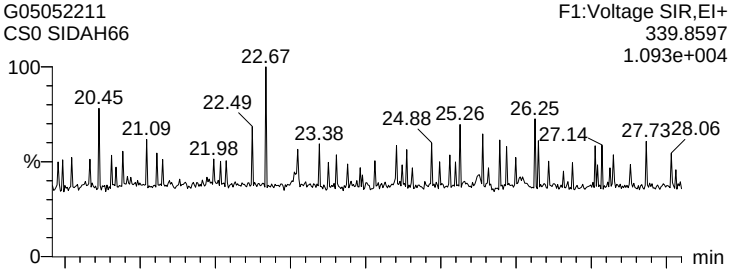


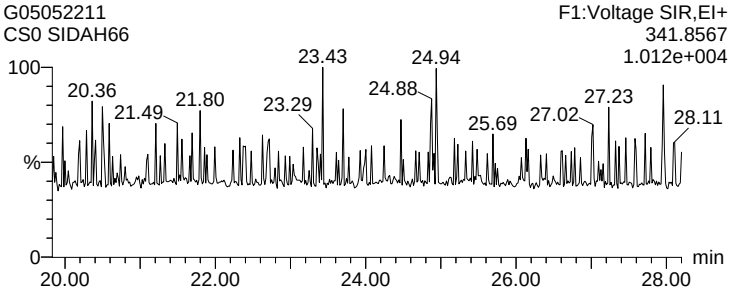
1289-TCDF





13468/12466-PeCDF

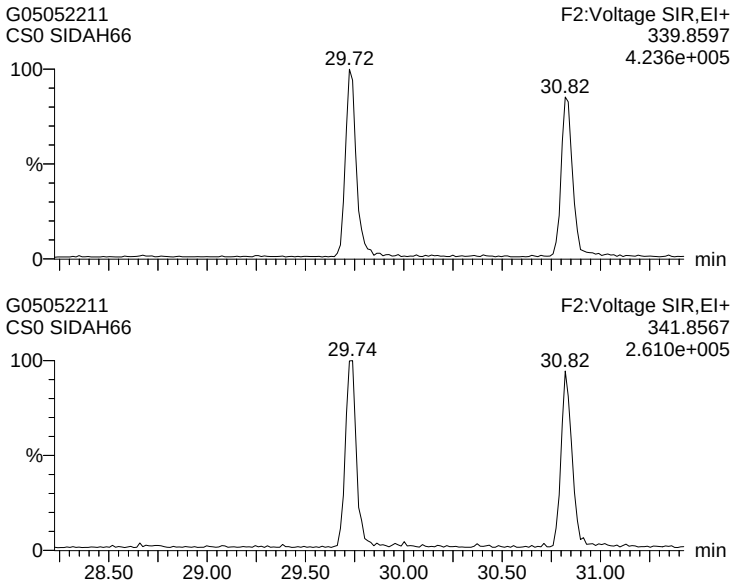




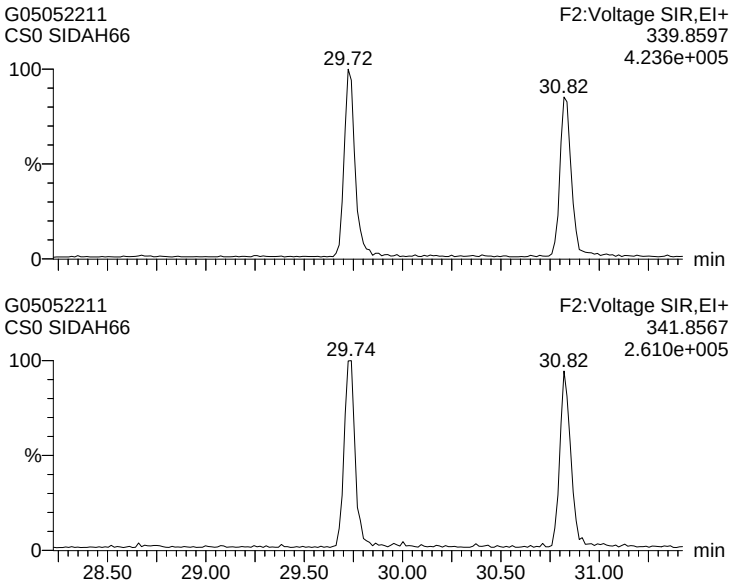
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

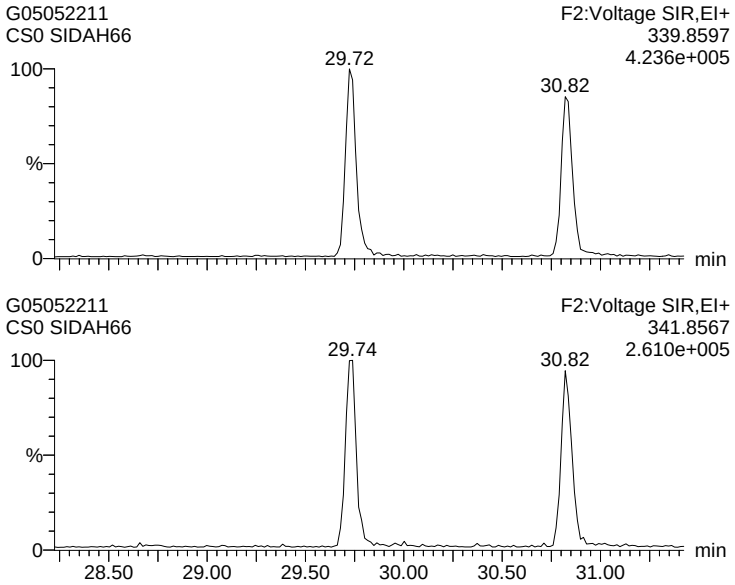
13678/13467/12467-PeCDF



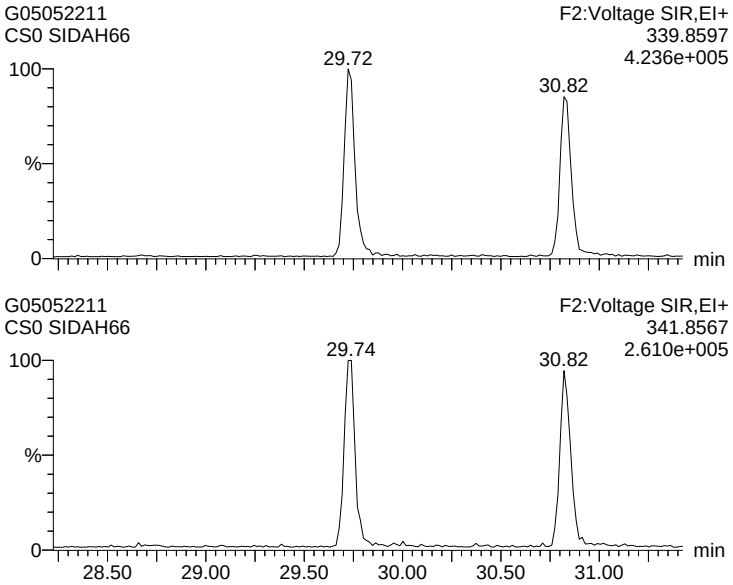
12368/13478/12478-PeCDF



14678-PeCDF



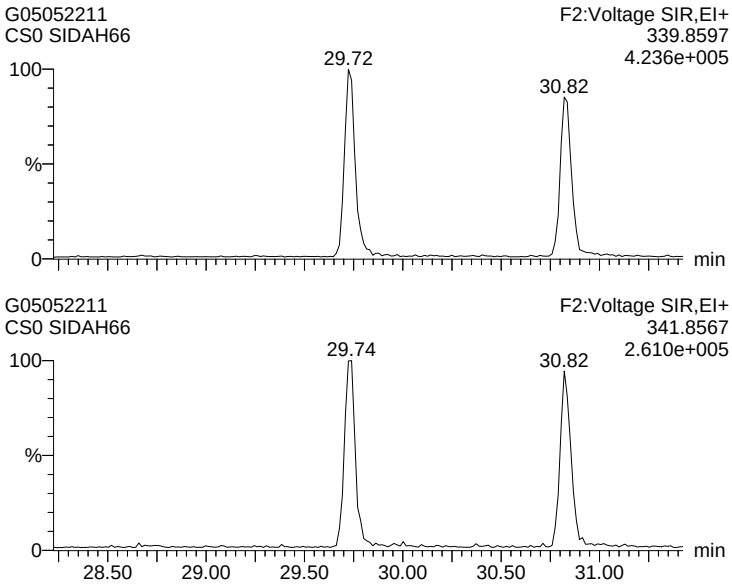
13479-PeCDF



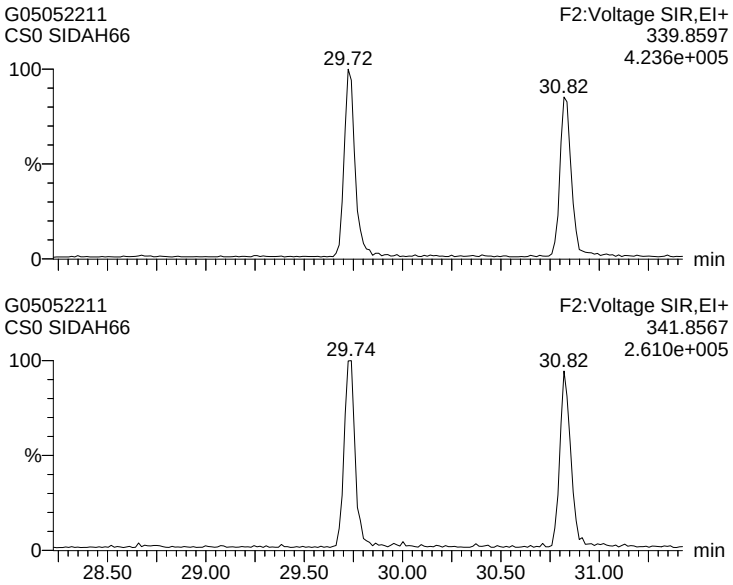
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

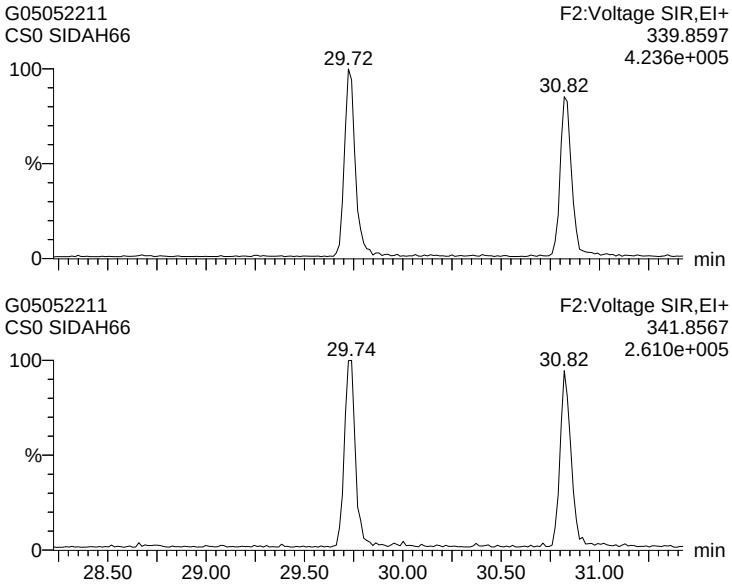
13469/12479-PeCDF



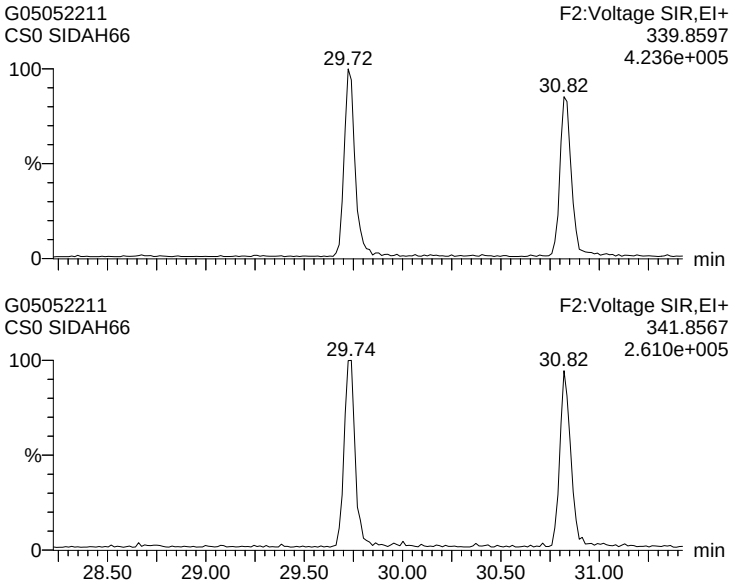
12346-PeCDF



23468/12469-PeCDF



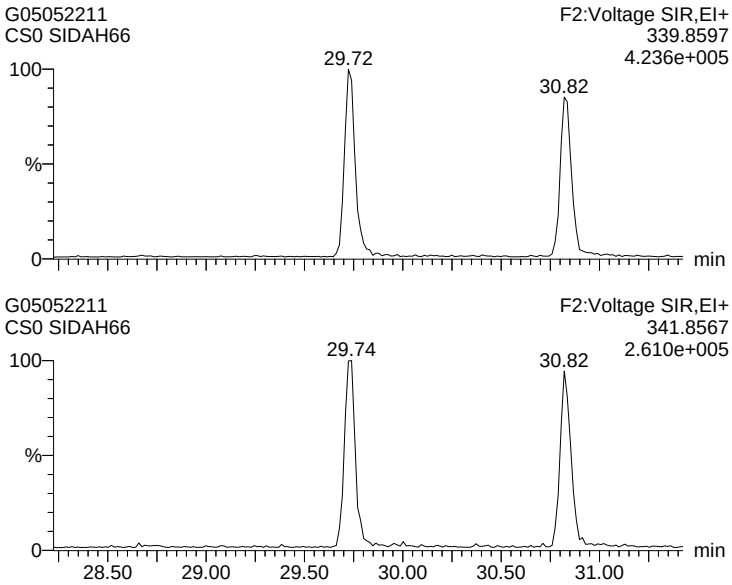
12347-PeCDF



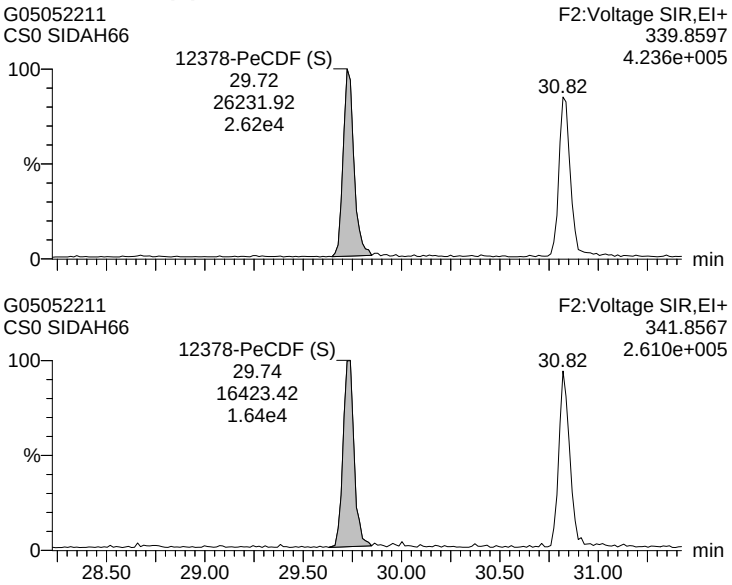
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

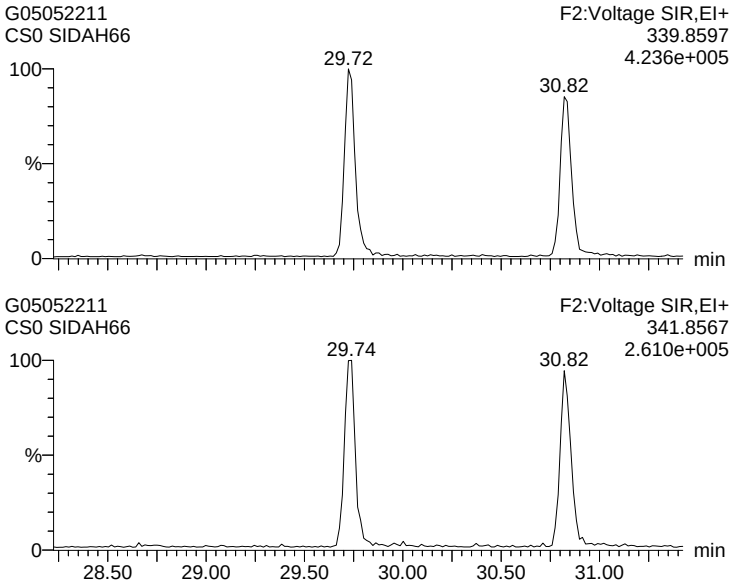
12348-PeCDF



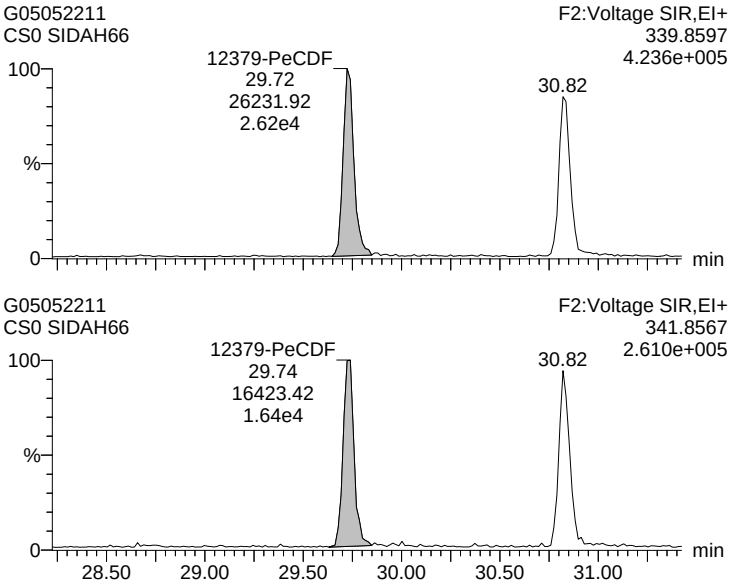
12378-PeCDF (S)



12678/12367-PeCDF



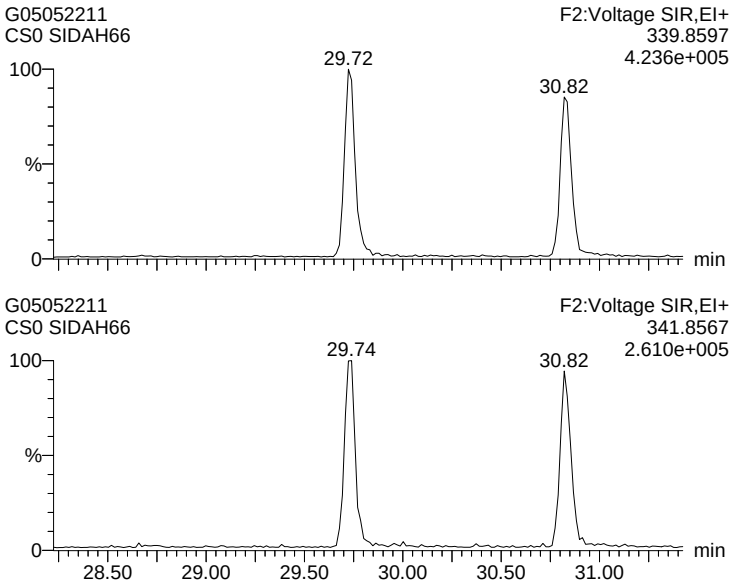
12379-PeCDF



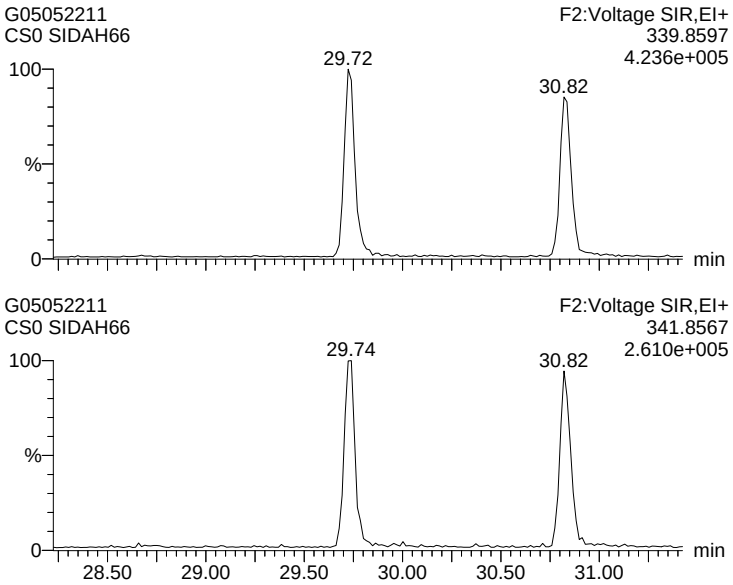
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

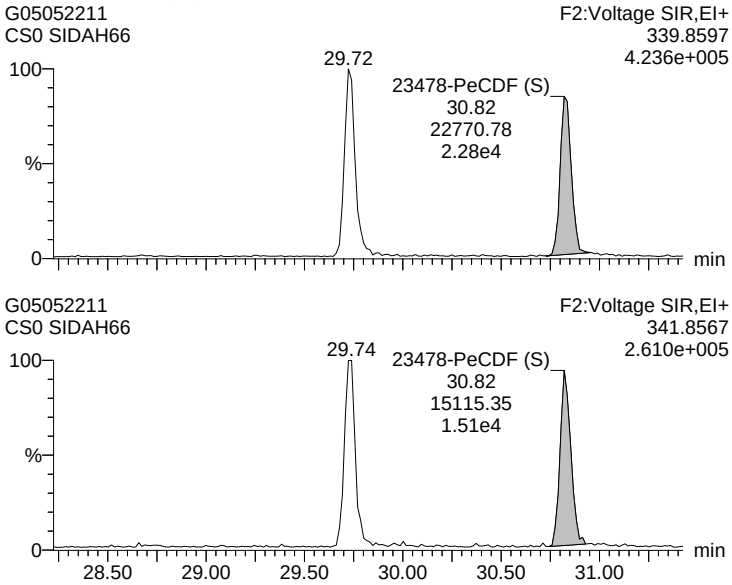
12679-PeCDF



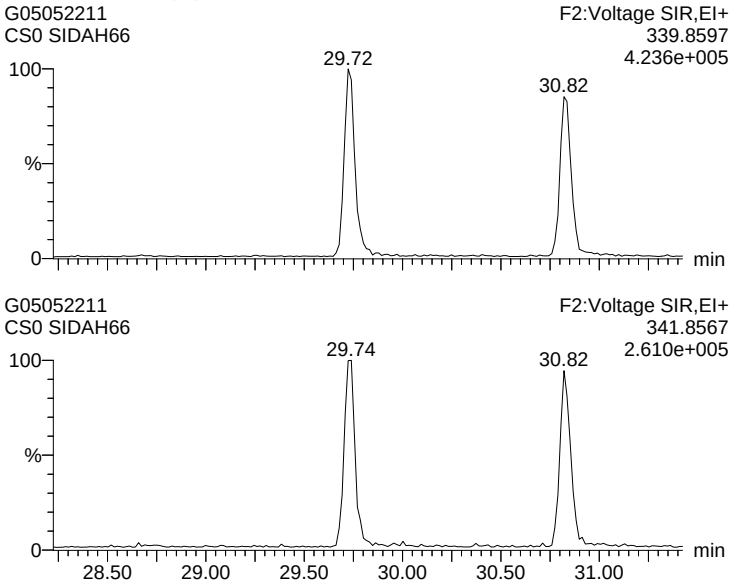
23467/12369-PeCDF



23478-PeCDF (S)



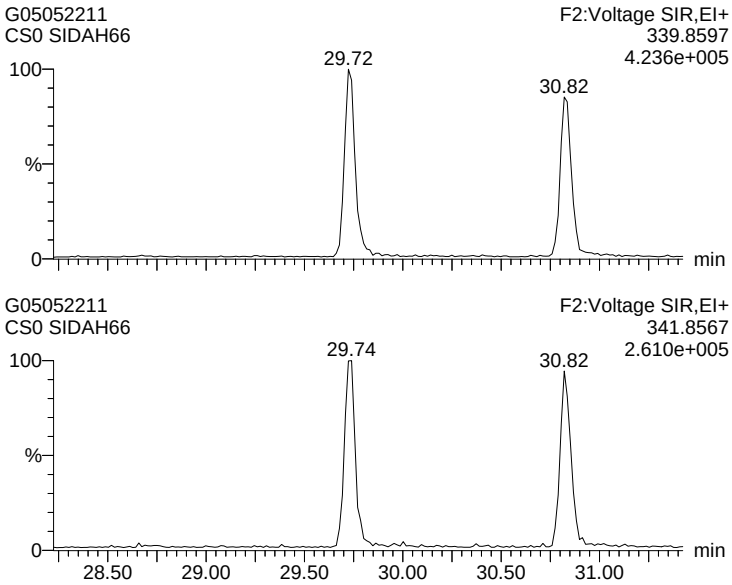
12489-PeCDF (R)



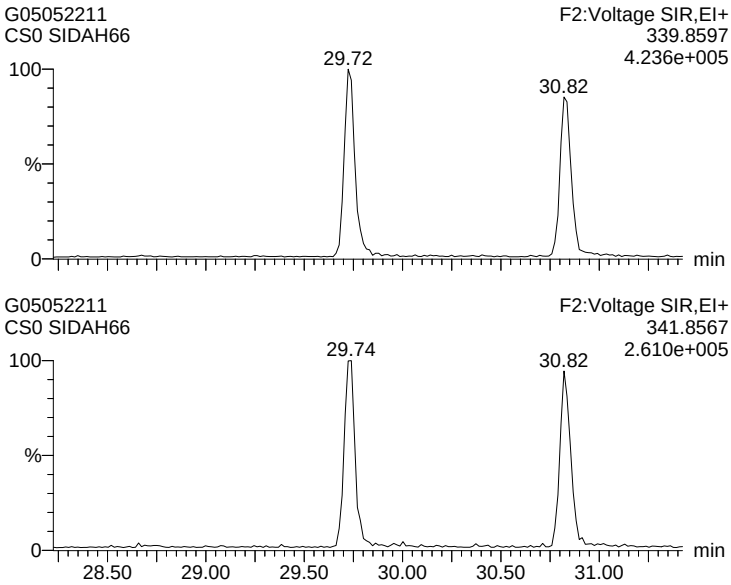
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

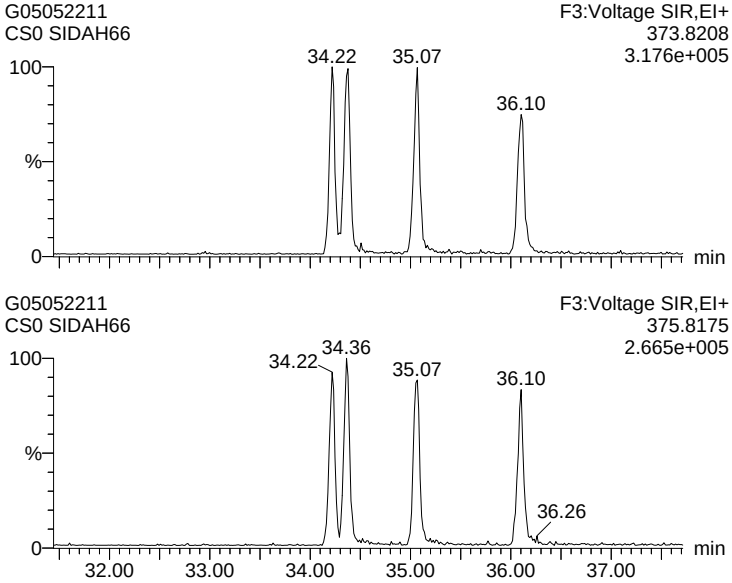
12349-PeCDF



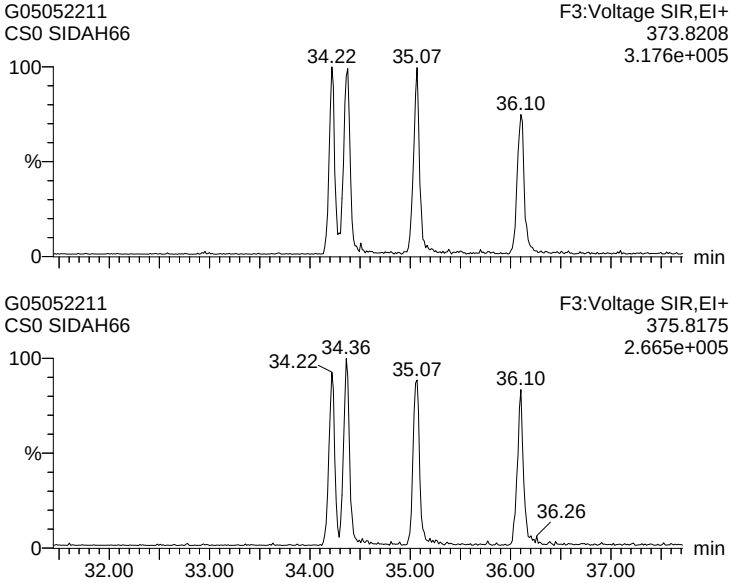
12389-PeCDF



123468-HxCDF



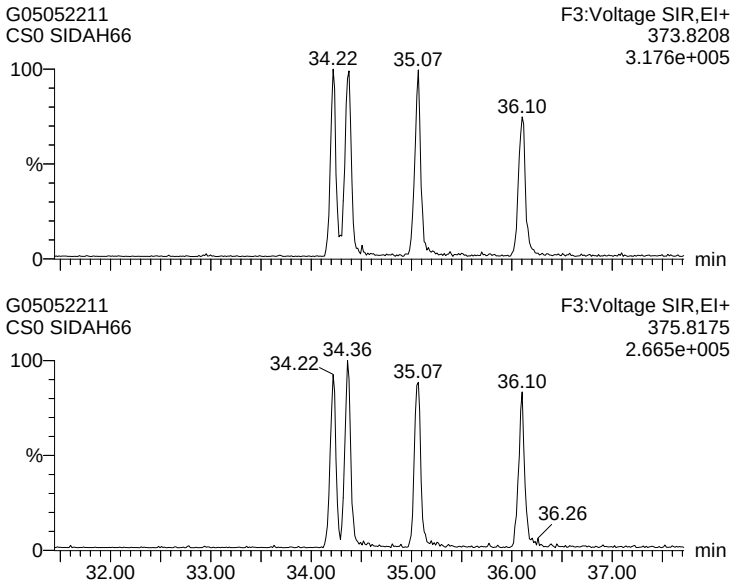
124678/134678-HxCDF



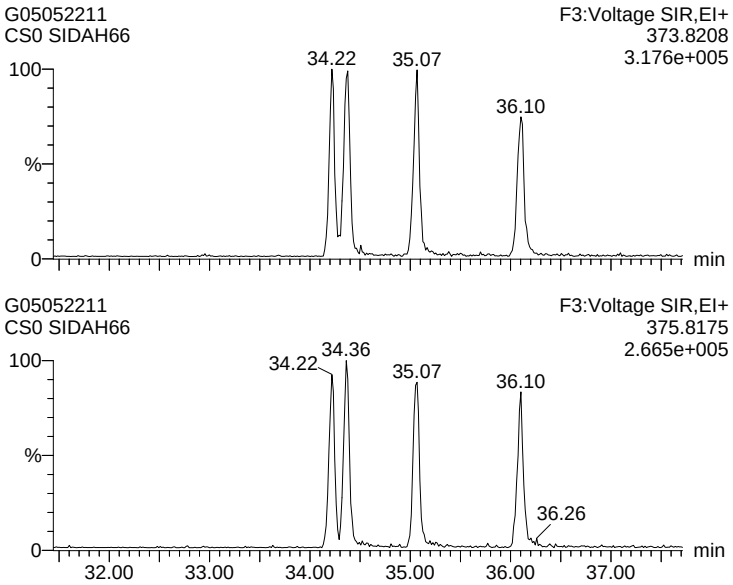
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

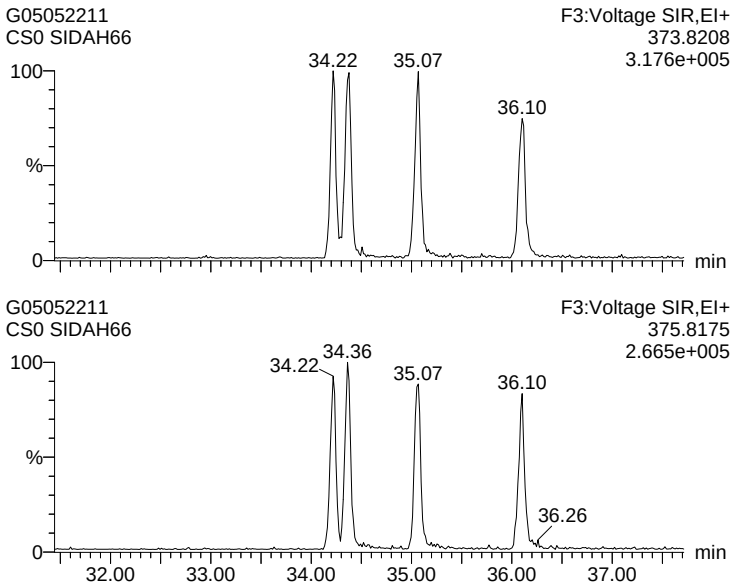
134679-HxCDF



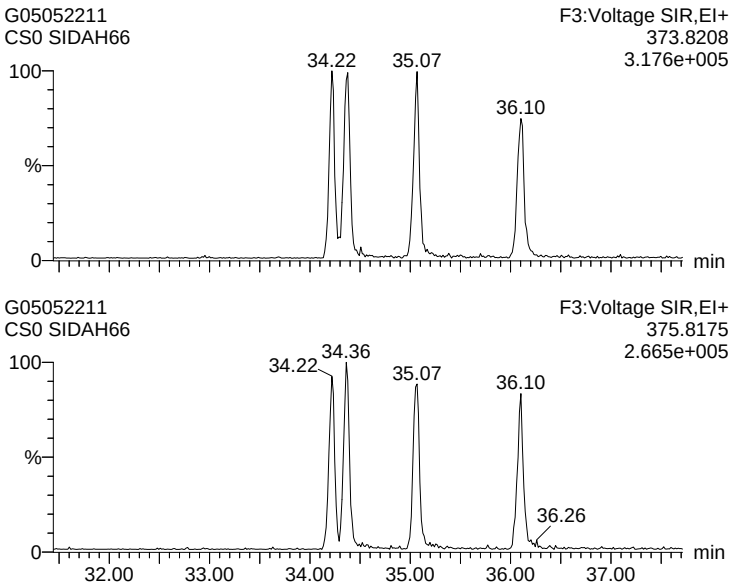
124679-HxCDF



124689-HxCDF



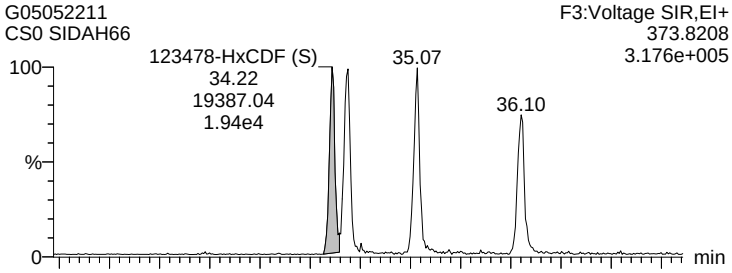
123467-HxCDF

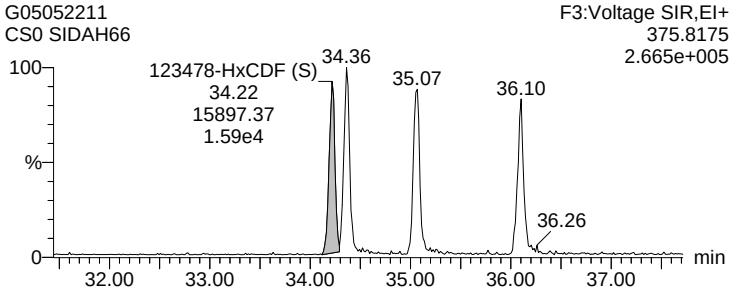


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

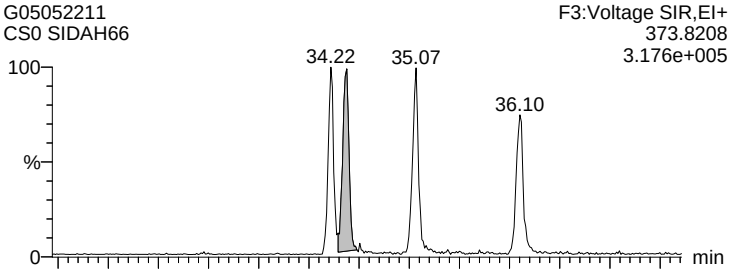
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

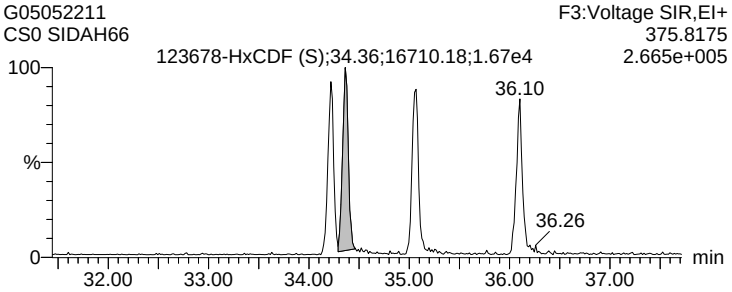
123478-HxCDF (S)



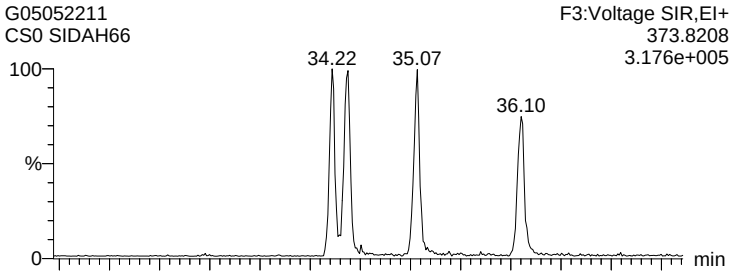


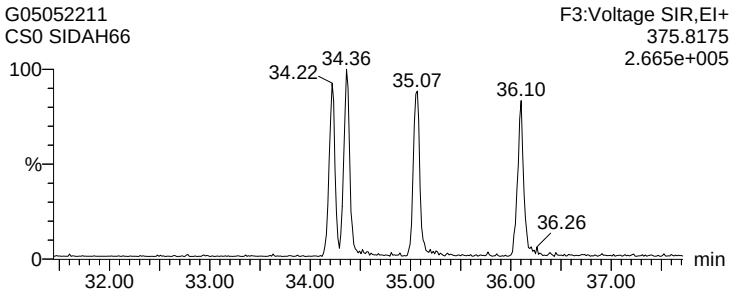
123678-HxCDF (S)



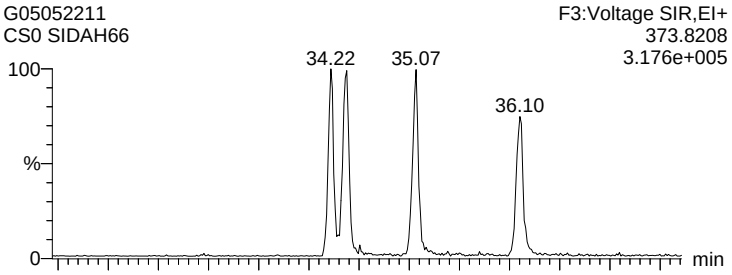


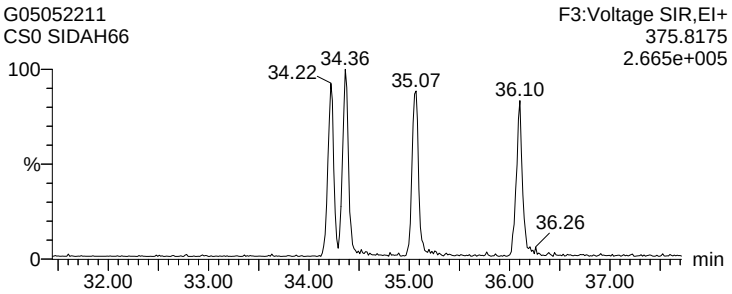
123479-HxCDF





123469-HxCDF

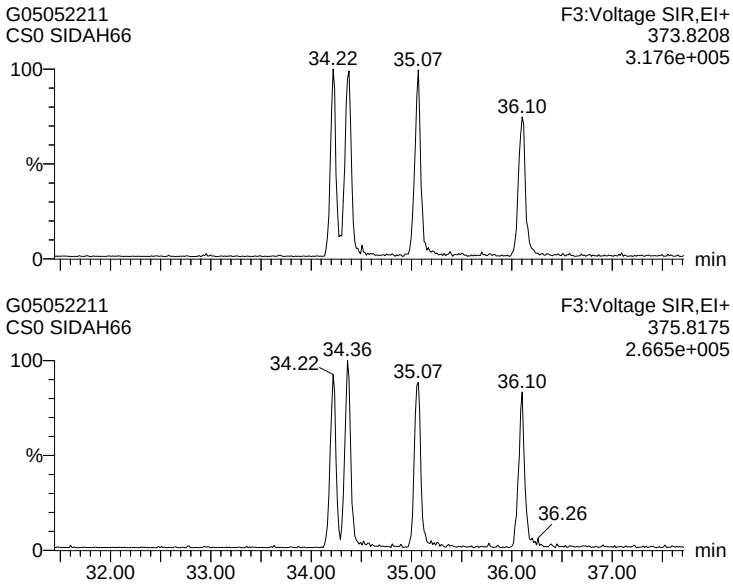




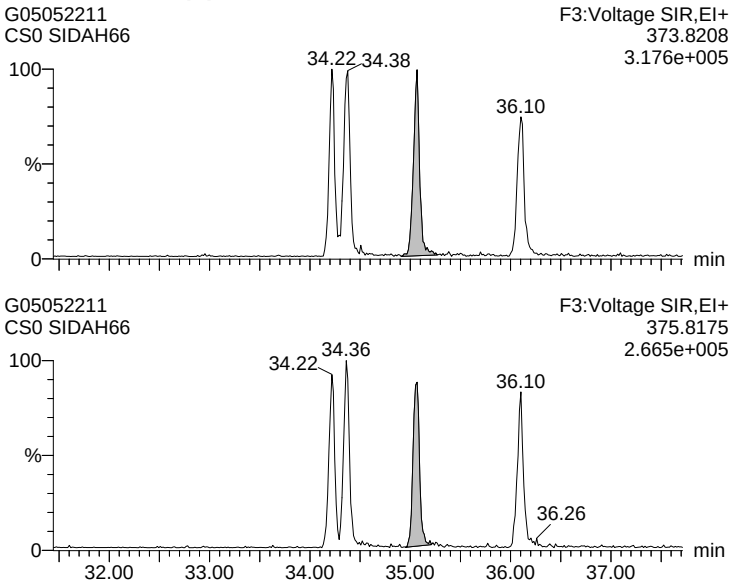
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

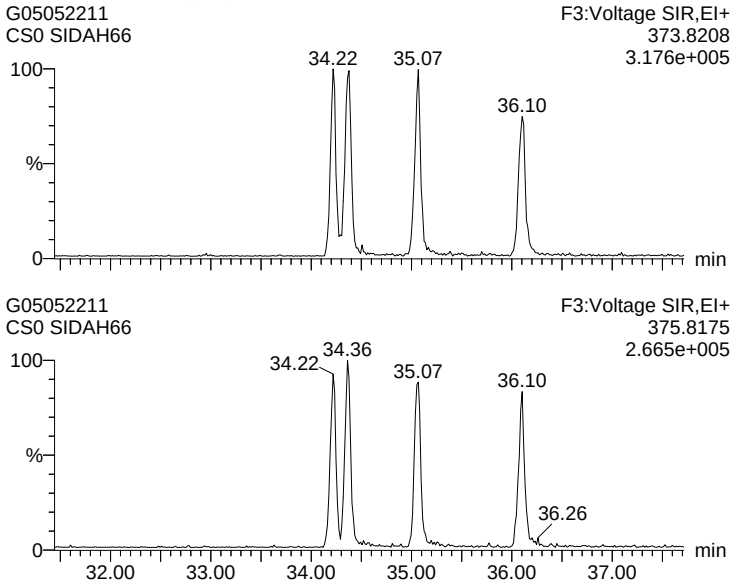
123679-HxCDF



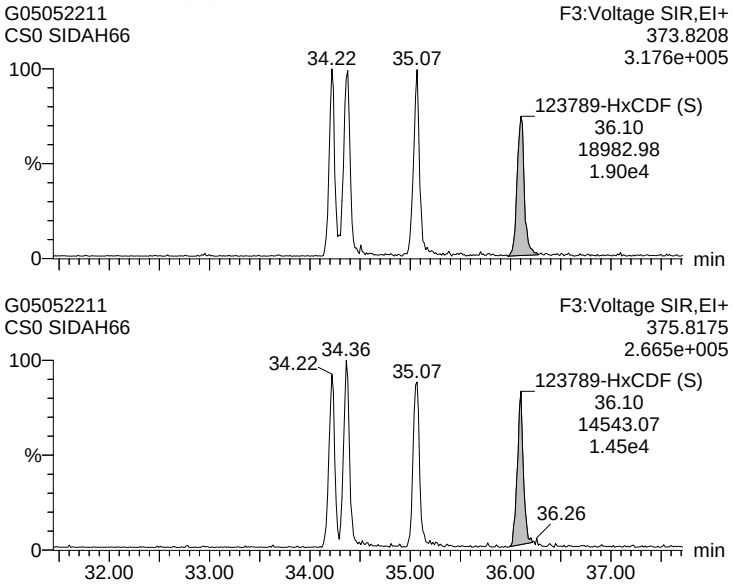
234678-HxCDF (S)



123689-HxCDF (NR)



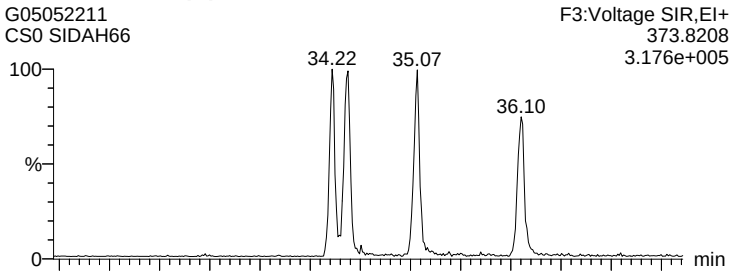
123789-HxCDF (S)

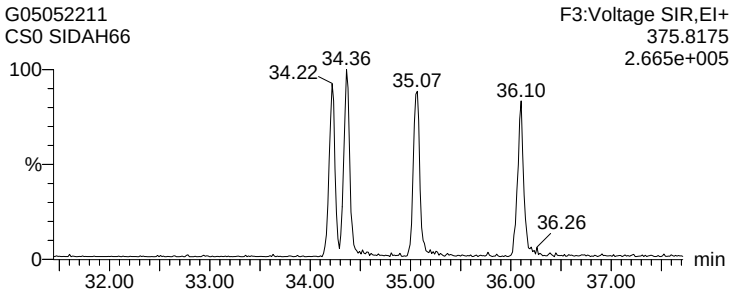


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

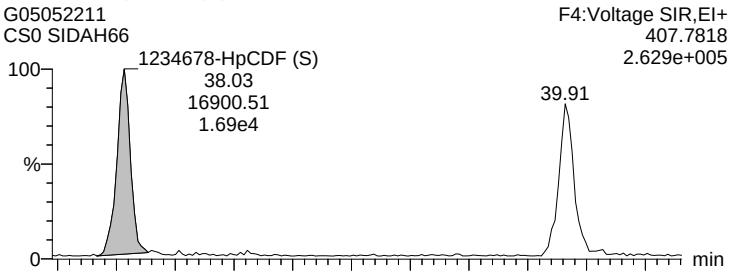
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

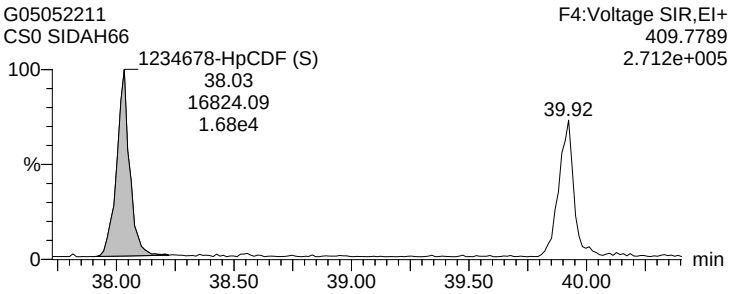
123489-HxCDF (R)



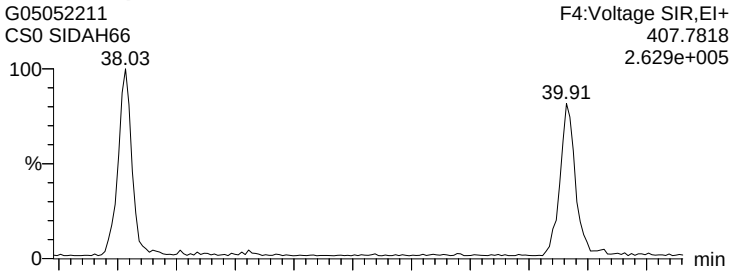


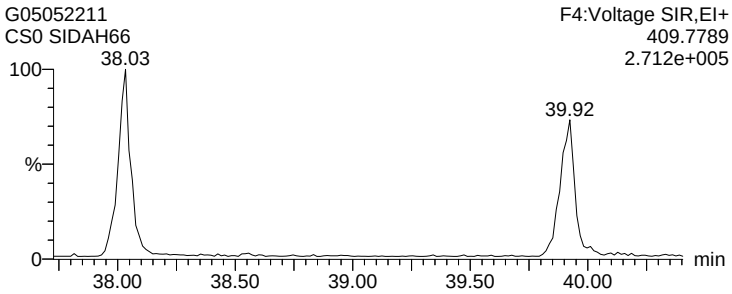
1234678-HpCDF (S)



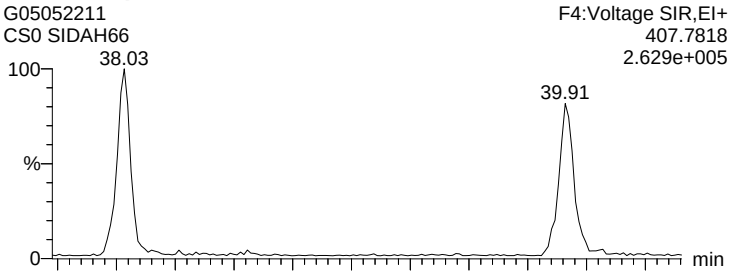


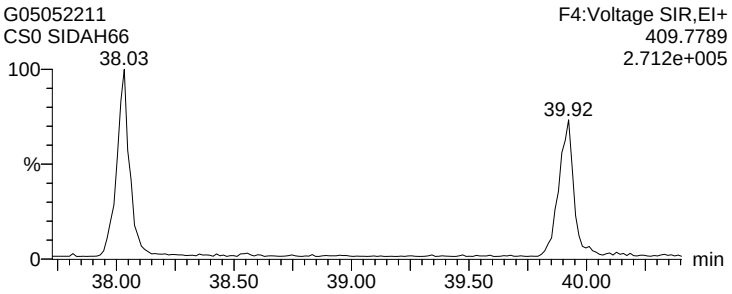
1234679-HpCDF





1234689-HpCDF

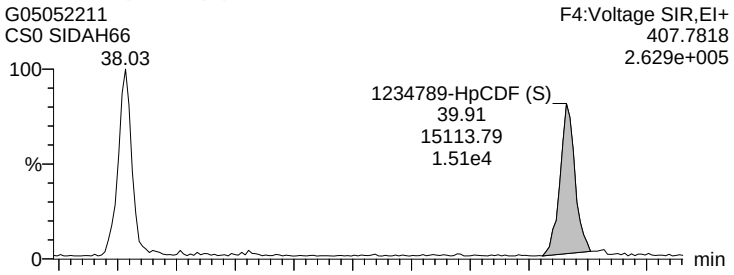


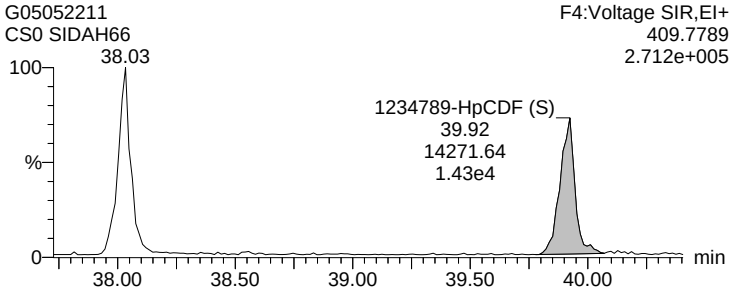


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

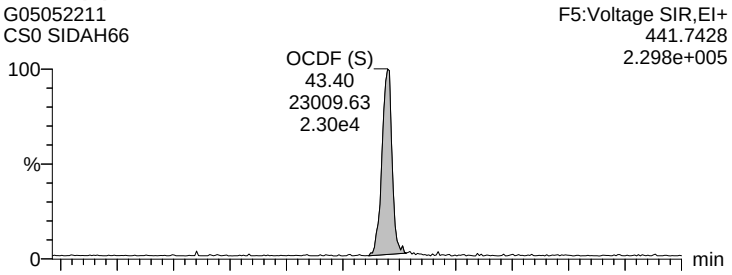
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

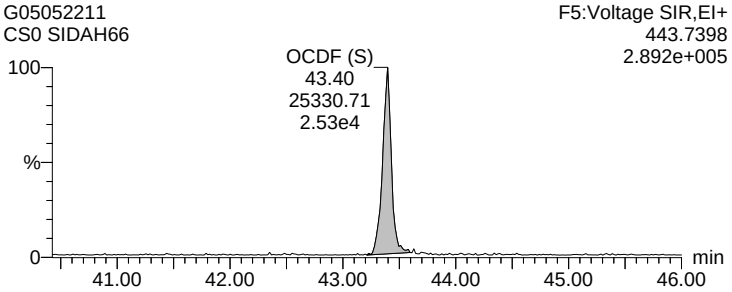
1234789-HpCDF (S)



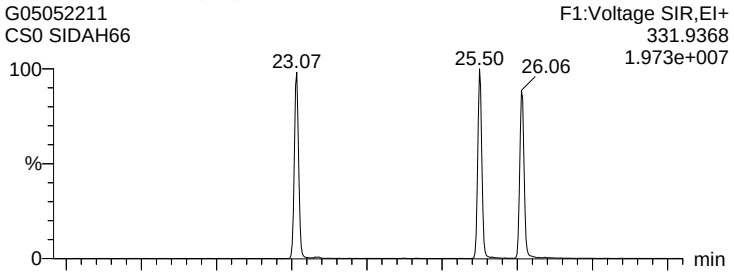


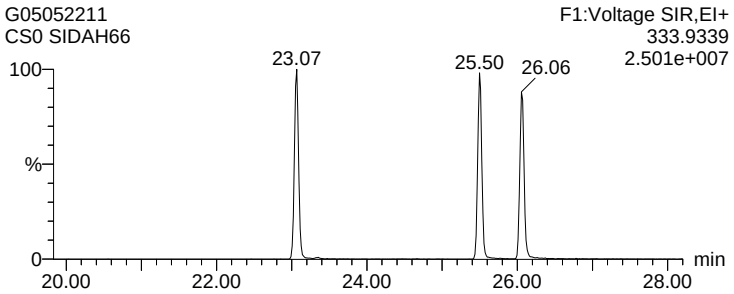
OCDF (S)



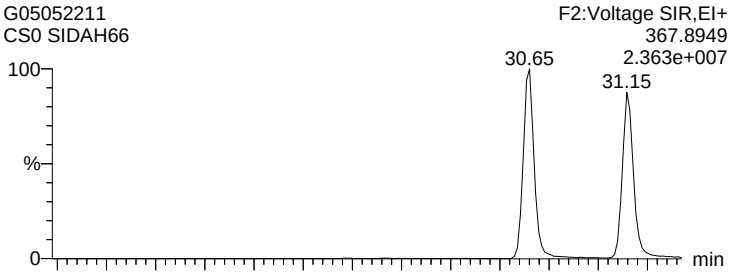


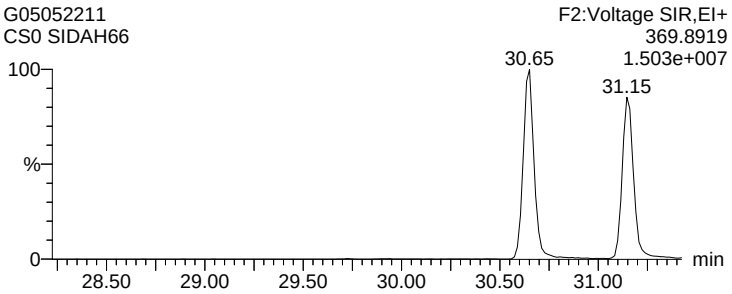
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

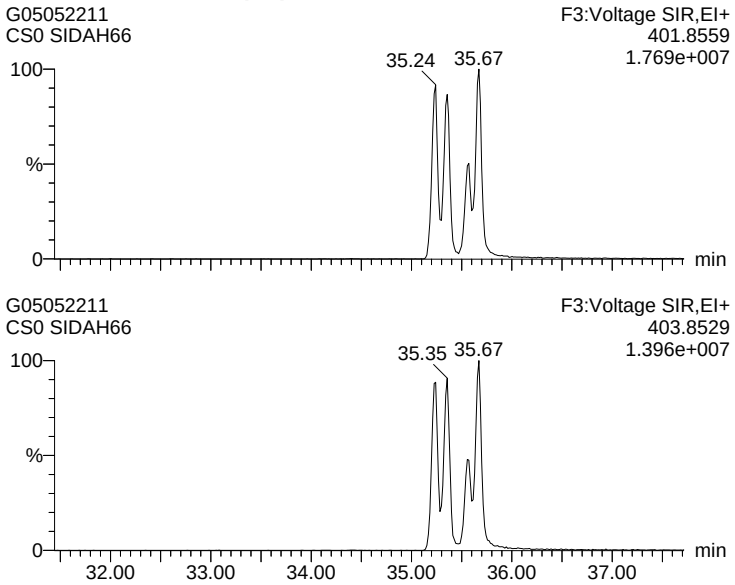




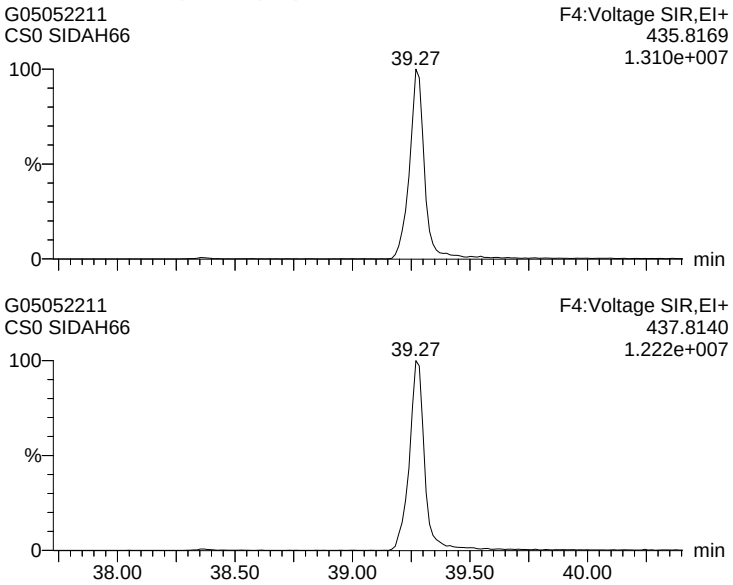
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

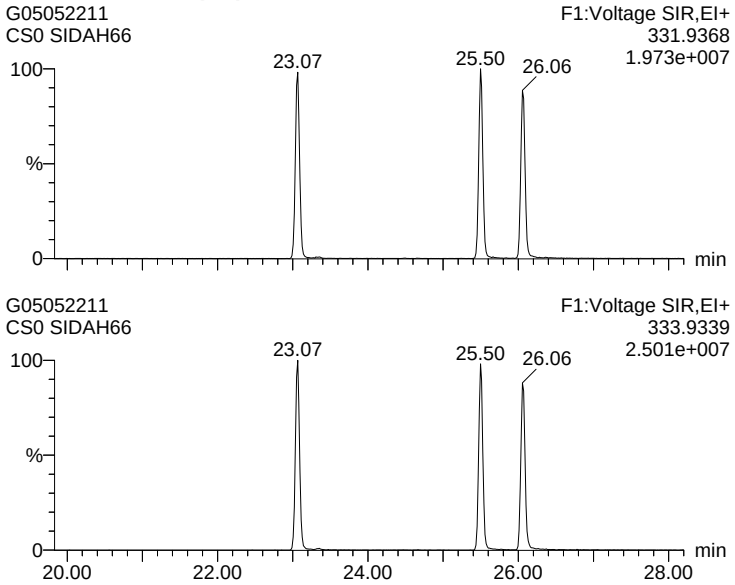
13C-123468-HxCDD (FS)



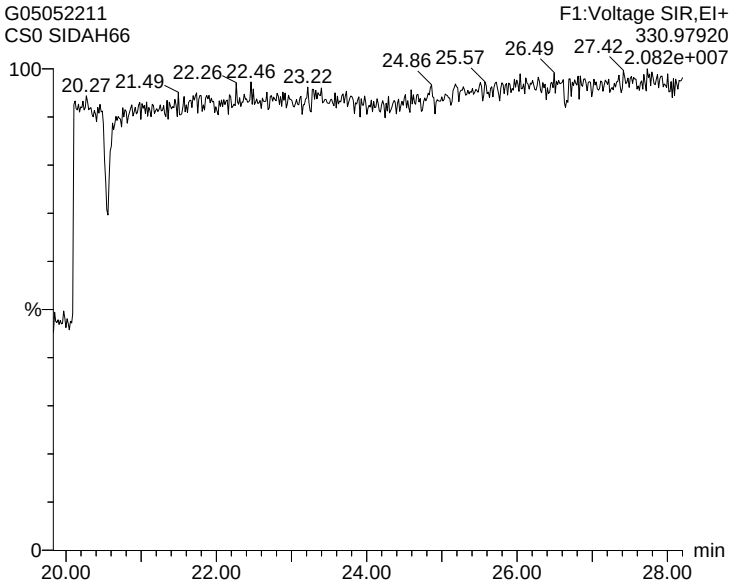
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



QC Check Ion Fn 1



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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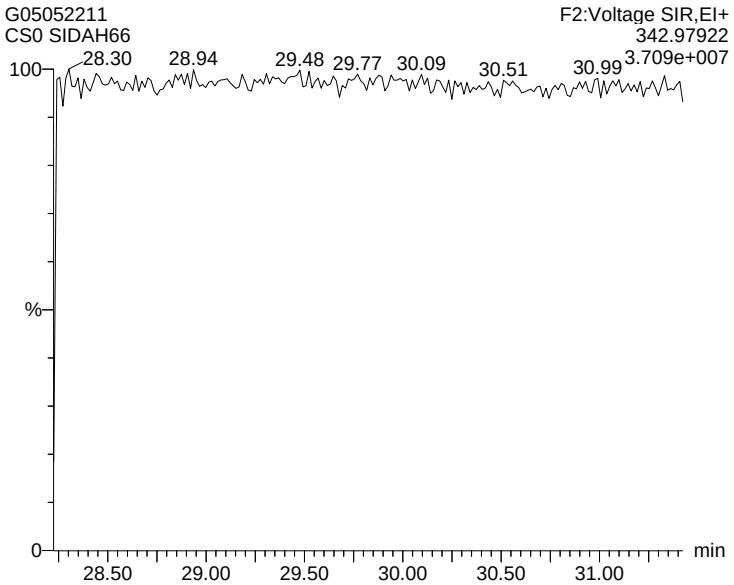
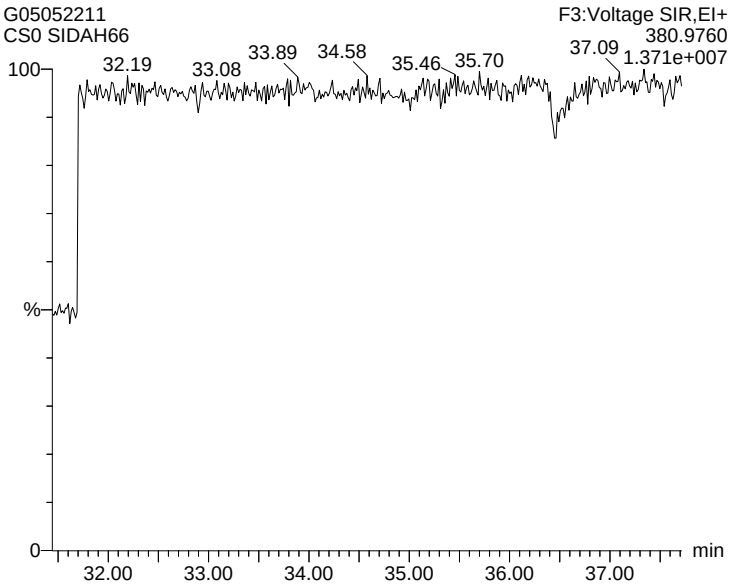
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

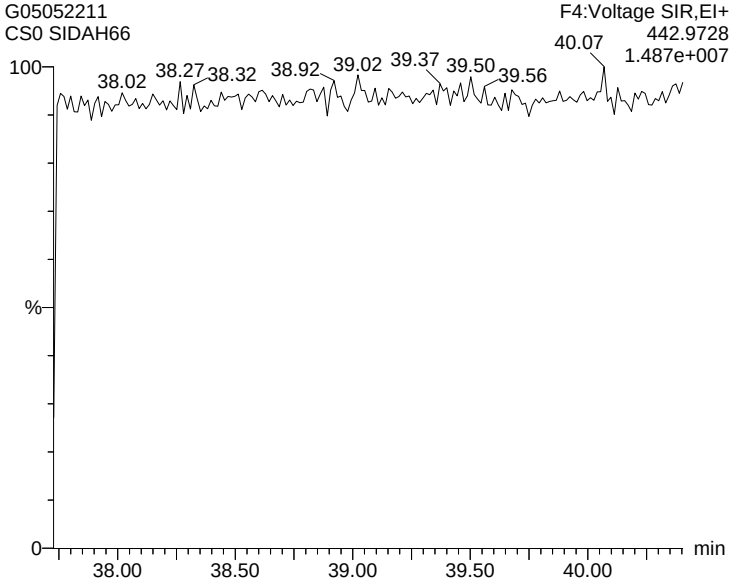
QC Check Ion Fn 2



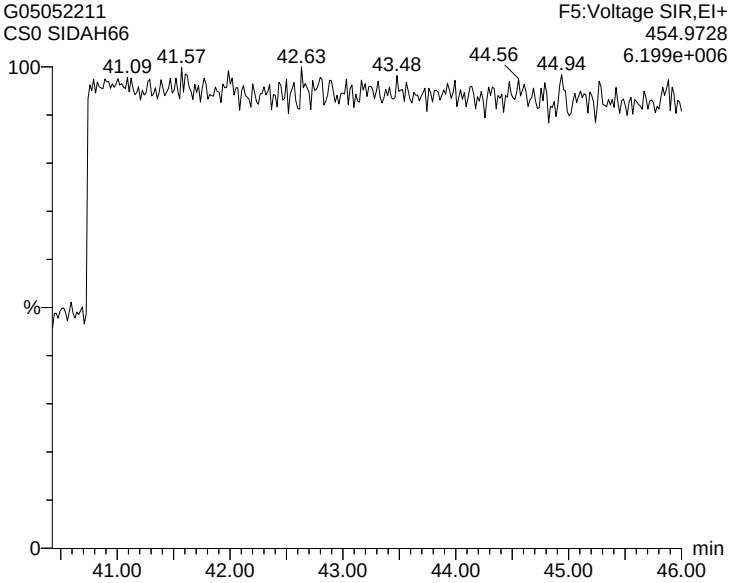
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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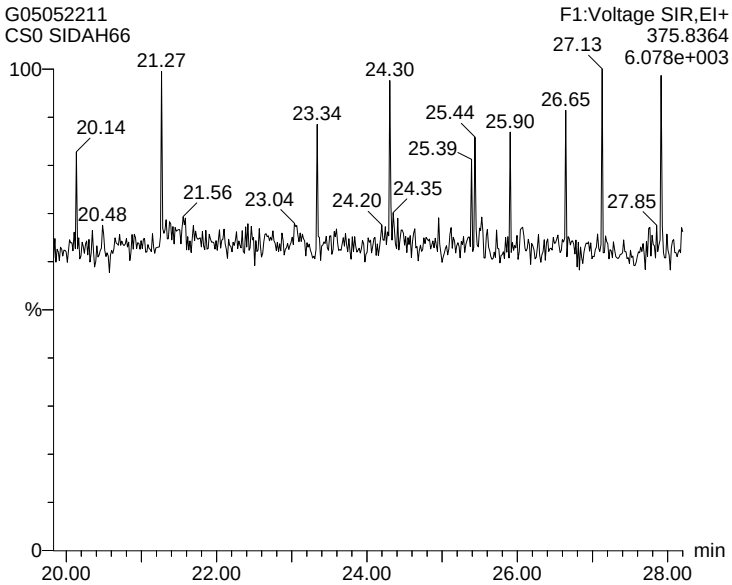
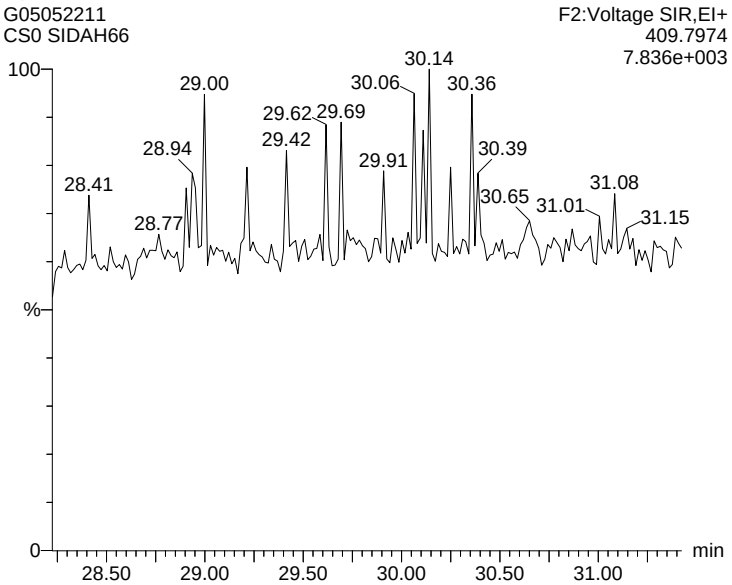
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

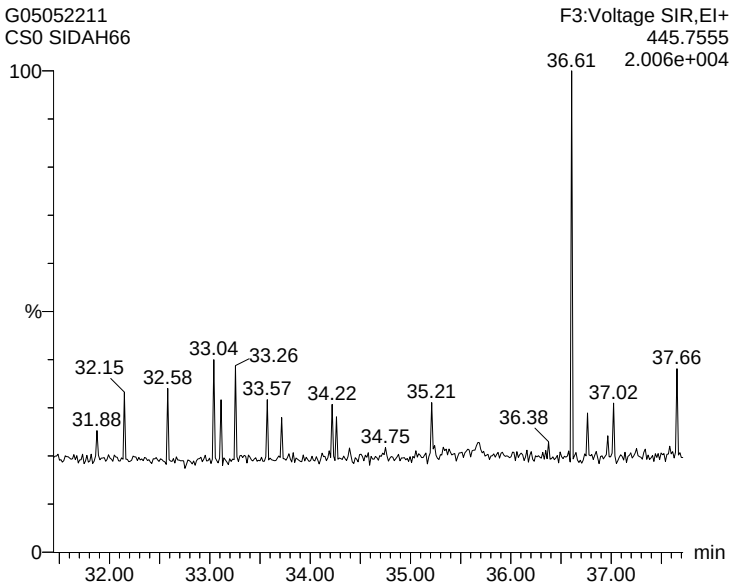
HxDPE



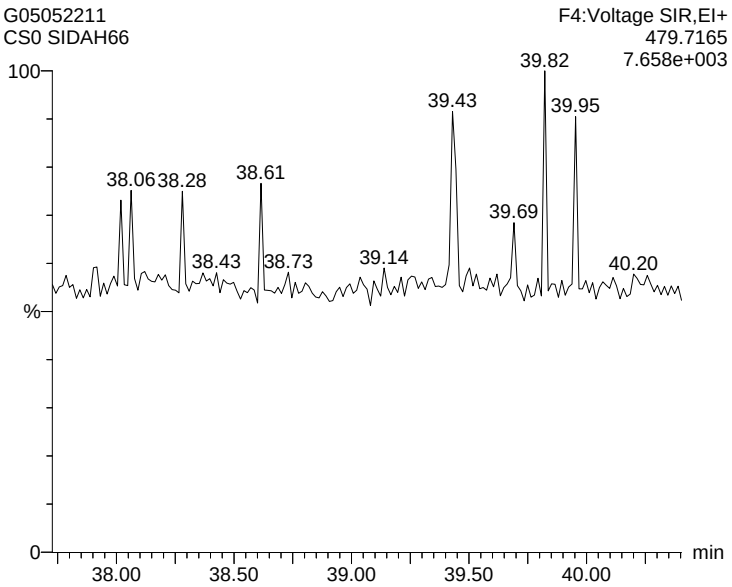
HpDPE



OcDPE



NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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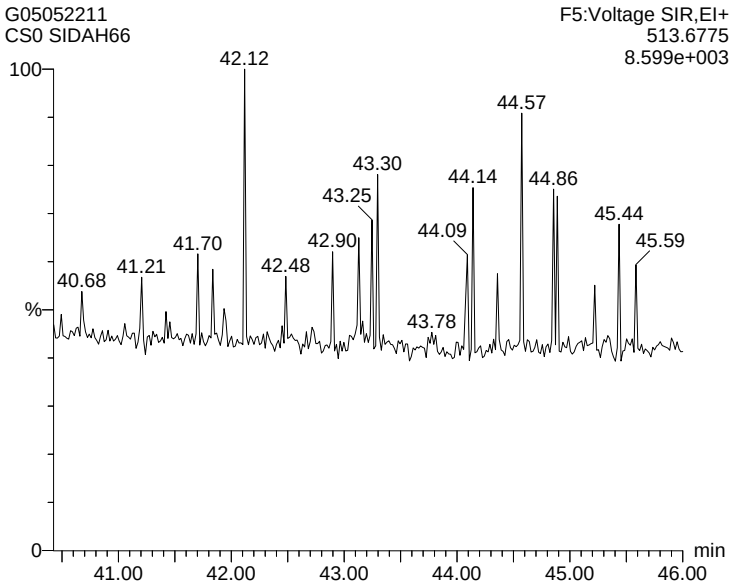
Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1210705.875		2702905.625	bb	94.1	-5.9
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1620934.125		3656965.250	bb	94.1	-5.9
3	3	13C-123467-HxCDD (JS)	401.8559	35.57	542991.438		956073.157	bd	46.4	-7.3
4	4	13C-2378-TCDD (ES)	331.9368	26.06	1115122.125	1210705.875	92.641	bb	98.7	-1.3
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1327181.750	1210705.875	80.158	bb	98.2	-1.8
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	1099127.250	542991.438	104.067	bd	99.4	-0.6
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1011912.063	542991.438	95.492	db	96.7	-3.3
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1178051.125	542991.438	110.873	db	99.6	-0.4
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	908259.000	542991.438	91.370	bb	99.2	-0.8
10	10	13C-OCDD (ES)	469.7780	43.11	1336147.875	542991.438	69.877	bb	198.0	-1.0
11	11	13C-2378-TCDF (ES)	315.9419	25.32	1627366.125	1620934.125	99.512	bb	100.9	0.9
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	1965181.750	1620934.125	88.146	bb	101.3	1.3
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	1815601.000	1620934.125	81.478	bb	96.4	-3.6
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	776132.000	542991.438	118.671	bd	100.3	0.3
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	928893.813	542991.438	142.591	db	100.2	0.2
16	16	13C-234678-HxCDF (ES)	383.8639	35.04	878162.125	542991.438	133.966	bb	103.6	3.6
17	17	13C-123789-HxCDF (ES)	383.8639	36.09	773626.063	542991.438	116.991	bb	99.1	-0.9
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	590053.813	542991.438	98.760	bb	101.9	1.9
19	19	13C-1234789-HpCDF (ES)	417.8253	39.91	548020.563	542991.438	89.381	bb	102.3	2.3
20	20	13C-OCDF (ES)	453.7830	43.38	1671084.625	542991.438	87.393	bb	202.2	1.1
21	21	37Cl-2378-TCDD (CS)	327.8847			1210705.875				
22	22	13C-12347-PeCDD (CS)	367.8949	30.65	1471141.250	1210705.875	89.061	bb	101.3	1.3
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	1965181.750	1620934.125	88.146	bb	101.3	1.3
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	842927.250	542991.438	128.489	bb	104.3	4.3
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	617196.000	542991.438	102.116	bb	106.1	6.1
26	26	37Cl-2378-TCDD (SS)	327.8847			1115122.125				
27	27	13C-12347-PeCDD (SS)	367.8949	30.65	1450148.625	1327181.750	109.214	bb	103.7	3.7
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	1965181.750	1965181.750	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	819693.875	928893.813	88.813	bb	104.0	4.0
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	617196.000	590053.813	102.916	bb	103.7	3.7
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1252333.875	1210705.875	105.386	bb	101.1	1.1
32	32	13C-1368-TCDF (AS)	315.9419	21.56	1887336.375	1620934.125	116.171	bb	102.0	2.0
33	33	1368-TCDD	319.8965			1115122.125				
34	34	1379-TCDD	319.8965			1115122.125				
35	35	1369-TCDD	319.8965			1115122.125				
36	36	1469-TCDD	319.8965			1115122.125				
37	37	1247/1246/1248/1249-TC...	319.8965			1115122.125				
38	38	1378-TCDD	319.8965			1115122.125				
39	39	1268-TCDD	319.8965			1115122.125				
40	40	1478-TCDD	319.8965			1115122.125				
41	41	1279-TCDD	319.8965			1115122.125				
42	42	1234/1269-TCDD	319.8965			1115122.125				
43	43	1236-TCDD	319.8965			1115122.125				
44	44	1237/1238-TCDD	319.8965			1115122.125				
45	45	1239-TCDD [CE]	319.8965			1115122.125				
46	46	2378-TCDD (S)	319.8965	26.07	3340.629	1115122.125	0.300	bb	0.3	5.3
47	47	1278-TCDD	319.8965			1115122.125				
48	48	1267-TCDD	319.8965			1115122.125				
49	49	1289-TCDD	319.8965			1115122.125				
50	50	12479/12468-PeCDD	355.8546			1327181.750				
51	51	12469-PeCDD	355.8546			1327181.750				
52	52	12368-PeCDD	355.8546			1327181.750				
53	53	12478-PeCDD	355.8546			1327181.750				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G05052211, Date: 05-May-2022, Time: 17:04:48, ID: SIDAH66, Description: CS0, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1327181.750				
55	55	12369/12467/12489-PeCDD	355.8546			1327181.750				
56	56	12346/12347-PeCDD	355.8546			1327181.750				
57	57	12378-PeCDD (S)	355.8546	31.18	16339.849	1327181.750	1.273	bb	1.3	0.6
58	58	12367-PeCDD	355.8546			1327181.750				
59	59	12389-PeCDD	355.8546			1327181.750				
60	60	124679/124689-HxCDD	389.8157			1099127.250				
61	61	123468-HxCDD	389.8157			1099127.250				
62	62	123679/123689-HxCDD	389.8157			1099127.250				
63	63	123469-HxCDD	389.8157			1099127.250				
64	64	123478-HxCDD (S)	389.8157	35.26	14389.456	1099127.250	1.316	bd	1.2	-0.2
65	65	123678-HxCDD (S)	389.8157	35.37	14174.103	1011912.063	1.388	db	1.3	0.9
66	66	123467-HxCDD	389.8157			1178051.125				
67	67	123789-HxCDD (S)	389.8157	35.69	16261.096	1178051.125	1.363	bb	1.3	4.3
68	68	1234679-HpCDD	423.7766			908259.000				
69	69	1234678-HpCDD (S)	423.7766	39.30	11786.622	908259.000	1.321	bb	1.3	0.8
70	70	OCDD (S)	457.7377	43.11	18335.090	1336147.875	2.744	bd	2.4	-3.4
71	71	1368-TCDF	303.9016			1627366.125				
72	72	1468-TCDF	303.9016			1627366.125				
73	73	2468-TCDF	303.9016			1627366.125				
74	74	1346/1246-TCDF	303.9016			1627366.125				
75	75	1347/1378/1247-TCDF	303.9016			1627366.125				
76	76	1348-TCDF	303.9016			1627366.125				
77	77	1248/1367/1379-TCDF	303.9016			1627366.125				
78	78	1268-TCDF	303.9016			1627366.125				
79	79	1467-TCDF	303.9016			1627366.125				
80	80	1478-TCDF	303.9016			1627366.125				
81	81	1369/1237-TCDF	303.9016			1627366.125				
82	82	2467-TCDF	303.9016			1627366.125				
83	83	2368-TCDF	303.9016			1627366.125				
84	84	1238/1234/1678/1469/123...	303.9016			1627366.125				
85	85	1278-TCDF	303.9016			1627366.125				
86	86	1349-TCDF	303.9016			1627366.125				
87	87	1267-TCDF	303.9016			1627366.125				
88	88	2346/1249-TCDF	303.9016			1627366.125				
89	89	2347/1279-TCDF	303.9016			1627366.125				
90	90	2348-TCDF [CE]	303.9016			1627366.125				
91	91	2378-TCDF (S)	303.9016	25.35	4416.542	1627366.125	0.268	bb	0.2	-3.6
92	92	2367/3467-TCDF	303.9016			1627366.125				
93	93	1269-TCDF	303.9016			1627366.125				
94	94	1239-TCDF	303.9016			1627366.125				
95	95	1289-TCDF	303.9016			1627366.125				
96	96	13468/12466-PeCDF	339.8597			1965181.750				
97	97	13678/13467/12467-PeCDF	339.8597			1965181.750				
98	98	12368/13478/12478-PeCDF	339.8597			1965181.750				
99	99	14678-PeCDF	339.8597			1965181.750				
100	1...	13479-PeCDF	339.8597			1965181.750				
101	1...	13469/12479-PeCDF	339.8597			1965181.750				
102	1...	12346-PeCDF	339.8597			1965181.750				
103	1...	23468/12469-PeCDF	339.8597			1965181.750				
104	1...	12347-PeCDF	339.8597			1965181.750				
105	1...	12348-PeCDF	339.8597			1965181.750				
106	1...	12378-PeCDF (S)	339.8597	29.72	26231.916	1965181.750	1.323	bb	1.2	-1.5

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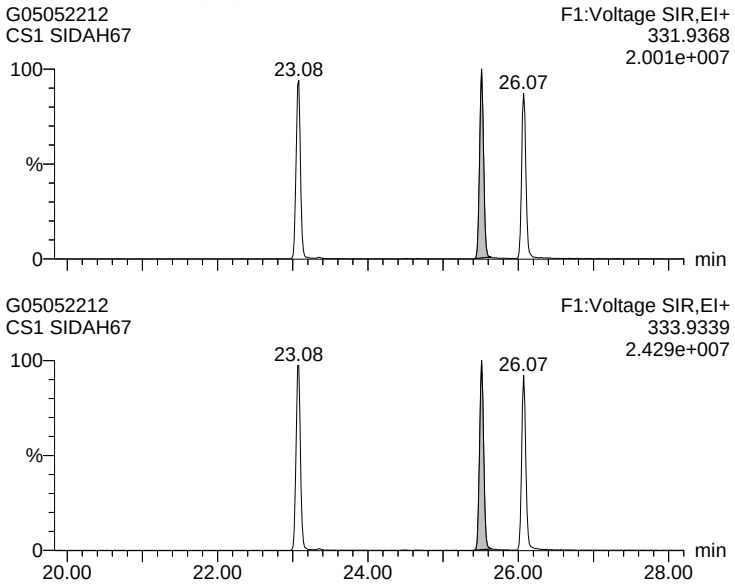
	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			1965181.750				
108	1...	12379-PeCDF	339.8597	29.72	26231.916	1965181.750	1.323	MM	1.3	1.8
109	1...	12679-PeCDF	339.8597			1815601.000				
110	1...	23467/12369-PeCDF	339.8597			1815601.000				
111	1...	23478-PeCDF (S)	339.8597	30.82	22770.775	1815601.000	1.272	bb	1.2	-3.9
112	1...	12489-PeCDF (R)	339.8597			1815601.000				
113	1...	12349-PeCDF	339.8597			1815601.000				
114	1...	12389-PeCDF	339.8597			1815601.000				
115	1...	123468-HxCDF	373.8208			776132.000				
116	1...	124678/134678-HxCDF	373.8208			776132.000				
117	1...	134679-HxCDF	373.8208			776132.000				
118	1...	124679-HxCDF	373.8208			776132.000				
119	1...	124689-HxCDF	373.8208			776132.000				
120	1...	123467-HxCDF	373.8208			776132.000				
121	1...	123478-HxCDF (S)	373.8208	34.22	19387.039	776132.000	1.555	bd	1.2	-4.6
122	1...	123678-HxCDF (S)	373.8208	34.38	22213.605	928893.813	1.428	db	1.2	-5.4
123	1...	123479-HxCDF	373.8208			928893.813				
124	1...	123469-HxCDF	373.8208			878162.125				
125	1...	123679-HxCDF	373.8208			878162.125				
126	1...	234678-HxCDF (S)	373.8208	35.07	21774.096	878162.125	1.519	bb	1.2	-2.0
127	1...	123689-HxCDF (NR)	373.8208			878162.125				
128	1...	123789-HxCDF (S)	373.8208	36.10	18982.977	773626.063	1.499	bb	1.2	-1.8
129	1...	123489-HxCDF (R)	373.8208			773626.063				
130	1...	1234678-HpCDF (S)	407.7818	38.03	16900.506	590053.813	1.786	bb	1.2	-3.0
131	1...	1234679-HpCDF	407.7818			590053.813				
132	1...	1234689-HpCDF	407.7818			590053.813				
133	1...	1234789-HpCDF (S)	407.7818	39.91	15113.791	548020.563	1.719	bb	1.2	-1.0
134	1...	OCDF (S)	441.7428	43.40	23009.633	1671084.625	2.754	bb	2.3	-6.5
135	1...	13C-1278-TCDD (FS)	331.9368			1115122.125				
136	1...	13C-12478-PeCDD (FS)	367.8949			1327181.750				
137	1...	13C-123468-HxCDD (FS)	401.8559			542991.438				
138	1...	13C-1234679-HpCDD (FS)	435.8169			908259.000				
139	1...	13C-1378-TCDD (TS)	331.9368			1115122.125				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

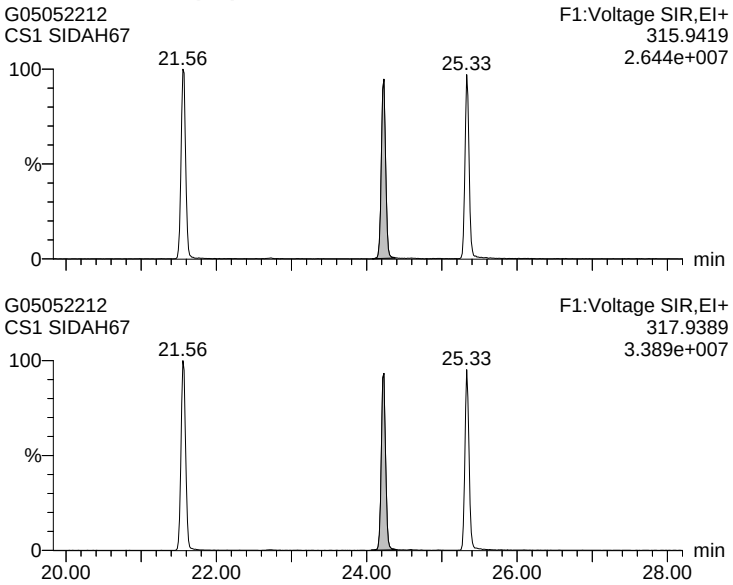
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

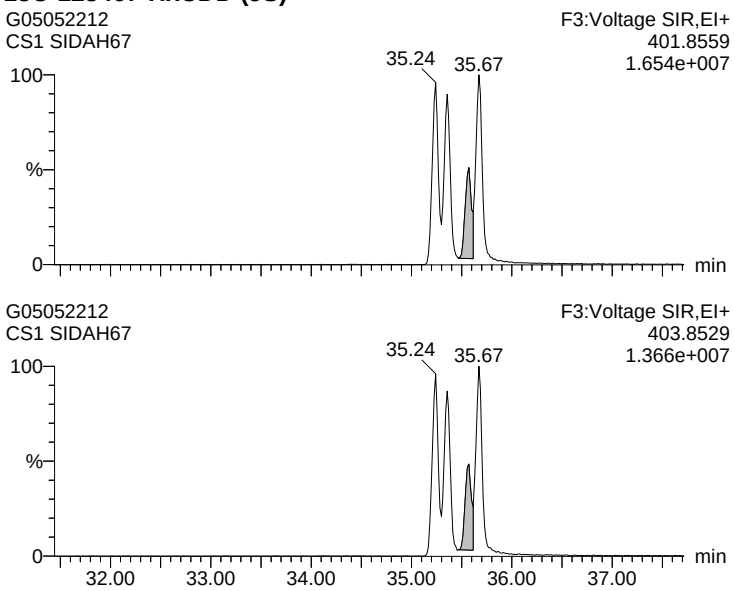
13C-1234-TCDD (JS)



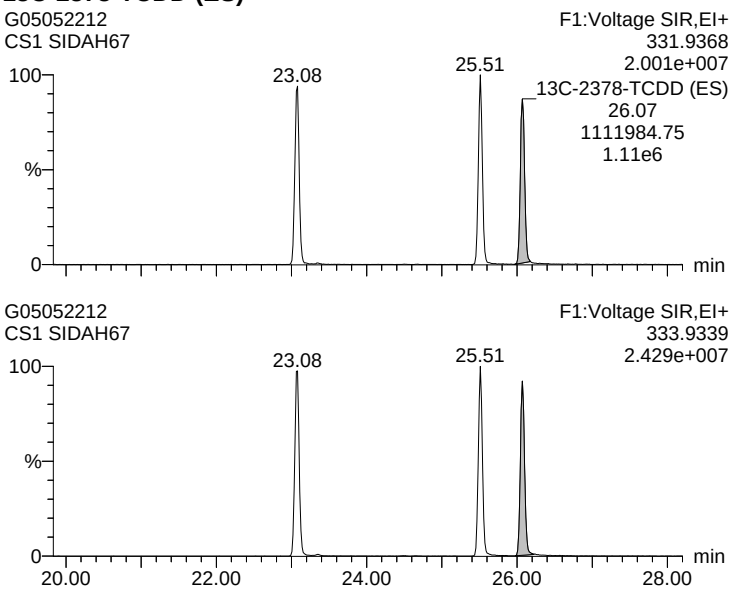
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



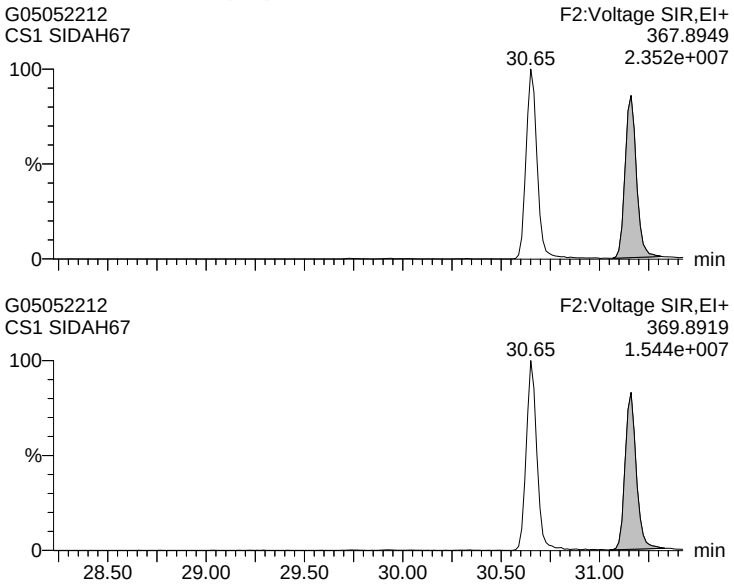
13C-2378-TCDD (ES)



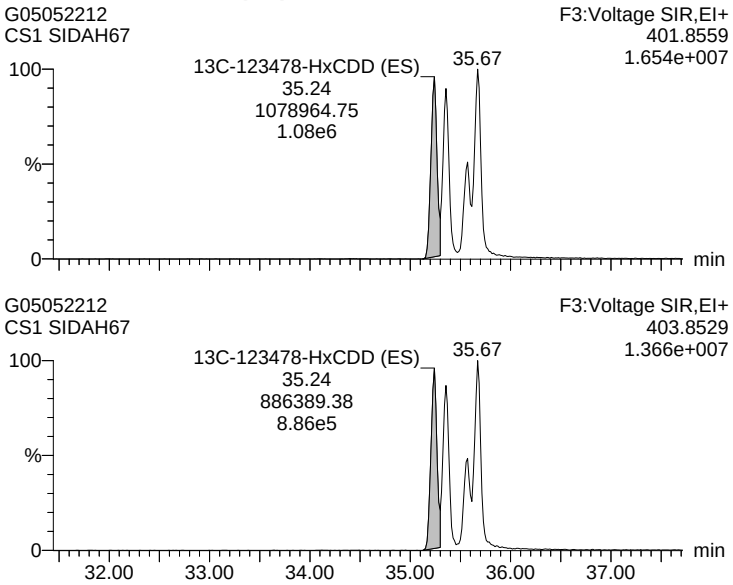
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

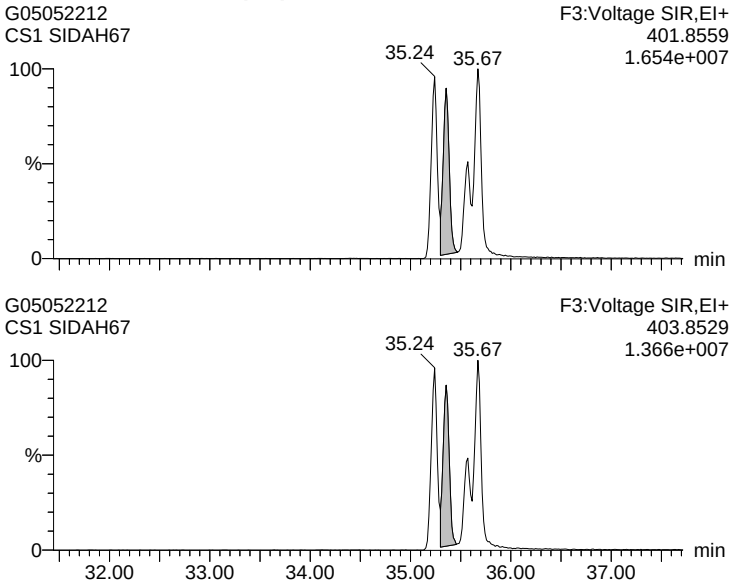
13C-12378-PeCDD (ES)



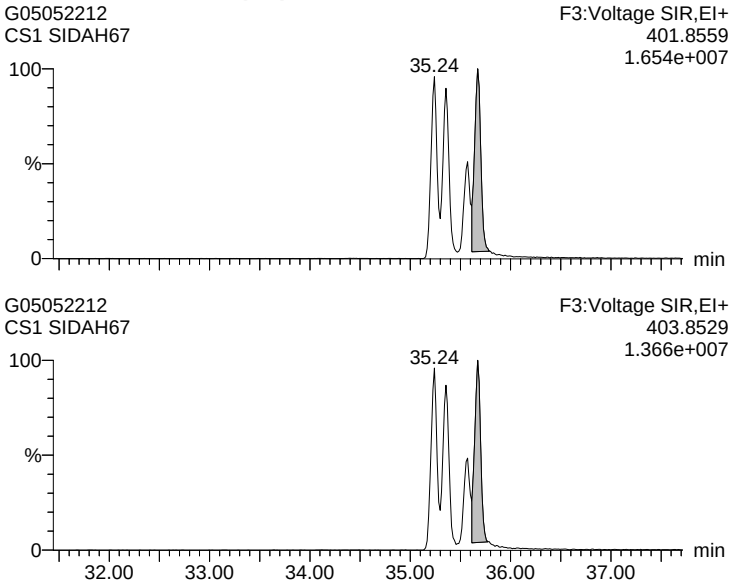
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



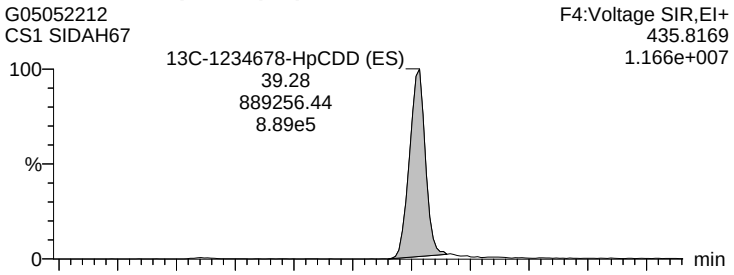
13C-123789-HxCDD (ES)

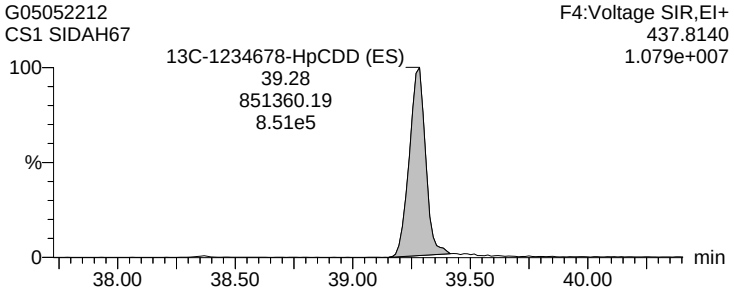


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

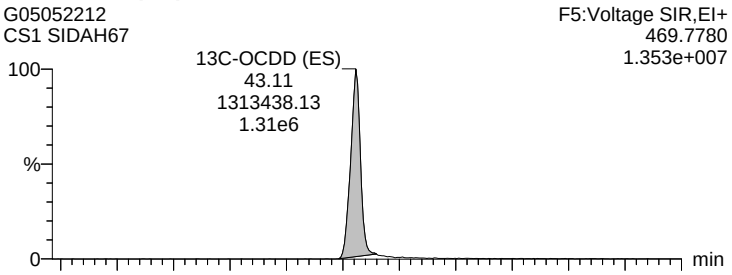
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

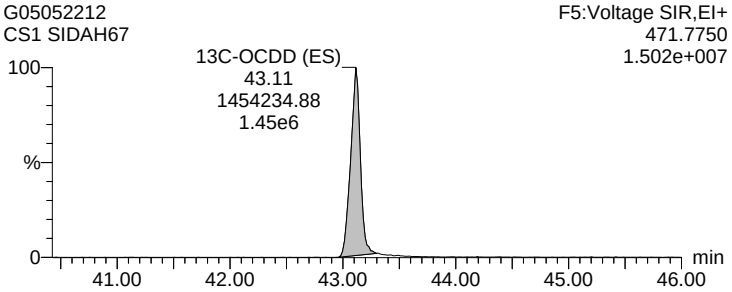
13C-1234678-HpCDD (ES)



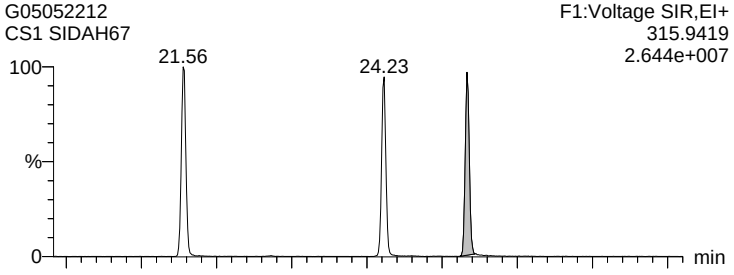


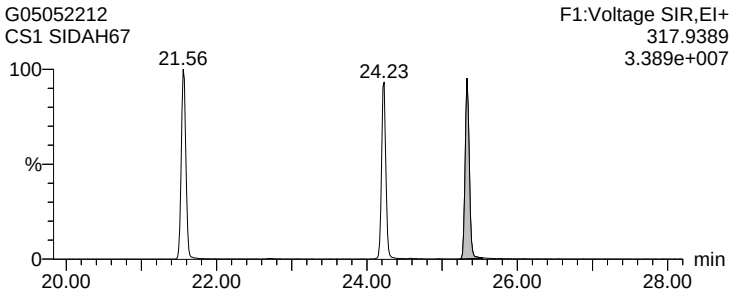
13C-OCDD (ES)



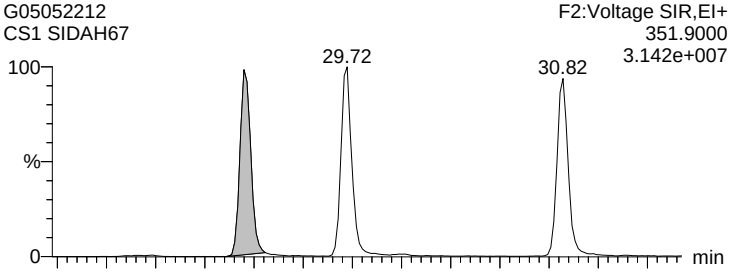


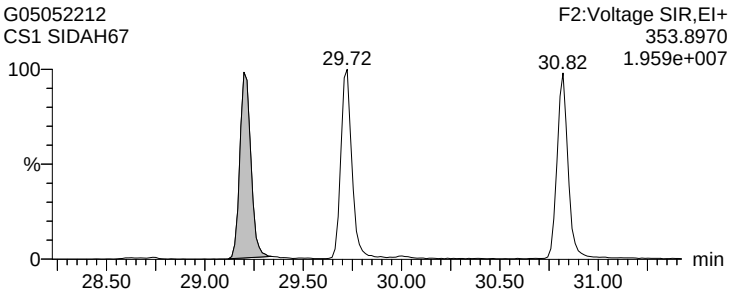
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)

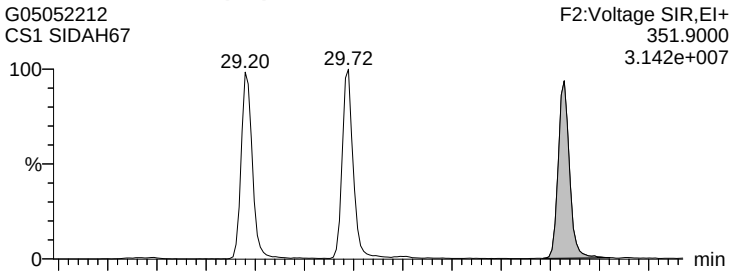


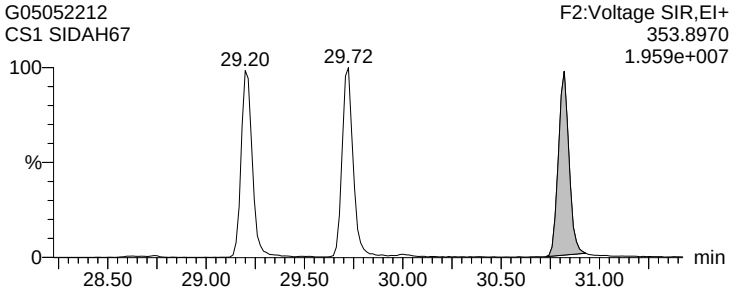


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

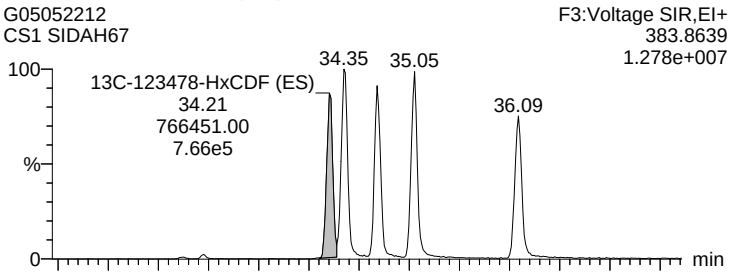
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

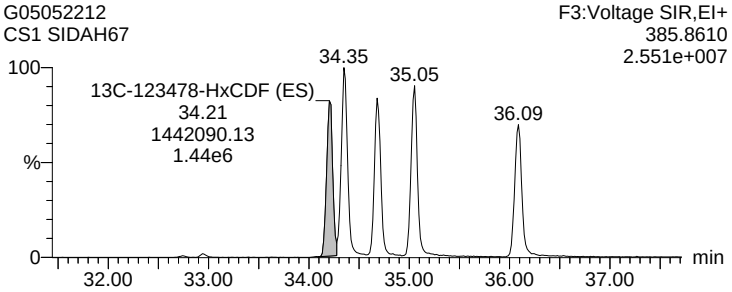
13C-23478-PeCDF (ES)



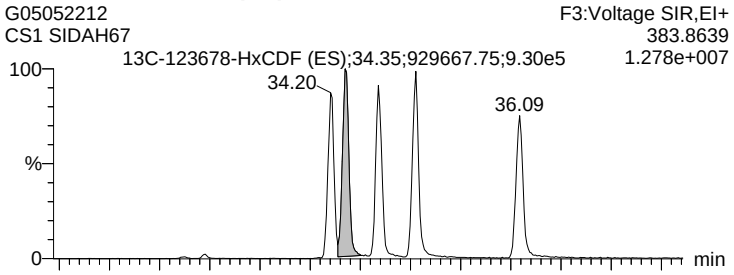


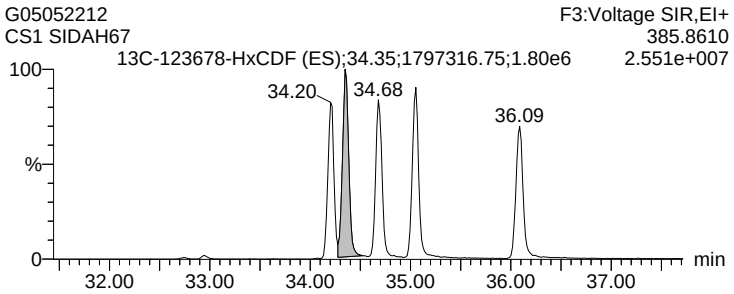
13C-123478-HxCDF (ES)



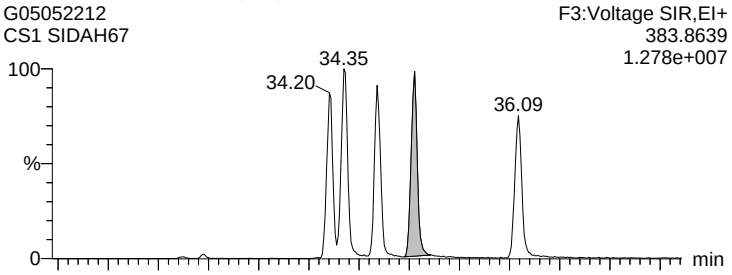


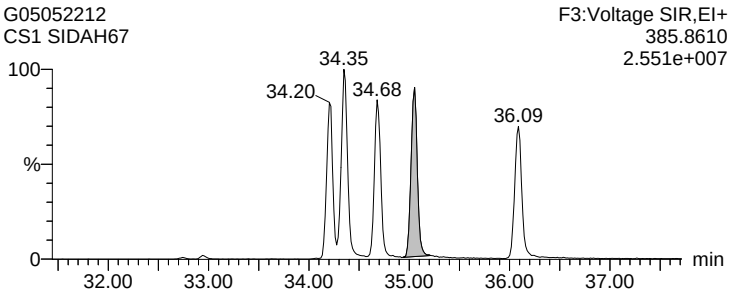
13C-123678-HxCDF (ES)





13C-234678-HxCDF (ES)

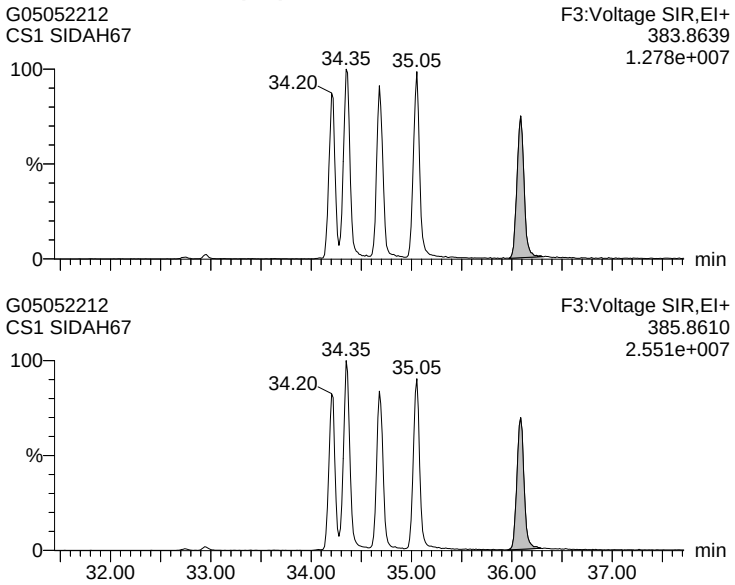




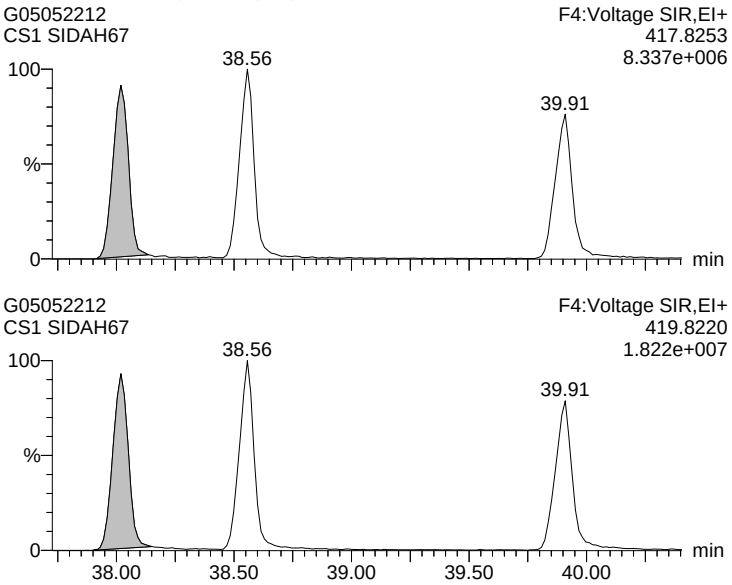
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

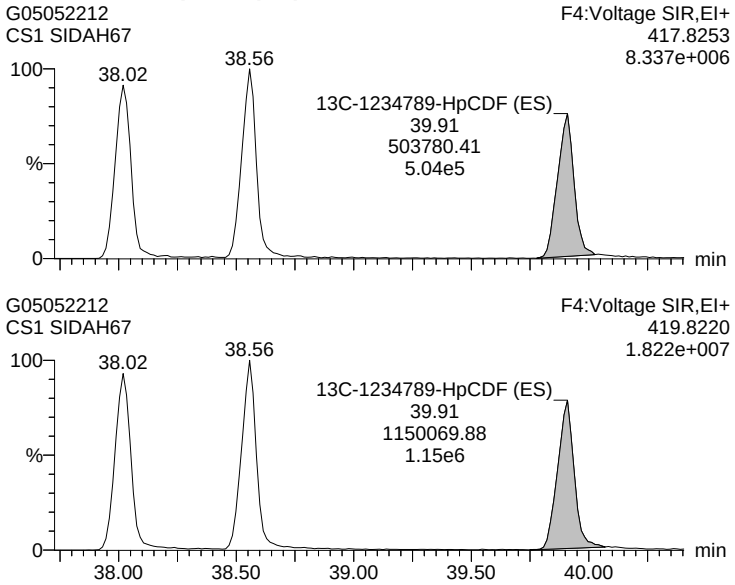
13C-123789-HxCDF (ES)



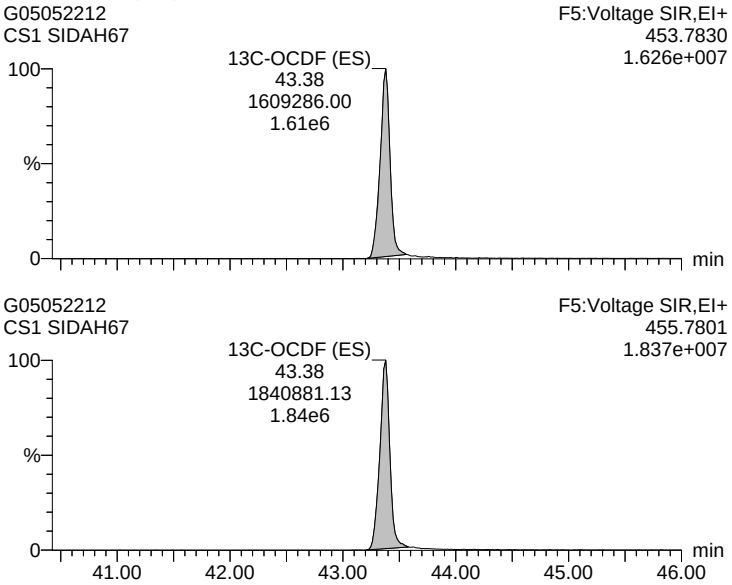
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



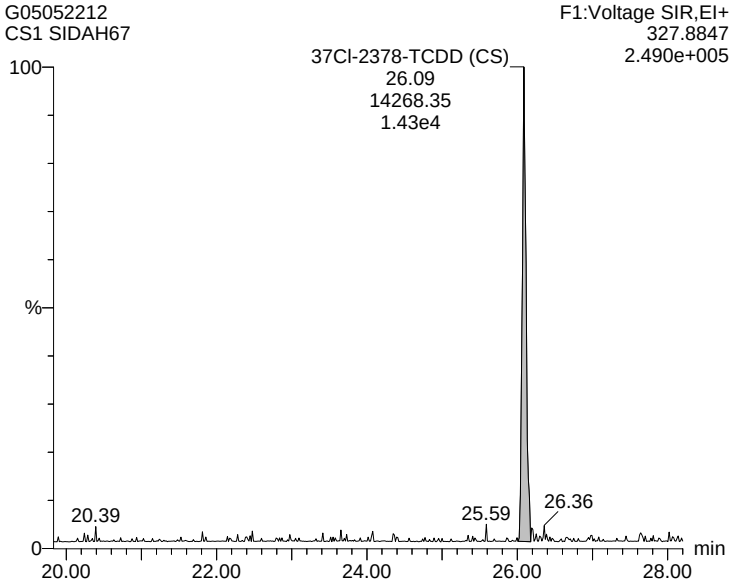
13C-OCDF (ES)



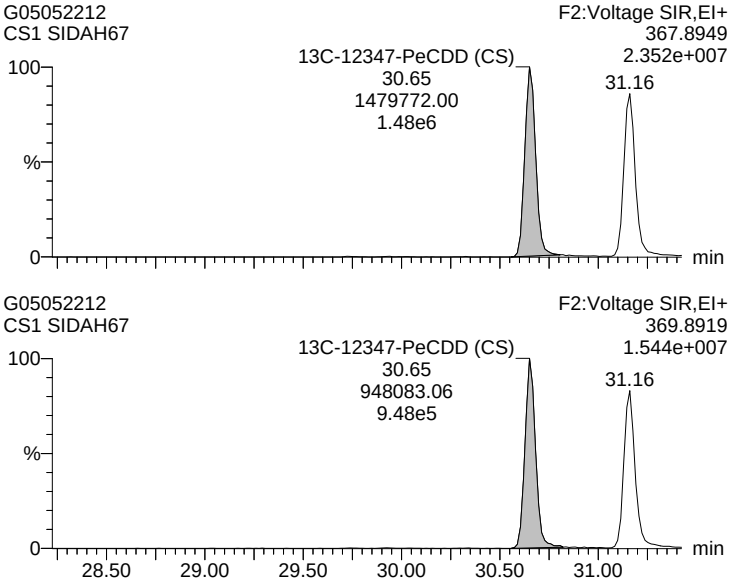
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

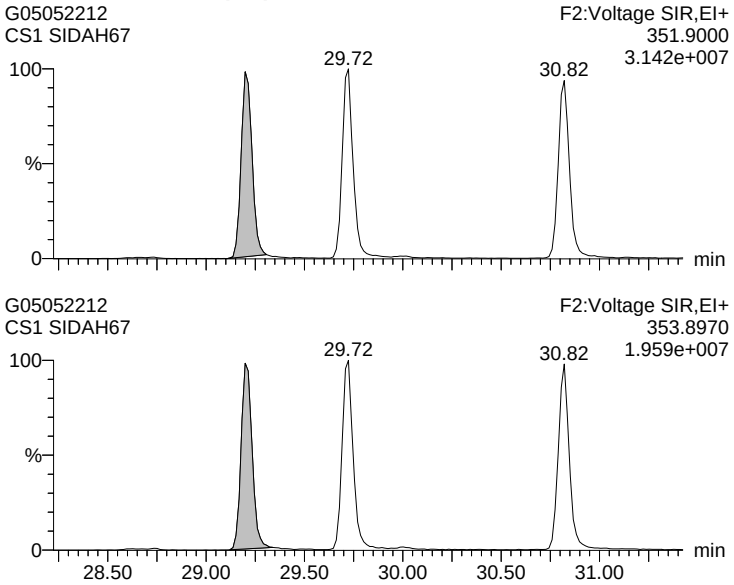
37Cl-2378-TCDD (CS)



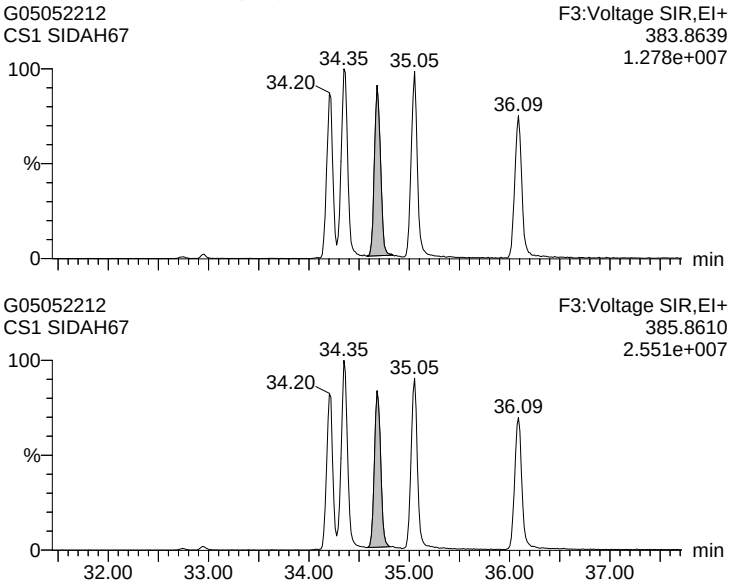
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



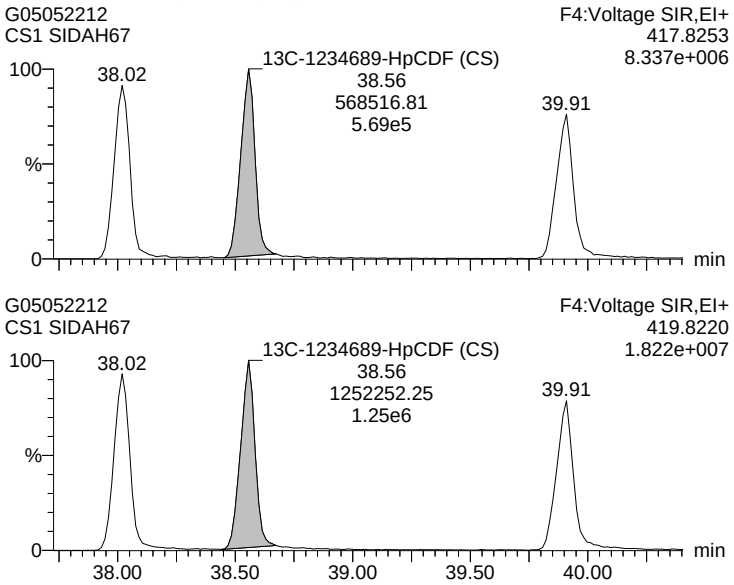
13C-123469-HxCDF (CS)



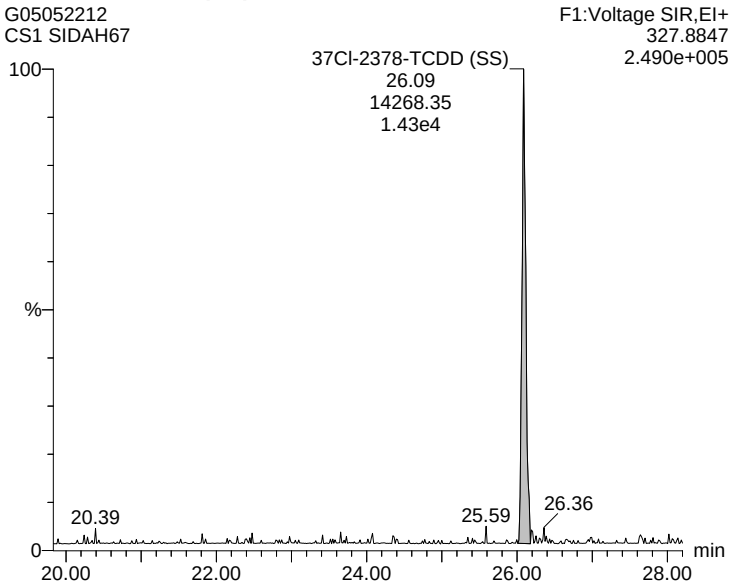
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

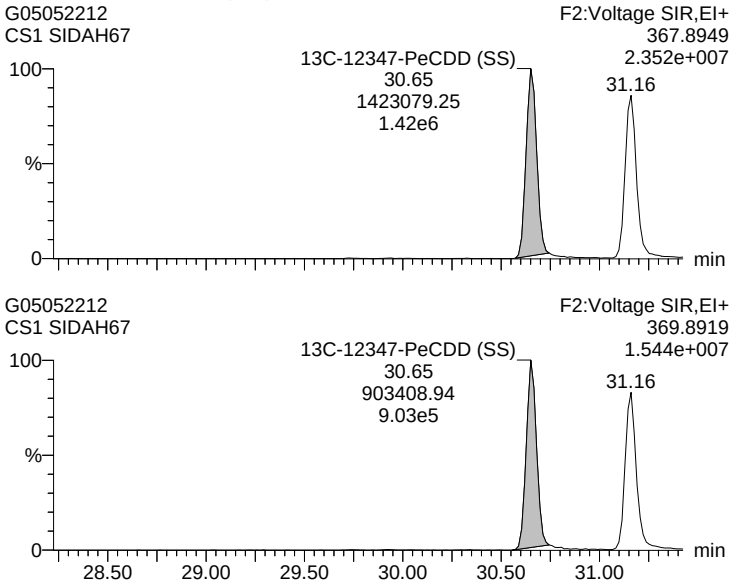
13C-1234689-HpCDF (CS)



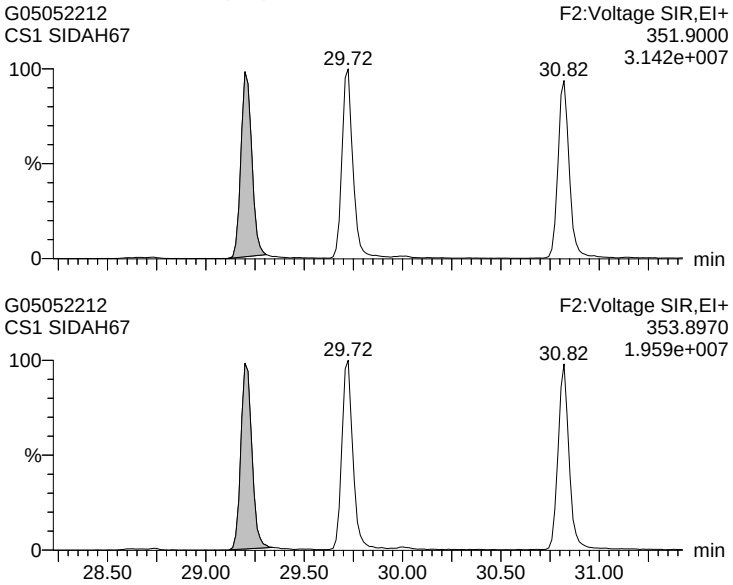
37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



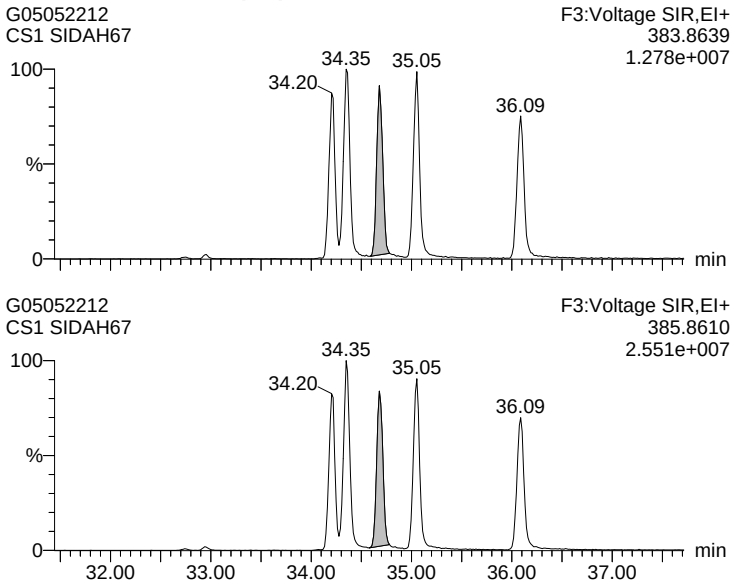
13C-12346-PeCDF (SS)



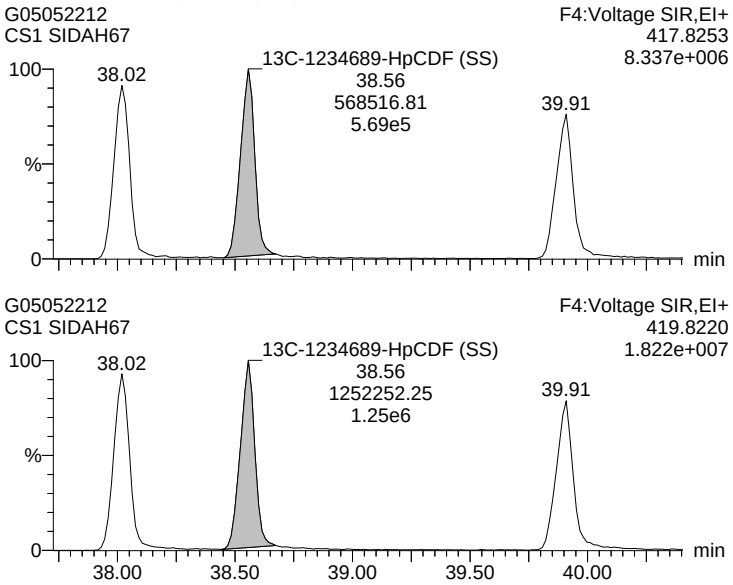
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

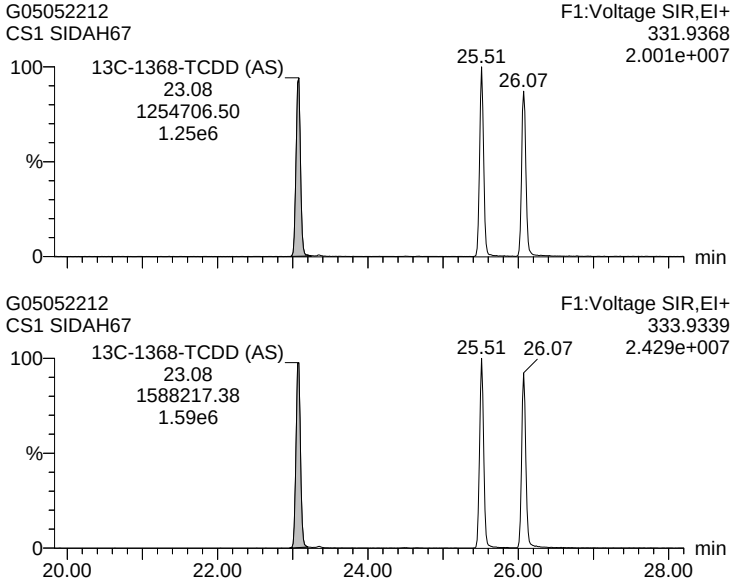
13C-123469-HxCDF (SS)



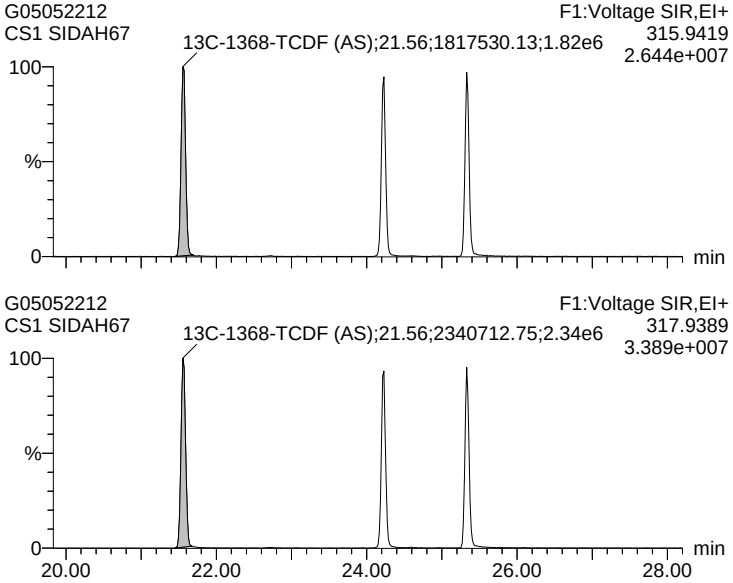
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



13C-1368-TCDF (AS)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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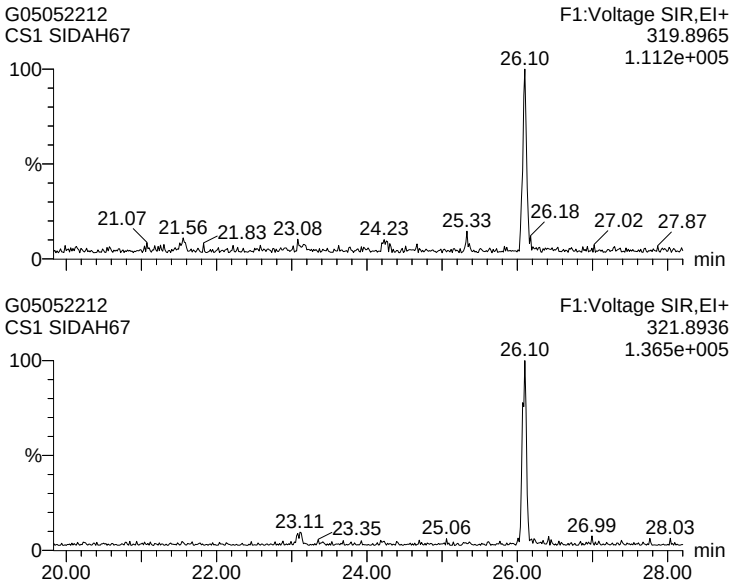
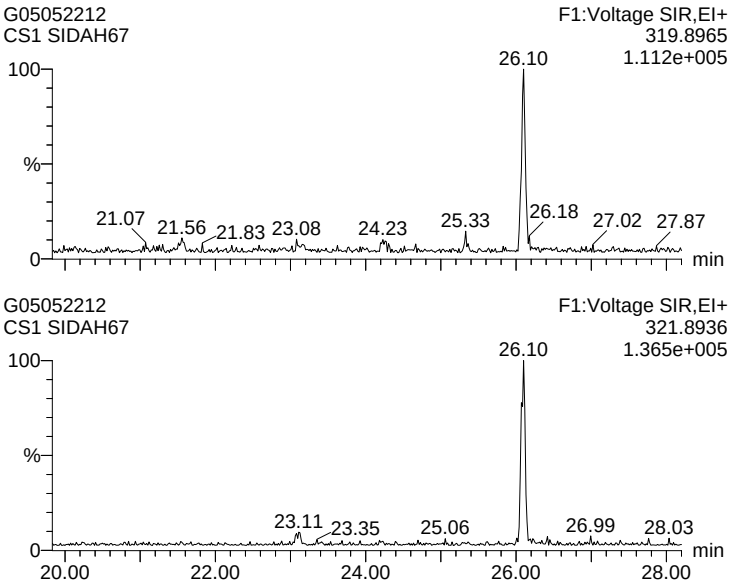
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

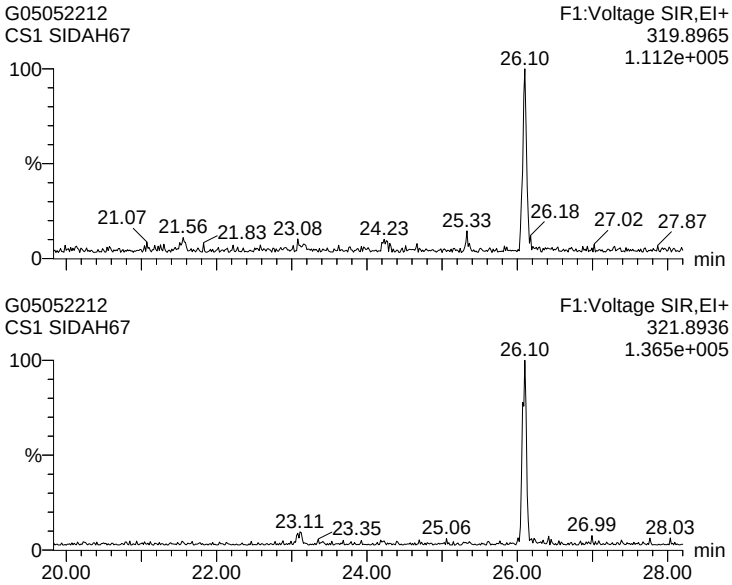
1368-TCDD



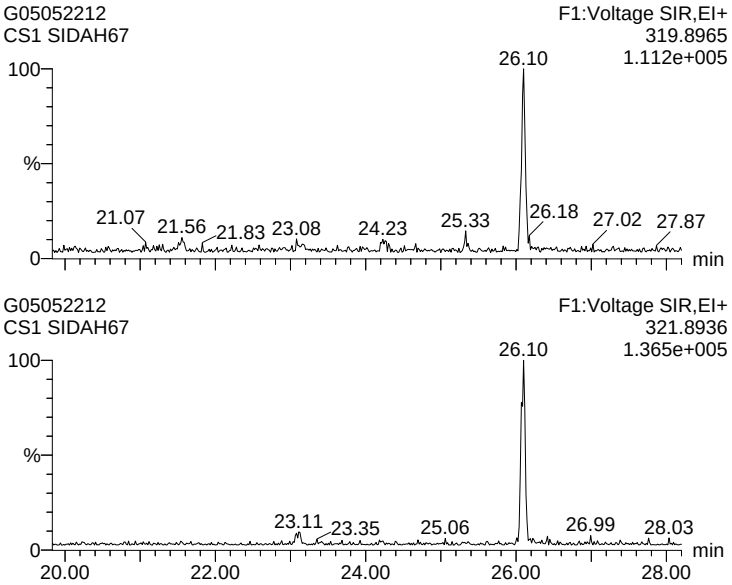
1379-TCDD



1369-TCDD



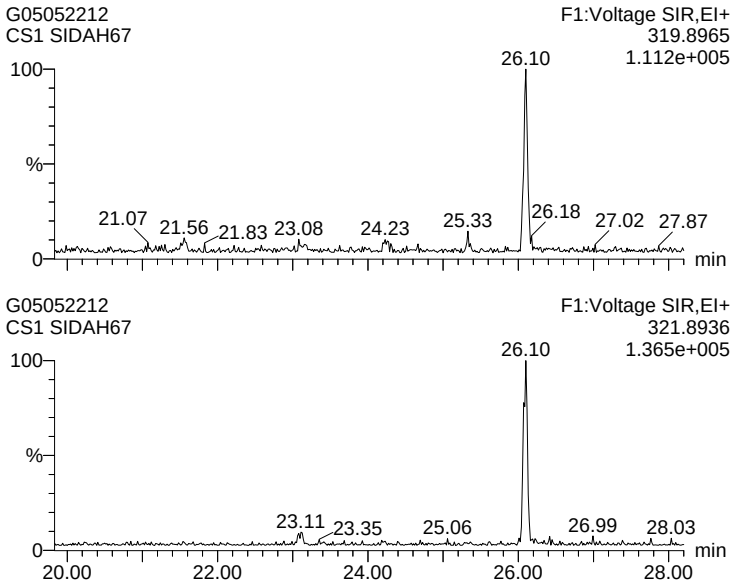
1469-TCDD



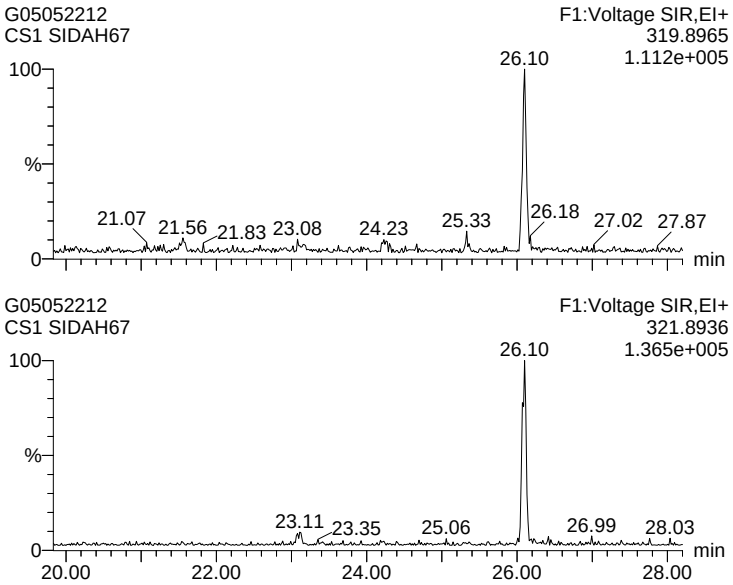
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

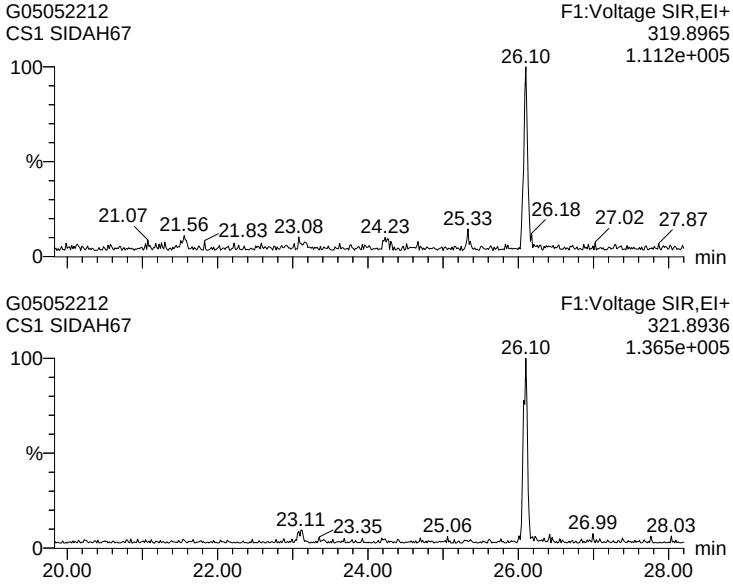
1247/1246/1248/1249-TCDD



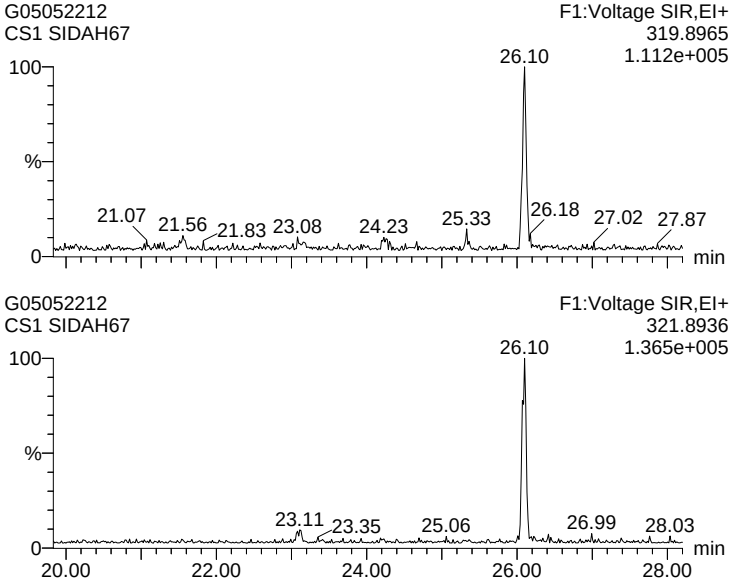
1378-TCDD



1268-TCDD



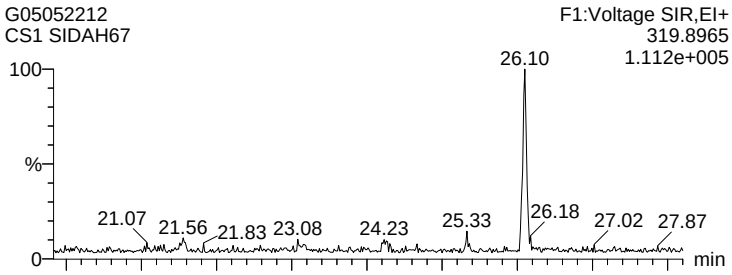
1478-TCDD

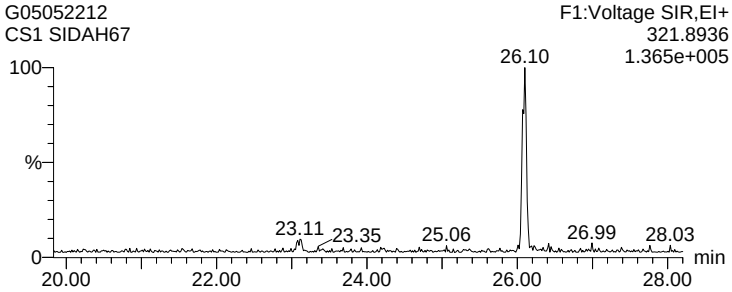


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

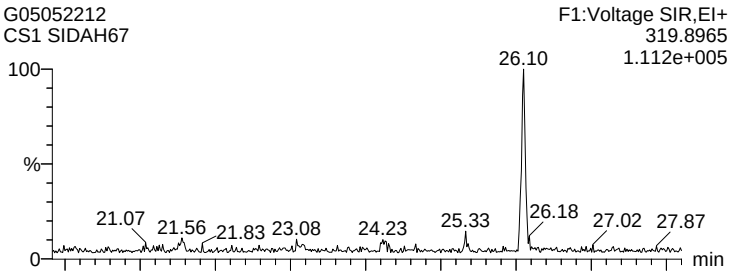
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

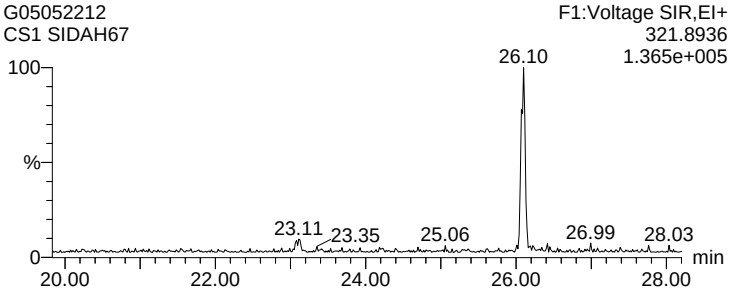
1279-TCDD



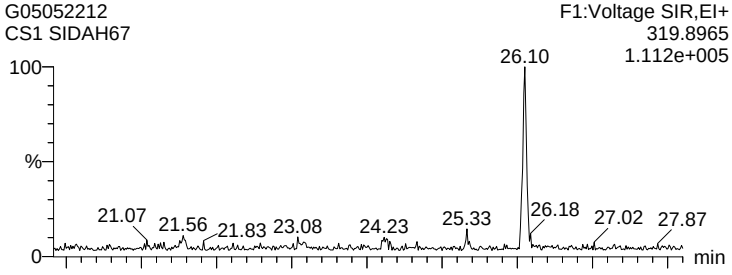


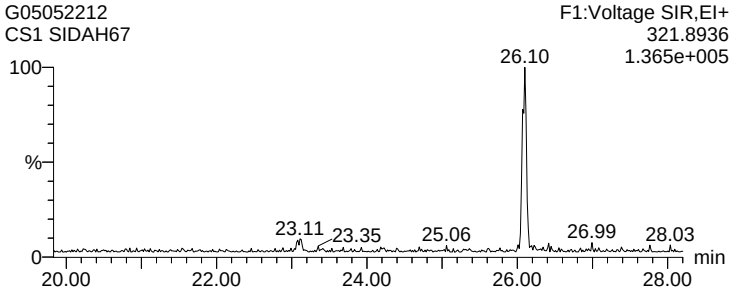
1234/1269-TCDD



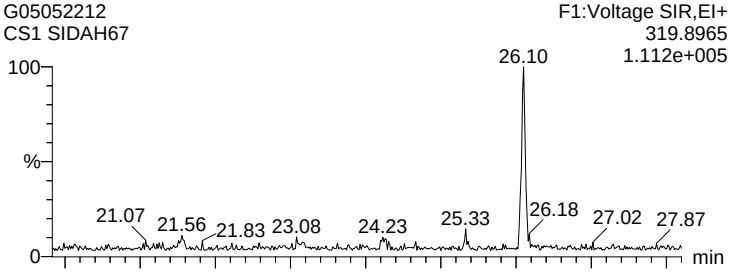


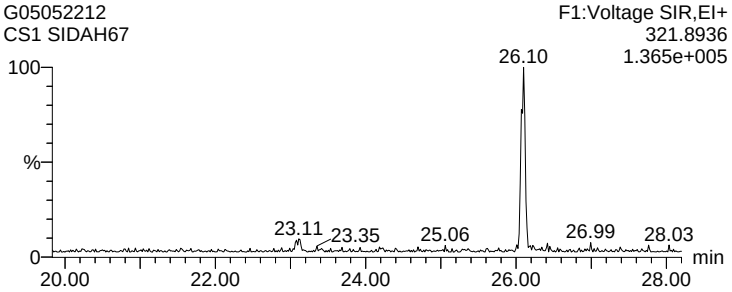
1236-TCDD





1237/1238-TCDD

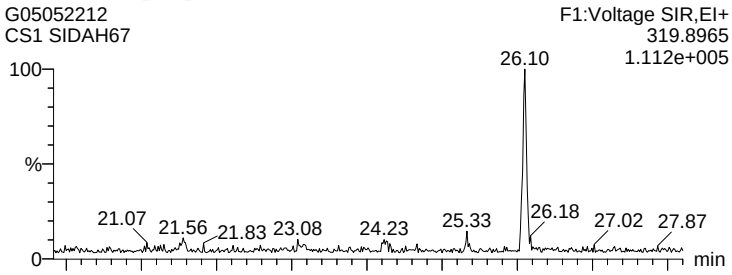


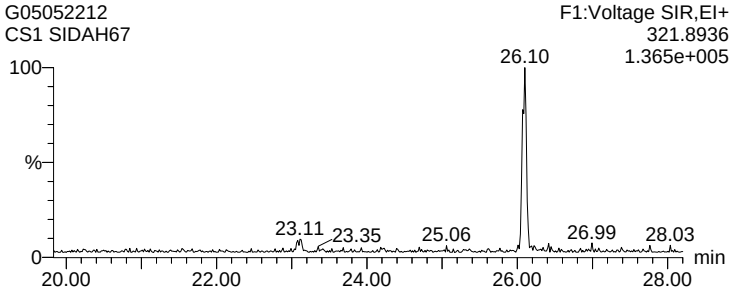


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

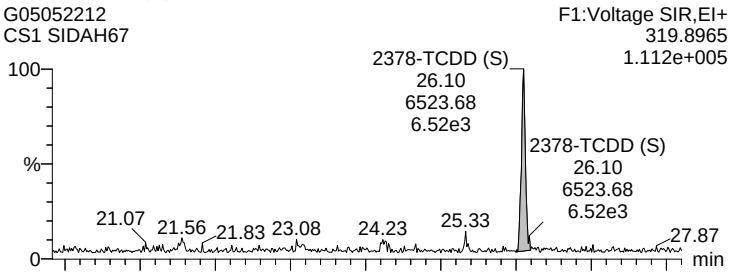
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

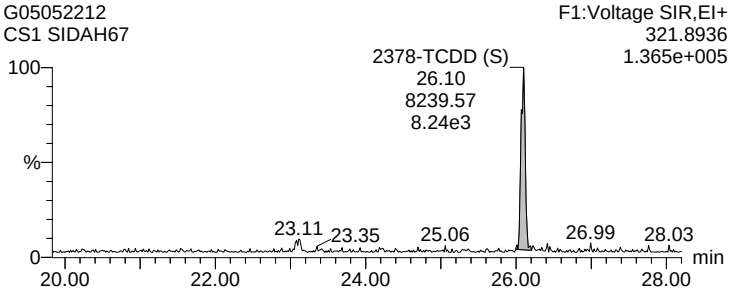
1239-TCDD [CE]



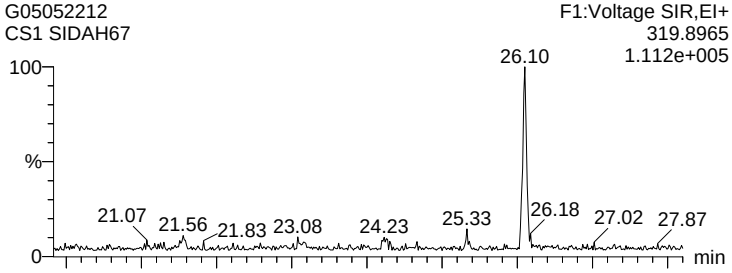


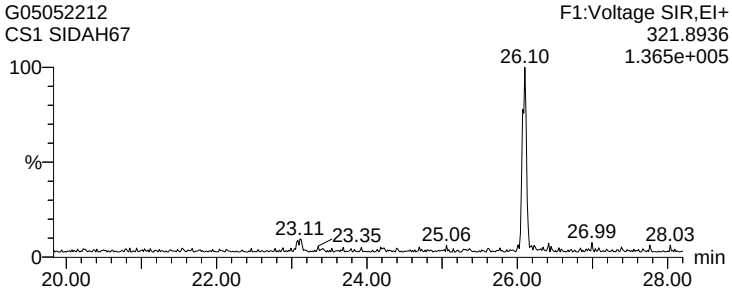
2378-TCDD (S)



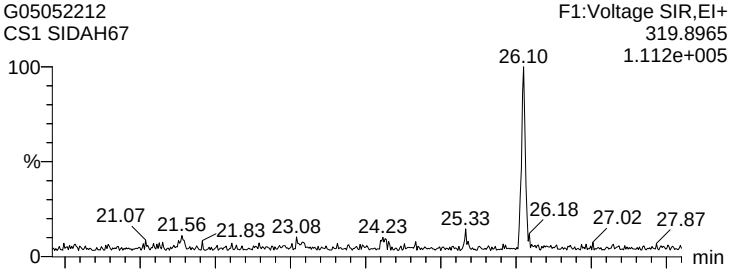


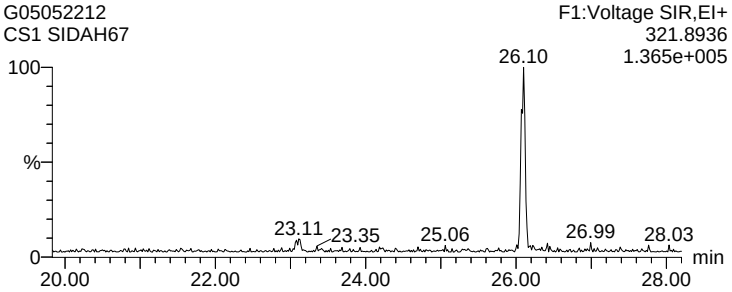
1278-TCDD





1267-TCDD

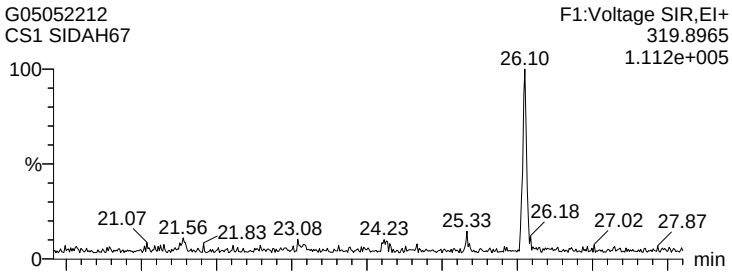


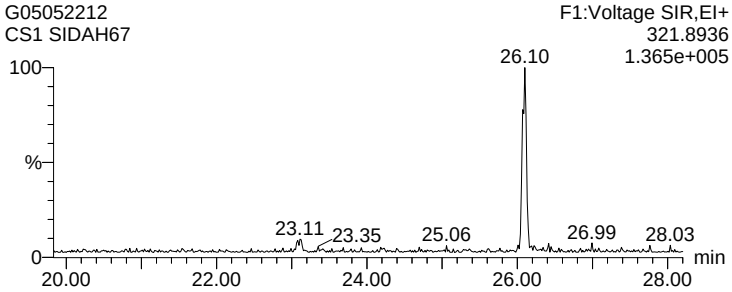


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

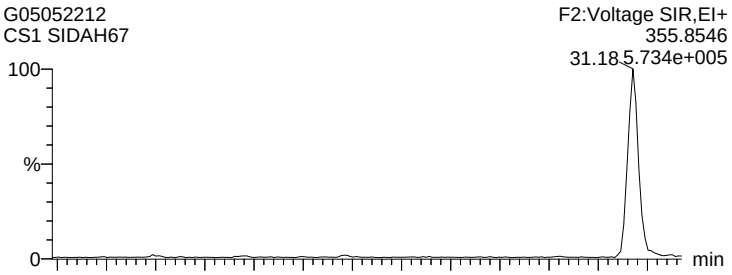
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

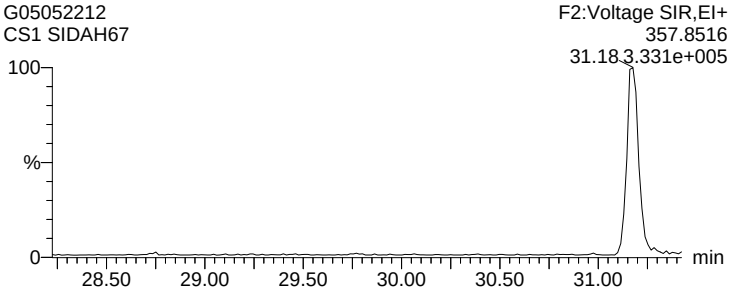
1289-TCDD



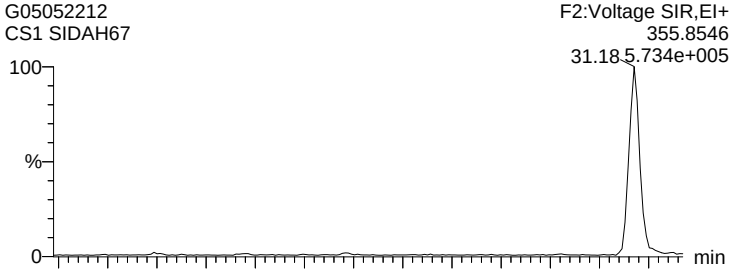


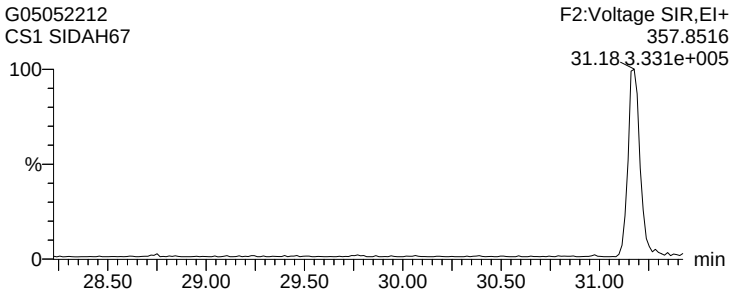
12479/12468-PeCDD



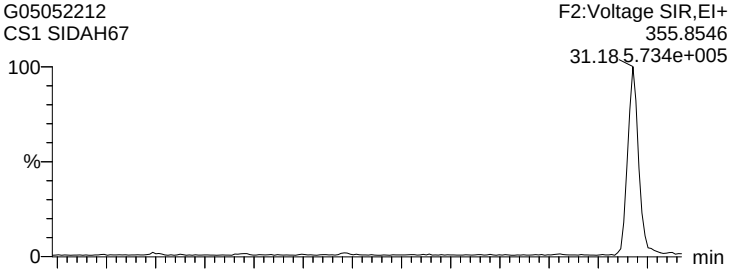


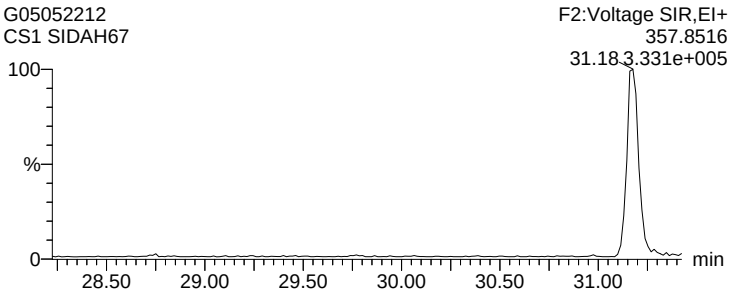
12469-PeCDD





12368-PeCDD

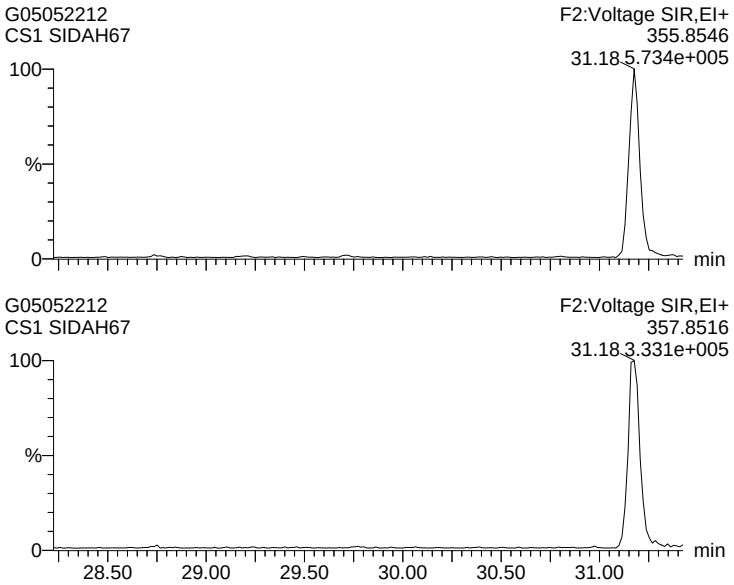




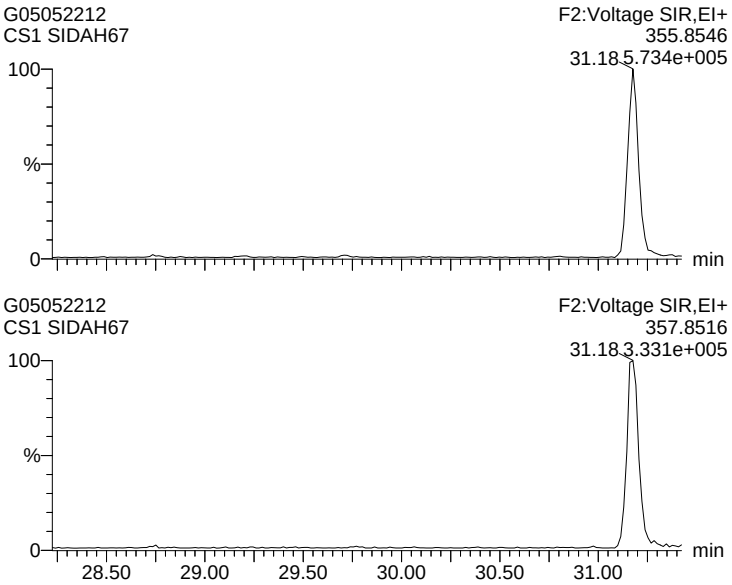
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

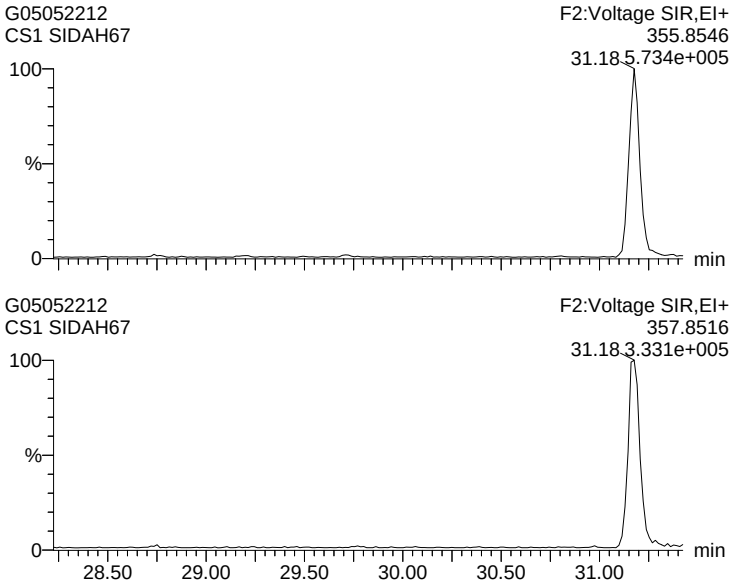
12478-PeCDD



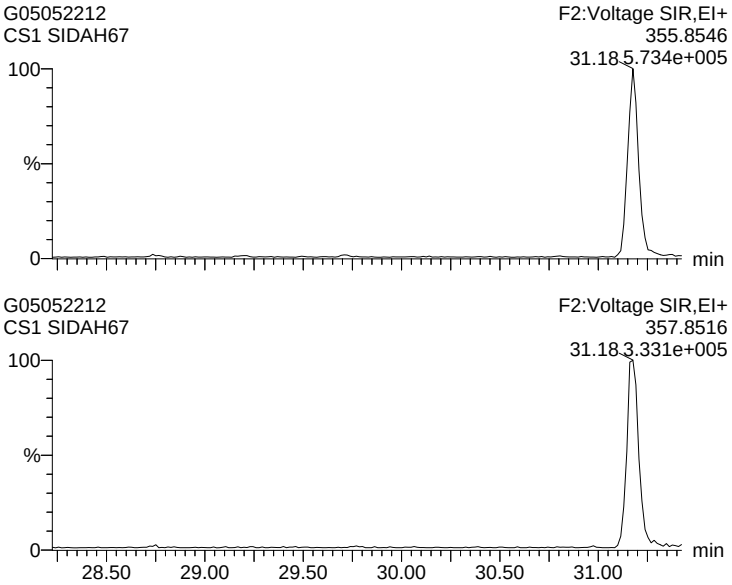
12379-PeCDD



12369/12467/12489-PeCDD



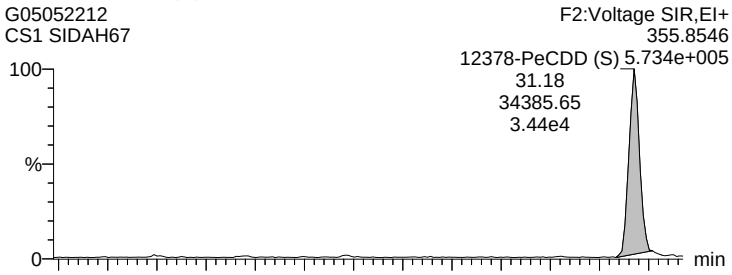
12346/12347-PeCDD

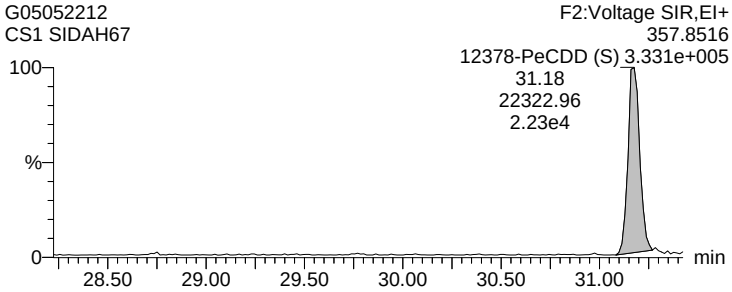


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

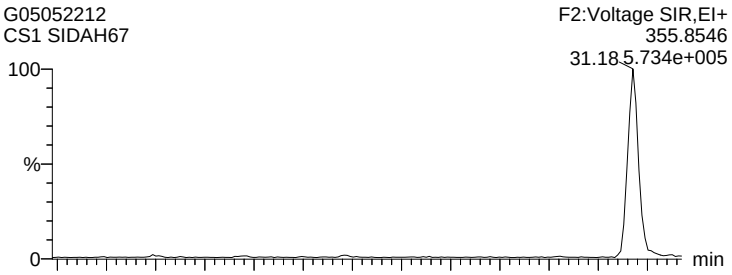
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

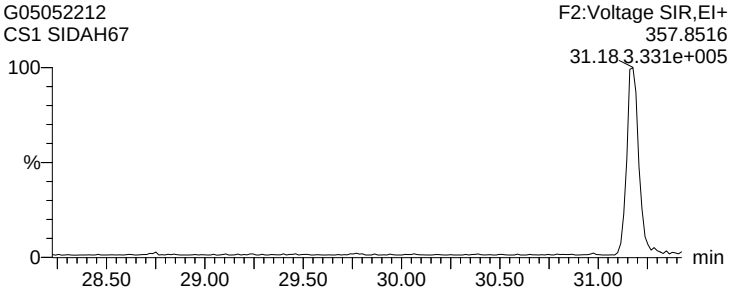
12378-PeCDD (S)



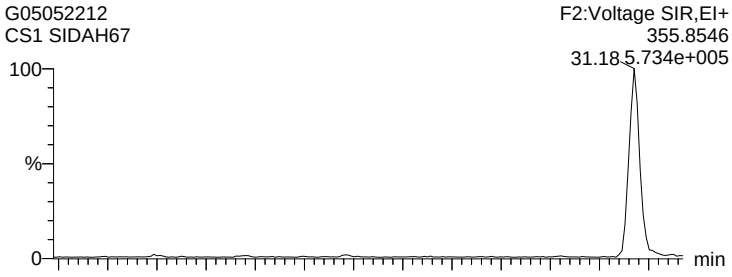


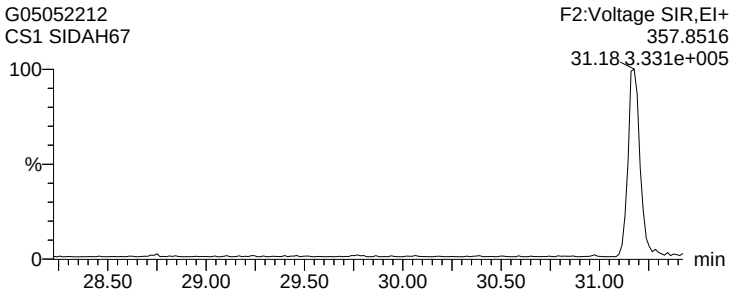
12367-PeCDD



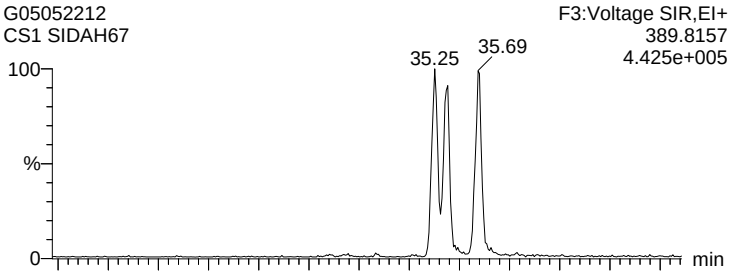


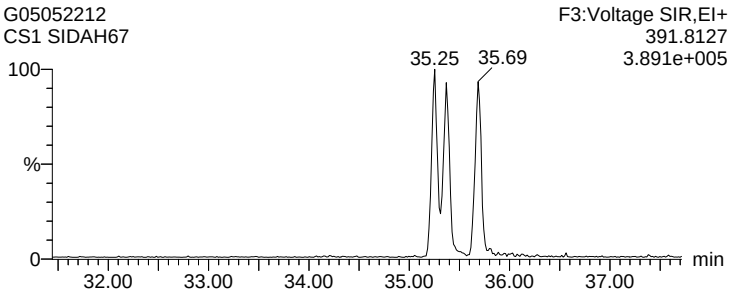
12389-PeCDD





124679/124689-HxCDD

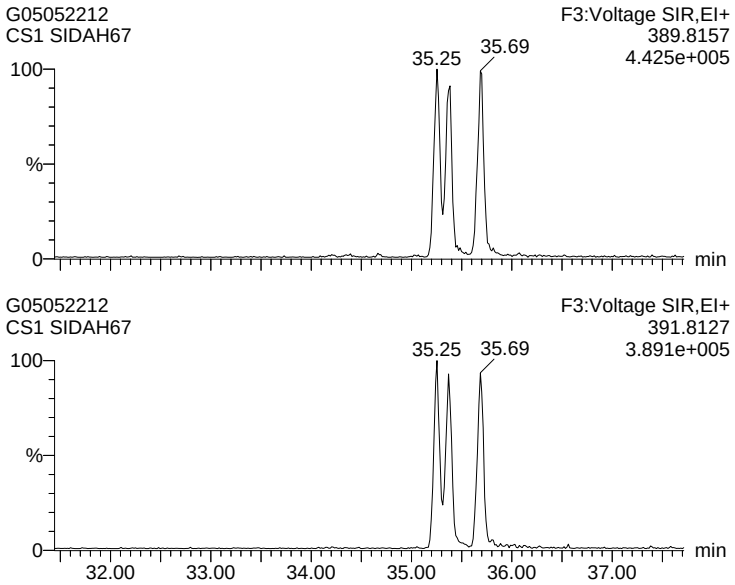




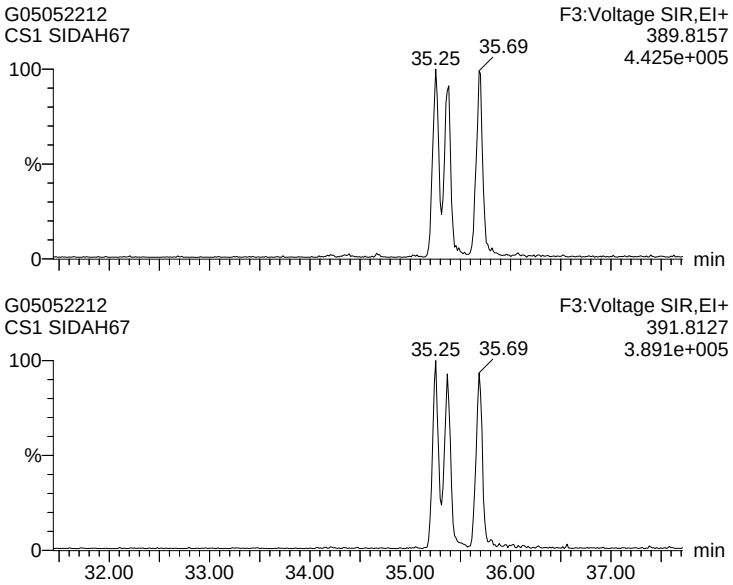
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

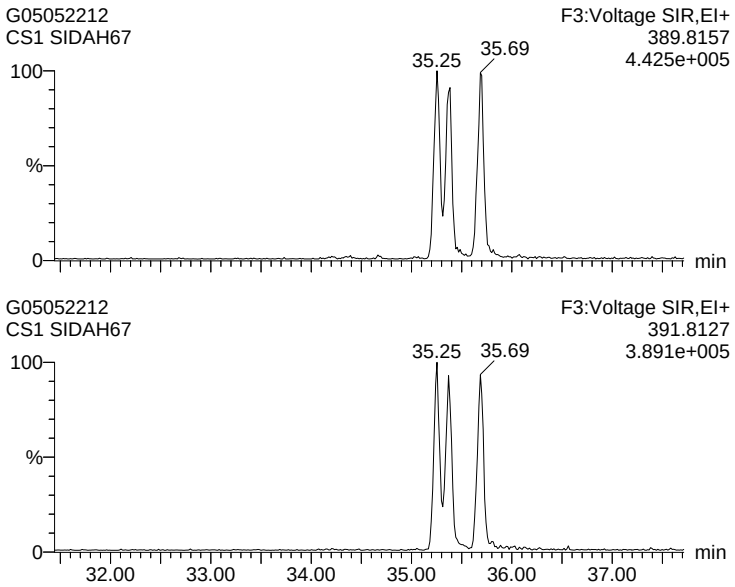
123468-HxCDD



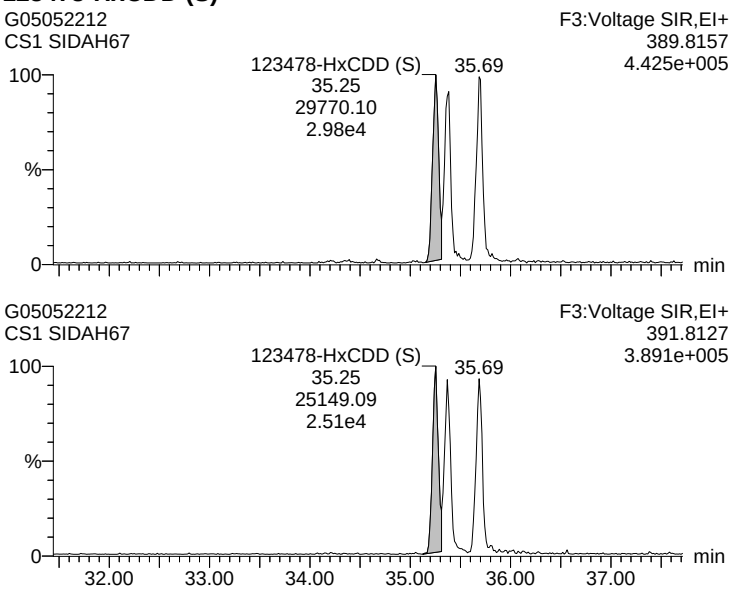
123679/123689-HxCDD



123469-HxCDD



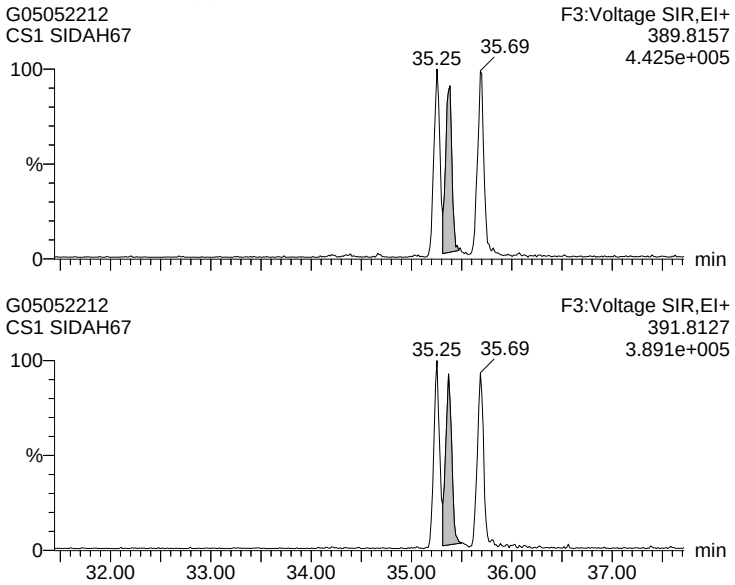
123478-HxCDD (S)



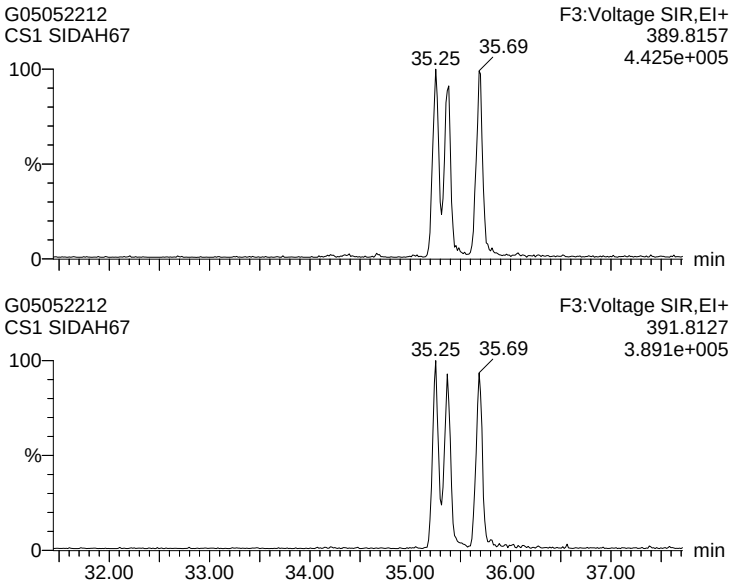
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

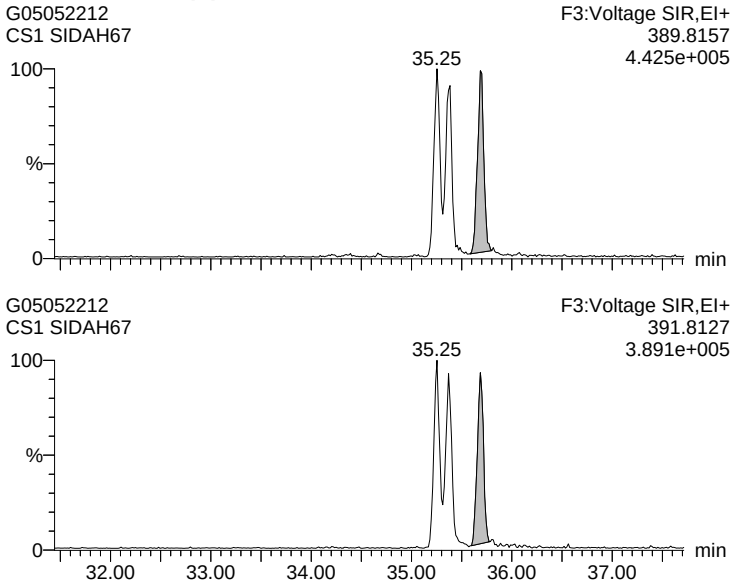
123678-HxCDD (S)



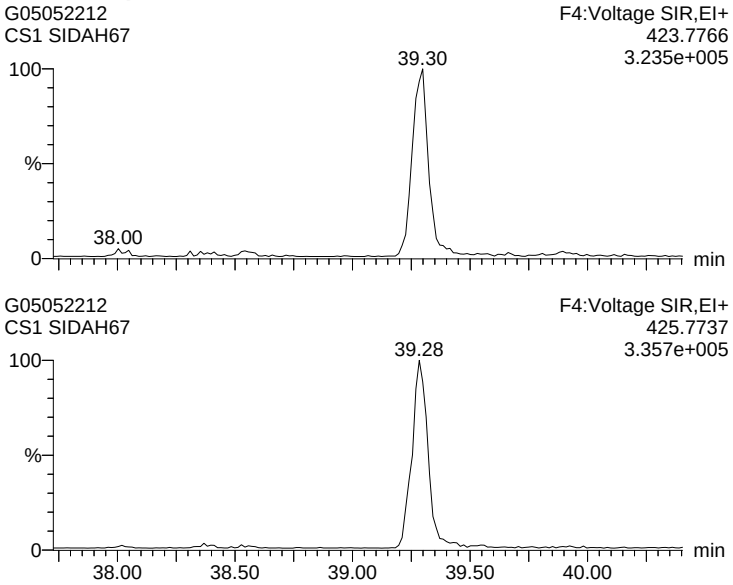
123467-HxCDD



123789-HxCDD (S)



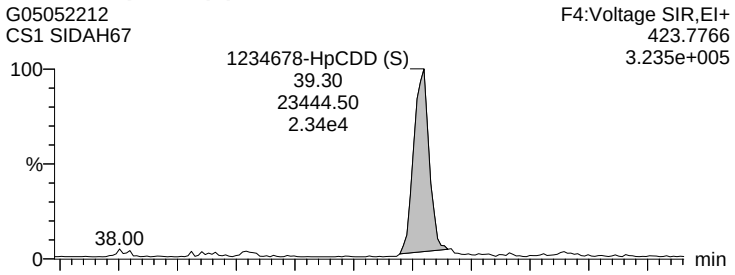
1234679-HpCDD

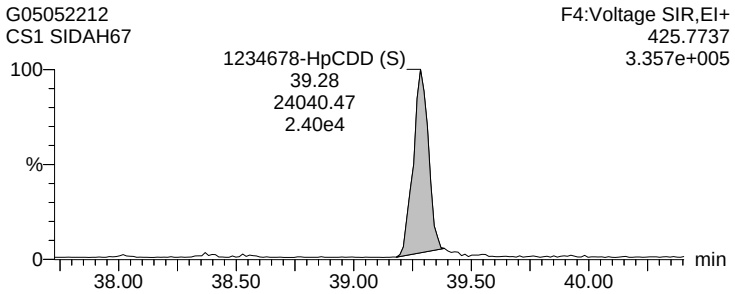


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

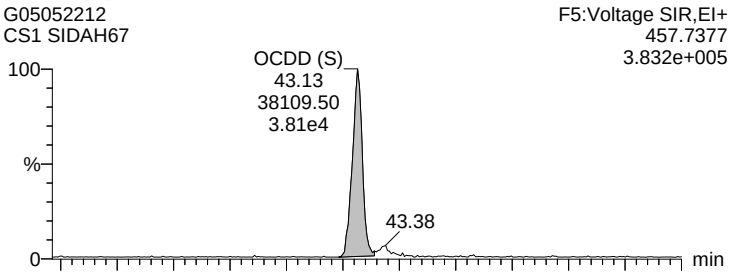
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

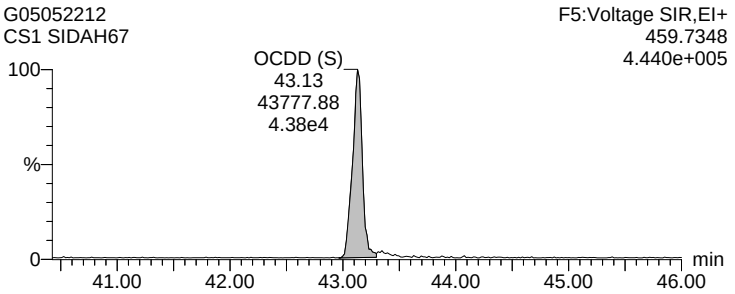
1234678-HpCDD (S)



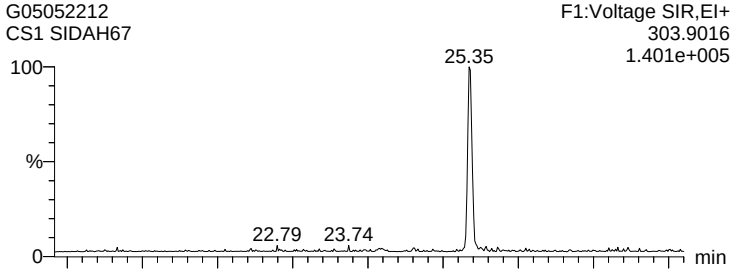


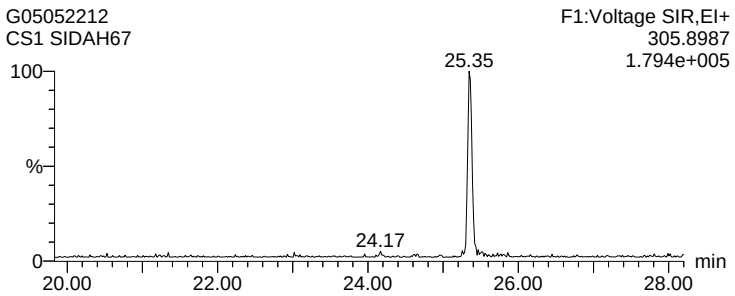
OCDD (S)



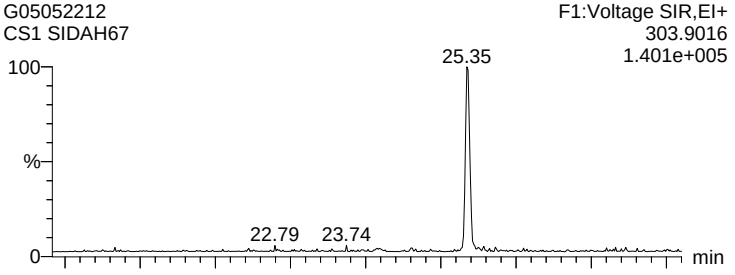


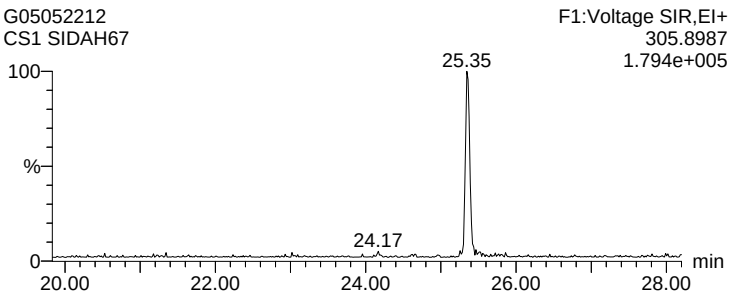
1368-TCDF





1468-TCDF

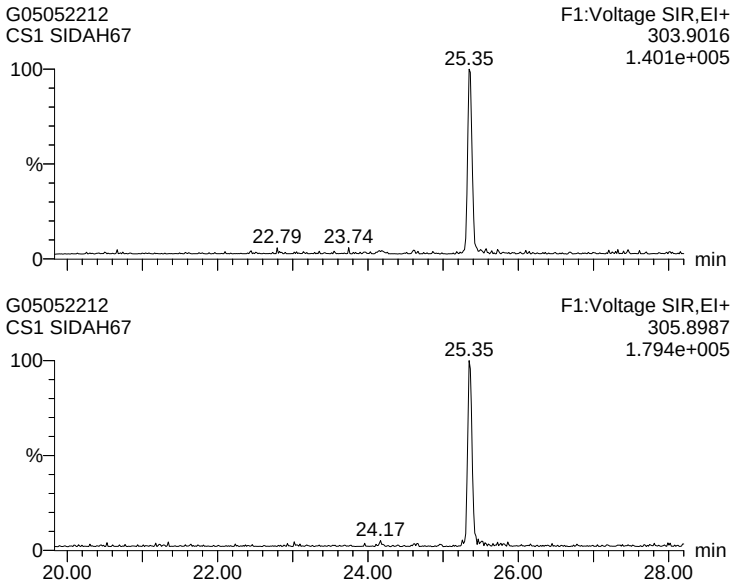




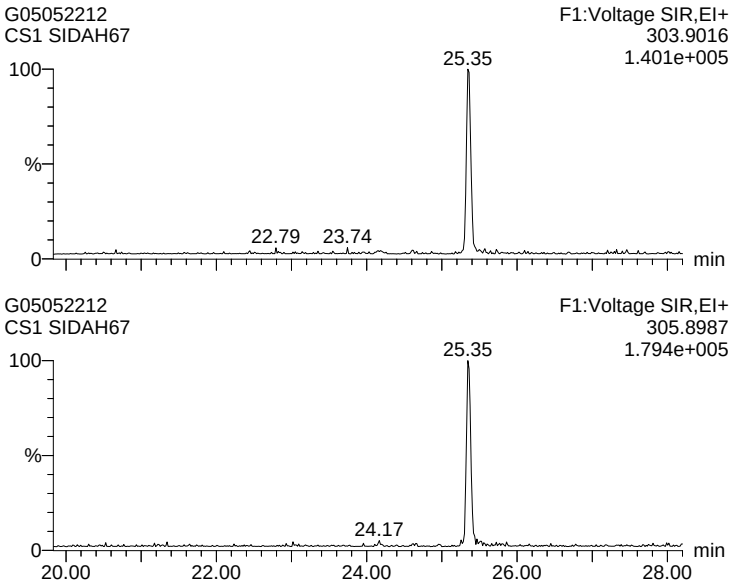
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

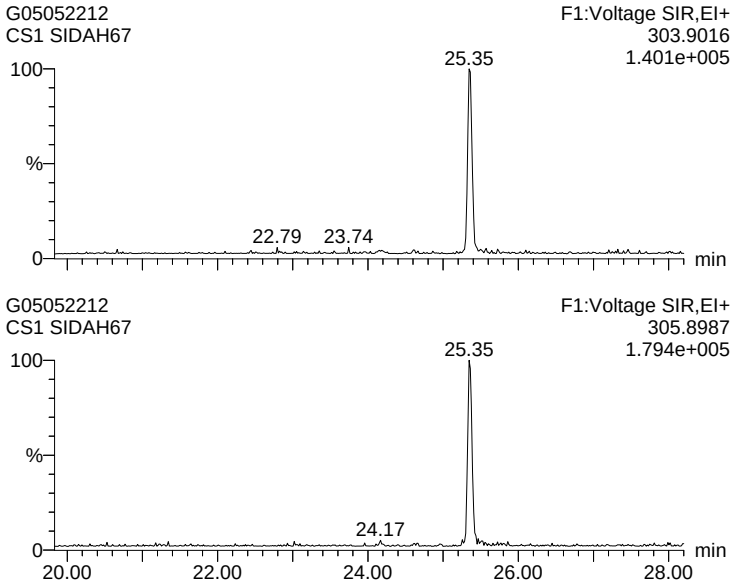
2468-TCDF



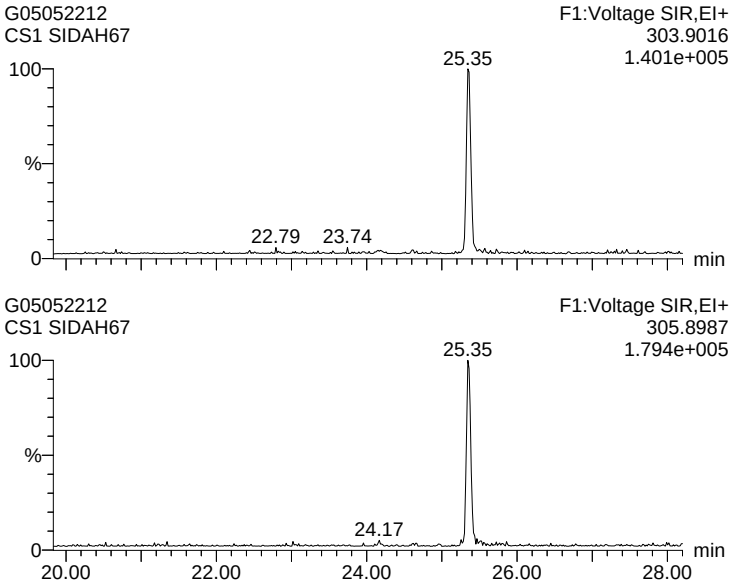
1346/1246-TCDF



1347/1378/1247-TCDF



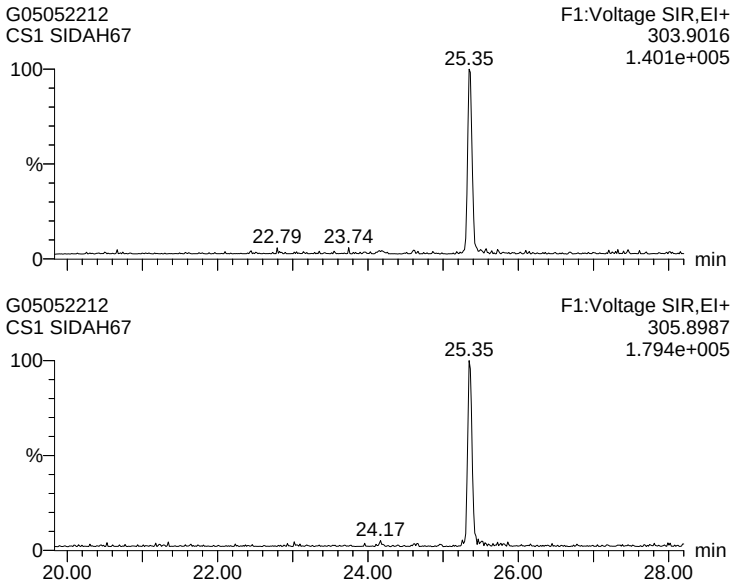
1348-TCDF



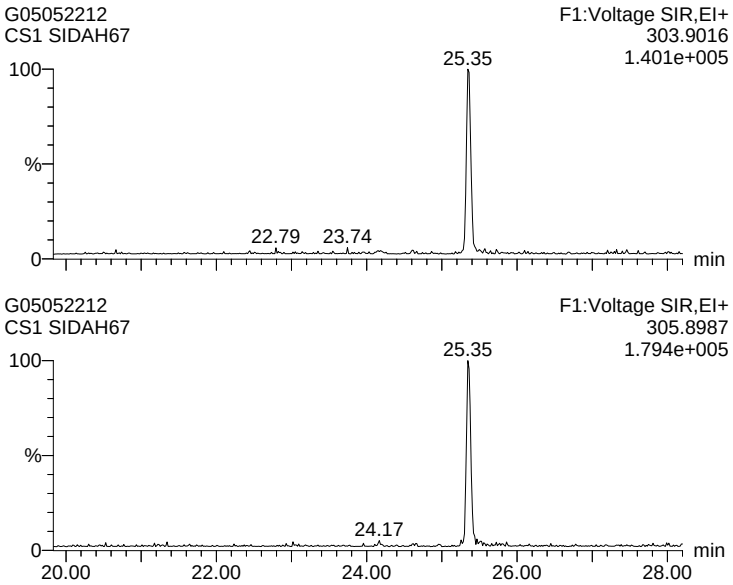
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

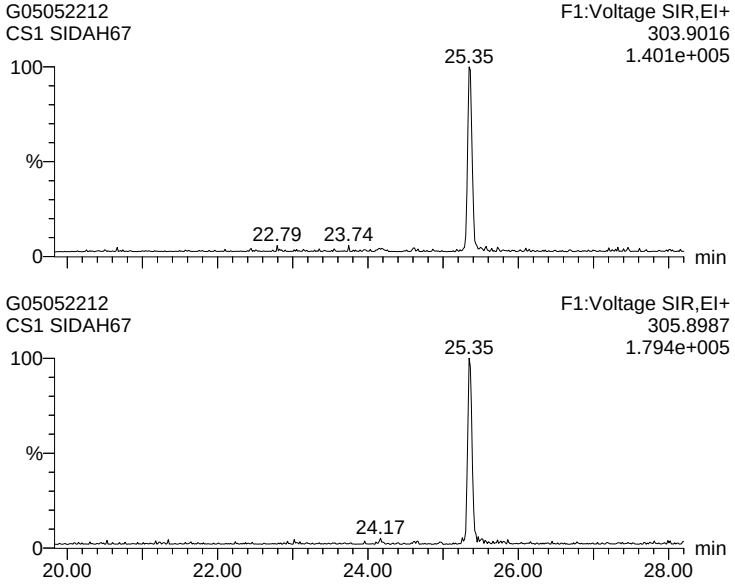
1248/1367/1379-TCDF



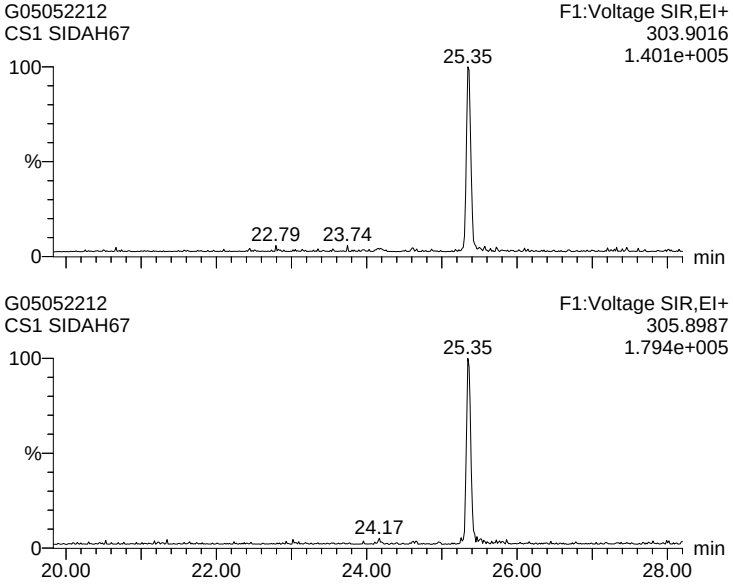
1268-TCDF



1467-TCDF



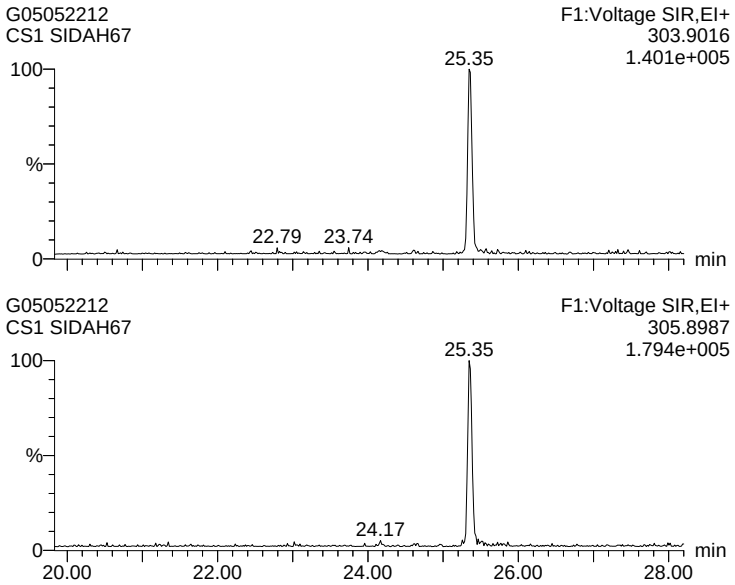
1478-TCDF



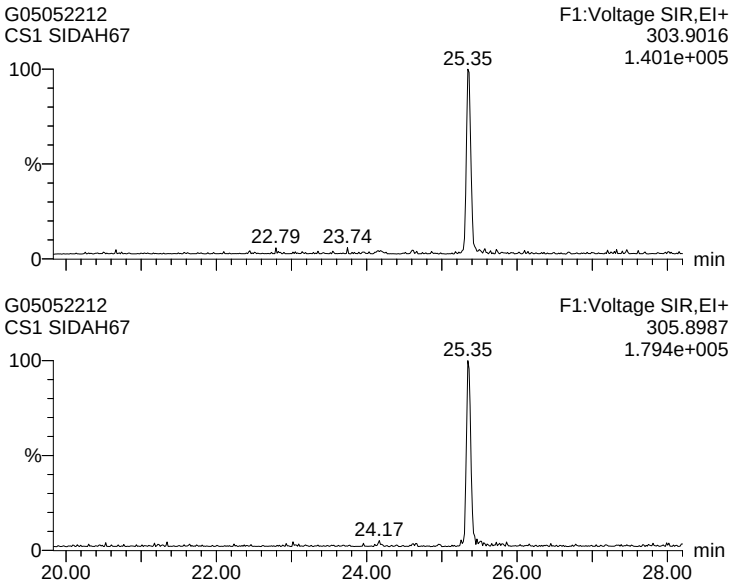
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

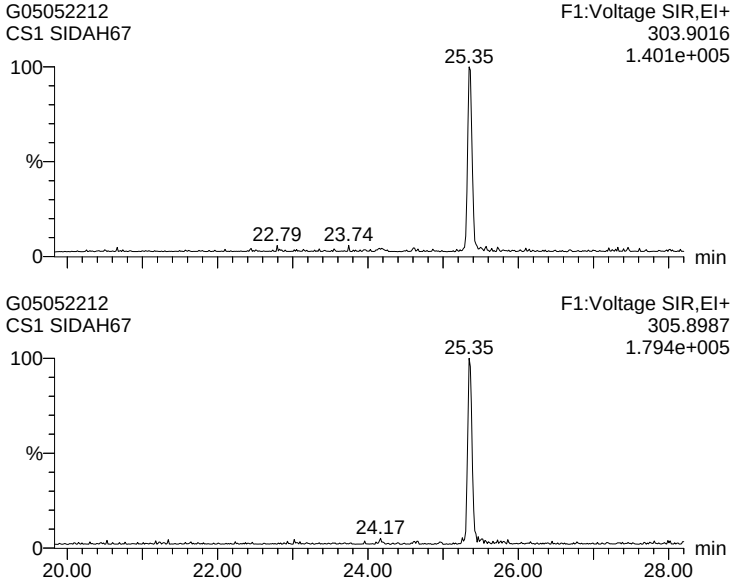
1369/1237-TCDF



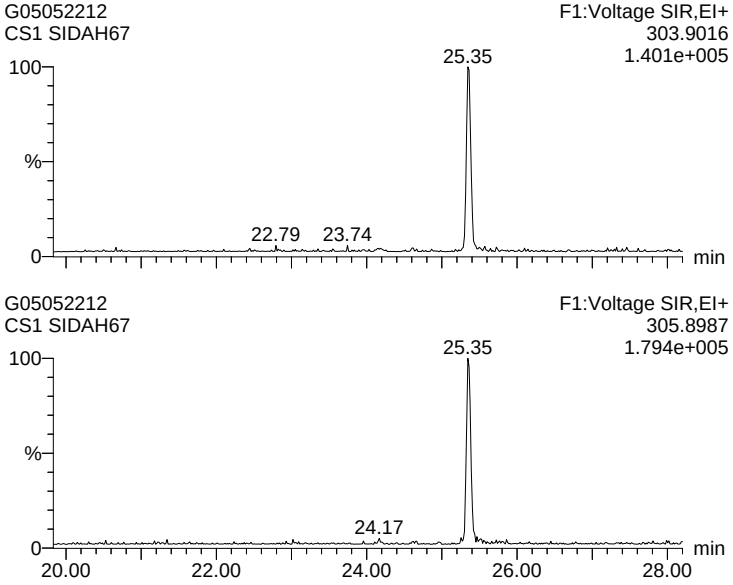
2467-TCDF



2368-TCDF



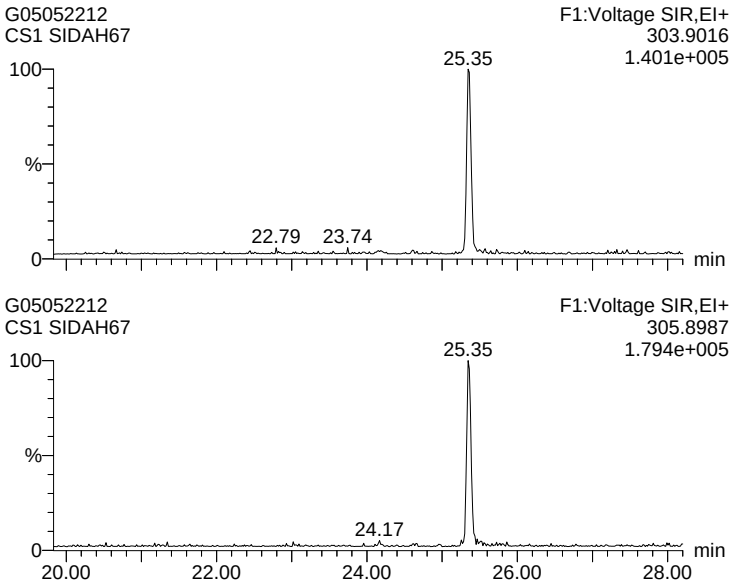
1238/1234/1678/1469/1236-TCDF



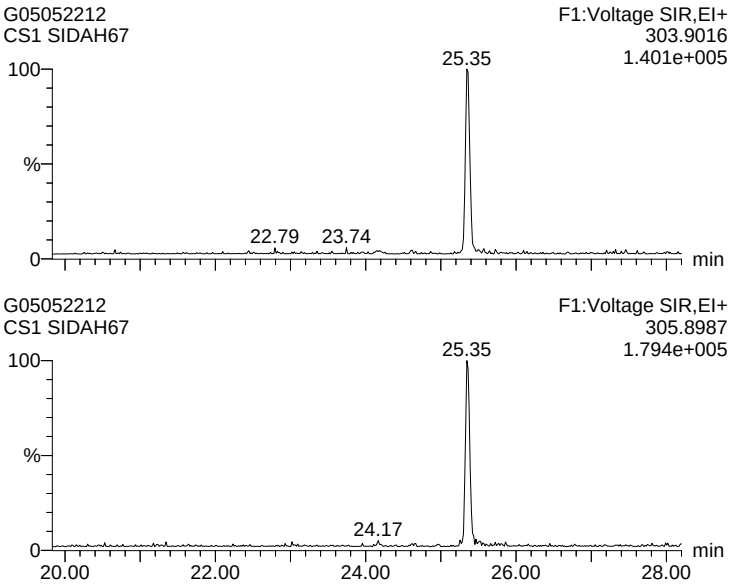
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

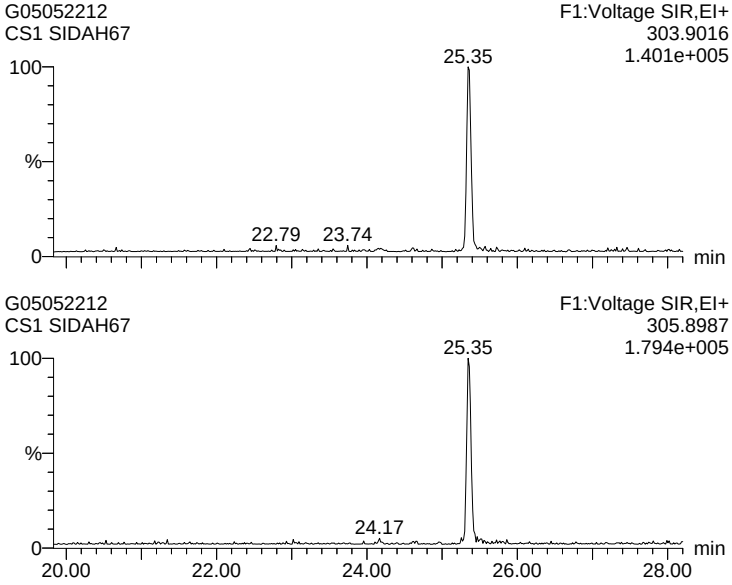
1278-TCDF



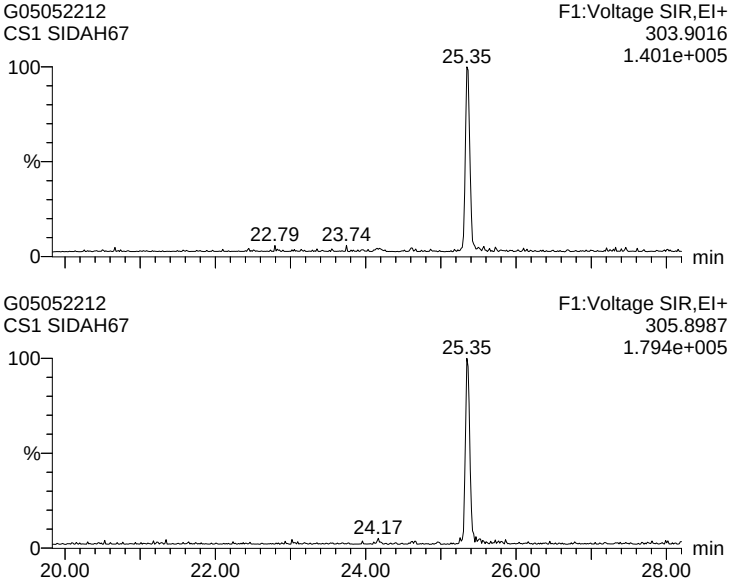
1349-TCDF



1267-TCDF



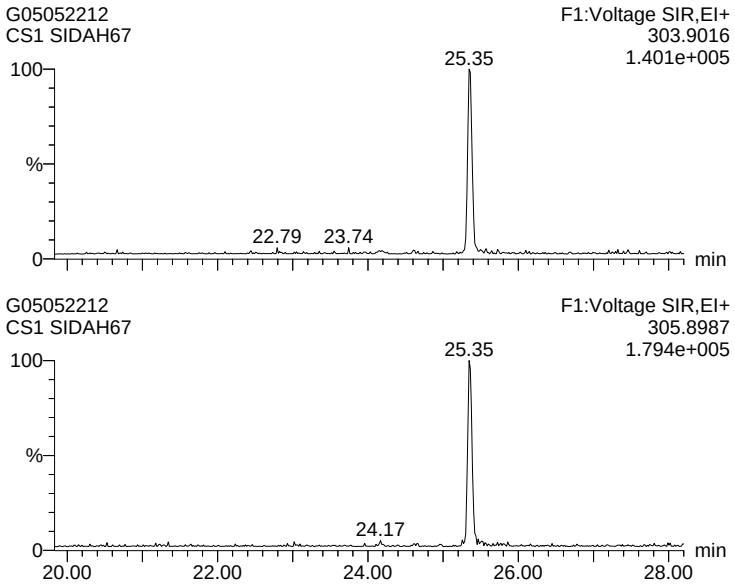
2346/1249-TCDF



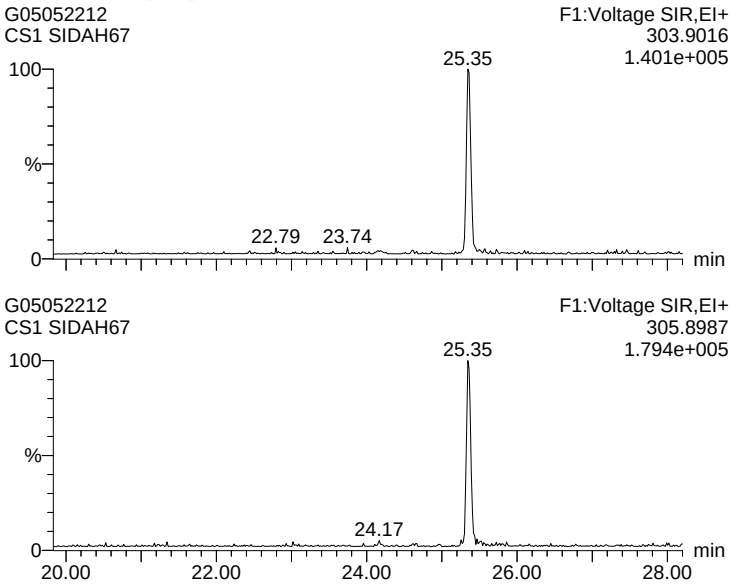
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

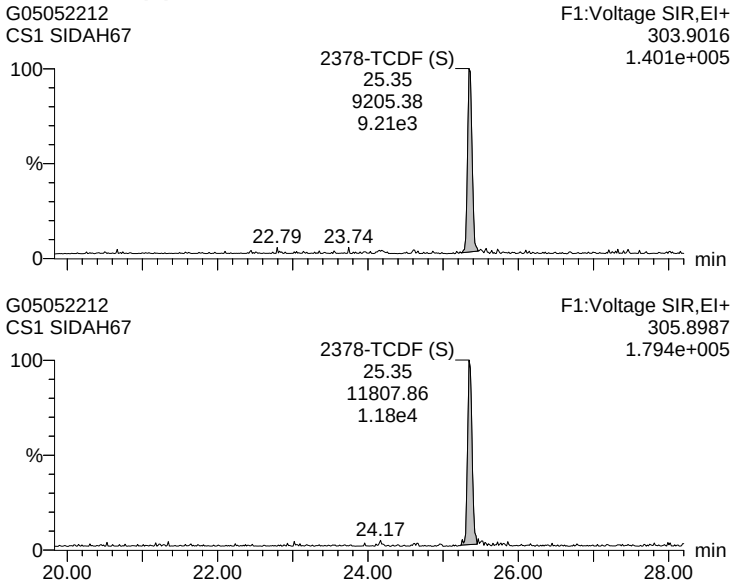
2347/1279-TCDF



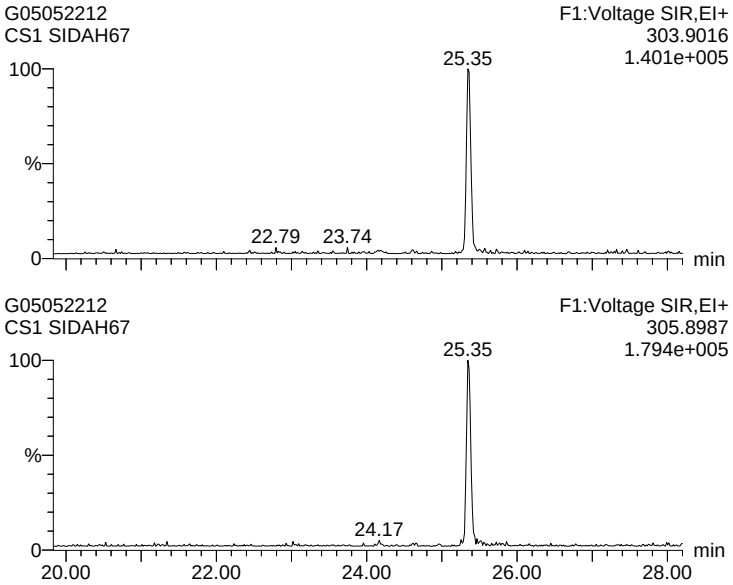
2348-TCDF [CE]



2378-TCDF (S)



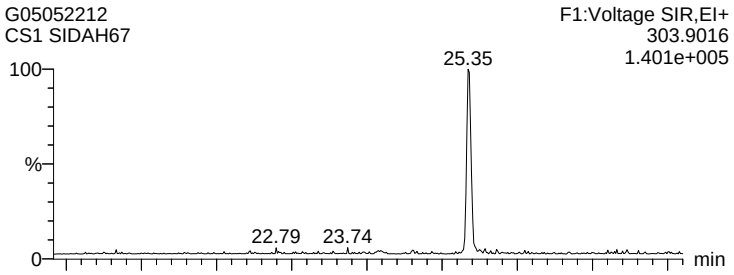
2367/3467-TCDF

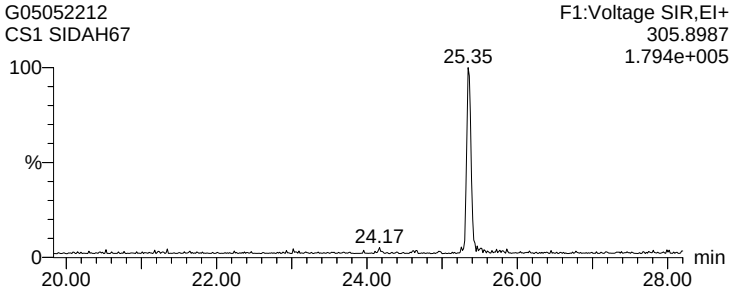


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

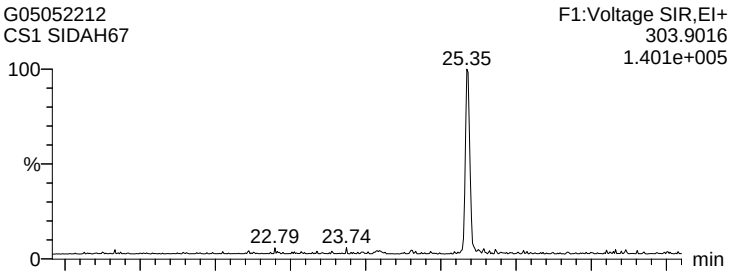
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

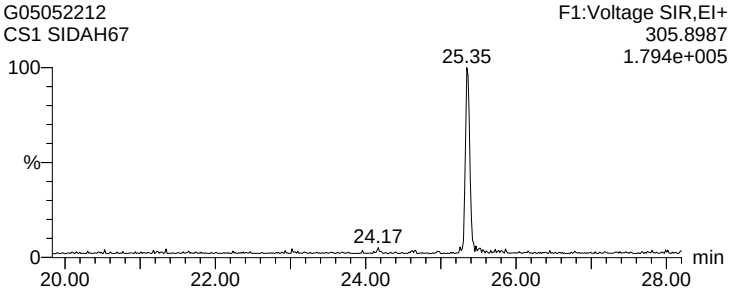
1269-TCDF



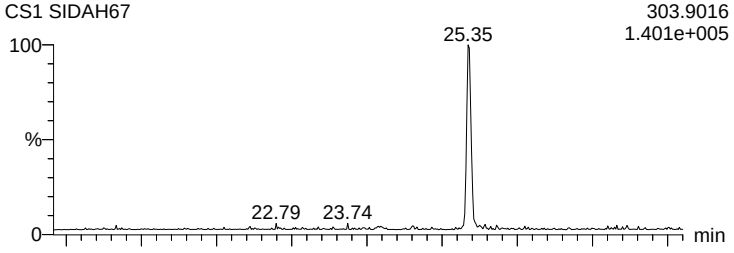


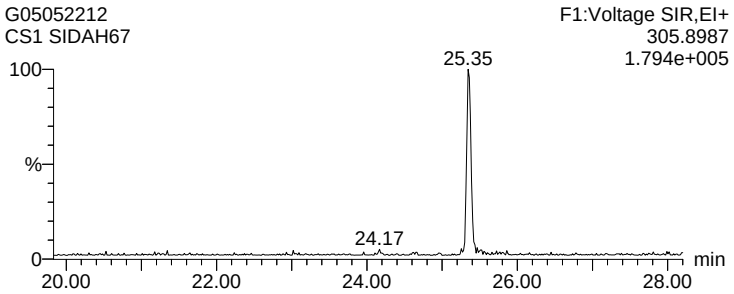
1239-TCDF



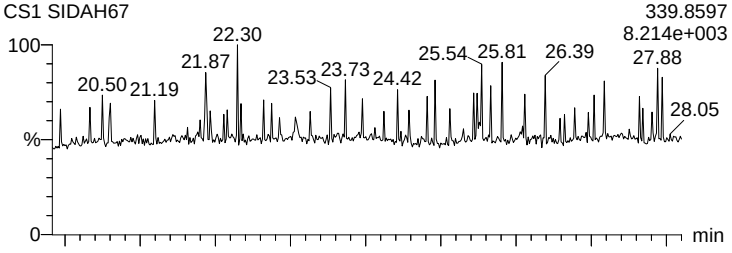


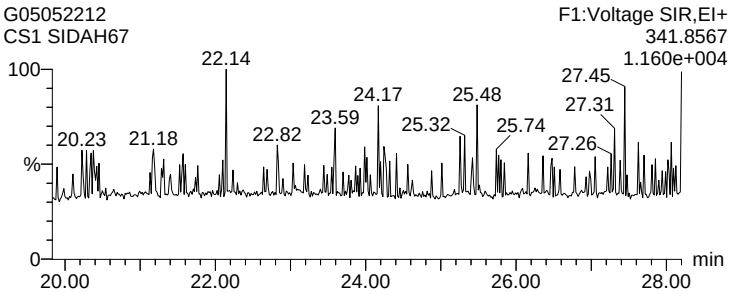
1289-TCDF





13468/12466-PeCDF

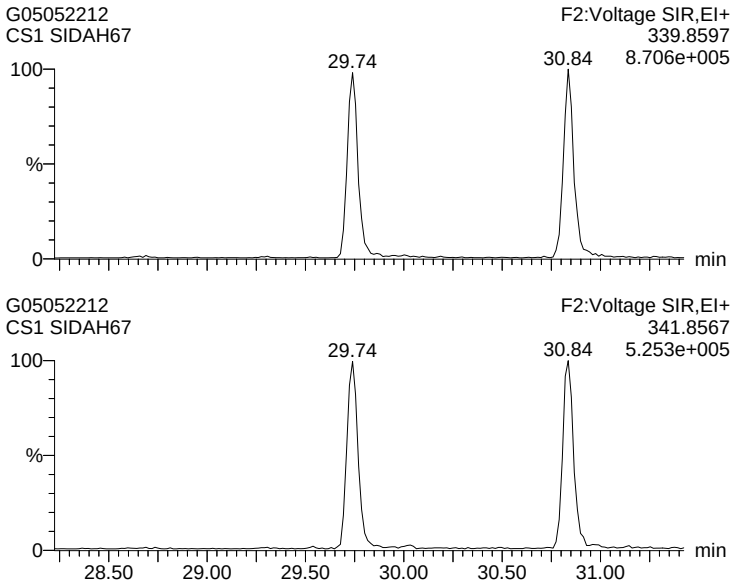




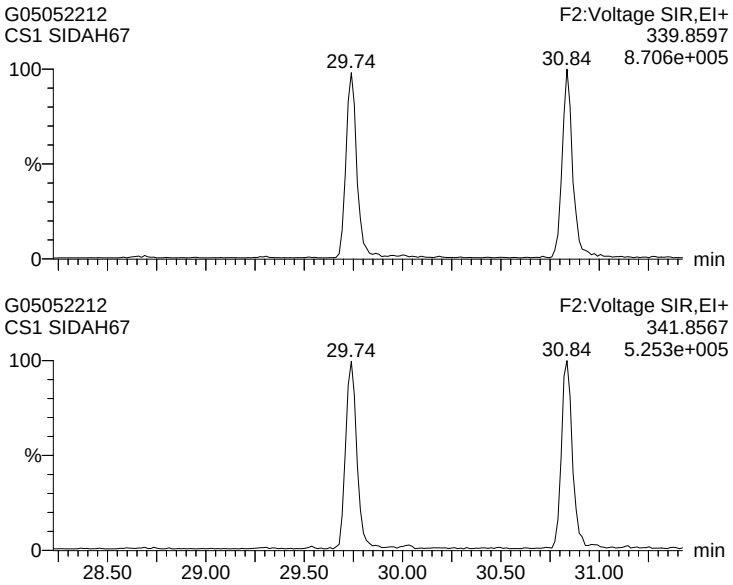
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

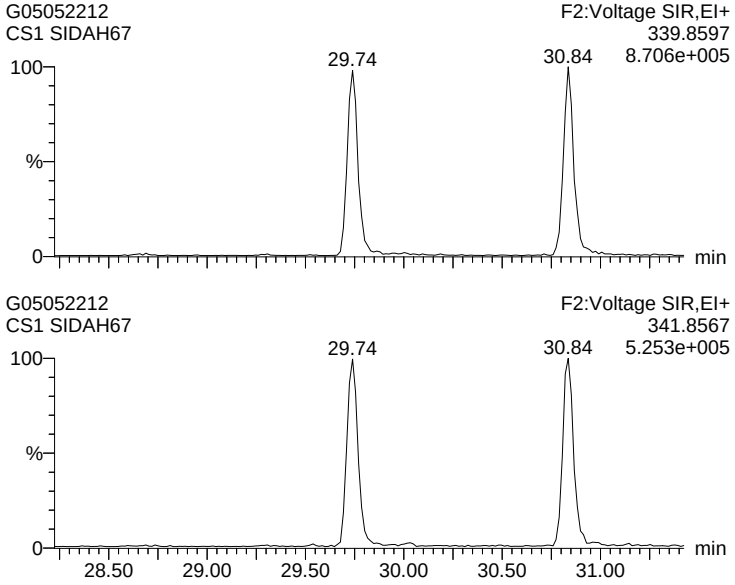
13678/13467/12467-PeCDF



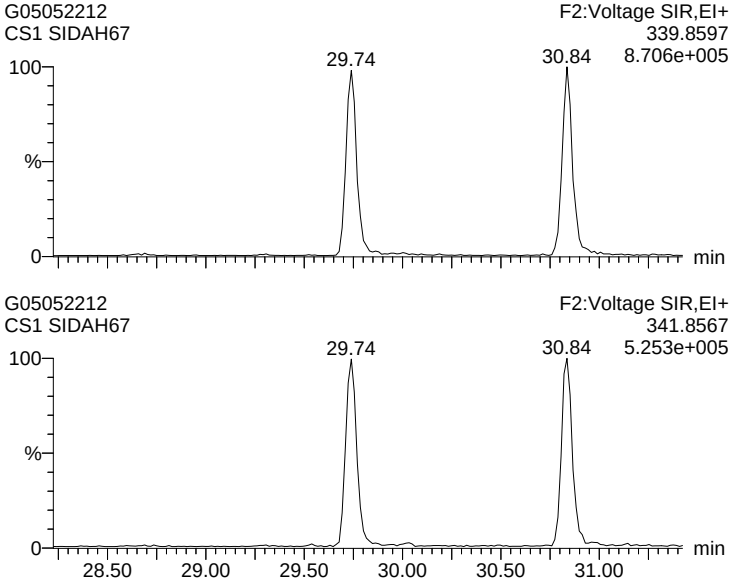
12368/13478/12478-PeCDF



14678-PeCDF



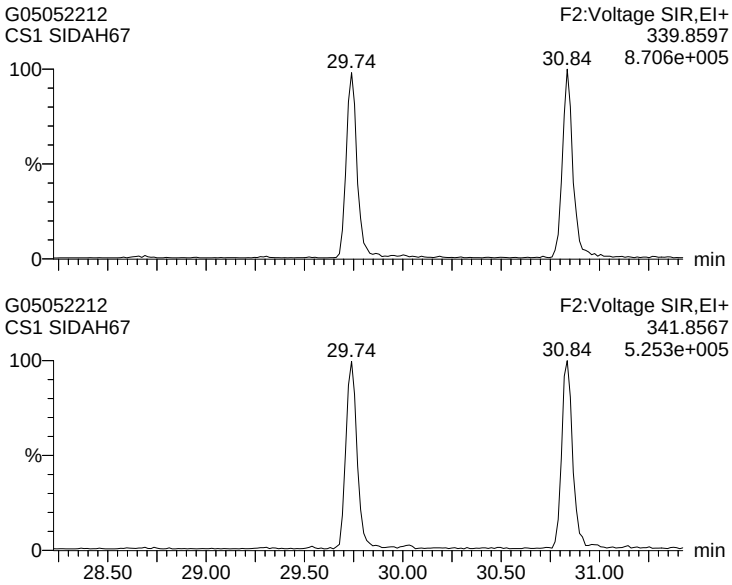
13479-PeCDF



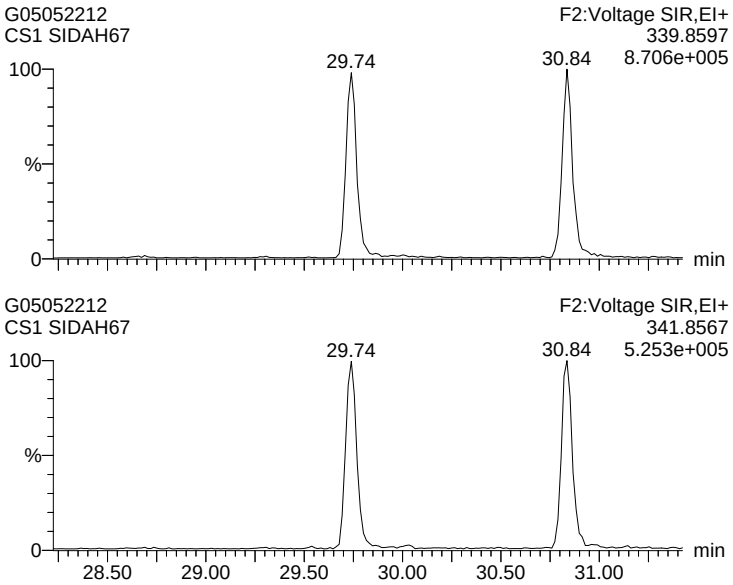
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

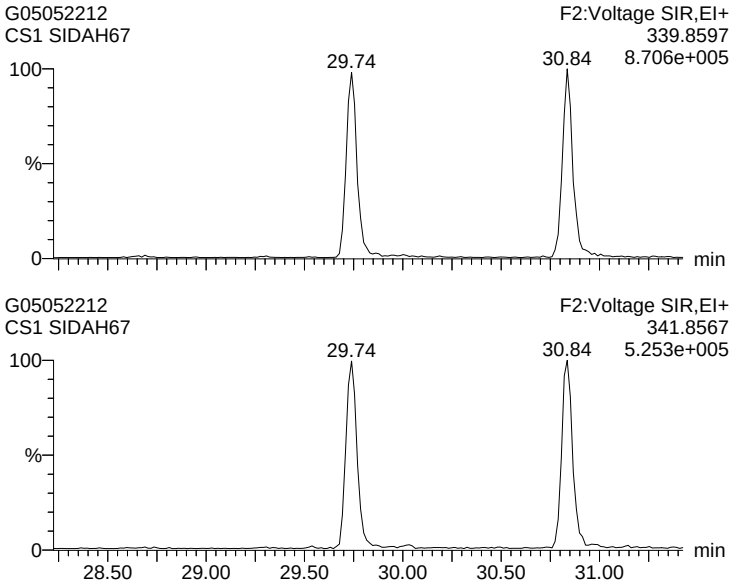
13469/12479-PeCDF



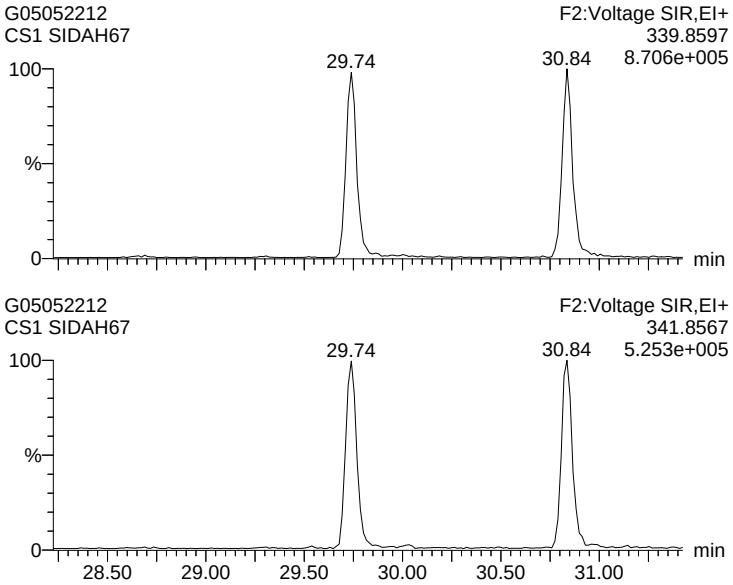
12346-PeCDF



23468/12469-PeCDF



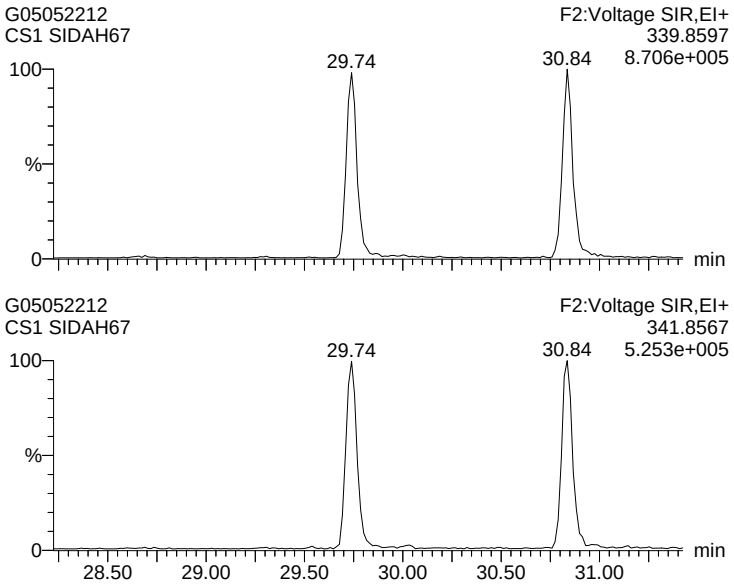
12347-PeCDF



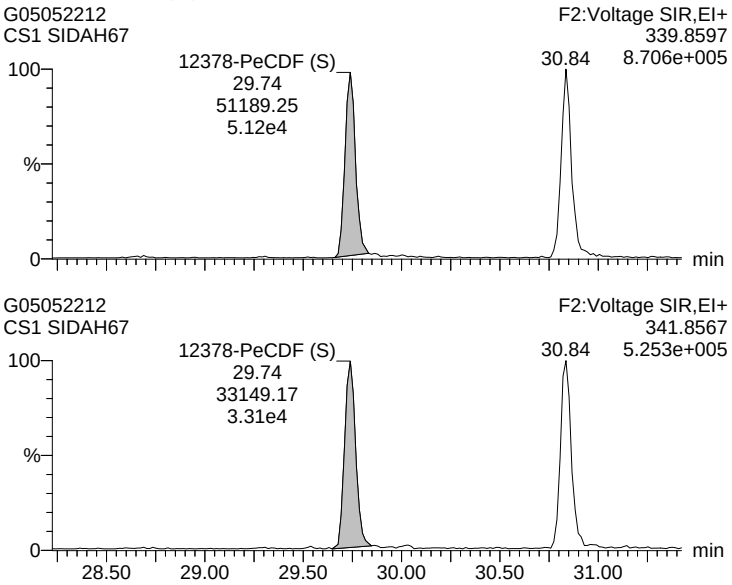
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

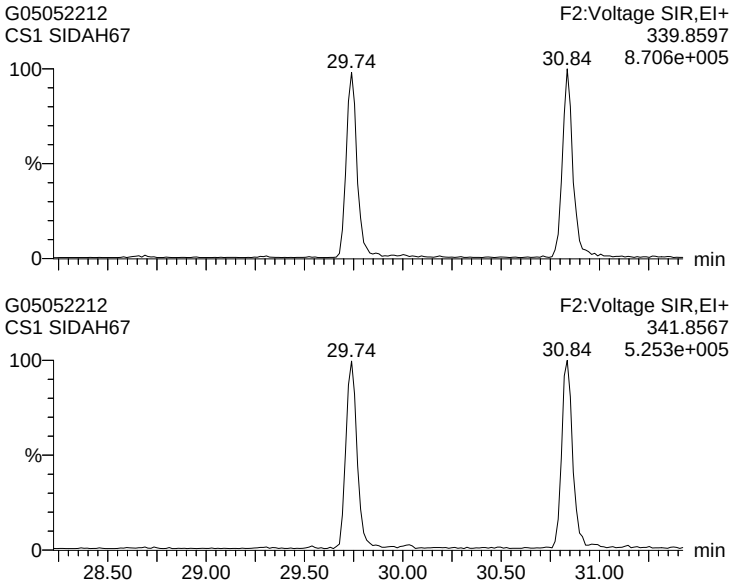
12348-PeCDF



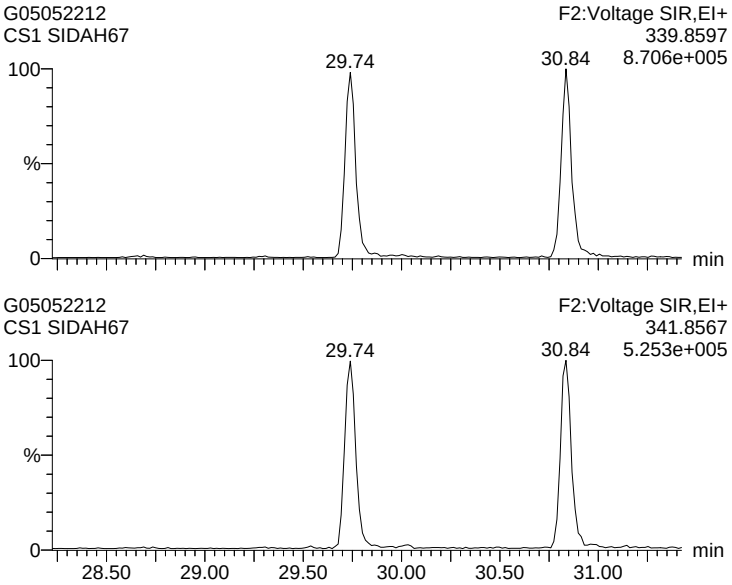
12378-PeCDF (S)



12678/12367-PeCDF



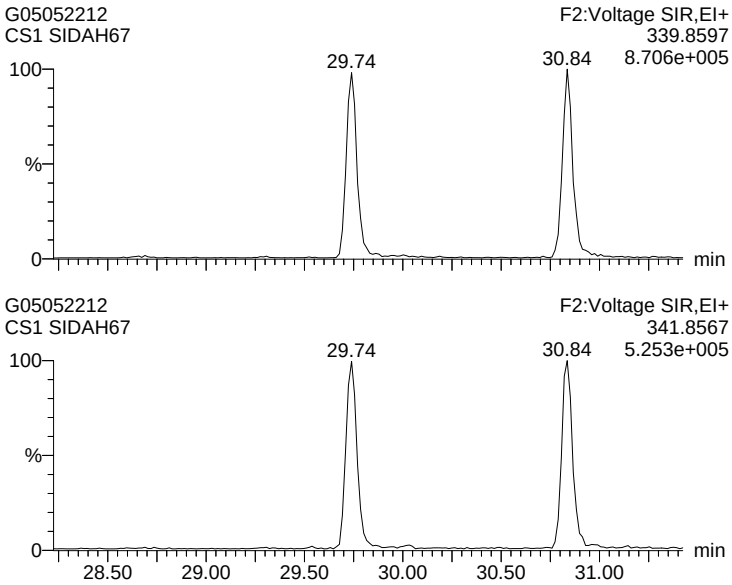
12379-PeCDF



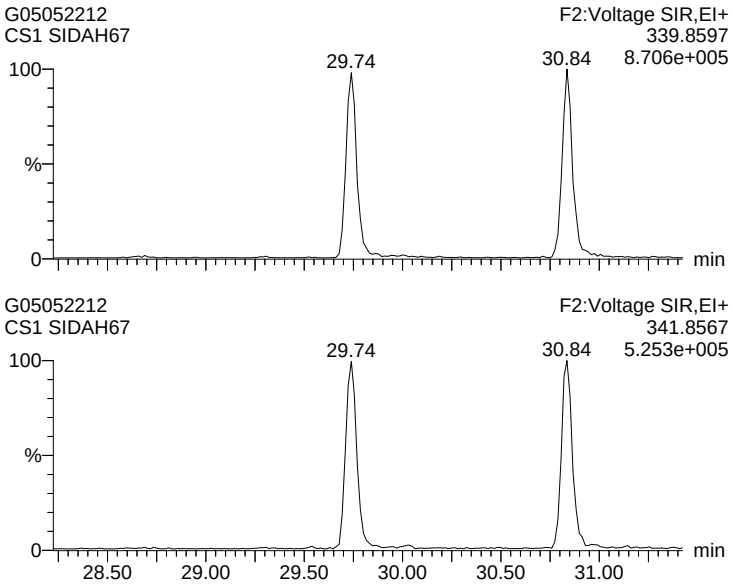
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

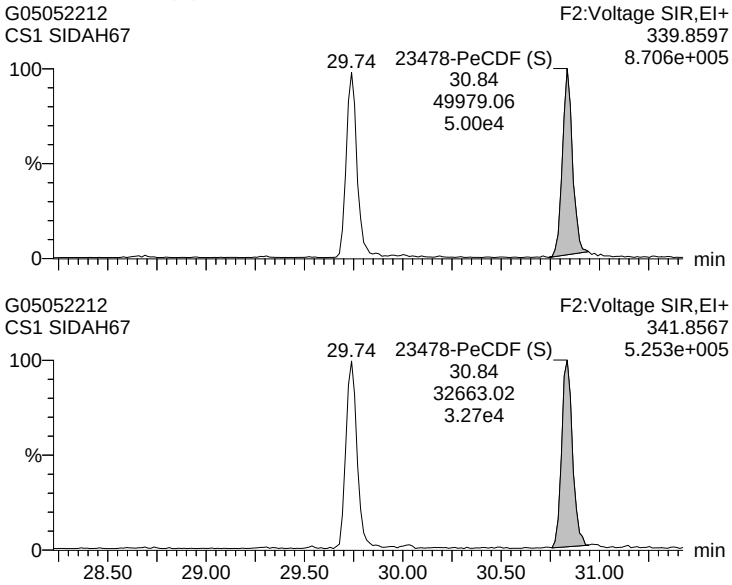
12679-PeCDF



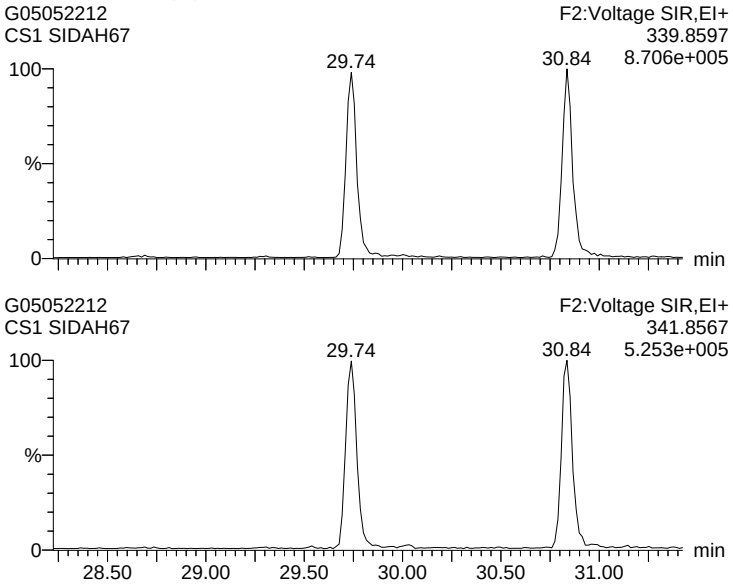
23467/12369-PeCDF



23478-PeCDF (S)



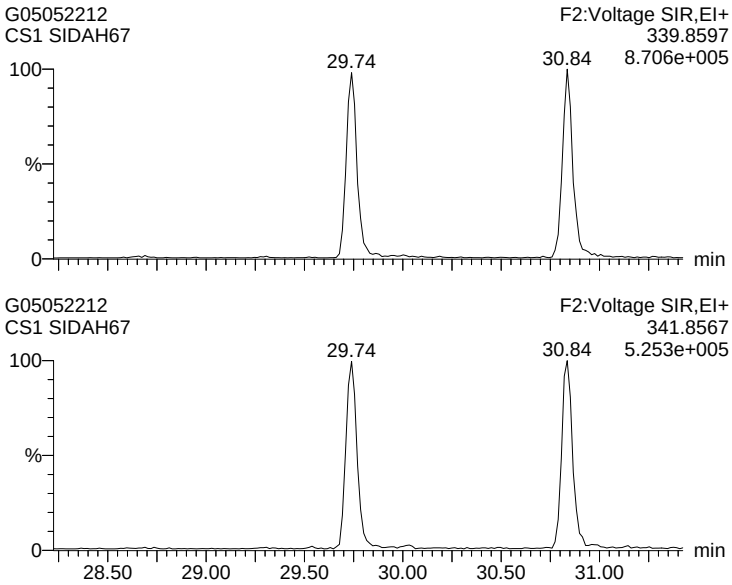
12489-PeCDF (R)



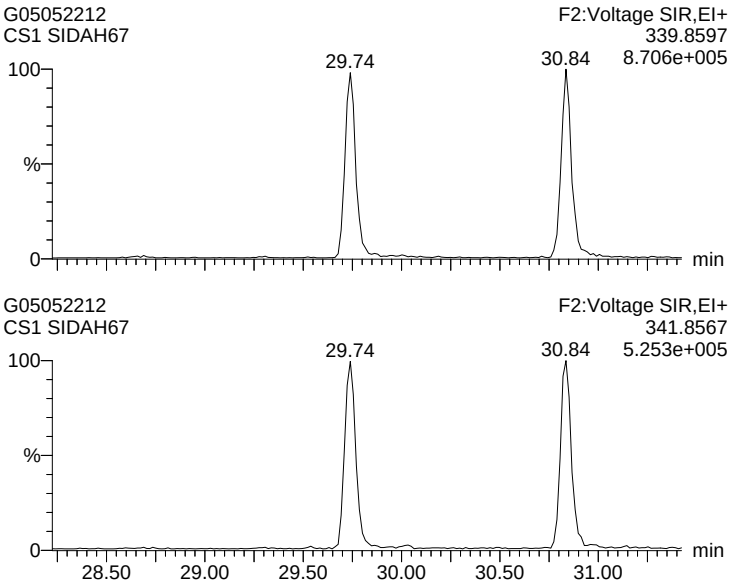
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

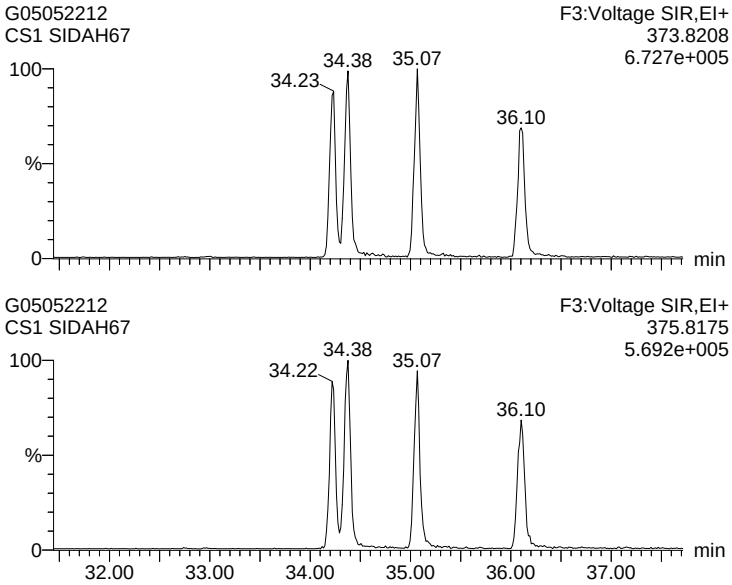
12349-PeCDF



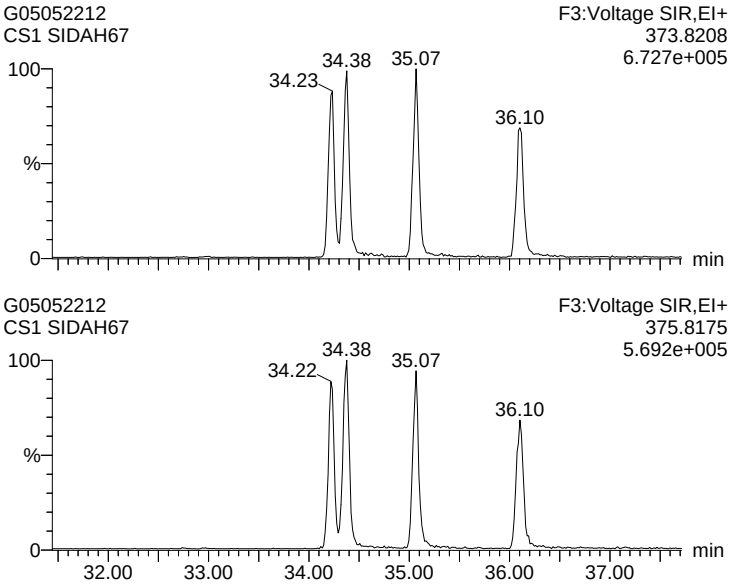
12389-PeCDF



123468-HxCDF



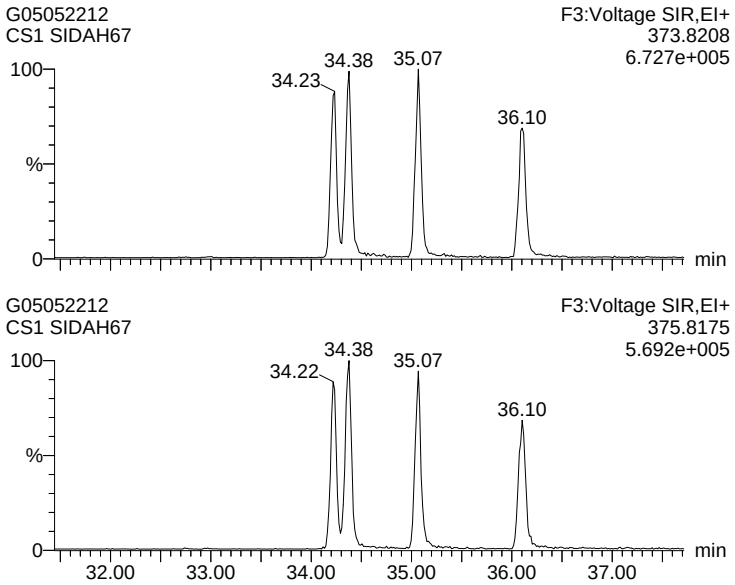
124678/134678-HxCDF



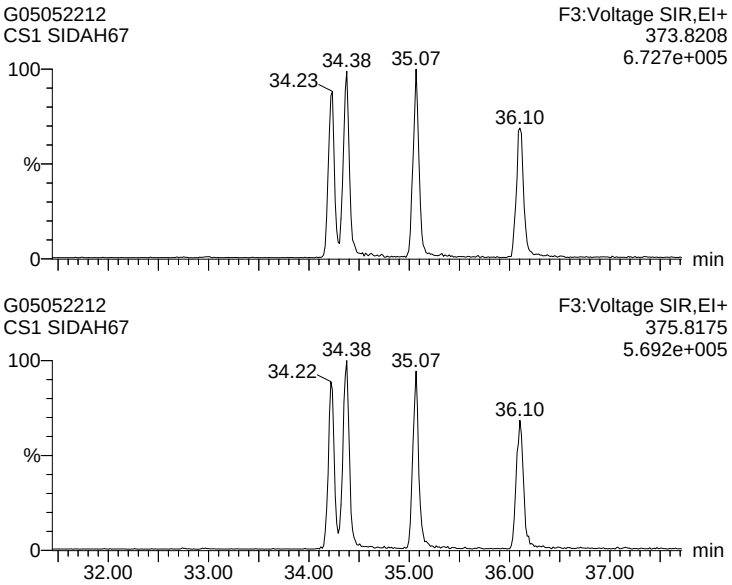
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

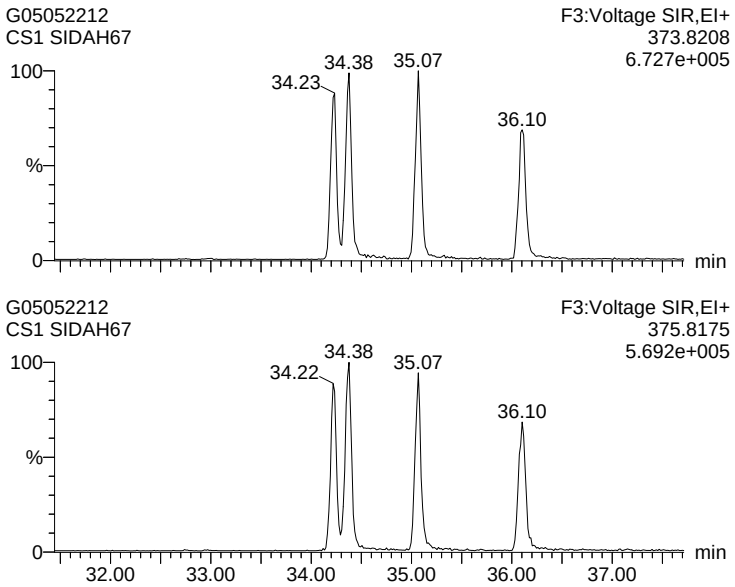
134679-HxCDF



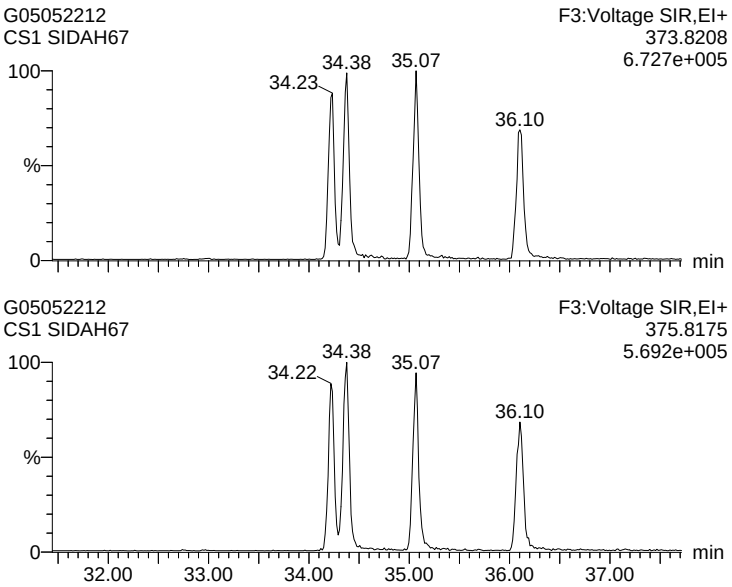
124679-HxCDF



124689-HxCDF



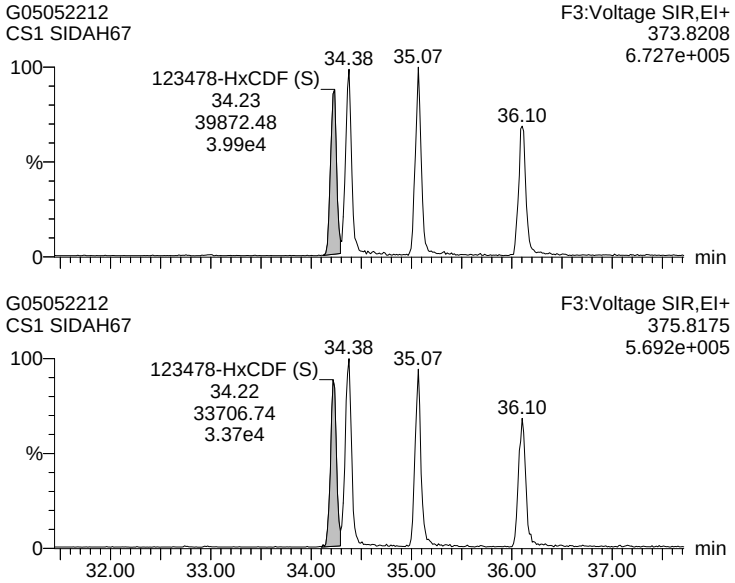
123467-HxCDF



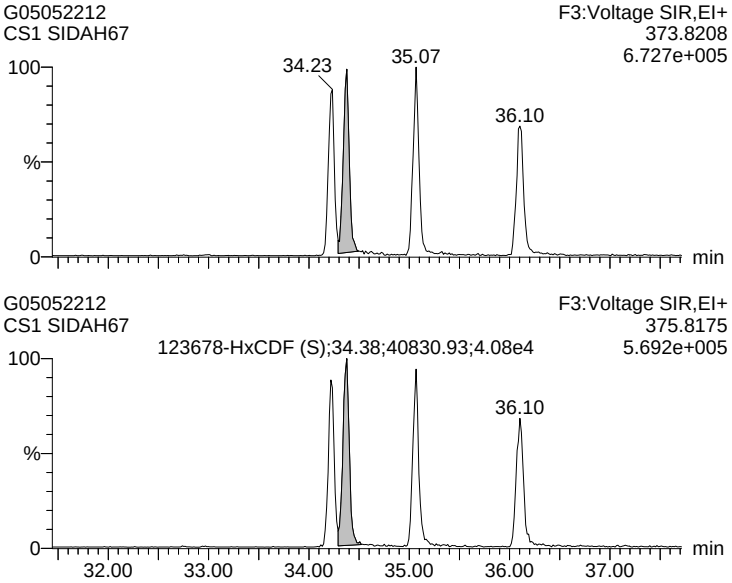
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

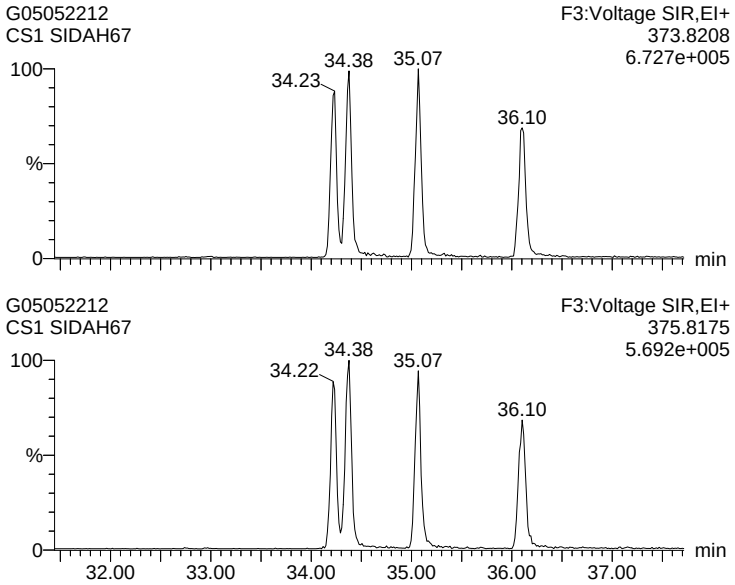
123478-HxCDF (S)



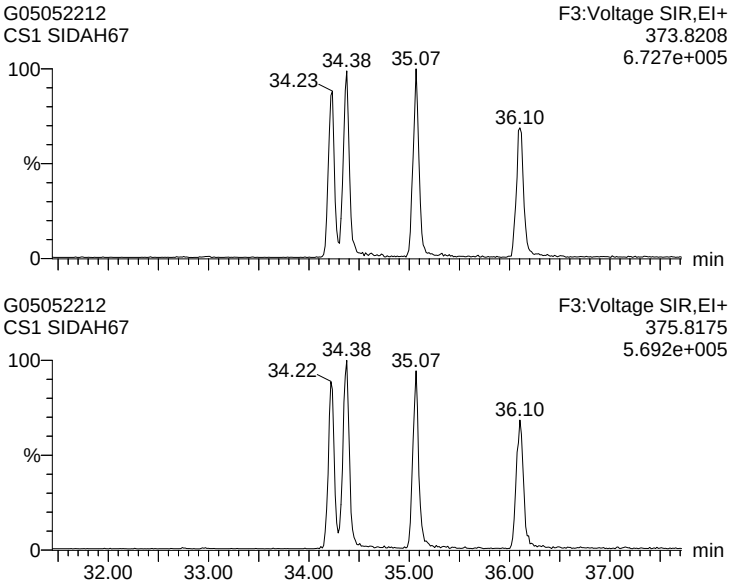
123678-HxCDF (S)



123479-HxCDF



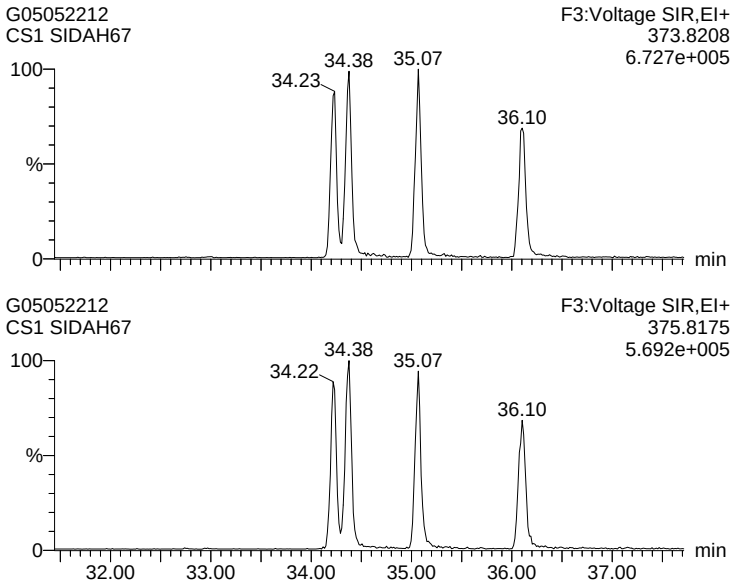
123469-HxCDF



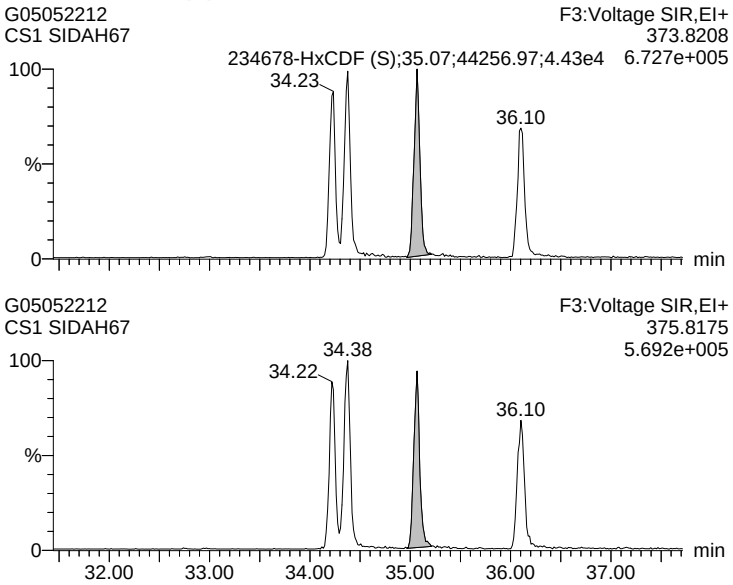
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

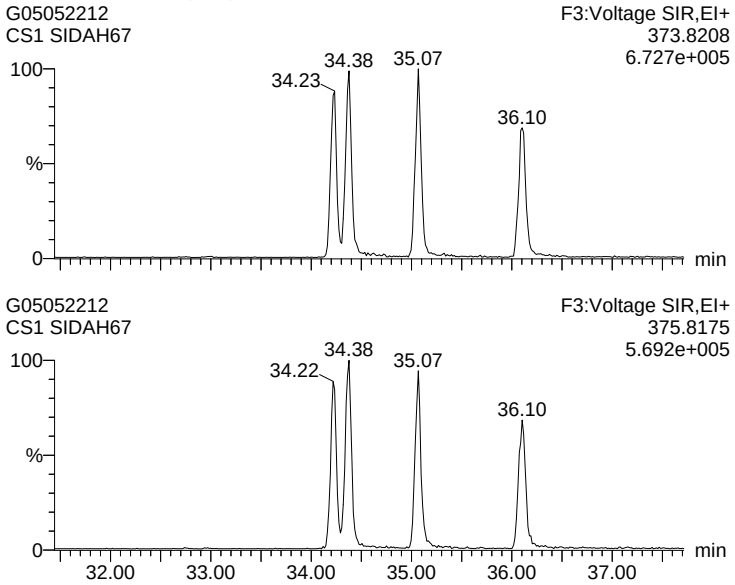
123679-HxCDF



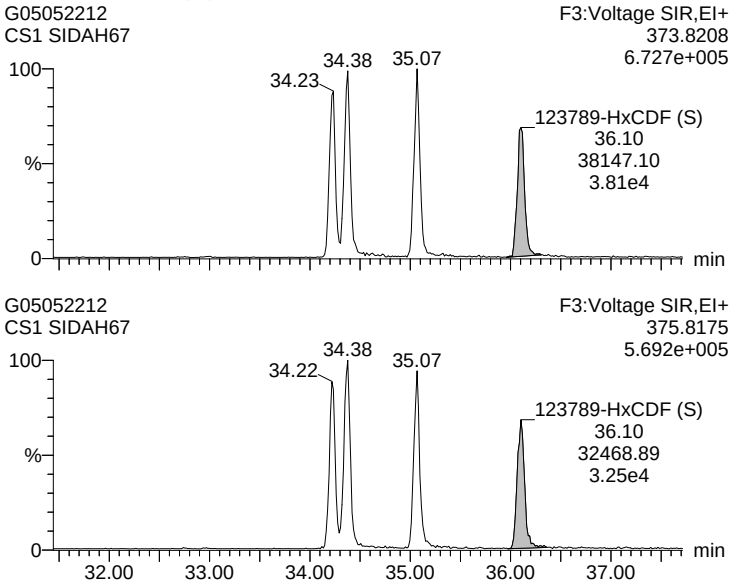
234678-HxCDF (S)



123689-HxCDF (NR)



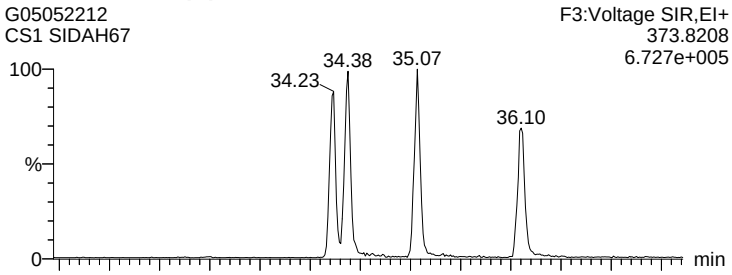
123789-HxCDF (S)

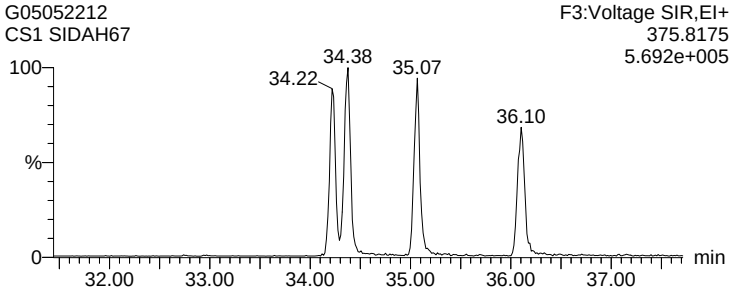


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

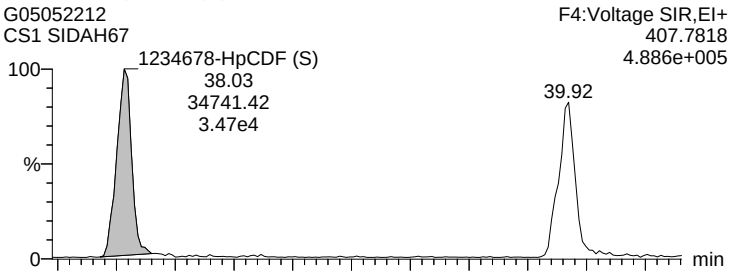
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

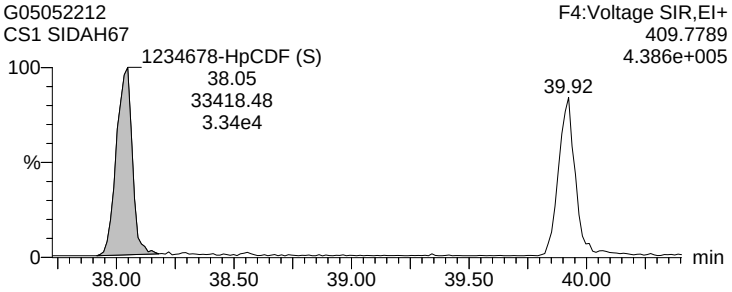
123489-HxCDF (R)



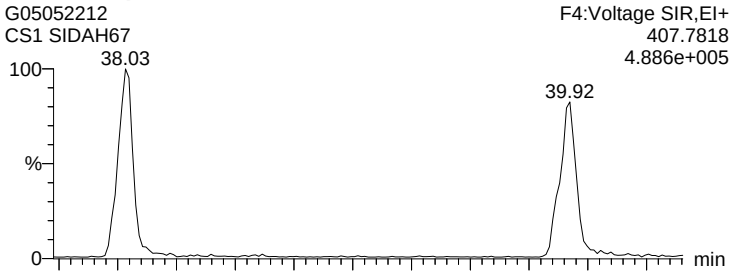


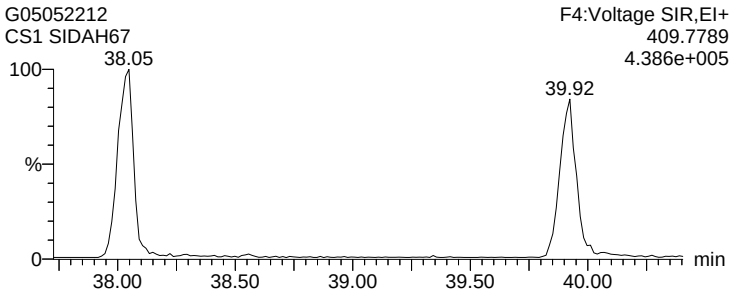
1234678-HpCDF (S)



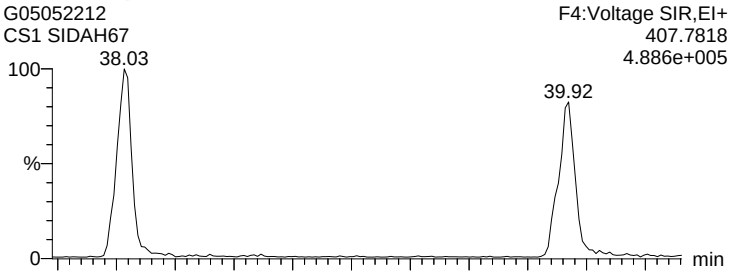


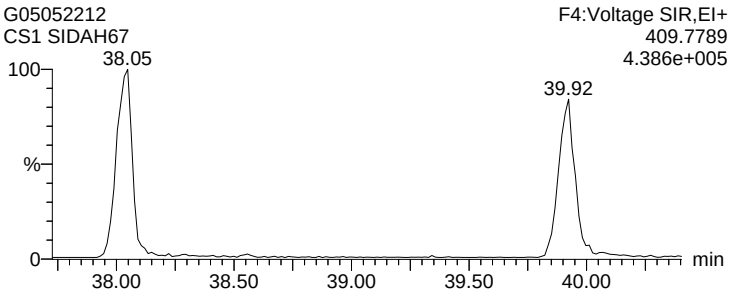
1234679-HpCDF





1234689-HpCDF

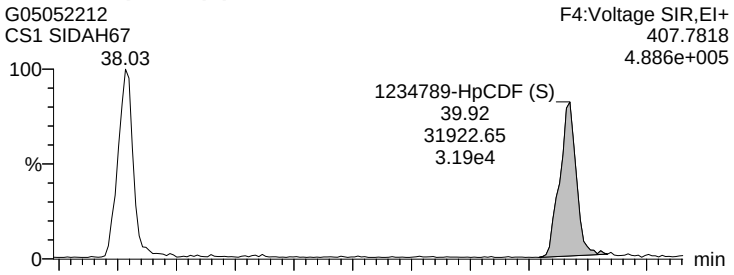


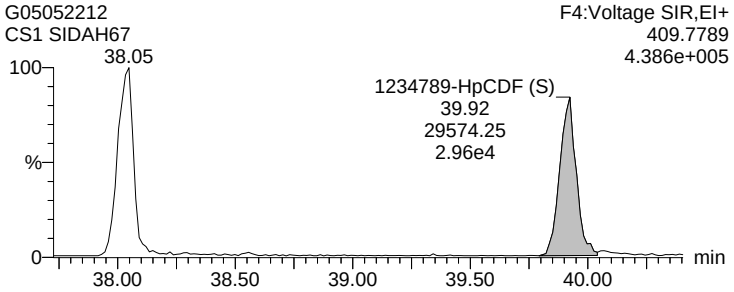


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

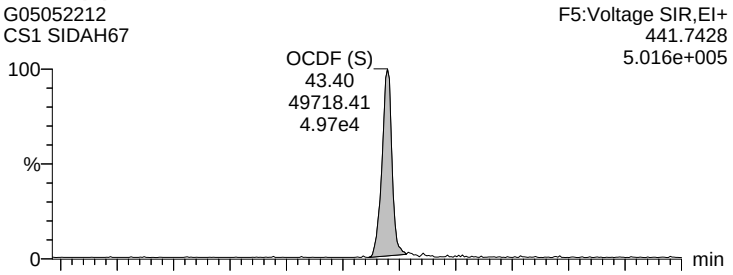
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

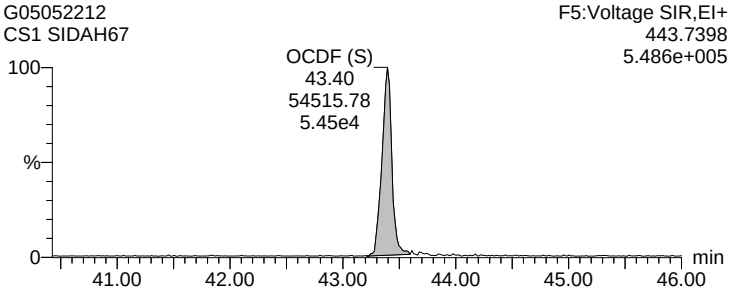
1234789-HpCDF (S)



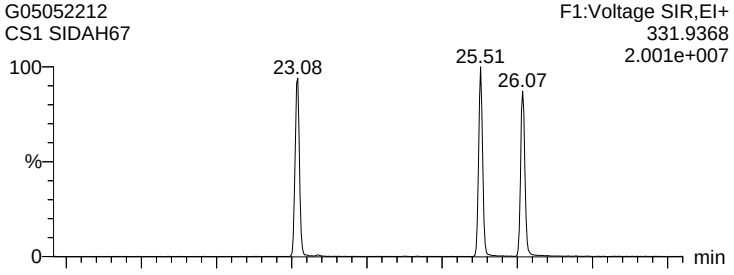


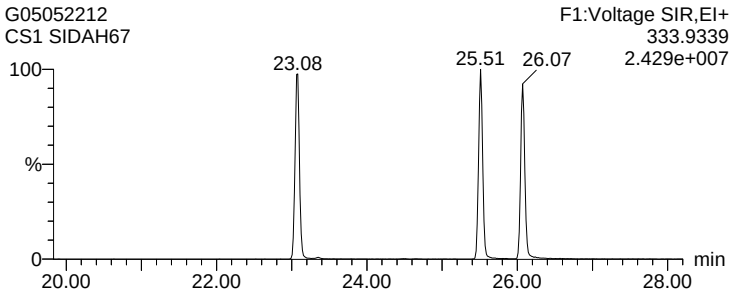
OCDF (S)



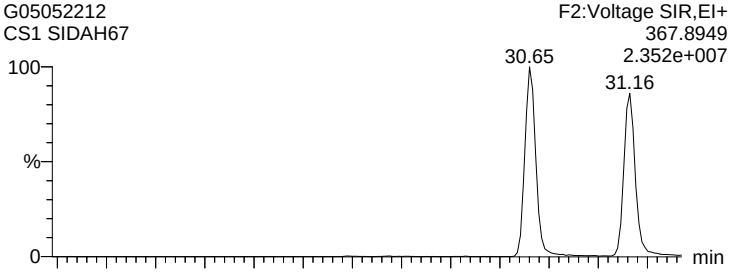


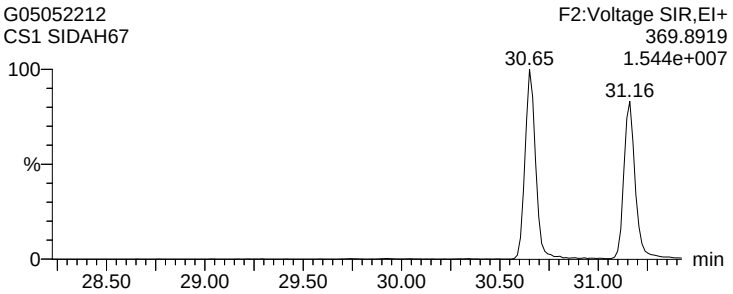
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

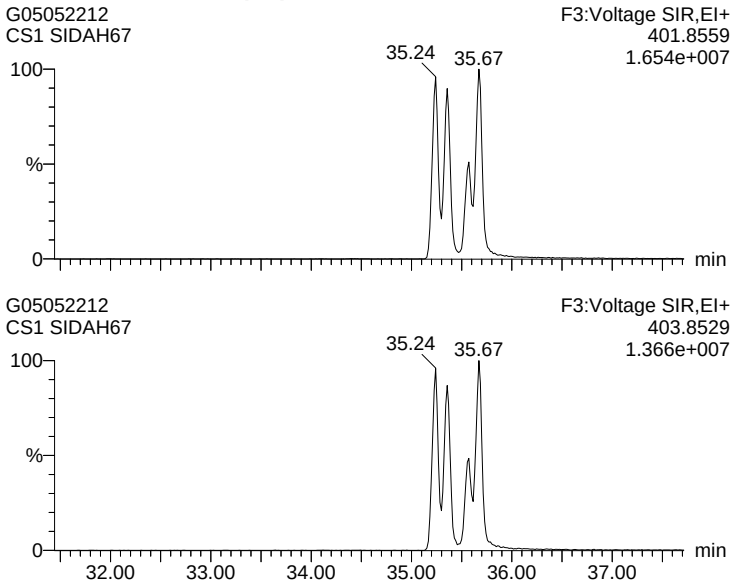




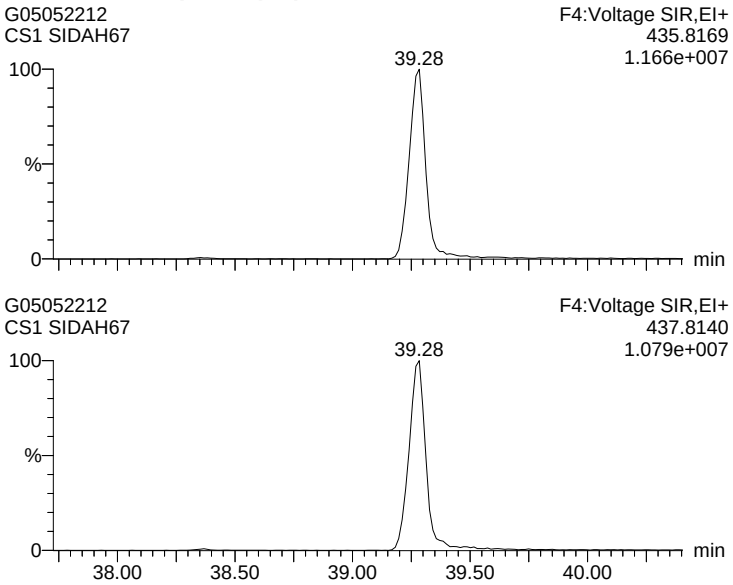
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

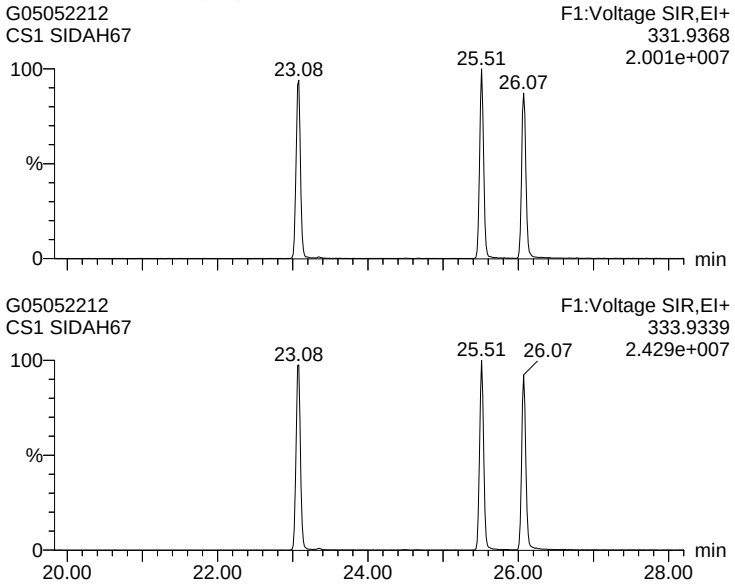
13C-123468-HxCDD (FS)



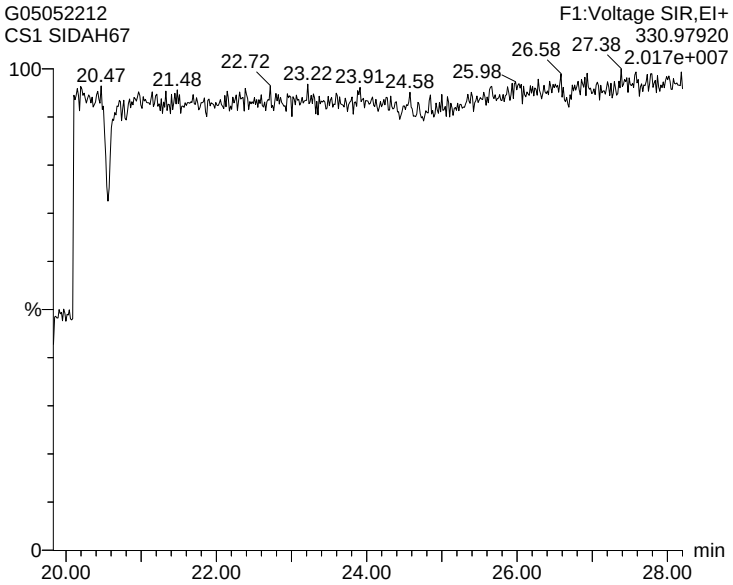
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



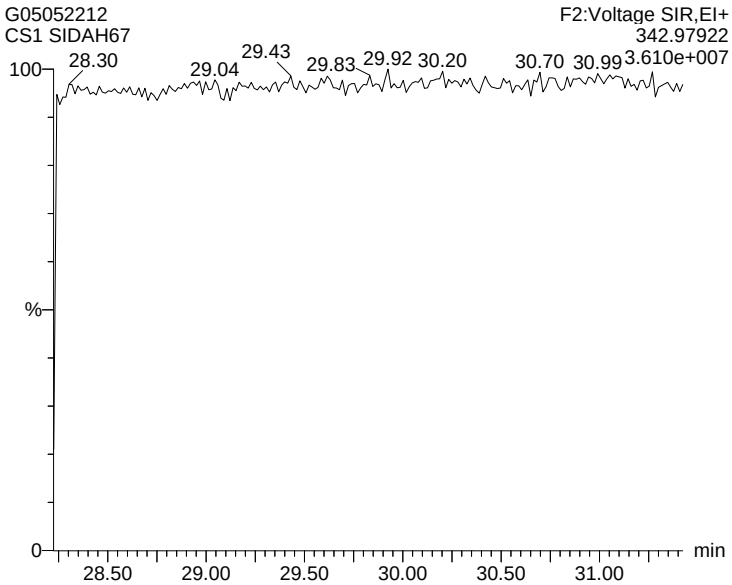
QC Check Ion Fn 1



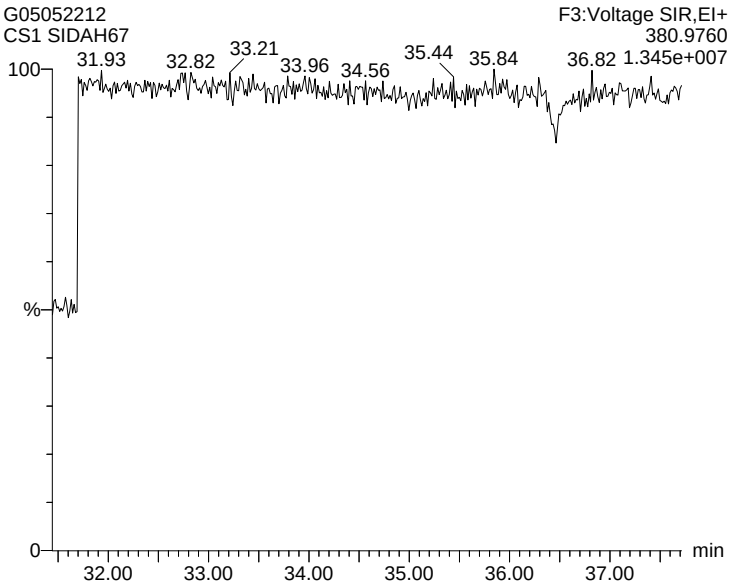
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

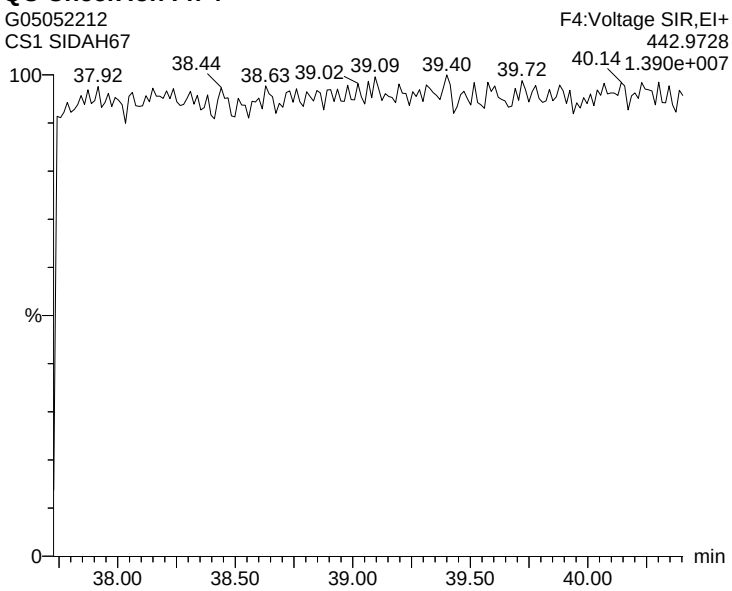
QC Check Ion Fn 2



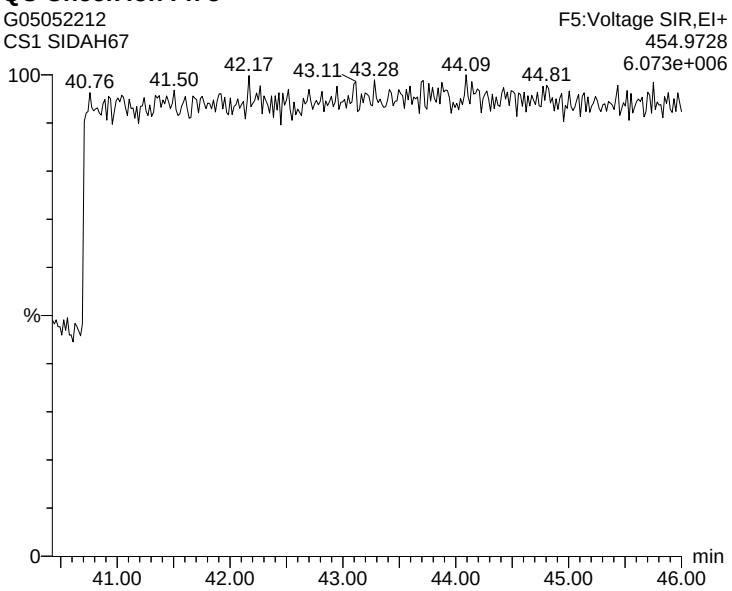
QC Check Ion Fn 3



QC Check Ion Fn 4



QC Check Ion Fn 5



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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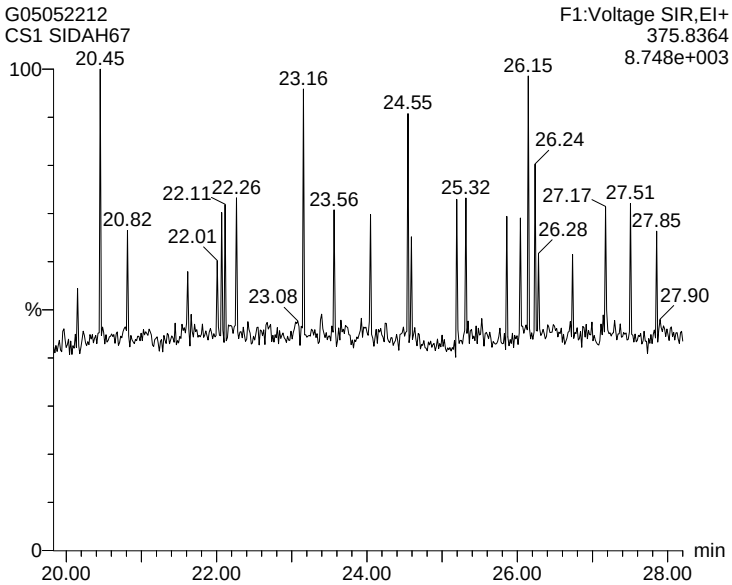
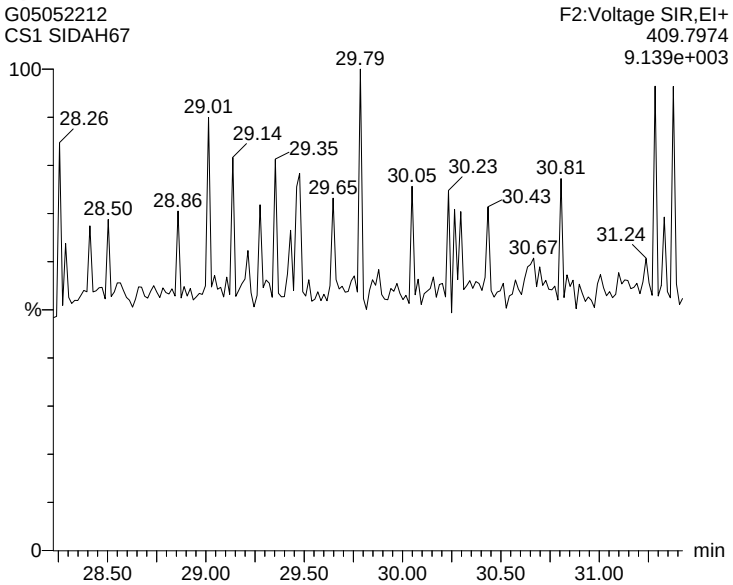
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

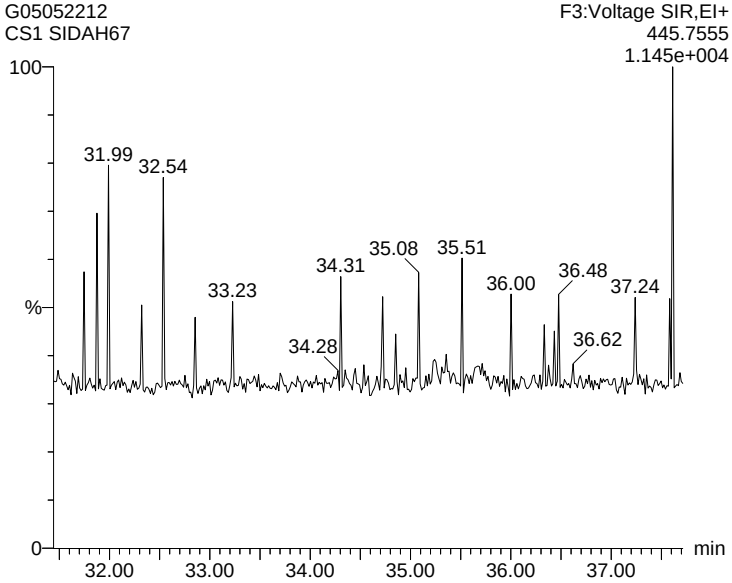
HxDPE



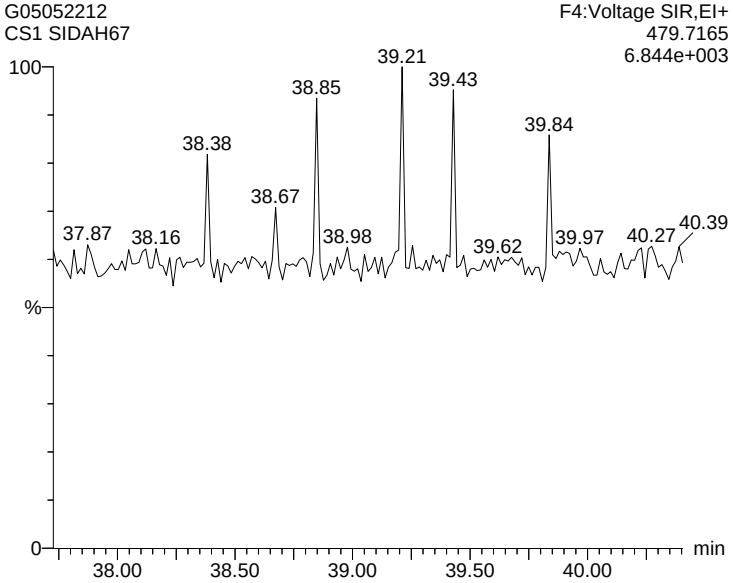
HpDPE



OcDPE



NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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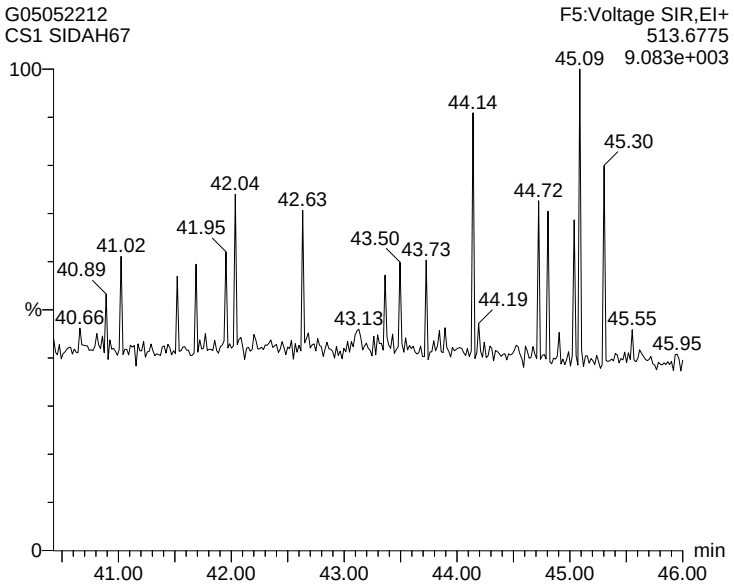
Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
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Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.51	1200895.625		2694077.875	bb	93.8	-6.2
2	2	13C-1234-TCDF (JS)	315.9419	24.23	1626297.000		3677074.875	bb	94.6	-5.4
3	3	13C-123467-HxCDD (JS)	401.8559	35.57	554977.563		995458.907	bd	48.3	-3.4
4	4	13C-2378-TCDD (ES)	331.9368	26.07	1111984.750	1200895.625	93.531	bb	99.7	-0.3
5	5	13C-12378-PeCDD (ES)	367.8949	31.16	1327750.000	1200895.625	80.175	bb	98.2	-1.8
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	1078964.750	554977.563	98.716	bd	94.3	-5.7
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1010460.125	554977.563	91.893	db	93.1	-6.9
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1134866.125	554977.563	102.163	db	91.8	-8.2
9	9	13C-1234678-HpCDD (ES)	435.8169	39.28	889256.438	554977.563	87.428	bb	94.9	-5.1
10	10	13C-OCDD (ES)	469.7780	43.11	1313438.125	554977.563	65.971	bb	187.0	-6.5
11	11	13C-2378-TCDF (ES)	315.9419	25.33	1574413.125	1626297.000	98.321	bb	99.7	-0.3
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	1928850.500	1626297.000	85.872	bb	98.6	-1.4
13	13	13C-23478-PeCDF (ES)	351.9000	30.82	1931496.375	1626297.000	84.599	bb	100.1	0.1
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	766451.000	554977.563	110.931	bd	93.8	-6.2
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	929667.750	554977.563	136.971	db	96.3	-3.7
16	16	13C-234678-HxCDF (ES)	383.8639	35.05	865968.500	554977.563	124.834	bb	96.5	-3.5
17	17	13C-123789-HxCDF (ES)	383.8639	36.09	770350.625	554977.563	111.114	bb	94.1	-5.9
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	567618.750	554977.563	91.918	bb	94.9	-5.1
19	19	13C-1234789-HpCDF (ES)	417.8253	39.91	503780.406	554977.563	83.070	bb	95.0	-5.0
20	20	13C-OCDF (ES)	453.7830	43.38	1609286.000	554977.563	80.831	bb	187.0	-6.5
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	14268.346	1200895.625	0.530	MM	0.5	-5.7
22	22	13C-12347-PeCDD (CS)	367.8949	30.65	1479772.000	1200895.625	90.118	bb	102.5	2.5
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	1928850.500	1626297.000	85.872	bb	98.6	-1.4
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	802259.000	554977.563	115.928	bb	94.1	-5.9
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	568516.813	554977.563	91.454	bb	95.0	-5.0
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	14268.346	1111984.750	0.566	MM	0.5	-5.4
27	27	13C-12347-PeCDD (SS)	367.8949	30.65	1423079.250	1327750.000	107.708	bb	102.3	2.3
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	1928850.500	1928850.500	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	782384.438	929667.750	82.537	bb	96.6	-3.4
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	568516.813	567618.750	99.495	bb	100.2	0.2
31	31	13C-1368-TCDD (AS)	331.9368	23.08	1254706.500	1200895.625	105.525	bb	101.2	1.2
32	32	13C-1368-TCDF (AS)	315.9419	21.56	1817530.125	1626297.000	113.086	bb	99.2	-0.8
33	33	1368-TCDD	319.8965			1111984.750				
34	34	1379-TCDD	319.8965			1111984.750				
35	35	1369-TCDD	319.8965			1111984.750				
36	36	1469-TCDD	319.8965			1111984.750				
37	37	1247/1246/1248/1249-TC...	319.8965			1111984.750				
38	38	1378-TCDD	319.8965			1111984.750				
39	39	1268-TCDD	319.8965			1111984.750				
40	40	1478-TCDD	319.8965			1111984.750				
41	41	1279-TCDD	319.8965			1111984.750				
42	42	1234/1269-TCDD	319.8965			1111984.750				
43	43	1236-TCDD	319.8965			1111984.750				
44	44	1237/1238-TCDD	319.8965			1111984.750				
45	45	1239-TCDD [CE]	319.8965			1111984.750				
46	46	2378-TCDD (S)	319.8965	26.10	6523.681	1111984.750	0.586	bb	0.5	2.8
47	47	1278-TCDD	319.8965			1111984.750				
48	48	1267-TCDD	319.8965			1111984.750				
49	49	1289-TCDD	319.8965			1111984.750				
50	50	12479/12468-PeCDD	355.8546			1327750.000				
51	51	12469-PeCDD	355.8546			1327750.000				
52	52	12368-PeCDD	355.8546			1327750.000				
53	53	12478-PeCDD	355.8546			1327750.000				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G05052212, Date: 05-May-2022, Time: 17:54:33, ID: SIDAH67, Description: CS1, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1327750.000				
55	55	12369/12467/12489-PeCDD	355.8546			1327750.000				
56	56	12346/12347-PeCDD	355.8546			1327750.000				
57	57	12378-PeCDD (S)	355.8546	31.18	34385.648	1327750.000	2.625	bb	2.6	3.7
58	58	12367-PeCDD	355.8546			1327750.000				
59	59	12389-PeCDD	355.8546			1327750.000				
60	60	124679/124689-HxCDD	389.8157			1078964.750				
61	61	123468-HxCDD	389.8157			1078964.750				
62	62	123679/123689-HxCDD	389.8157			1078964.750				
63	63	123469-HxCDD	389.8157			1078964.750				
64	64	123478-HxCDD (S)	389.8157	35.25	29770.098	1078964.750	2.794	bd	2.6	5.9
65	65	123678-HxCDD (S)	389.8157	35.38	27998.646	1010460.125	2.865	db	2.6	4.2
66	66	123467-HxCDD	389.8157			1134866.125				
67	67	123789-HxCDD (S)	389.8157	35.69	30297.580	1134866.125	2.704	bb	2.6	3.5
68	68	1234679-HpCDD	423.7766			889256.438				
69	69	1234678-HpCDD (S)	423.7766	39.30	23444.496	889256.438	2.728	bb	2.6	4.1
70	70	OCDD (S)	457.7377	43.13	38109.496	1313438.125	5.803	bd	5.1	2.1
71	71	1368-TCDF	303.9016			1574413.125				
72	72	1468-TCDF	303.9016			1574413.125				
73	73	2468-TCDF	303.9016			1574413.125				
74	74	1346/1246-TCDF	303.9016			1574413.125				
75	75	1347/1378/1247-TCDF	303.9016			1574413.125				
76	76	1348-TCDF	303.9016			1574413.125				
77	77	1248/1367/1379-TCDF	303.9016			1574413.125				
78	78	1268-TCDF	303.9016			1574413.125				
79	79	1467-TCDF	303.9016			1574413.125				
80	80	1478-TCDF	303.9016			1574413.125				
81	81	1369/1237-TCDF	303.9016			1574413.125				
82	82	2467-TCDF	303.9016			1574413.125				
83	83	2368-TCDF	303.9016			1574413.125				
84	84	1238/1234/1678/1469/123...	303.9016			1574413.125				
85	85	1278-TCDF	303.9016			1574413.125				
86	86	1349-TCDF	303.9016			1574413.125				
87	87	1267-TCDF	303.9016			1574413.125				
88	88	2346/1249-TCDF	303.9016			1574413.125				
89	89	2347/1279-TCDF	303.9016			1574413.125				
90	90	2348-TCDF [CE]	303.9016			1574413.125				
91	91	2378-TCDF (S)	303.9016	25.35	9205.375	1574413.125	0.581	bb	0.5	4.7
92	92	2367/3467-TCDF	303.9016			1574413.125				
93	93	1269-TCDF	303.9016			1574413.125				
94	94	1239-TCDF	303.9016			1574413.125				
95	95	1289-TCDF	303.9016			1574413.125				
96	96	13468/12466-PeCDF	339.8597			1928850.500				
97	97	13678/13467/12467-PeCDF	339.8597			1928850.500				
98	98	12368/13478/12478-PeCDF	339.8597			1928850.500				
99	99	14678-PeCDF	339.8597			1928850.500				
100	1...	13479-PeCDF	339.8597			1928850.500				
101	1...	13469/12479-PeCDF	339.8597			1928850.500				
102	1...	12346-PeCDF	339.8597			1928850.500				
103	1...	23468/12469-PeCDF	339.8597			1928850.500				
104	1...	12347-PeCDF	339.8597			1928850.500				
105	1...	12348-PeCDF	339.8597			1928850.500				
106	1...	12378-PeCDF (S)	339.8597	29.74	51189.246	1928850.500	2.671	bb	2.5	-0.6

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	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			1928850.500				
108	1...	12379-PeCDF	339.8597			1928850.500				
109	1...	12679-PeCDF	339.8597			1931496.375				
110	1...	23467/12369-PeCDF	339.8597			1931496.375				
111	1...	23478-PeCDF (S)	339.8597	30.84	49979.059	1931496.375	2.657	bb	2.5	0.4
112	1...	12489-PeCDF (R)	339.8597			1931496.375				
113	1...	12349-PeCDF	339.8597			1931496.375				
114	1...	12389-PeCDF	339.8597			1931496.375				
115	1...	123468-HxCDF	373.8208			766451.000				
116	1...	124678/134678-HxCDF	373.8208			766451.000				
117	1...	134679-HxCDF	373.8208			766451.000				
118	1...	124679-HxCDF	373.8208			766451.000				
119	1...	124689-HxCDF	373.8208			766451.000				
120	1...	123467-HxCDF	373.8208			766451.000				
121	1...	123478-HxCDF (S)	373.8208	34.23	39872.480	766451.000	3.332	bd	2.6	2.2
122	1...	123678-HxCDF (S)	373.8208	34.38	44331.266	929667.750	3.123	db	2.6	3.5
123	1...	123479-HxCDF	373.8208			929667.750				
124	1...	123469-HxCDF	373.8208			865968.500				
125	1...	123679-HxCDF	373.8208			865968.500				
126	1...	234678-HxCDF (S)	373.8208	35.07	44256.969	865968.500	3.214	bb	2.6	3.7
127	1...	123689-HxCDF (NR)	373.8208			865968.500				
128	1...	123789-HxCDF (S)	373.8208	36.10	38147.098	770350.625	3.192	bb	2.6	4.5
129	1...	123489-HxCDF (R)	373.8208			770350.625				
130	1...	1234678-HpCDF (S)	407.7818	38.03	34741.418	567618.750	3.725	bb	2.5	1.1
131	1...	1234679-HpCDF	407.7818			567618.750				
132	1...	1234689-HpCDF	407.7818			567618.750				
133	1...	1234789-HpCDF (S)	407.7818	39.92	31922.650	503780.406	3.718	bb	2.7	7.0
134	1...	OCDF (S)	441.7428	43.40	49718.410	1609286.000	6.179	bb	5.2	4.9
135	1...	13C-1278-TCDD (FS)	331.9368			1111984.750				
136	1...	13C-12478-PeCDD (FS)	367.8949			1327750.000				
137	1...	13C-123468-HxCDD (FS)	401.8559			554977.563				
138	1...	13C-1234679-HpCDD (FS)	435.8169			889256.438				
139	1...	13C-1378-TCDD (TS)	331.9368			1111984.750				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

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Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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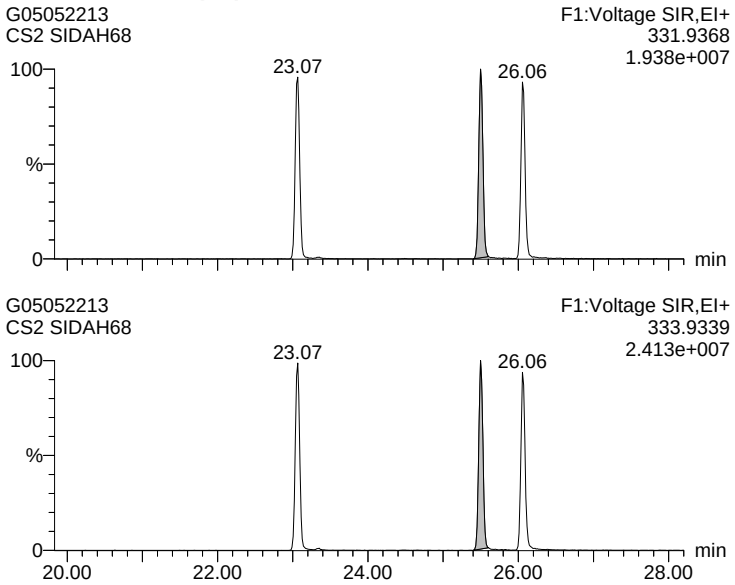
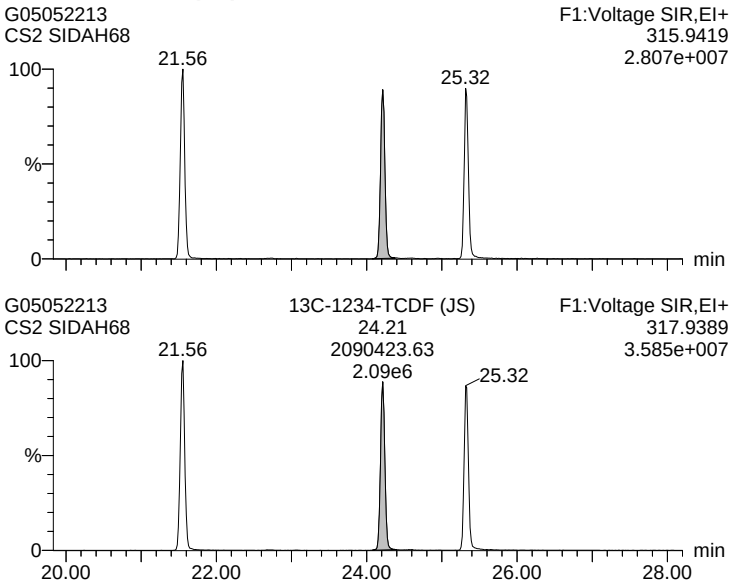
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

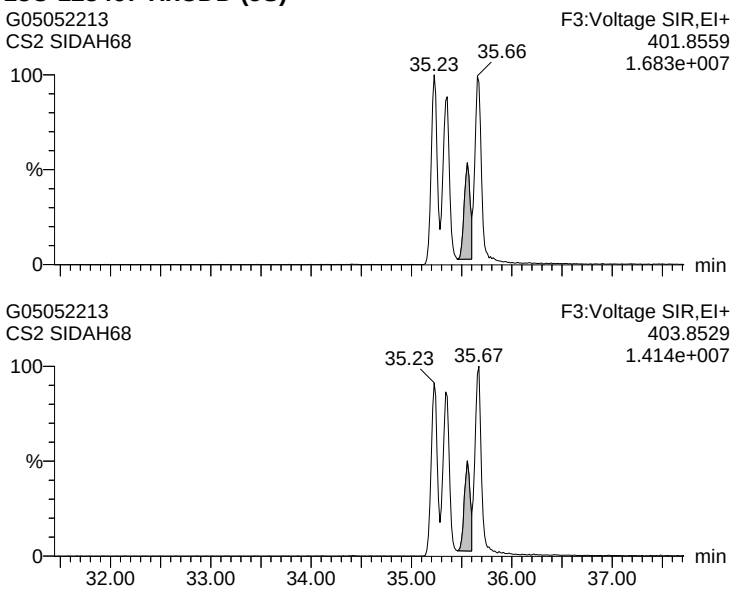
13C-1234-TCDD (JS)



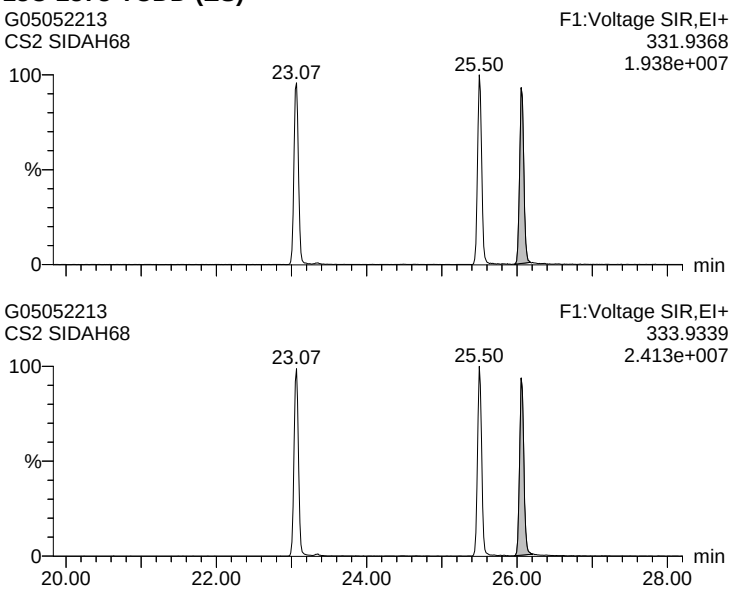
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



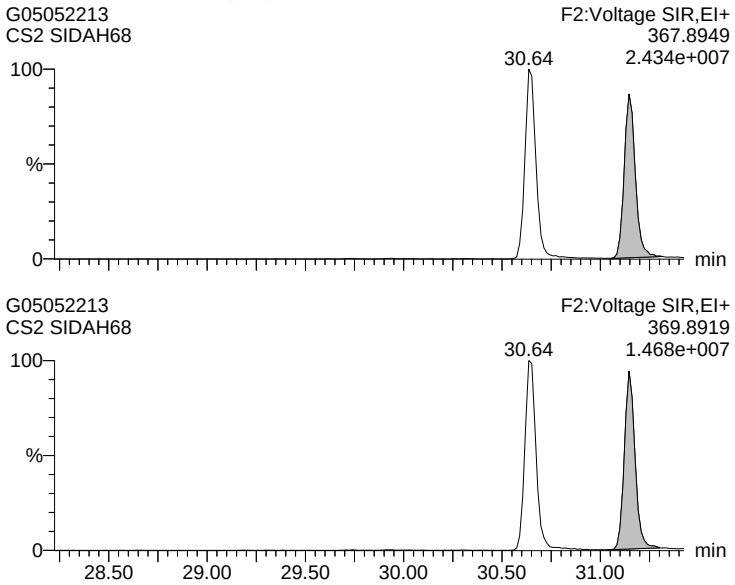
13C-2378-TCDD (ES)



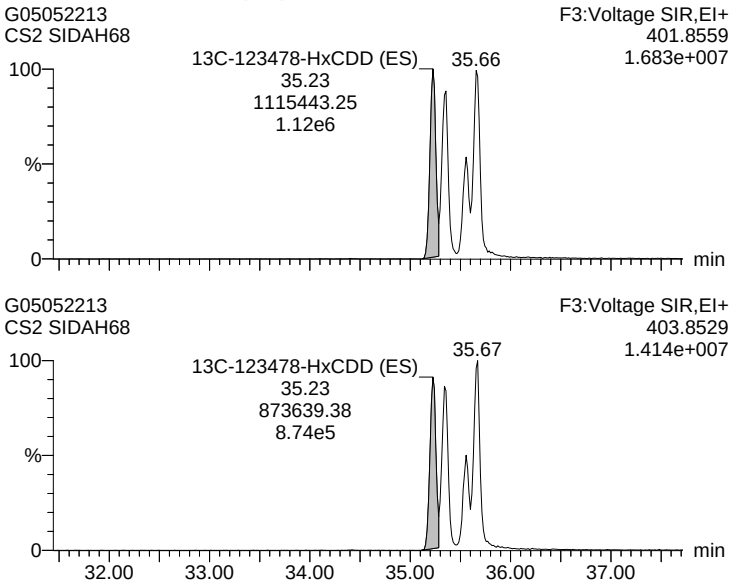
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

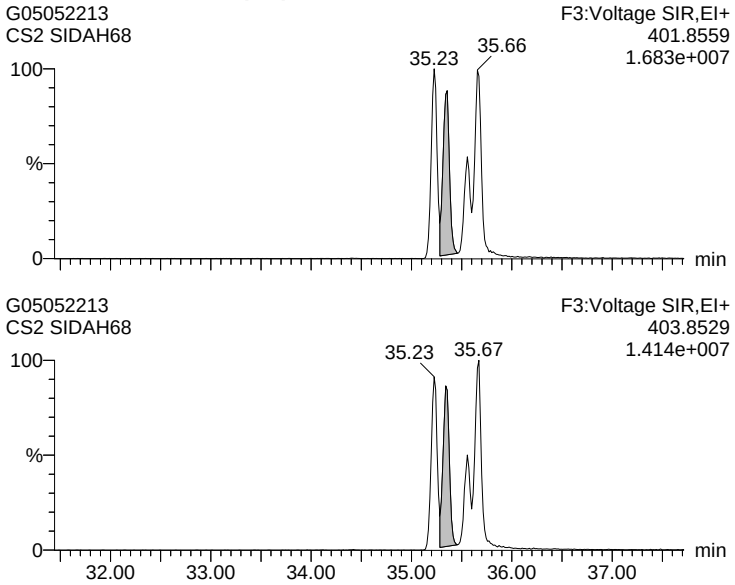
13C-12378-PeCDD (ES)



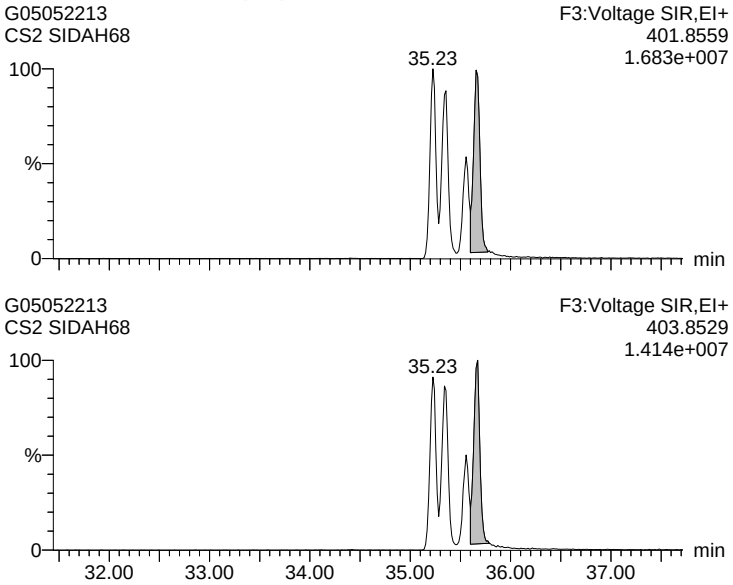
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



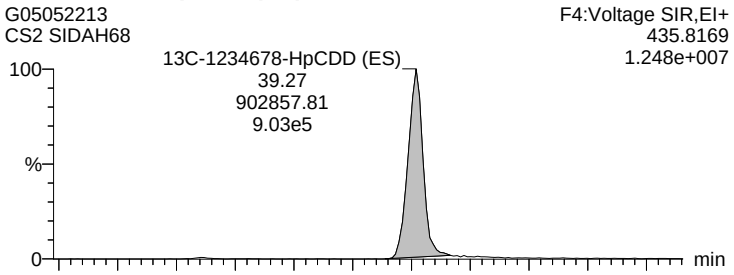
13C-123789-HxCDD (ES)

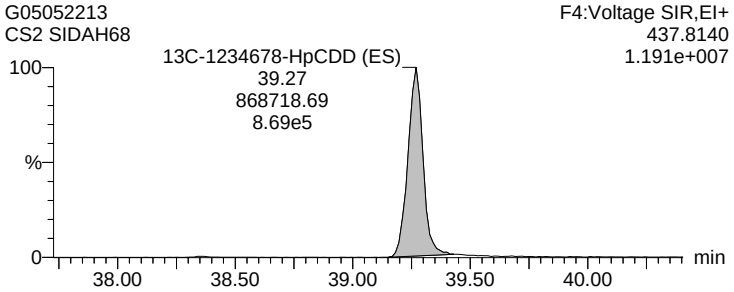


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

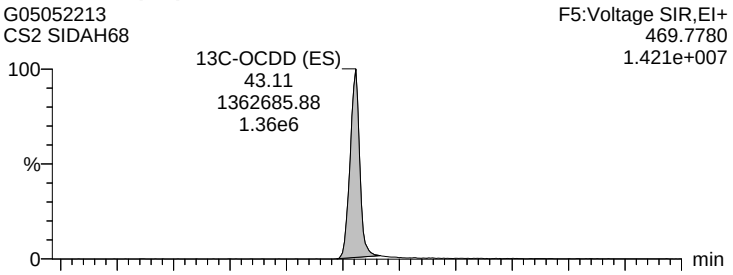
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

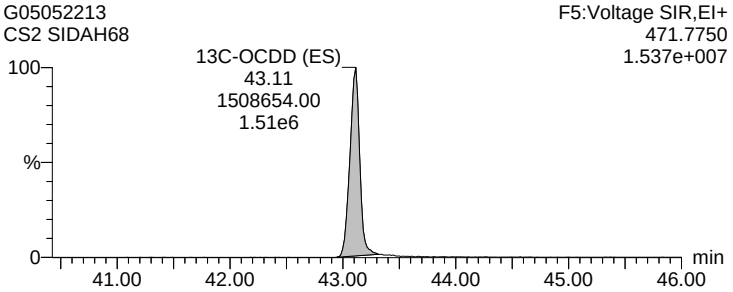
13C-1234678-HpCDD (ES)



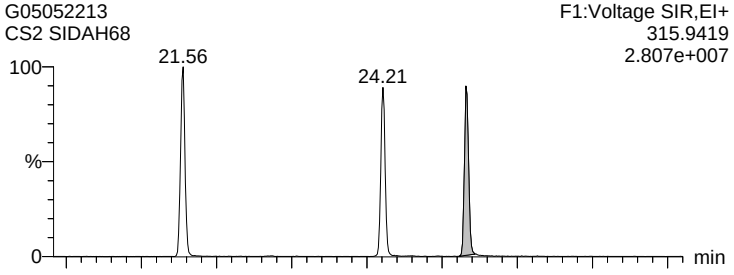


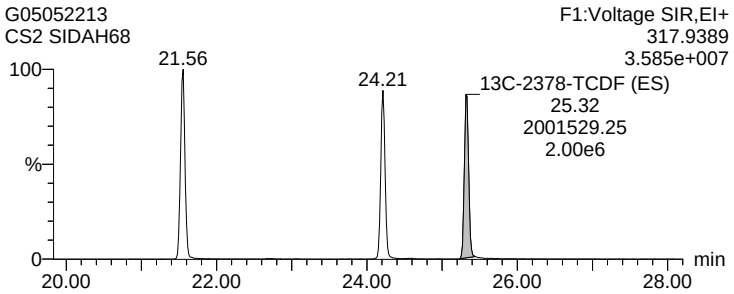
13C-OCDD (ES)



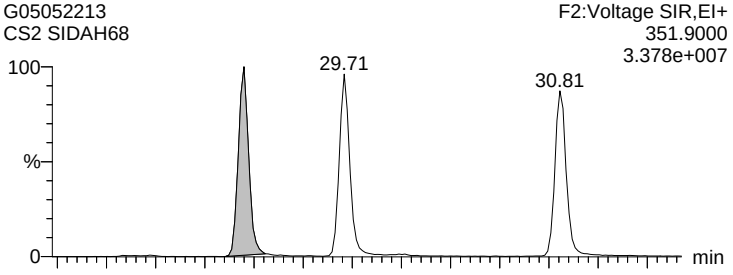


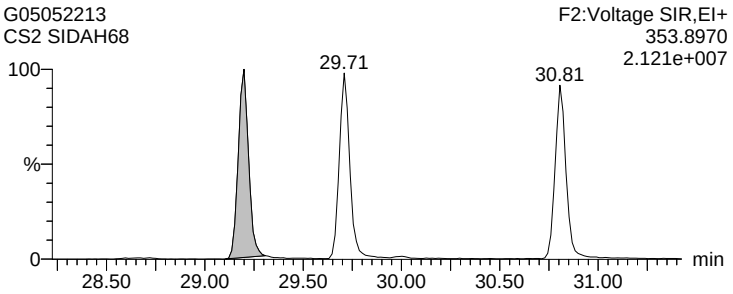
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)

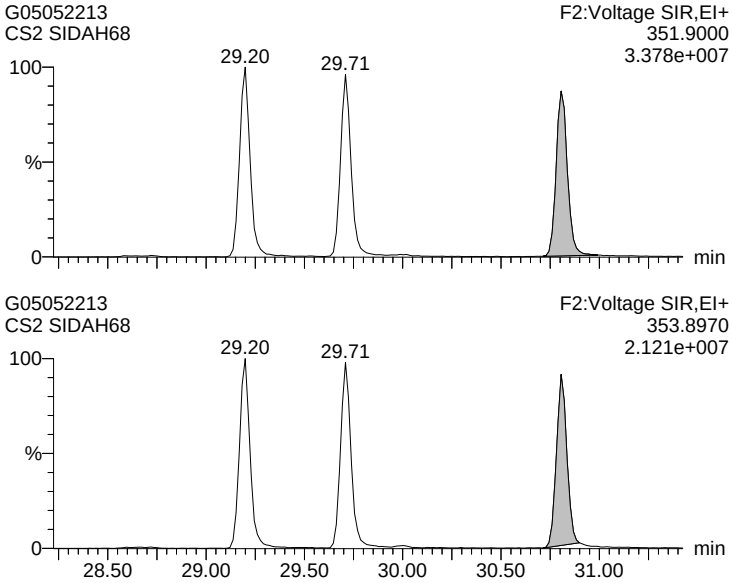




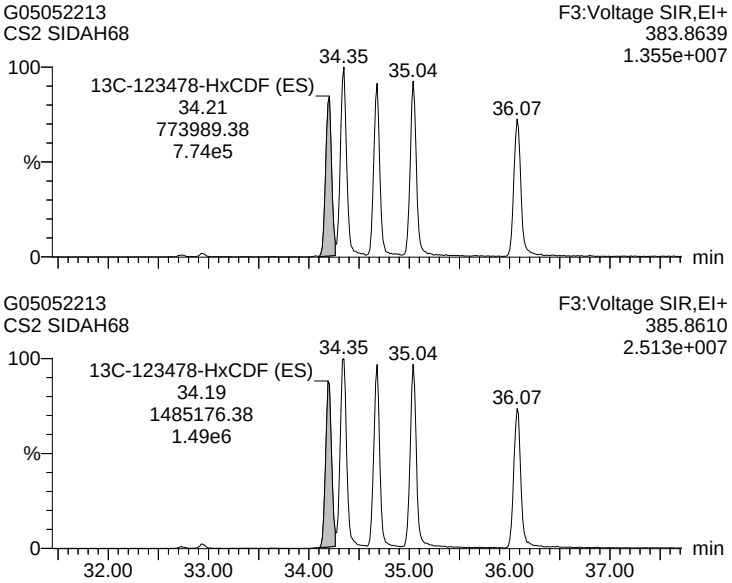
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

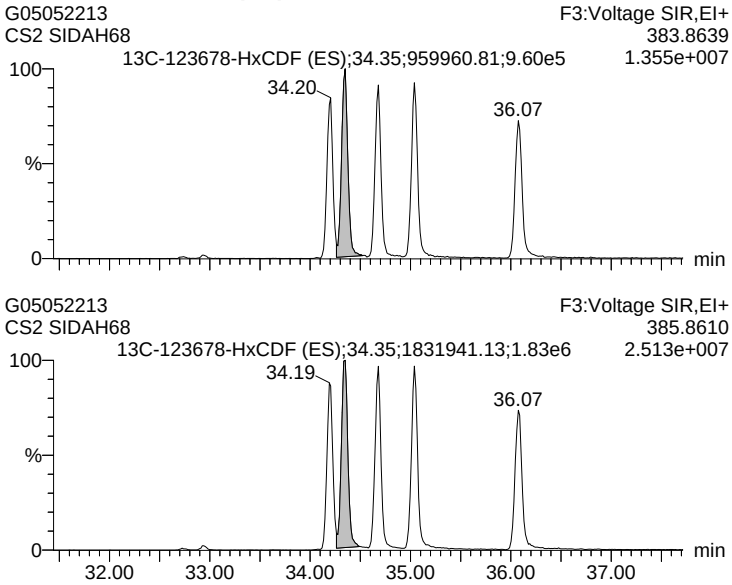
13C-23478-PeCDF (ES)



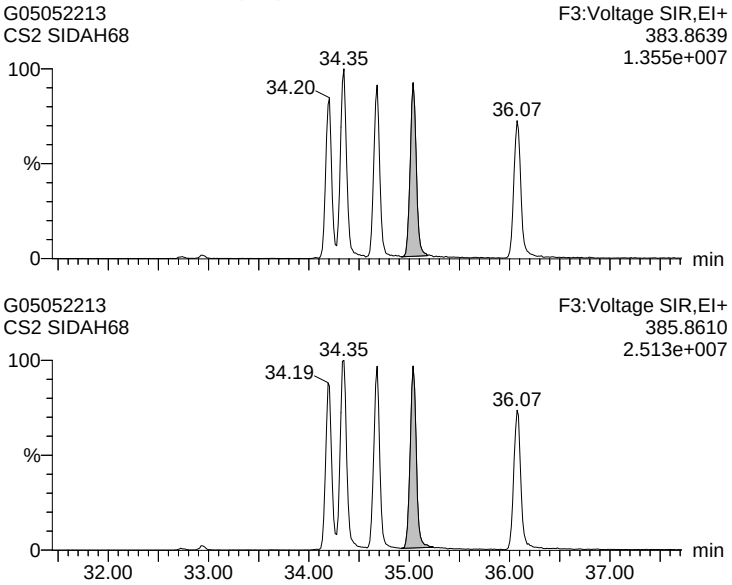
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



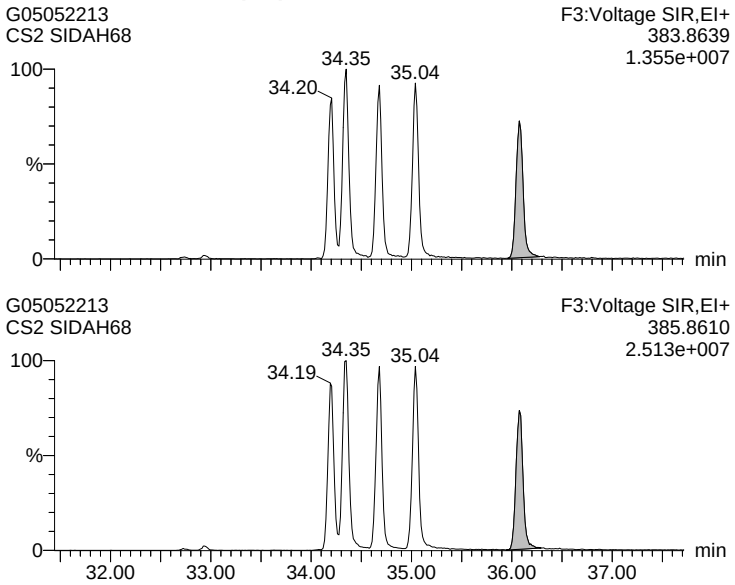
13C-234678-HxCDF (ES)



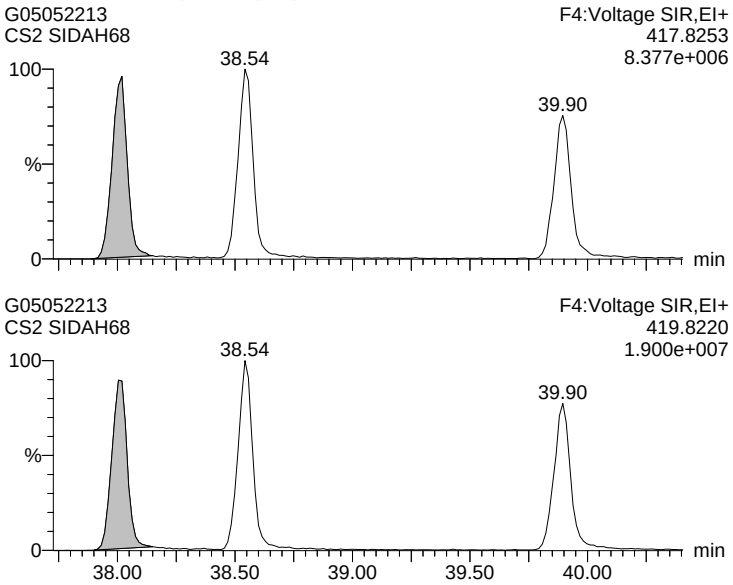
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

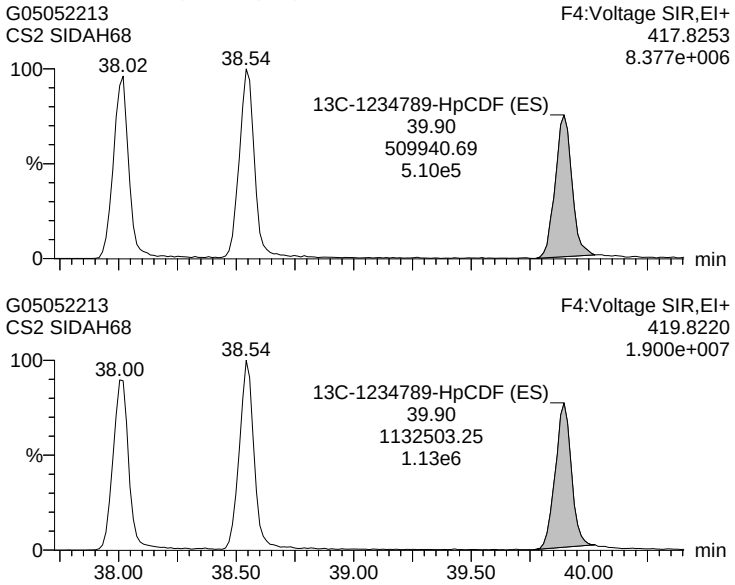
13C-123789-HxCDF (ES)



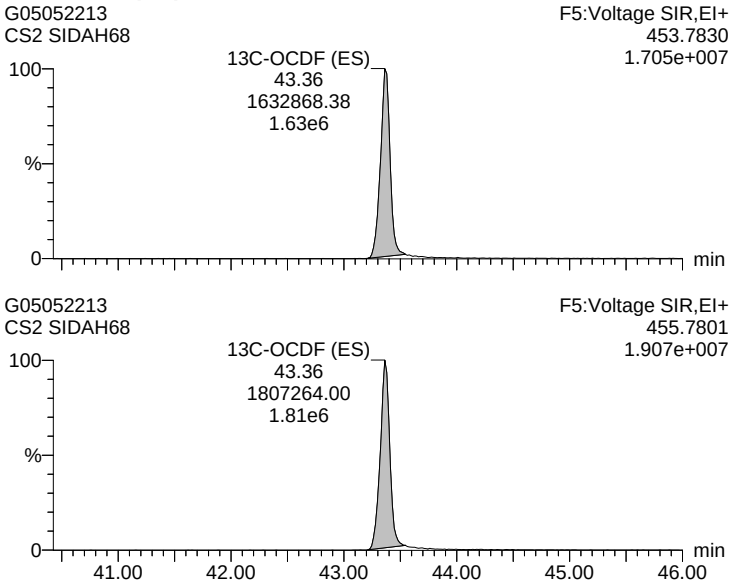
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



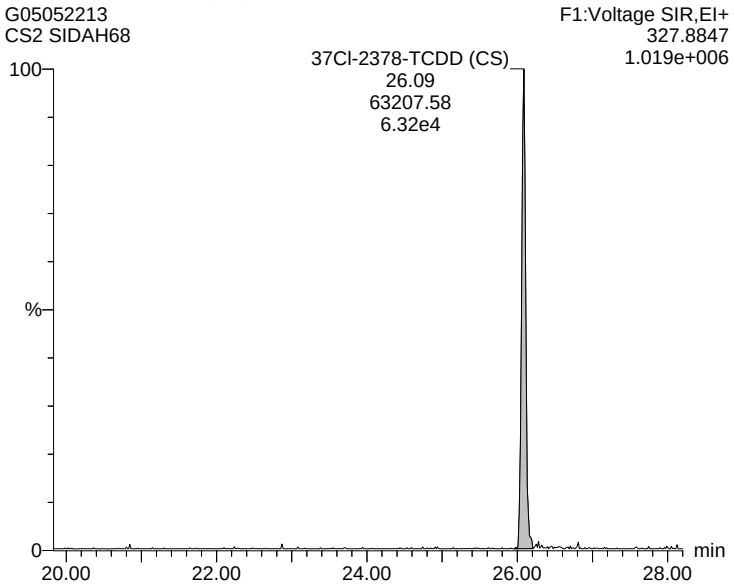
13C-OCDF (ES)



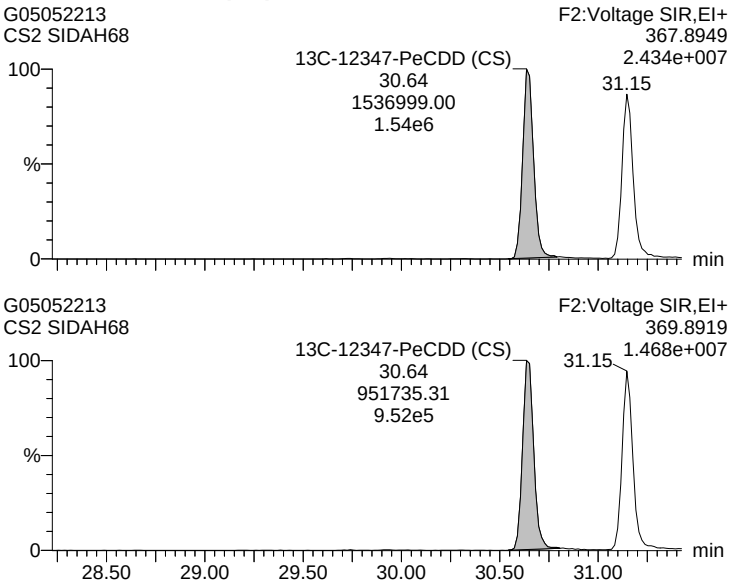
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

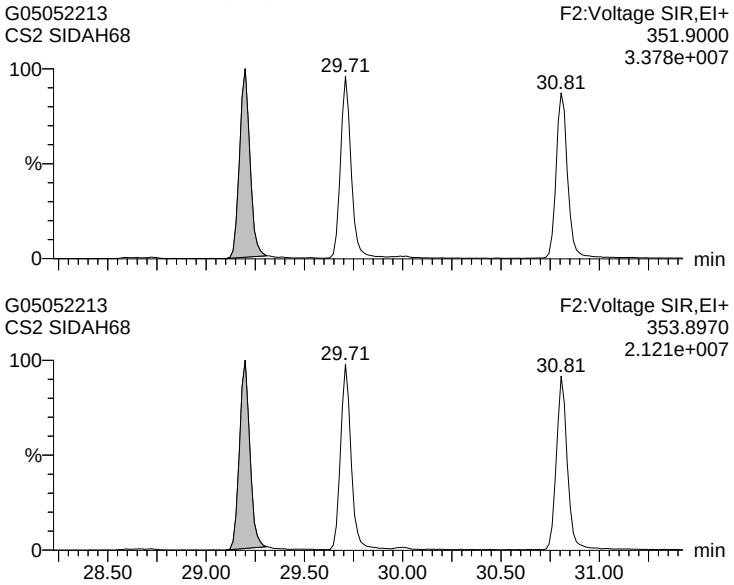
37Cl-2378-TCDD (CS)



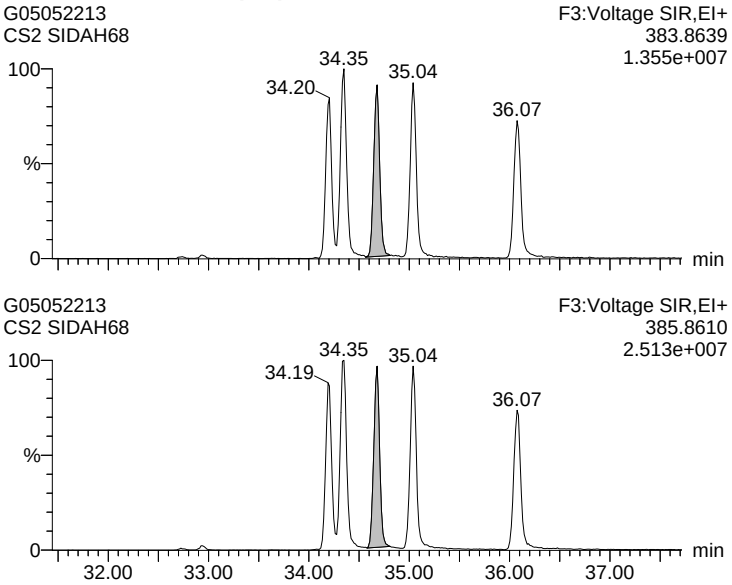
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



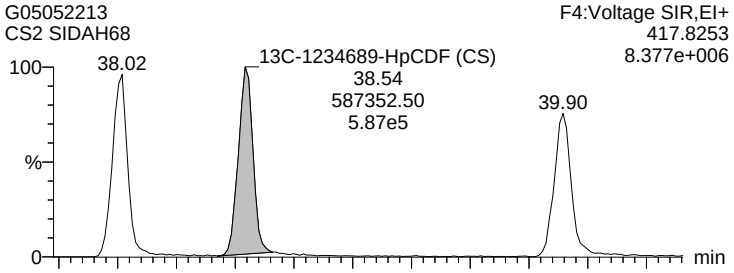
13C-123469-HxCDF (CS)

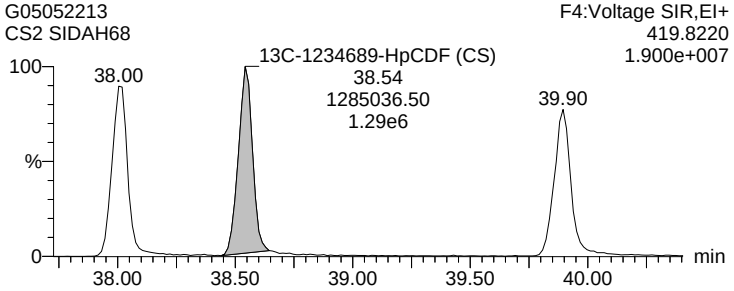


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

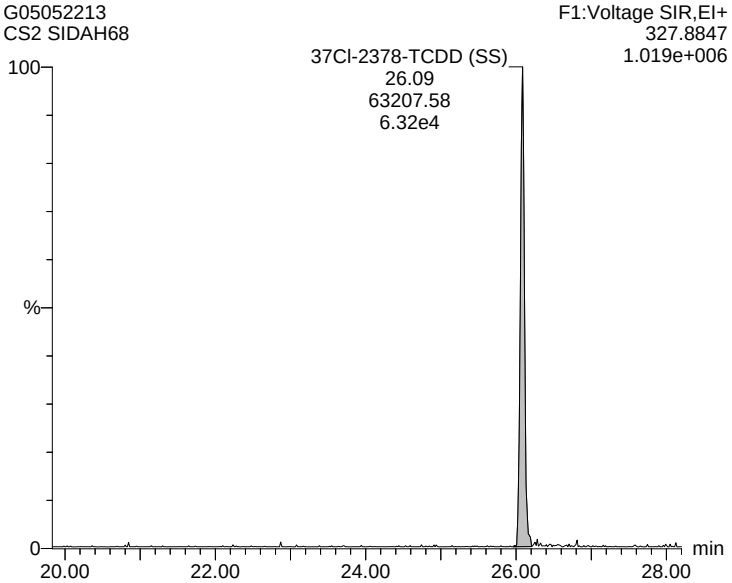
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

13C-1234689-HpCDF (CS)

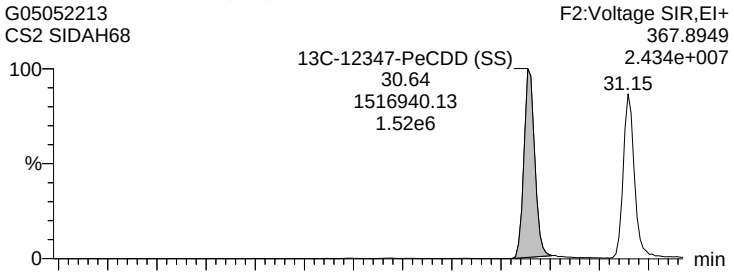


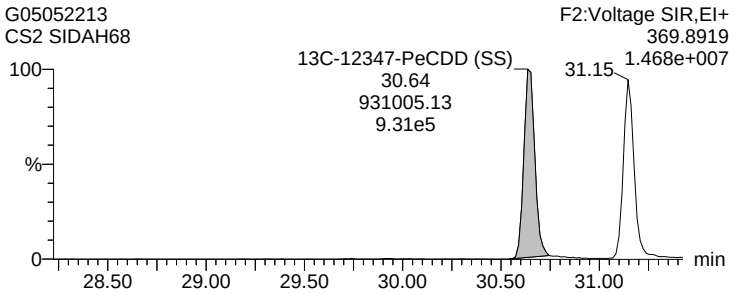


37Cl-2378-TCDD (SS)

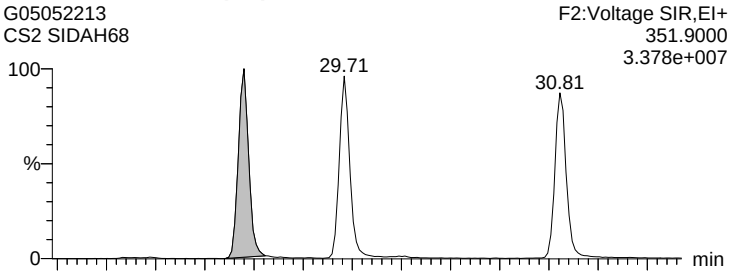


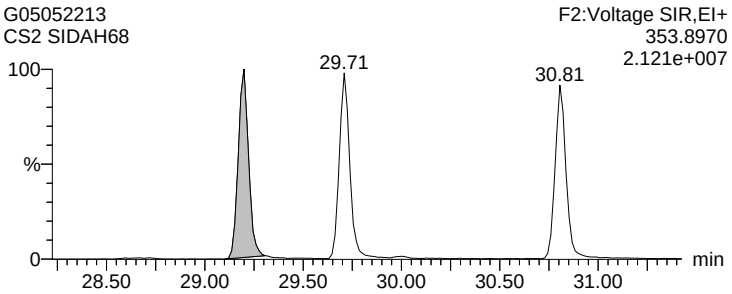
13C-12347-PeCDD (SS)





13C-12346-PeCDF (SS)

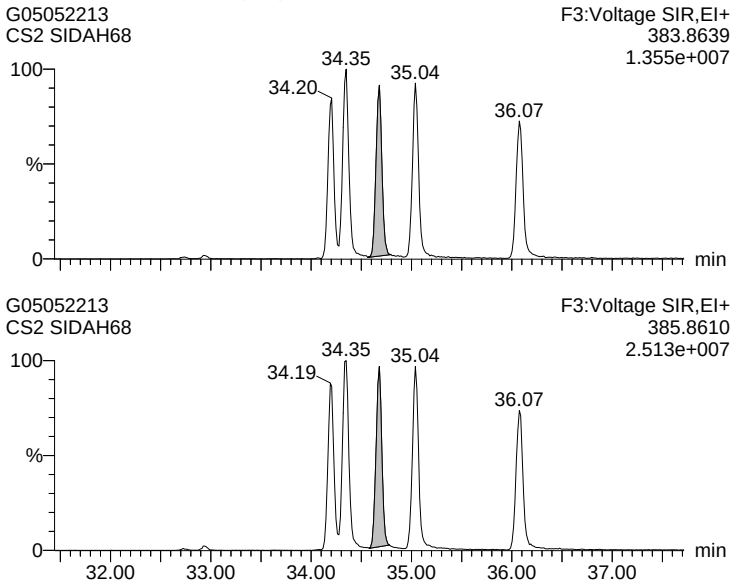




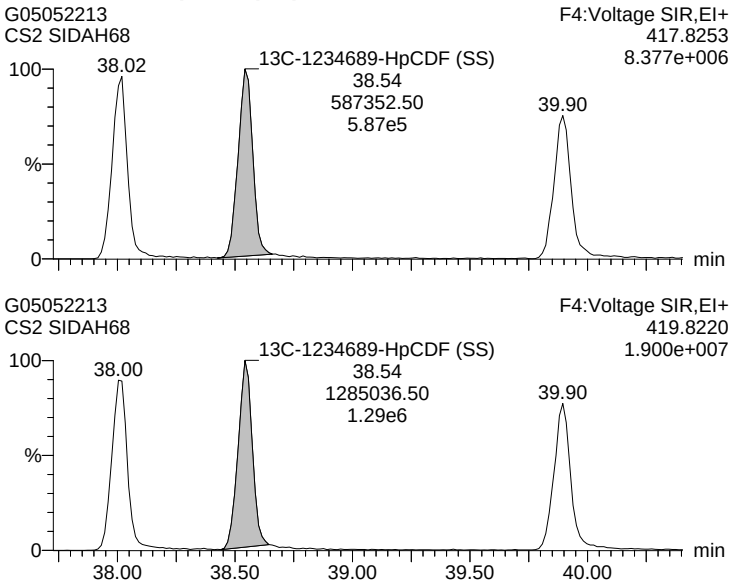
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

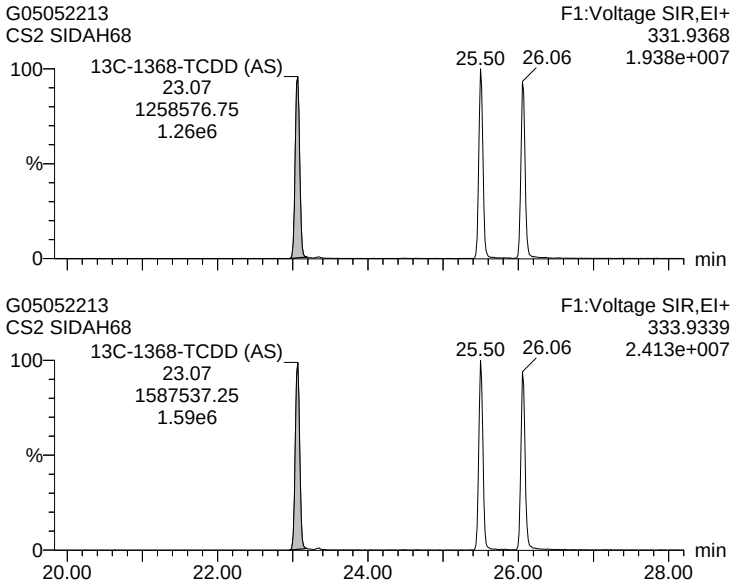
13C-123469-HxCDF (SS)



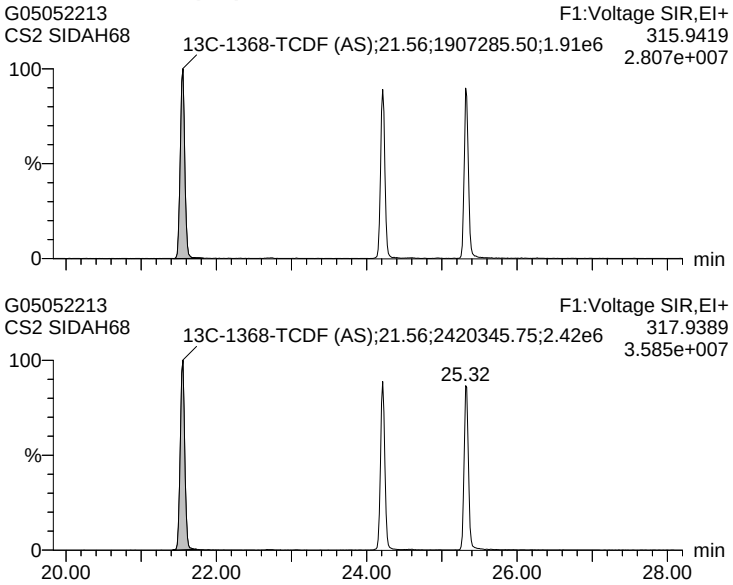
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



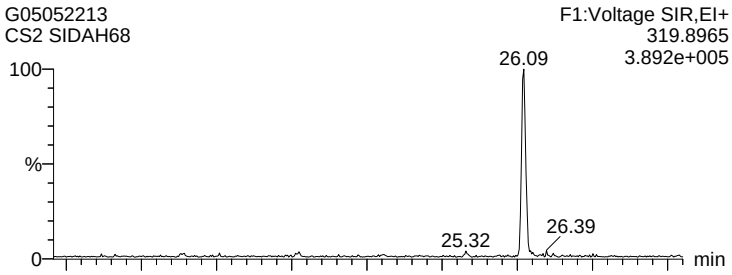
13C-1368-TCDF (AS)

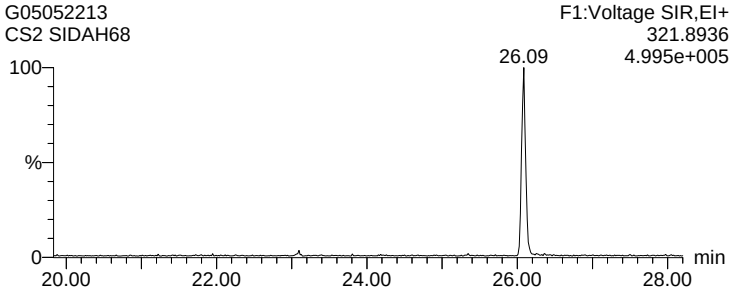


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

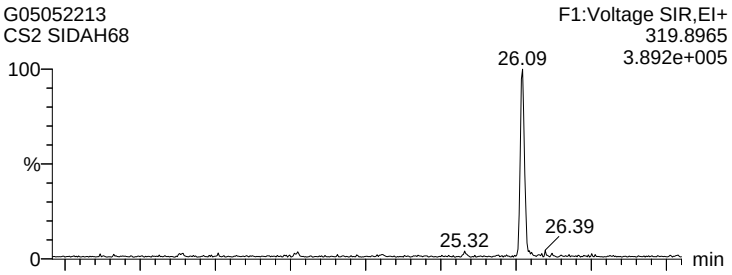
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

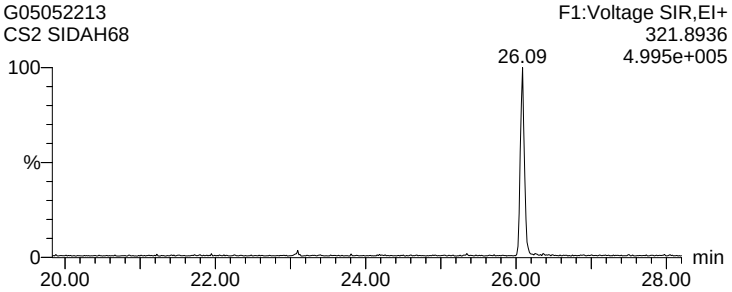
1368-TCDD



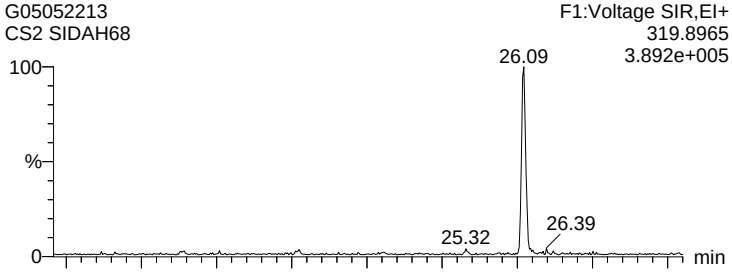


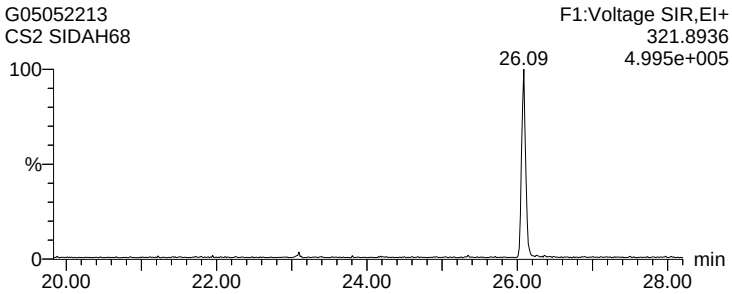
1379-TCDD



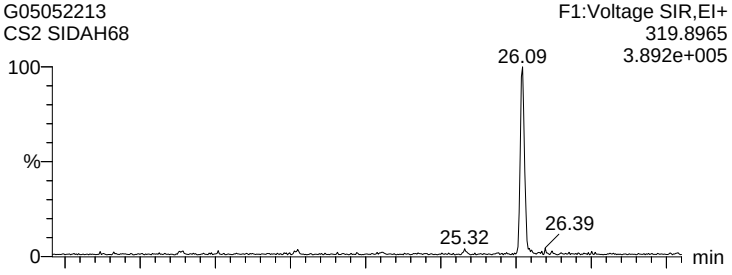


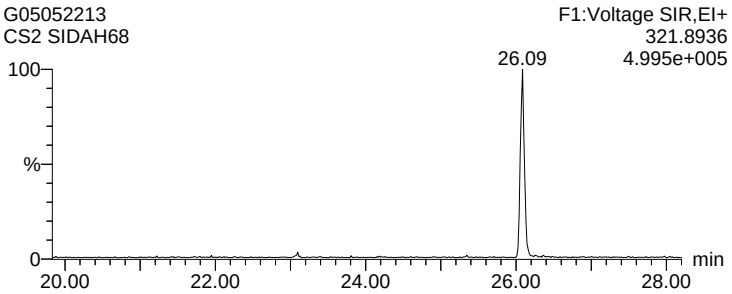
1369-TCDD





1469-TCDD

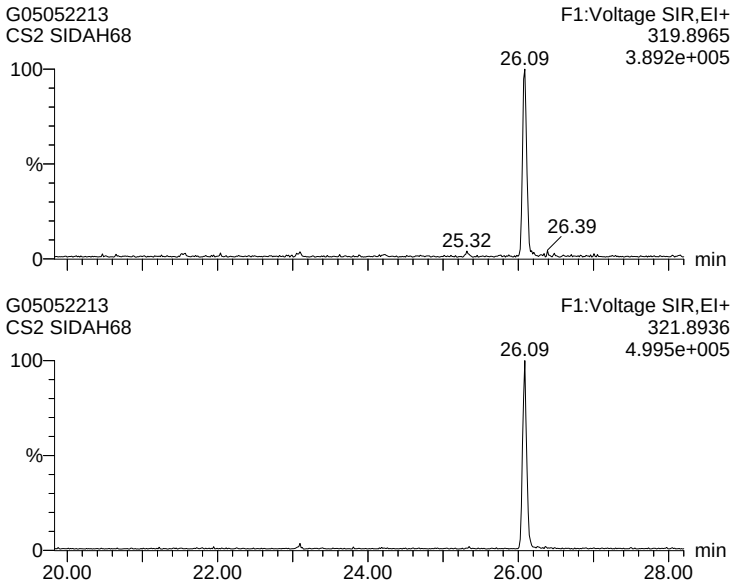




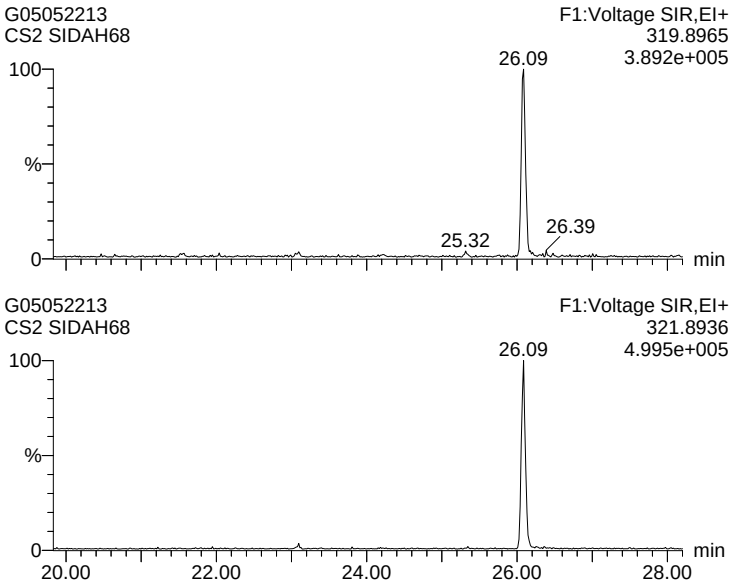
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

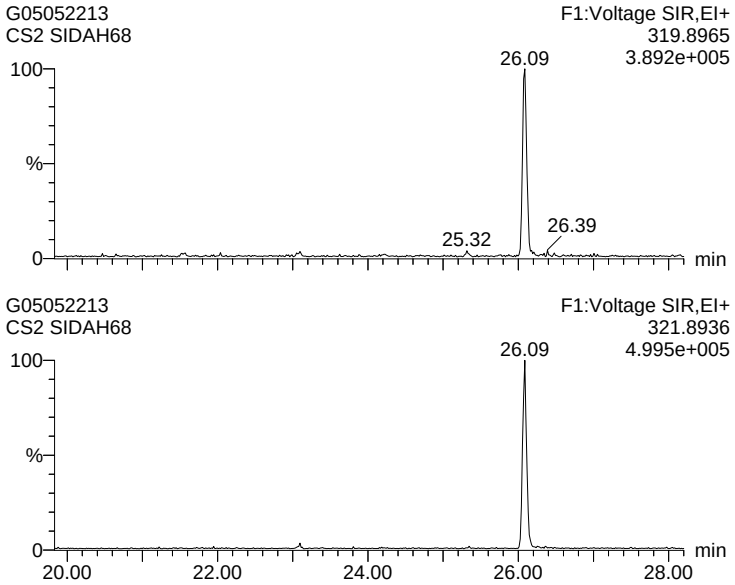
1247/1246/1248/1249-TCDD



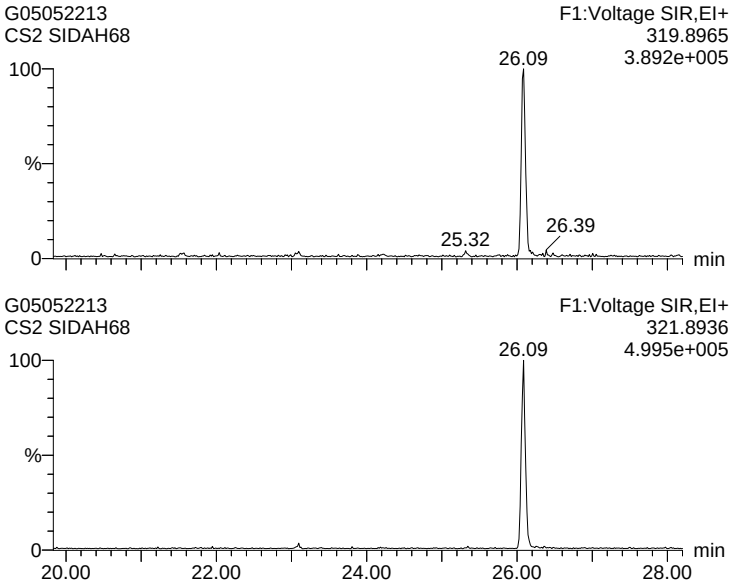
1378-TCDD



1268-TCDD



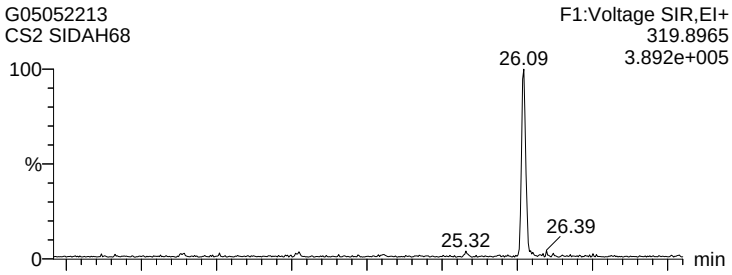
1478-TCDD

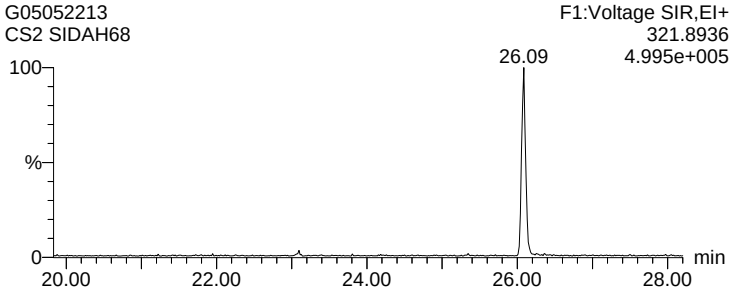


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

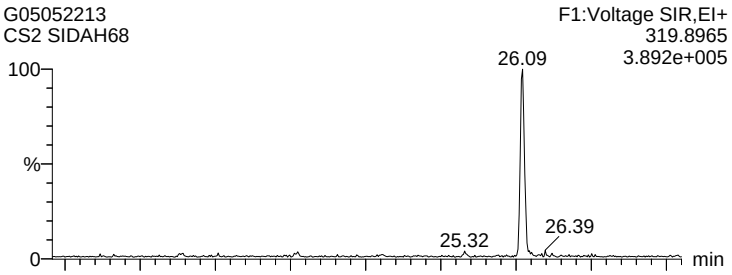
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

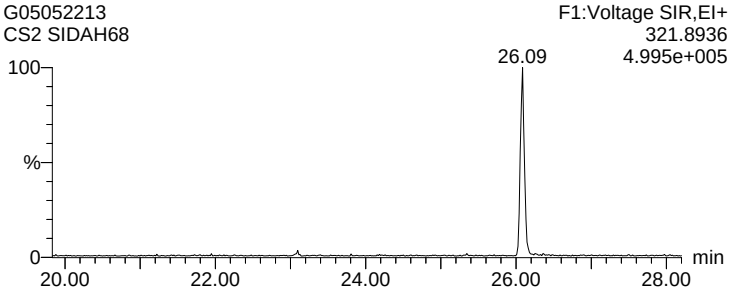
1279-TCDD



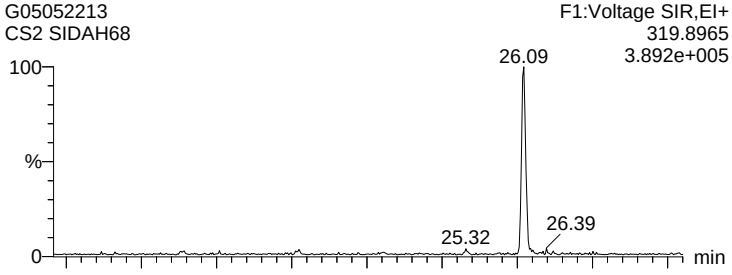


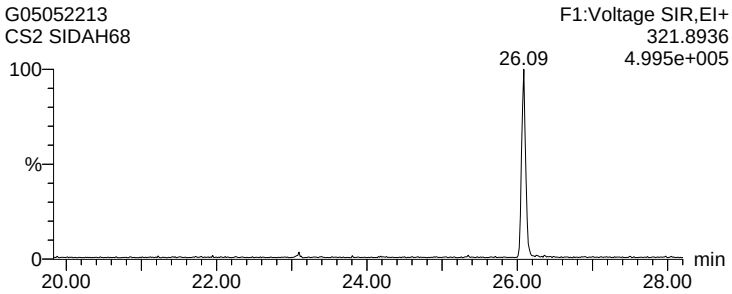
1234/1269-TCDD



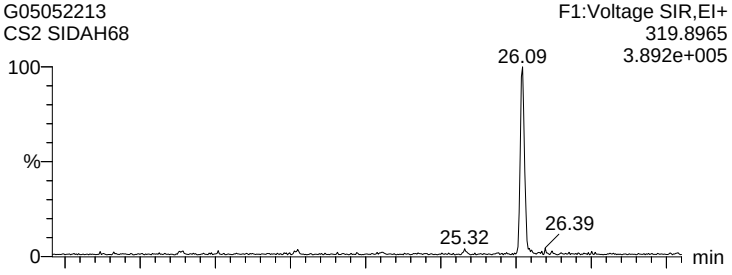


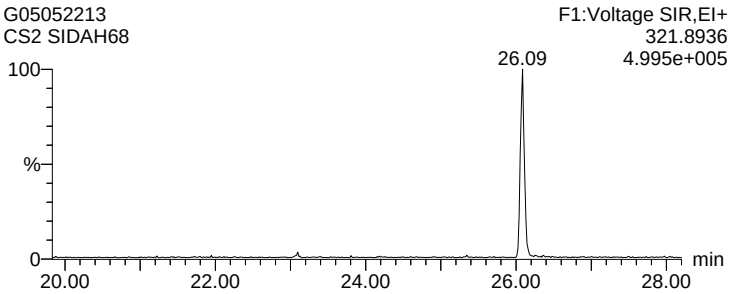
1236-TCDD





1237/1238-TCDD

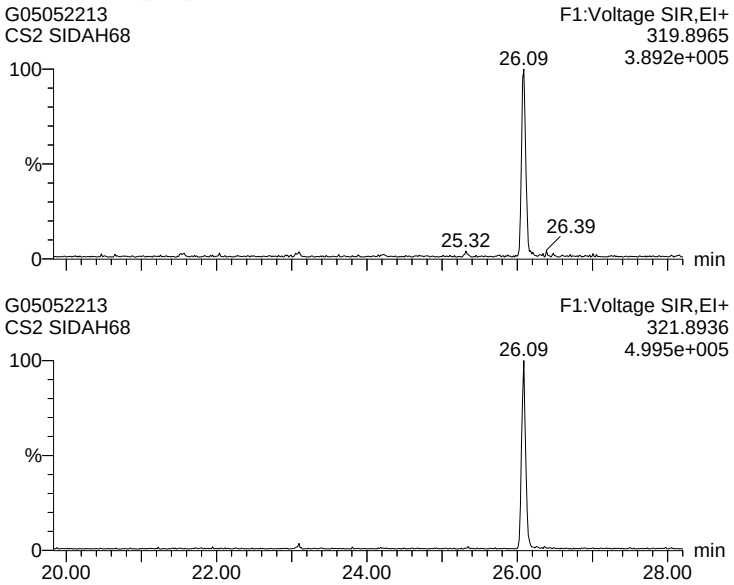




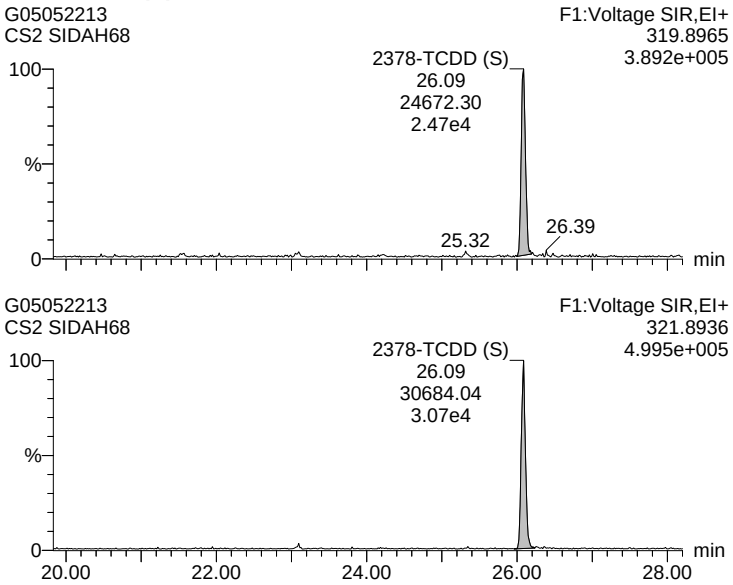
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

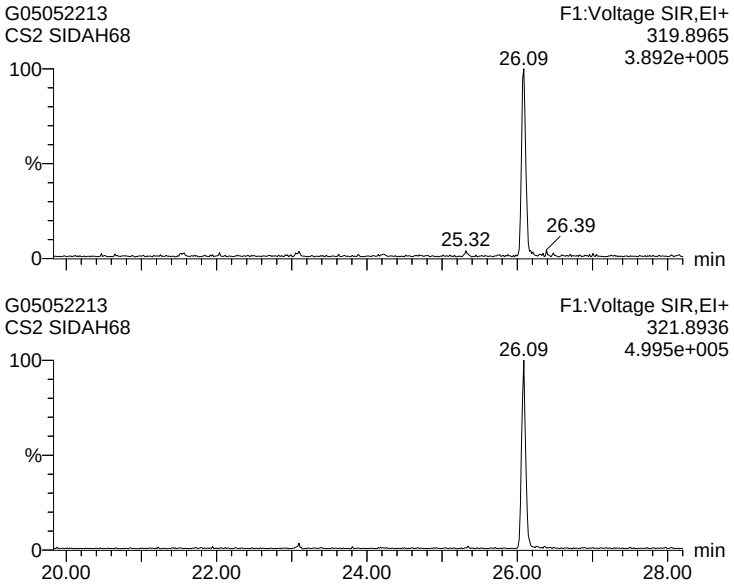
1239-TCDD [CE]



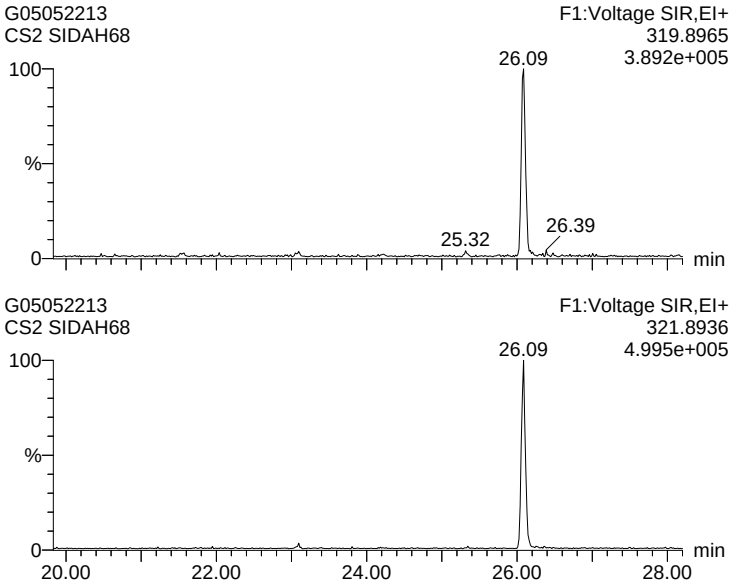
2378-TCDD (S)



1278-TCDD



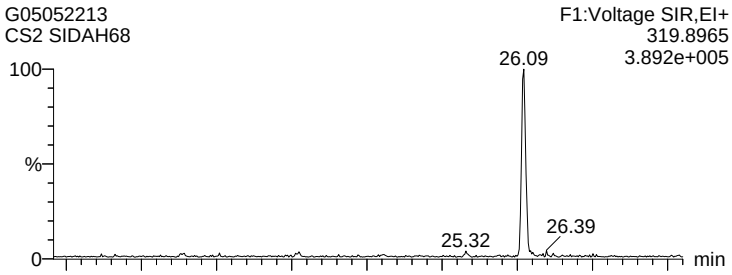
1267-TCDD

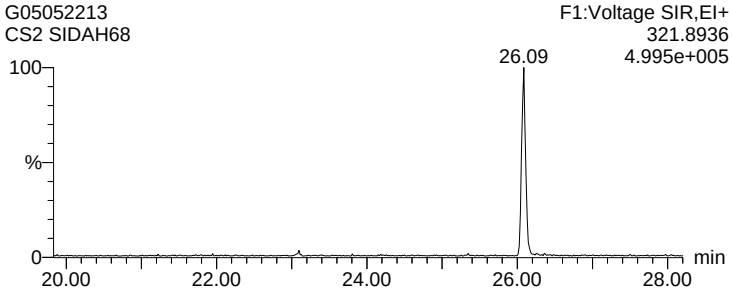


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

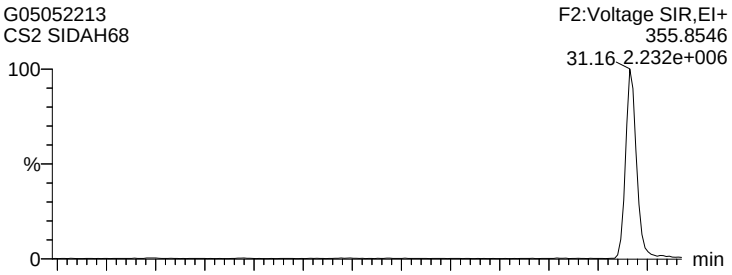
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

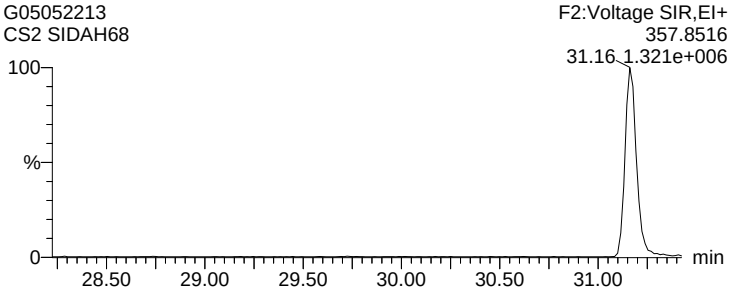
1289-TCDD



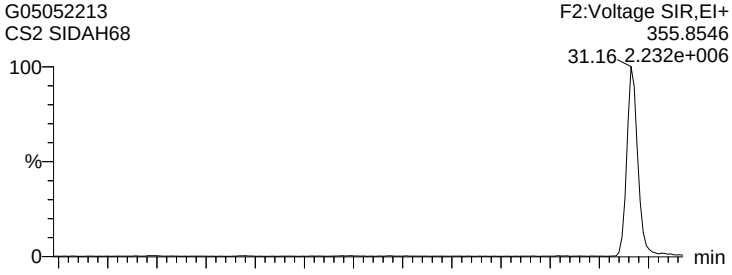


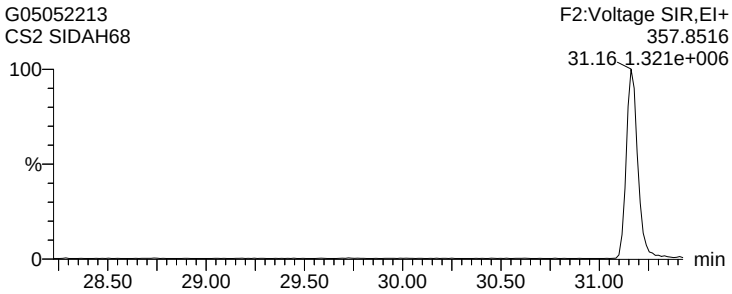
12479/12468-PeCDD



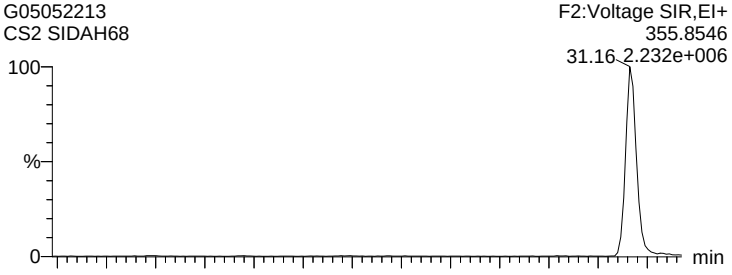


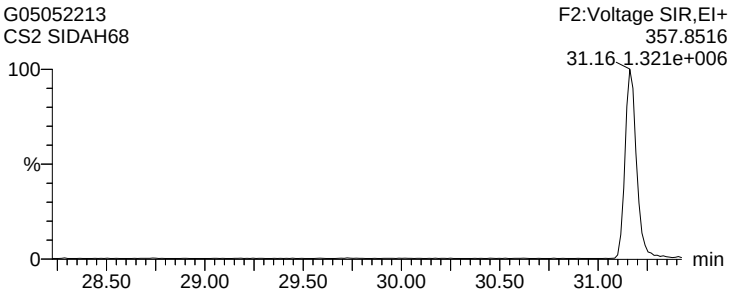
12469-PeCDD





12368-PeCDD

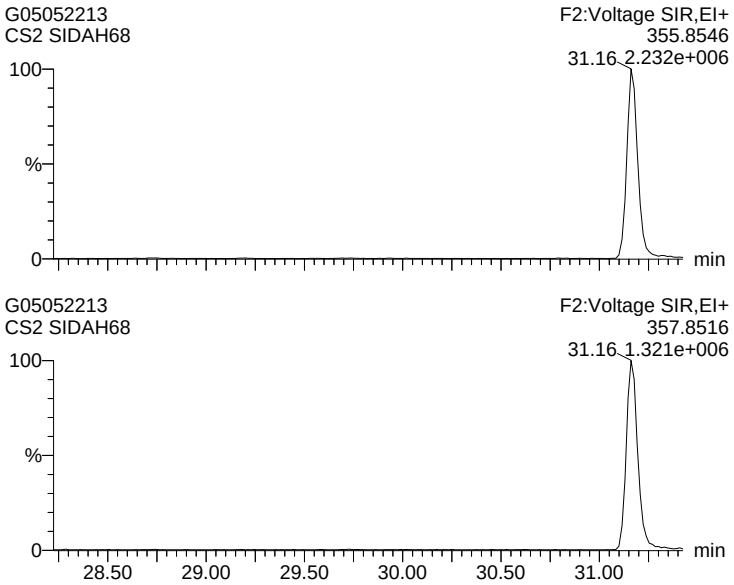




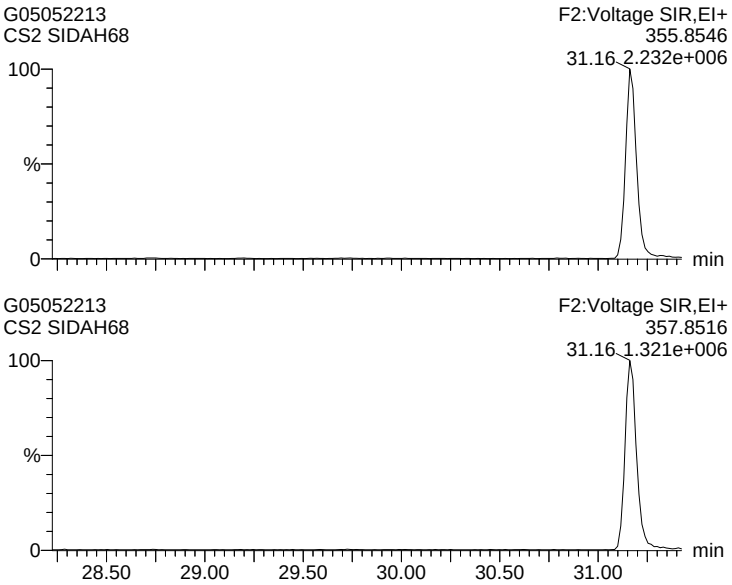
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

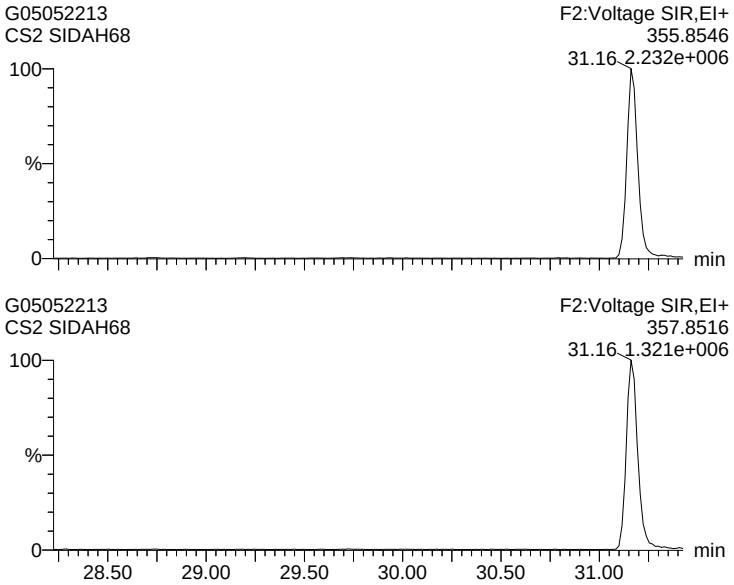
12478-PeCDD



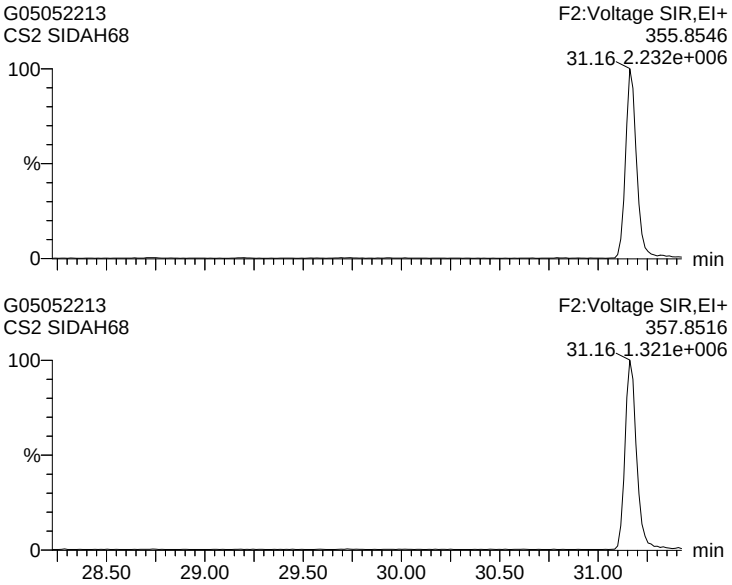
12379-PeCDD



12369/12467/12489-PeCDD



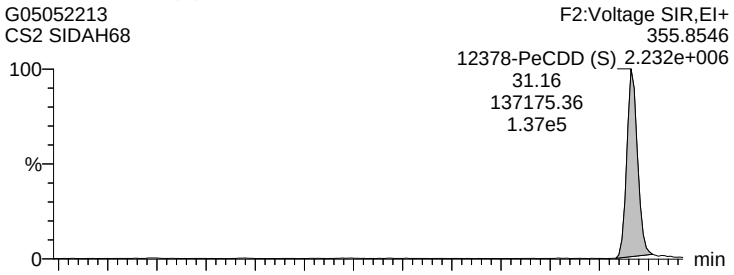
12346/12347-PeCDD

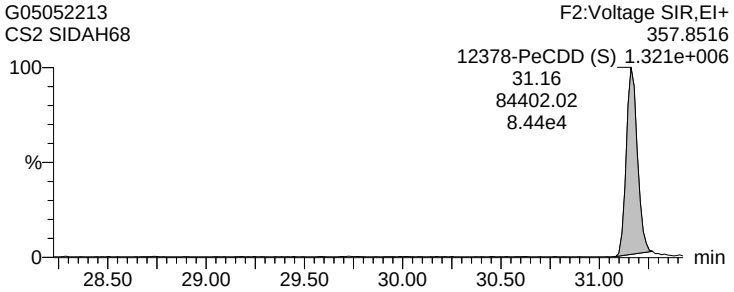


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

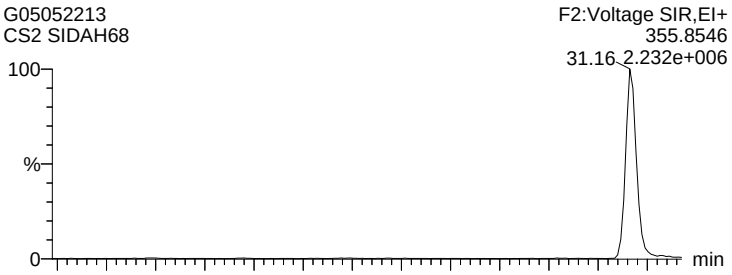
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

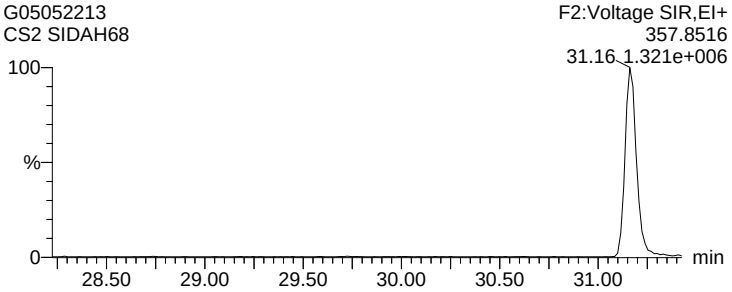
12378-PeCDD (S)



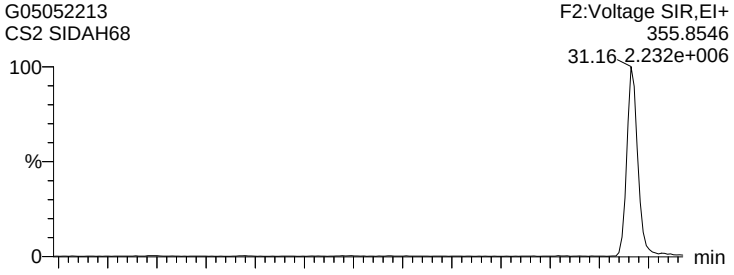


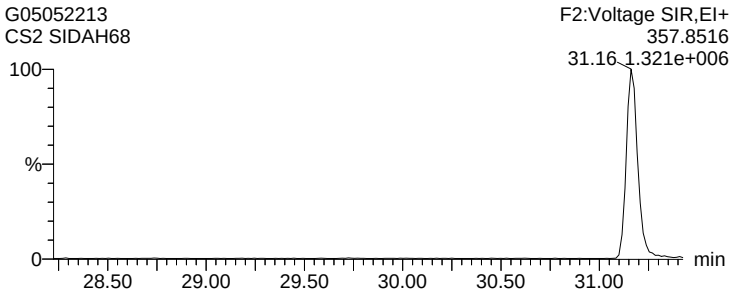
12367-PeCDD



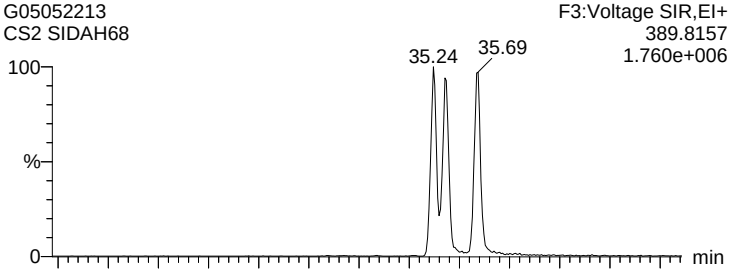


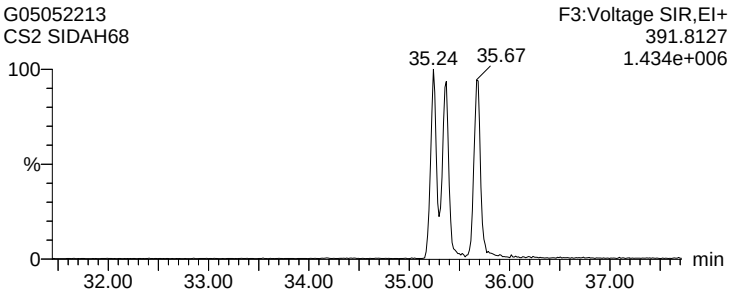
12389-PeCDD





124679/124689-HxCDD

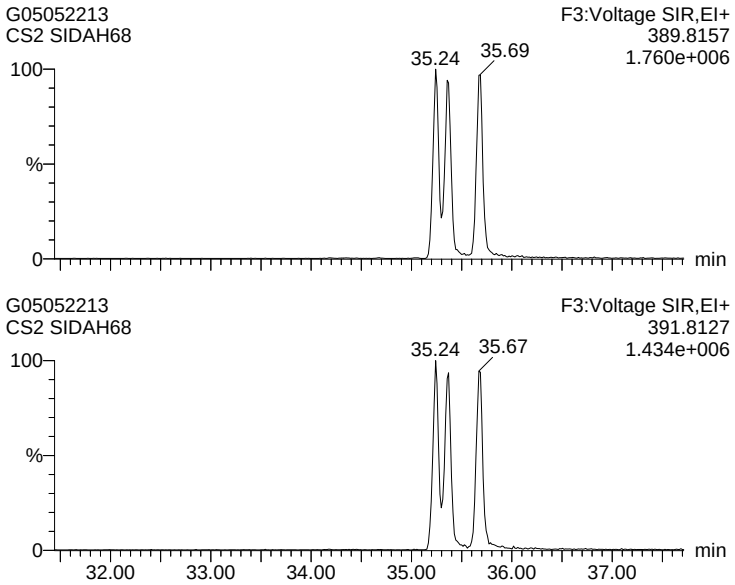




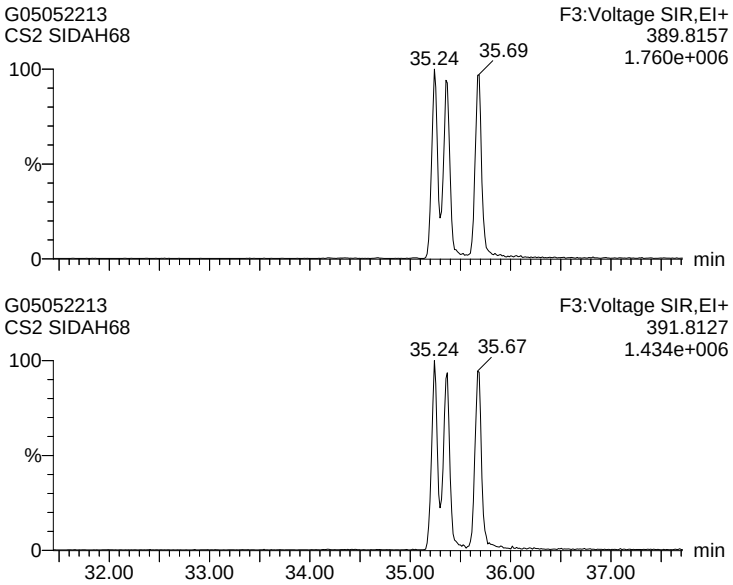
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

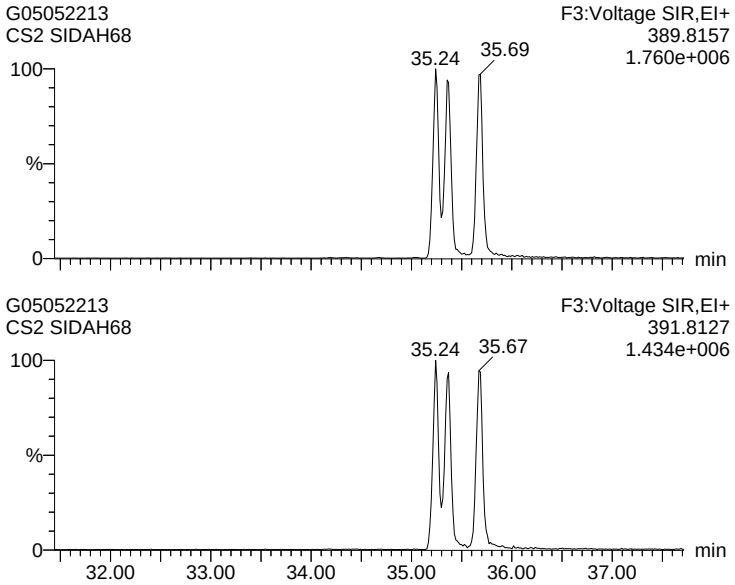
123468-HxCDD



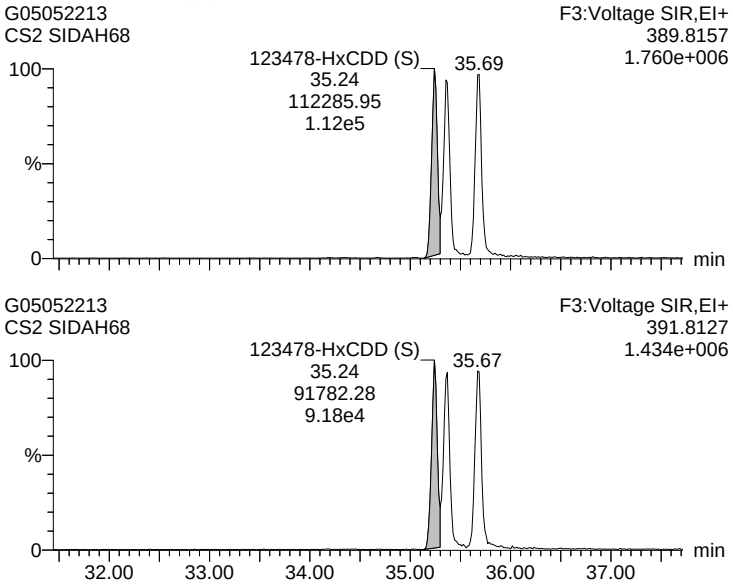
123679/123689-HxCDD



123469-HxCDD



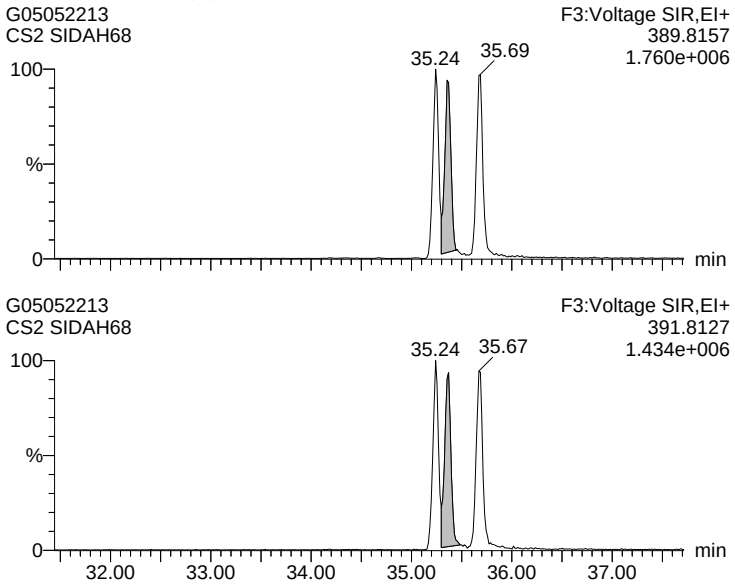
123478-HxCDD (S)



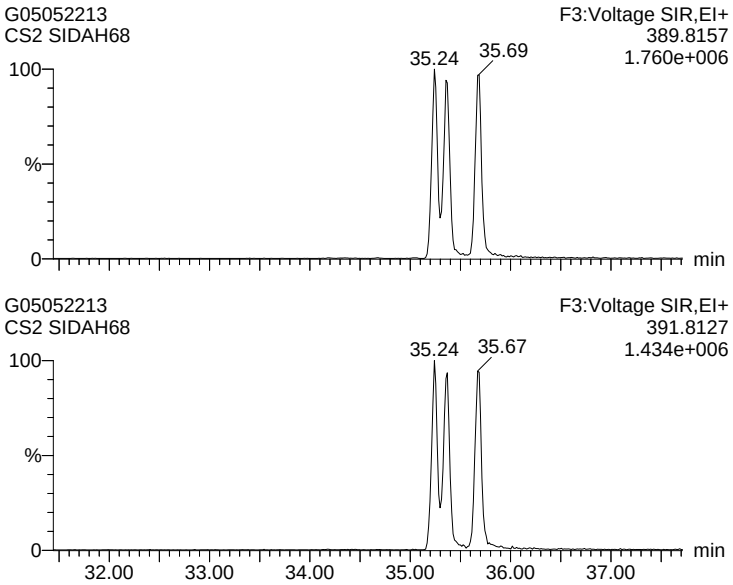
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

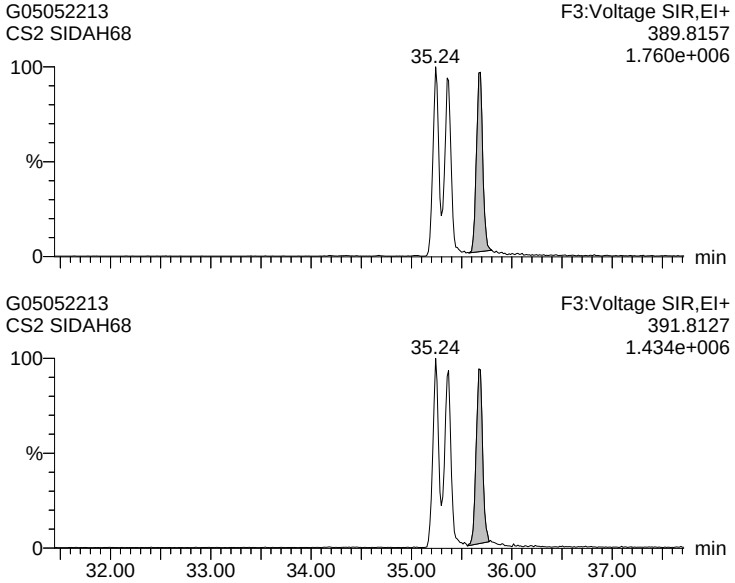
123678-HxCDD (S)



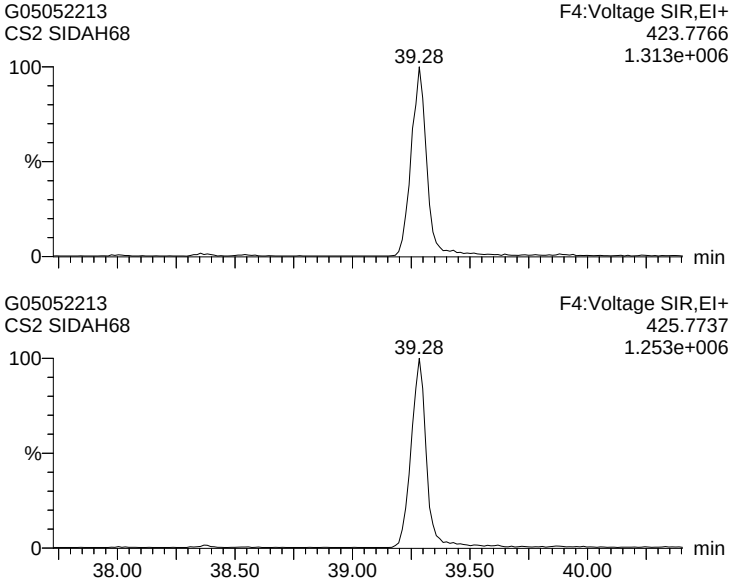
123467-HxCDD



123789-HxCDD (S)



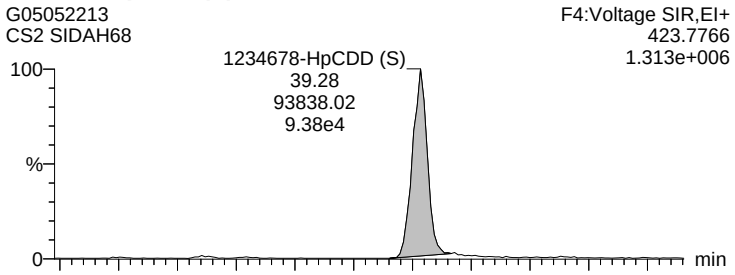
1234679-HpCDD

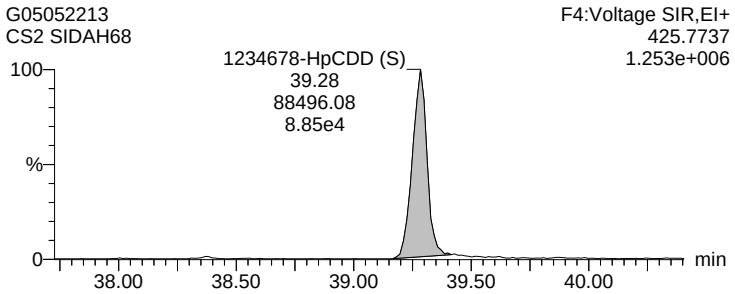


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

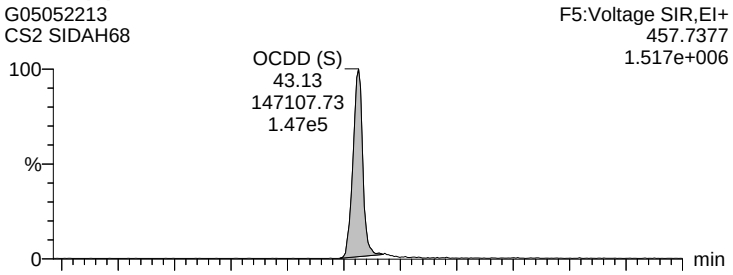
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

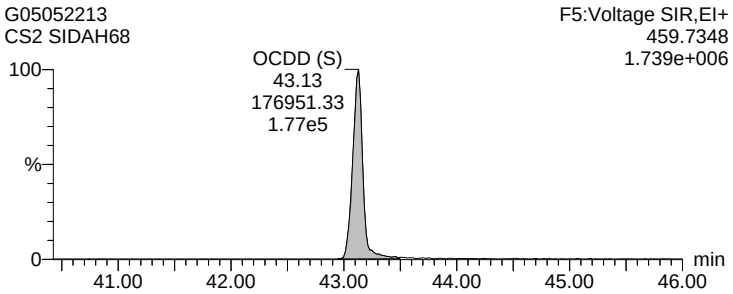
1234678-HpCDD (S)



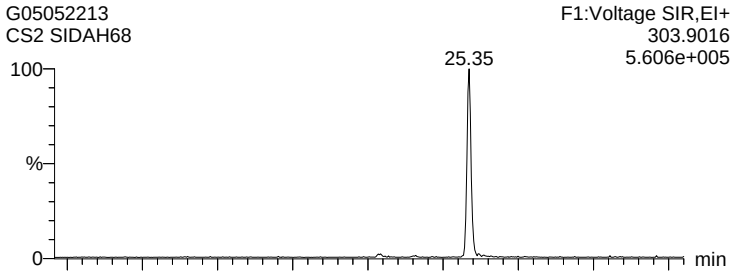


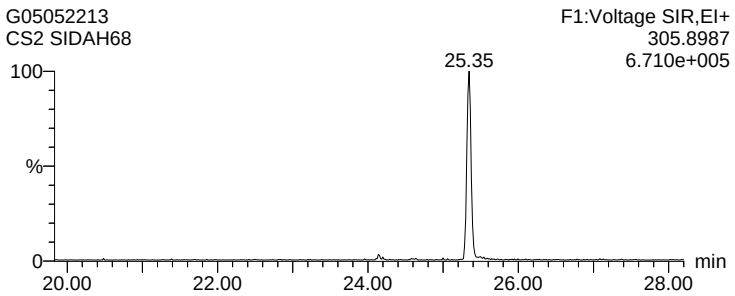
OCDD (S)



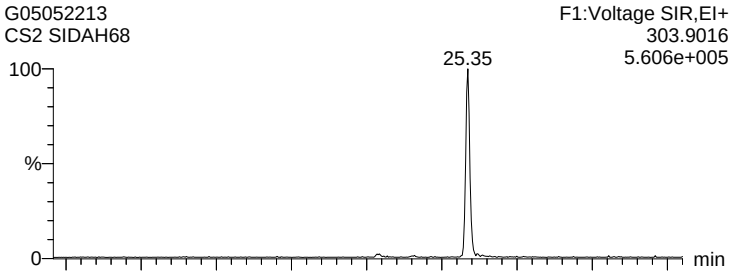


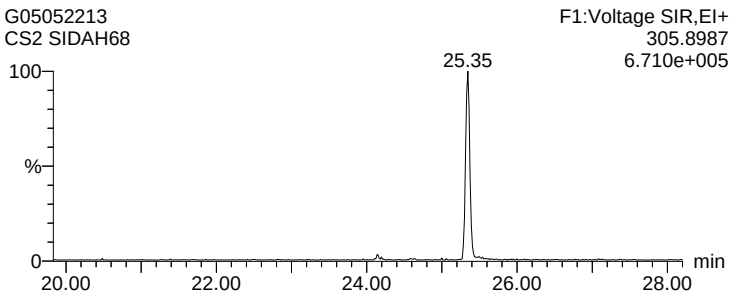
1368-TCDF





1468-TCDF

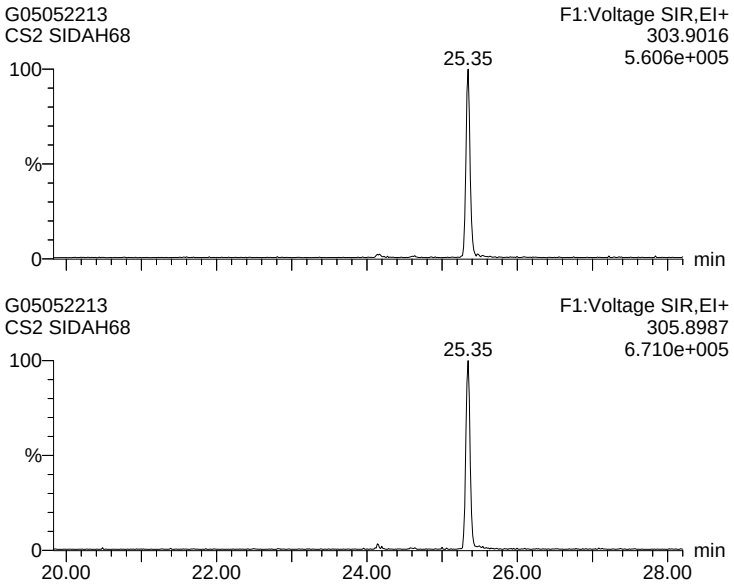




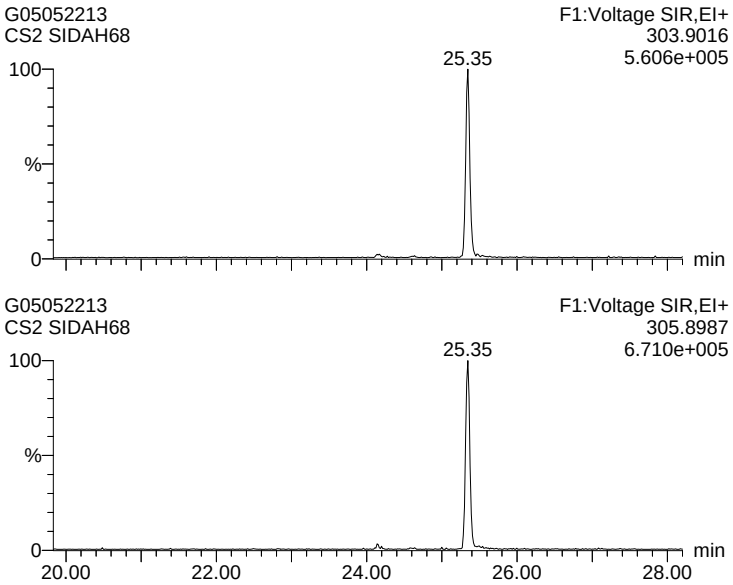
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

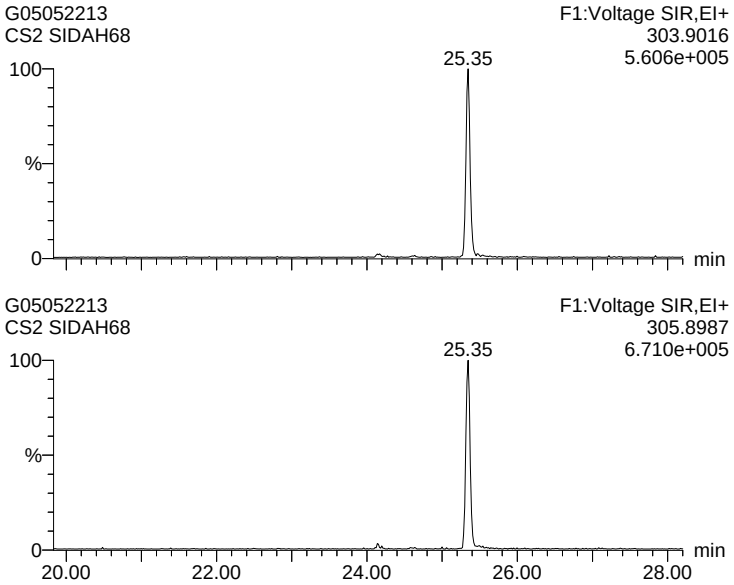
2468-TCDF



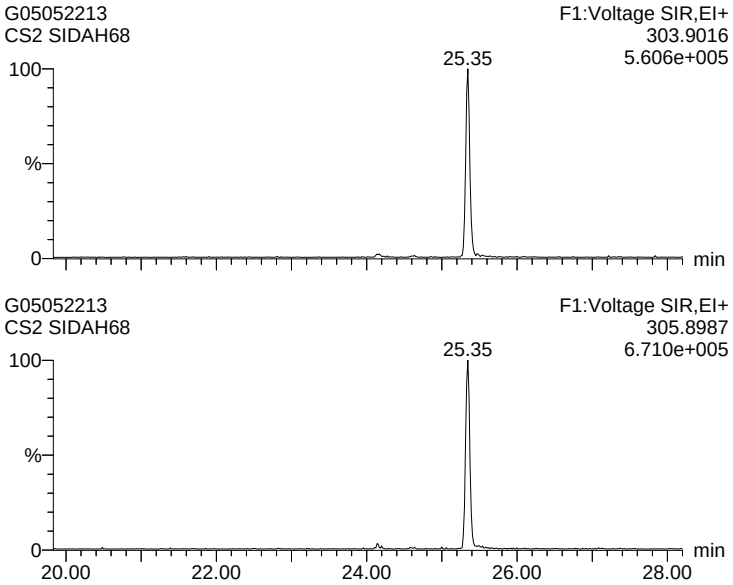
1346/1246-TCDF



1347/1378/1247-TCDF



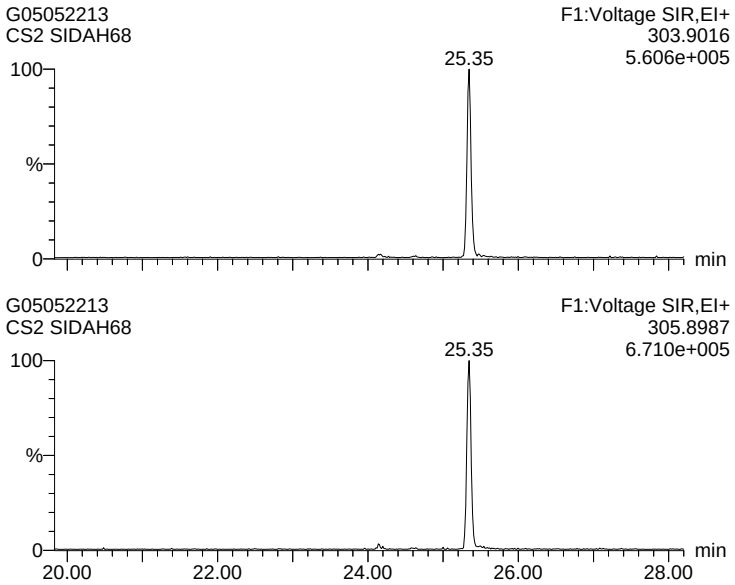
1348-TCDF



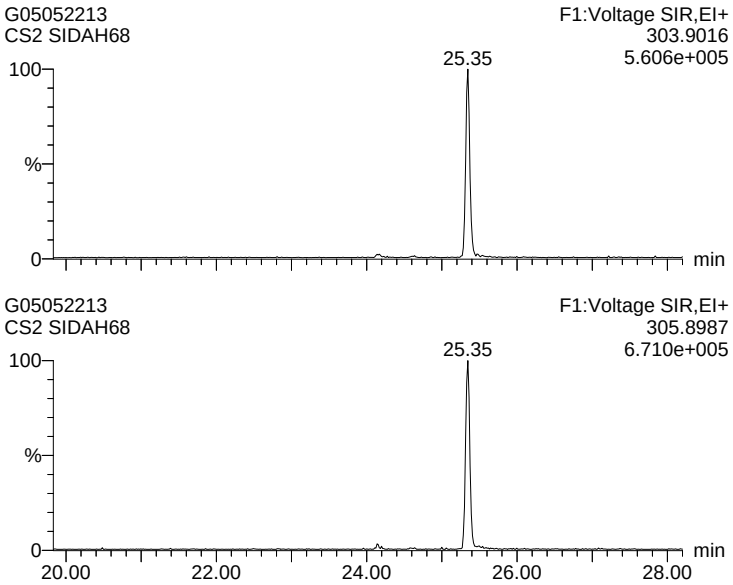
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

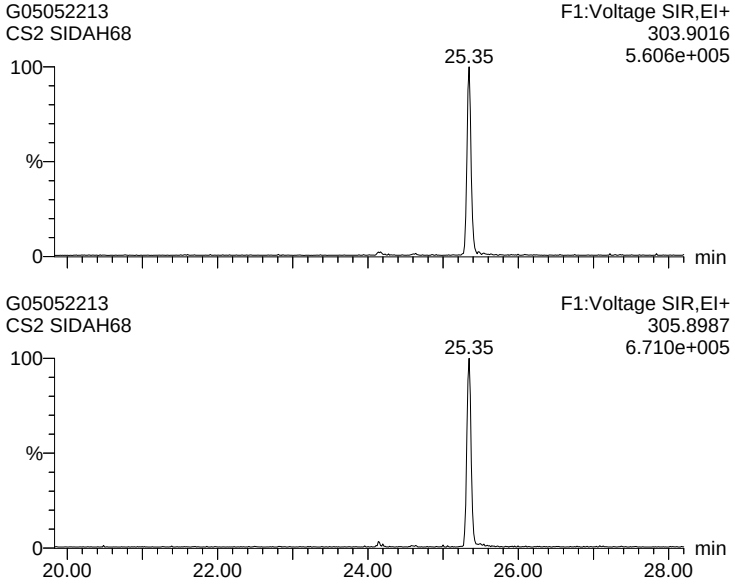
1248/1367/1379-TCDF



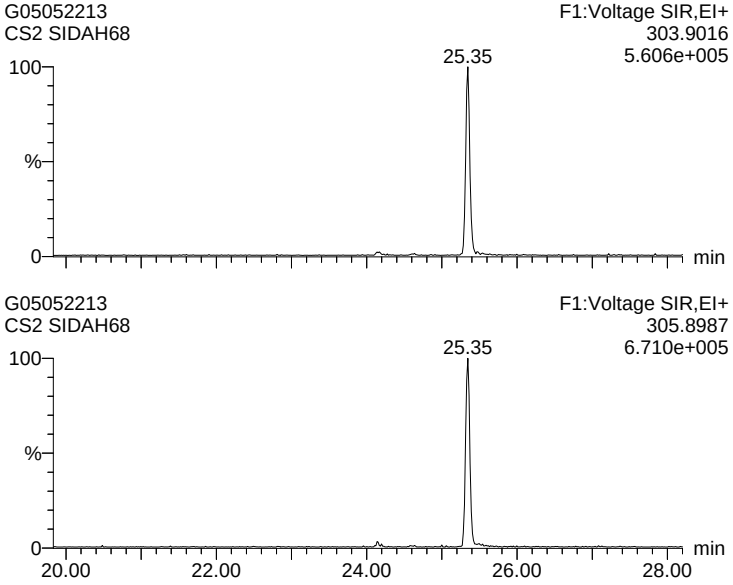
1268-TCDF



1467-TCDF



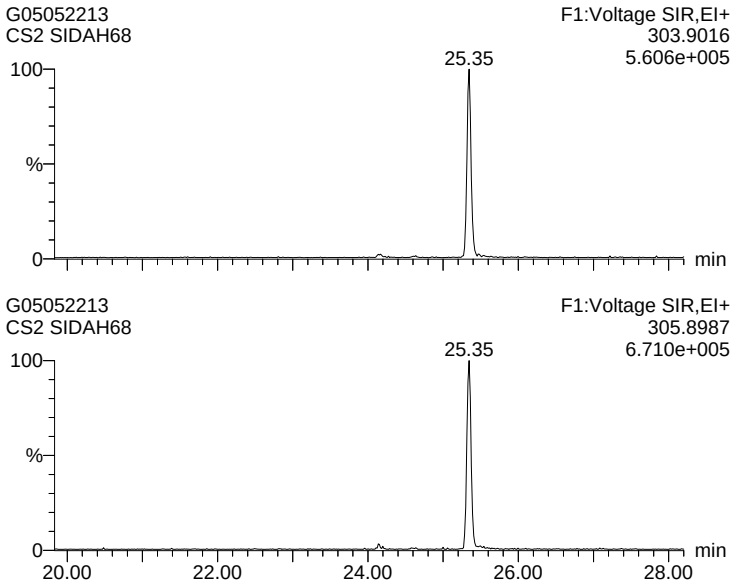
1478-TCDF



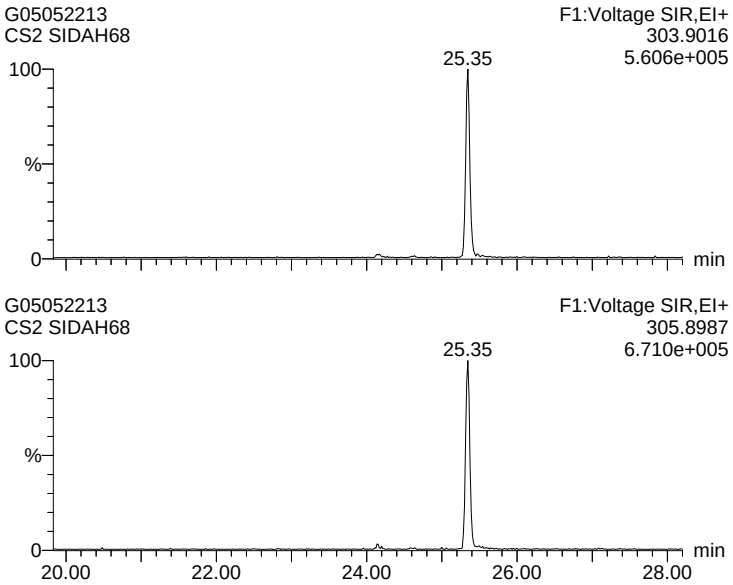
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

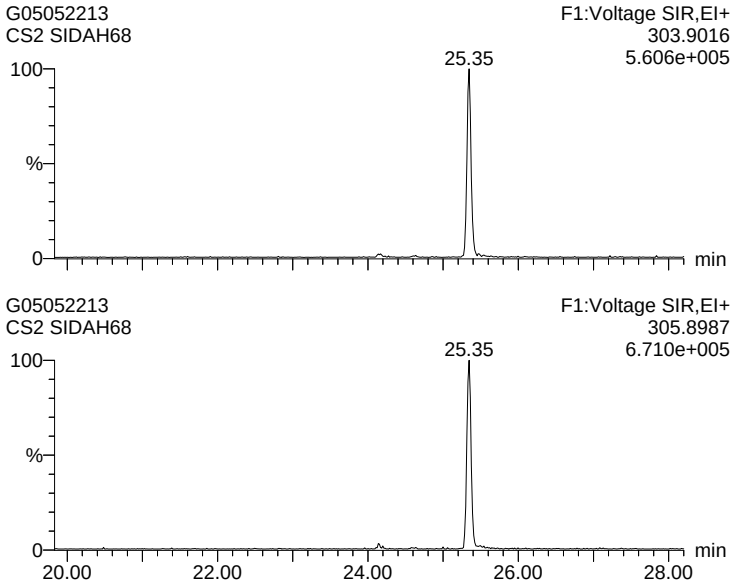
1369/1237-TCDF



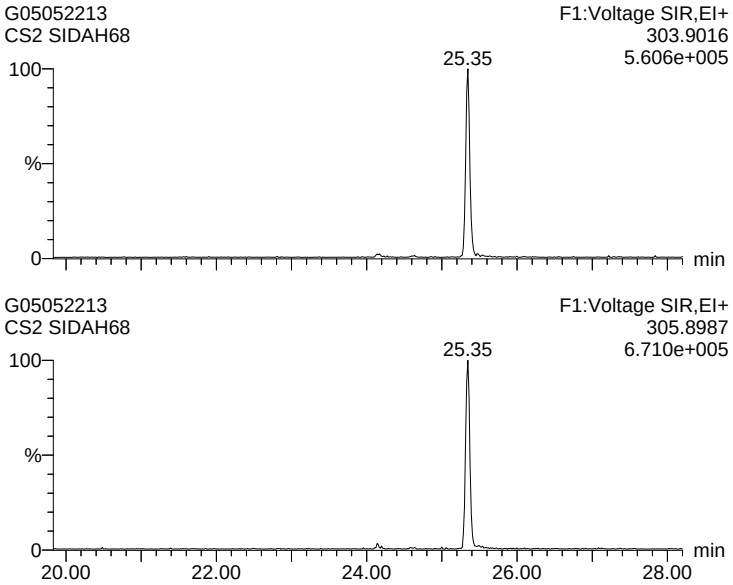
2467-TCDF



2368-TCDF



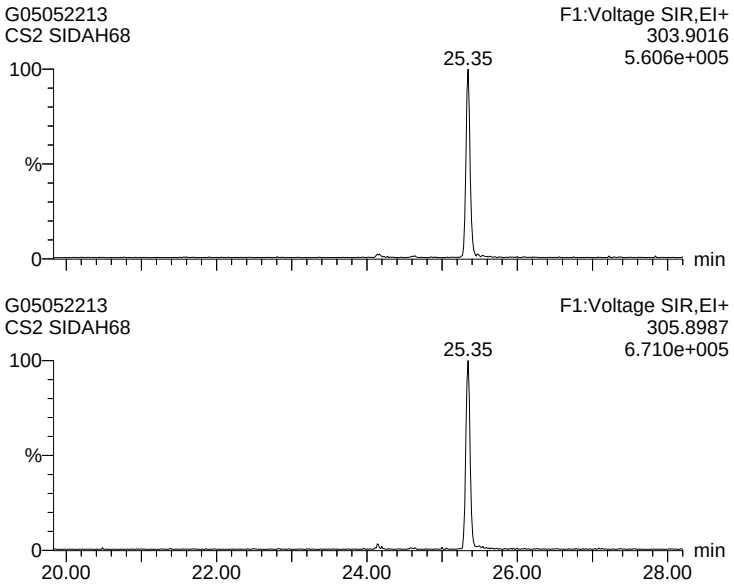
1238/1234/1678/1469/1236-TCDF



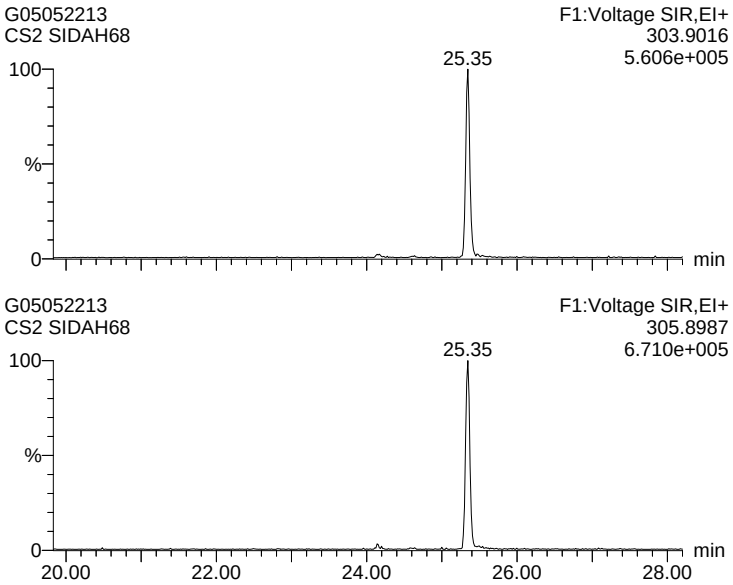
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

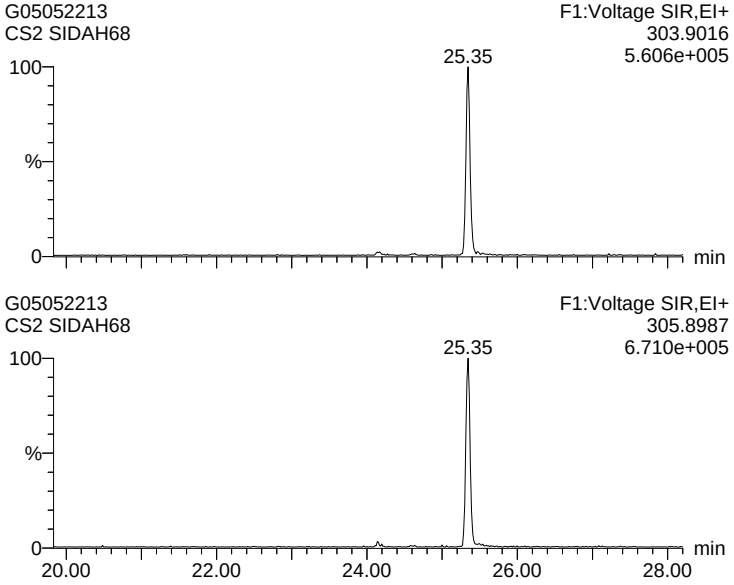
1278-TCDF



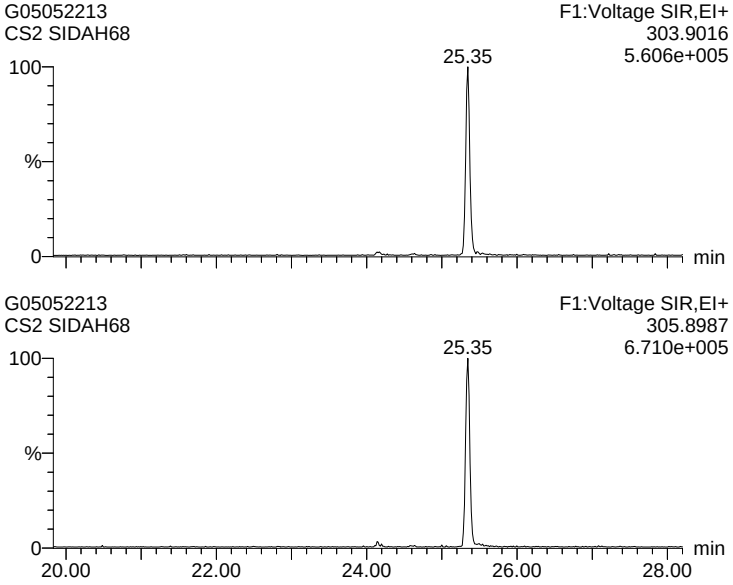
1349-TCDF



1267-TCDF



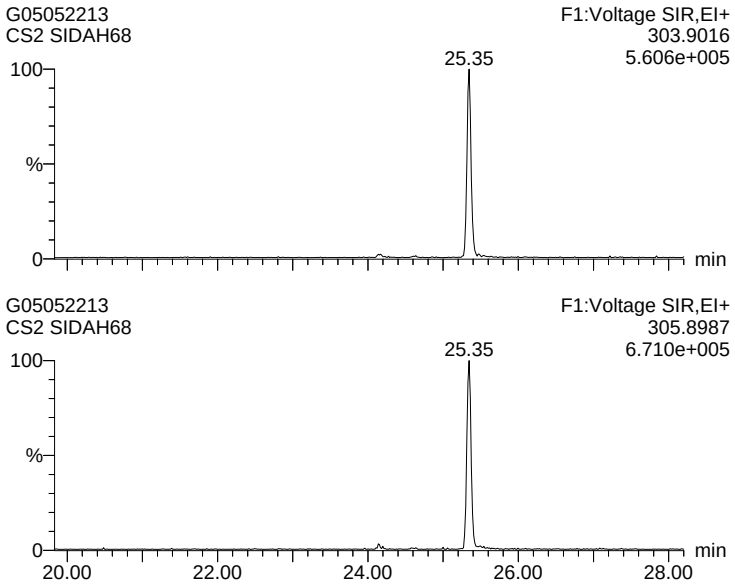
2346/1249-TCDF



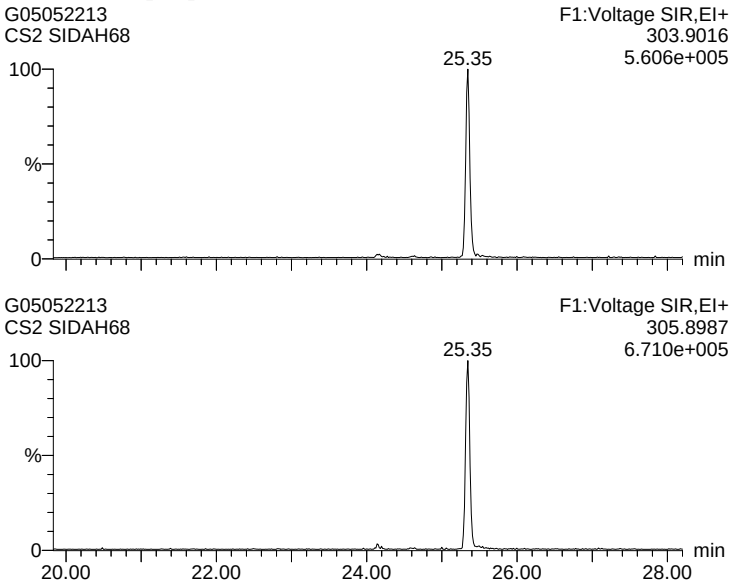
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

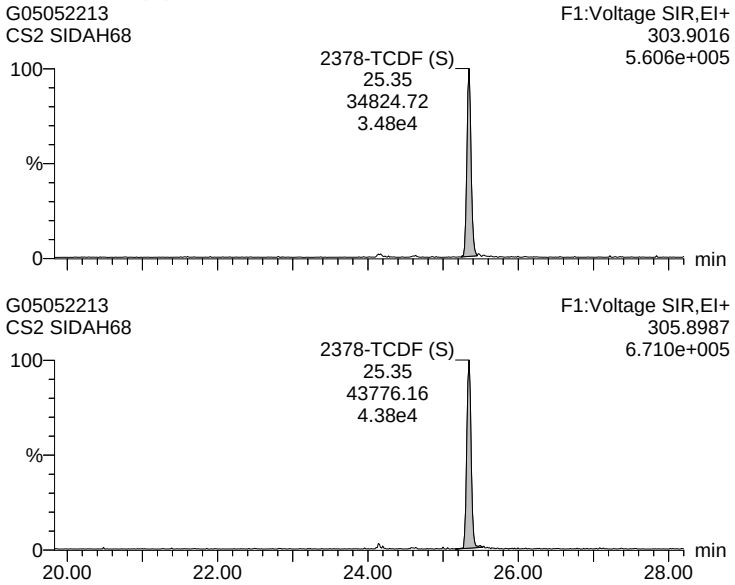
2347/1279-TCDF



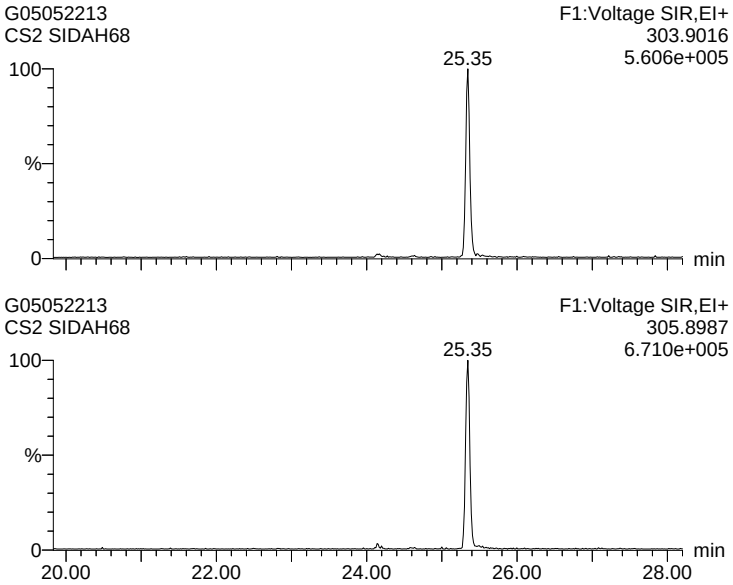
2348-TCDF [CE]



2378-TCDF (S)



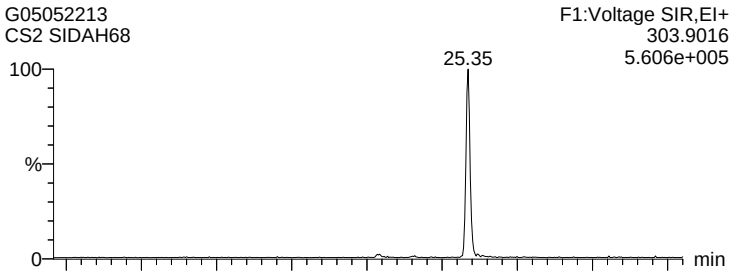
2367/3467-TCDF

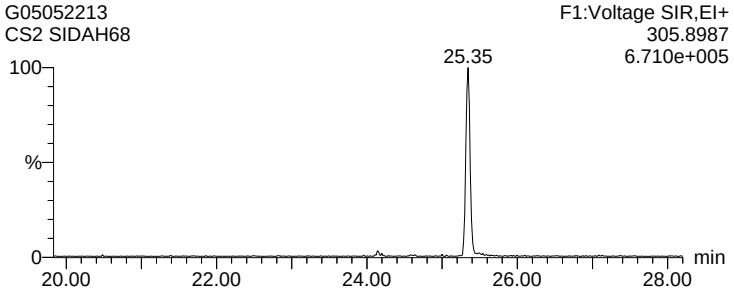


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

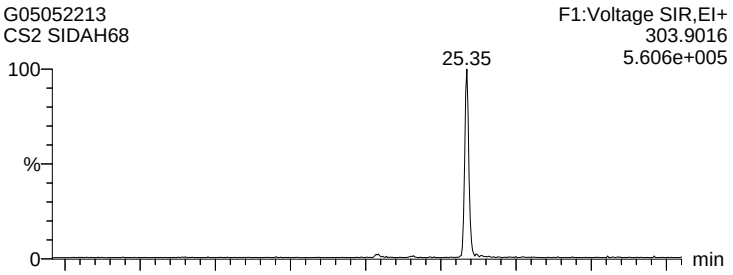
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

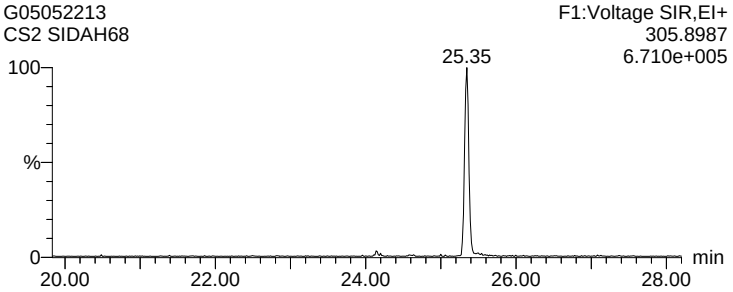
1269-TCDF



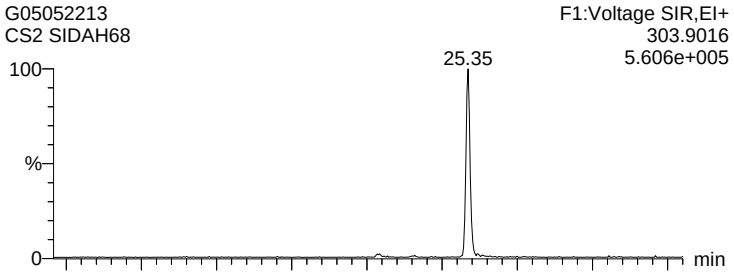


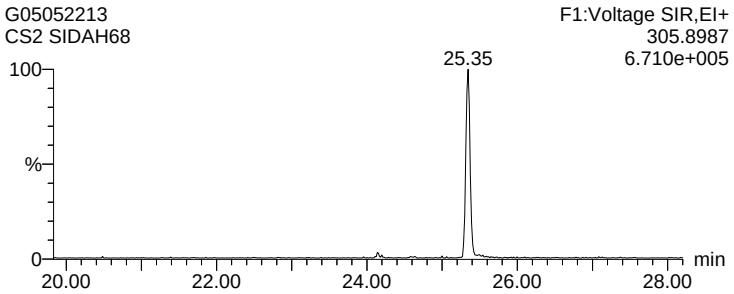
1239-TCDF



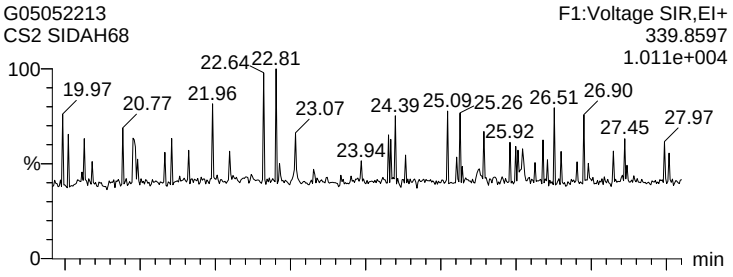


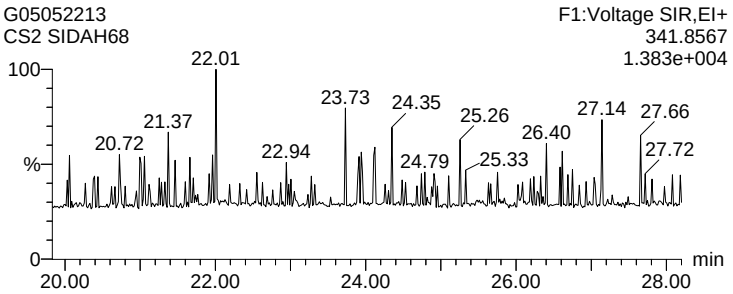
1289-TCDF





13468/12466-PeCDF

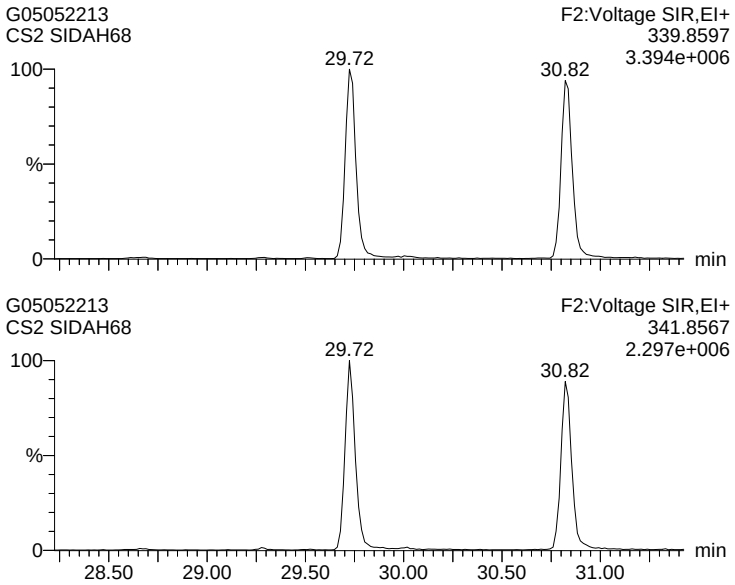




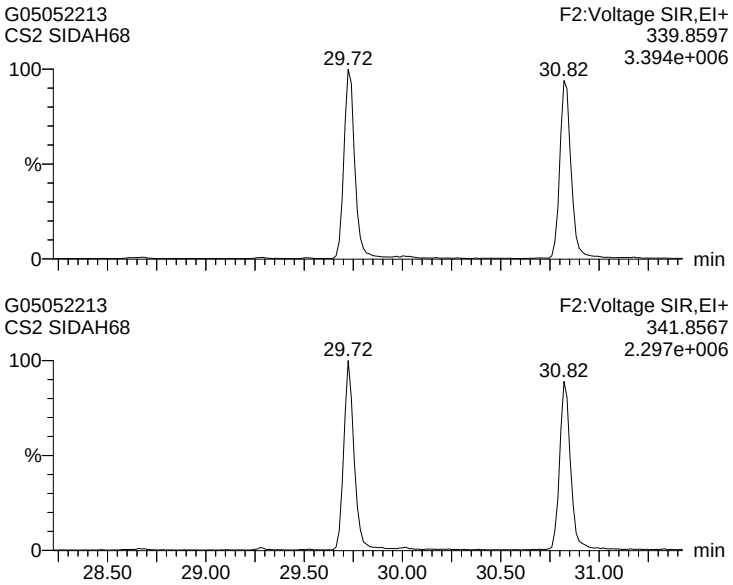
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

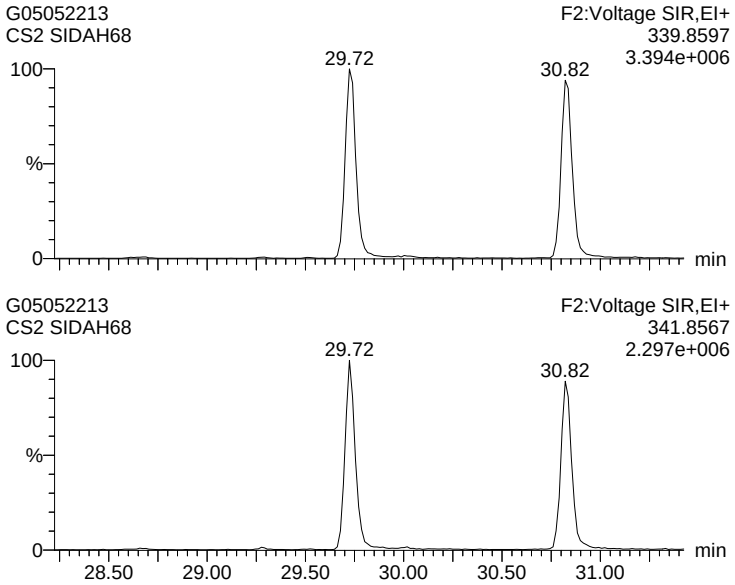
13678/13467/12467-PeCDF



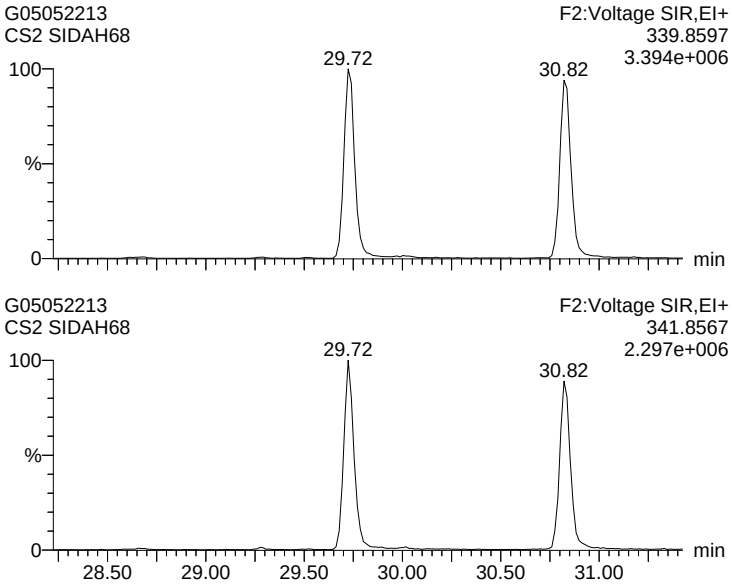
12368/13478/12478-PeCDF



14678-PeCDF



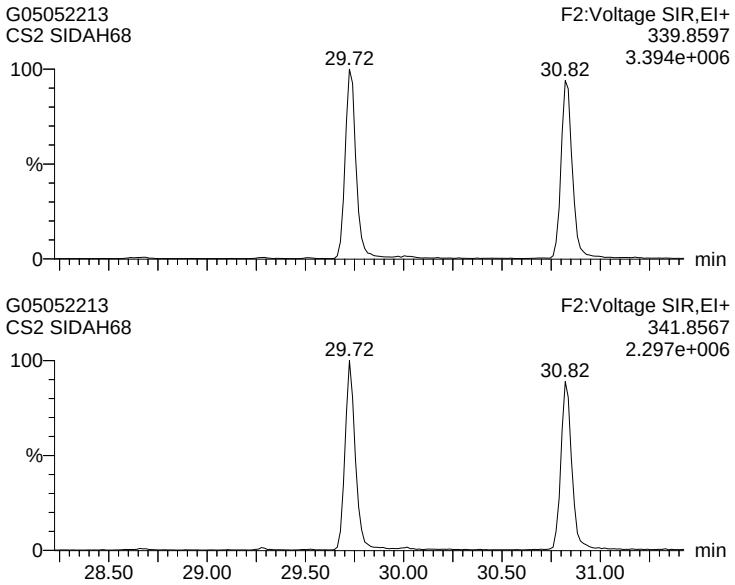
13479-PeCDF



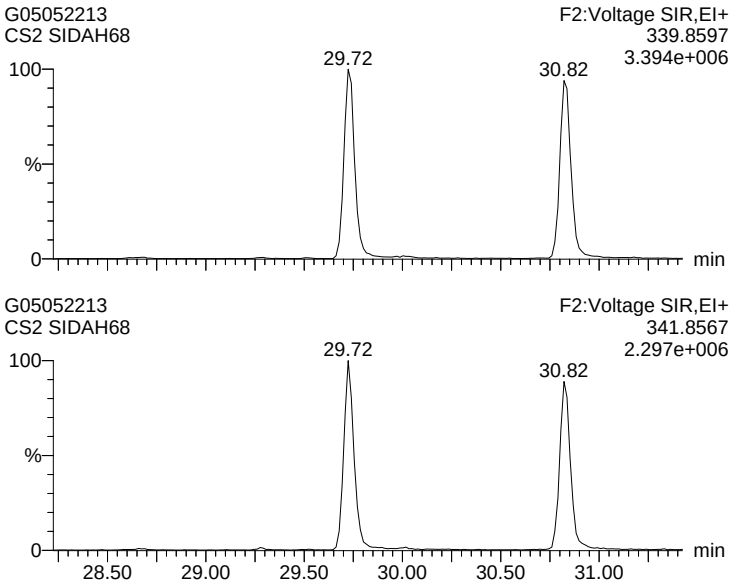
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

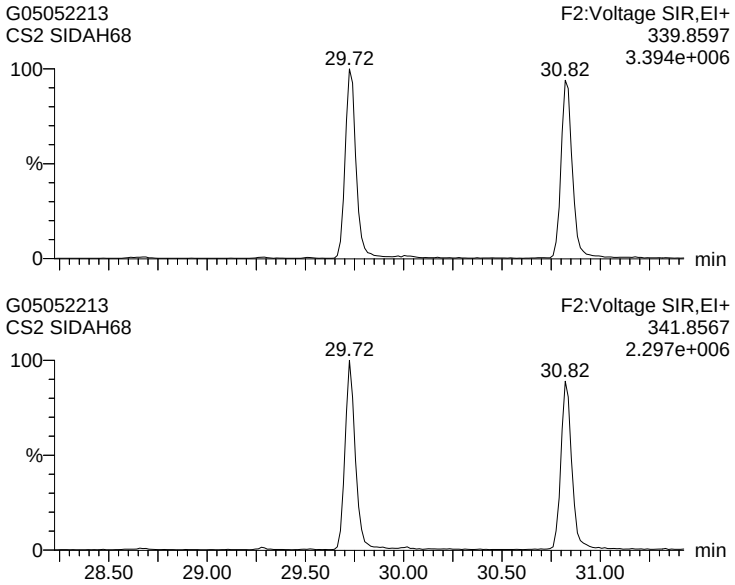
13469/12479-PeCDF



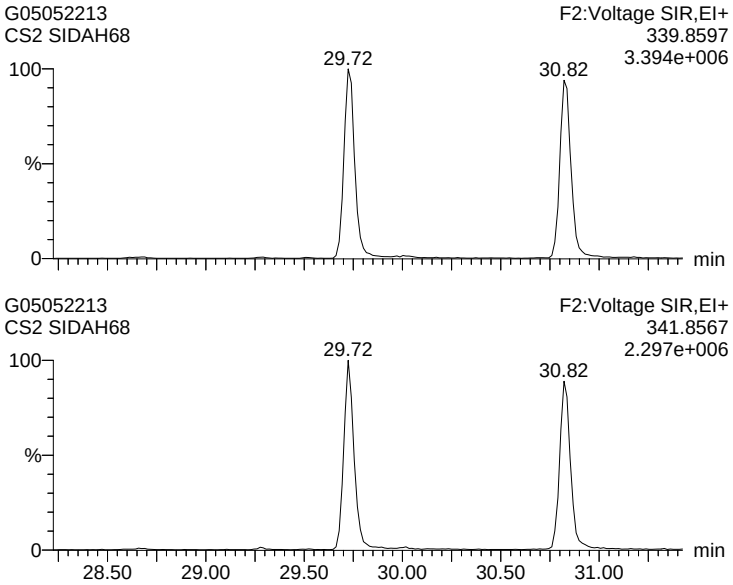
12346-PeCDF



23468/12469-PeCDF



12347-PeCDF



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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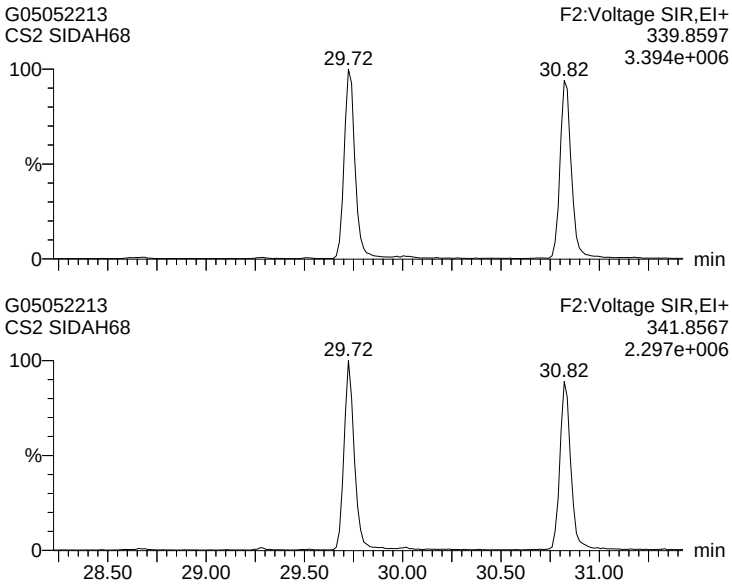
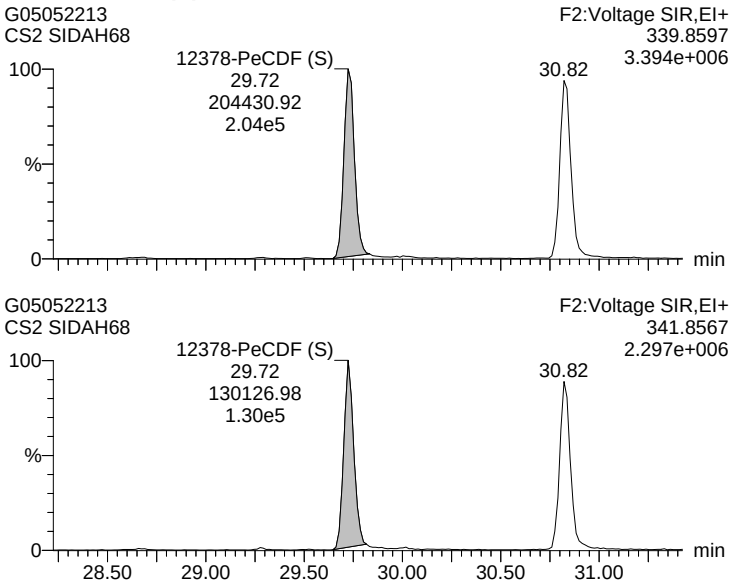
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

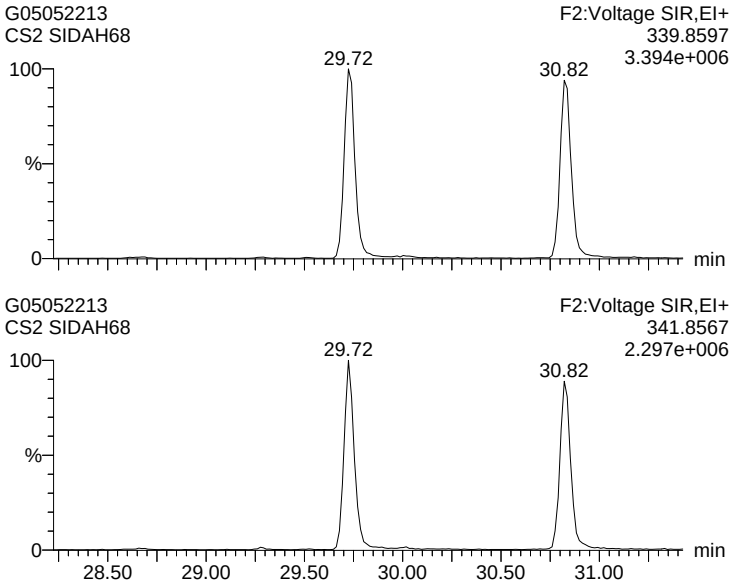
12348-PeCDF



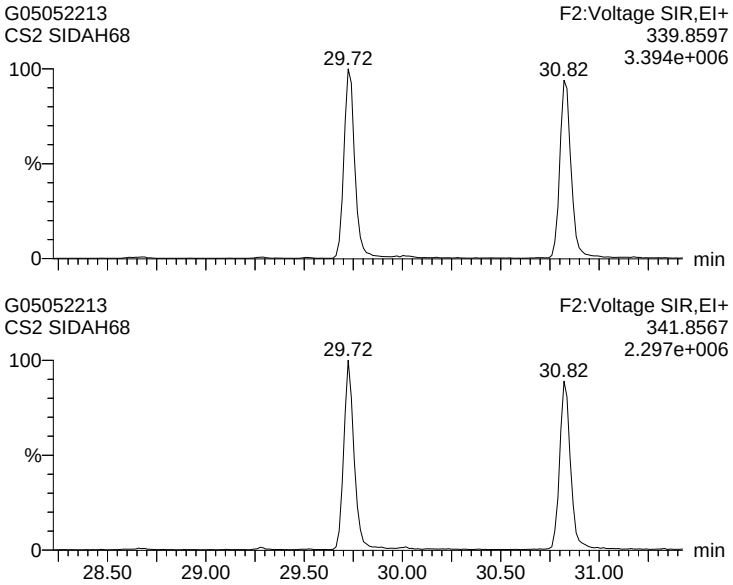
12378-PeCDF (S)



12678/12367-PeCDF



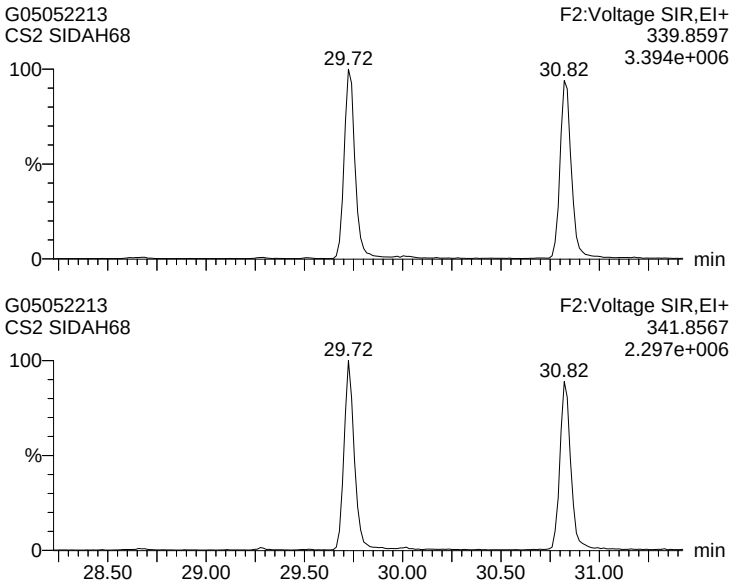
12379-PeCDF



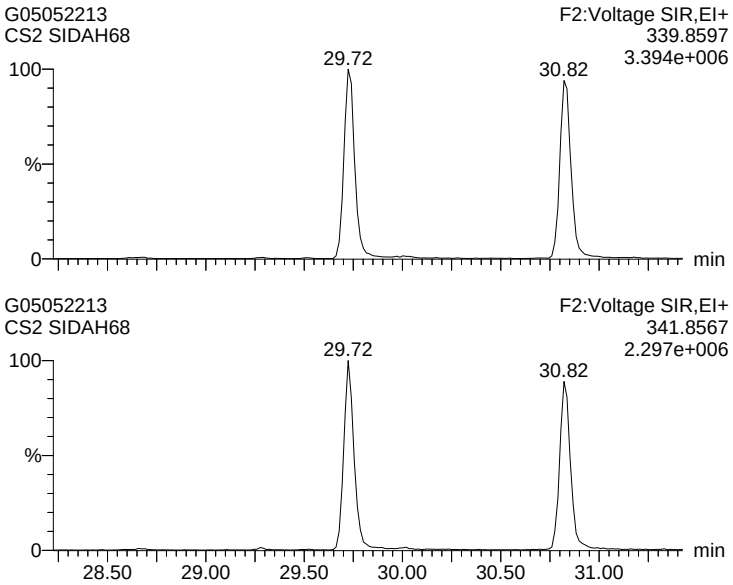
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

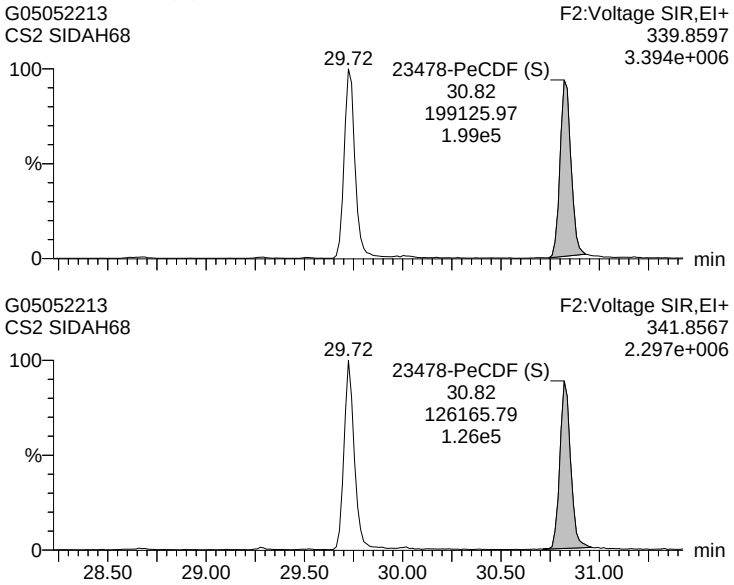
12679-PeCDF



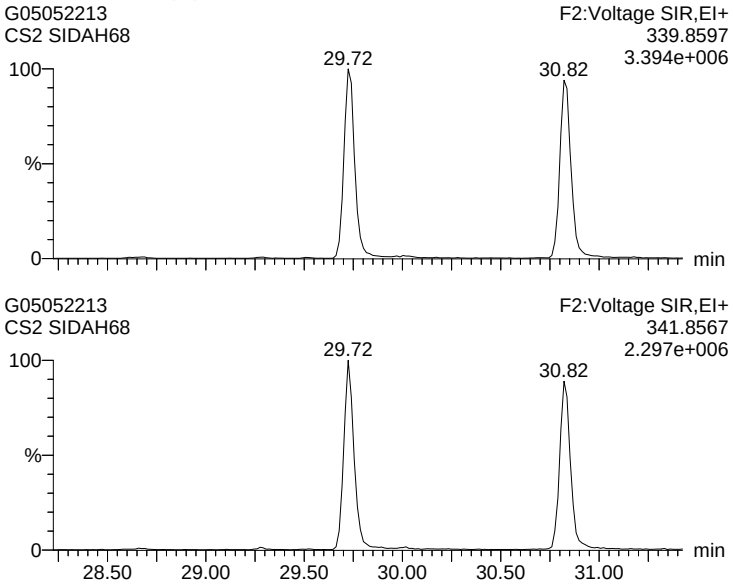
23467/12369-PeCDF



23478-PeCDF (S)



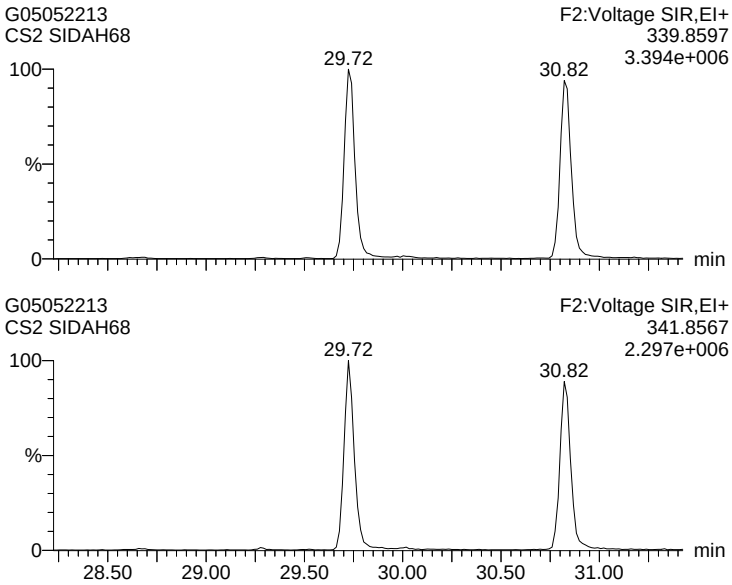
12489-PeCDF (R)



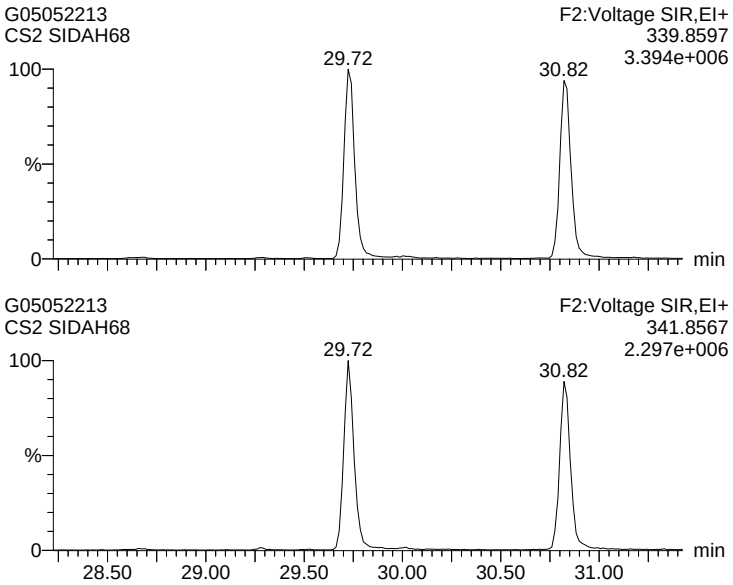
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

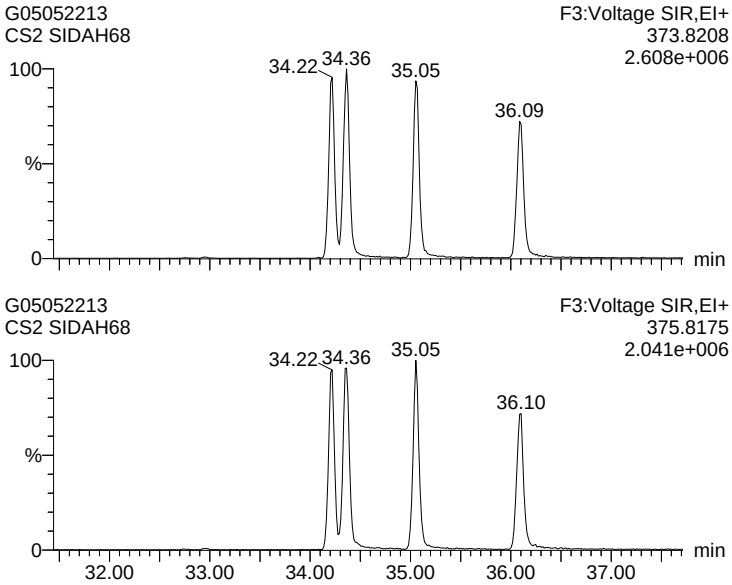
12349-PeCDF



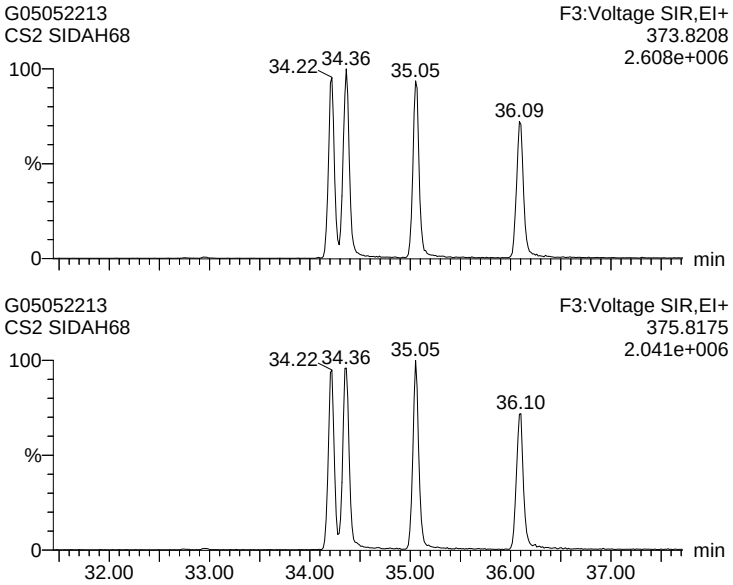
12389-PeCDF



123468-HxCDF



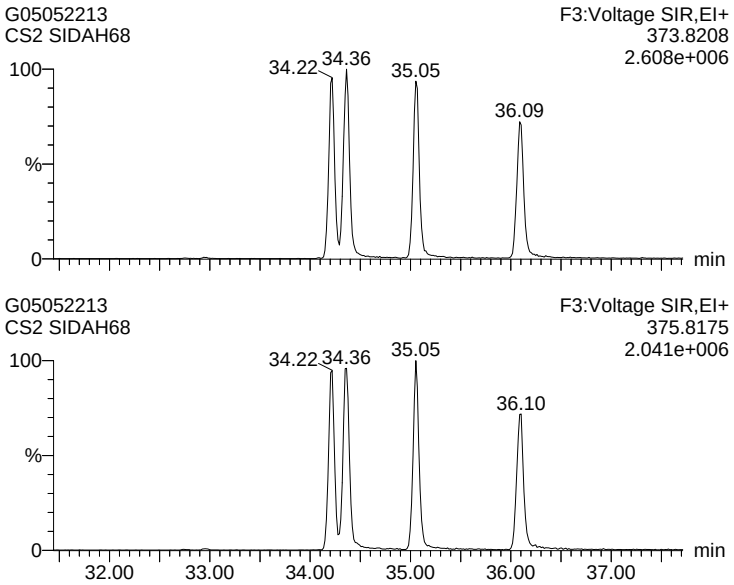
124678/134678-HxCDF



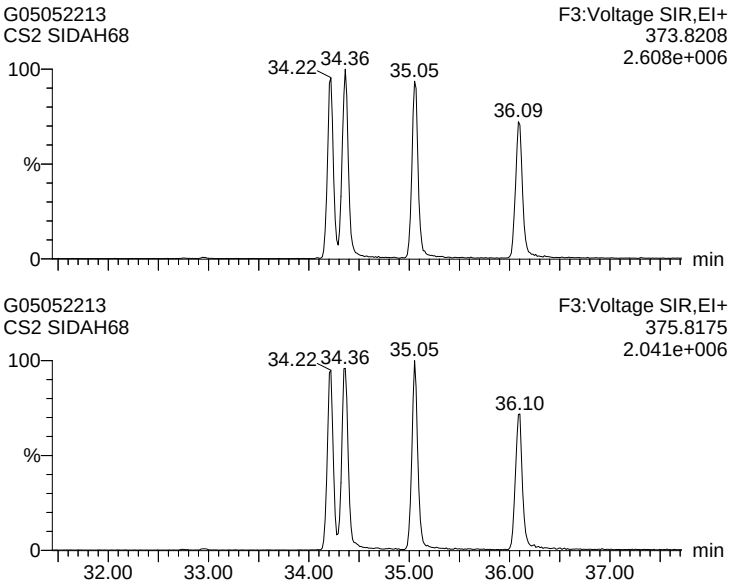
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

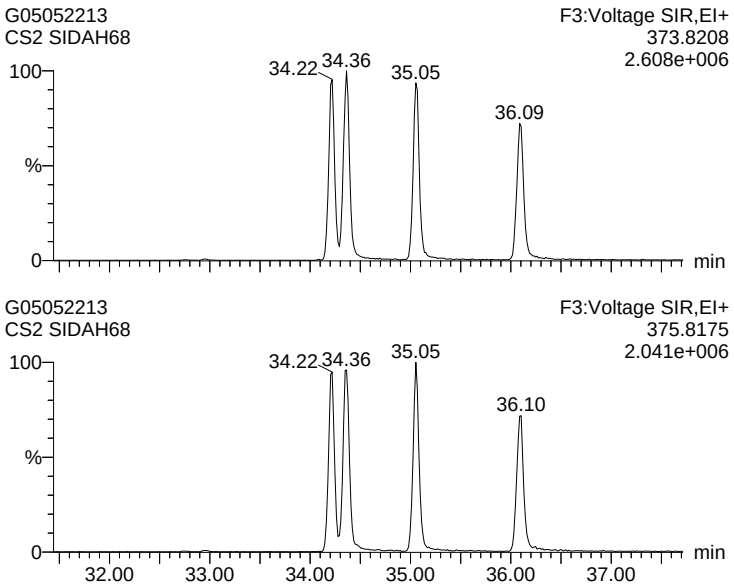
134679-HxCDF



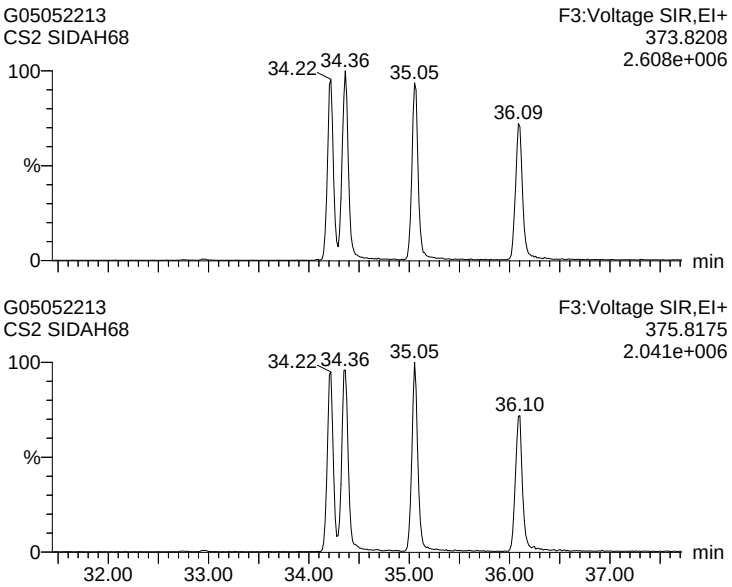
124679-HxCDF



124689-HxCDF



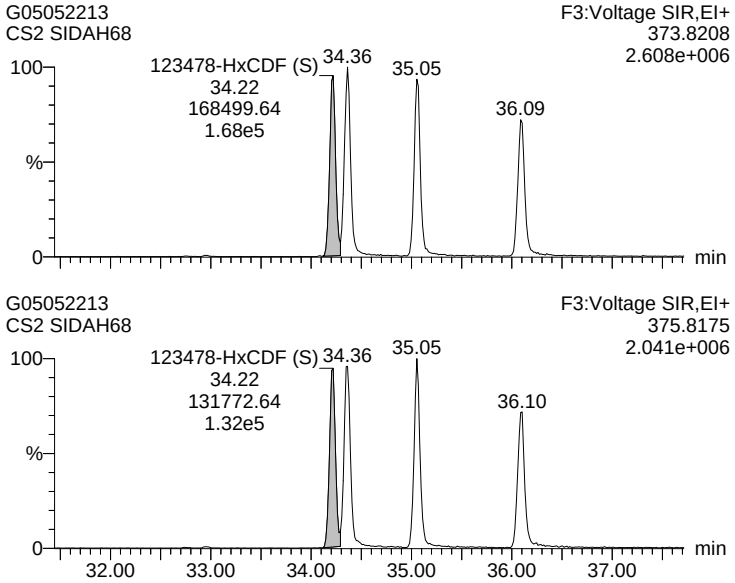
123467-HxCDF



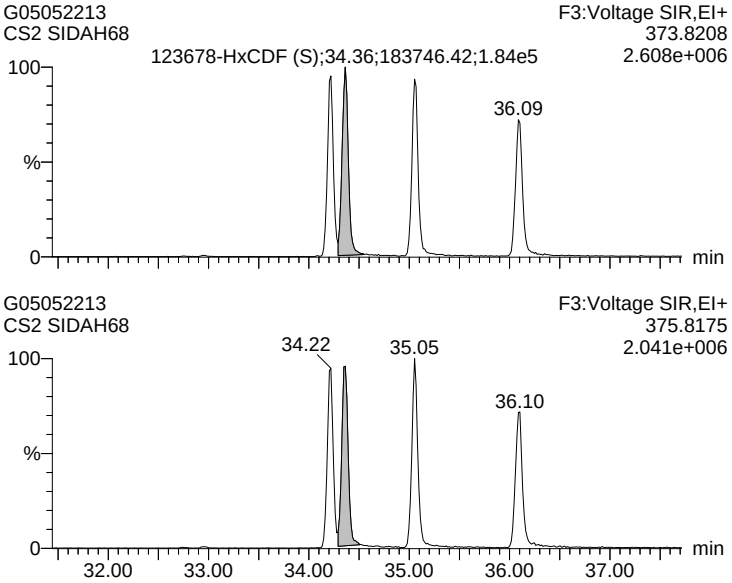
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

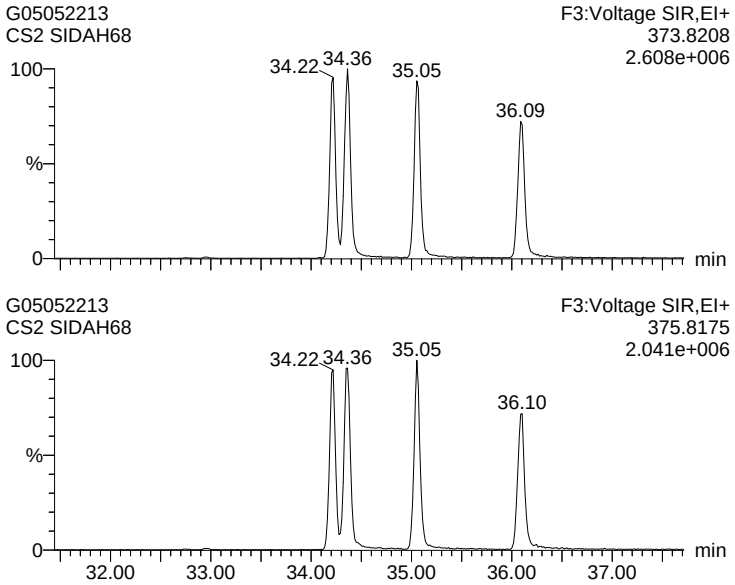
123478-HxCDF (S)



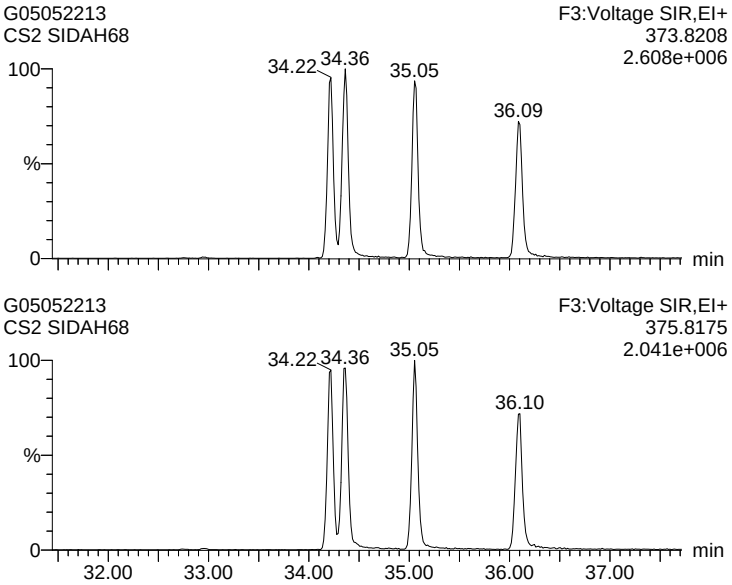
123678-HxCDF (S)



123479-HxCDF



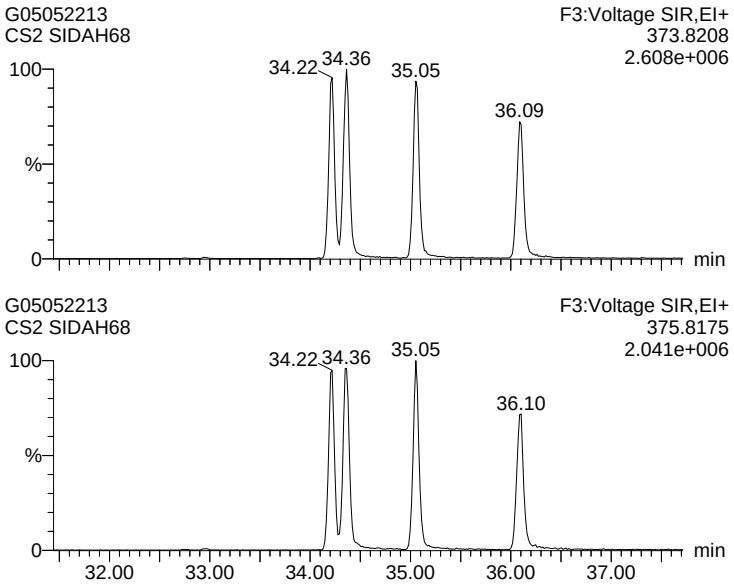
123469-HxCDF



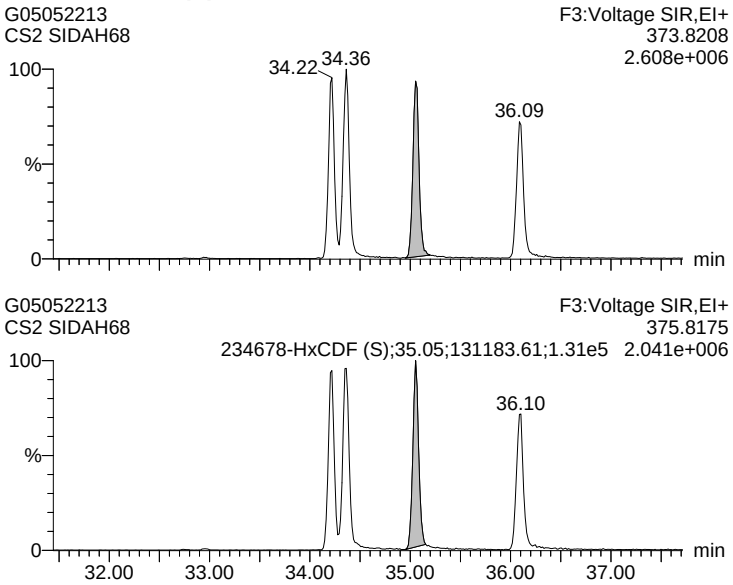
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

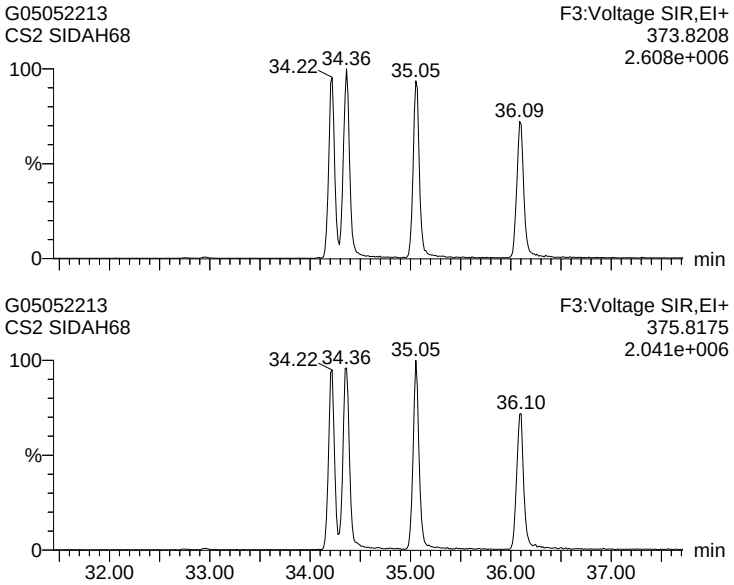
123679-HxCDF



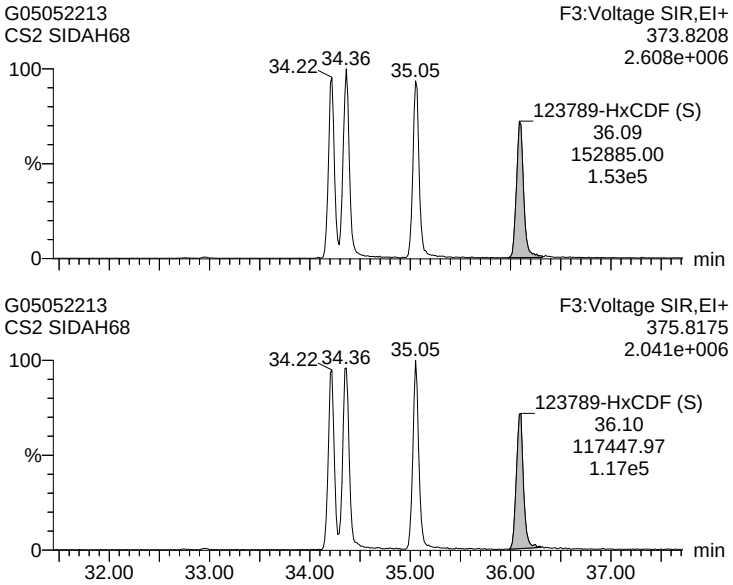
234678-HxCDF (S)



123689-HxCDF (NR)



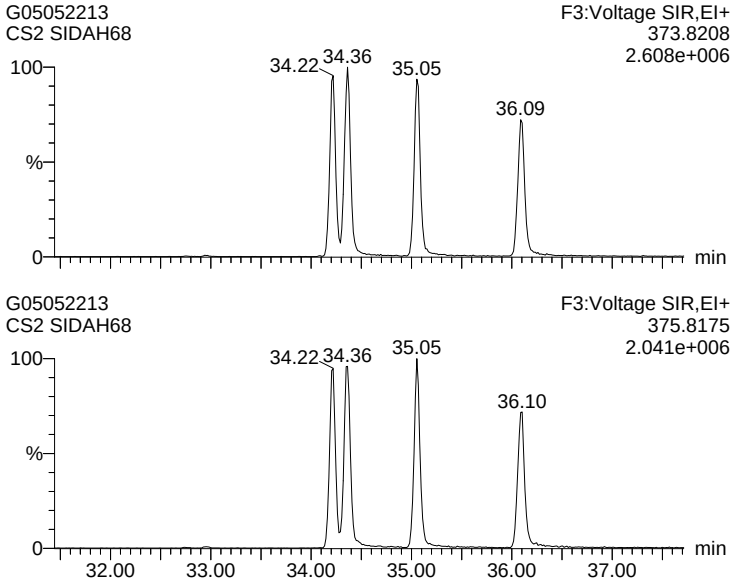
123789-HxCDF (S)



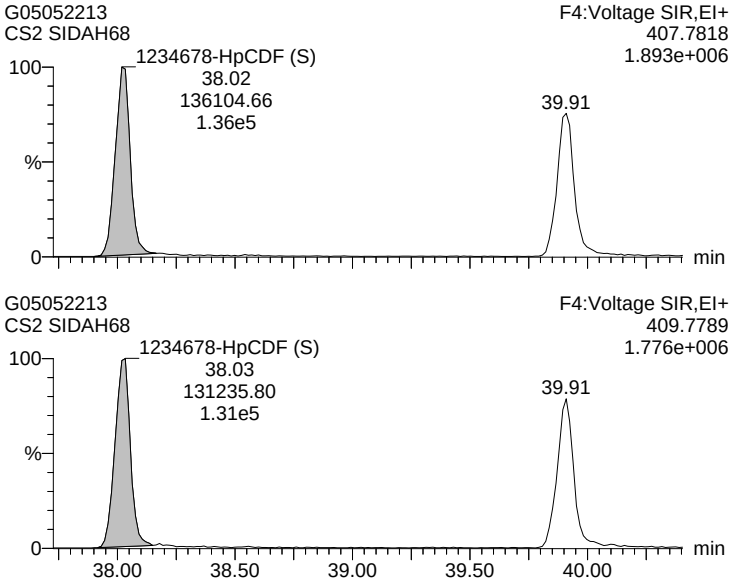
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

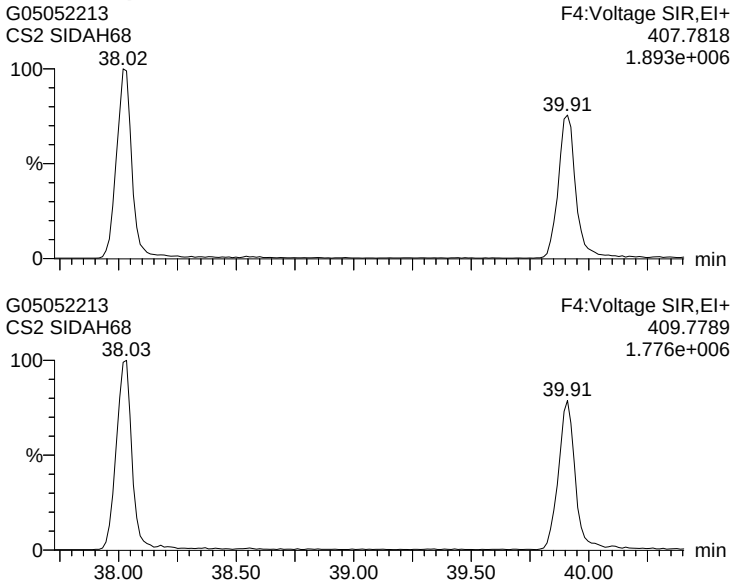
123489-HxCDF (R)



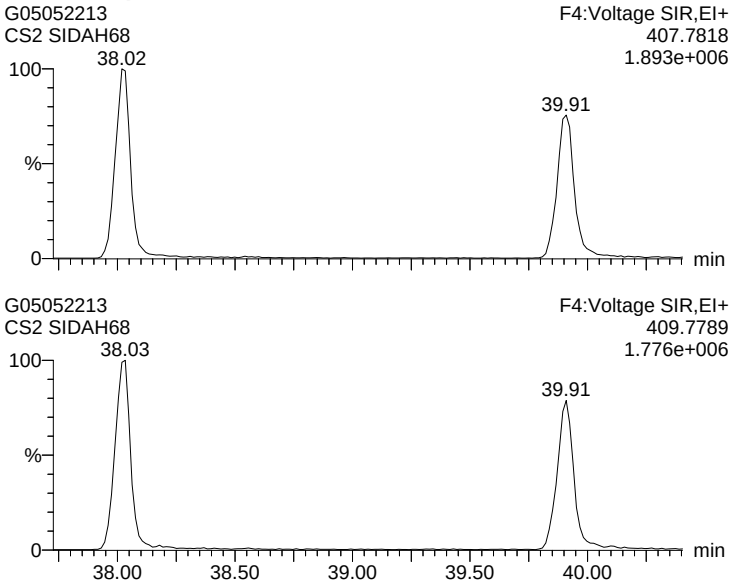
1234678-HpCDF (S)



1234679-HpCDF



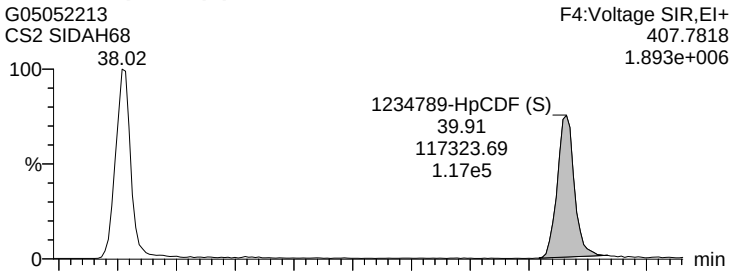
1234689-HpCDF

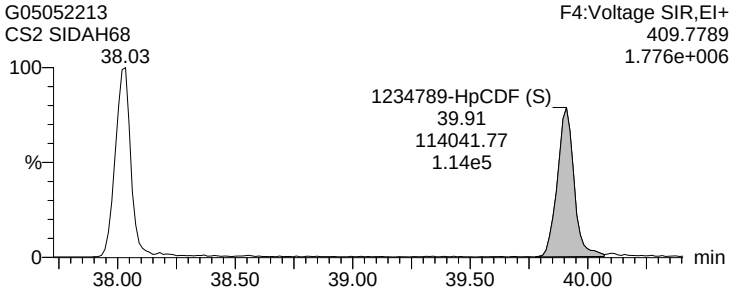


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

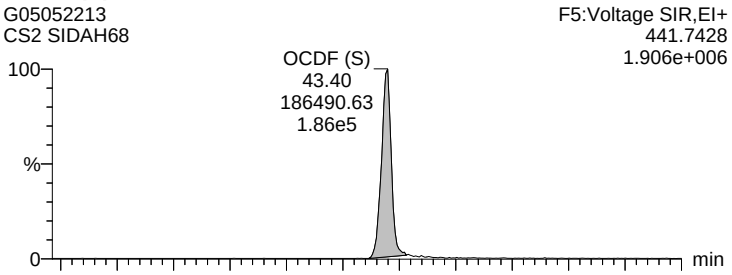
Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

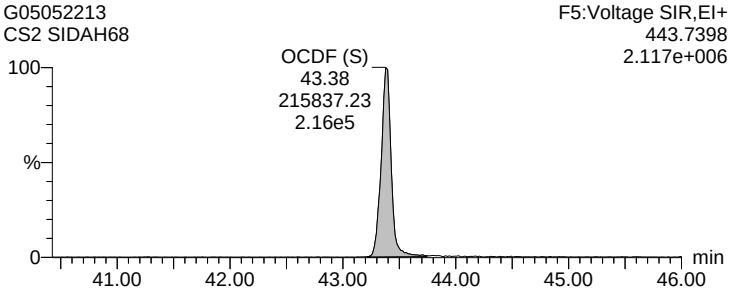
1234789-HpCDF (S)



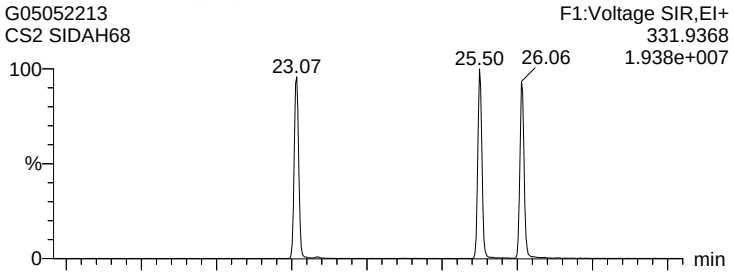


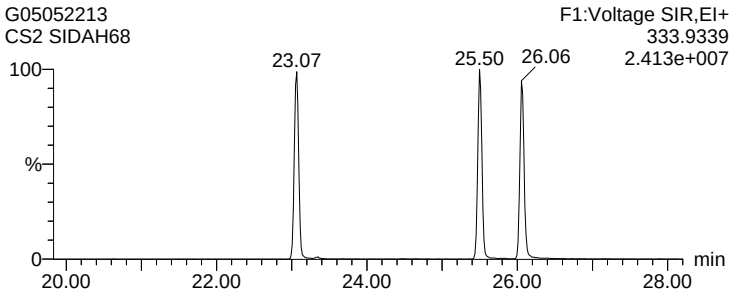
OCDF (S)



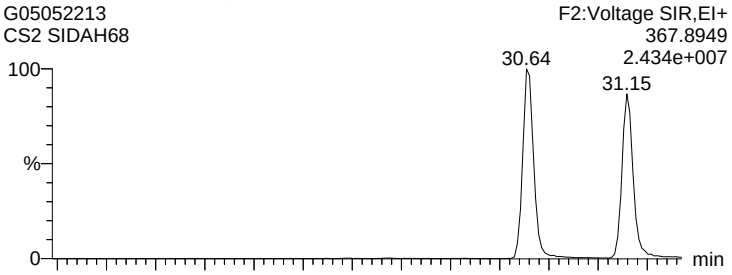


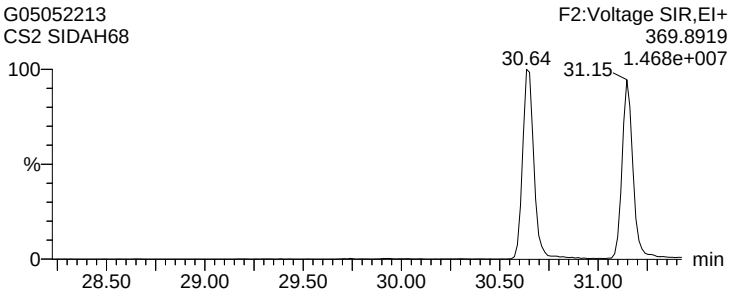
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

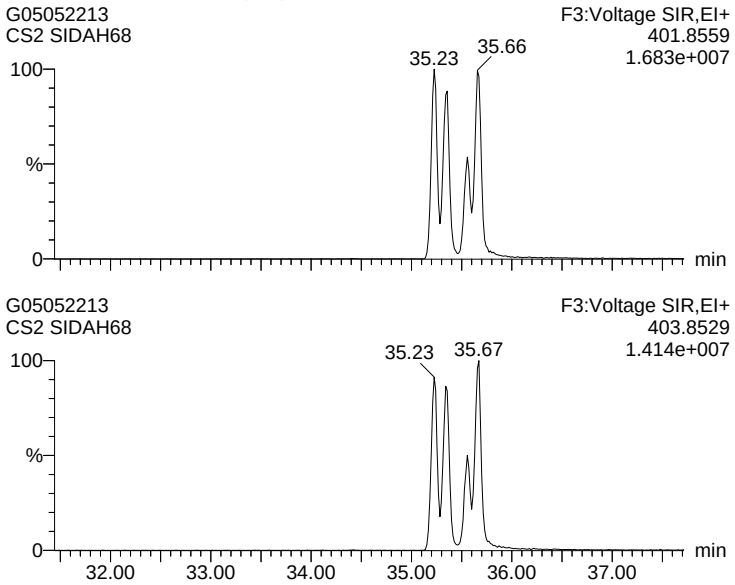




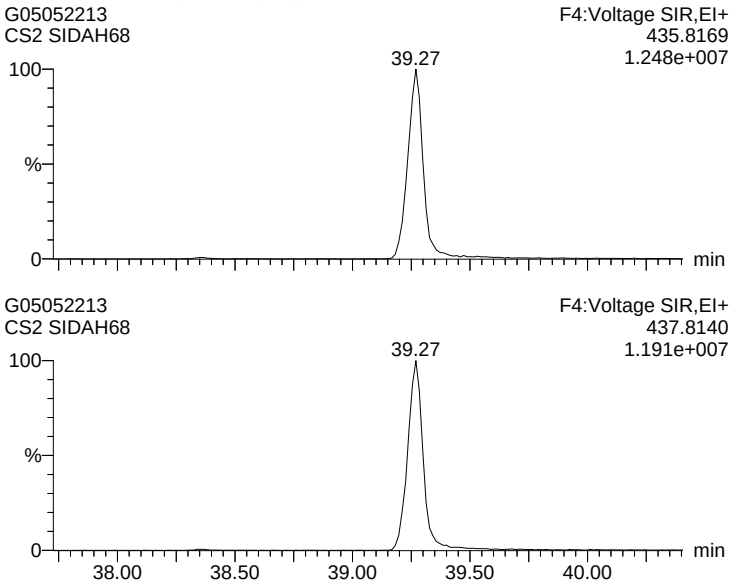
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

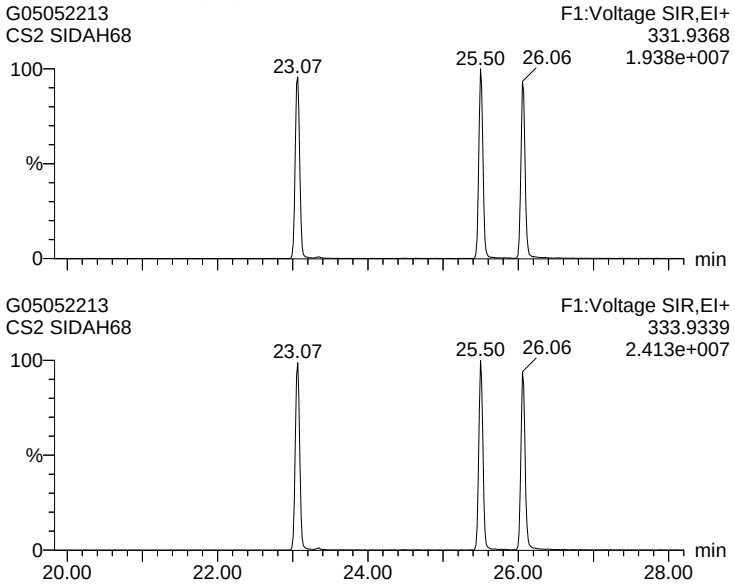
13C-123468-HxCDD (FS)



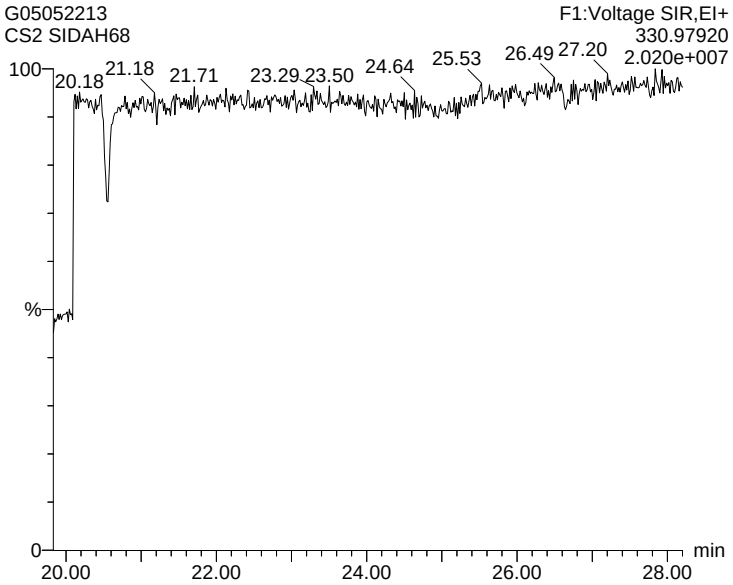
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



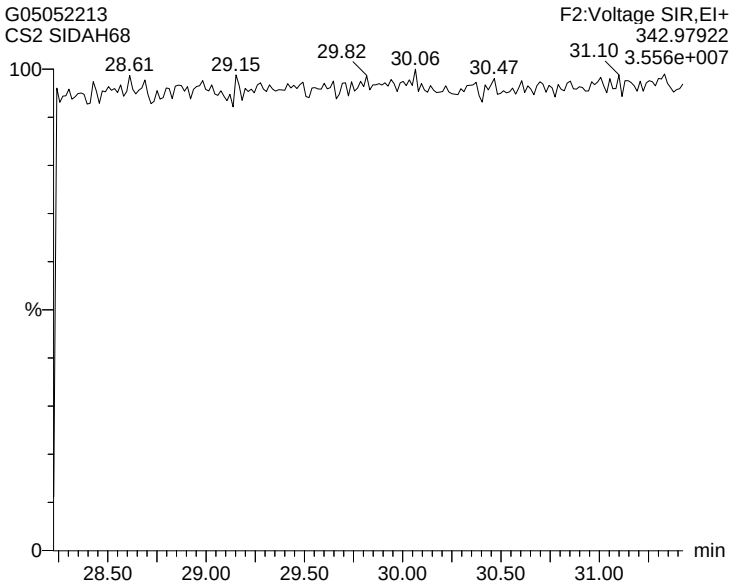
QC Check Ion Fn 1



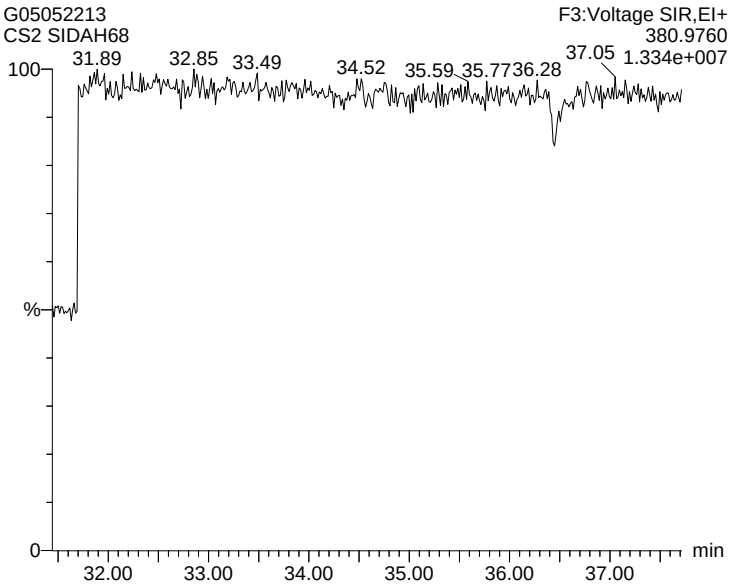
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

QC Check Ion Fn 2



QC Check Ion Fn 3



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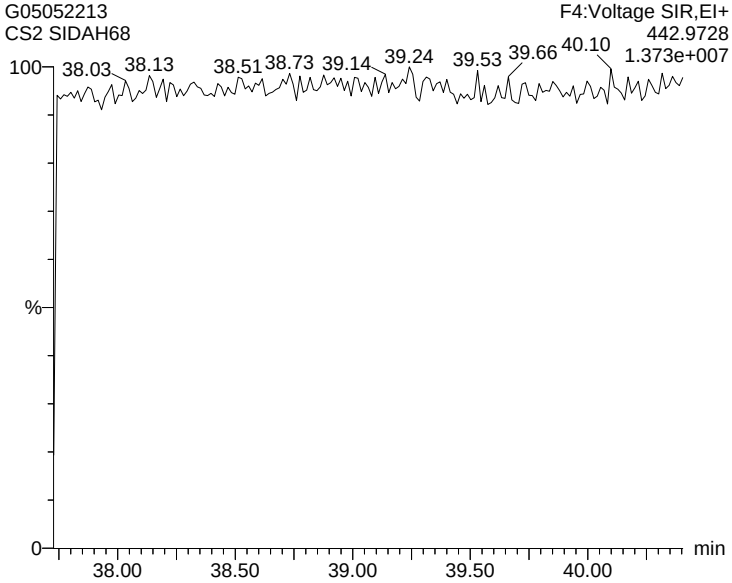
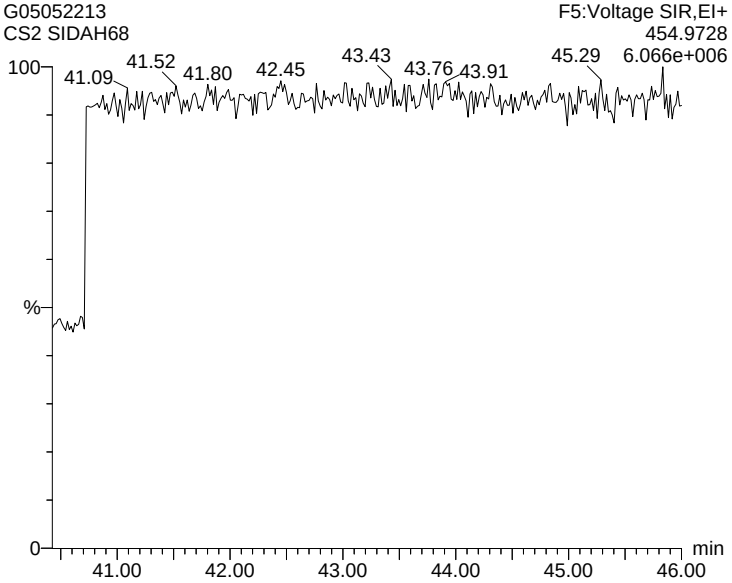


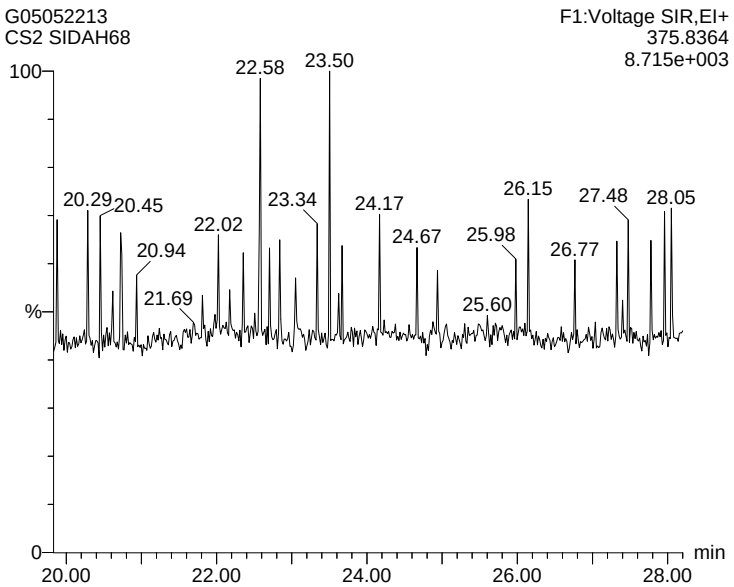
QC Check Ion Fn 5



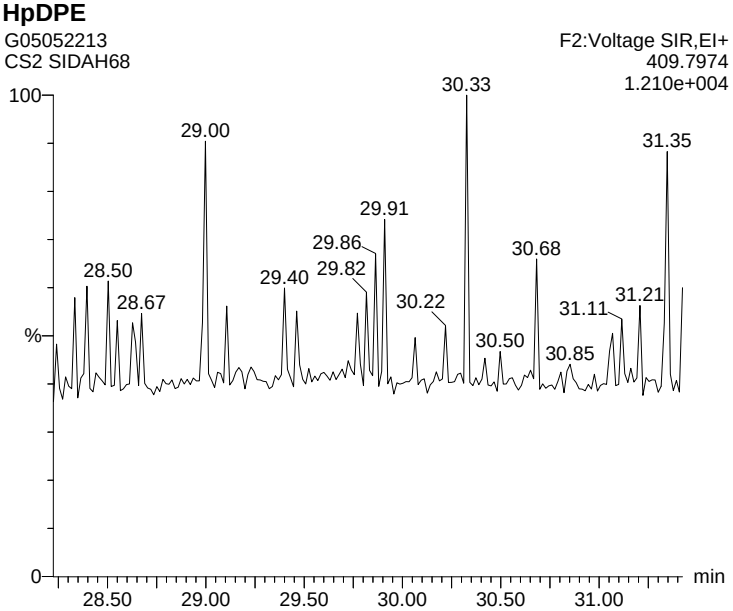
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

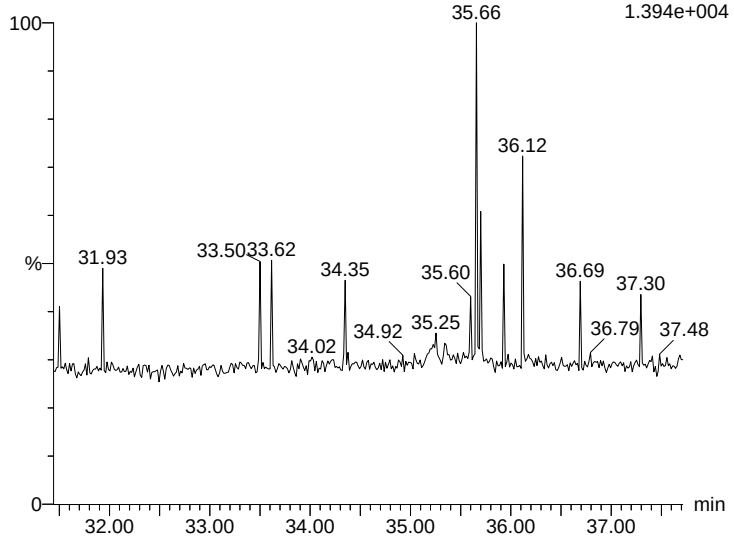
HxDPE



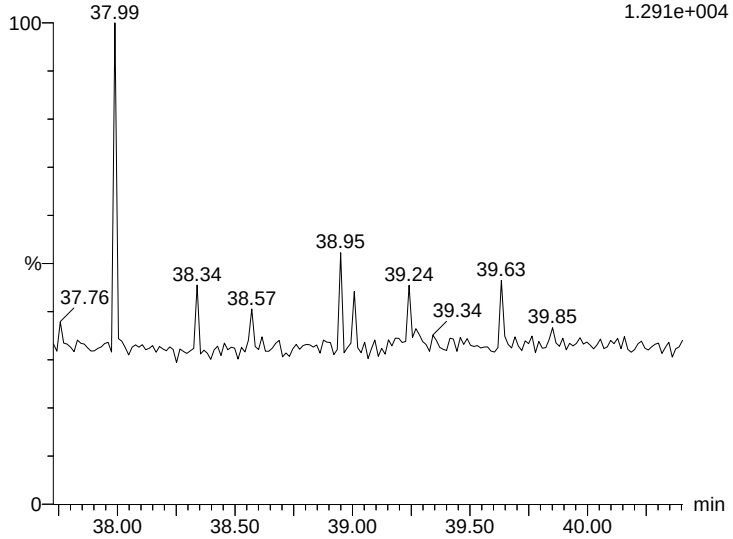
HpDPE



OcDPE



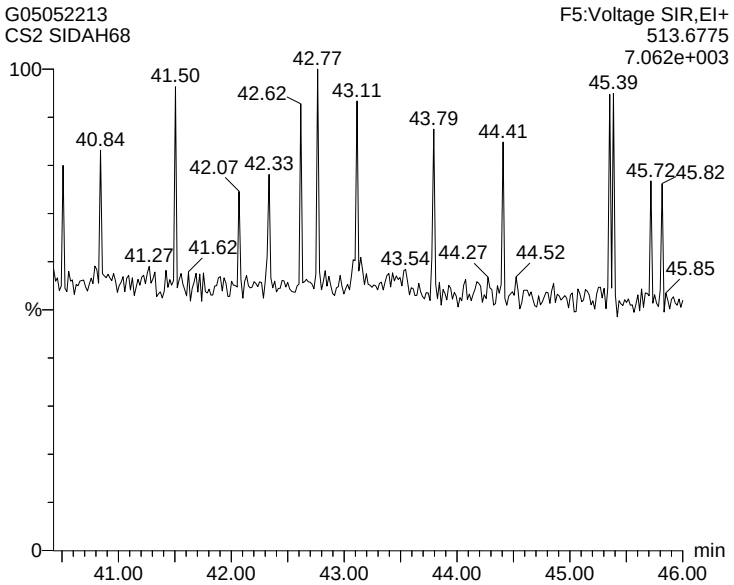
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1201872.375		2692615.500	bb	93.7	-6.3
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1651696.125		3742119.750	bb	96.3	-3.7
3	3	13C-123467-HxCDD (JS)	401.8559	35.56	565759.625		1001392.906	bd	48.6	-2.9
4	4	13C-2378-TCDD (ES)	331.9368	26.06	1129888.875	1201872.375	95.401	bb	101.7	1.7
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1359535.875	1201872.375	82.435	bb	101.0	1.0
6	6	13C-123478-HxCDD (ES)	401.8559	35.23	1115443.250	565759.625	99.316	bd	94.9	-5.1
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1075146.750	565759.625	96.807	db	98.0	-2.0
8	8	13C-123789-HxCDD (ES)	401.8559	35.66	1183397.625	565759.625	107.198	db	96.3	-3.7
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	902857.813	565759.625	88.456	bb	96.1	-3.9
10	10	13C-OCDD (ES)	469.7780	43.11	1362685.875	565759.625	68.040	bb	192.8	-3.6
11	11	13C-2378-TCDF (ES)	315.9419	25.32	1581247.750	1651696.125	95.742	bb	97.1	-2.9
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2022833.500	1651696.125	87.868	bb	100.9	0.9
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	1929185.125	1651696.125	82.522	bb	97.6	-2.4
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	773989.375	565759.625	112.801	bd	95.4	-4.6
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	959960.813	565759.625	139.401	db	98.0	-2.0
16	16	13C-234678-HxCDF (ES)	383.8639	35.04	863511.563	565759.625	127.527	bb	98.6	-1.4
17	17	13C-123789-HxCDF (ES)	383.8639	36.07	786133.500	565759.625	113.084	bb	95.7	-4.3
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	584231.688	565759.625	92.016	bb	95.0	-5.0
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	509940.688	565759.625	82.008	bb	93.8	-6.2
20	20	13C-OCDF (ES)	453.7830	43.36	1632868.375	565759.625	81.530	bb	188.6	-5.7
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	63207.578	1201872.375	2.347	bb	2.1	4.5
22	22	13C-12347-PeCDD (CS)	367.8949	30.64	1536999.000	1201872.375	92.428	bb	105.1	5.1
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2022833.500	1651696.125	87.868	bb	100.9	0.9
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	828188.375	565759.625	121.193	bb	98.3	-1.7
25	25	13C-1234689-HpCDF (CS)	417.8253	38.54	587352.500	565759.625	93.489	bb	97.1	-2.9
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	63207.578	1129888.875	2.461	bb	2.1	2.8
27	27	13C-12347-PeCDD (SS)	367.8949	30.64	1516940.125	1359535.875	110.285	bb	104.7	4.7
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2022833.500	2022833.500	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	816123.500	959960.813	85.540	bb	100.1	0.1
30	30	13C-1234689-HpCDF (SS)	417.8253	38.54	587352.500	584231.688	101.601	bb	102.3	2.3
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1258576.750	1201872.375	105.701	bb	101.4	1.4
32	32	13C-1368-TCDF (AS)	315.9419	21.56	1907285.500	1651696.125	115.647	bb	101.5	1.5
33	33	1368-TCDD	319.8965			1129888.875				
34	34	1379-TCDD	319.8965			1129888.875				
35	35	1369-TCDD	319.8965			1129888.875				
36	36	1469-TCDD	319.8965			1129888.875				
37	37	1247/1246/1248/1249-TC...	319.8965			1129888.875				
38	38	1378-TCDD	319.8965			1129888.875				
39	39	1268-TCDD	319.8965			1129888.875				
40	40	1478-TCDD	319.8965			1129888.875				
41	41	1279-TCDD	319.8965			1129888.875				
42	42	1234/1269-TCDD	319.8965			1129888.875				
43	43	1236-TCDD	319.8965			1129888.875				
44	44	1237/1238-TCDD	319.8965			1129888.875				
45	45	1239-TCDD [CE]	319.8965			1129888.875				
46	46	2378-TCDD (S)	319.8965	26.09	24672.297	1129888.875	2.155	bb	1.9	-5.4
47	47	1278-TCDD	319.8965			1129888.875				
48	48	1267-TCDD	319.8965			1129888.875				
49	49	1289-TCDD	319.8965			1129888.875				
50	50	12479/12468-PeCDD	355.8546			1359535.875				
51	51	12469-PeCDD	355.8546			1359535.875				
52	52	12368-PeCDD	355.8546			1359535.875				
53	53	12478-PeCDD	355.8546			1359535.875				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1359535.875				
55	55	12369/12467/12489-PeCDD	355.8546			1359535.875				
56	56	12346/12347-PeCDD	355.8546			1359535.875				
57	57	12378-PeCDD (S)	355.8546	31.16	137175.359	1359535.875	9.982	bb	9.9	-1.4
58	58	12367-PeCDD	355.8546			1359535.875				
59	59	12389-PeCDD	355.8546			1359535.875				
60	60	124679/124689-HxCDD	389.8157			1115443.250				
61	61	123468-HxCDD	389.8157			1115443.250				
62	62	123679/123689-HxCDD	389.8157			1115443.250				
63	63	123469-HxCDD	389.8157			1115443.250				
64	64	123478-HxCDD (S)	389.8157	35.24	112285.953	1115443.250	10.259	bd	9.7	-2.8
65	65	123678-HxCDD (S)	389.8157	35.35	112107.539	1075146.750	10.677	db	9.7	-2.9
66	66	123467-HxCDD	389.8157			1183397.625				
67	67	123789-HxCDD (S)	389.8157	35.69	118964.320	1183397.625	10.054	bb	9.6	-3.8
68	68	1234679-HpCDD	423.7766			902857.813				
69	69	1234678-HpCDD (S)	423.7766	39.28	93838.016	902857.813	10.292	bb	9.8	-1.8
70	70	OCDD (S)	457.7377	43.13	147107.734	1362685.875	21.591	bb	19.0	-5.1
71	71	1368-TCDF	303.9016			1581247.750				
72	72	1468-TCDF	303.9016			1581247.750				
73	73	2468-TCDF	303.9016			1581247.750				
74	74	1346/1246-TCDF	303.9016			1581247.750				
75	75	1347/1378/1247-TCDF	303.9016			1581247.750				
76	76	1348-TCDF	303.9016			1581247.750				
77	77	1248/1367/1379-TCDF	303.9016			1581247.750				
78	78	1268-TCDF	303.9016			1581247.750				
79	79	1467-TCDF	303.9016			1581247.750				
80	80	1478-TCDF	303.9016			1581247.750				
81	81	1369/1237-TCDF	303.9016			1581247.750				
82	82	2467-TCDF	303.9016			1581247.750				
83	83	2368-TCDF	303.9016			1581247.750				
84	84	1238/1234/1678/1469/123...	303.9016			1581247.750				
85	85	1278-TCDF	303.9016			1581247.750				
86	86	1349-TCDF	303.9016			1581247.750				
87	87	1267-TCDF	303.9016			1581247.750				
88	88	2346/1249-TCDF	303.9016			1581247.750				
89	89	2347/1279-TCDF	303.9016			1581247.750				
90	90	2348-TCDF [CE]	303.9016			1581247.750				
91	91	2378-TCDF (S)	303.9016	25.35	34824.719	1581247.750	2.194	bb	2.0	-1.2
92	92	2367/3467-TCDF	303.9016			1581247.750				
93	93	1269-TCDF	303.9016			1581247.750				
94	94	1239-TCDF	303.9016			1581247.750				
95	95	1289-TCDF	303.9016			1581247.750				
96	96	13468/12466-PeCDF	339.8597			2022833.500				
97	97	13678/13467/12467-PeCDF	339.8597			2022833.500				
98	98	12368/13478/12478-PeCDF	339.8597			2022833.500				
99	99	14678-PeCDF	339.8597			2022833.500				
100	1...	13479-PeCDF	339.8597			2022833.500				
101	1...	13469/12479-PeCDF	339.8597			2022833.500				
102	1...	12346-PeCDF	339.8597			2022833.500				
103	1...	23468/12469-PeCDF	339.8597			2022833.500				
104	1...	12347-PeCDF	339.8597			2022833.500				
105	1...	12348-PeCDF	339.8597			2022833.500				
106	1...	12378-PeCDF (S)	339.8597	29.72	204430.922	2022833.500	10.175	bb	9.5	-5.3

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G05052213, Date: 05-May-2022, Time: 18:44:17, ID: SIDAH68, Description: CS2, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2022833.500				
108	1...	12379-PeCDF	339.8597			2022833.500				
109	1...	12679-PeCDF	339.8597			1929185.125				
110	1...	23467/12369-PeCDF	339.8597			1929185.125				
111	1...	23478-PeCDF (S)	339.8597	30.82	199125.969	1929185.125	10.534	bb	10.0	-0.4
112	1...	12489-PeCDF (R)	339.8597			1929185.125				
113	1...	12349-PeCDF	339.8597			1929185.125				
114	1...	12389-PeCDF	339.8597			1929185.125				
115	1...	123468-HxCDF	373.8208			773989.375				
116	1...	124678/134678-HxCDF	373.8208			773989.375				
117	1...	134679-HxCDF	373.8208			773989.375				
118	1...	124679-HxCDF	373.8208			773989.375				
119	1...	124689-HxCDF	373.8208			773989.375				
120	1...	123467-HxCDF	373.8208			773989.375				
121	1...	123478-HxCDF (S)	373.8208	34.22	168499.641	773989.375	13.291	bd	10.2	1.9
122	1...	123678-HxCDF (S)	373.8208	34.36	183746.422	959960.813	11.641	db	9.6	-3.6
123	1...	123479-HxCDF	373.8208			959960.813				
124	1...	123469-HxCDF	373.8208			863511.563				
125	1...	123679-HxCDF	373.8208			863511.563				
126	1...	234678-HxCDF (S)	373.8208	35.05	169283.422	863511.563	11.764	bb	9.5	-5.1
127	1...	123689-HxCDF (NR)	373.8208			863511.563				
128	1...	123789-HxCDF (S)	373.8208	36.09	152885.000	786133.500	11.936	bd	9.8	-2.3
129	1...	123489-HxCDF (R)	373.8208			786133.500				
130	1...	1234678-HpCDF (S)	407.7818	38.02	136104.656	584231.688	14.507	bb	9.8	-1.5
131	1...	1234679-HpCDF	407.7818			584231.688				
132	1...	1234689-HpCDF	407.7818			584231.688				
133	1...	1234789-HpCDF (S)	407.7818	39.91	117323.688	509940.688	14.087	bb	10.1	1.4
134	1...	OCDF (S)	441.7428	43.40	186490.625	1632868.375	22.842	bb	19.4	-3.0
135	1...	13C-1278-TCDD (FS)	331.9368			1129888.875				
136	1...	13C-12478-PeCDD (FS)	367.8949			1359535.875				
137	1...	13C-123468-HxCDD (FS)	401.8559			565759.625				
138	1...	13C-1234679-HpCDD (FS)	435.8169			902857.813				
139	1...	13C-1378-TCDD (TS)	331.9368			1129888.875				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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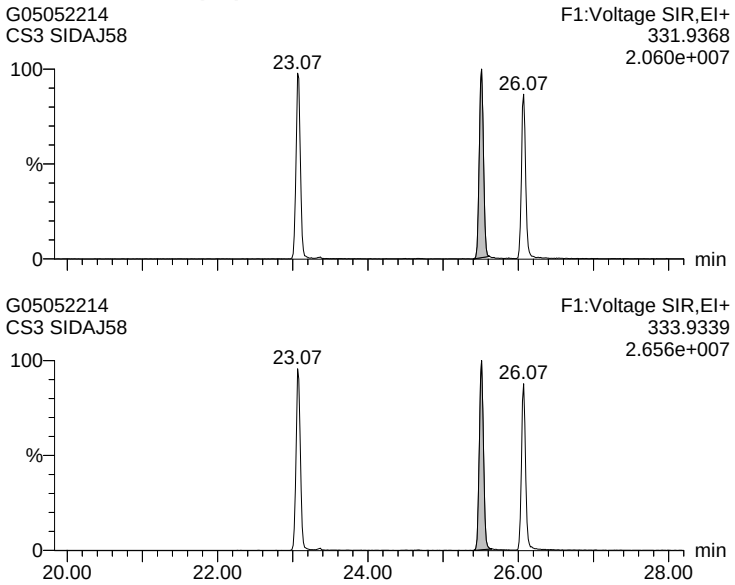
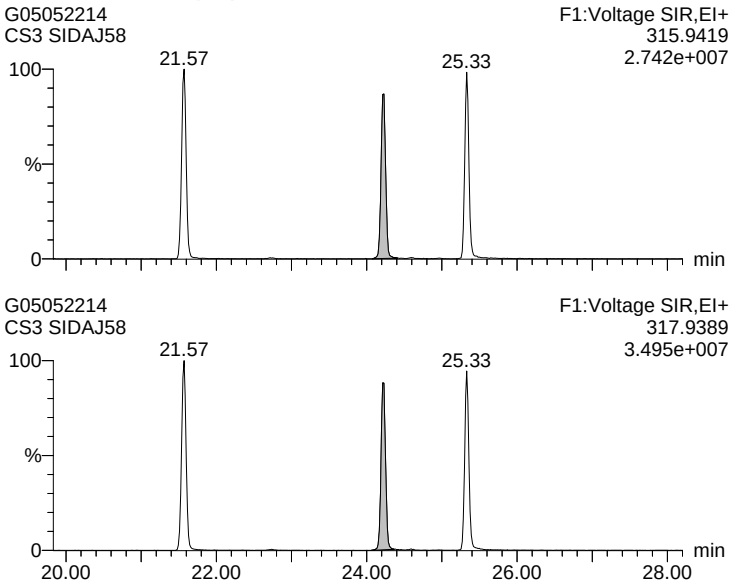
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

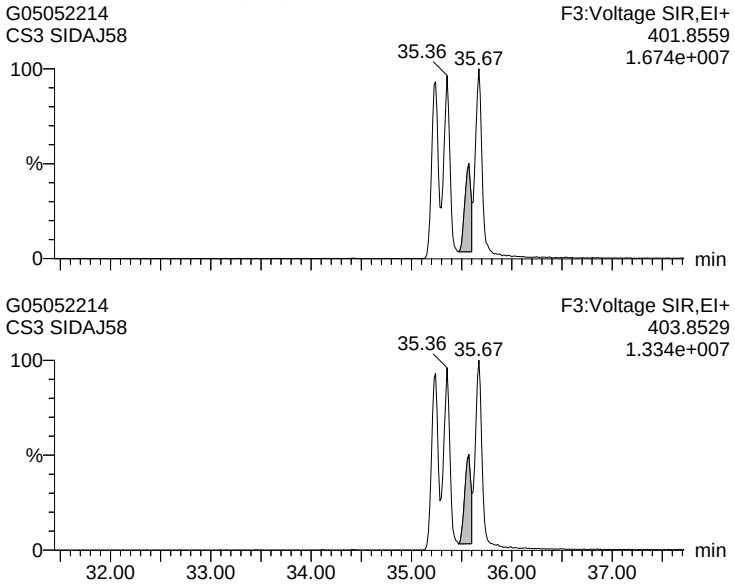
13C-1234-TCDD (JS)



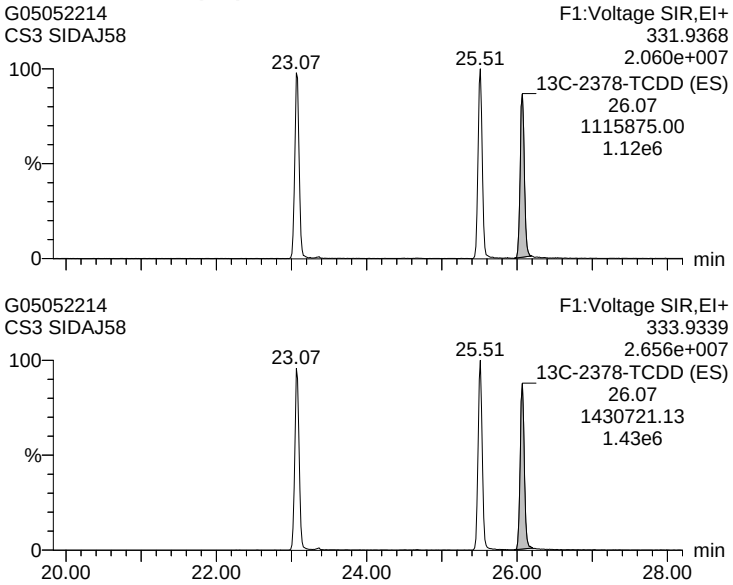
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



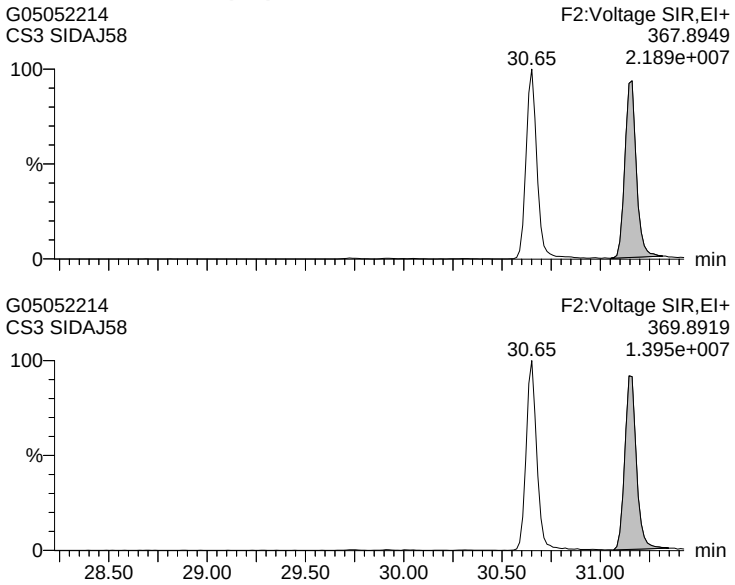
13C-2378-TCDD (ES)



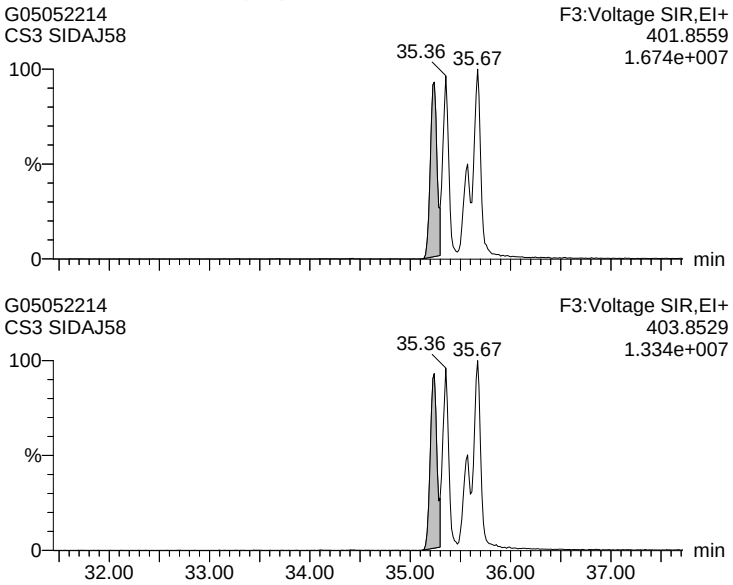
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

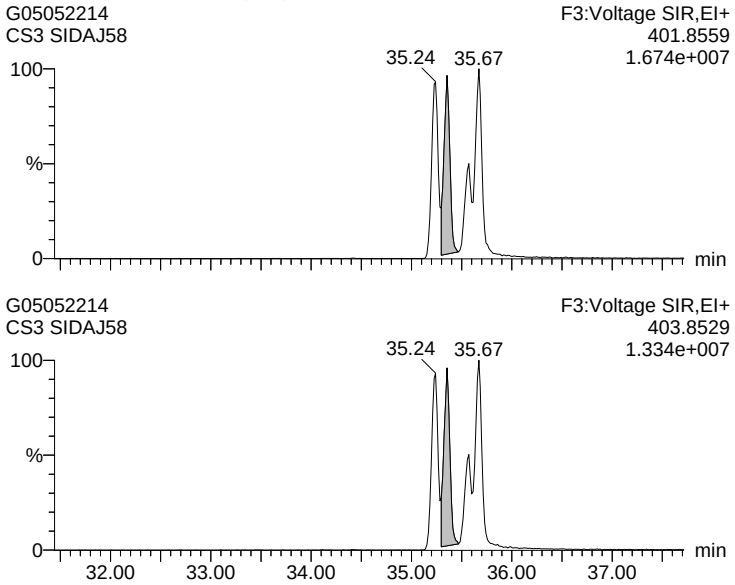
13C-12378-PeCDD (ES)



13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



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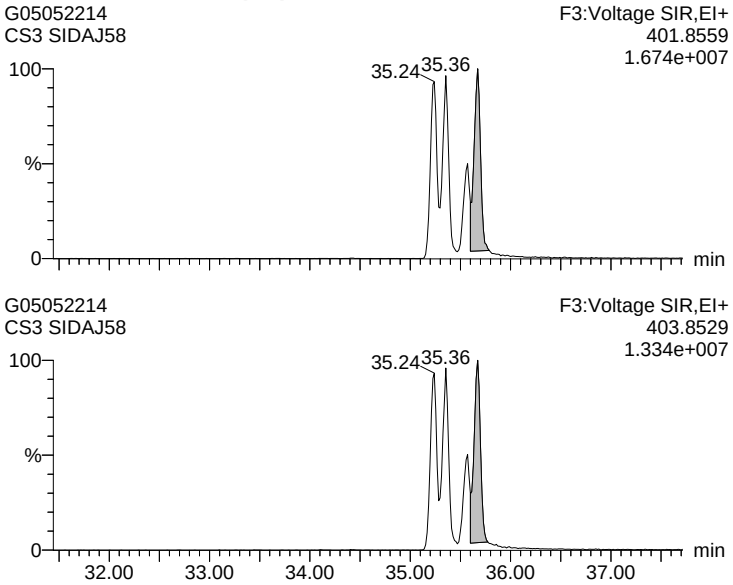
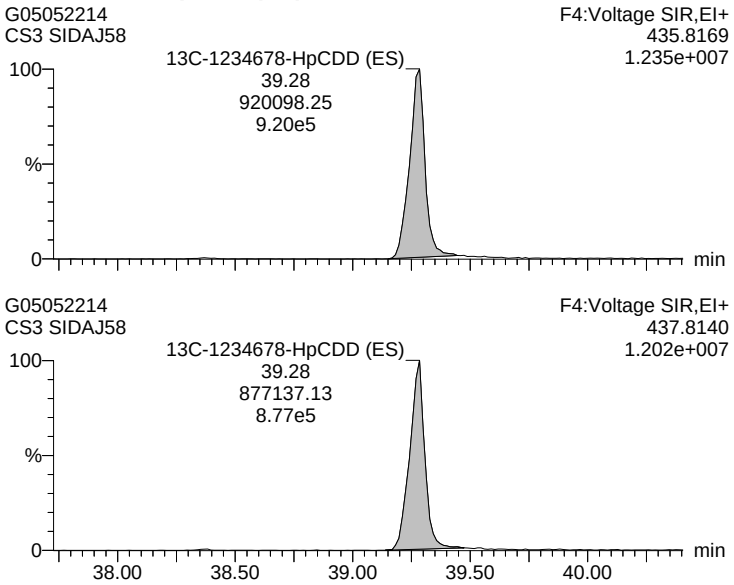


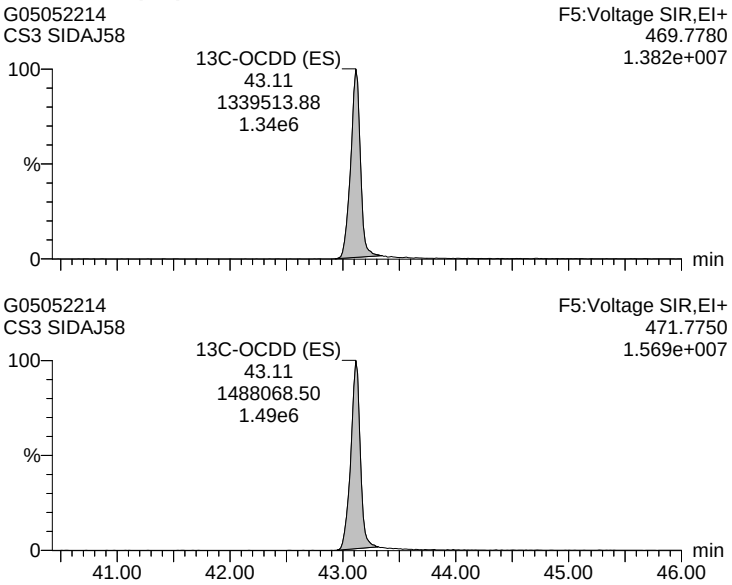
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

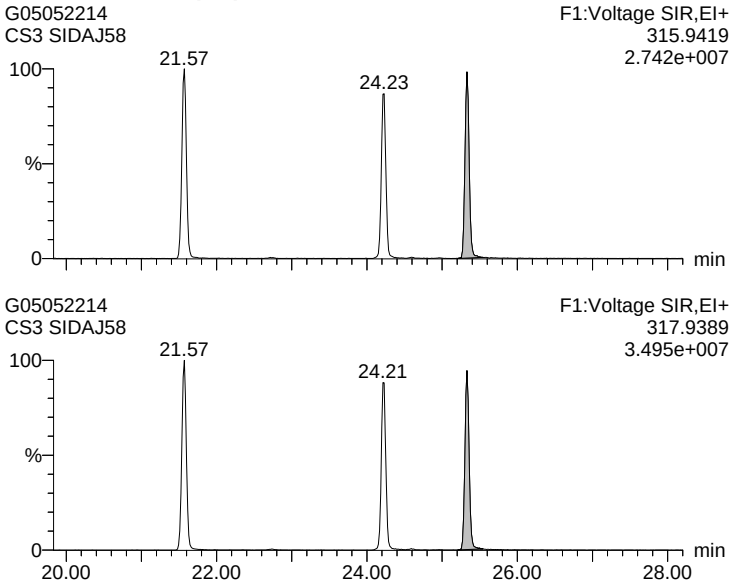
13C-1234678-HpCDD (ES)



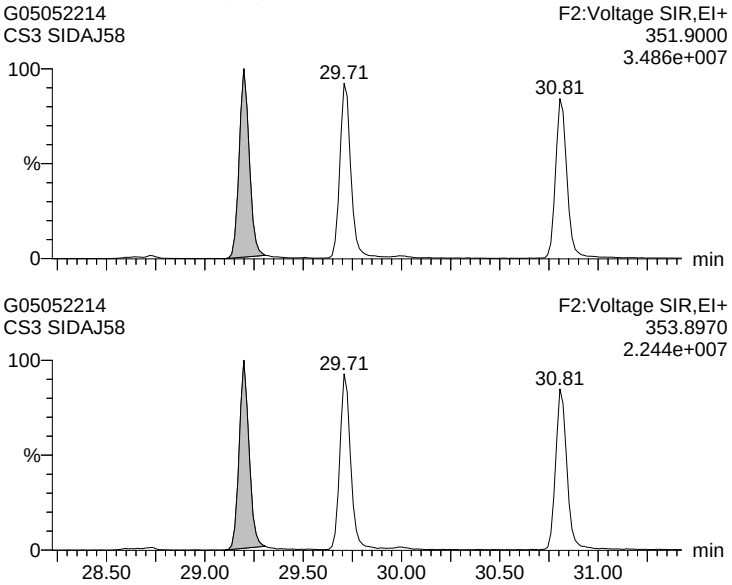
13C-OCDD (ES)



13C-2378-TCDF (ES)



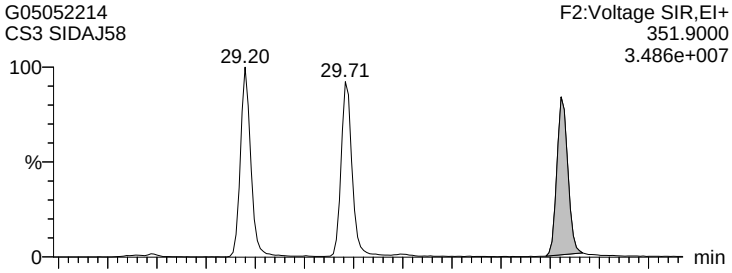
13C-12378-PeCDF (ES)

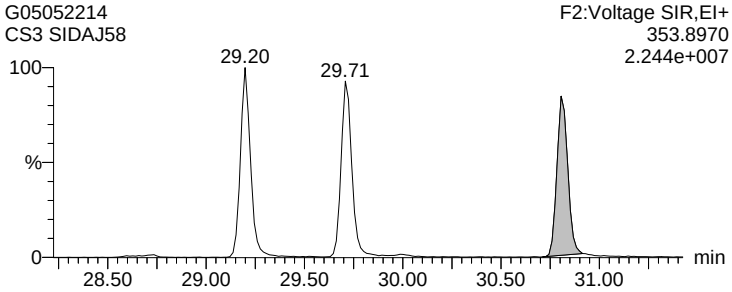


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

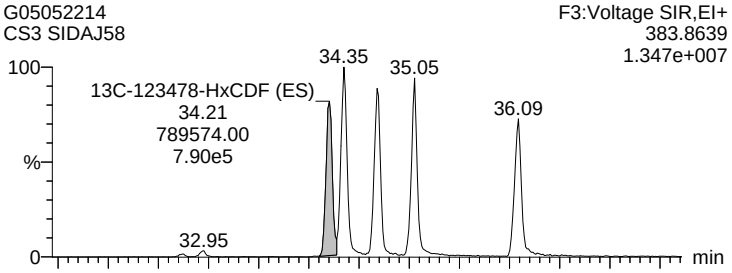
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

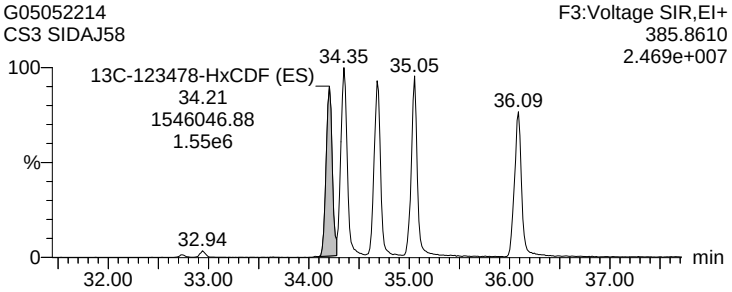
13C-23478-PeCDF (ES)



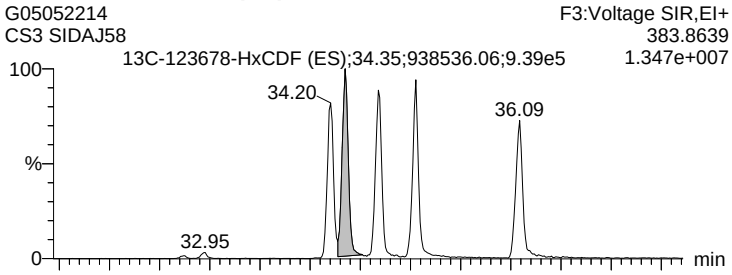


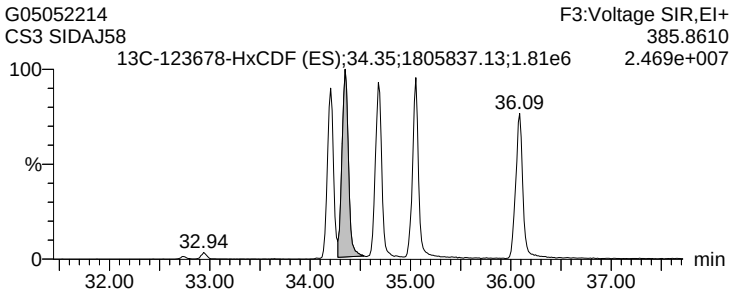
13C-123478-HxCDF (ES)



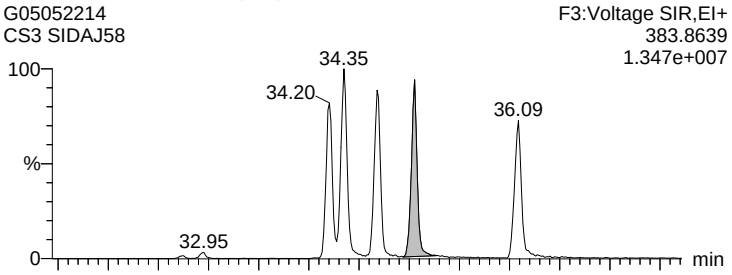


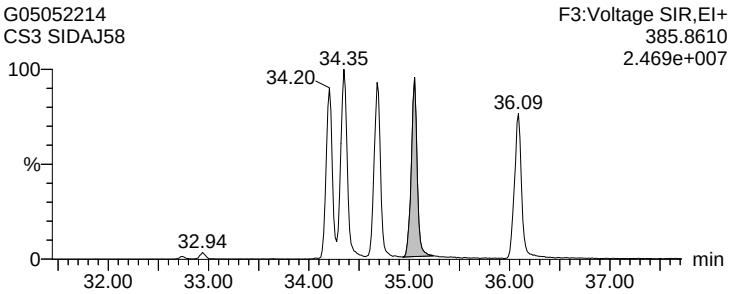
13C-123678-HxCDF (ES)





13C-234678-HxCDF (ES)

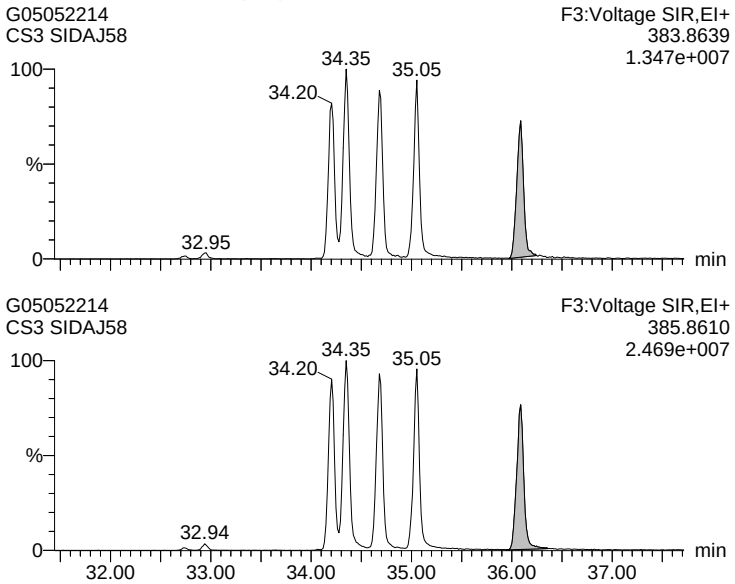




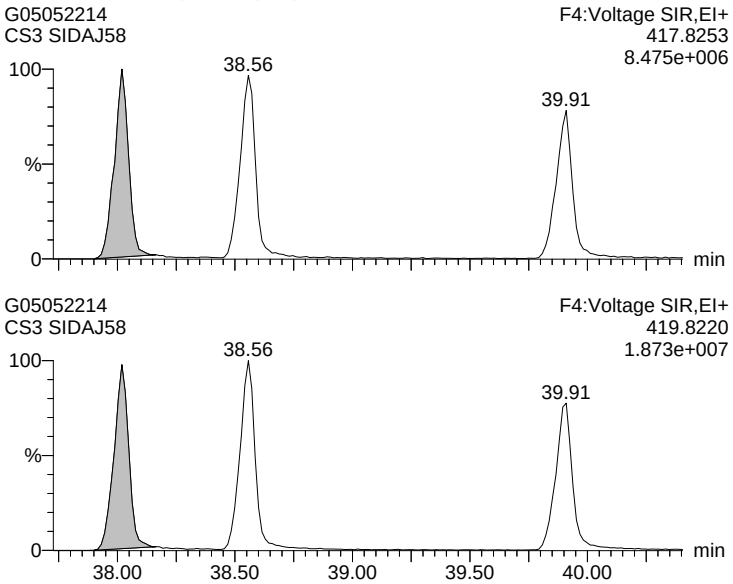
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

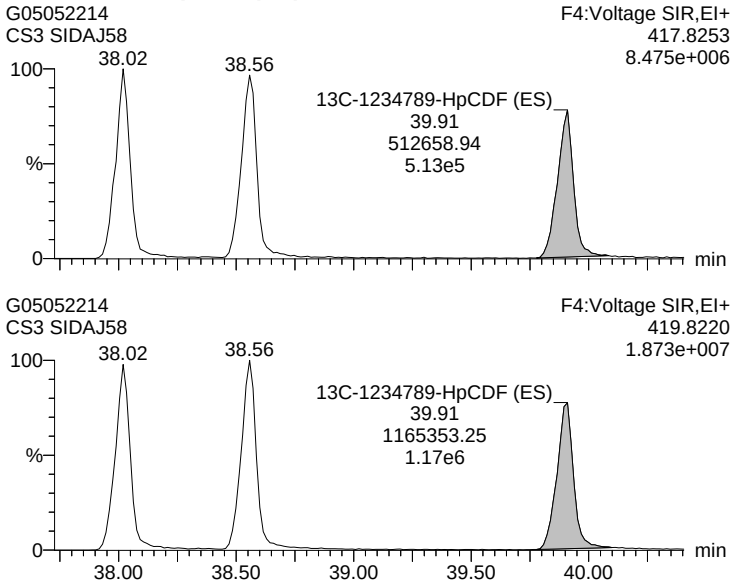
13C-123789-HxCDF (ES)



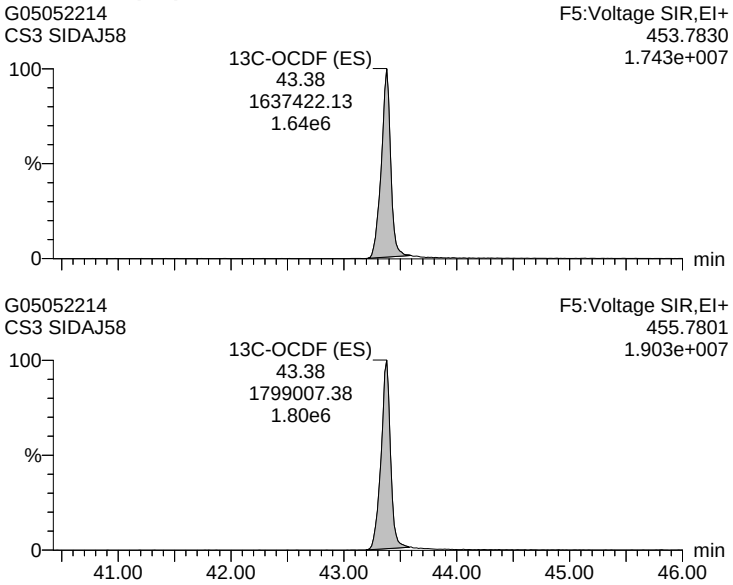
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



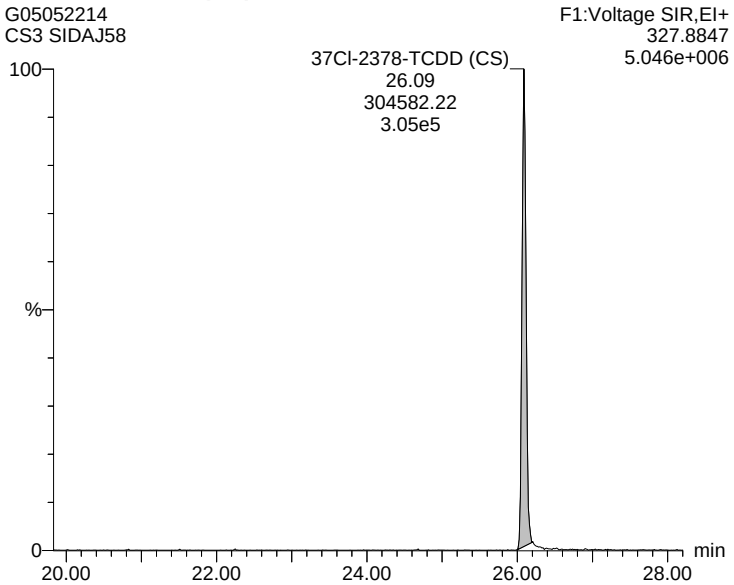
13C-OCDF (ES)



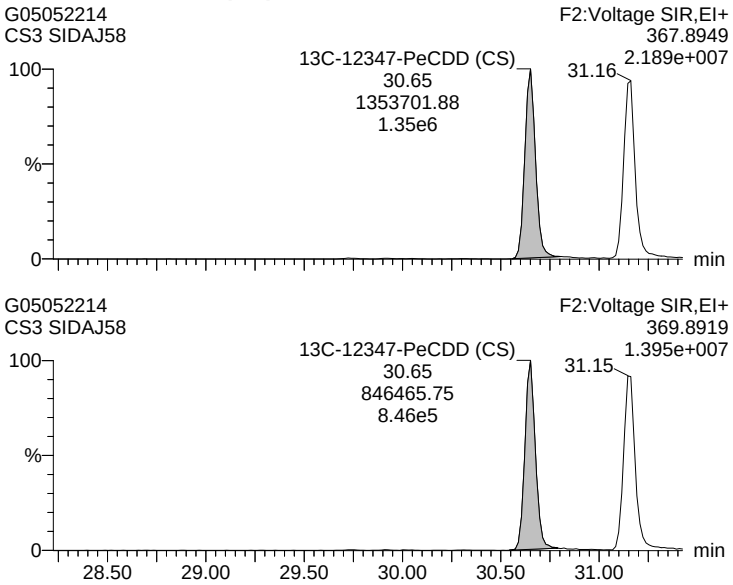
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

37Cl-2378-TCDD (CS)



13C-12347-PeCDD (CS)



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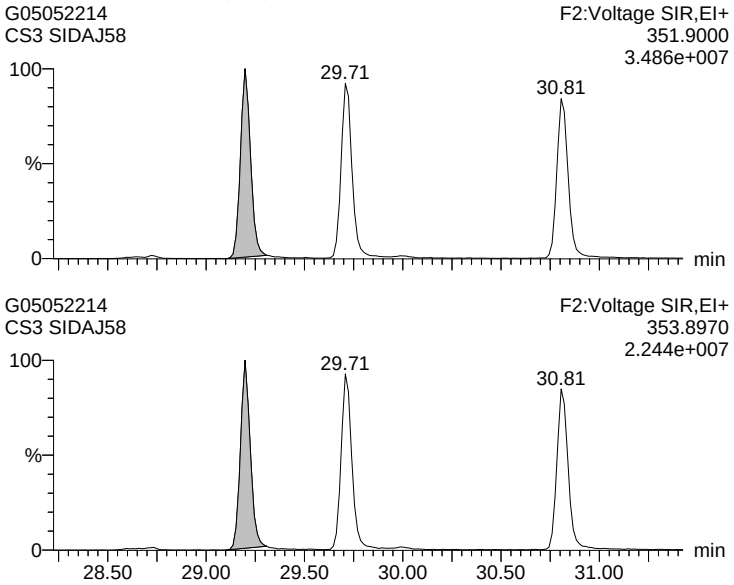
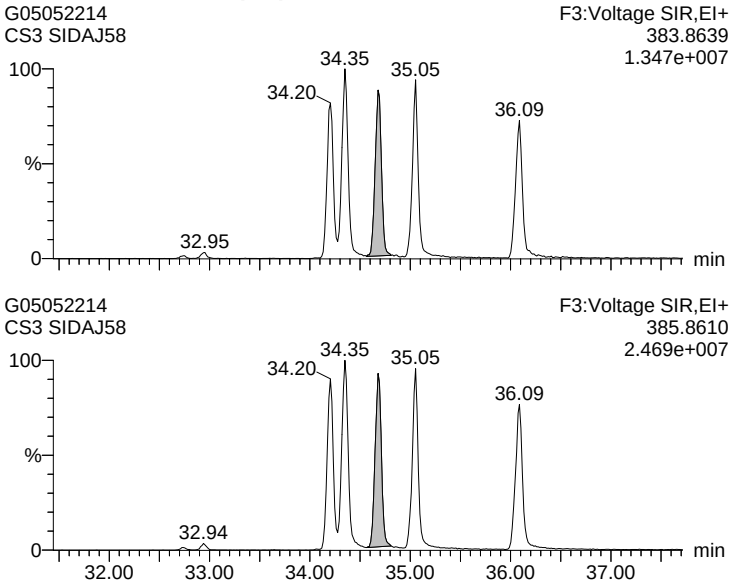


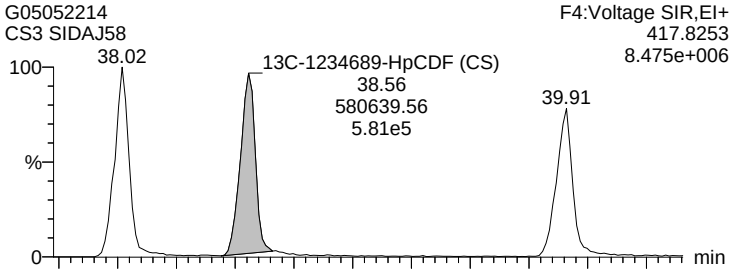
13C-123469-HxCDF (CS)

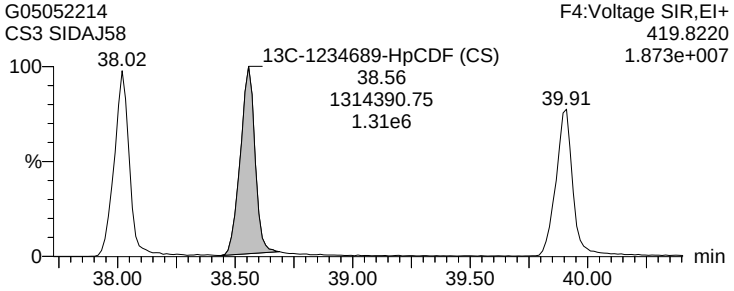


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

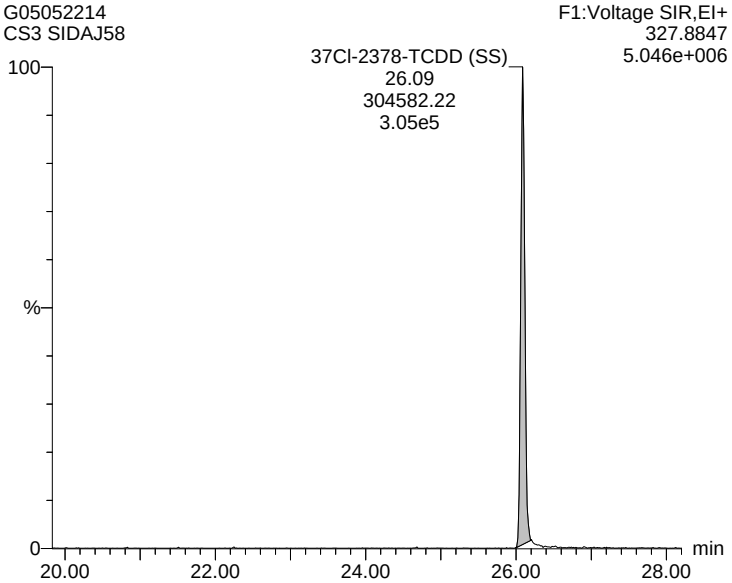
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

13C-1234689-HpCDF (CS)

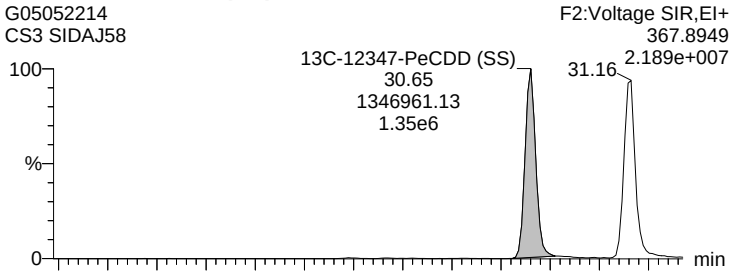


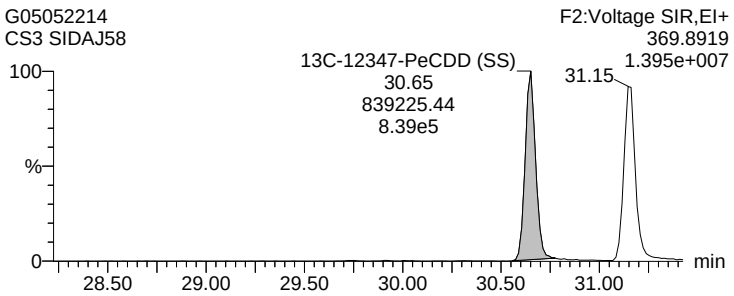


37Cl-2378-TCDD (SS)

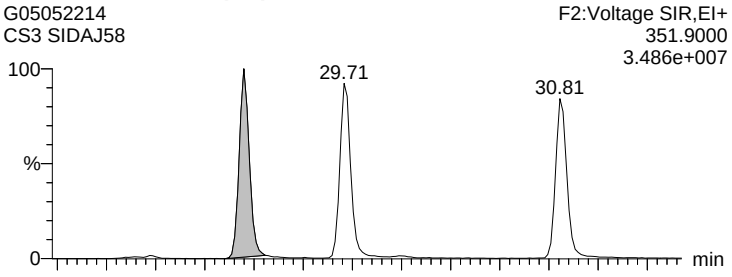


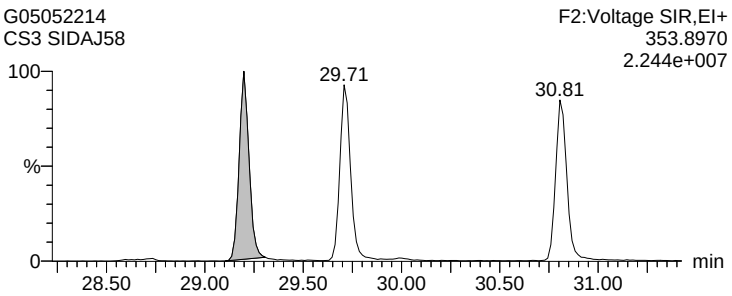
13C-12347-PeCDD (SS)





13C-12346-PeCDF (SS)

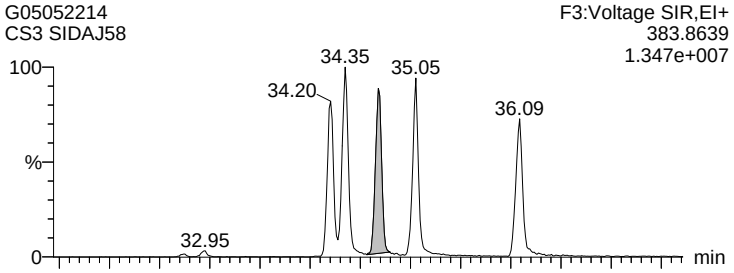


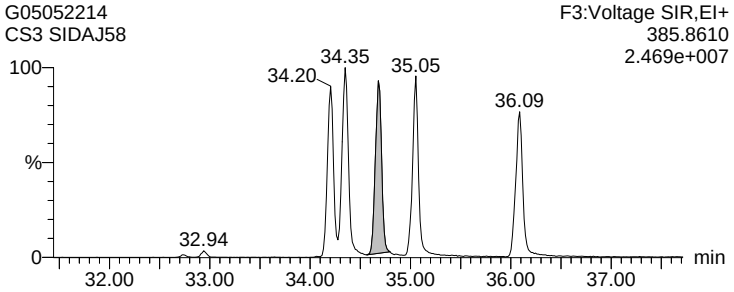


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

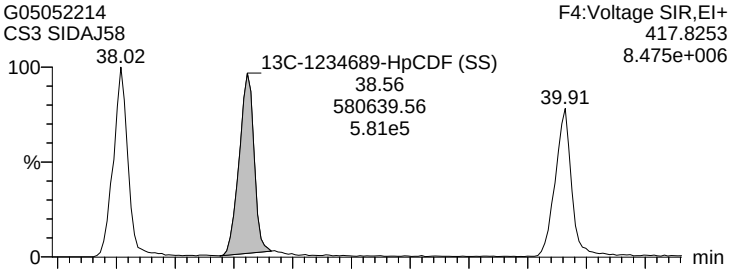
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

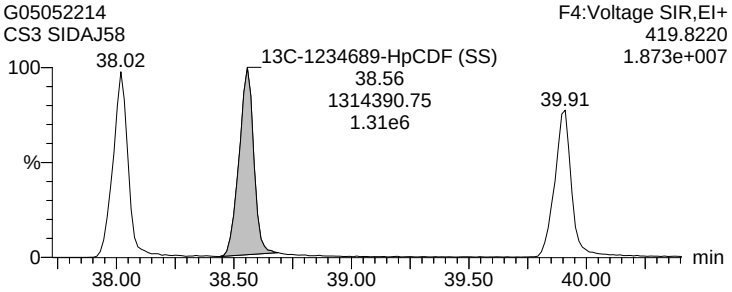
13C-123469-HxCDF (SS)



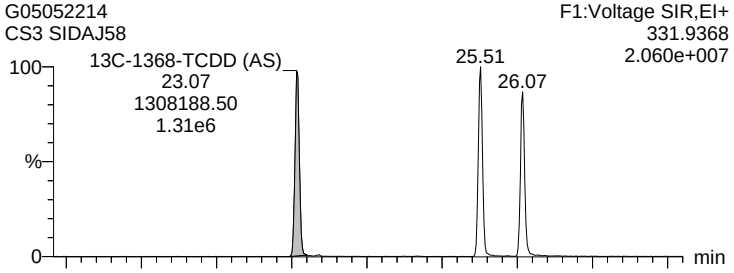


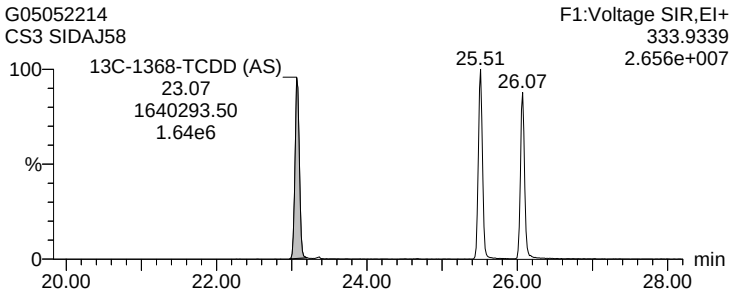
13C-1234689-HpCDF (SS)



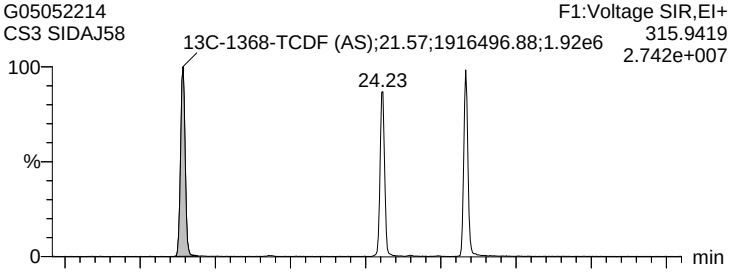


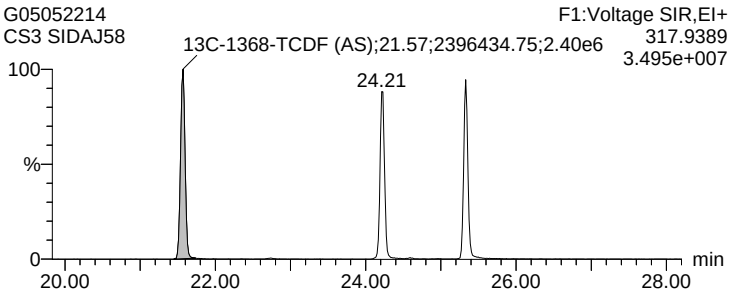
13C-1368-TCDD (AS)





13C-1368-TCDF (AS)

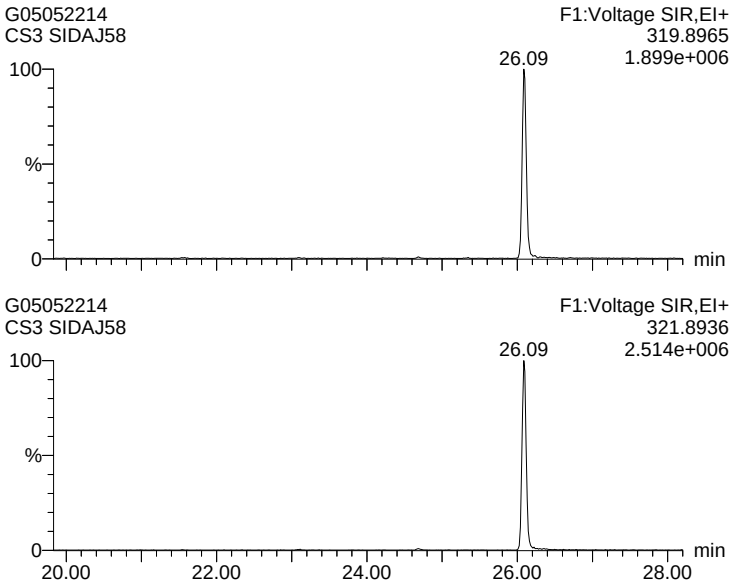




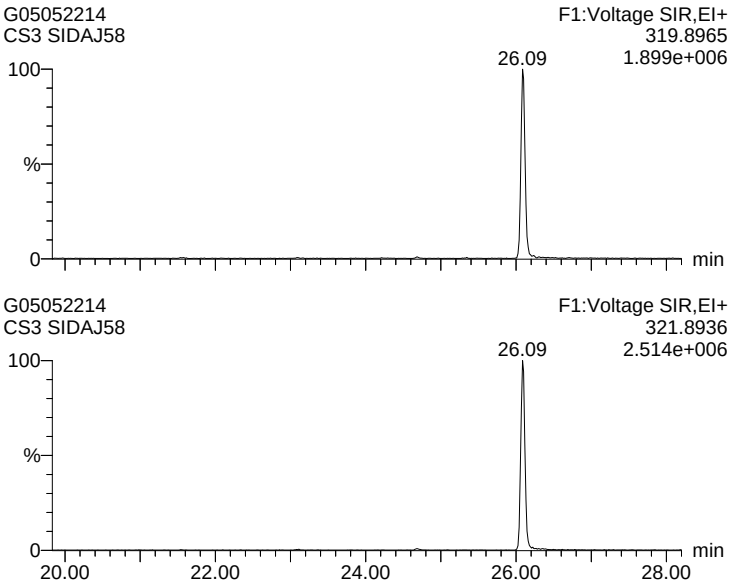
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

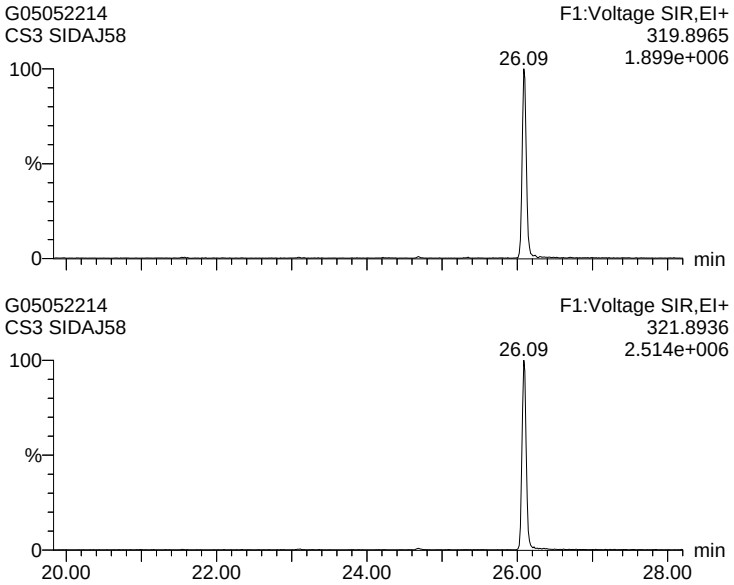
1368-TCDD



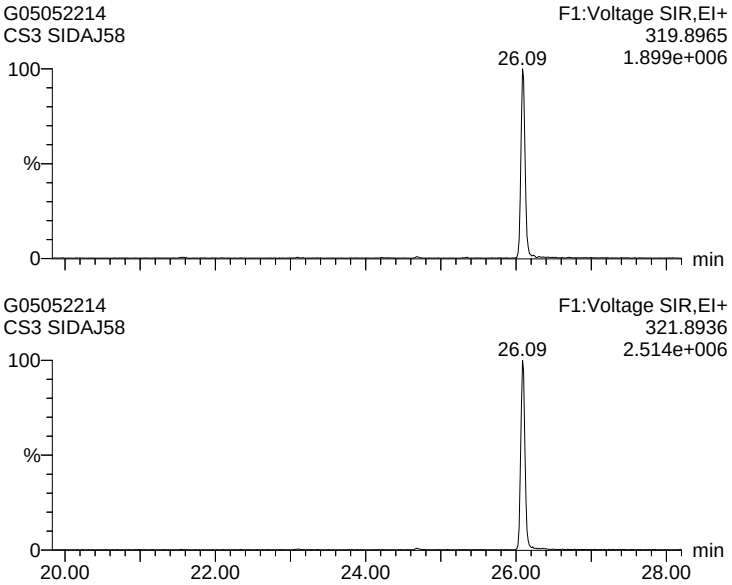
1379-TCDD



1369-TCDD



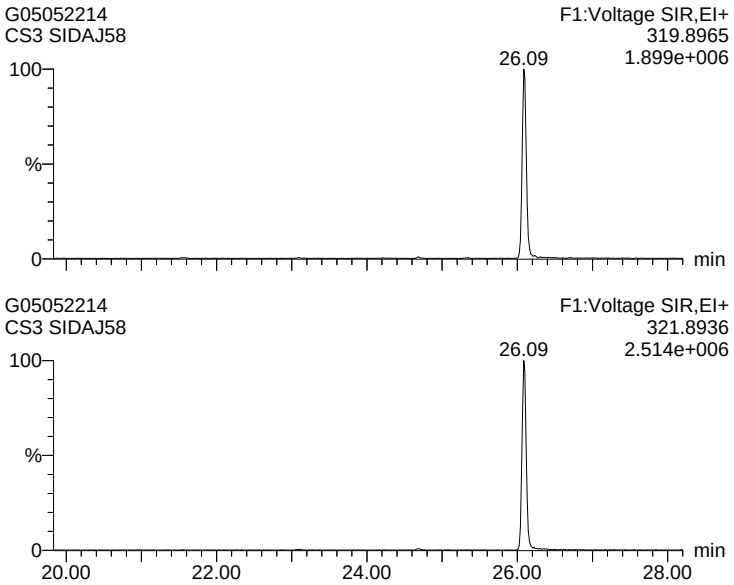
1469-TCDD



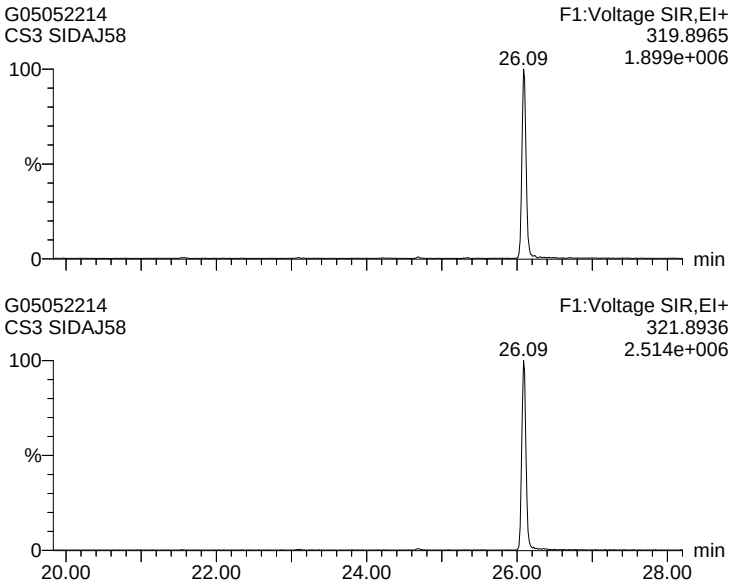
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

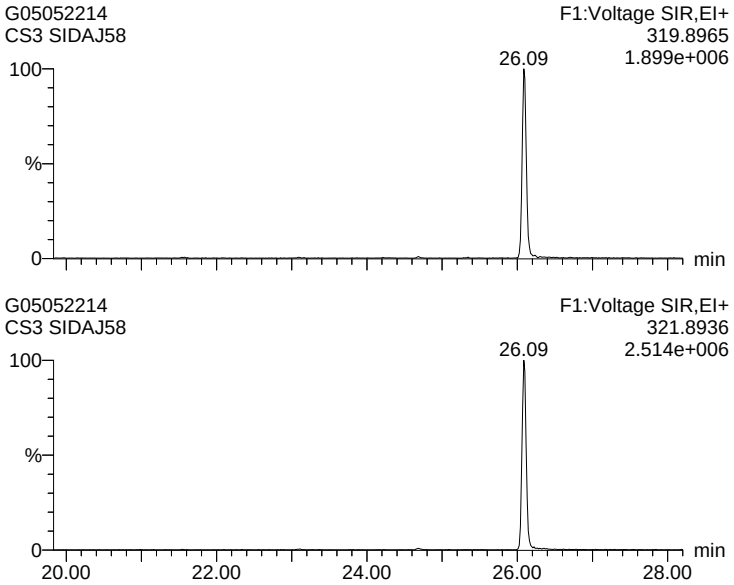
1247/1246/1248/1249-TCDD



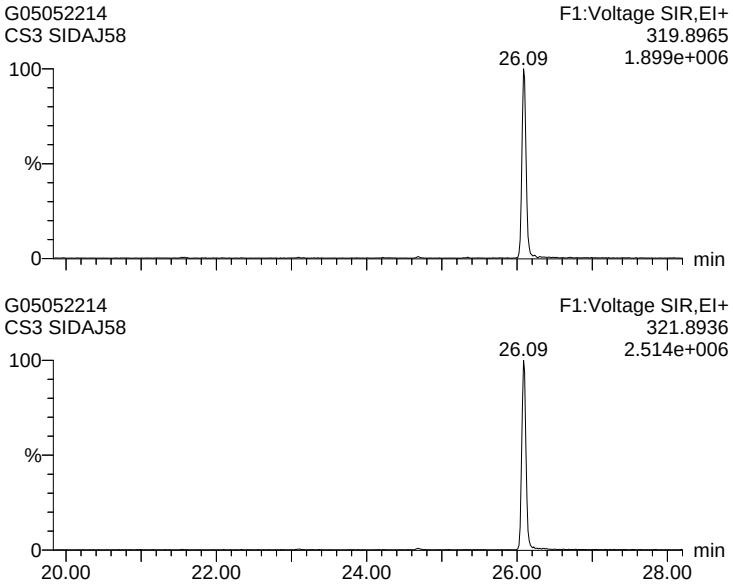
1378-TCDD



1268-TCDD



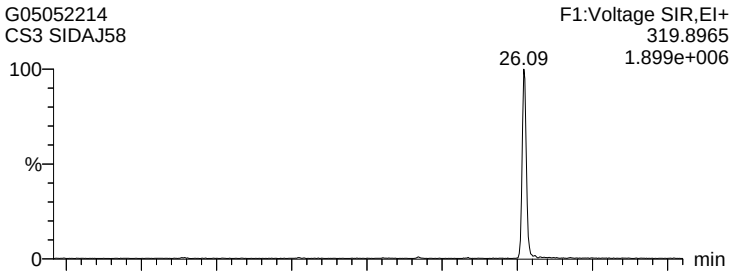
1478-TCDD

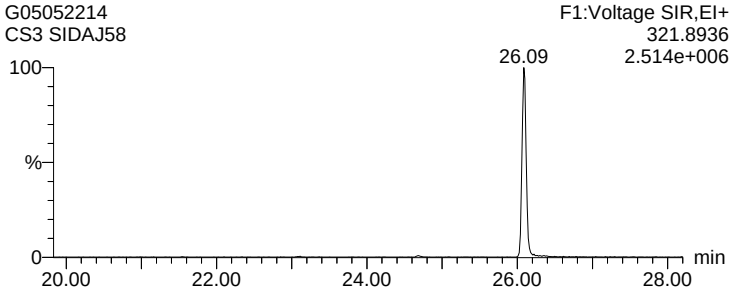


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

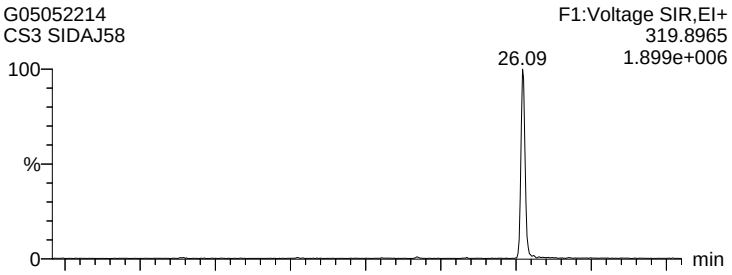
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

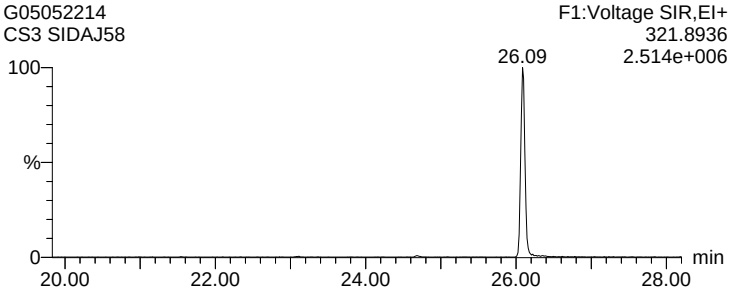
1279-TCDD



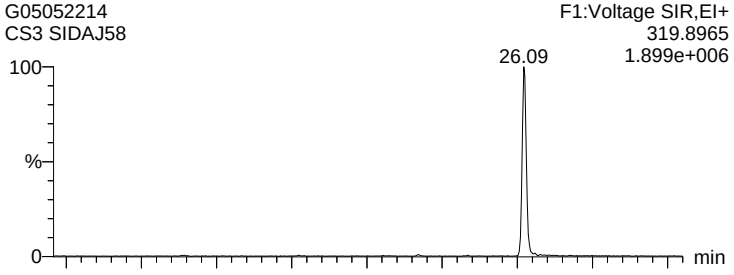


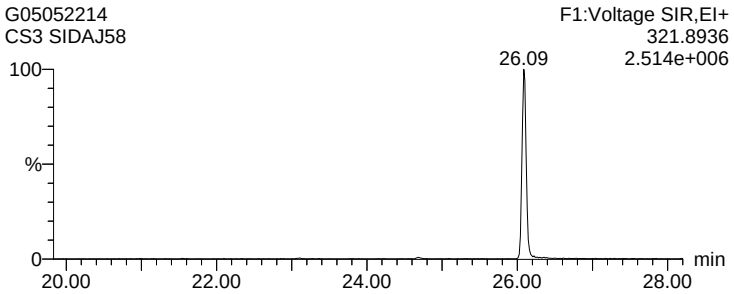
1234/1269-TCDD



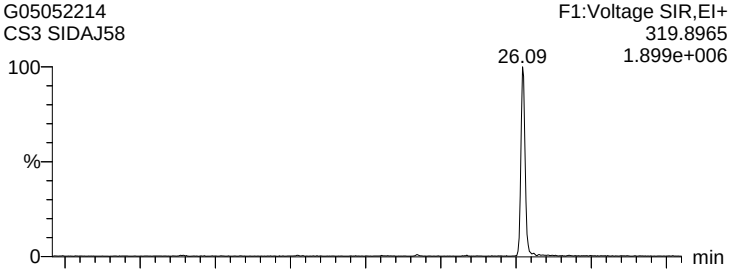


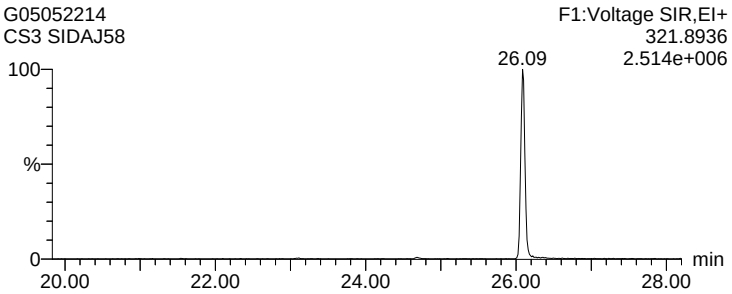
1236-TCDD





1237/1238-TCDD

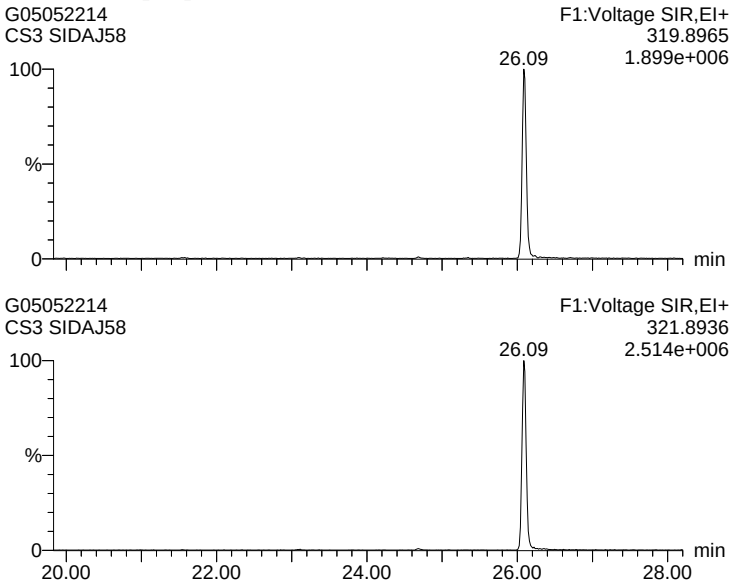




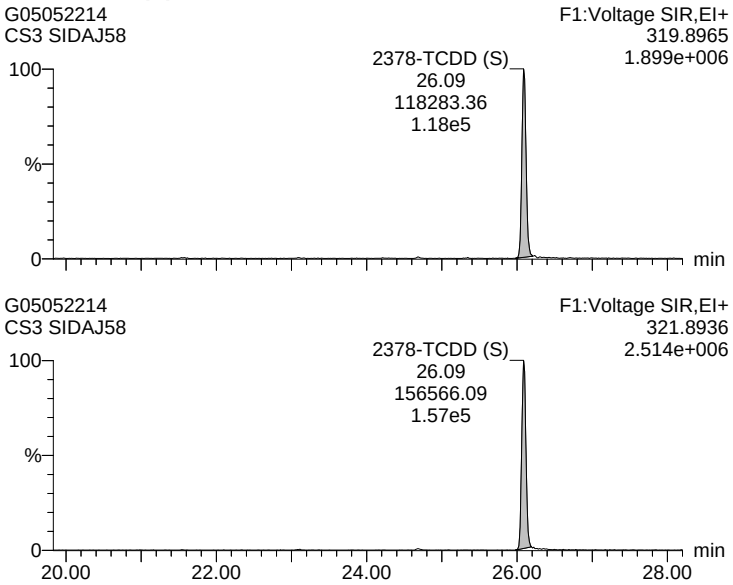
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

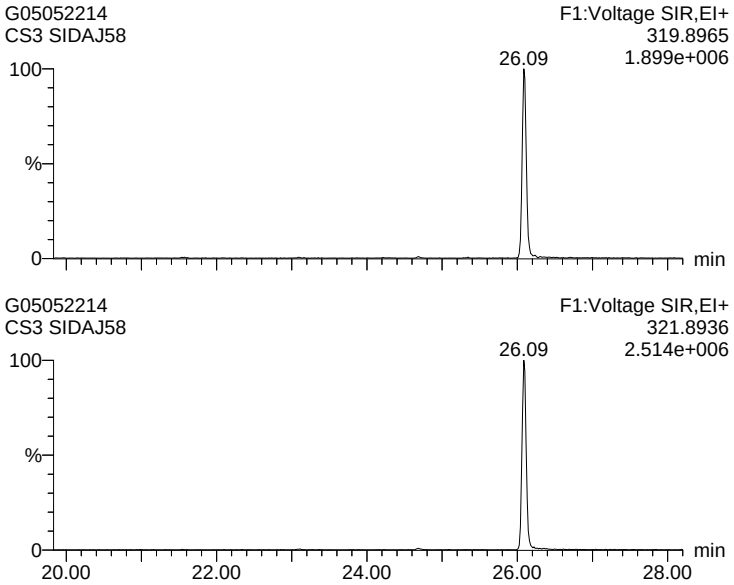
1239-TCDD [CE]



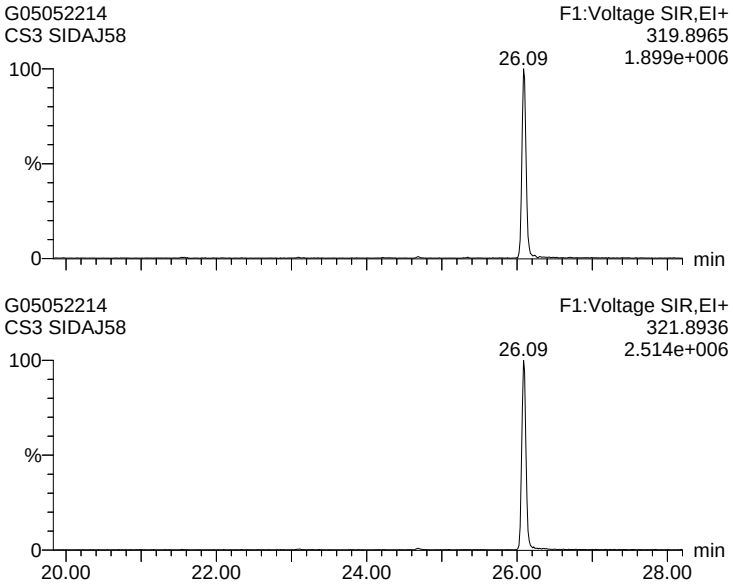
2378-TCDD (S)



1278-TCDD



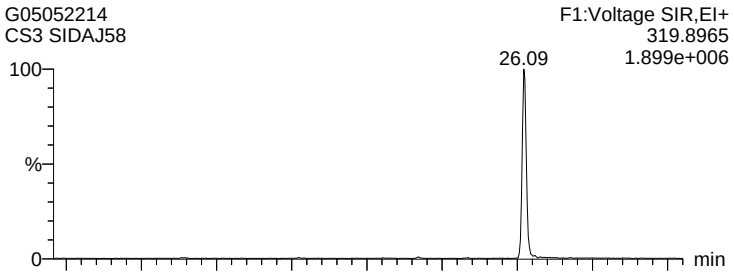
1267-TCDD

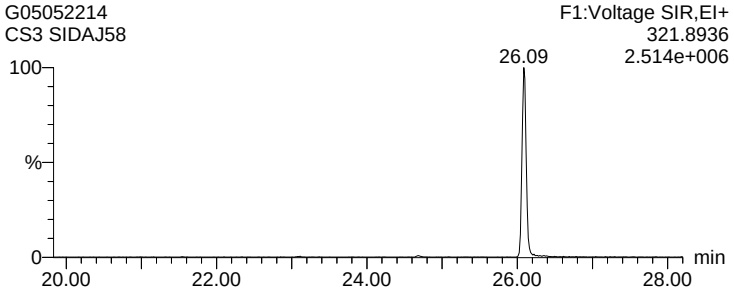


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

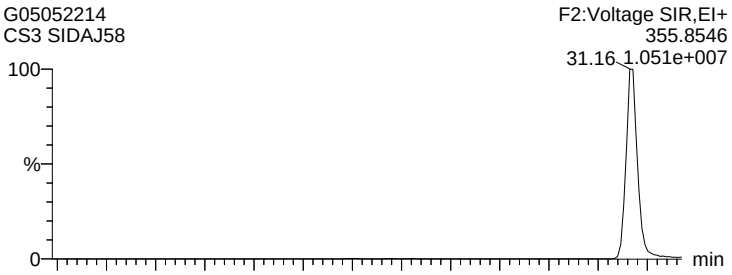
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

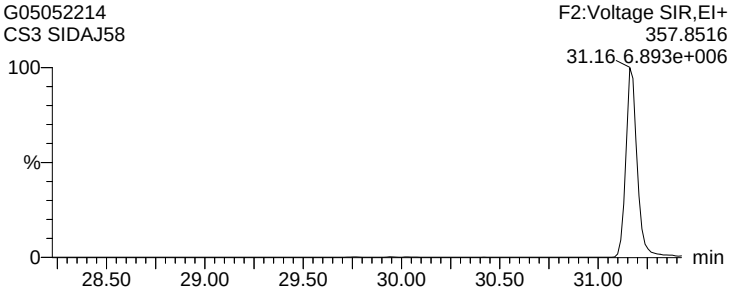
1289-TCDD



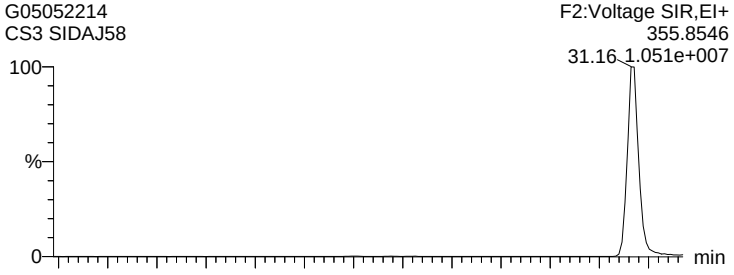


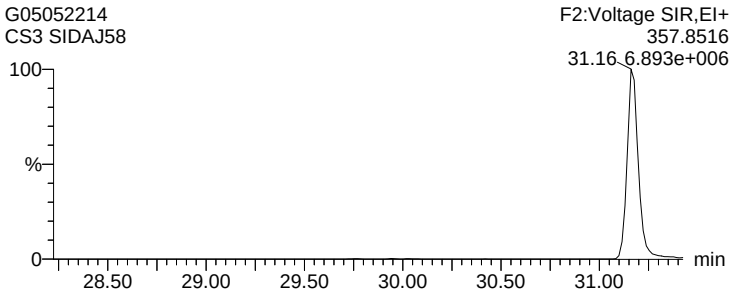
12479/12468-PeCDD



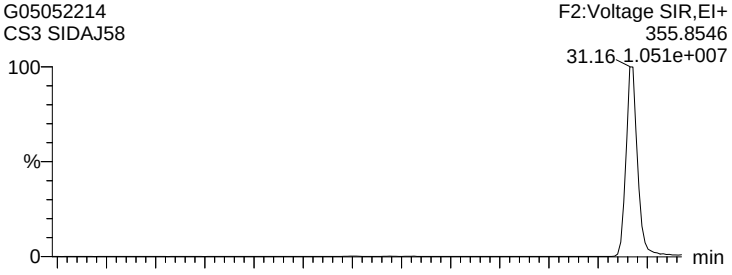


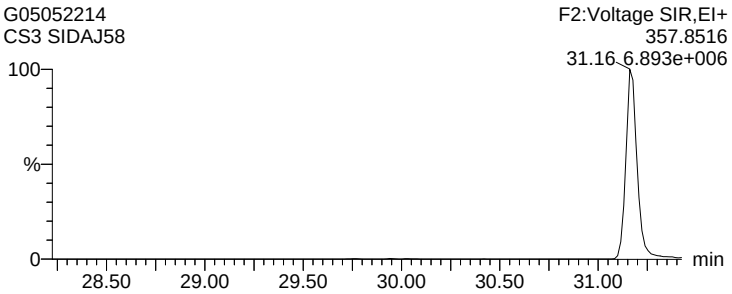
12469-PeCDD





12368-PeCDD

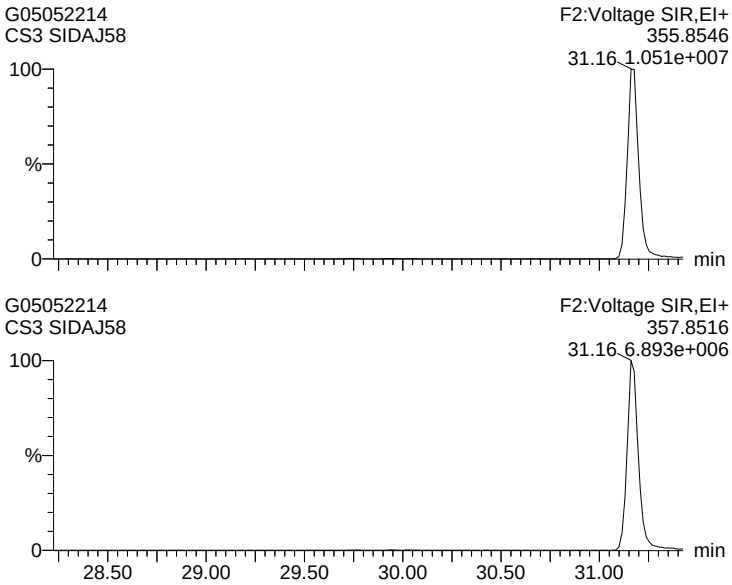




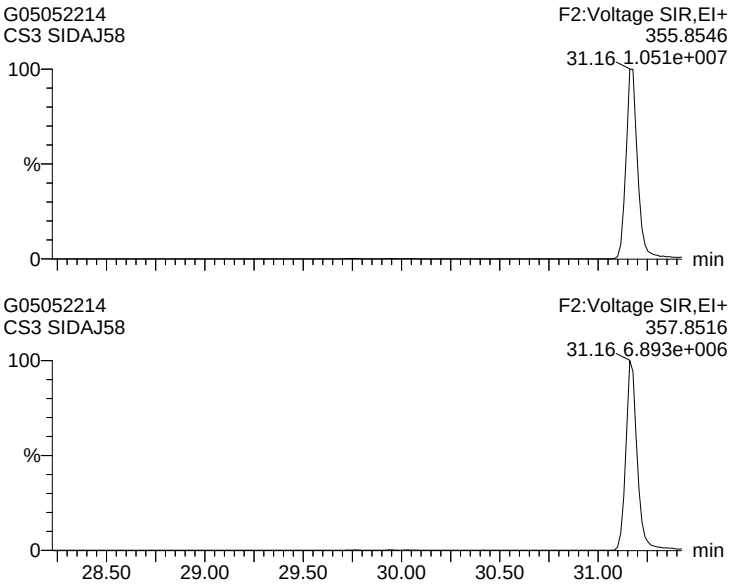
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

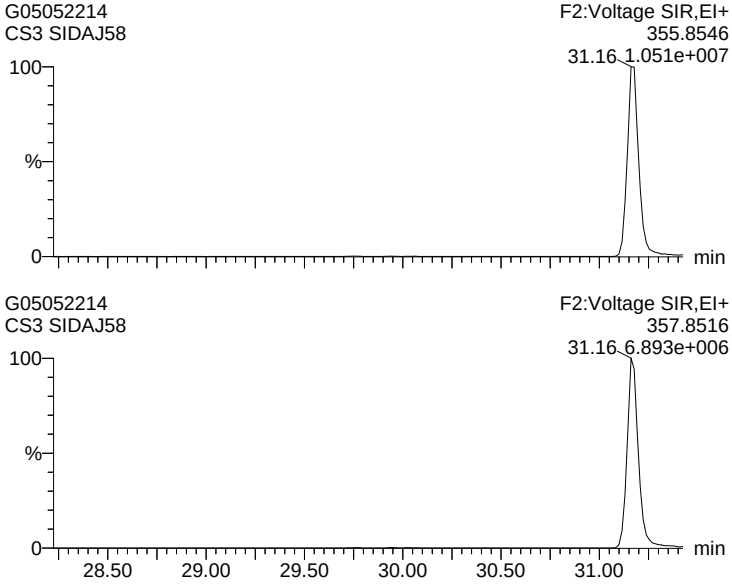
12478-PeCDD



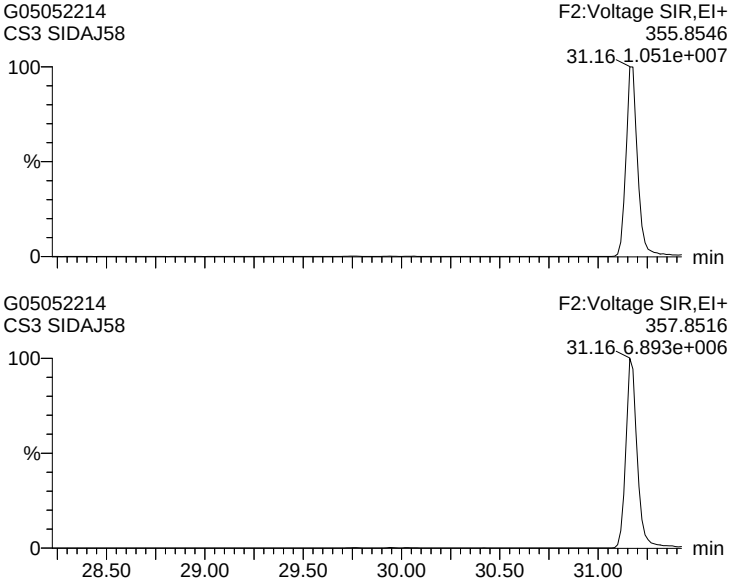
12379-PeCDD



12369/12467/12489-PeCDD



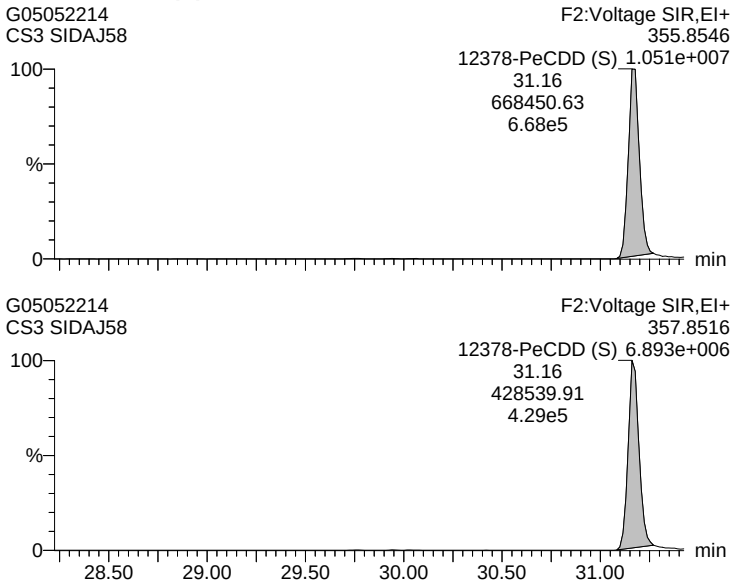
12346/12347-PeCDD



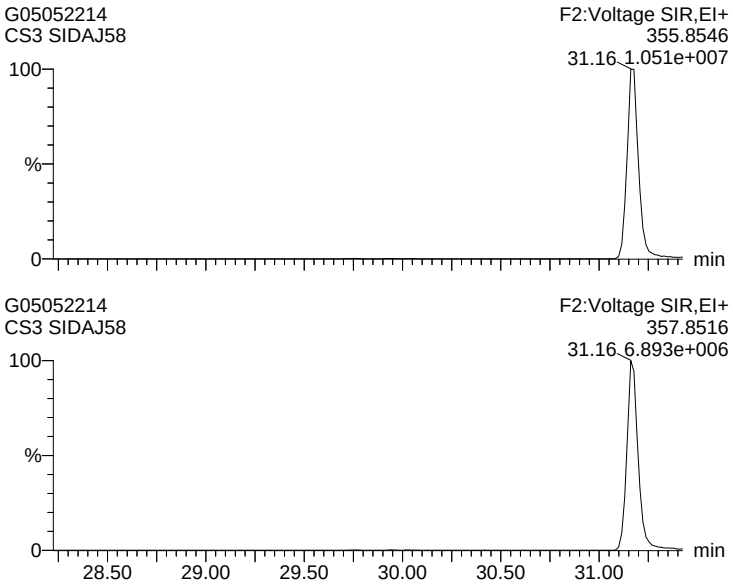
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

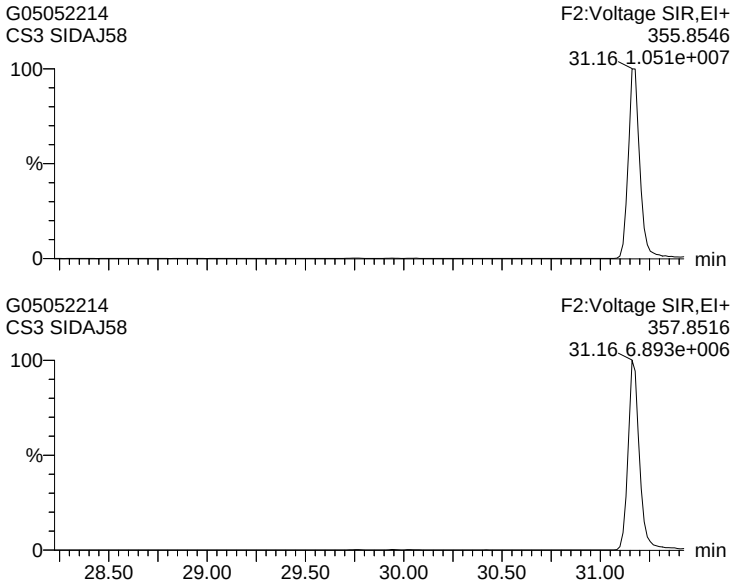
12378-PeCDD (S)



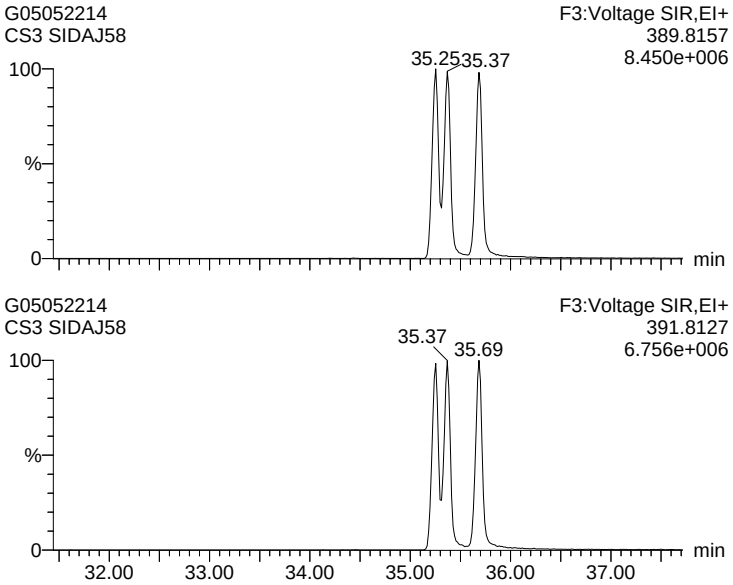
12367-PeCDD



12389-PeCDD



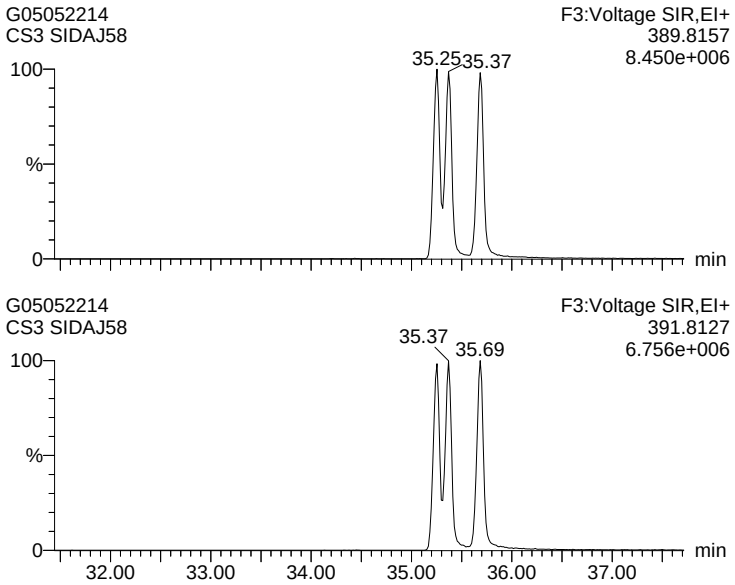
124679/124689-HxCDD



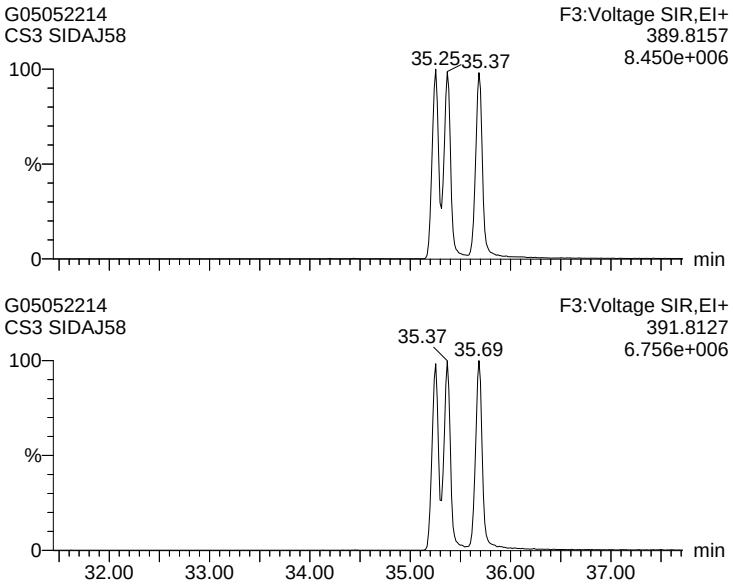
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

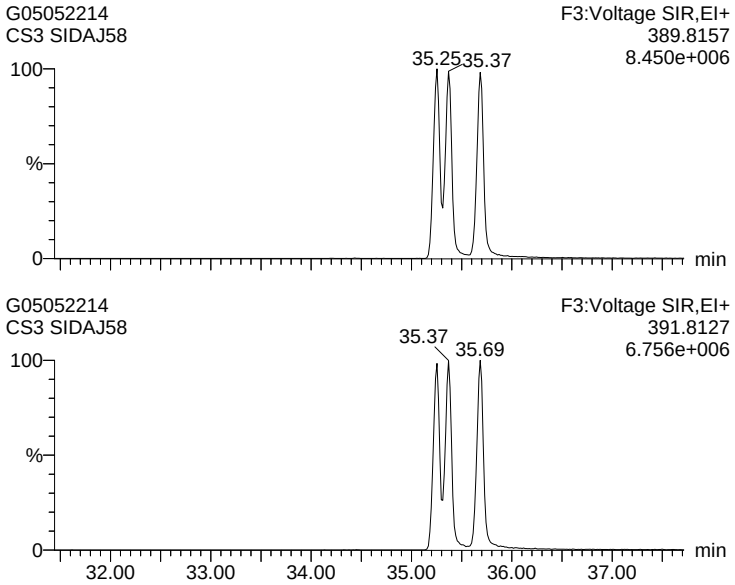
123468-HxCDD



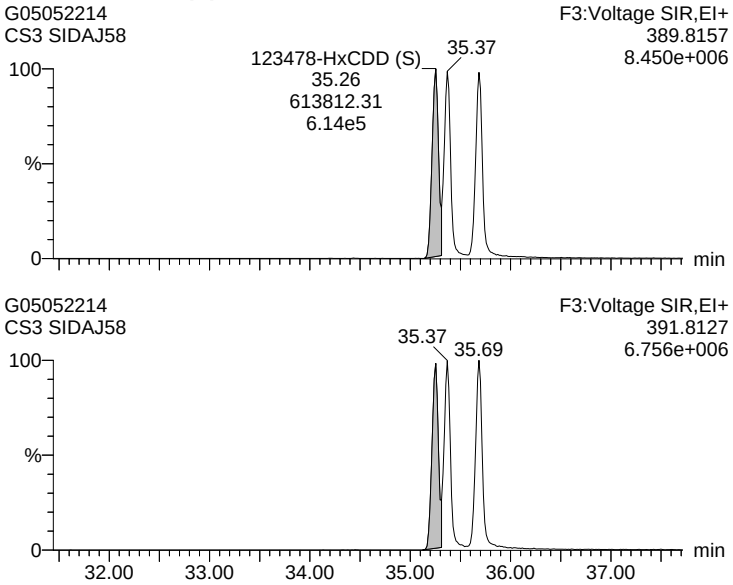
123679/123689-HxCDD



123469-HxCDD



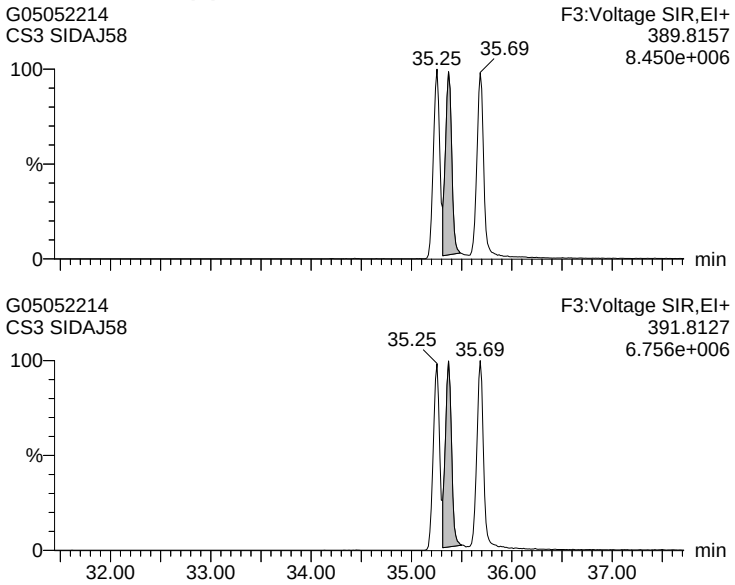
123478-HxCDD (S)



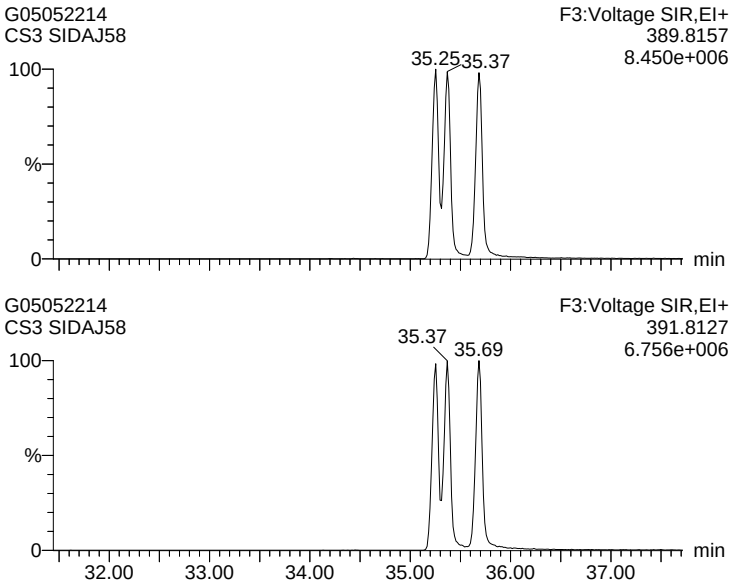
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

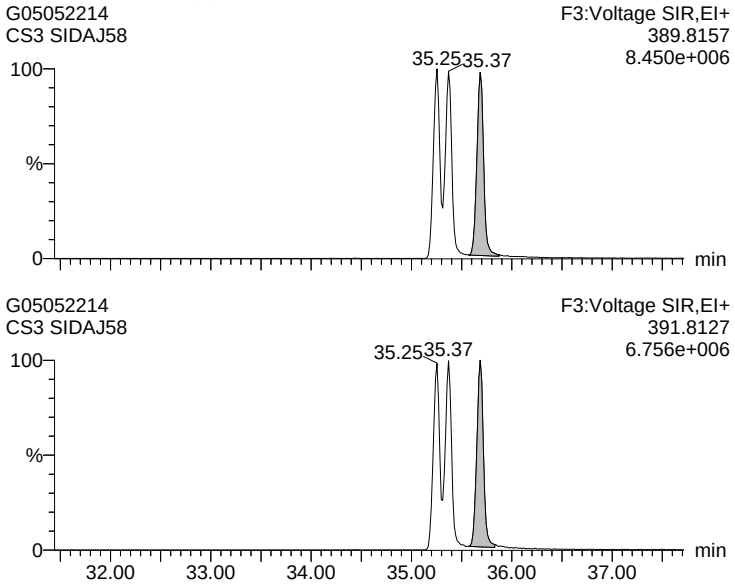
123678-HxCDD (S)



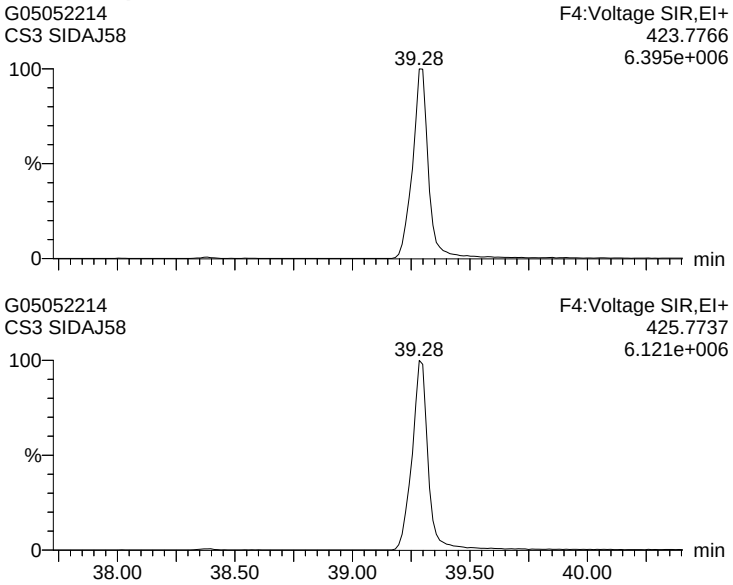
123467-HxCDD



123789-HxCDD (S)



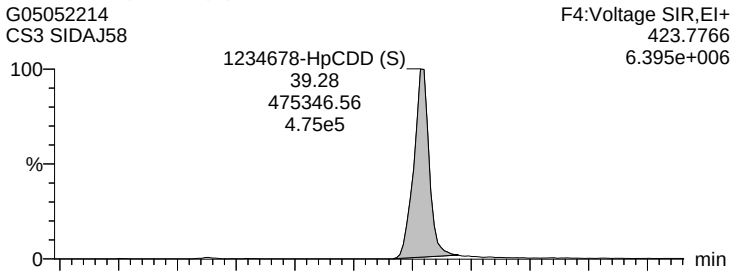
1234679-HpCDD

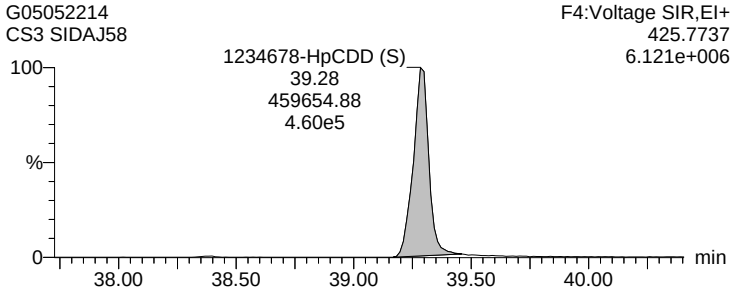


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

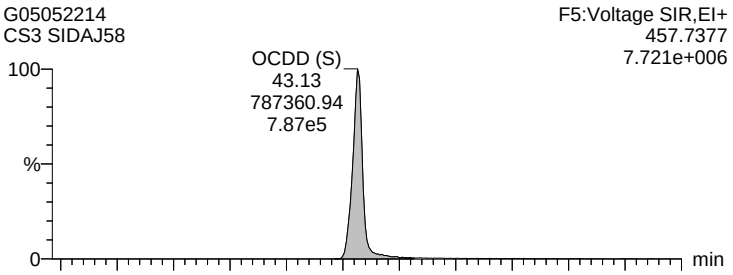
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

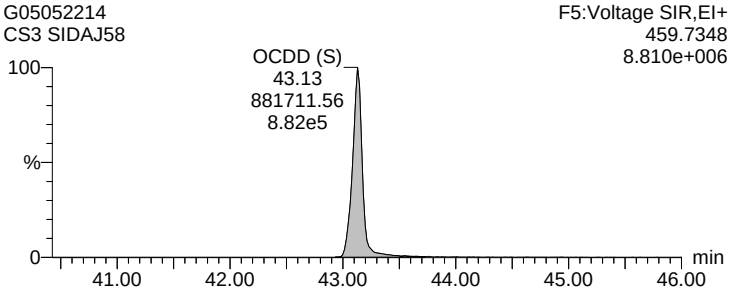
1234678-HpCDD (S)



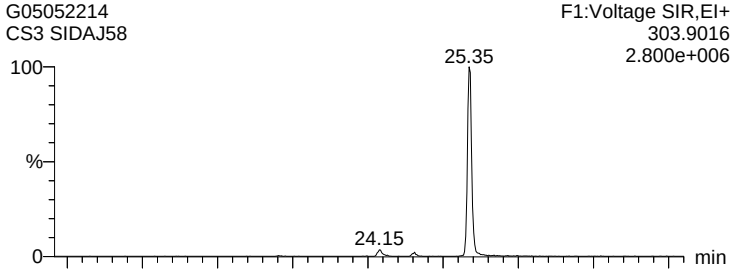


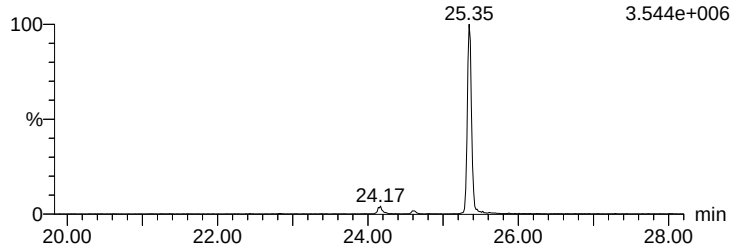
OCDD (S)



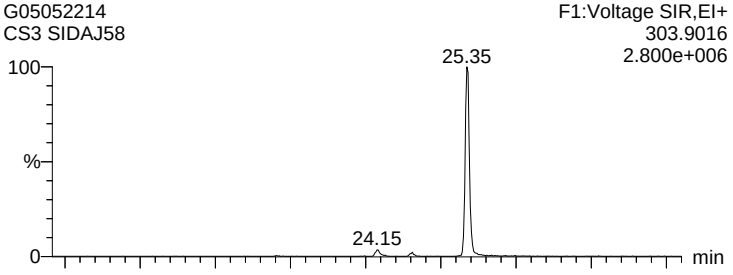


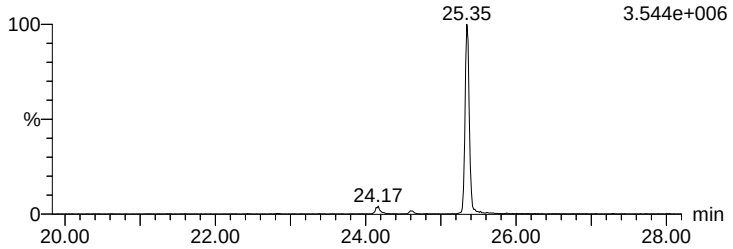
1368-TCDF





1468-TCDF

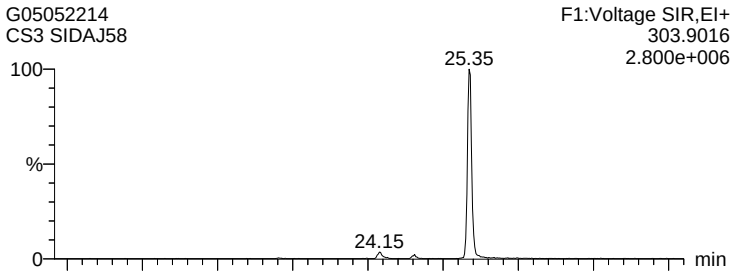


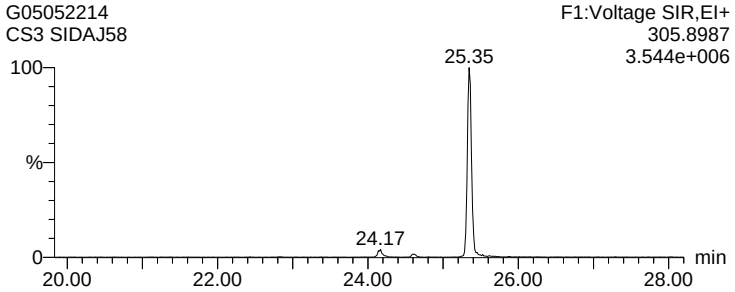


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

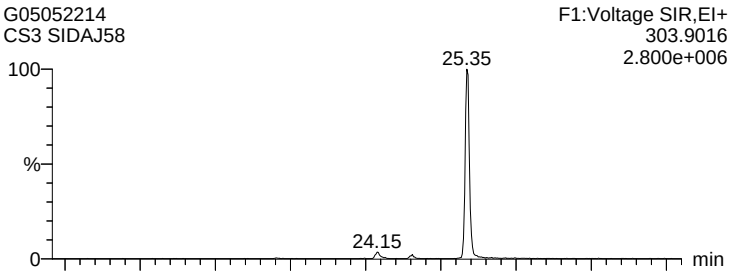
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

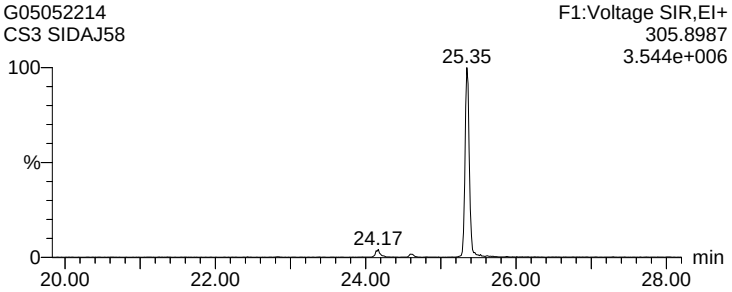
2468-TCDF



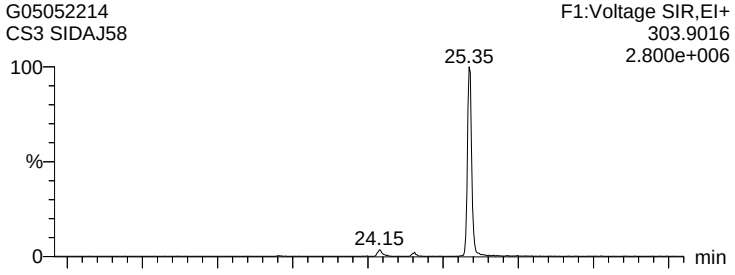


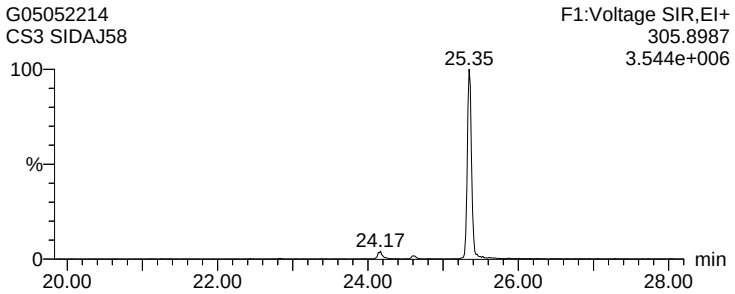
1346/1246-TCDF



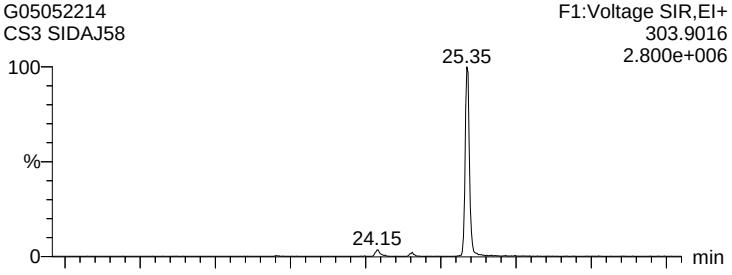


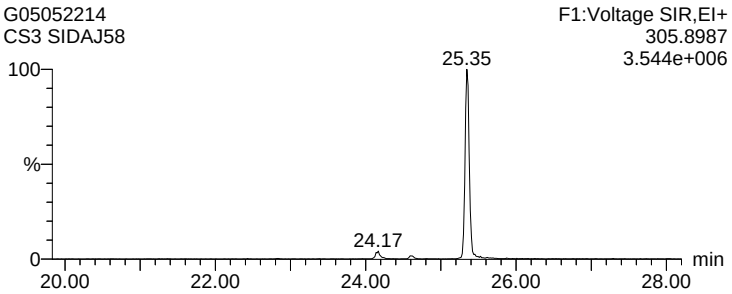
1347/1378/1247-TCDF





1348-TCDF

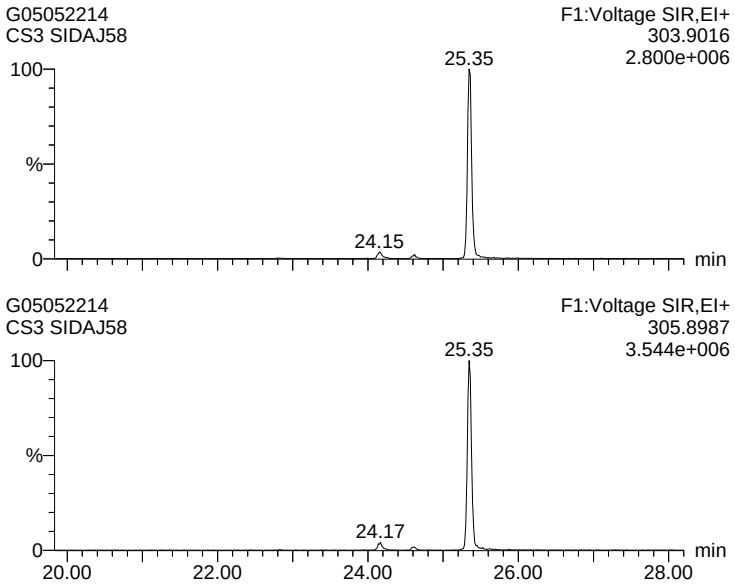




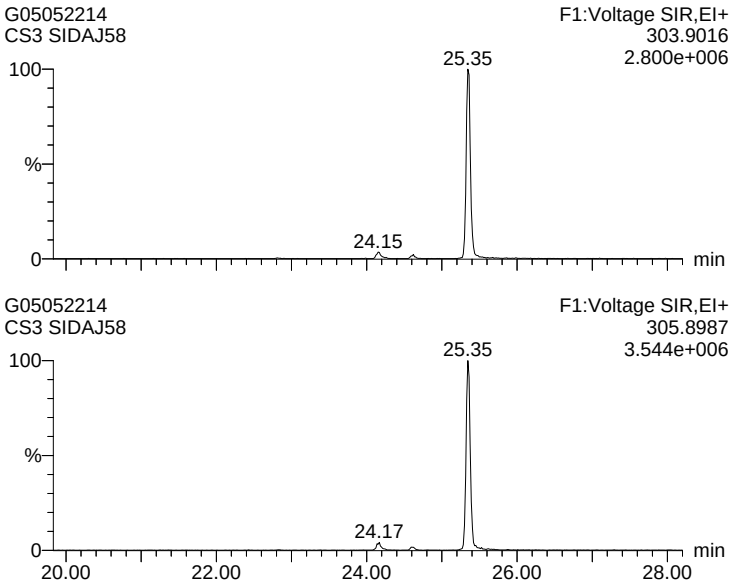
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

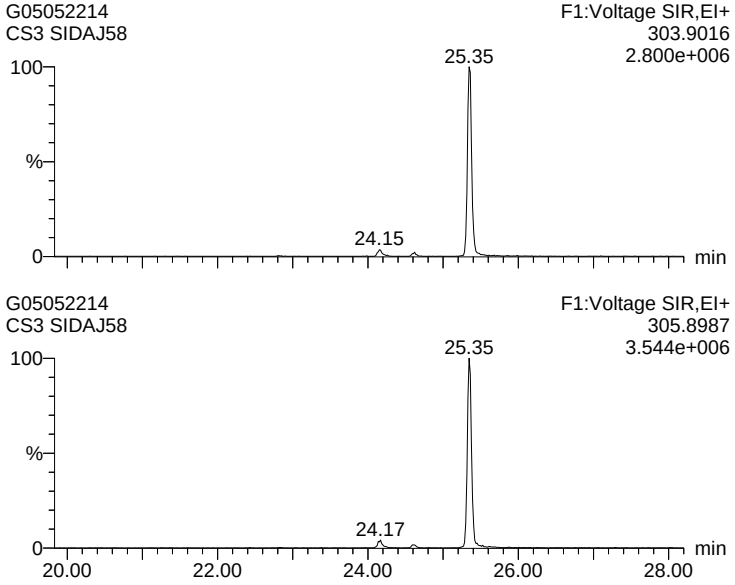
1248/1367/1379-TCDF



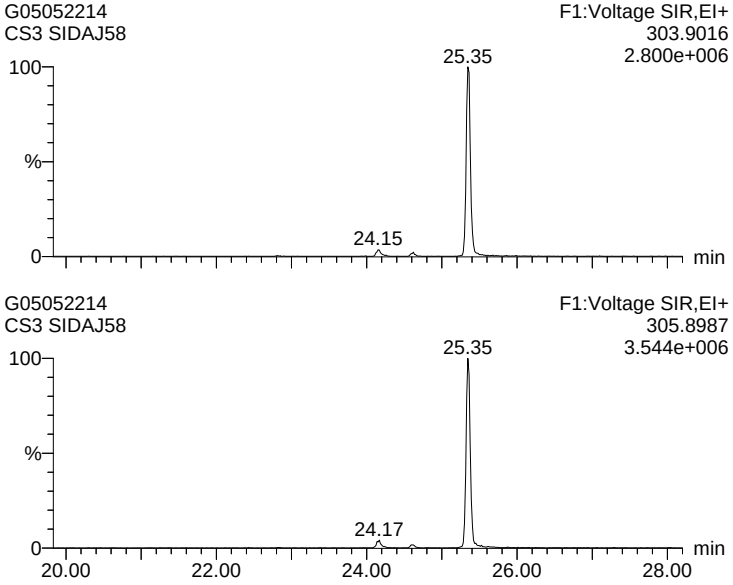
1268-TCDF



1467-TCDF



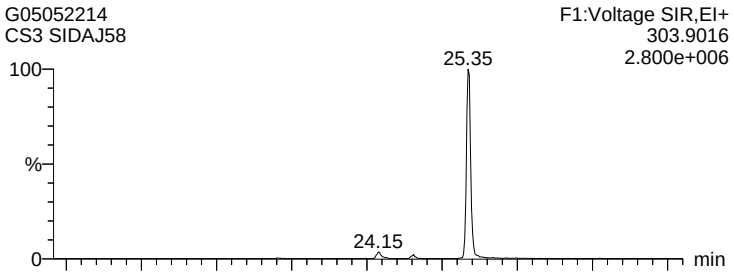
1478-TCDF

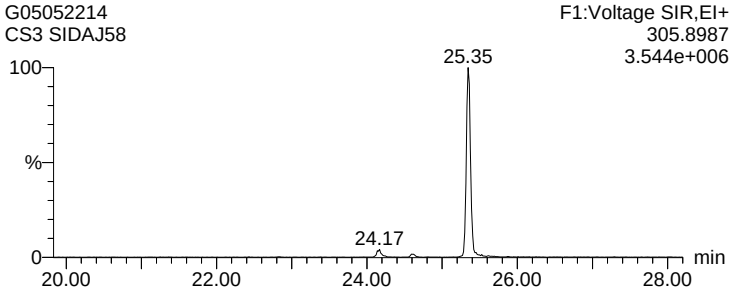


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

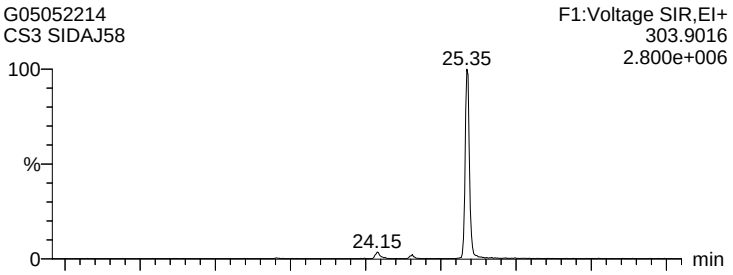
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

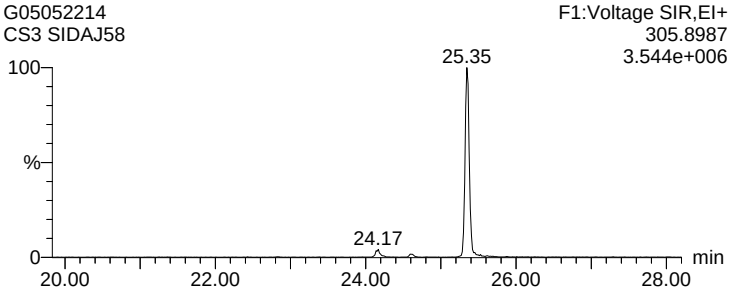
1369/1237-TCDF



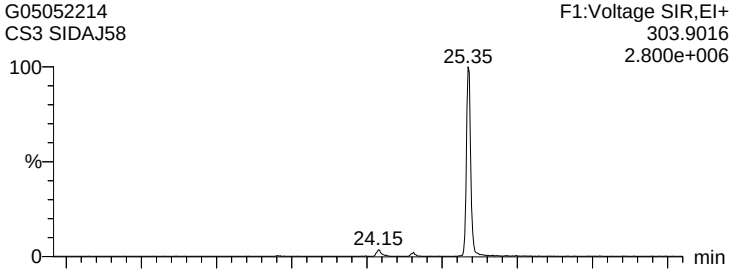


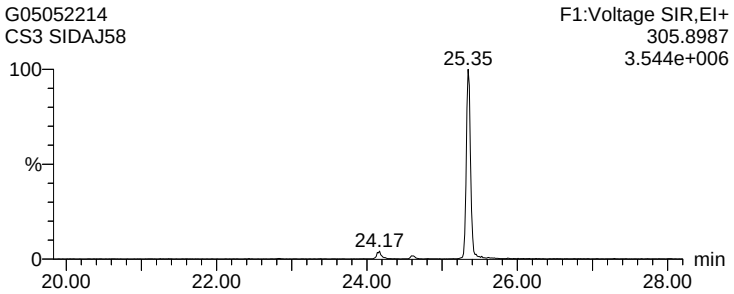
2467-TCDF



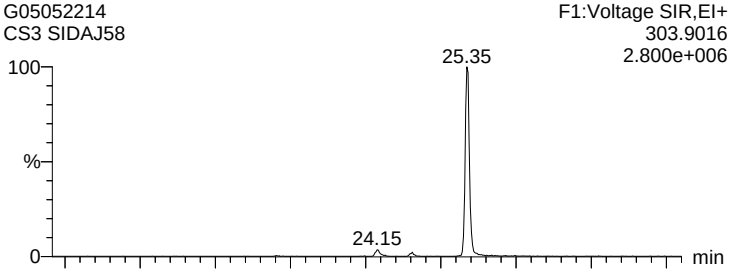


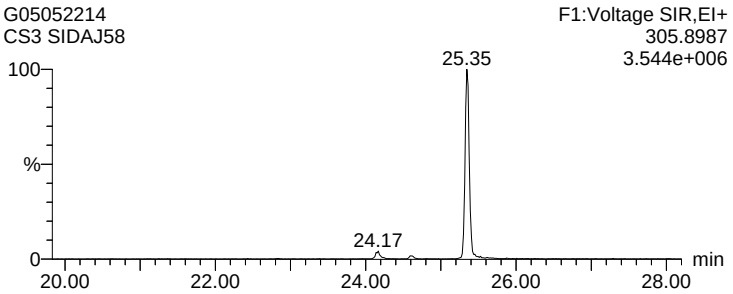
2368-TCDF





1238/1234/1678/1469/1236-TCDF

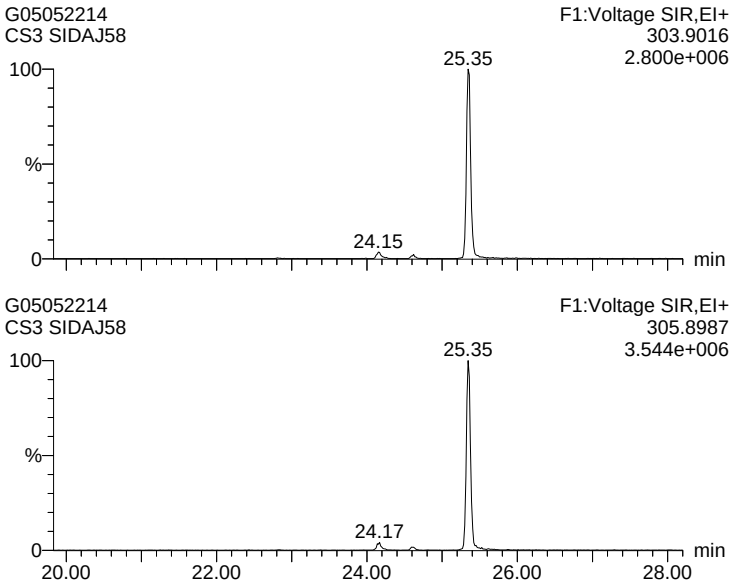




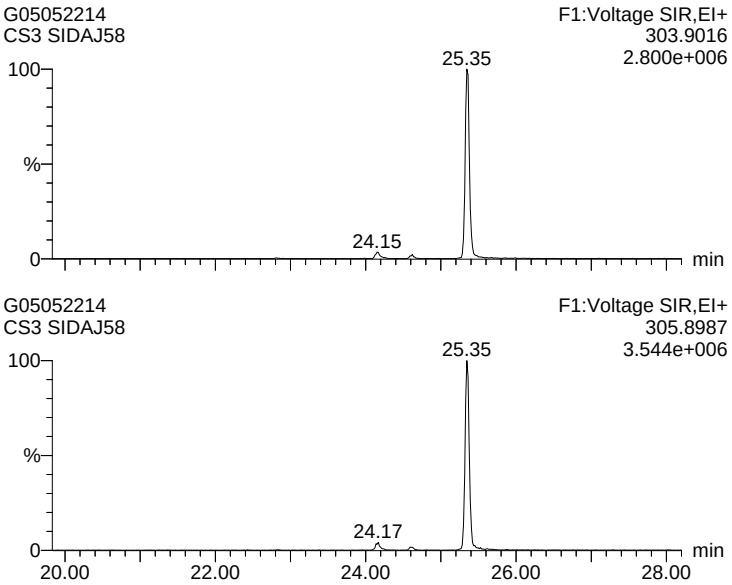
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

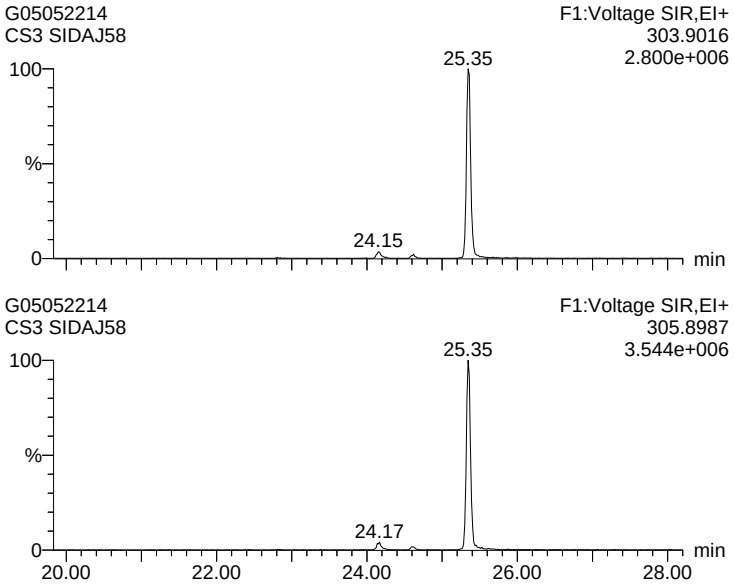
1278-TCDF



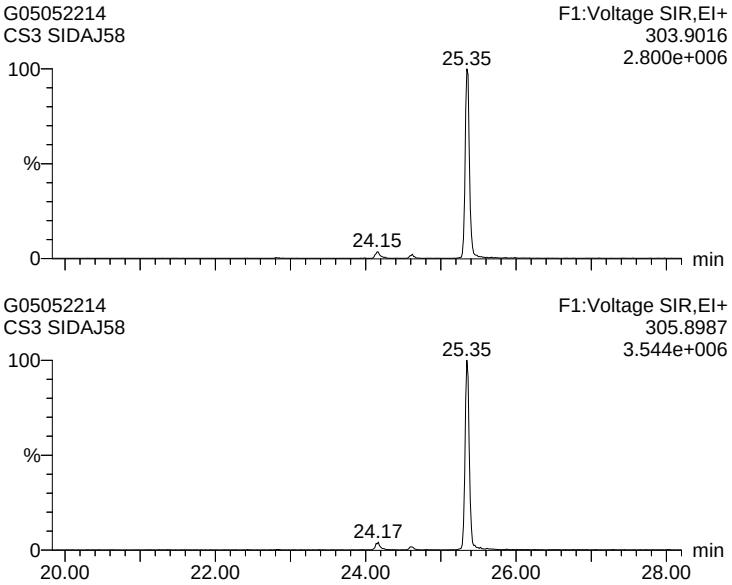
1349-TCDF



1267-TCDF



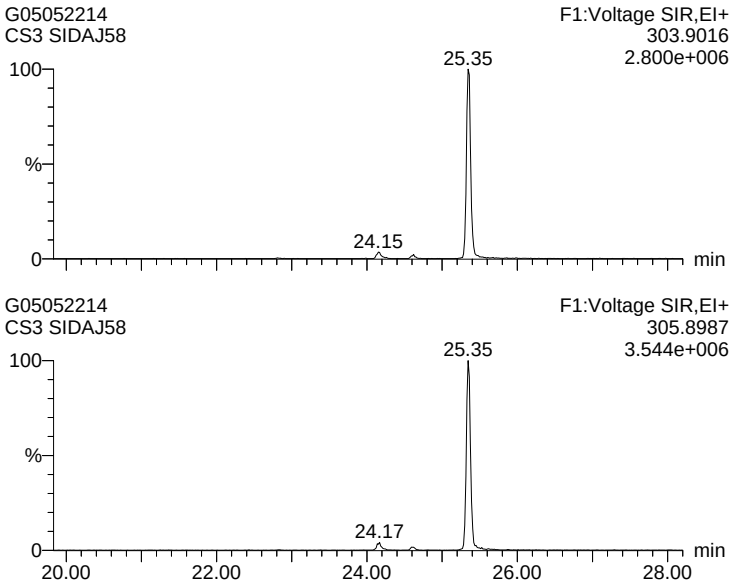
2346/1249-TCDF



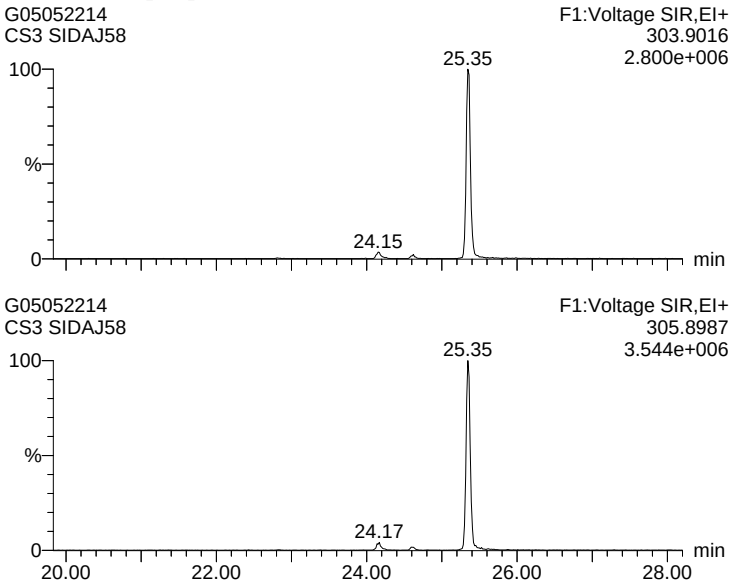
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

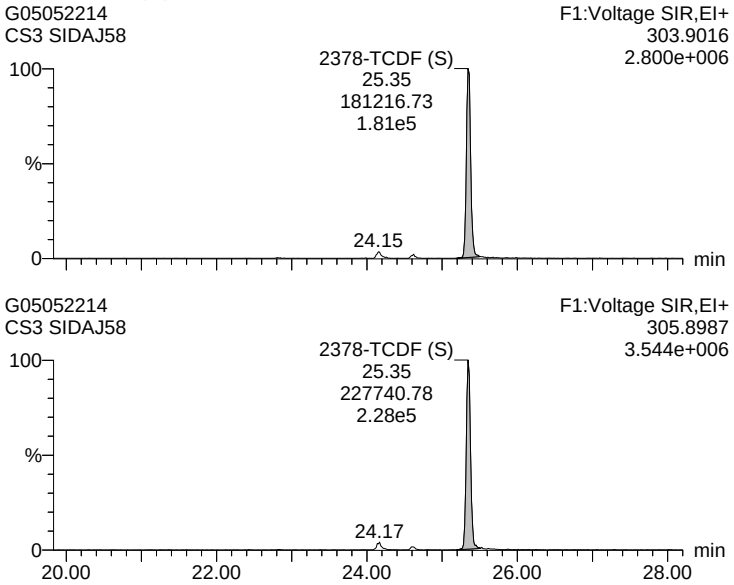
2347/1279-TCDF



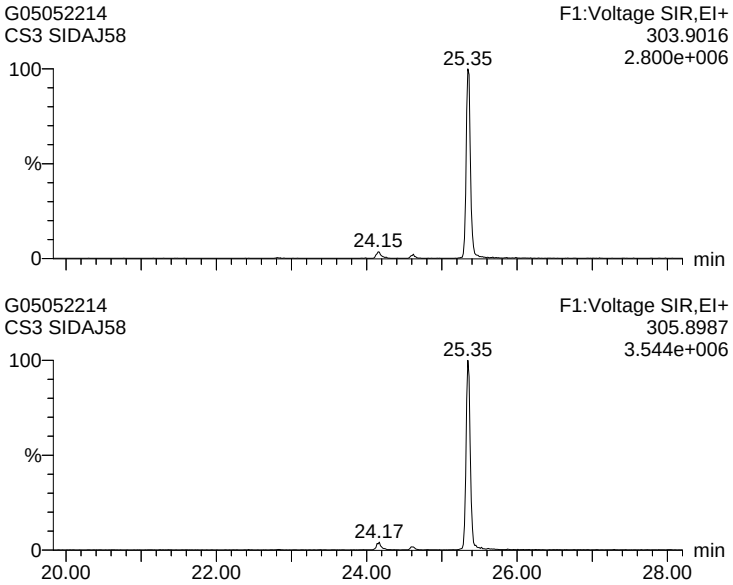
2348-TCDF [CE]



2378-TCDF (S)



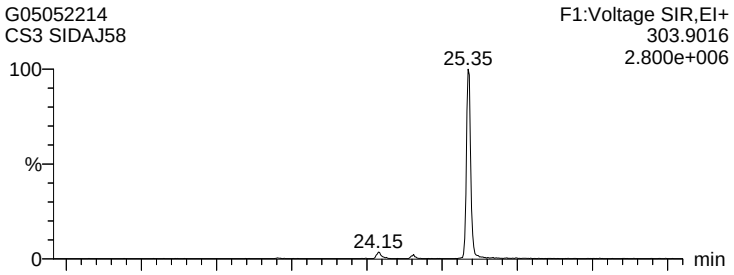
2367/3467-TCDF

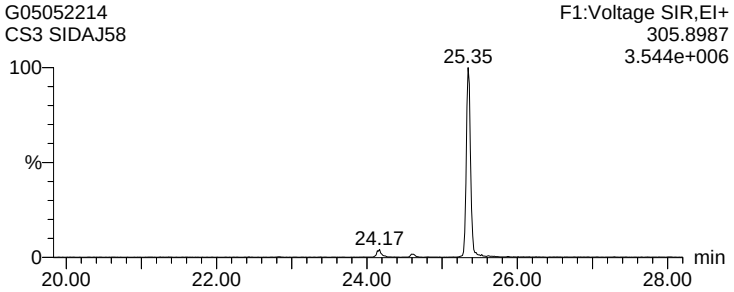


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

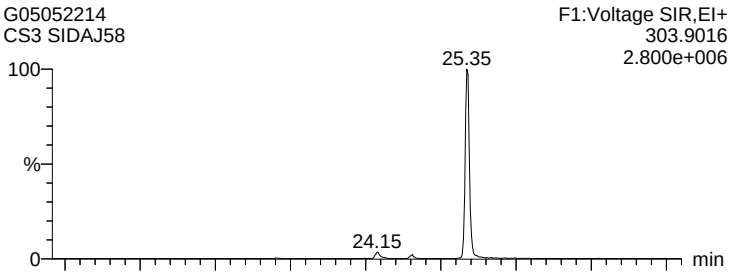
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

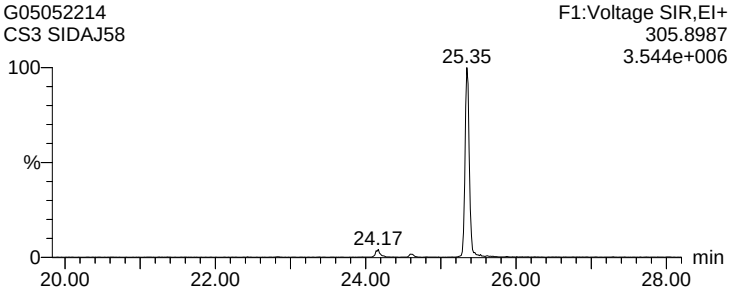
1269-TCDF



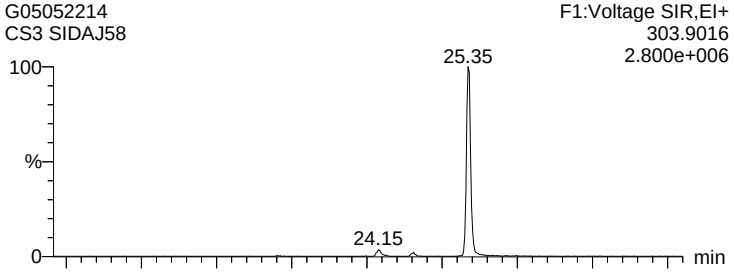


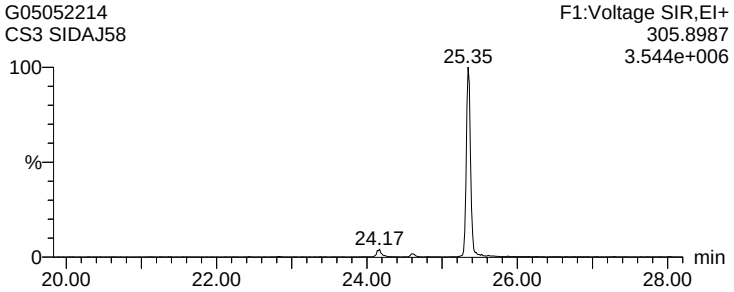
1239-TCDF



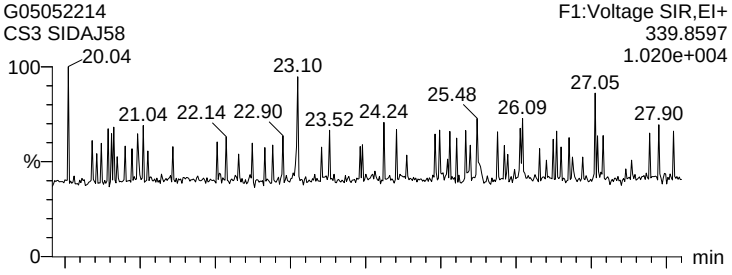


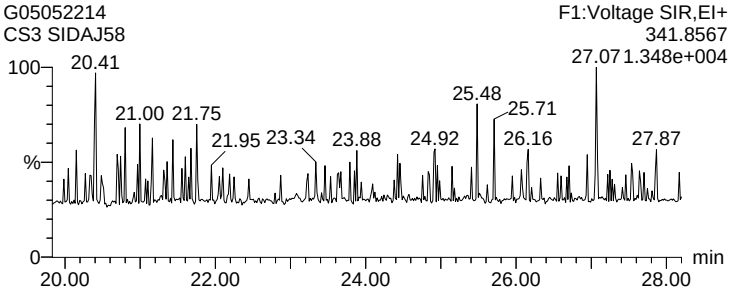
1289-TCDF





13468/12466-PeCDF

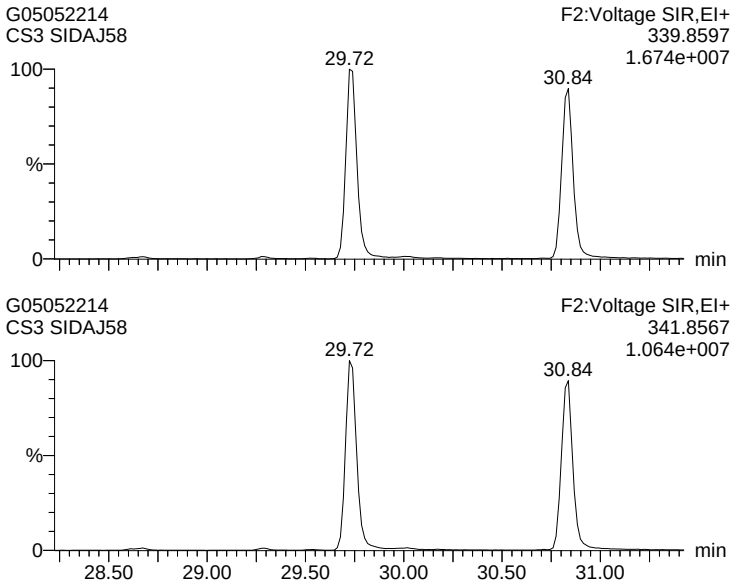




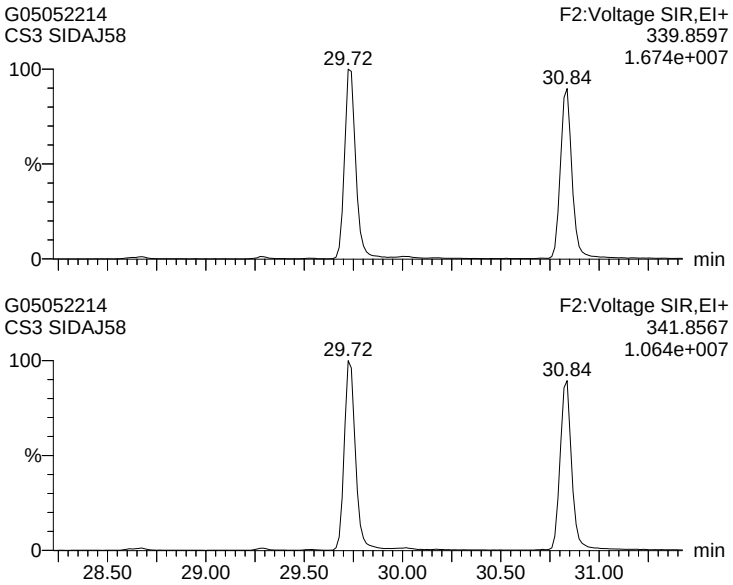
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

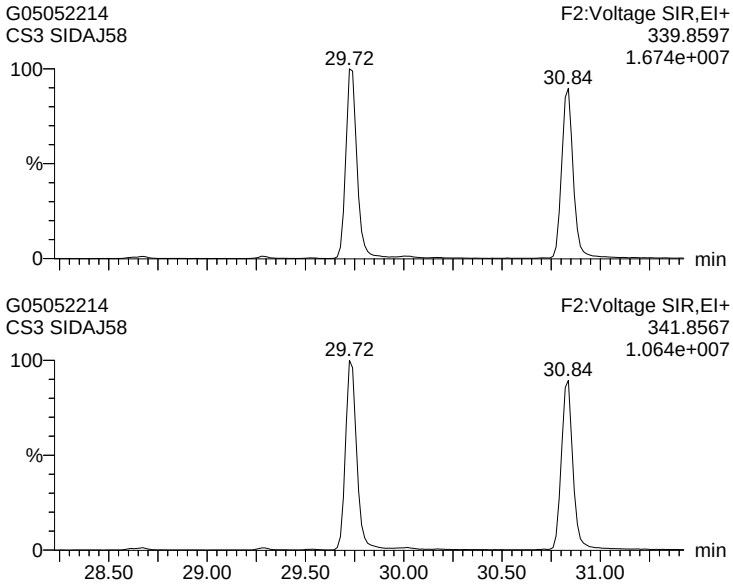
13678/13467/12467-PeCDF



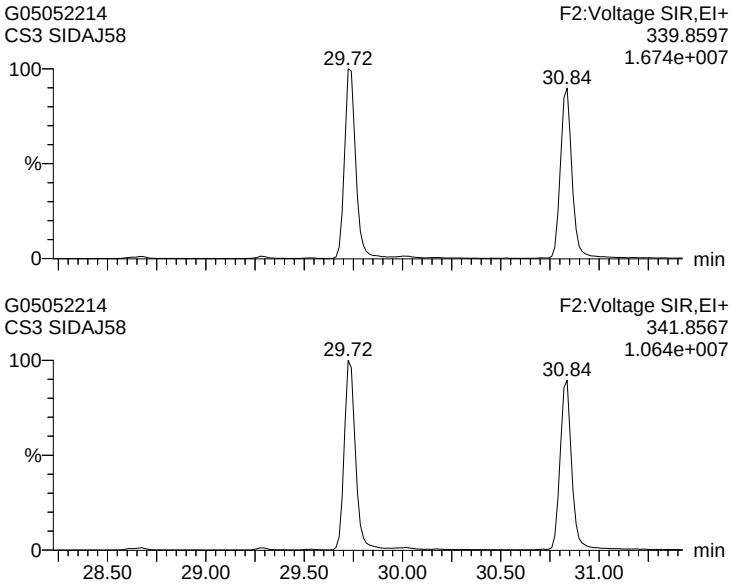
12368/13478/12478-PeCDF



14678-PeCDF



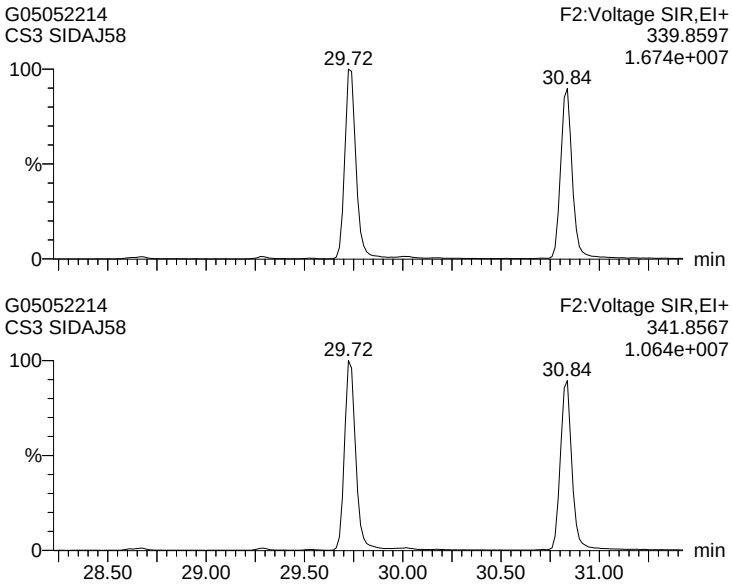
13479-PeCDF



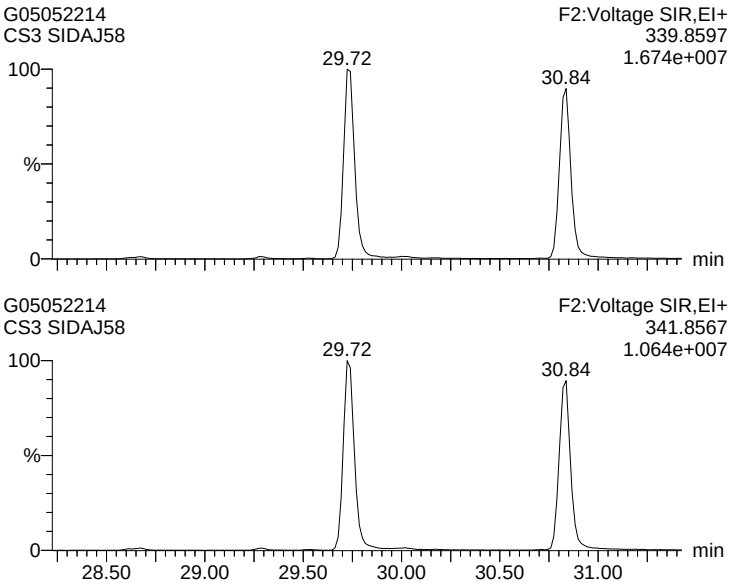
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

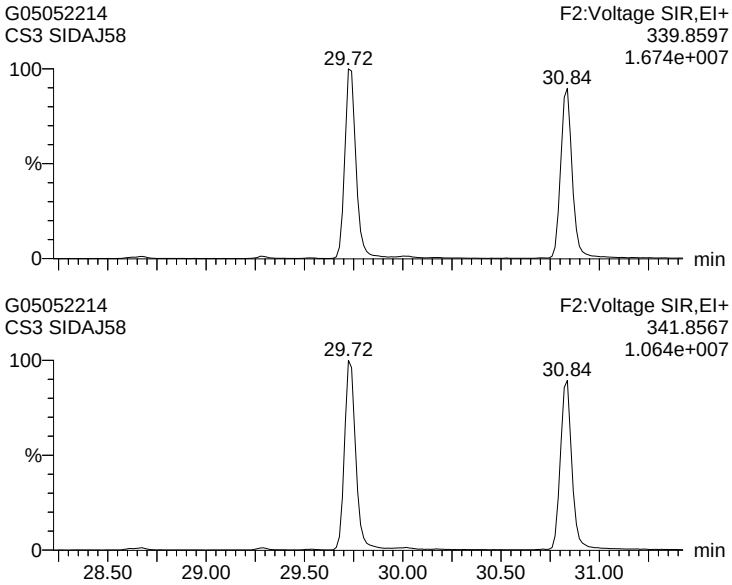
13469/12479-PeCDF



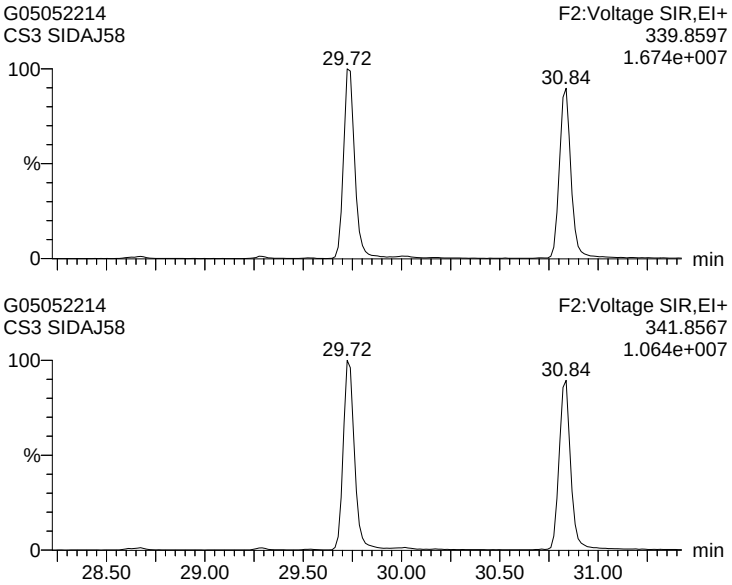
12346-PeCDF



23468/12469-PeCDF



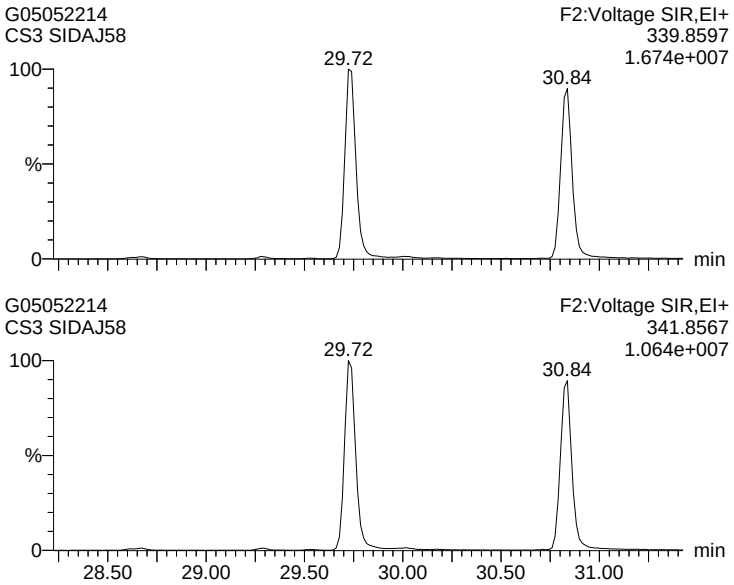
12347-PeCDF



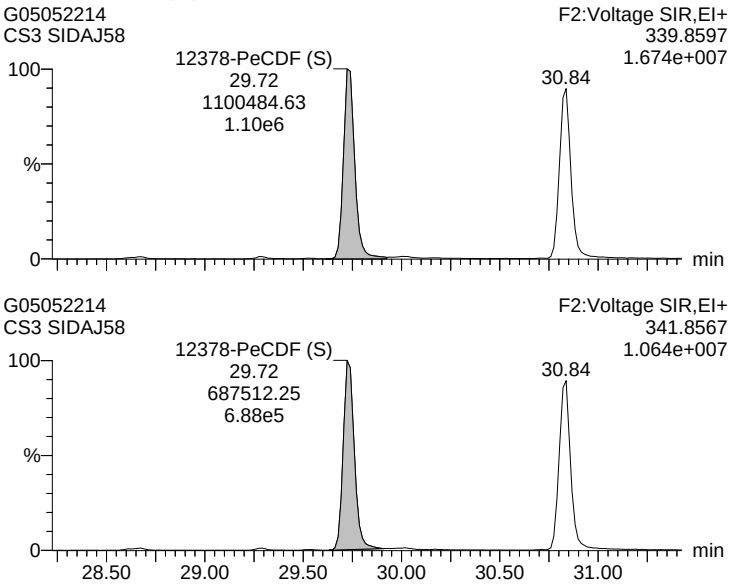
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

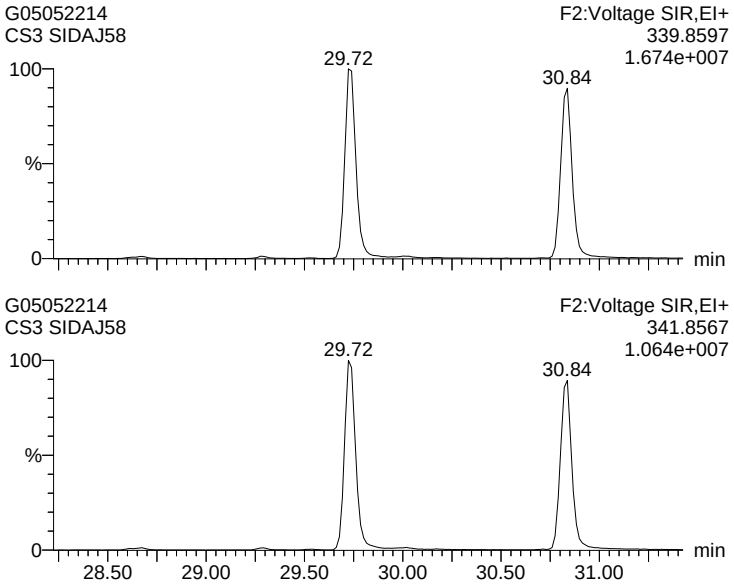
12348-PeCDF



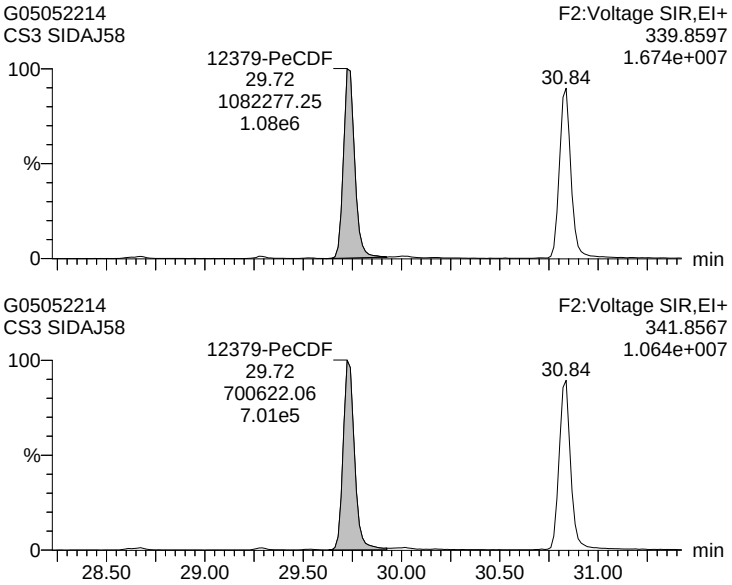
12378-PeCDF (S)



12678/12367-PeCDF



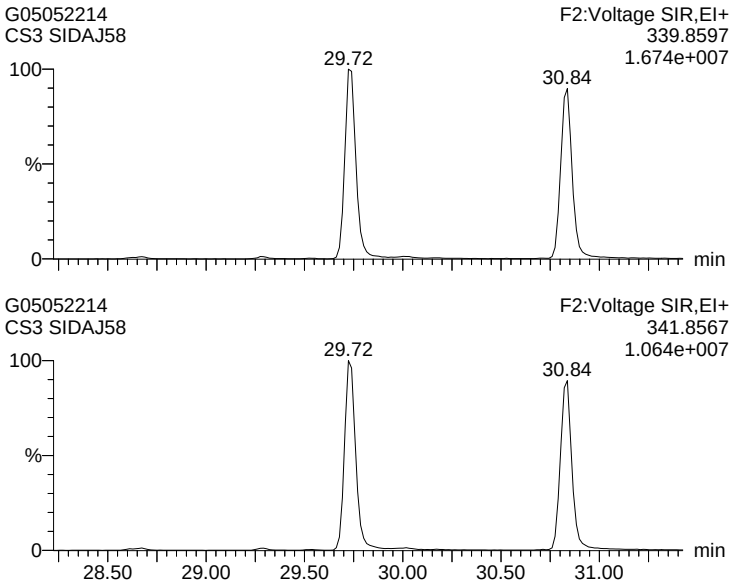
12379-PeCDF



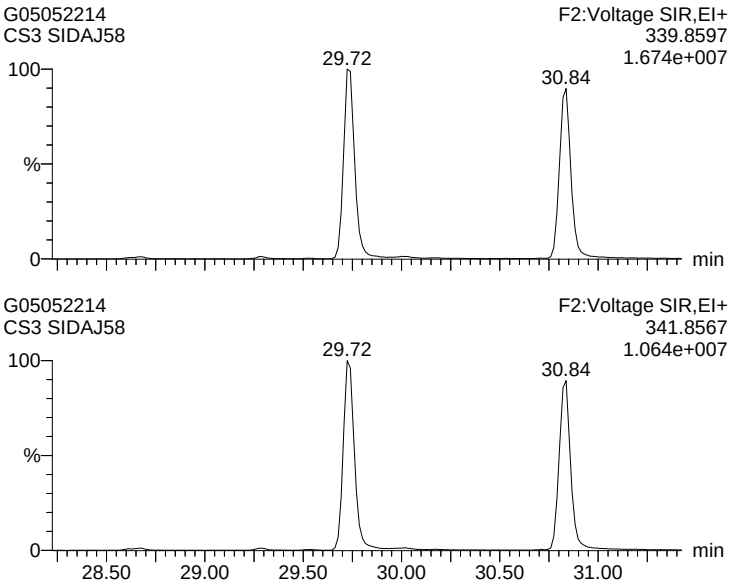
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

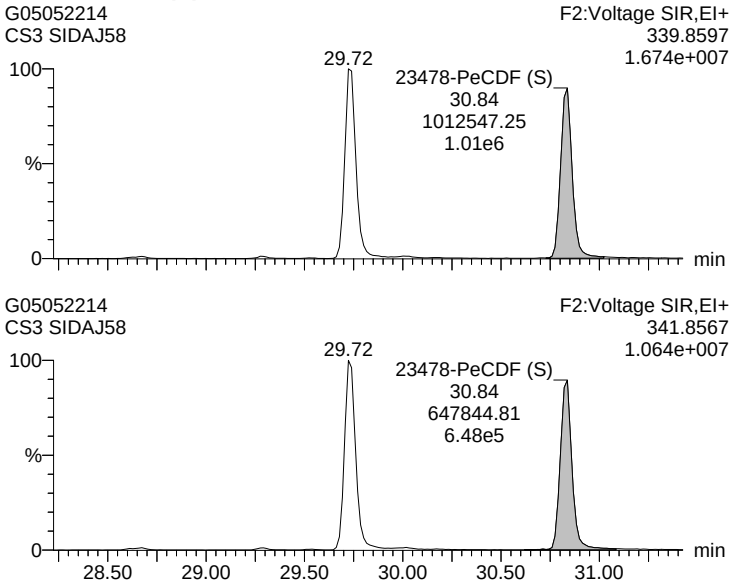
12679-PeCDF



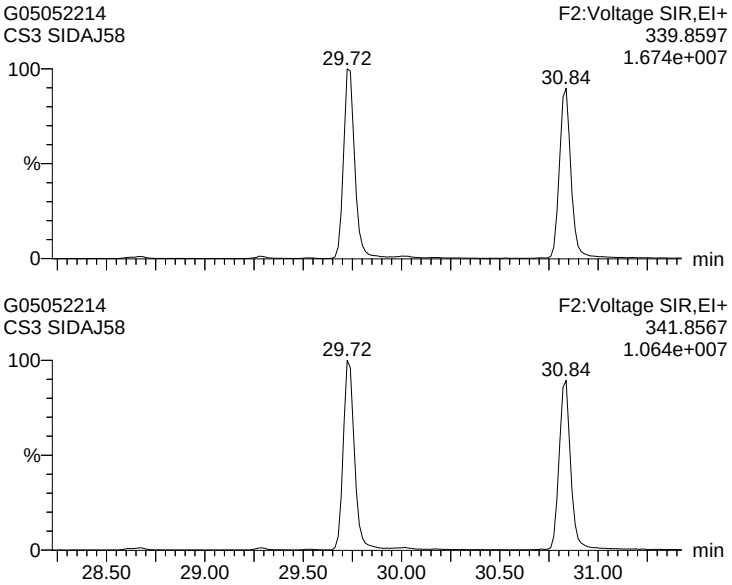
23467/12369-PeCDF



23478-PeCDF (S)



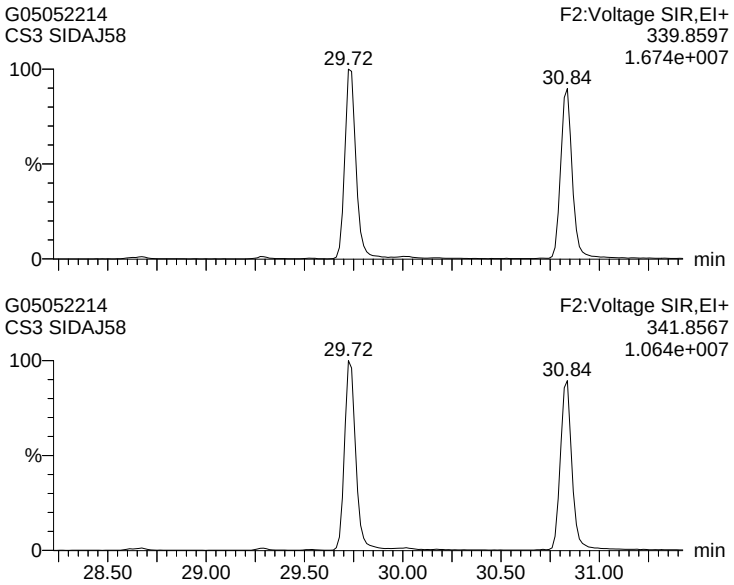
12489-PeCDF (R)



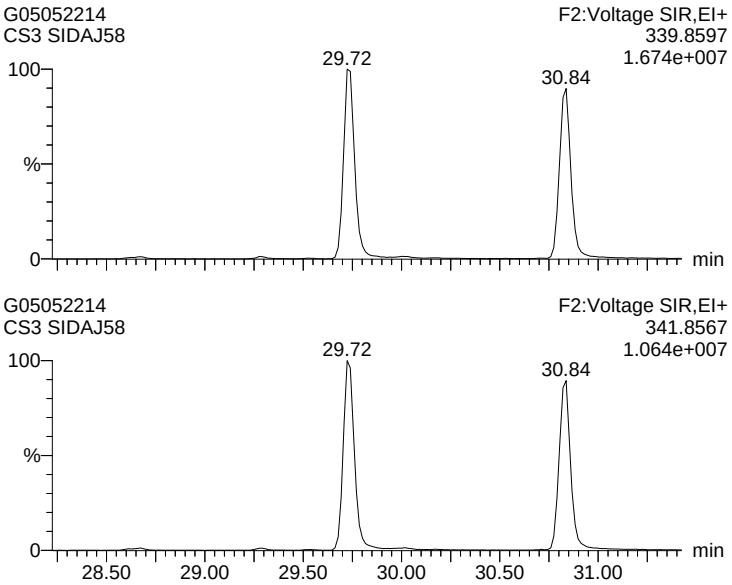
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

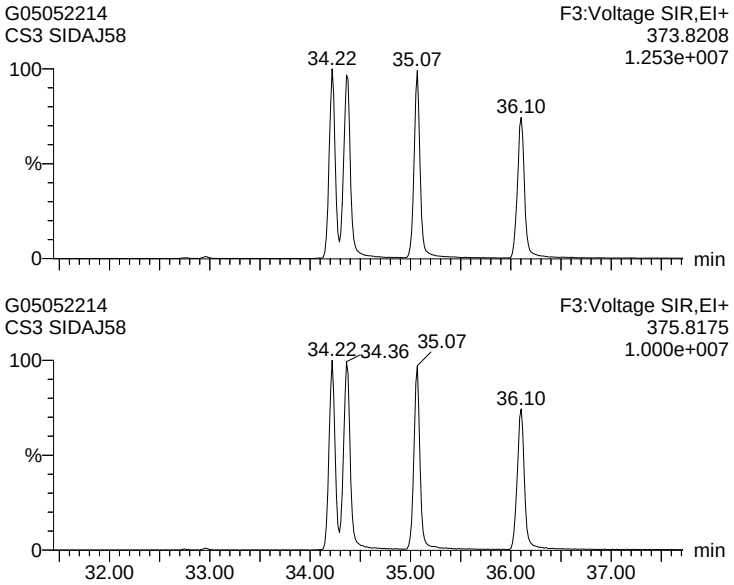
12349-PeCDF



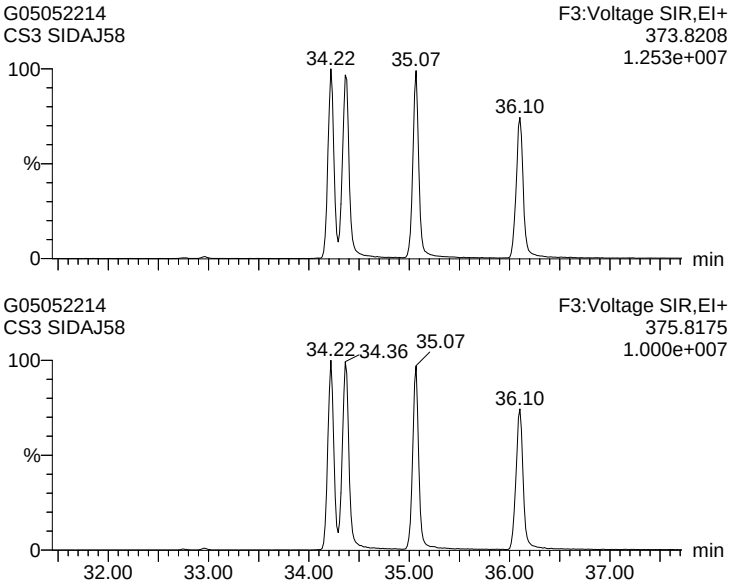
12389-PeCDF



123468-HxCDF



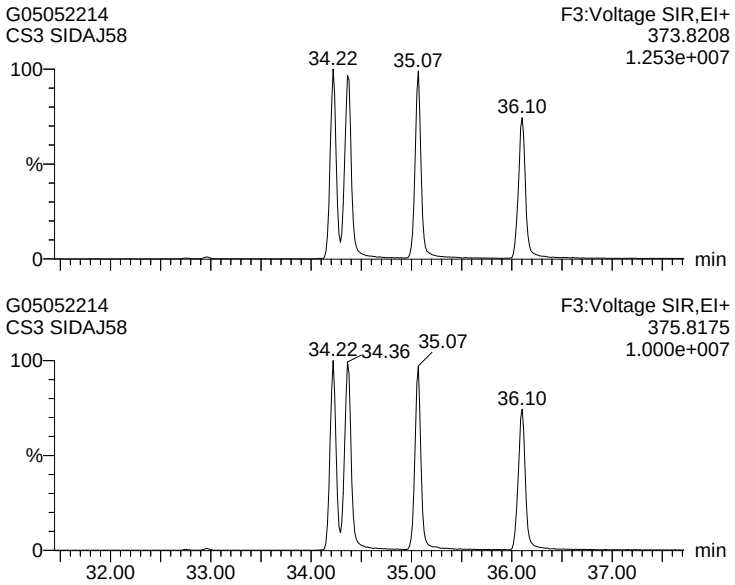
124678/134678-HxCDF



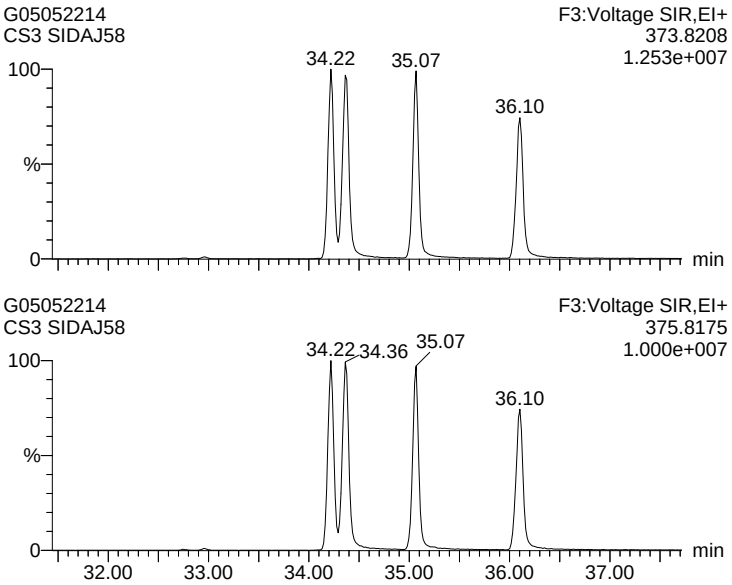
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

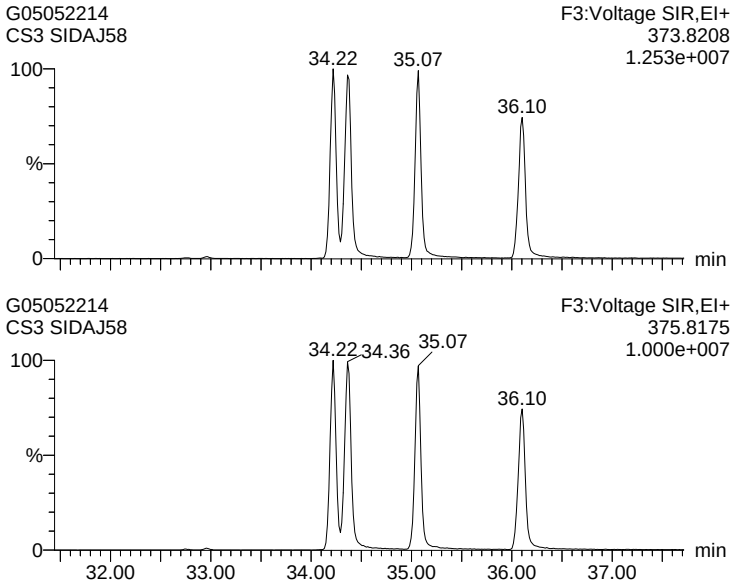
134679-HxCDF



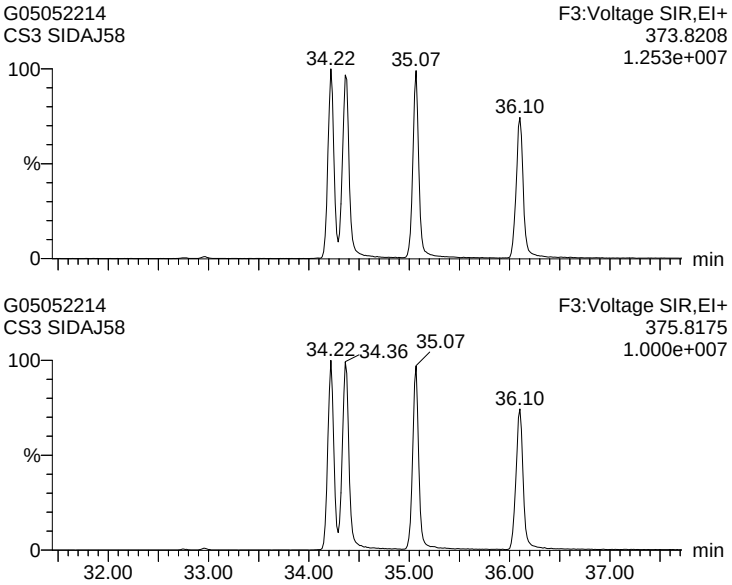
124679-HxCDF



124689-HxCDF



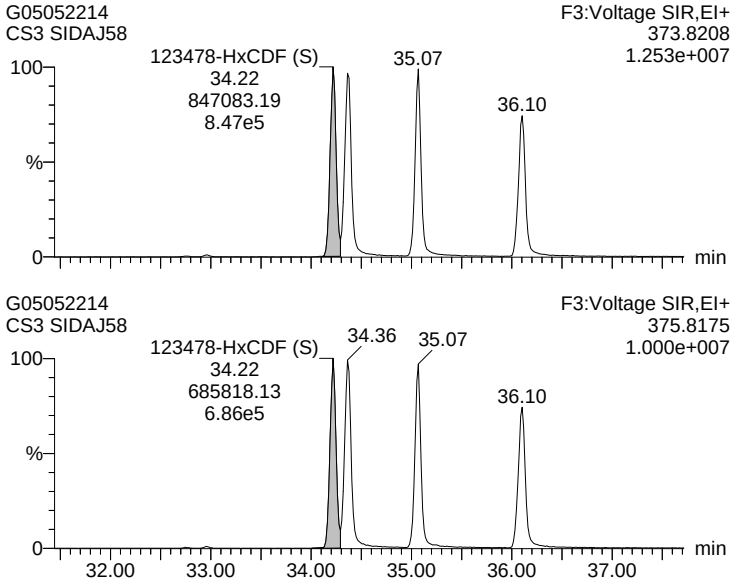
123467-HxCDF



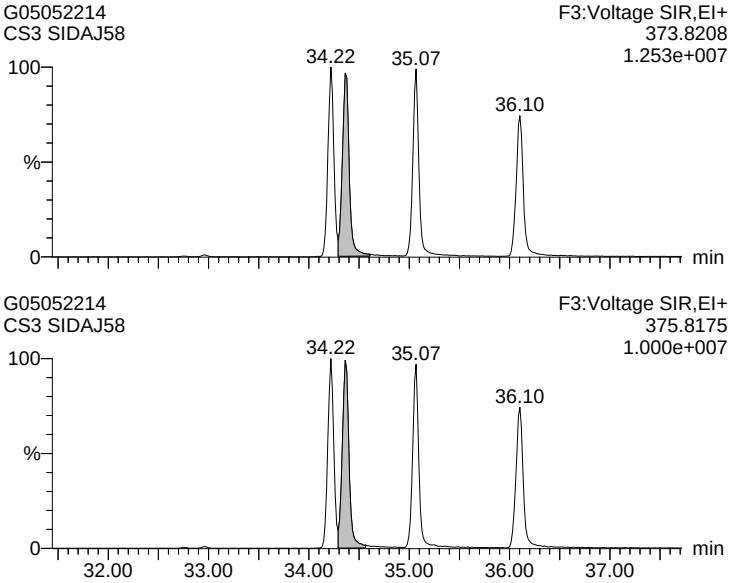
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

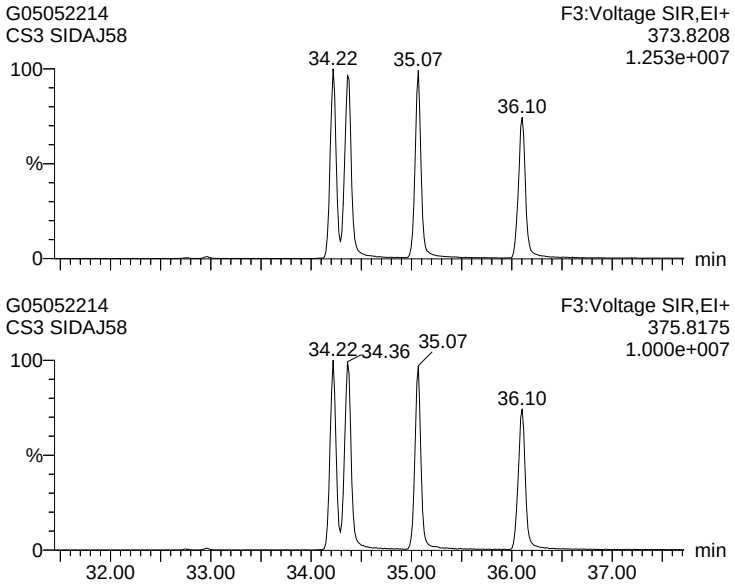
123478-HxCDF (S)



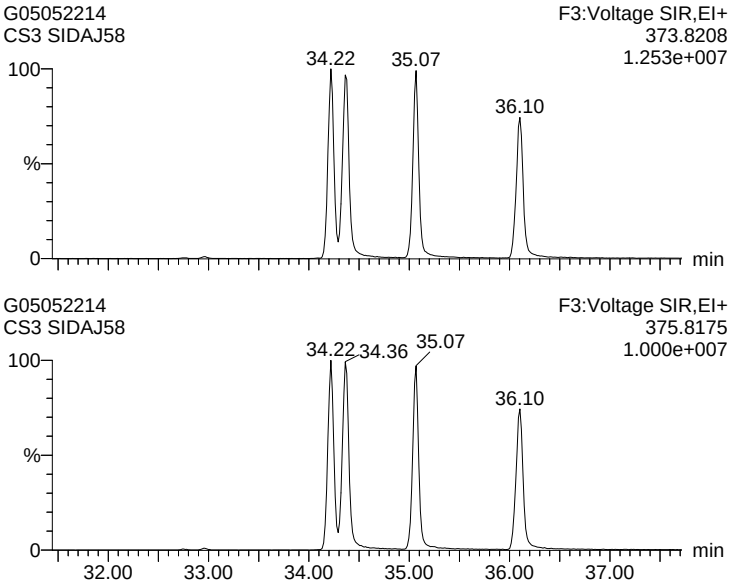
123678-HxCDF (S)



123479-HxCDF



123469-HxCDF



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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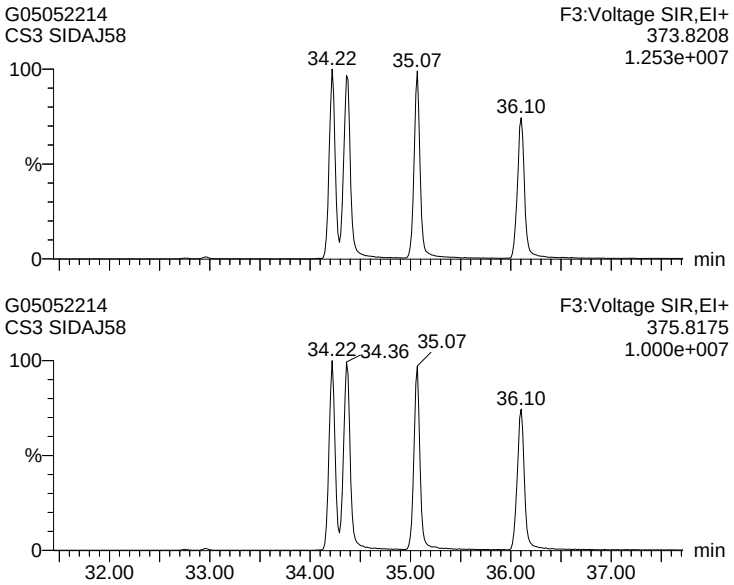
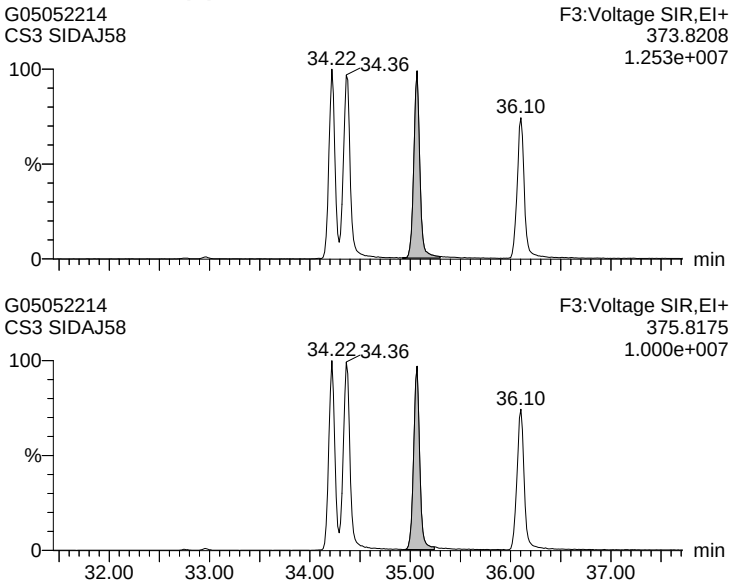
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

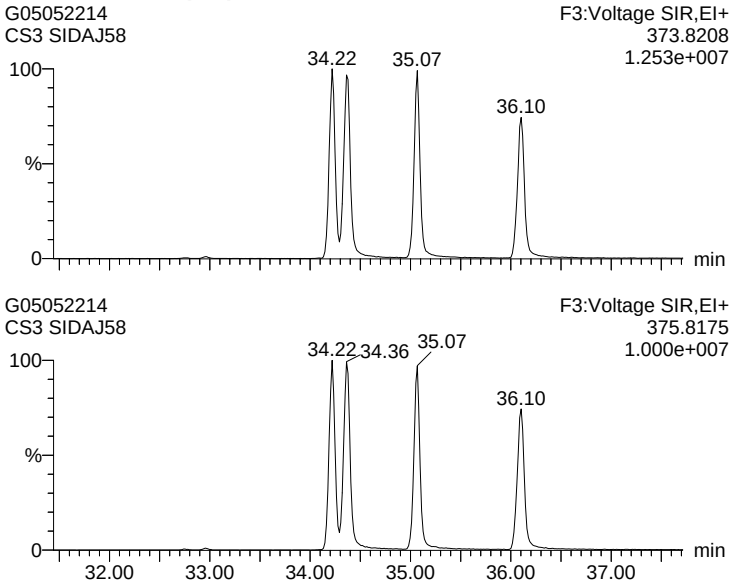
123679-HxCDF



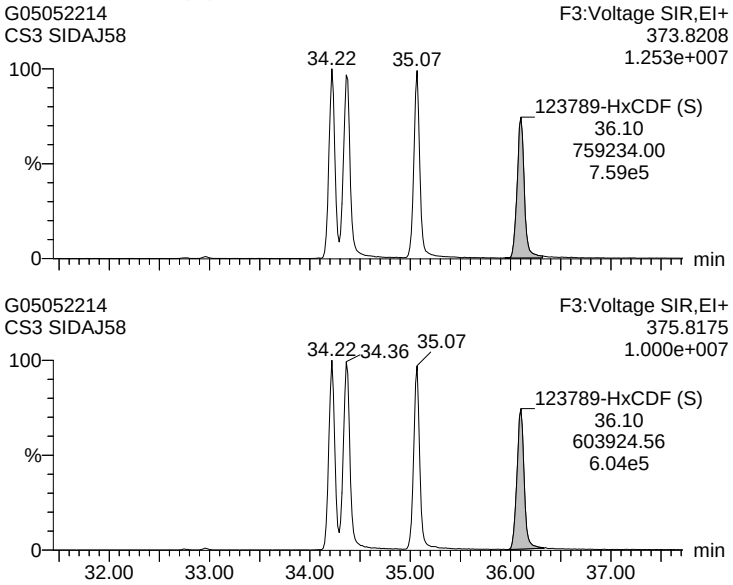
234678-HxCDF (S)



123689-HxCDF (NR)



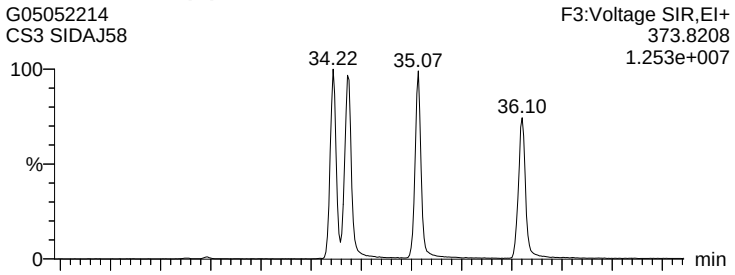
123789-HxCDF (S)

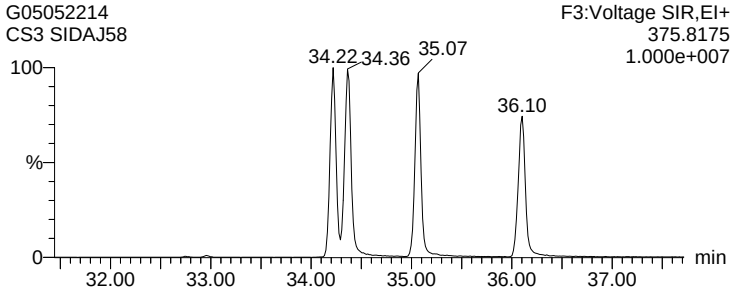


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

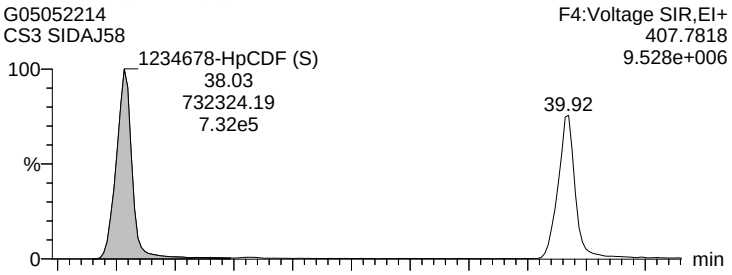
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

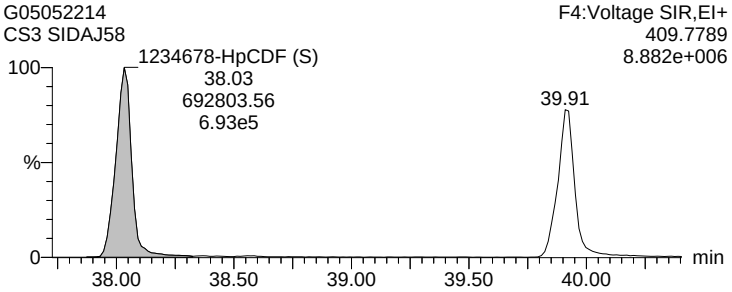
123489-HxCDF (R)



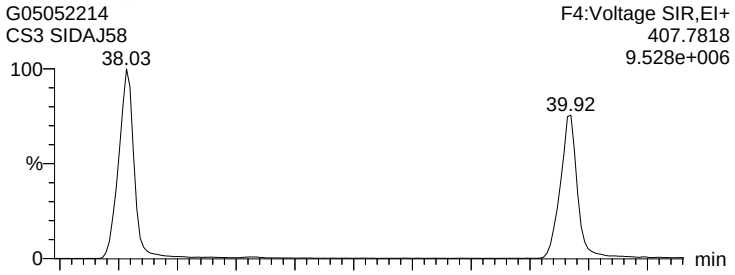


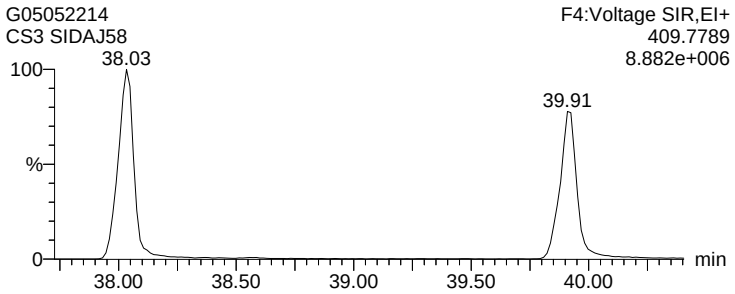
1234678-HpCDF (S)



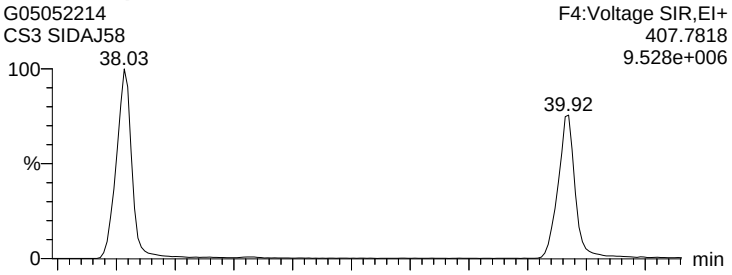


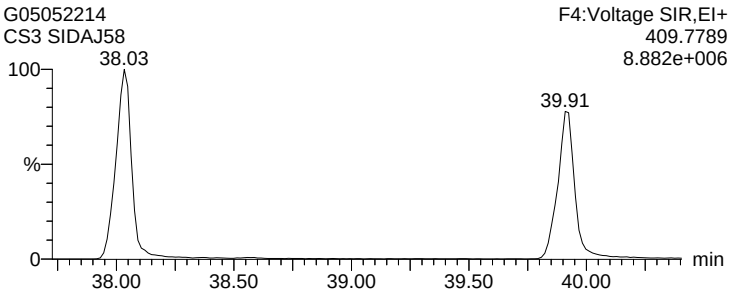
1234679-HpCDF





1234689-HpCDF

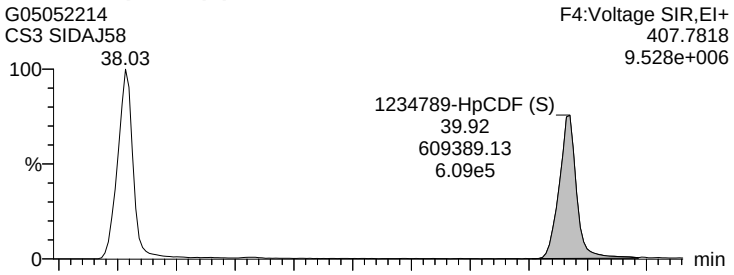


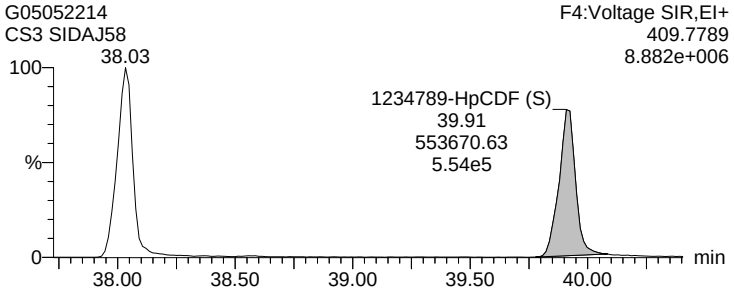


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

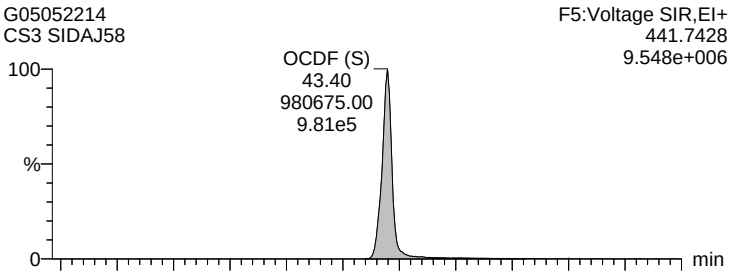
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

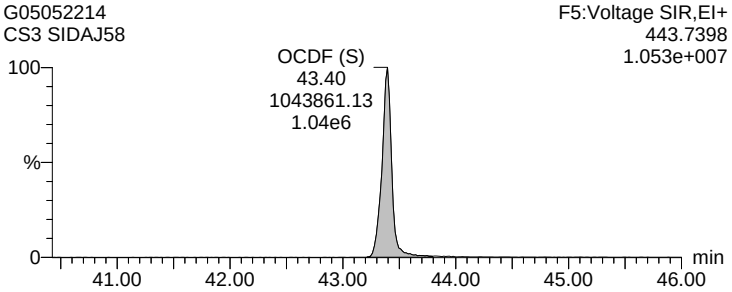
1234789-HpCDF (S)



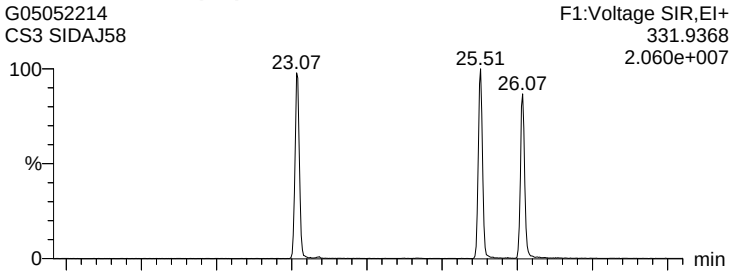


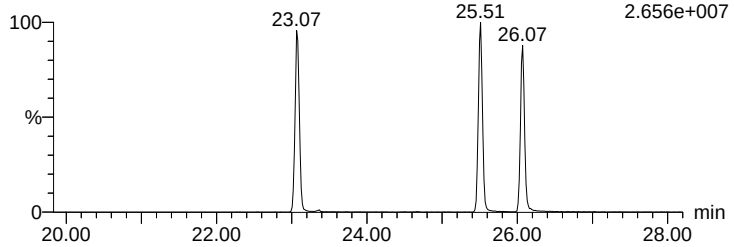
OCDF (S)



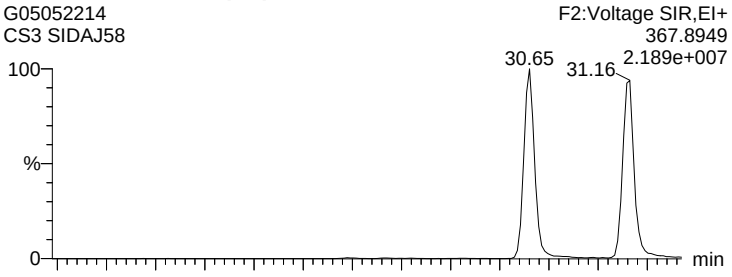


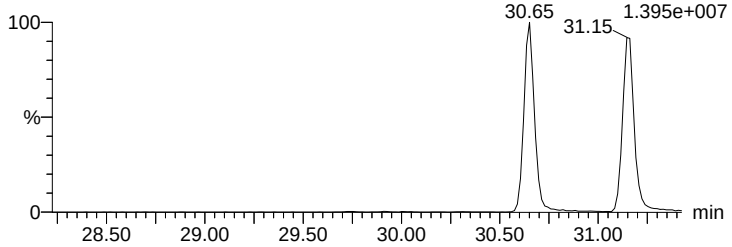
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

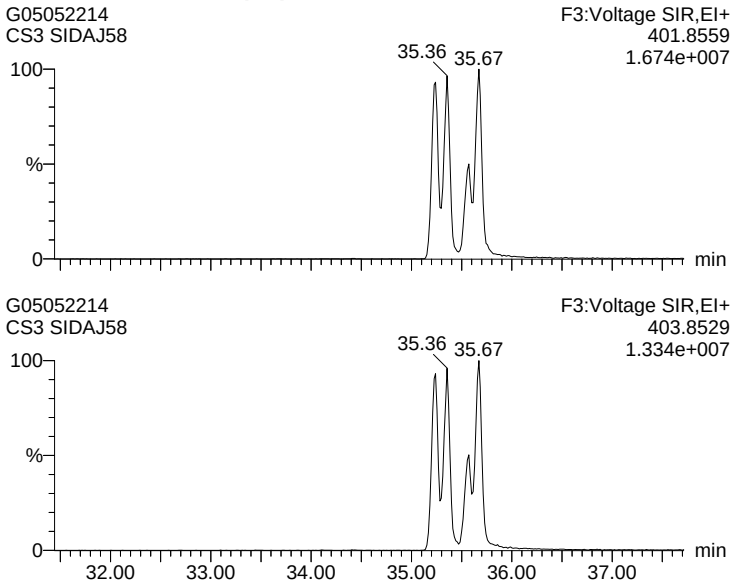




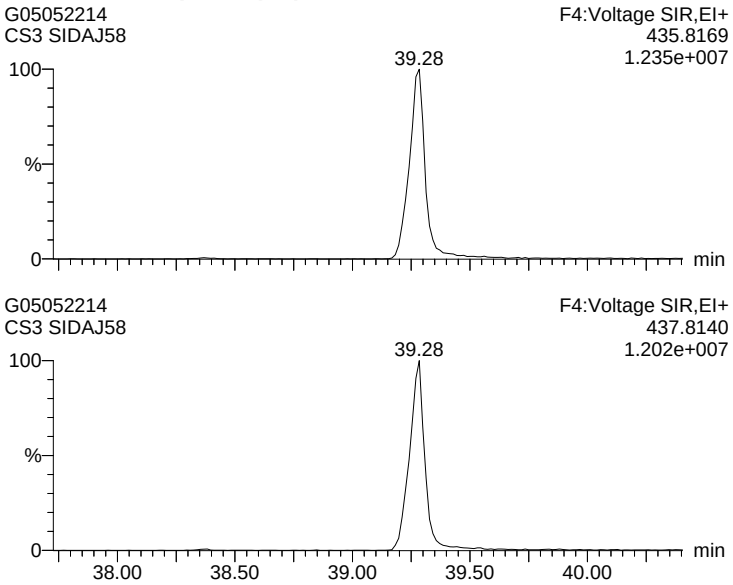
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

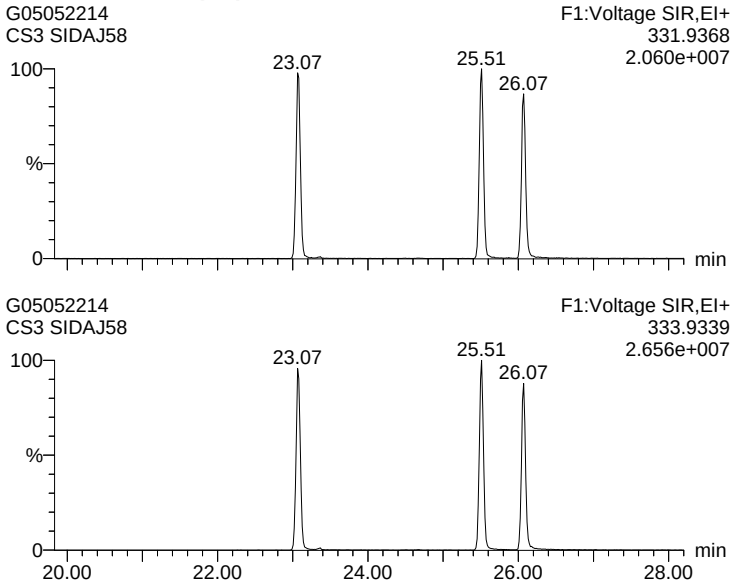
13C-123468-HxCDD (FS)



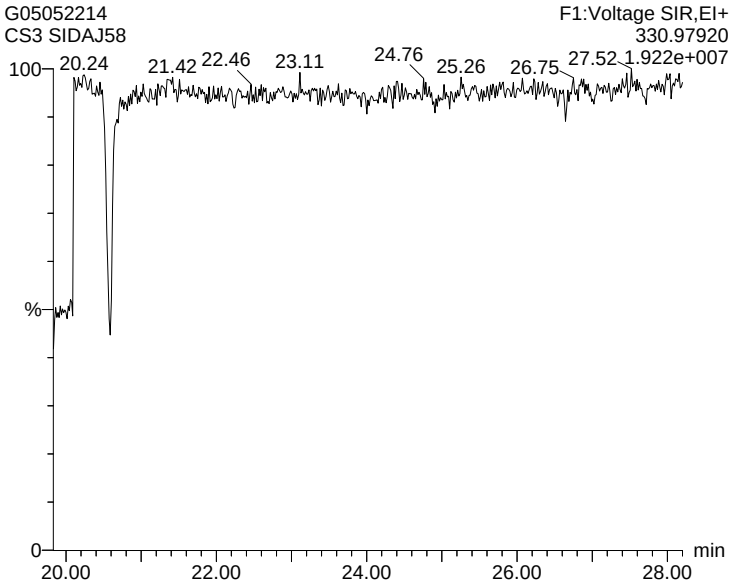
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



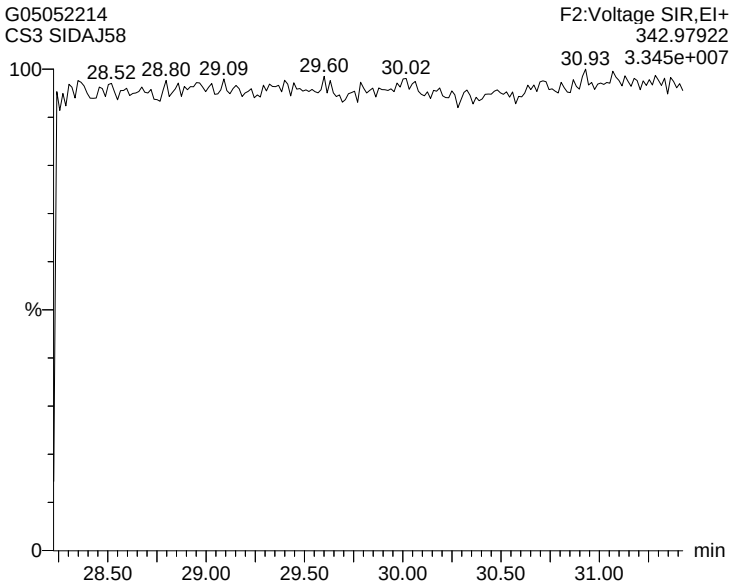
QC Check Ion Fn 1



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

QC Check Ion Fn 2



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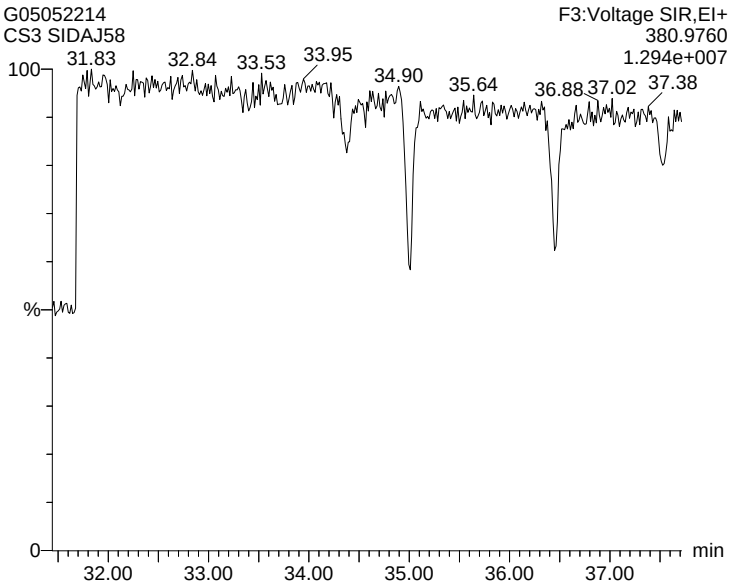

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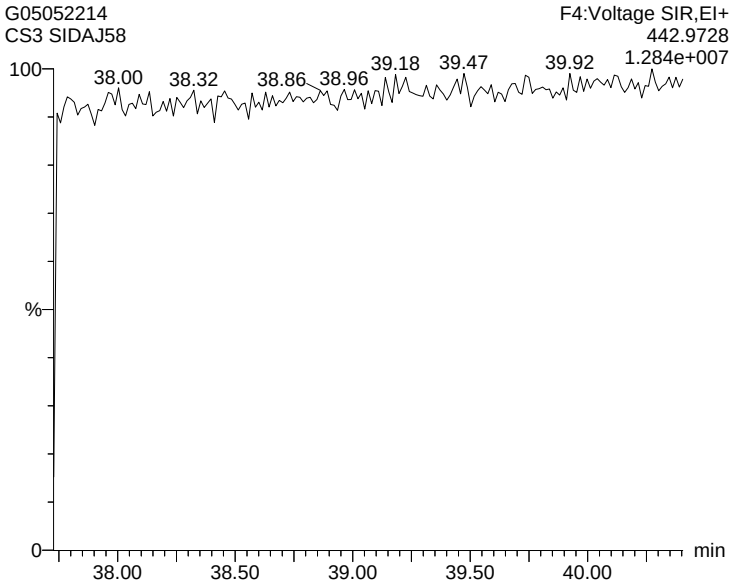

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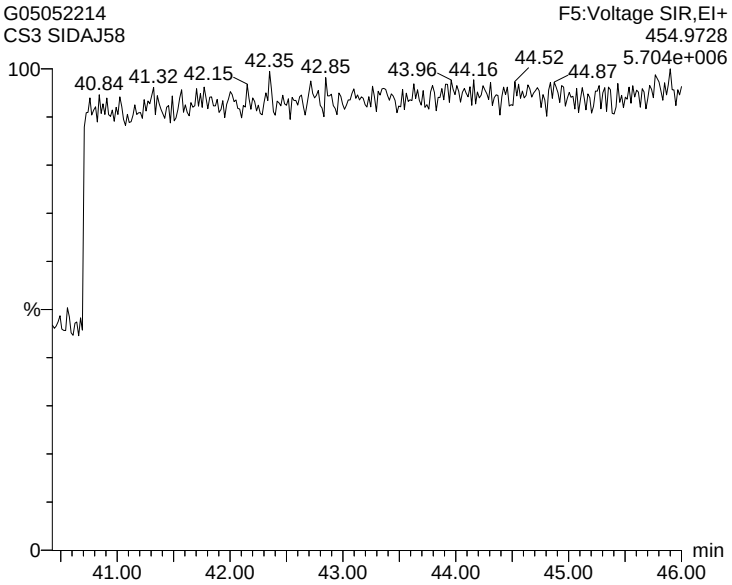

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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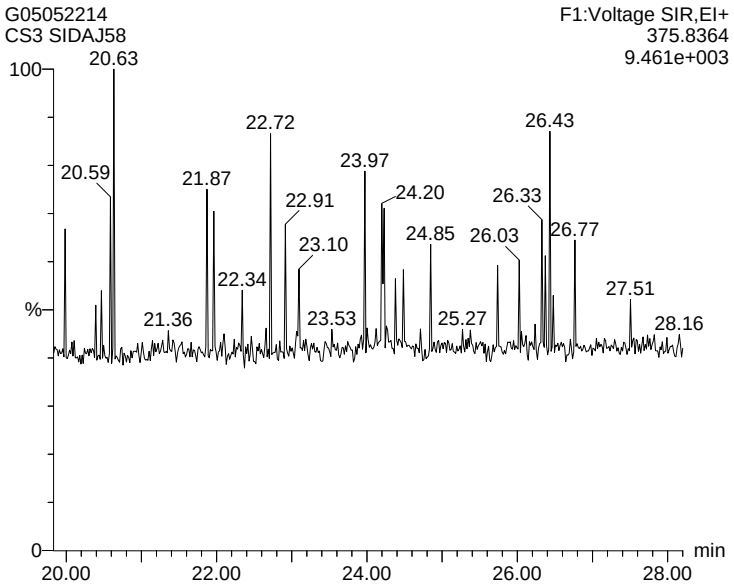
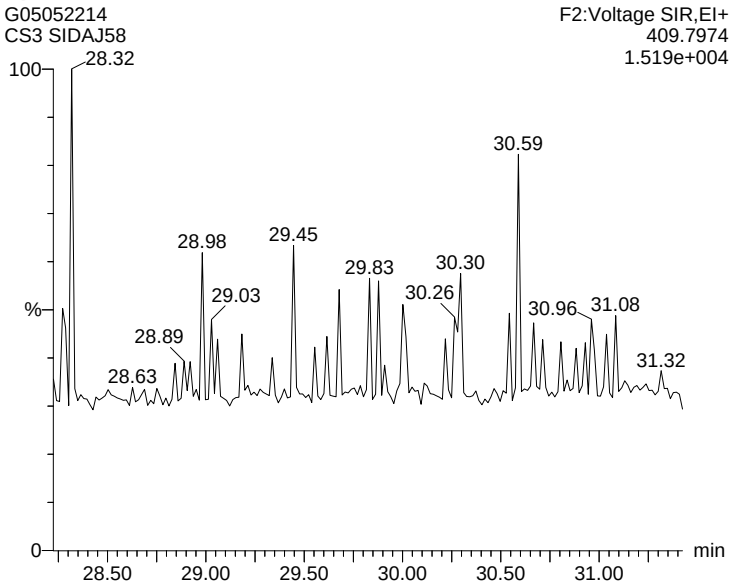
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

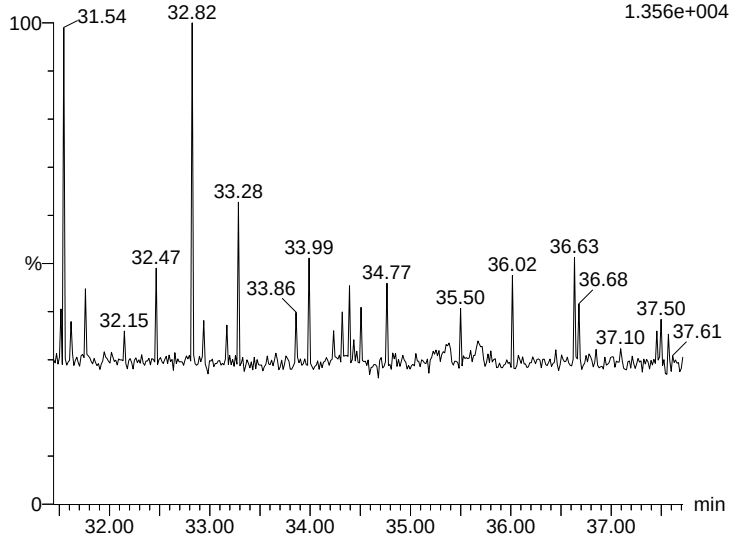
HxDPE



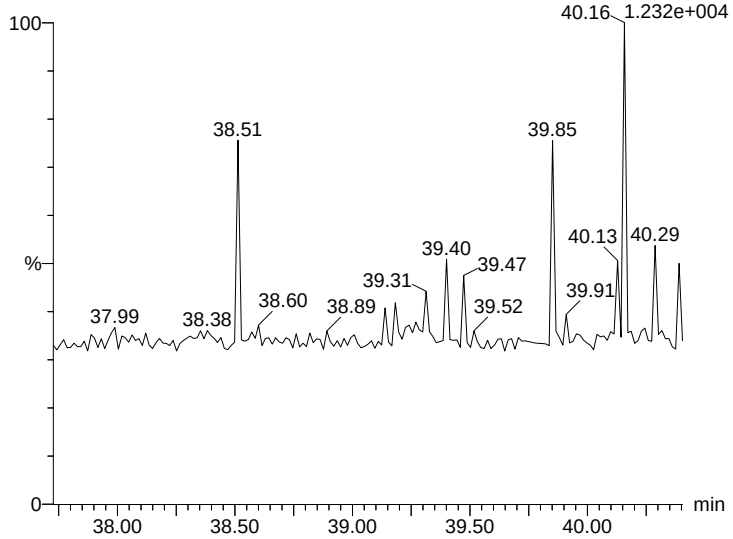
HpDPE



OcDPE



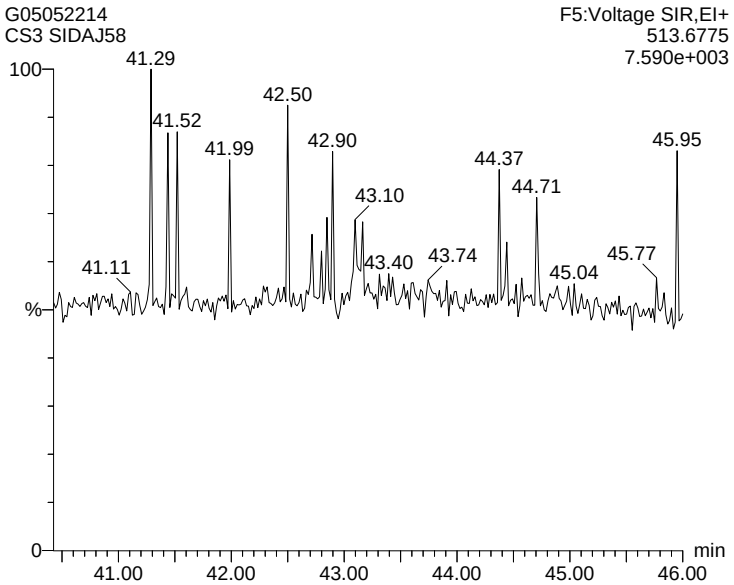
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.51	1295271.375		2955878.250	bb	102.9	2.9
2	2	13C-1234-TCDF (JS)	315.9419	24.23	1656061.000		3764649.500	bb	96.9	-3.1
3	3	13C-123467-HxCDD (JS)	401.8559	35.57	515302.500		938828.094	bd	45.5	-8.9
4	4	13C-2378-TCDD (ES)	331.9368	26.07	1115875.000	1295271.375	86.154	bb	91.8	-8.2
5	5	13C-12378-PeCDD (ES)	367.8949	31.16	1357128.875	1295271.375	75.223	bb	92.2	-7.8
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	1169876.875	515302.500	111.762	bd	106.8	6.8
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1062080.500	515302.500	101.844	db	103.1	3.1
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1207171.750	515302.500	115.400	db	103.6	3.6
9	9	13C-1234678-HpCDD (ES)	435.8169	39.28	920098.250	515302.500	95.717	bb	104.0	4.0
10	10	13C-OCDD (ES)	469.7780	43.11	1339513.875	515302.500	71.340	bb	202.2	1.1
11	11	13C-2378-TCDF (ES)	315.9419	25.33	1710134.500	1656061.000	101.317	bb	102.8	2.8
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2035504.500	1656061.000	87.988	bb	101.1	1.1
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	1843835.125	1656061.000	80.495	bb	95.2	-4.8
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	789574.000	515302.500	124.390	bd	105.2	5.2
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	938536.063	515302.500	146.160	db	102.7	2.7
16	16	13C-234678-HxCDF (ES)	383.8639	35.05	817092.750	515302.500	125.821	bb	97.3	-2.7
17	17	13C-123789-HxCDF (ES)	383.8639	36.09	751748.625	515302.500	121.725	bb	103.1	3.1
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	580065.313	515302.500	100.140	bb	103.4	3.4
19	19	13C-1234789-HpCDF (ES)	417.8253	39.91	512658.938	515302.500	89.367	bb	102.2	2.2
20	20	13C-OCDF (ES)	453.7830	43.38	1637422.125	515302.500	87.206	bb	201.7	0.9
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	304582.219	1295271.375	10.304	bb	9.2	-8.2
22	22	13C-12347-PeCDD (CS)	367.8949	30.65	1353701.875	1295271.375	74.434	bb	84.6	-15.4
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2035504.500	1656061.000	87.988	bb	101.1	1.1
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	840522.750	515302.500	130.679	bb	106.0	6.0
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	580639.563	515302.500	100.925	bb	104.9	4.9
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	304582.219	1115875.000	11.960	bb	10.0	-0.1
27	27	13C-12347-PeCDD (SS)	367.8949	30.65	1346961.125	1357128.875	98.322	bb	93.3	-6.7
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2035504.500	2035504.500	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	826263.438	938536.063	87.959	bb	103.0	3.0
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	580639.563	580065.313	100.784	bb	101.5	1.5
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1308188.500	1295271.375	99.750	bb	95.6	-4.4
32	32	13C-1368-TCDF (AS)	315.9419	21.57	1916496.875	1656061.000	114.564	bb	100.5	0.5
33	33	1368-TCDD	319.8965			1115875.000				
34	34	1379-TCDD	319.8965			1115875.000				
35	35	1369-TCDD	319.8965			1115875.000				
36	36	1469-TCDD	319.8965			1115875.000				
37	37	1247/1246/1248/1249-TC...	319.8965			1115875.000				
38	38	1378-TCDD	319.8965			1115875.000				
39	39	1268-TCDD	319.8965			1115875.000				
40	40	1478-TCDD	319.8965			1115875.000				
41	41	1279-TCDD	319.8965			1115875.000				
42	42	1234/1269-TCDD	319.8965			1115875.000				
43	43	1236-TCDD	319.8965			1115875.000				
44	44	1237/1238-TCDD	319.8965			1115875.000				
45	45	1239-TCDD [CE]	319.8965			1115875.000				
46	46	2378-TCDD (S)	319.8965	26.09	118283.359	1115875.000	10.793	bb	9.5	-5.3
47	47	1278-TCDD	319.8965			1115875.000				
48	48	1267-TCDD	319.8965			1115875.000				
49	49	1289-TCDD	319.8965			1115875.000				
50	50	12479/12468-PeCDD	355.8546			1357128.875				
51	51	12469-PeCDD	355.8546			1357128.875				
52	52	12368-PeCDD	355.8546			1357128.875				
53	53	12478-PeCDD	355.8546			1357128.875				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1357128.875				
55	55	12369/12467/12489-PeCDD	355.8546			1357128.875				
56	56	12346/12347-PeCDD	355.8546			1357128.875				
57	57	12378-PeCDD (S)	355.8546	31.16	668450.625	1357128.875	49.336	bb	48.7	-2.6
58	58	12367-PeCDD	355.8546			1357128.875				
59	59	12389-PeCDD	355.8546			1357128.875				
60	60	124679/124689-HxCDD	389.8157			1169876.875				
61	61	123468-HxCDD	389.8157			1169876.875				
62	62	123679/123689-HxCDD	389.8157			1169876.875				
63	63	123469-HxCDD	389.8157			1169876.875				
64	64	123478-HxCDD (S)	389.8157	35.26	613812.313	1169876.875	52.207	bd	49.5	-1.0
65	65	123678-HxCDD (S)	389.8157	35.37	588644.813	1062080.500	55.193	db	50.2	0.4
66	66	123467-HxCDD	389.8157			1207171.750				
67	67	123789-HxCDD (S)	389.8157	35.69	627509.625	1207171.750	52.083	bs	49.8	-0.4
68	68	1234679-HpCDD	423.7766			920098.250				
69	69	1234678-HpCDD (S)	423.7766	39.28	475346.563	920098.250	52.024	bb	49.6	-0.8
70	70	OCDD (S)	457.7377	43.13	787360.938	1339513.875	117.559	bd	103.4	3.4
71	71	1368-TCDF	303.9016			1710134.500				
72	72	1468-TCDF	303.9016			1710134.500				
73	73	2468-TCDF	303.9016			1710134.500				
74	74	1346/1246-TCDF	303.9016			1710134.500				
75	75	1347/1378/1247-TCDF	303.9016			1710134.500				
76	76	1348-TCDF	303.9016			1710134.500				
77	77	1248/1367/1379-TCDF	303.9016			1710134.500				
78	78	1268-TCDF	303.9016			1710134.500				
79	79	1467-TCDF	303.9016			1710134.500				
80	80	1478-TCDF	303.9016			1710134.500				
81	81	1369/1237-TCDF	303.9016			1710134.500				
82	82	2467-TCDF	303.9016			1710134.500				
83	83	2368-TCDF	303.9016			1710134.500				
84	84	1238/1234/1678/1469/123...	303.9016			1710134.500				
85	85	1278-TCDF	303.9016			1710134.500				
86	86	1349-TCDF	303.9016			1710134.500				
87	87	1267-TCDF	303.9016			1710134.500				
88	88	2346/1249-TCDF	303.9016			1710134.500				
89	89	2347/1279-TCDF	303.9016			1710134.500				
90	90	2348-TCDF [CE]	303.9016			1710134.500				
91	91	2378-TCDF (S)	303.9016	25.35	181216.734	1710134.500	10.722	bb	9.7	-3.4
92	92	2367/3467-TCDF	303.9016			1710134.500				
93	93	1269-TCDF	303.9016			1710134.500				
94	94	1239-TCDF	303.9016			1710134.500				
95	95	1289-TCDF	303.9016			1710134.500				
96	96	13468/12466-PeCDF	339.8597			2035504.500				
97	97	13678/13467/12467-PeCDF	339.8597			2035504.500				
98	98	12368/13478/12478-PeCDF	339.8597			2035504.500				
99	99	14678-PeCDF	339.8597			2035504.500				
100	1...	13479-PeCDF	339.8597			2035504.500				
101	1...	13469/12479-PeCDF	339.8597			2035504.500				
102	1...	12346-PeCDF	339.8597			2035504.500				
103	1...	23468/12469-PeCDF	339.8597			2035504.500				
104	1...	12347-PeCDF	339.8597			2035504.500				
105	1...	12348-PeCDF	339.8597			2035504.500				
106	1...	12378-PeCDF (S)	339.8597	29.72	1100484.625	2035504.500	53.978	bd	50.2	0.4

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
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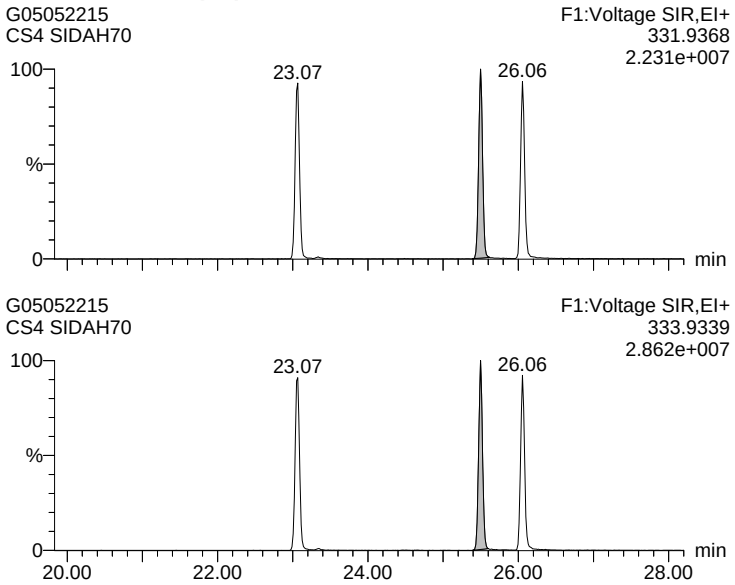
Name: G05052214, Date: 05-May-2022, Time: 19:34:01, ID: SIDAJ58, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2035504.500				
108	1...	12379-PeCDF	339.8597	29.72	1082277.250	2035504.500	53.824	MM	51.8	3.5
109	1...	12679-PeCDF	339.8597			1843835.125				
110	1...	23467/12369-PeCDF	339.8597			1843835.125				
111	1...	23478-PeCDF (S)	339.8597	30.84	1012547.250	1843835.125	54.792	ds	51.8	3.6
112	1...	12489-PeCDF (R)	339.8597			1843835.125				
113	1...	12349-PeCDF	339.8597			1843835.125				
114	1...	12389-PeCDF	339.8597			1843835.125				
115	1...	123468-HxCDF	373.8208			789574.000				
116	1...	124678/134678-HxCDF	373.8208			789574.000				
117	1...	134679-HxCDF	373.8208			789574.000				
118	1...	124679-HxCDF	373.8208			789574.000				
119	1...	124689-HxCDF	373.8208			789574.000				
120	1...	123467-HxCDF	373.8208			789574.000				
121	1...	123478-HxCDF (S)	373.8208	34.22	847083.188	789574.000	65.631	bd	50.3	0.7
122	1...	123678-HxCDF (S)	373.8208	34.36	951771.688	938536.063	62.576	ds	51.8	3.7
123	1...	123479-HxCDF	373.8208			938536.063				
124	1...	123469-HxCDF	373.8208			817092.750				
125	1...	123679-HxCDF	373.8208			817092.750				
126	1...	234678-HxCDF (S)	373.8208	35.07	850452.813	817092.750	64.344	bs	51.9	3.8
127	1...	123689-HxCDF (NR)	373.8208			817092.750				
128	1...	123789-HxCDF (S)	373.8208	36.10	759234.000	751748.625	59.642	bs	48.8	-2.3
129	1...	123489-HxCDF (R)	373.8208			751748.625				
130	1...	1234678-HpCDF (S)	407.7818	38.03	732324.188	580065.313	75.793	bd	51.4	2.9
131	1...	1234679-HpCDF	407.7818			580065.313				
132	1...	1234689-HpCDF	407.7818			580065.313				
133	1...	1234789-HpCDF (S)	407.7818	39.92	609389.125	512658.938	69.312	bd	49.9	-0.2
134	1...	OCDF (S)	441.7428	43.40	980675.000	1637422.125	119.783	bd	101.7	1.7
135	1...	13C-1278-TCDD (FS)	331.9368			1115875.000				
136	1...	13C-12478-PeCDD (FS)	367.8949			1357128.875				
137	1...	13C-123468-HxCDD (FS)	401.8559			515302.500				
138	1...	13C-1234679-HpCDD (FS)	435.8169			920098.250				
139	1...	13C-1378-TCDD (TS)	331.9368			1115875.000				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

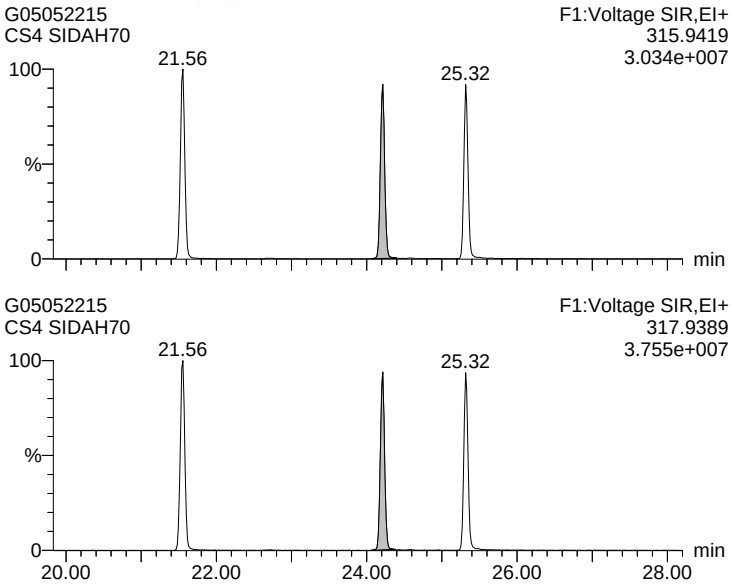
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

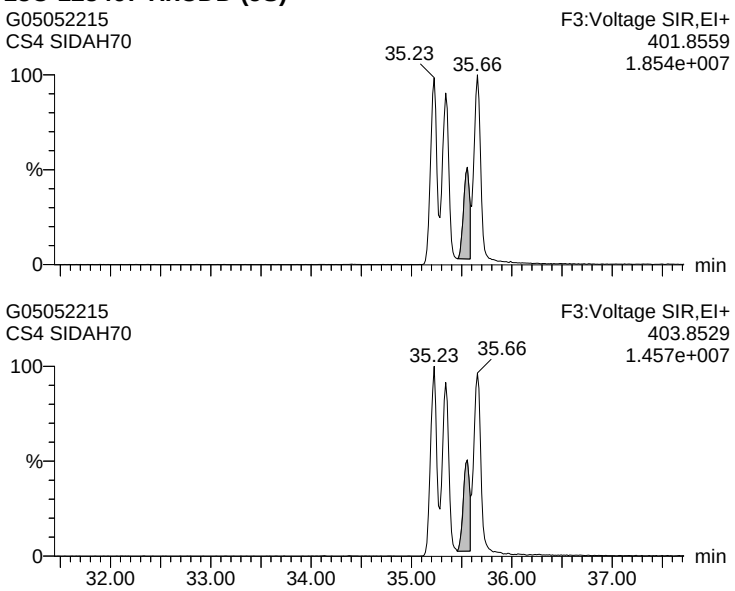
13C-1234-TCDD (JS)



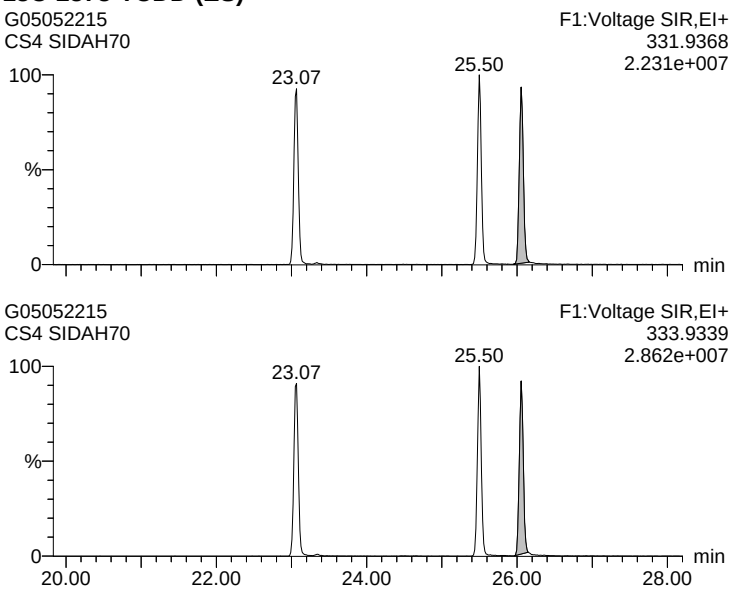
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



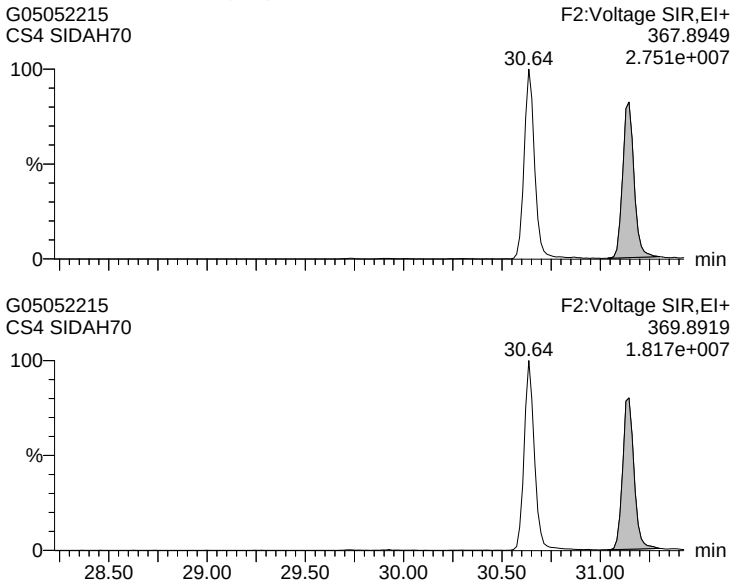
13C-2378-TCDD (ES)



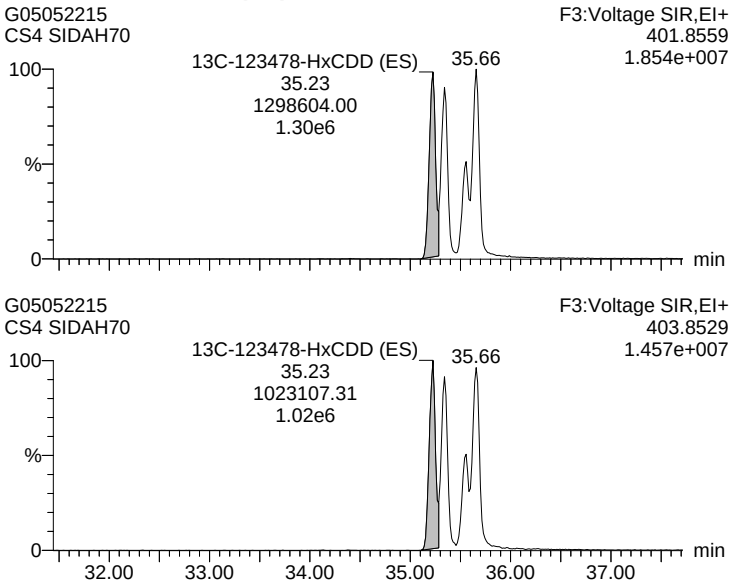
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

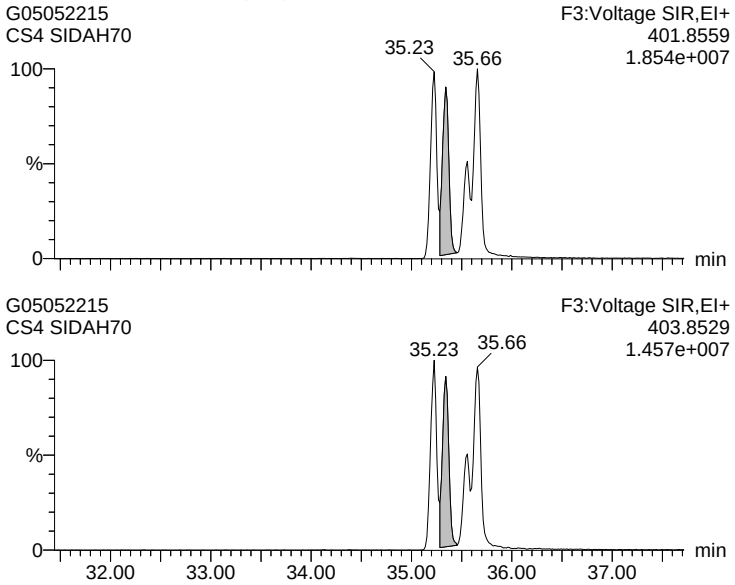
13C-12378-PeCDD (ES)



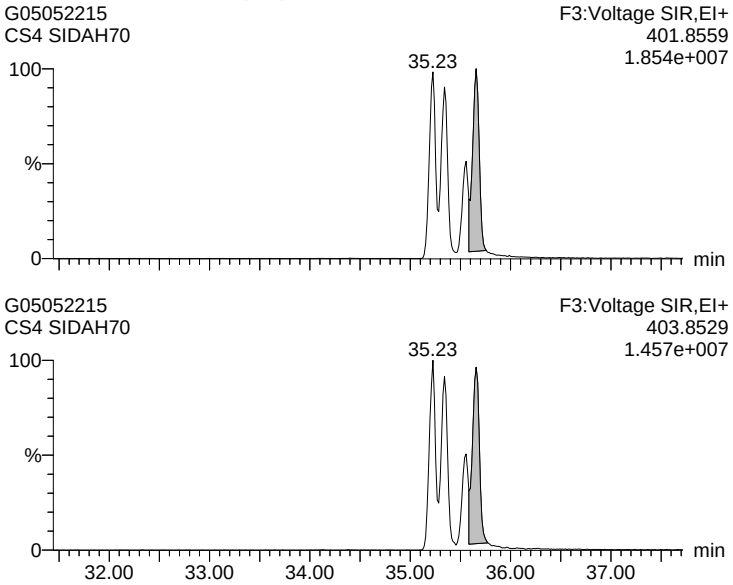
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



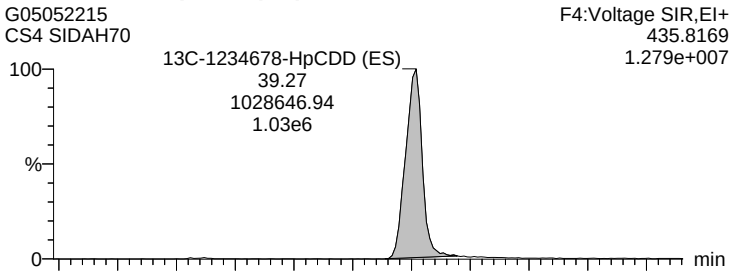
13C-123789-HxCDD (ES)

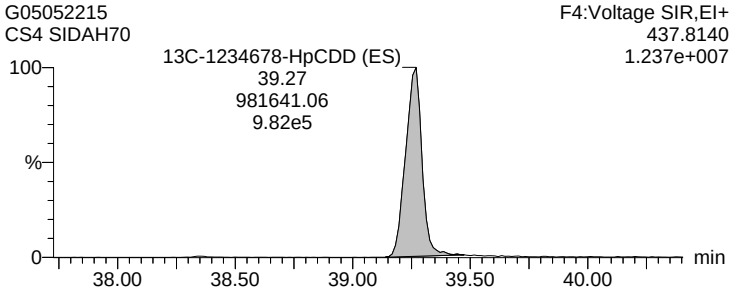


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

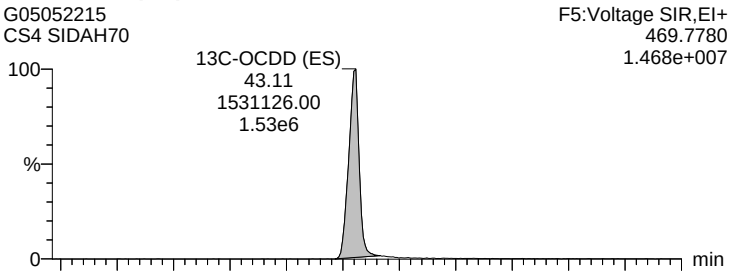
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

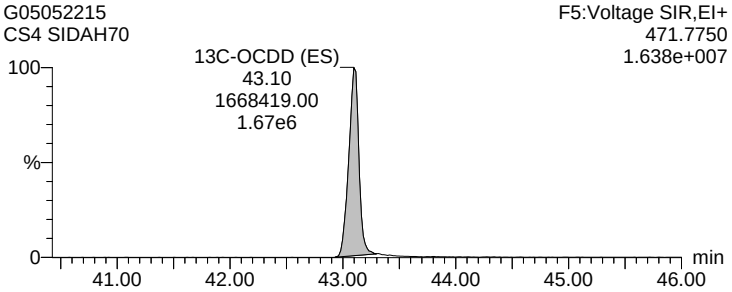
13C-1234678-HpCDD (ES)



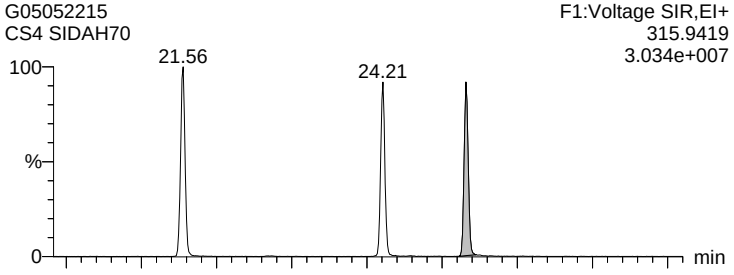


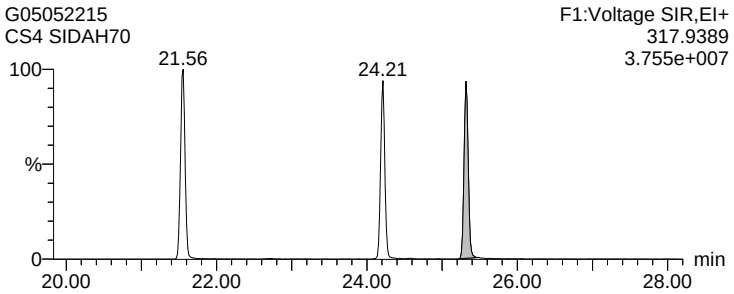
13C-OCDD (ES)



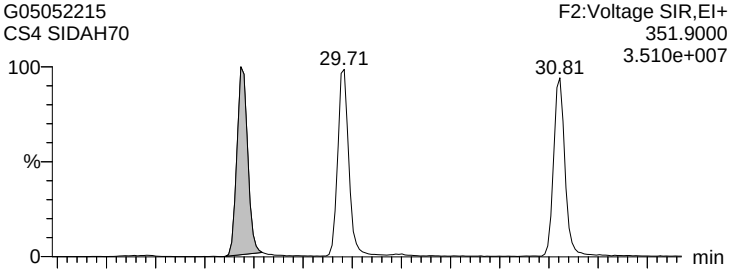


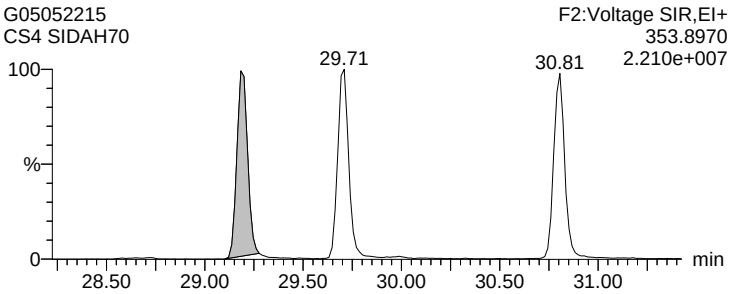
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)

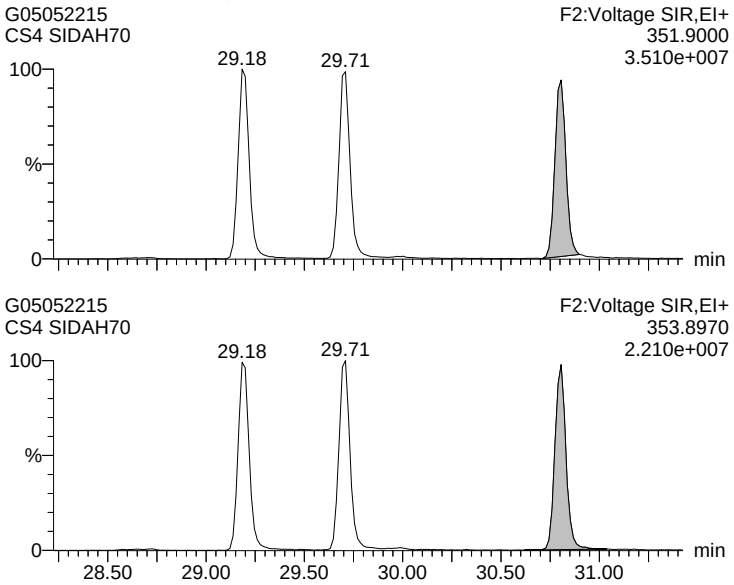




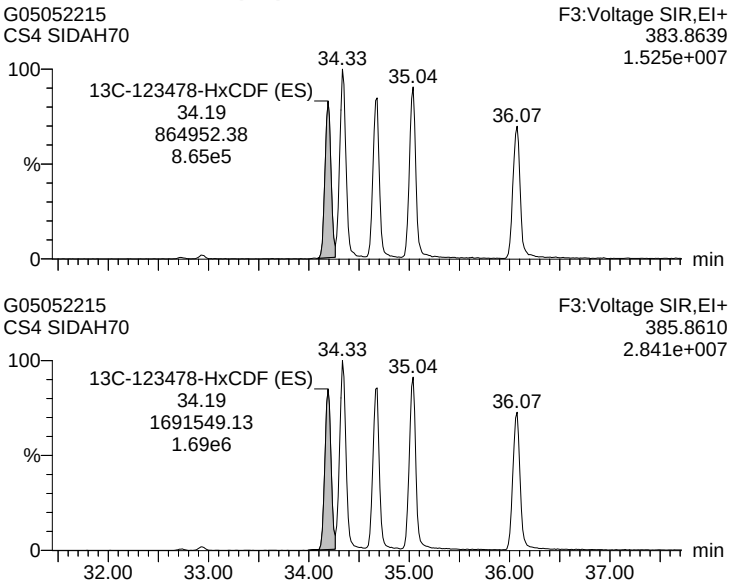
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

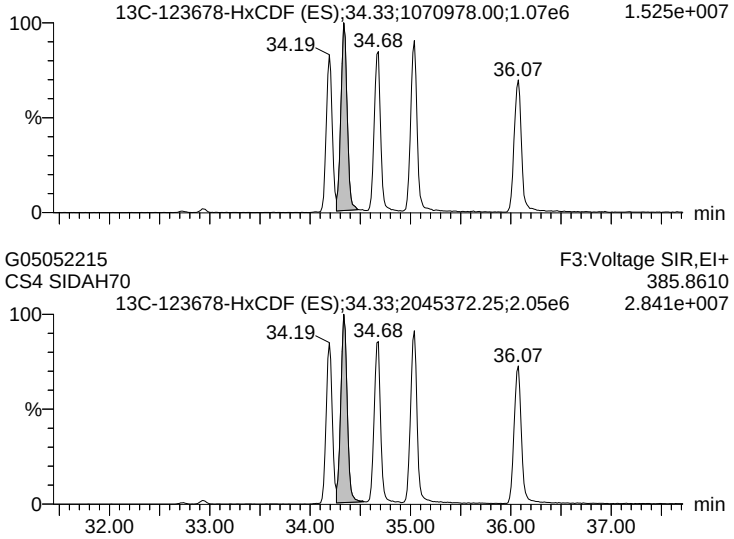
13C-23478-PeCDF (ES)



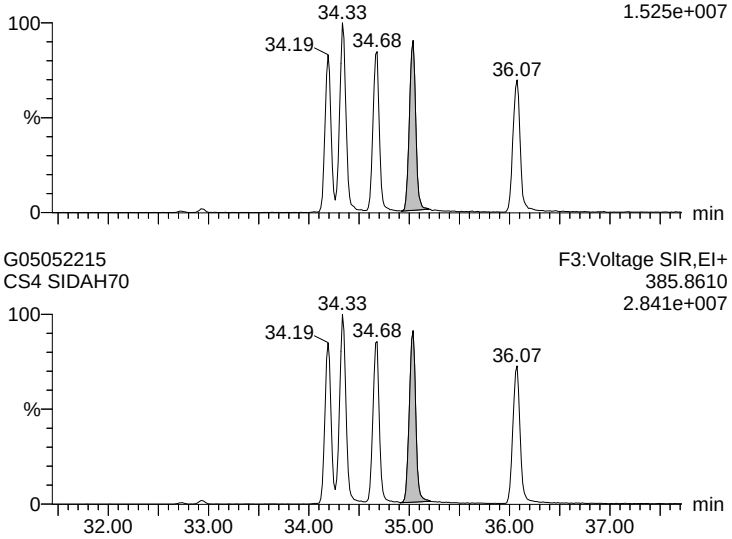
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



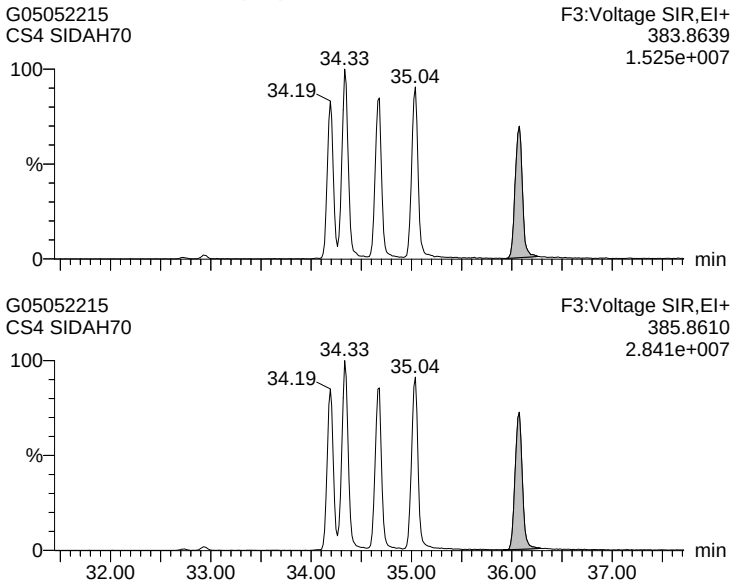
13C-234678-HxCDF (ES)



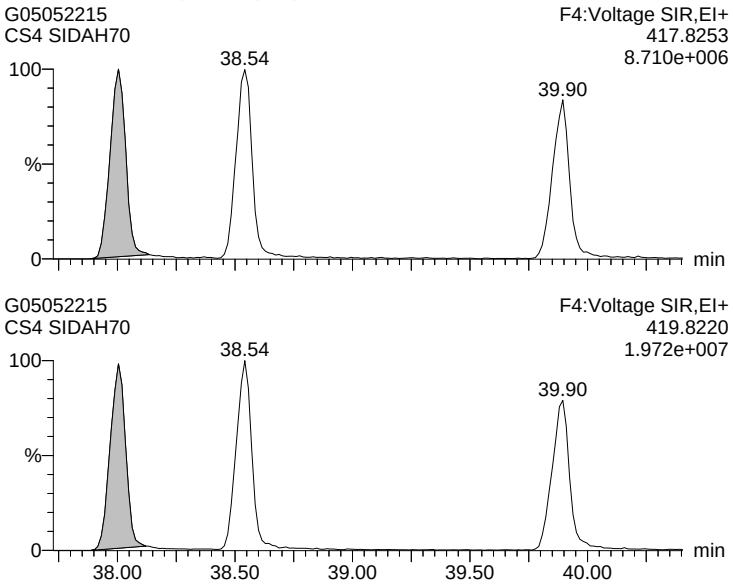
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

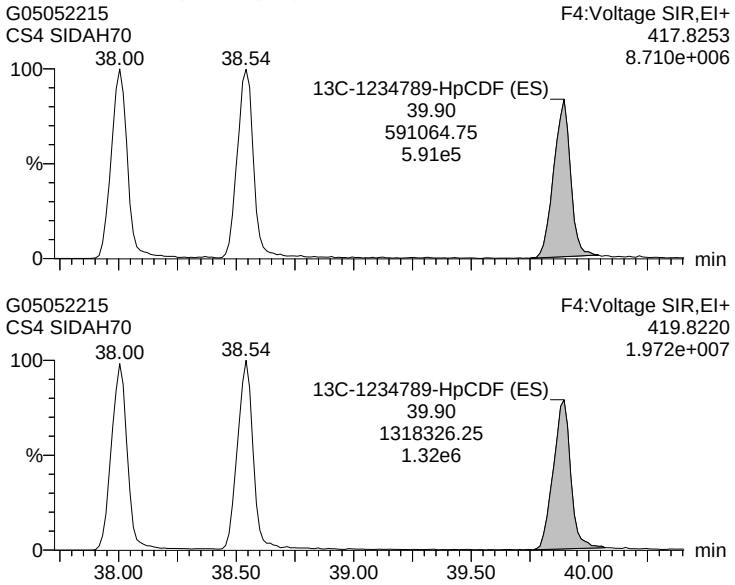
13C-123789-HxCDF (ES)



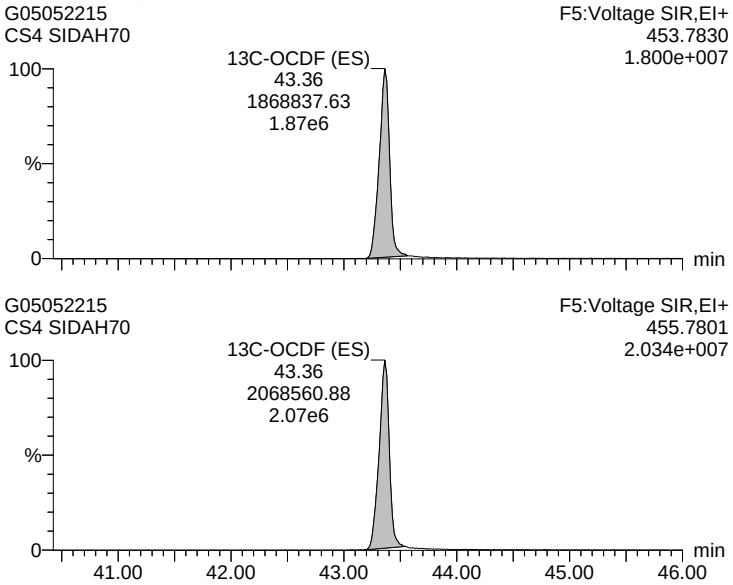
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



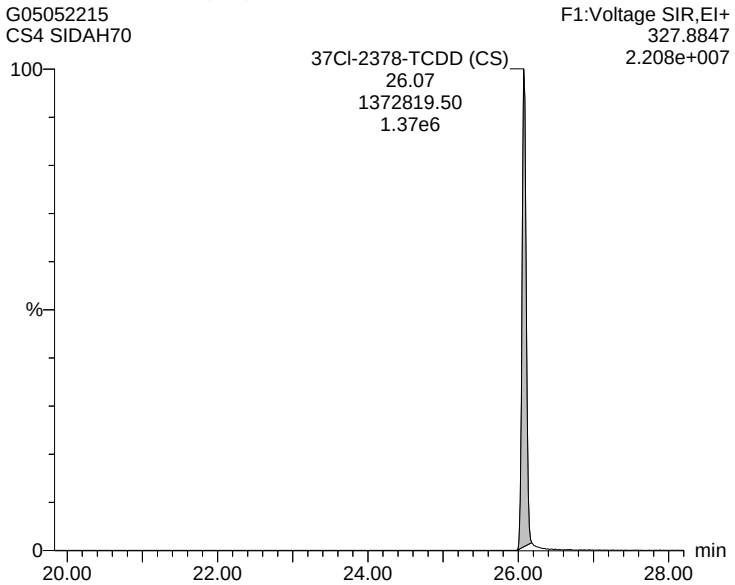
13C-OCDF (ES)



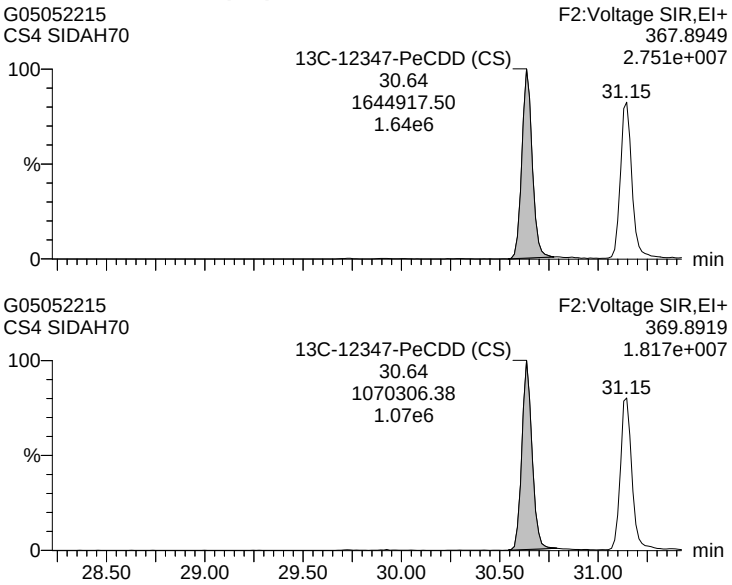
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

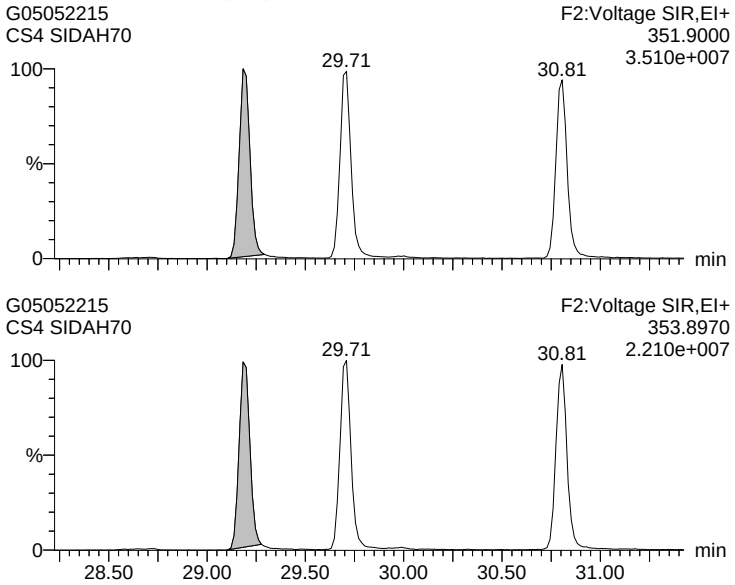
37Cl-2378-TCDD (CS)



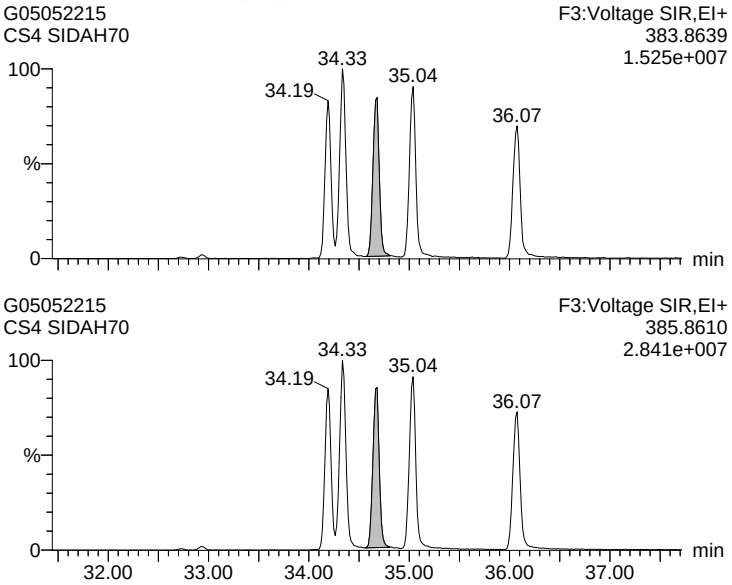
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



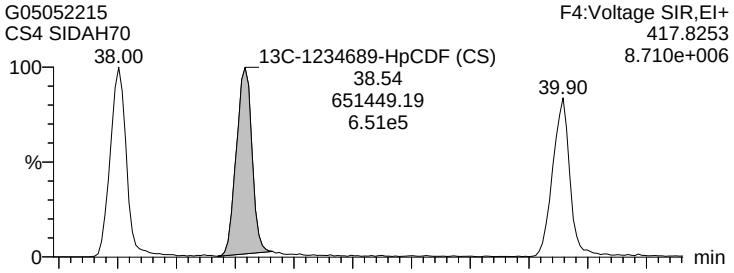
13C-123469-HxCDF (CS)

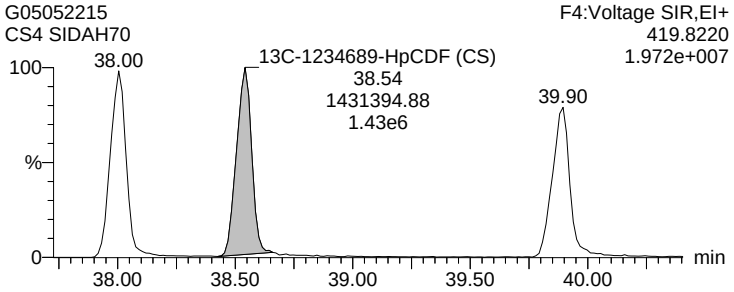


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

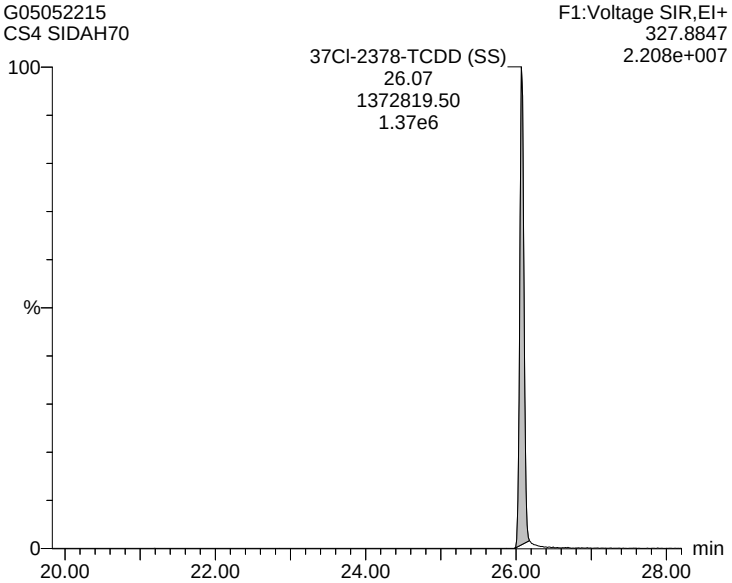
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

13C-1234689-HpCDF (CS)

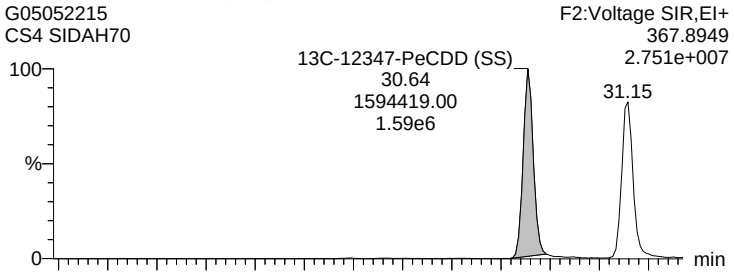


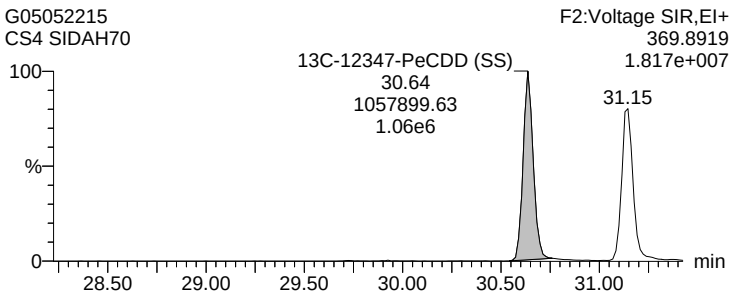


37Cl-2378-TCDD (SS)

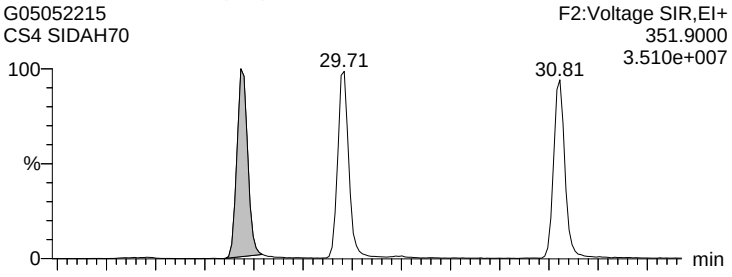


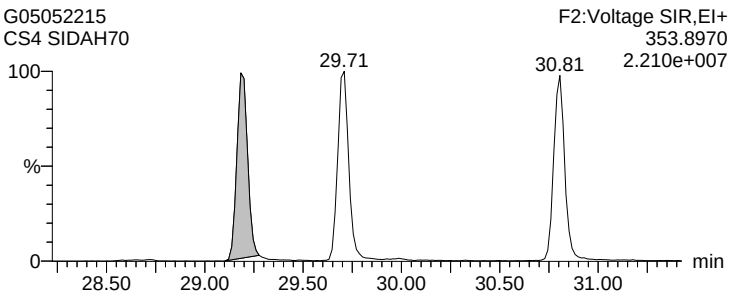
13C-12347-PeCDD (SS)





13C-12346-PeCDF (SS)

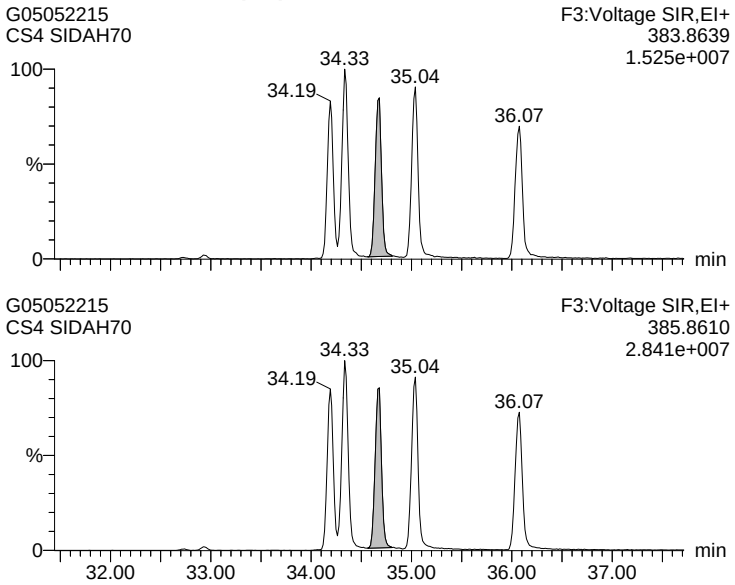




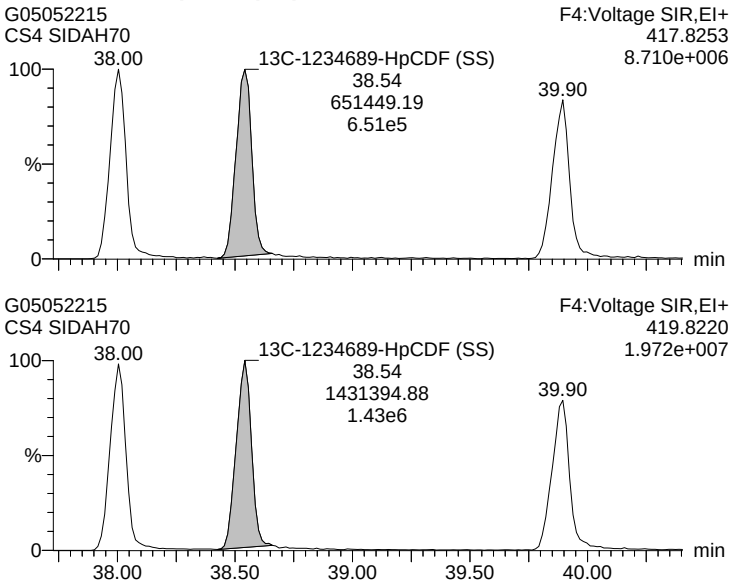
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

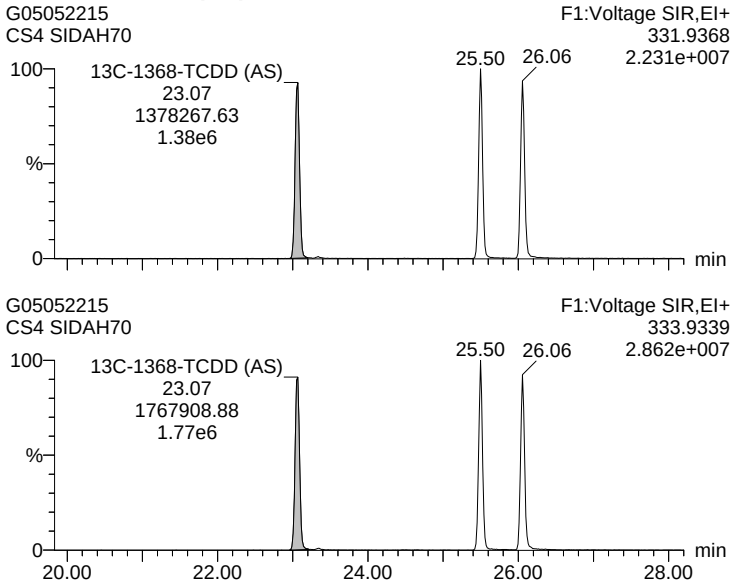
13C-123469-HxCDF (SS)



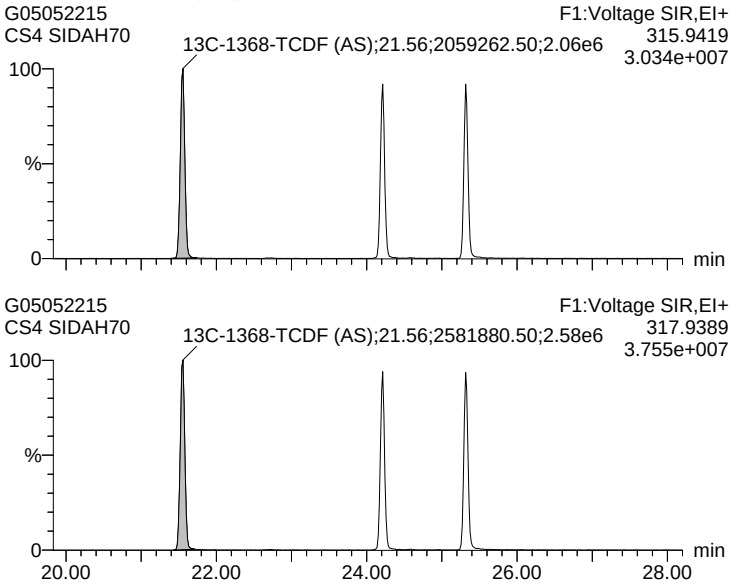
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



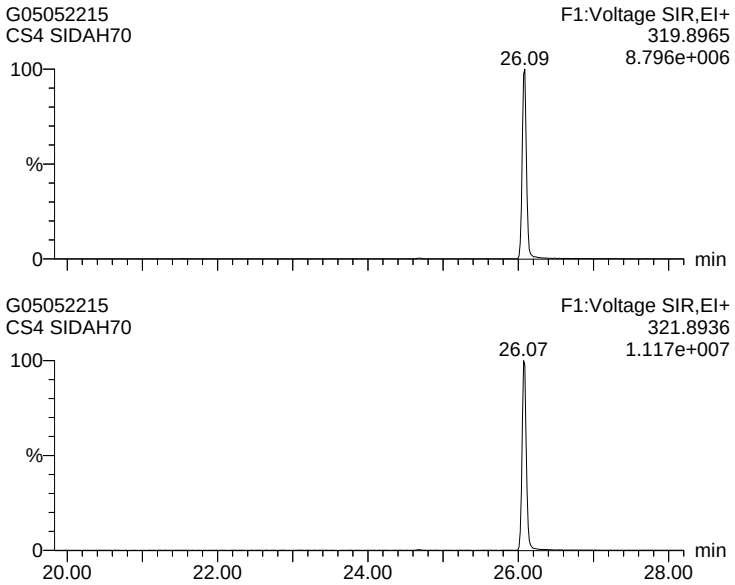
13C-1368-TCDF (AS)



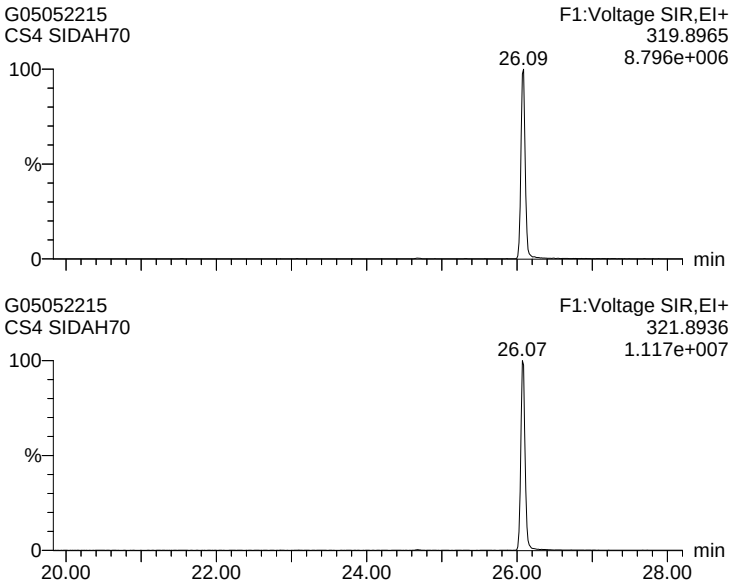
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

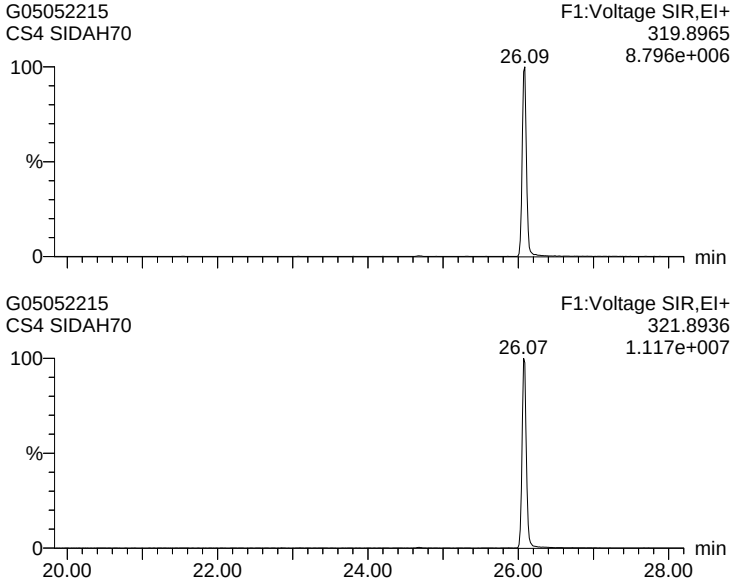
1368-TCDD



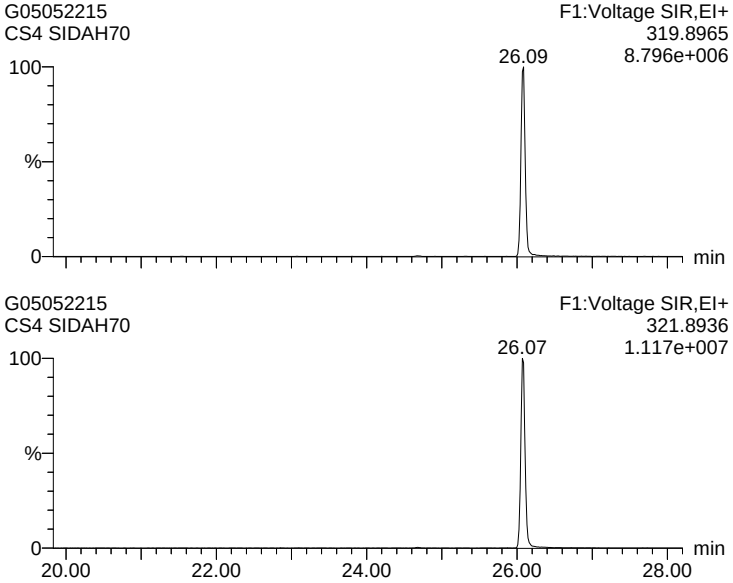
1379-TCDD



1369-TCDD



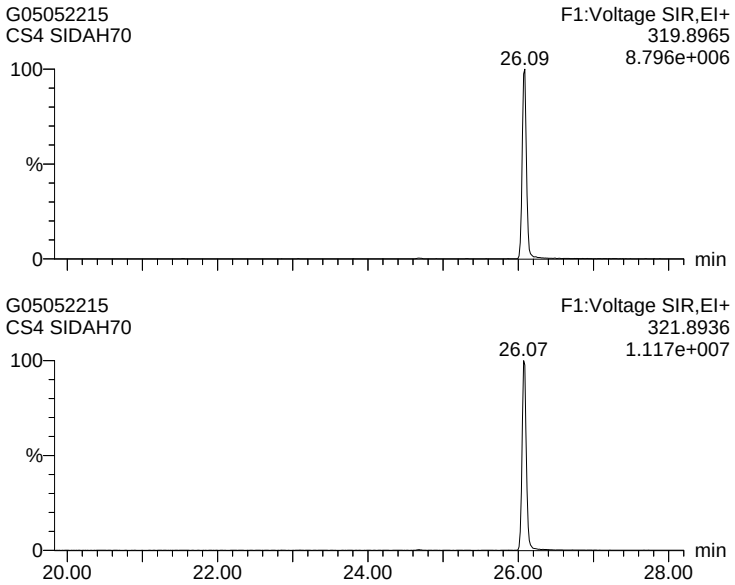
1469-TCDD



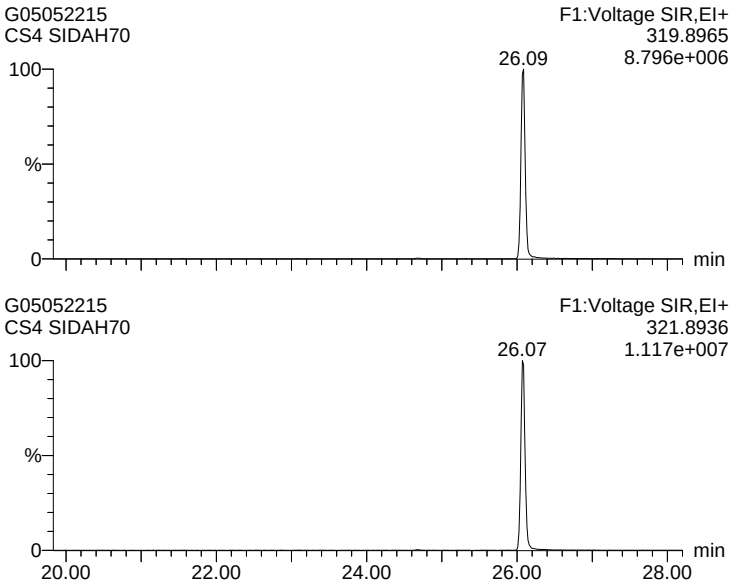
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

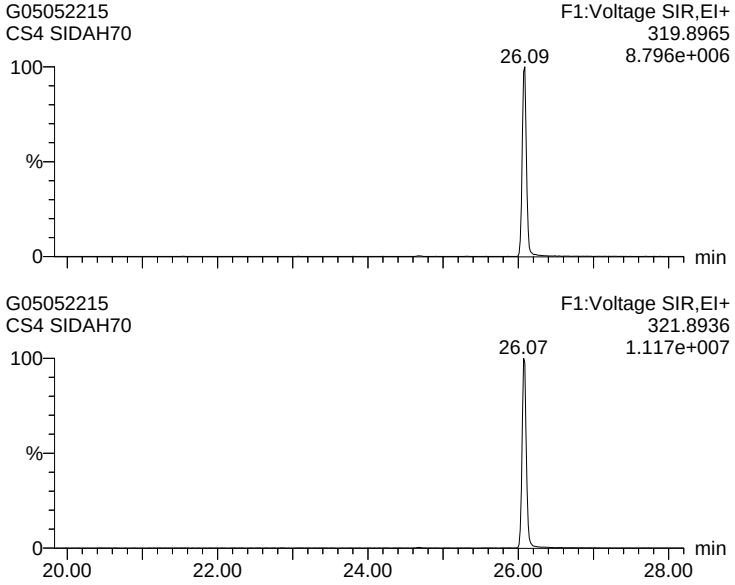
1247/1246/1248/1249-TCDD



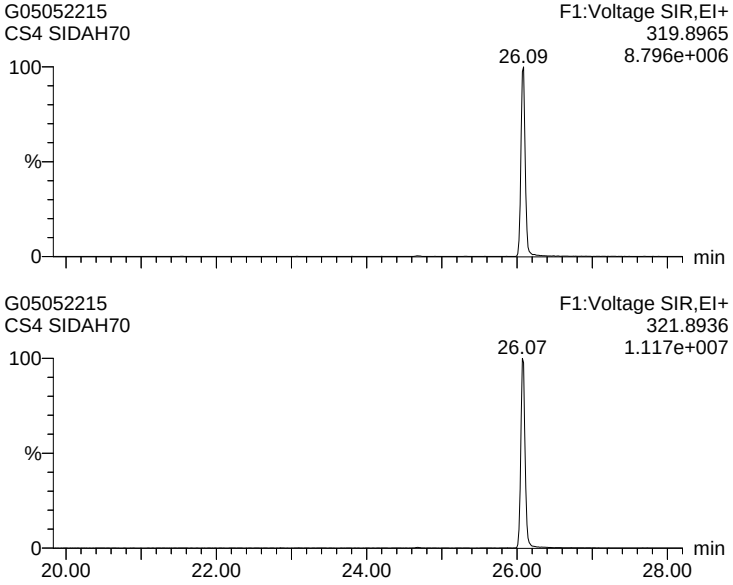
1378-TCDD



1268-TCDD



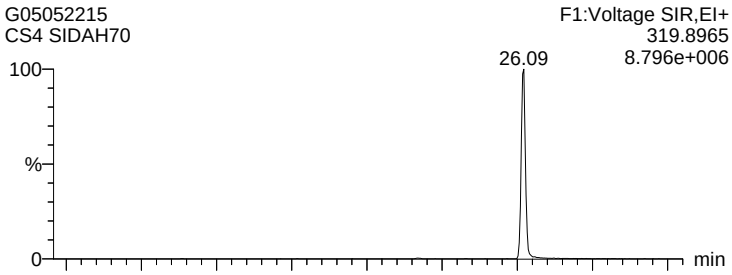
1478-TCDD

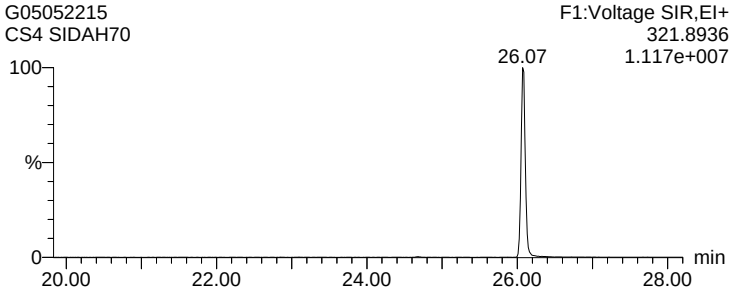


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

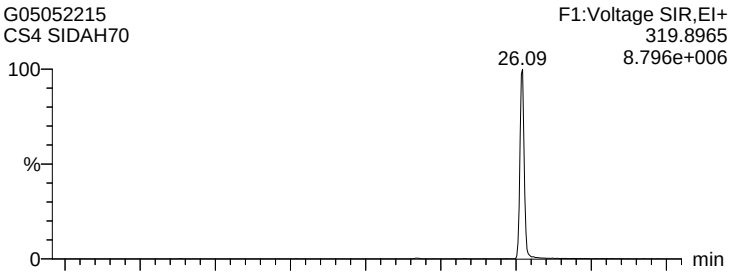
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

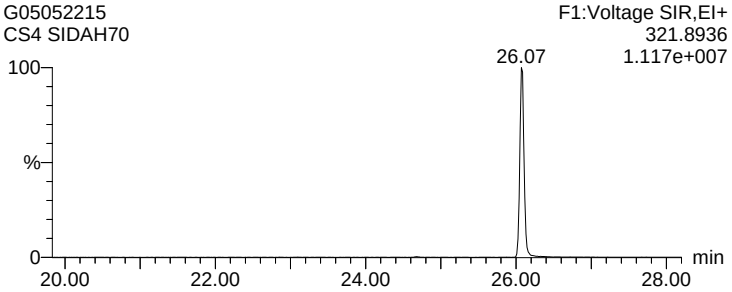
1279-TCDD



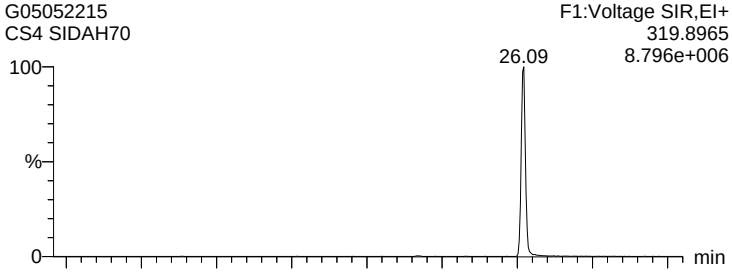


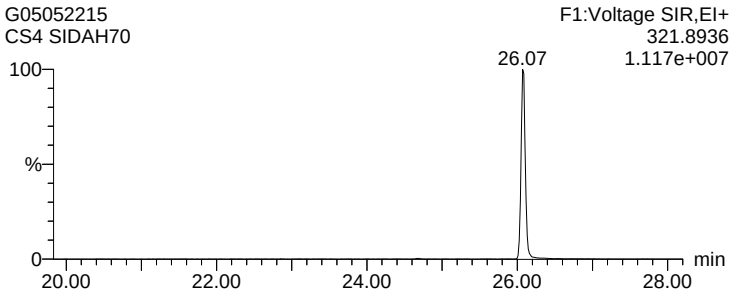
1234/1269-TCDD



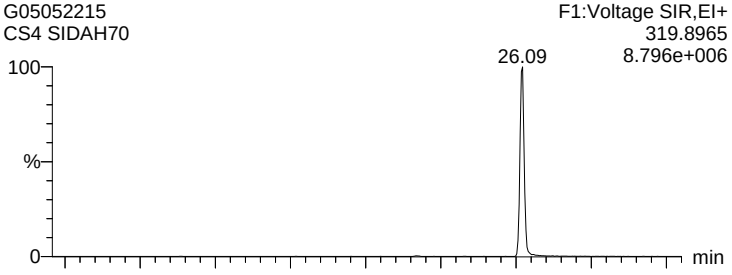


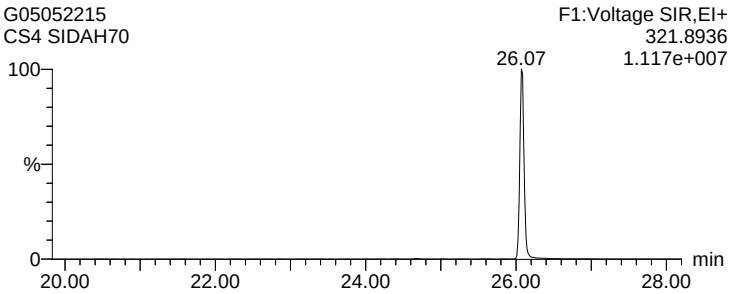
1236-TCDD





1237/1238-TCDD

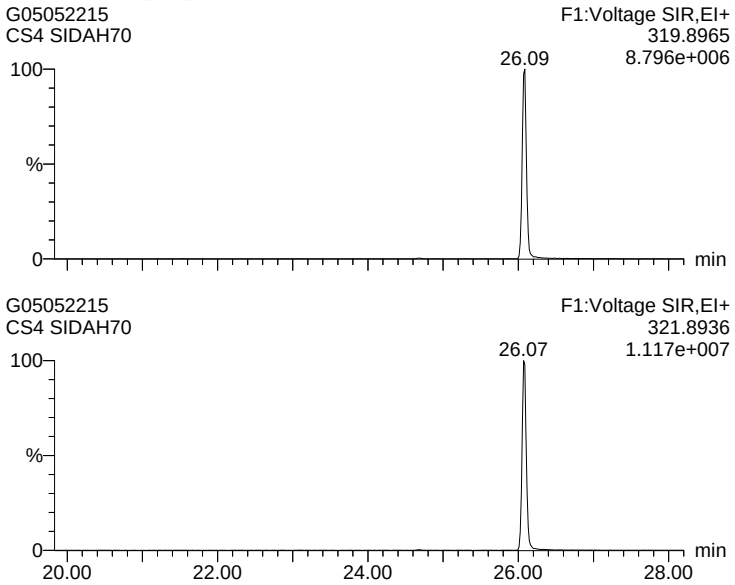




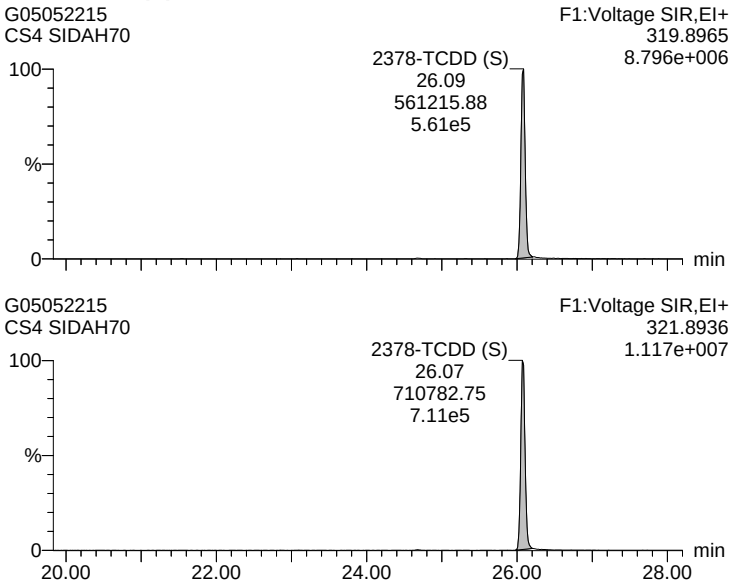
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

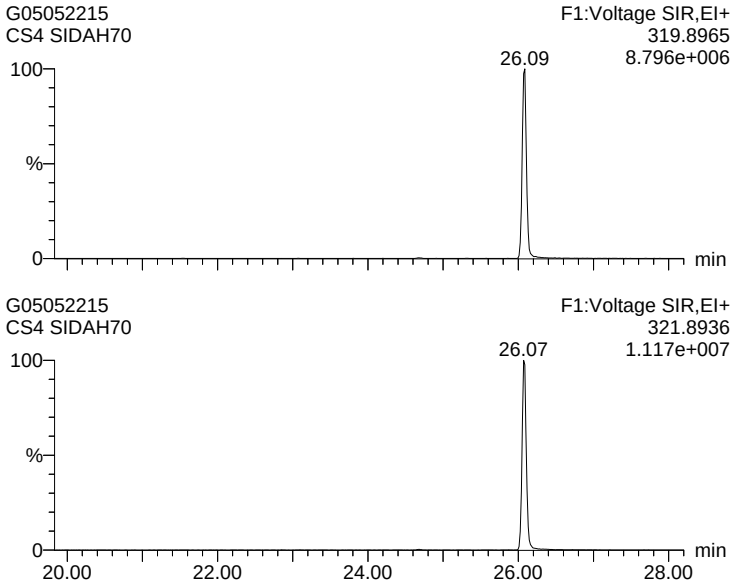
1239-TCDD [CE]



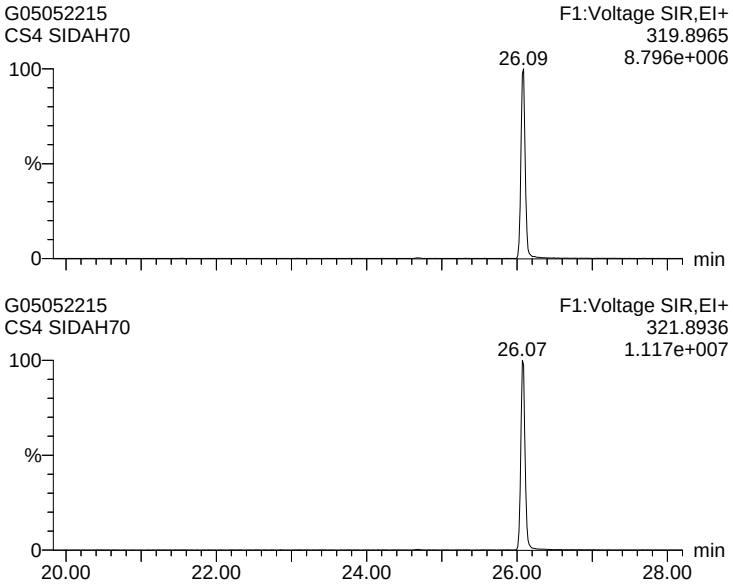
2378-TCDD (S)



1278-TCDD



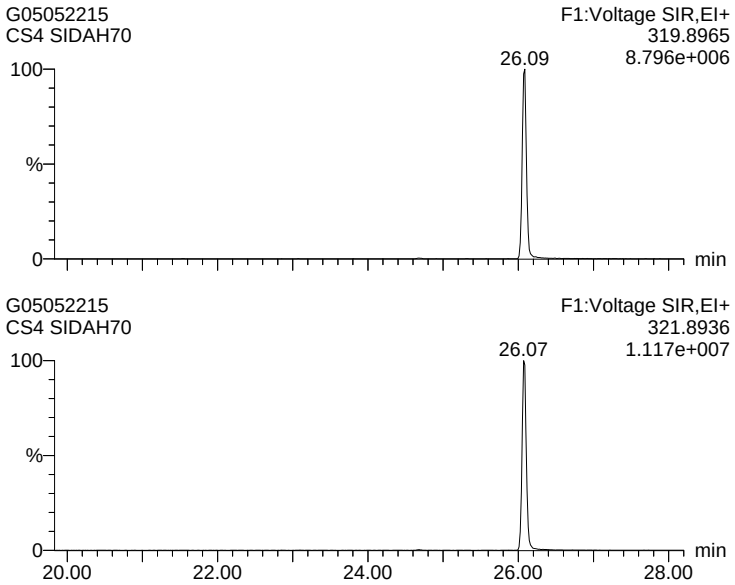
1267-TCDD



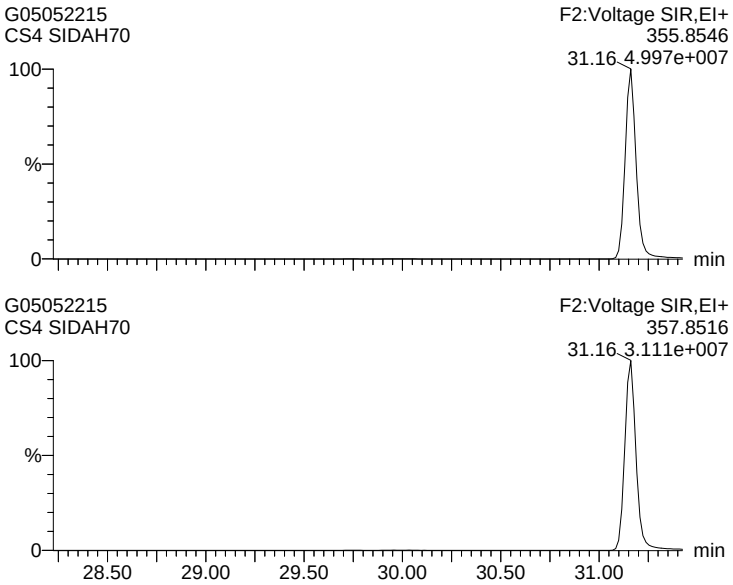
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

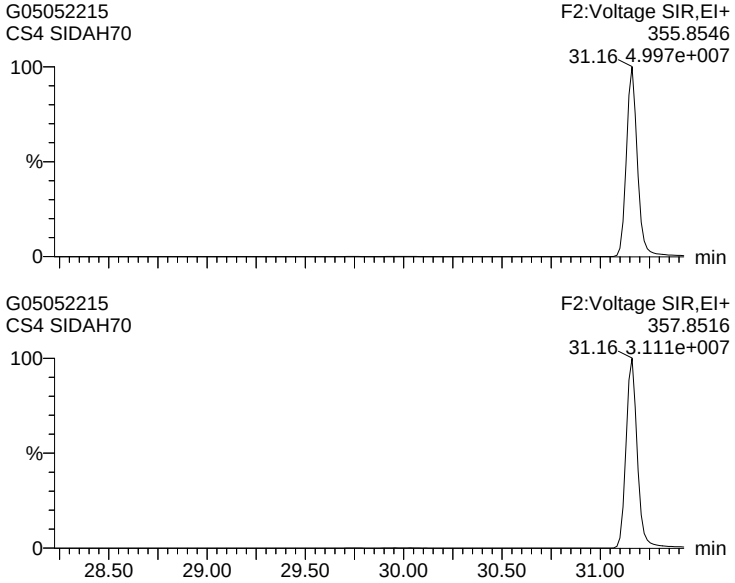
1289-TCDD



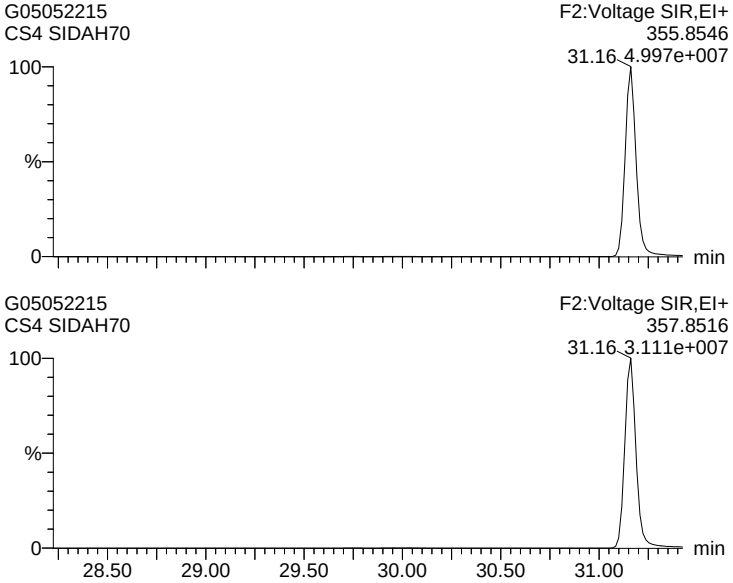
12479/12468-PeCDD



12469-PeCDD



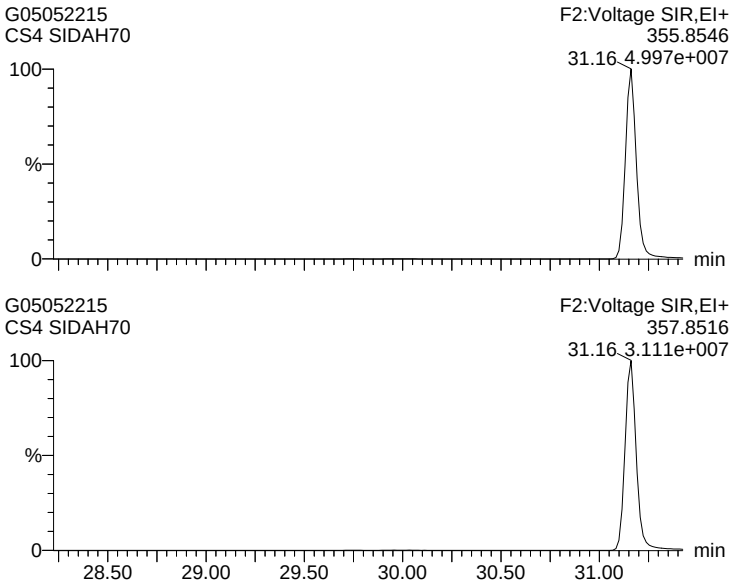
12368-PeCDD



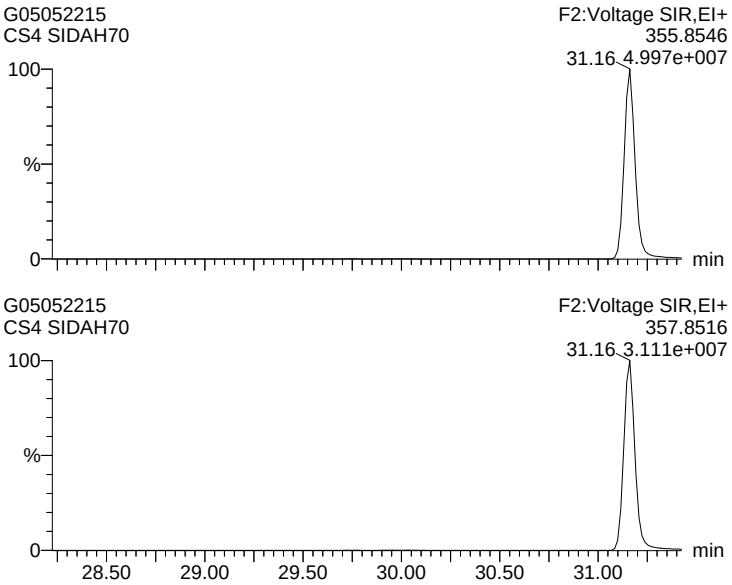
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

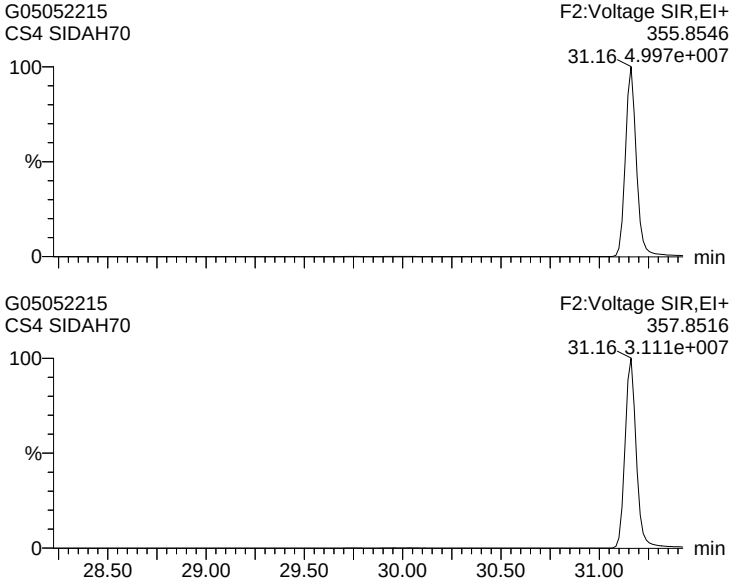
12478-PeCDD



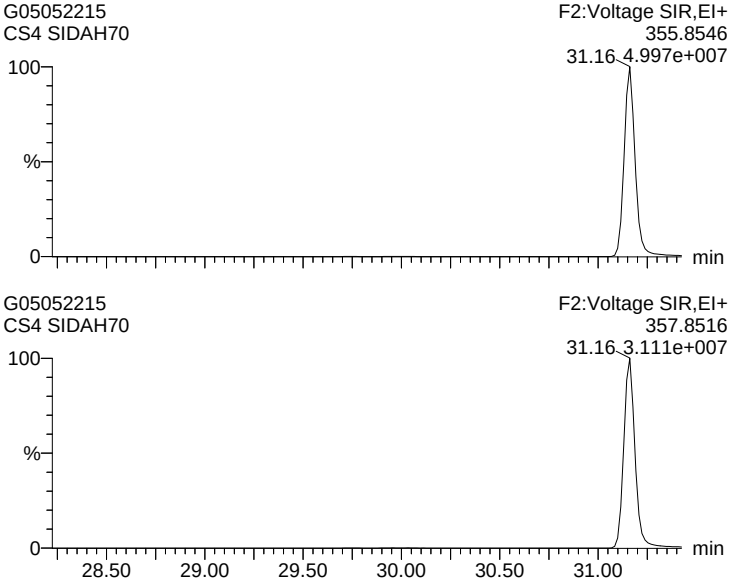
12379-PeCDD



12369/12467/12489-PeCDD



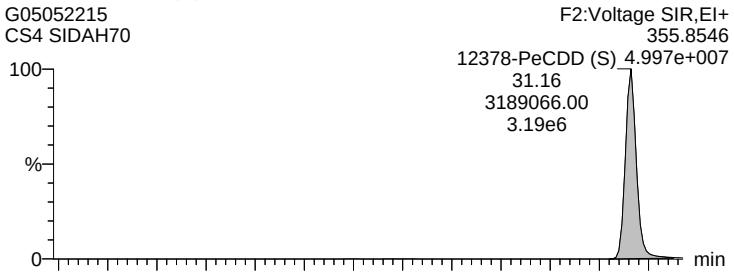
12346/12347-PeCDD

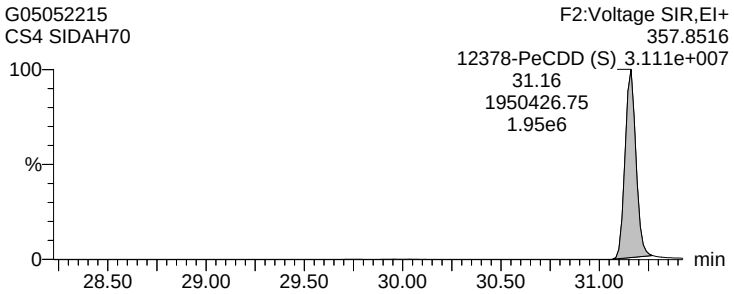


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

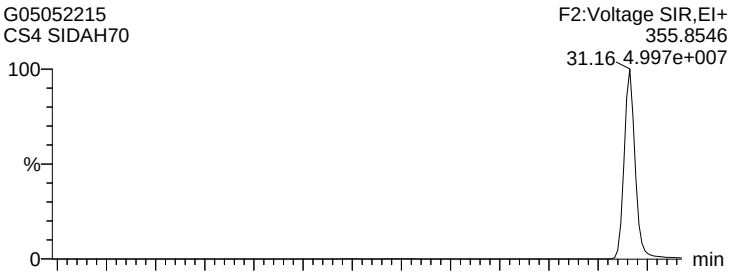
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

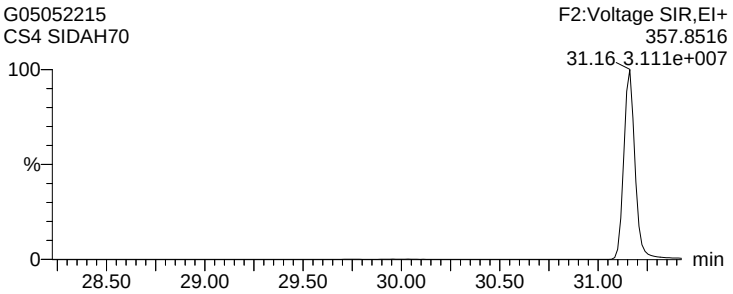
12378-PeCDD (S)



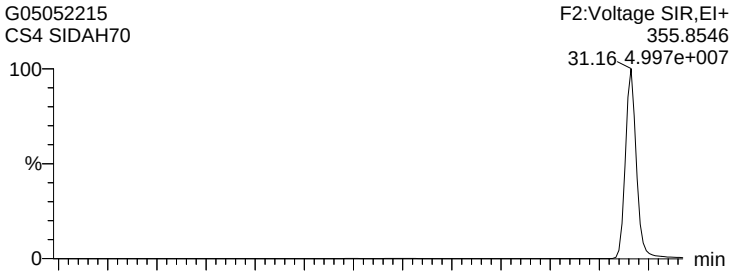


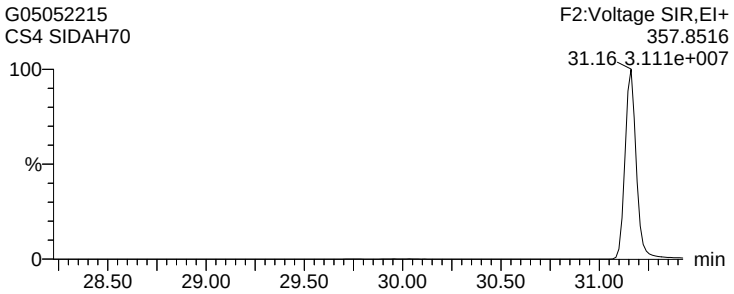
12367-PeCDD



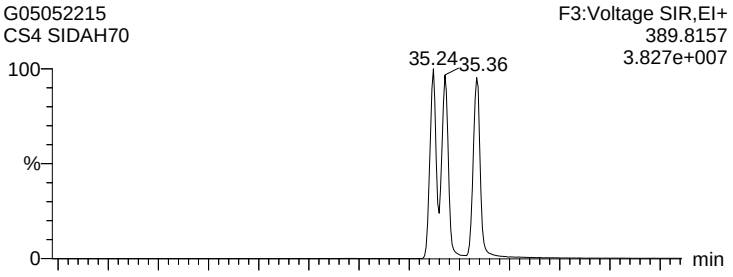


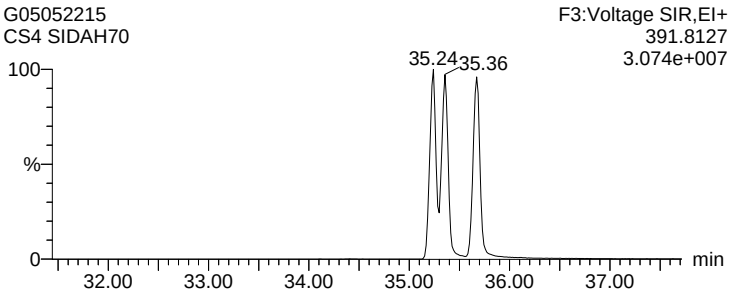
12389-PeCDD





124679/124689-HxCDD

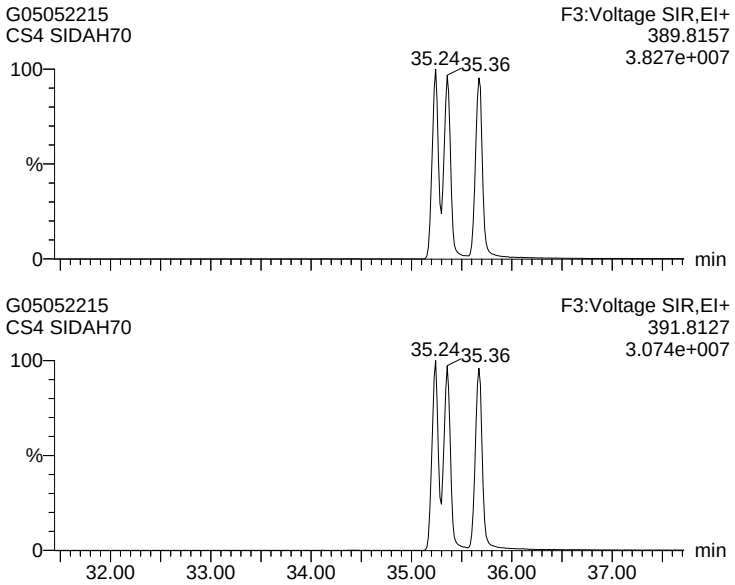




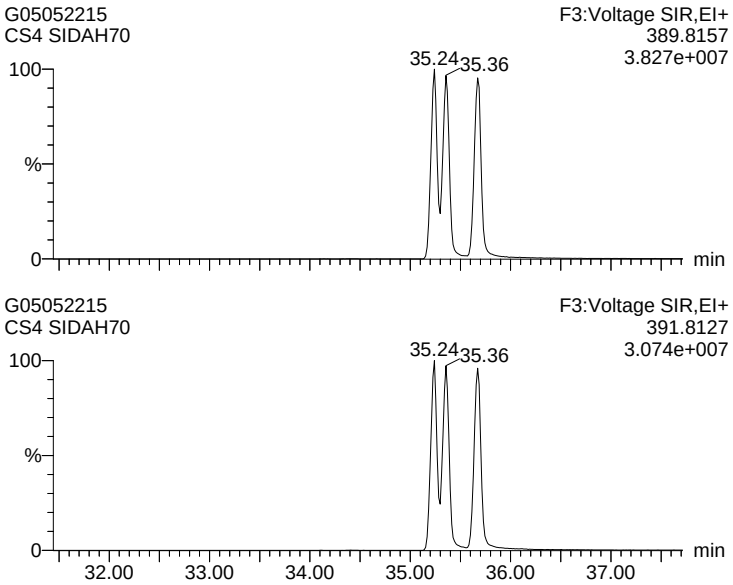
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

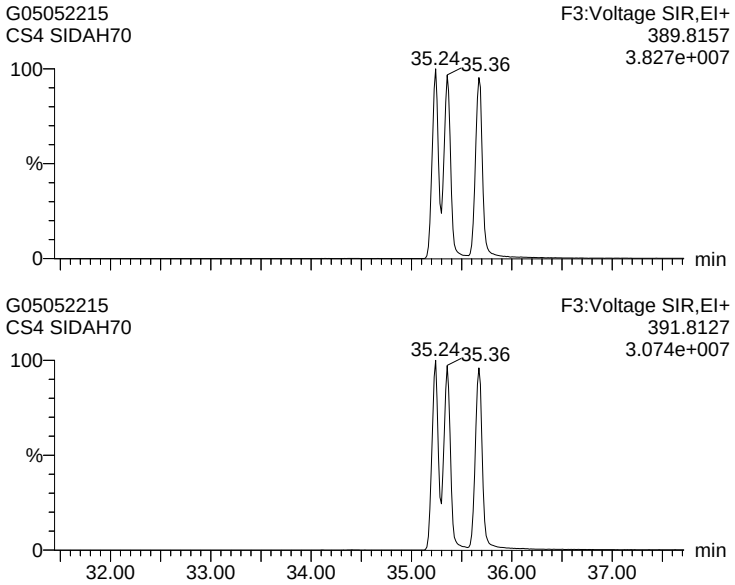
123468-HxCDD



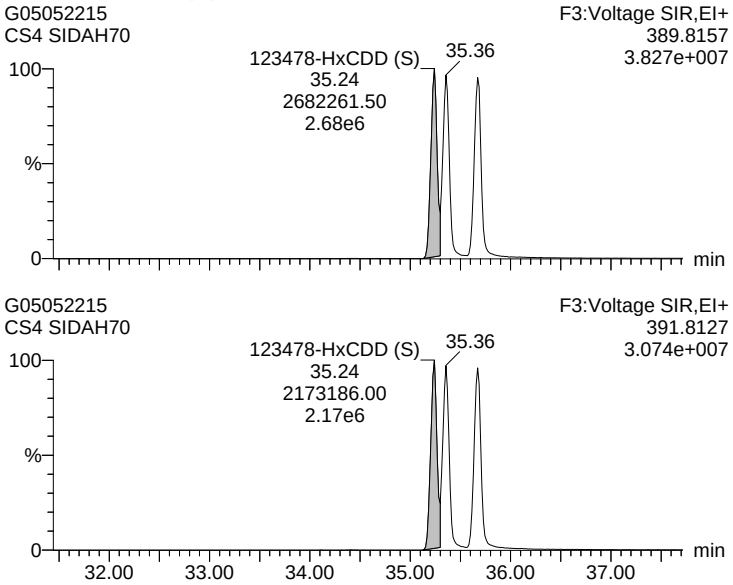
123679/123689-HxCDD



123469-HxCDD



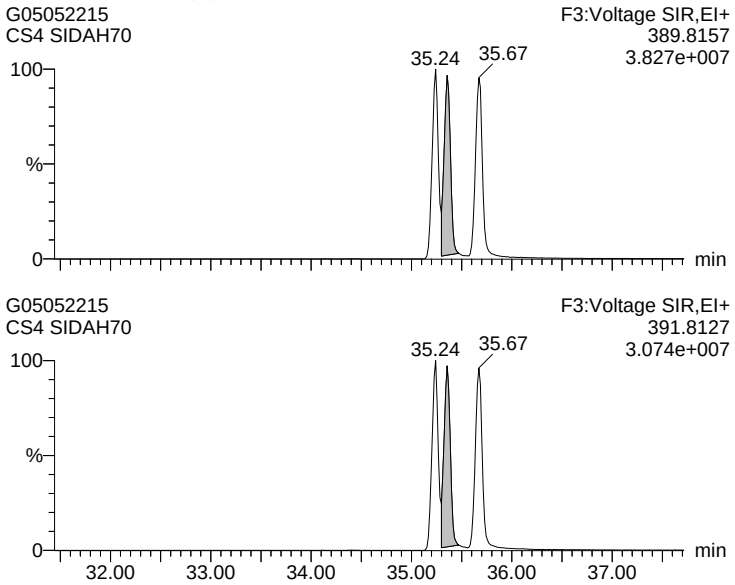
123478-HxCDD (S)



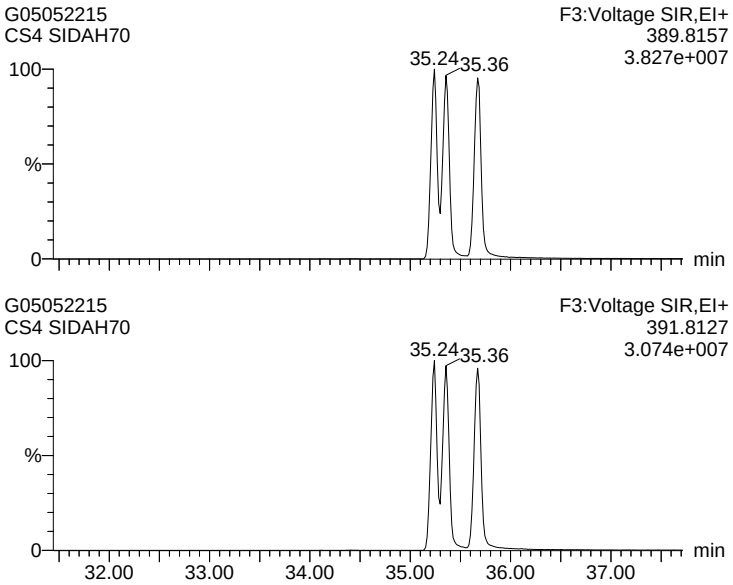
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

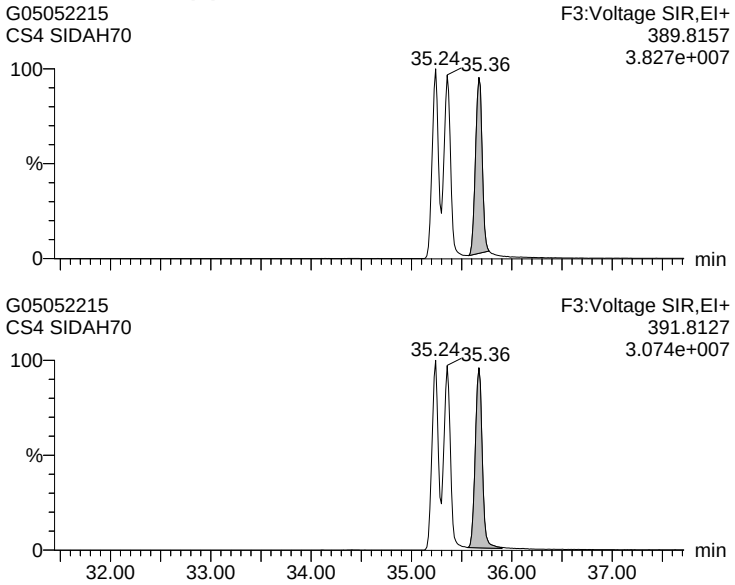
123678-HxCDD (S)



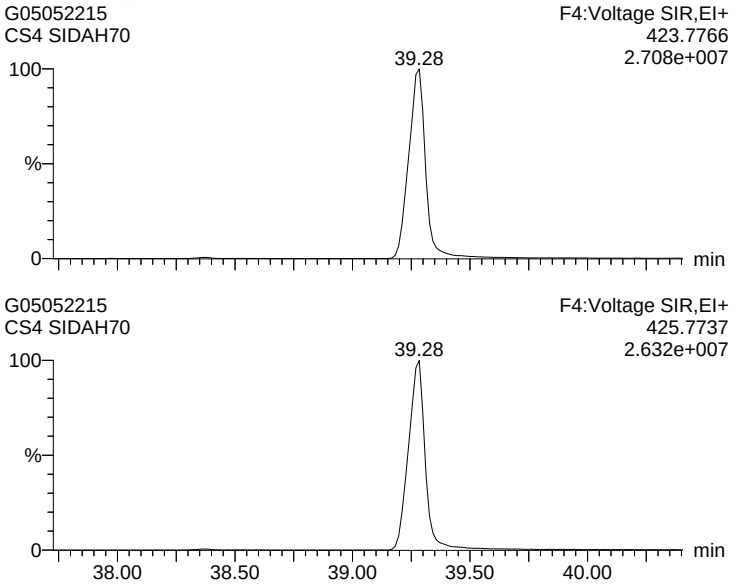
123467-HxCDD



123789-HxCDD (S)



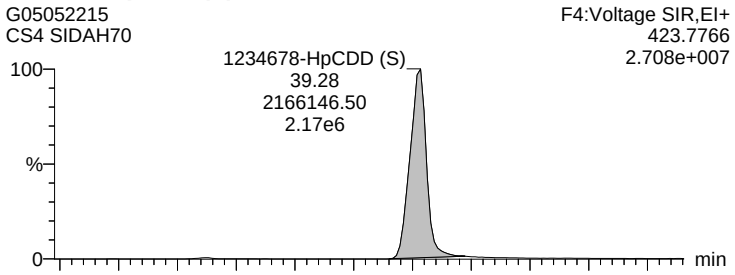
1234679-HpCDD

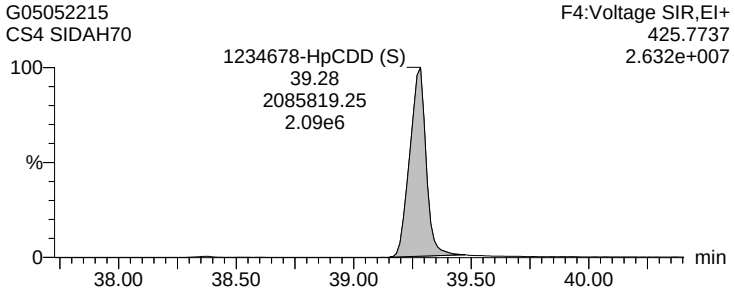


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

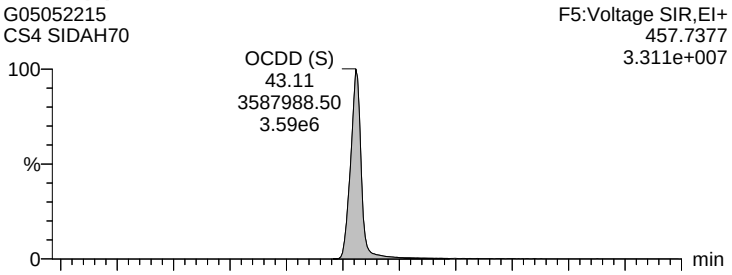
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

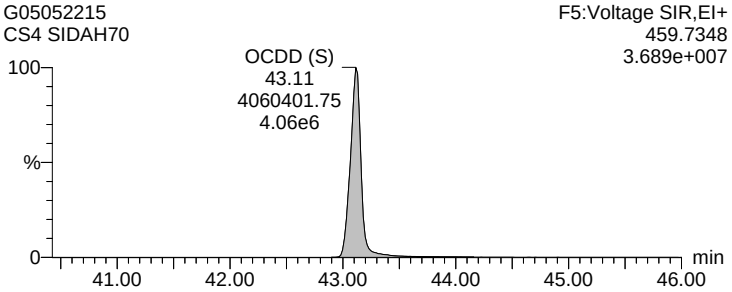
1234678-HpCDD (S)



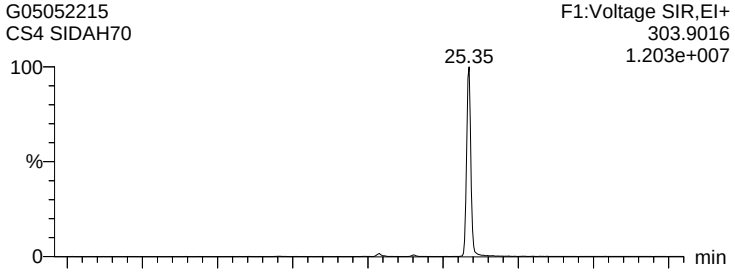


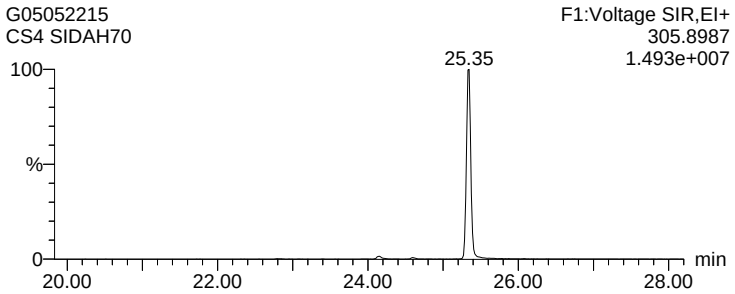
OCDD (S)



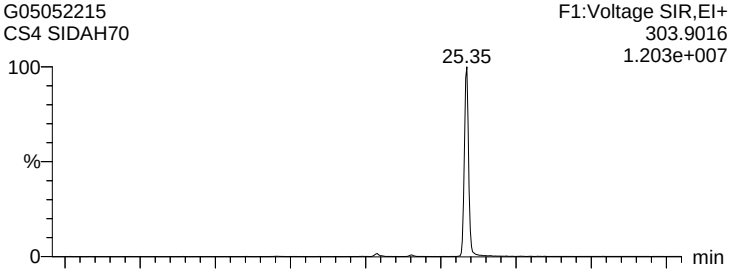


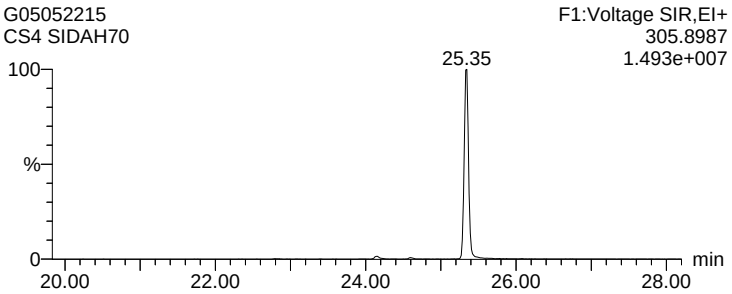
1368-TCDF





1468-TCDF

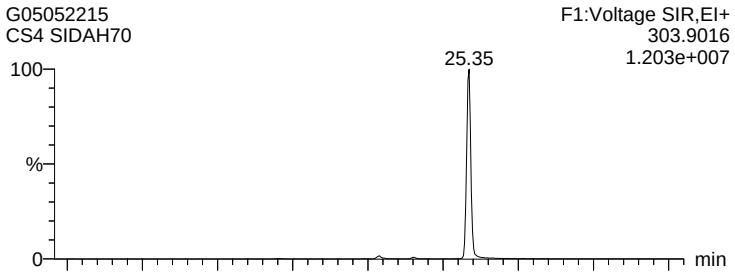


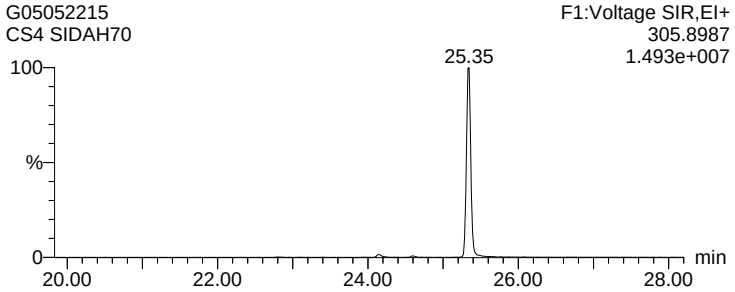


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

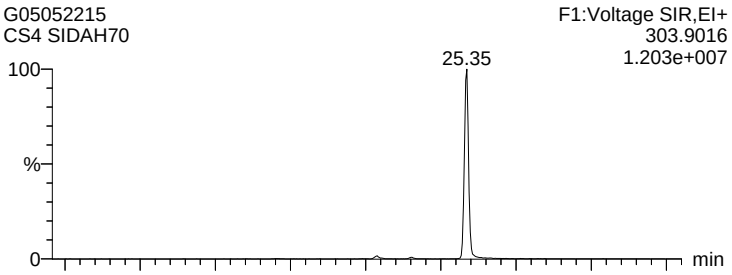
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

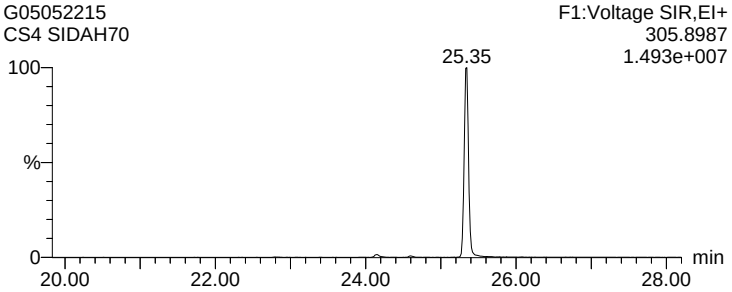
2468-TCDF



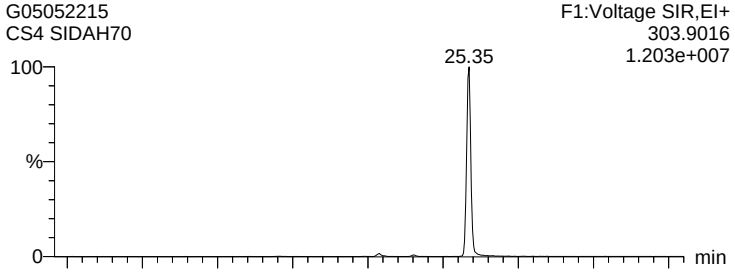


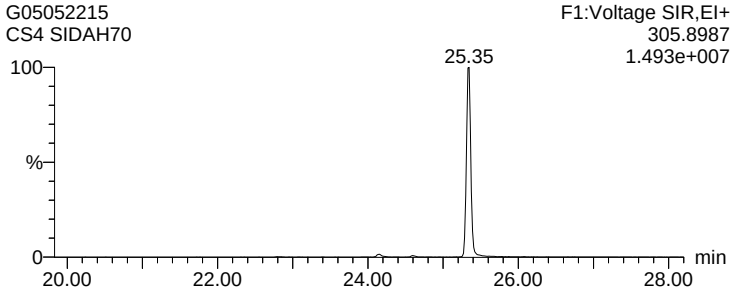
1346/1246-TCDF



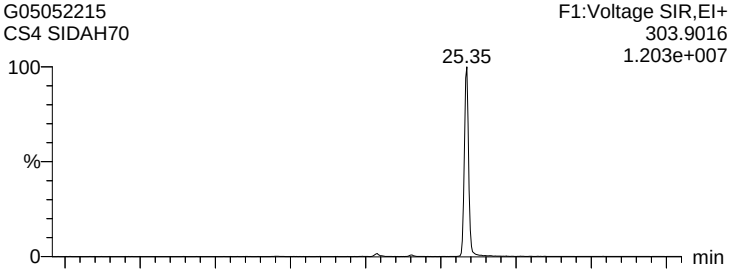


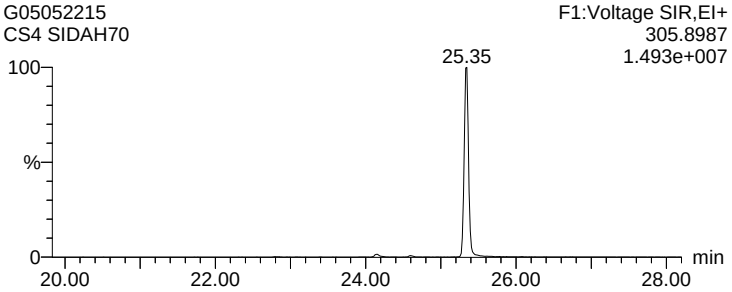
1347/1378/1247-TCDF





1348-TCDF

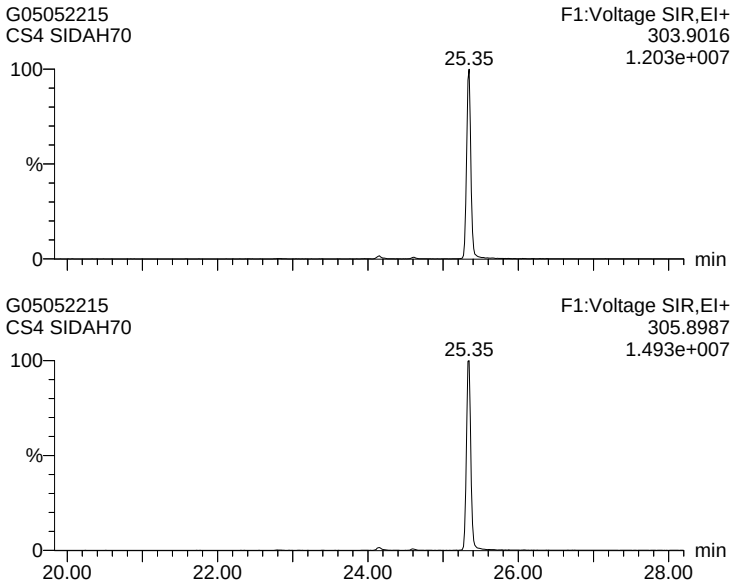




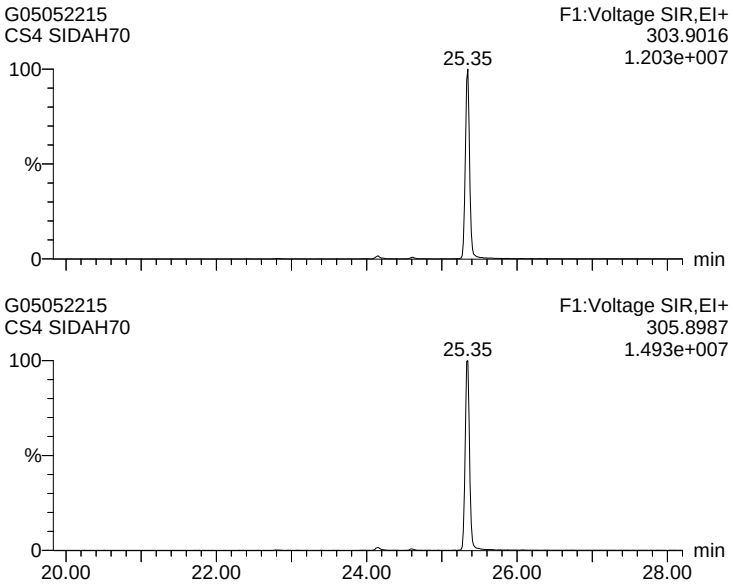
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

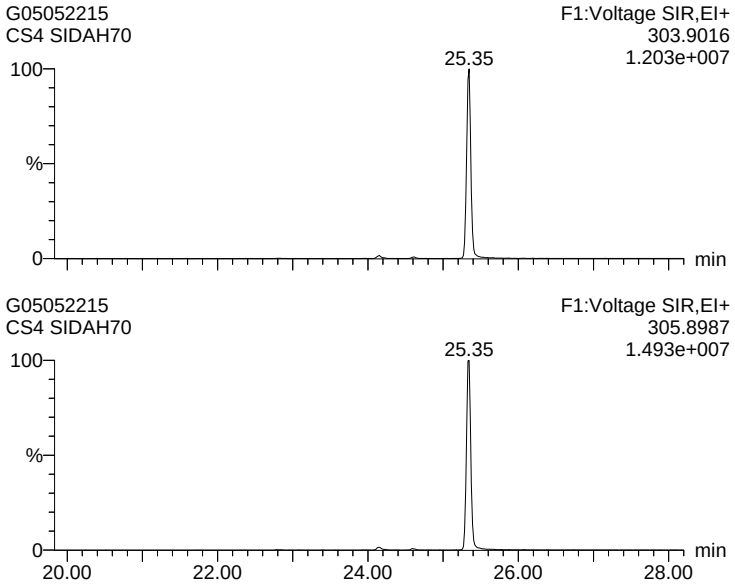
1248/1367/1379-TCDF



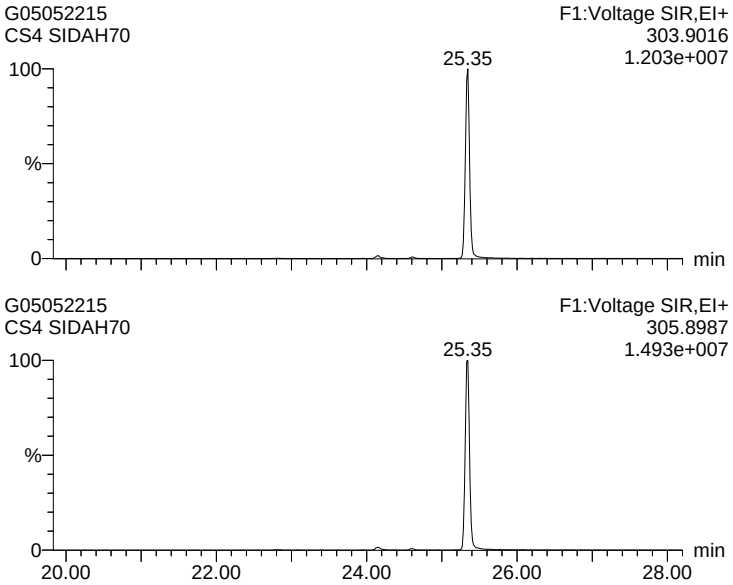
1268-TCDF



1467-TCDF



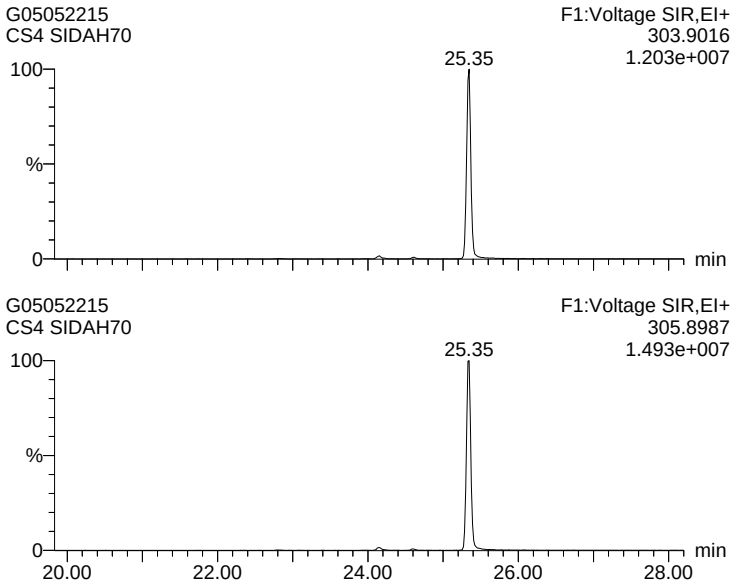
1478-TCDF



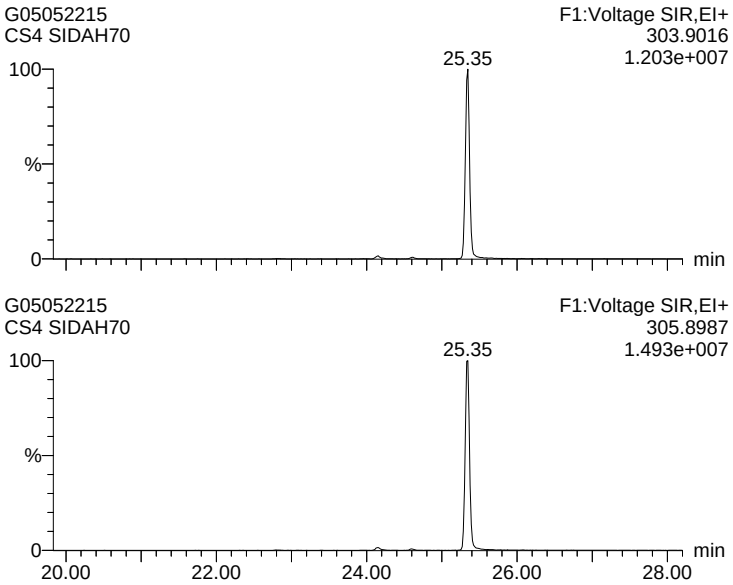
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

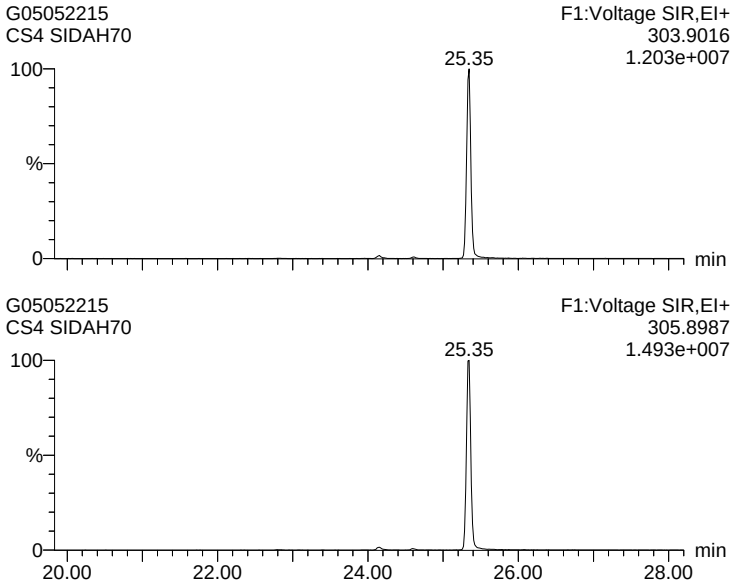
1369/1237-TCDF



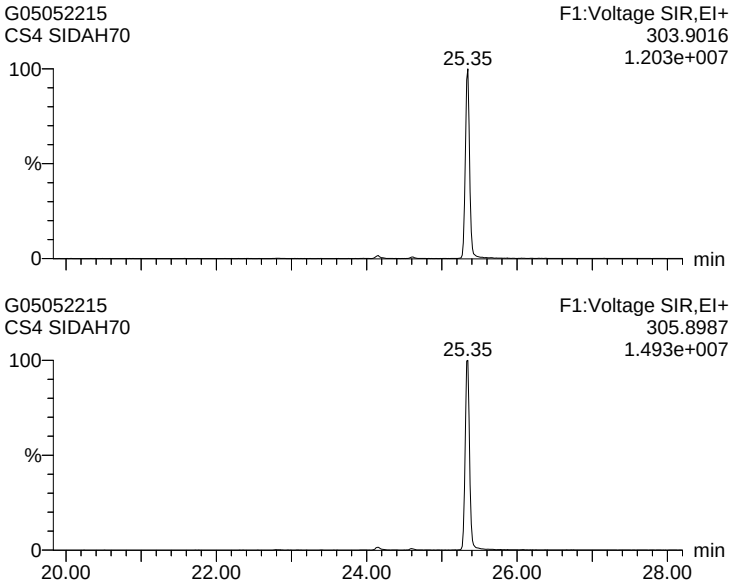
2467-TCDF



2368-TCDF



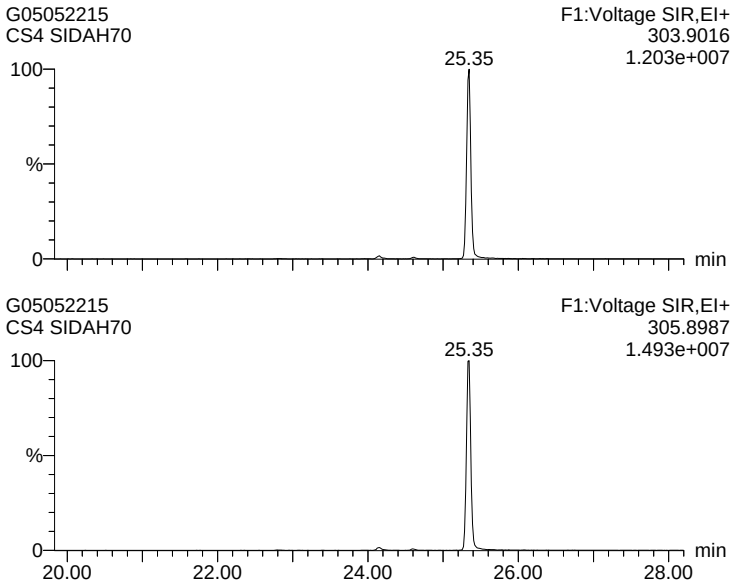
1238/1234/1678/1469/1236-TCDF



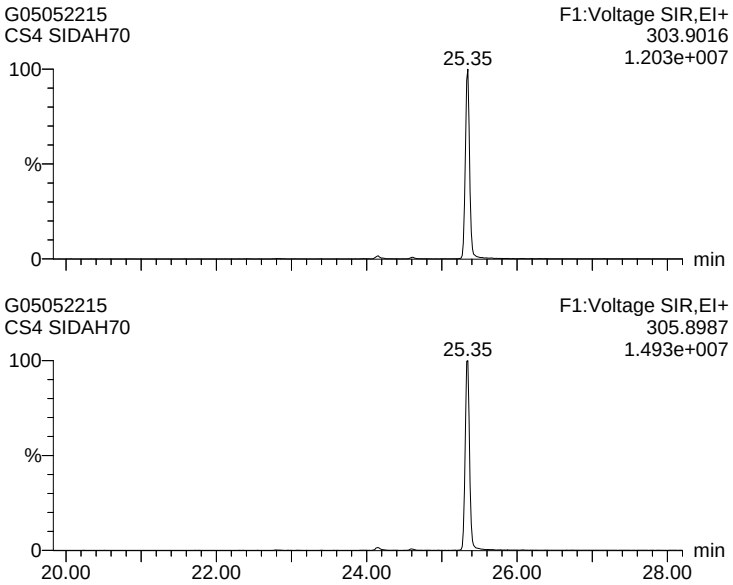
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

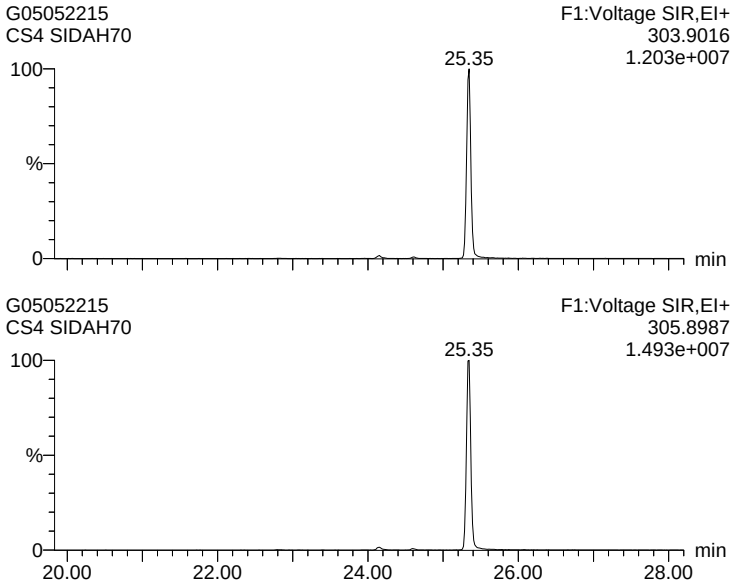
1278-TCDF



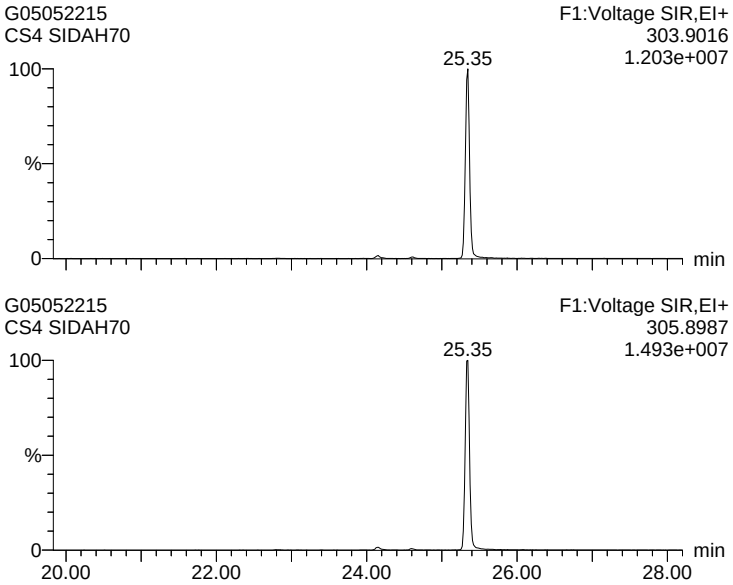
1349-TCDF



1267-TCDF



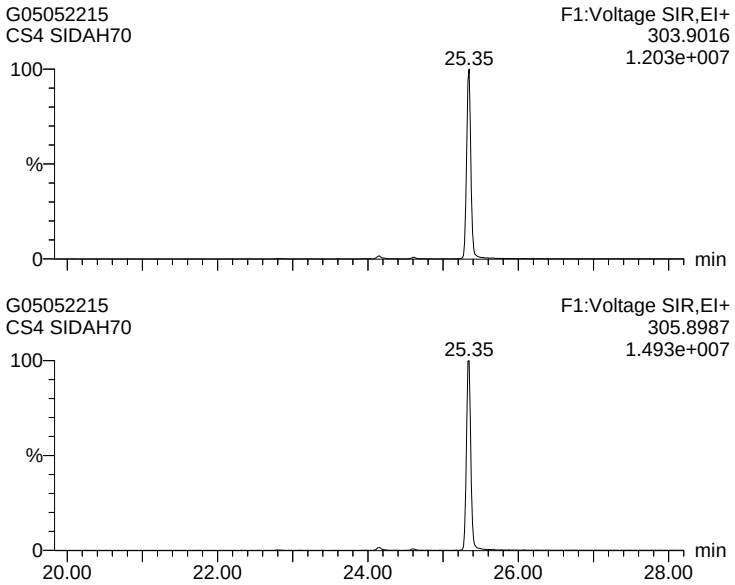
2346/1249-TCDF



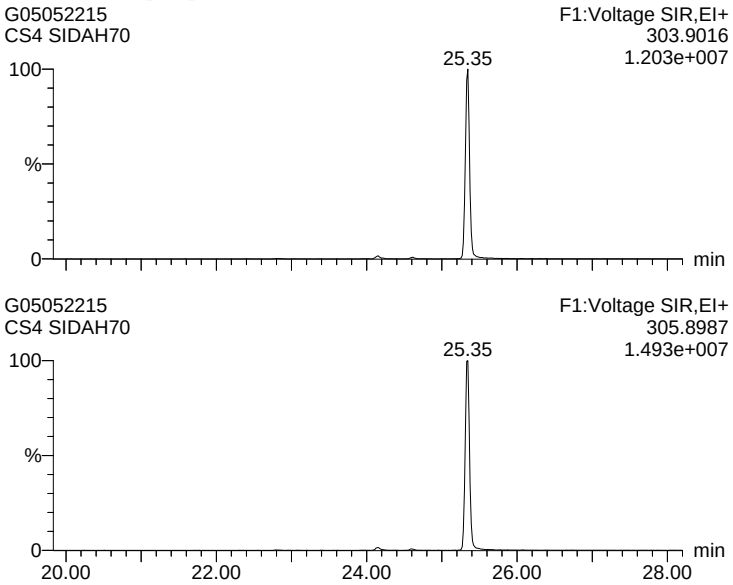
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

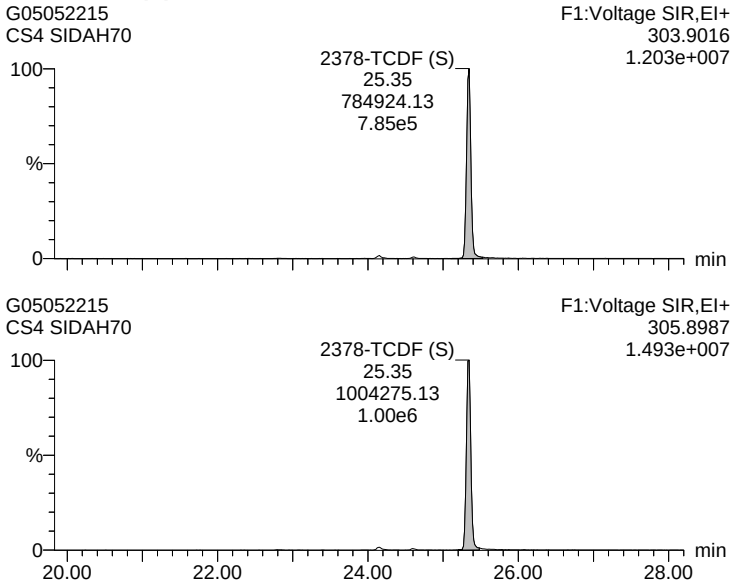
2347/1279-TCDF



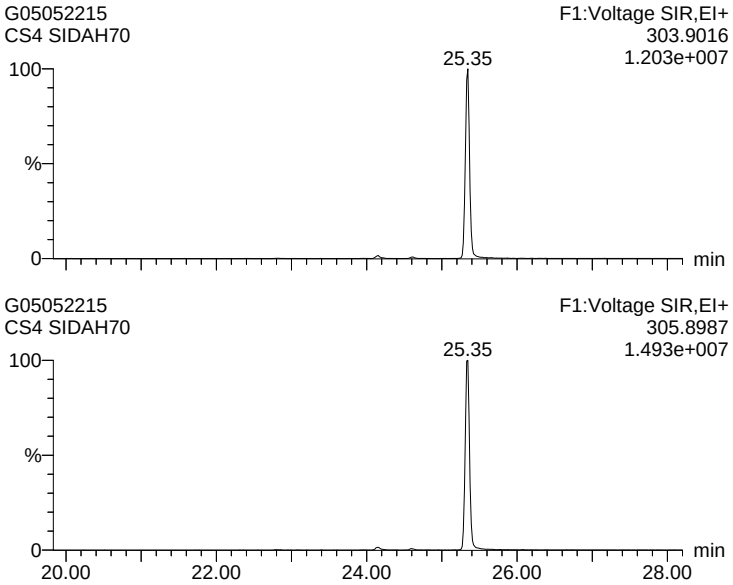
2348-TCDF [CE]



2378-TCDF (S)



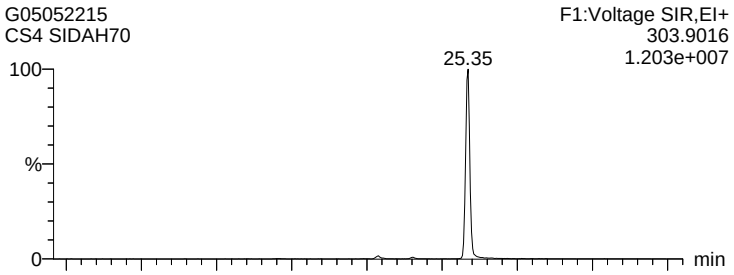
2367/3467-TCDF

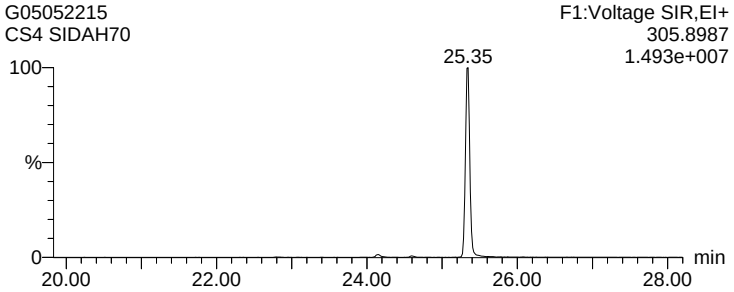


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

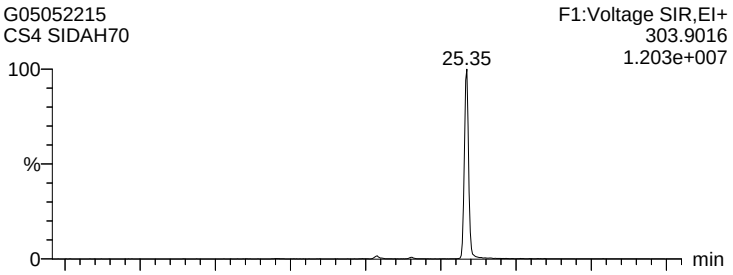
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

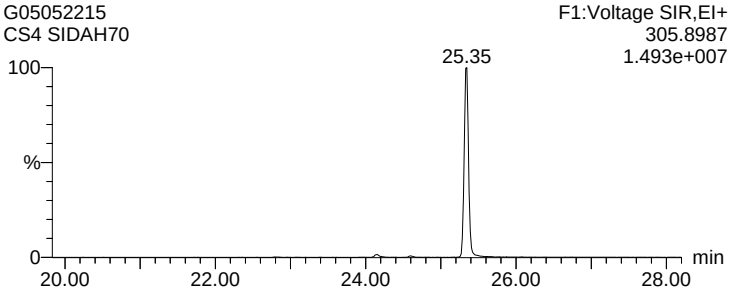
1269-TCDF



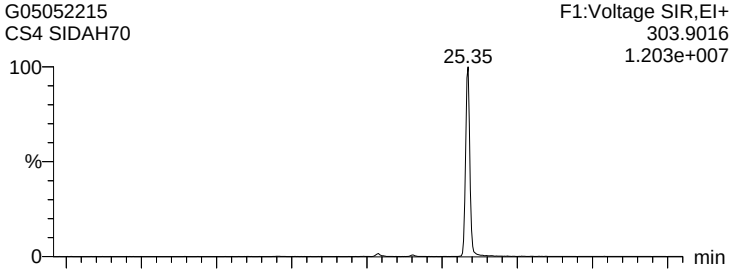


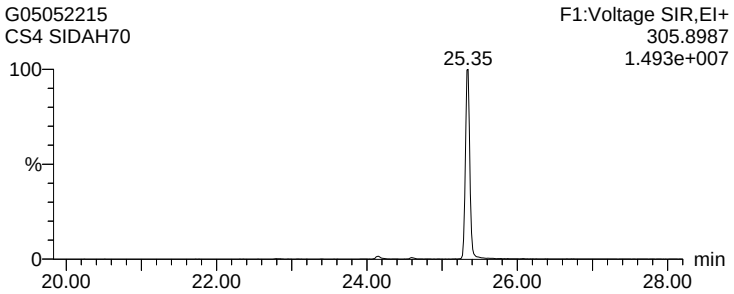
1239-TCDF



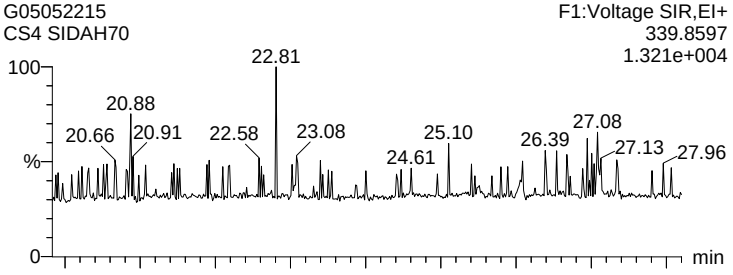


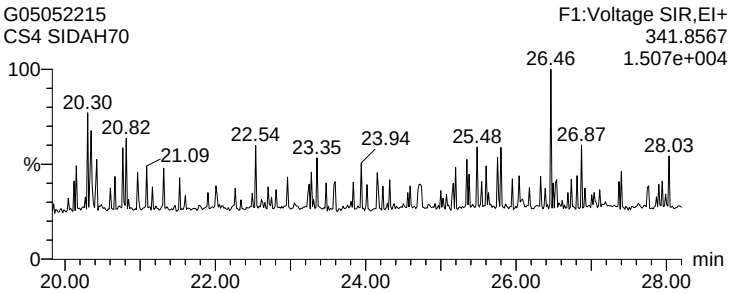
1289-TCDF





13468/12466-PeCDF

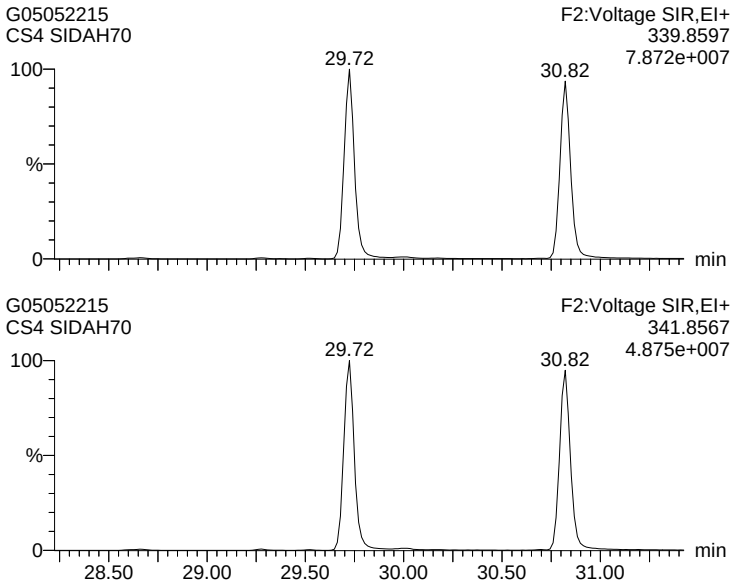




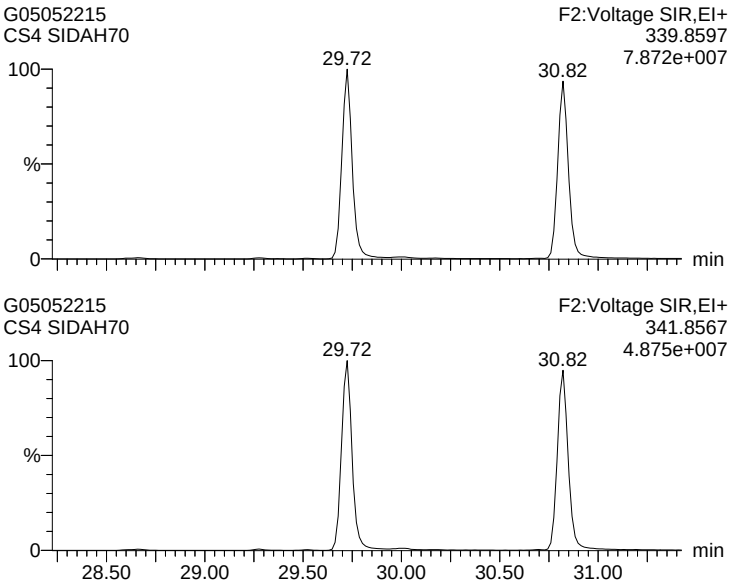
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

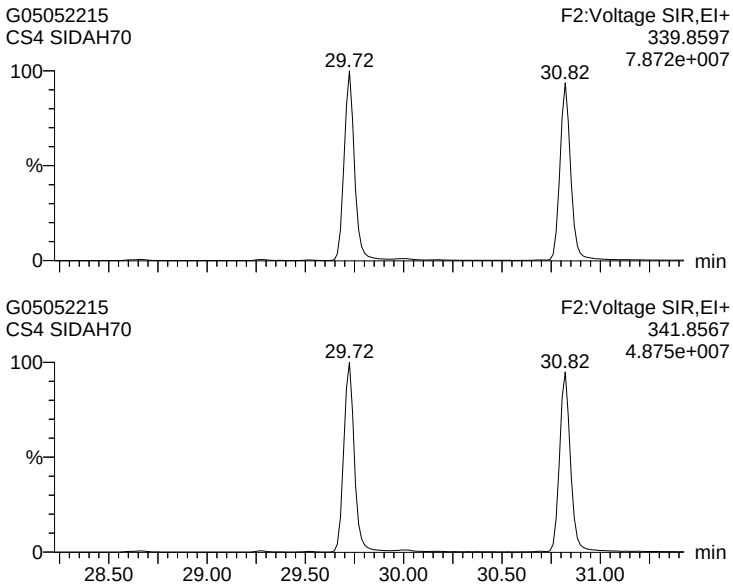
13678/13467/12467-PeCDF



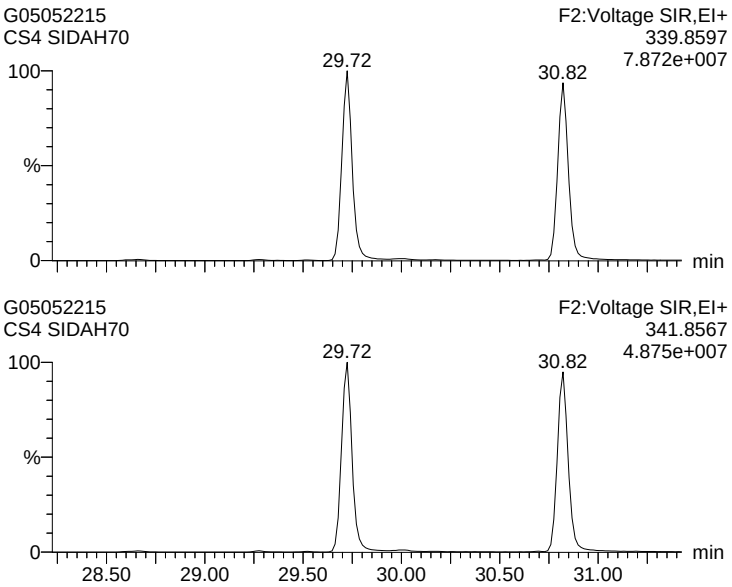
12368/13478/12478-PeCDF



14678-PeCDF



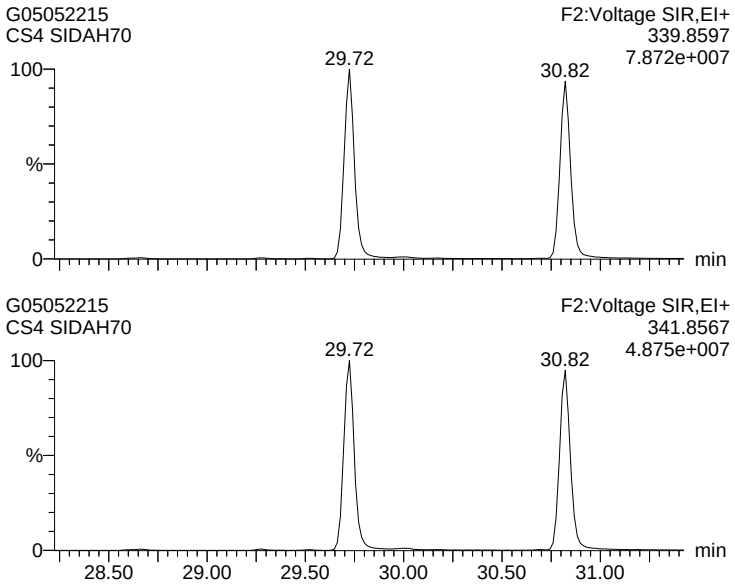
13479-PeCDF



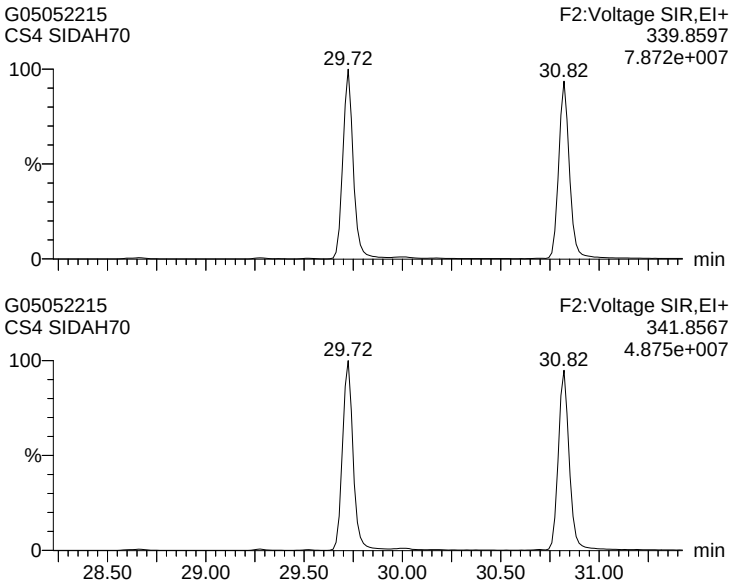
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

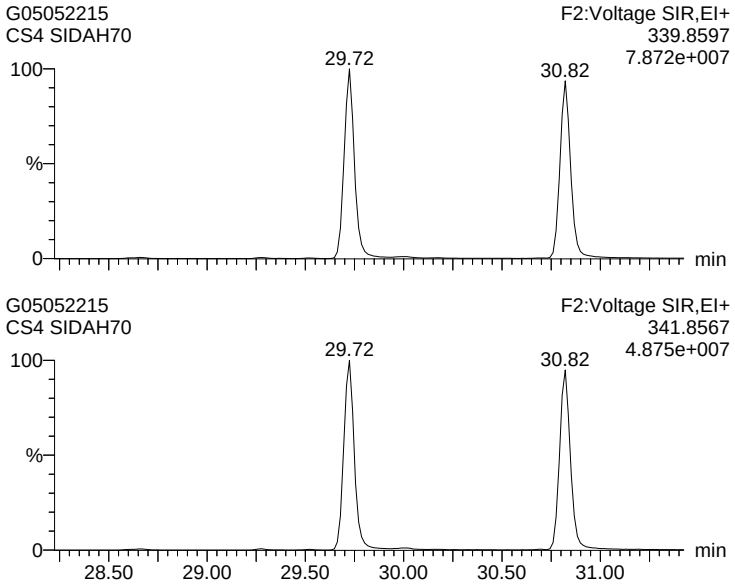
13469/12479-PeCDF



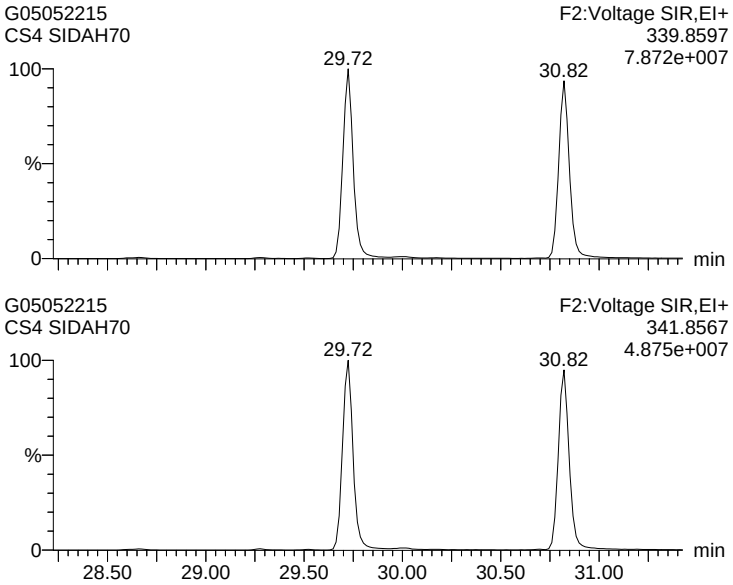
12346-PeCDF



23468/12469-PeCDF



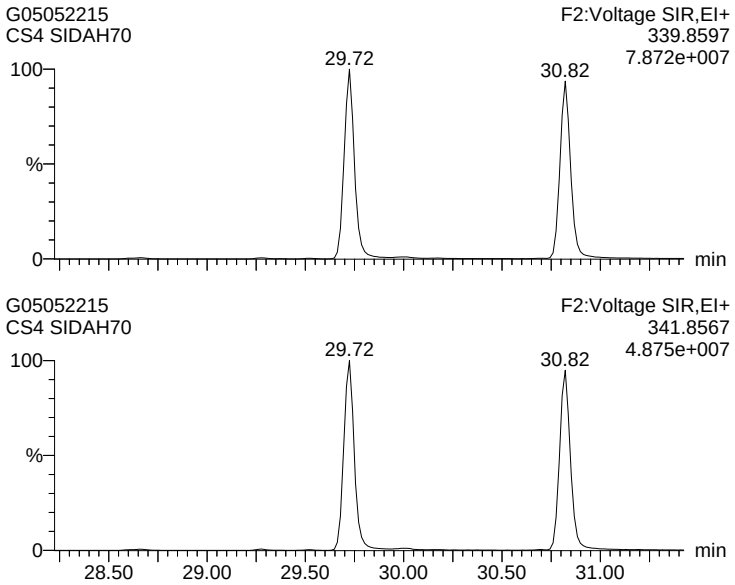
12347-PeCDF



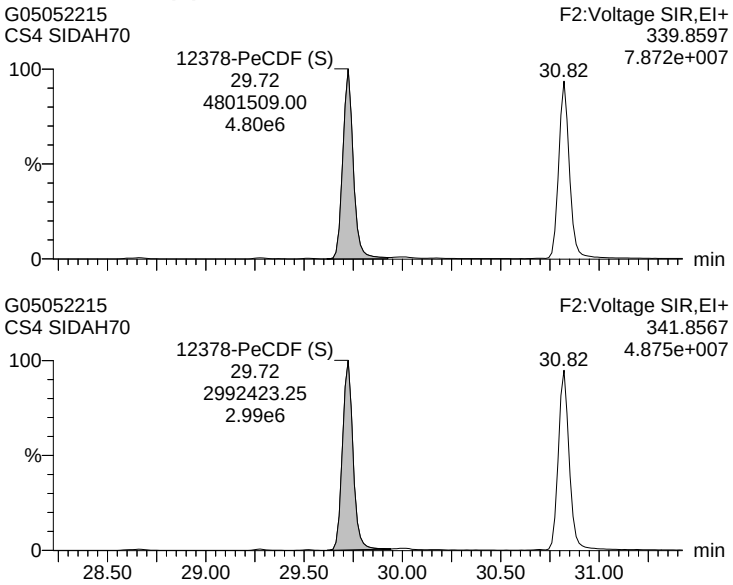
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

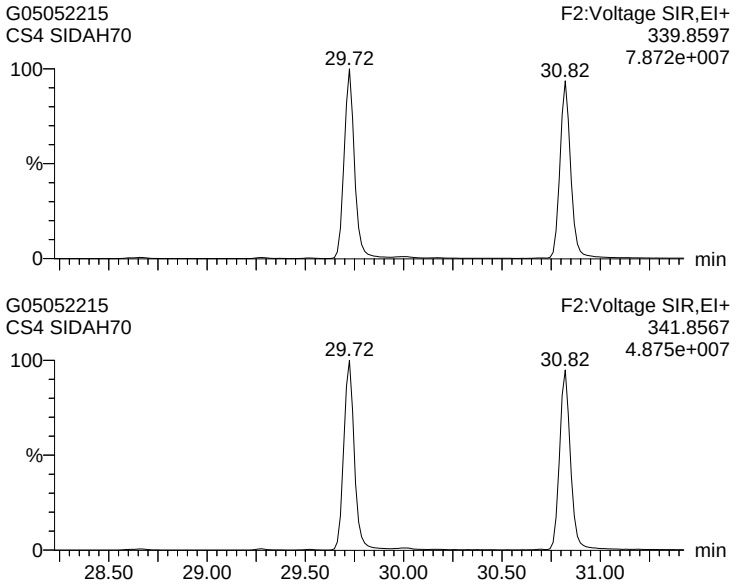
12348-PeCDF



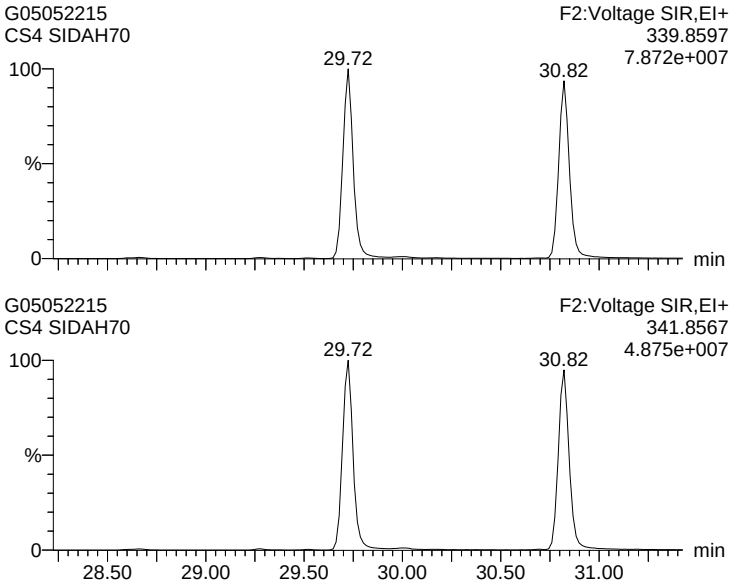
12378-PeCDF (S)



12678/12367-PeCDF



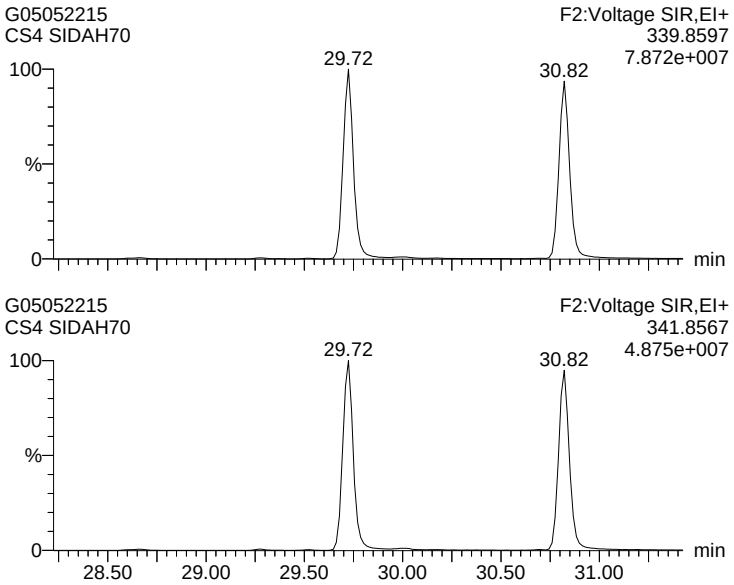
12379-PeCDF



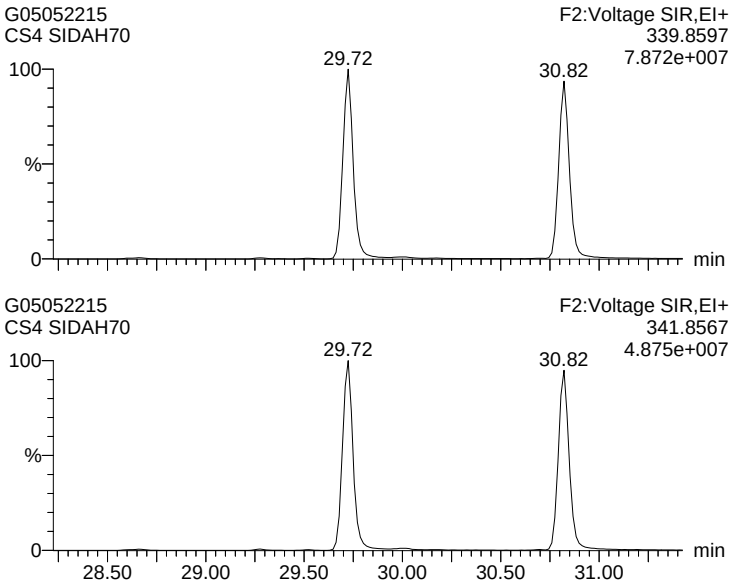
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

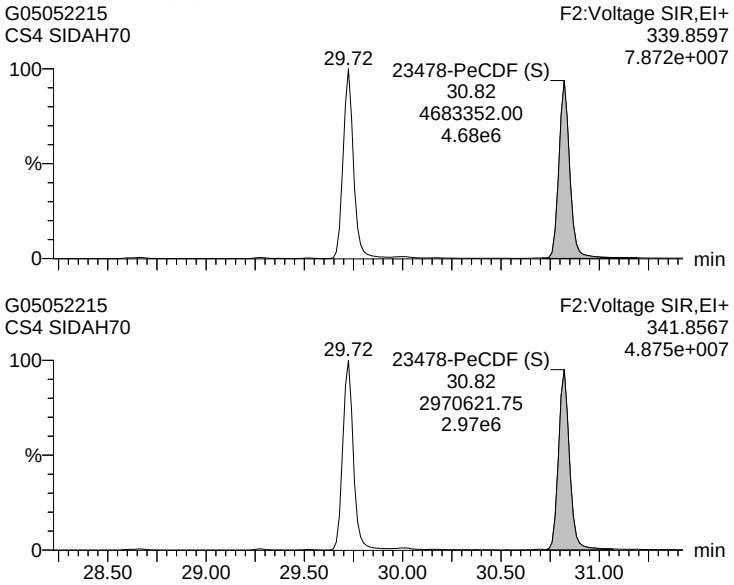
12679-PeCDF



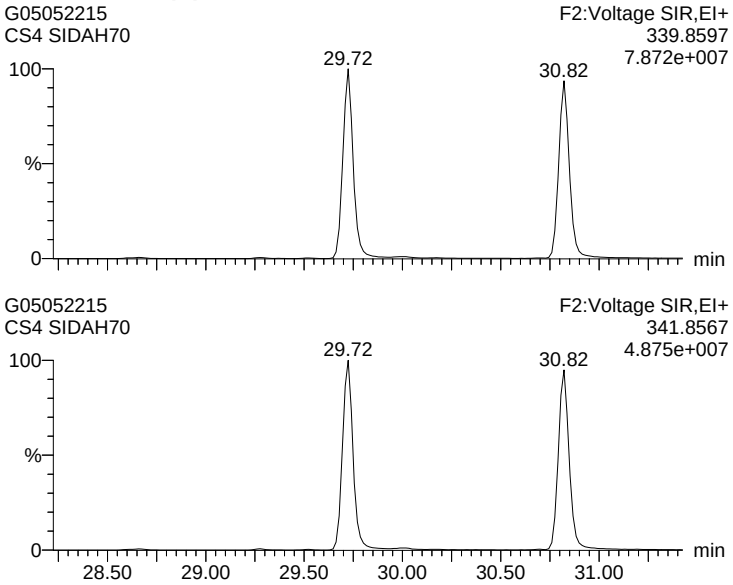
23467/12369-PeCDF



23478-PeCDF (S)



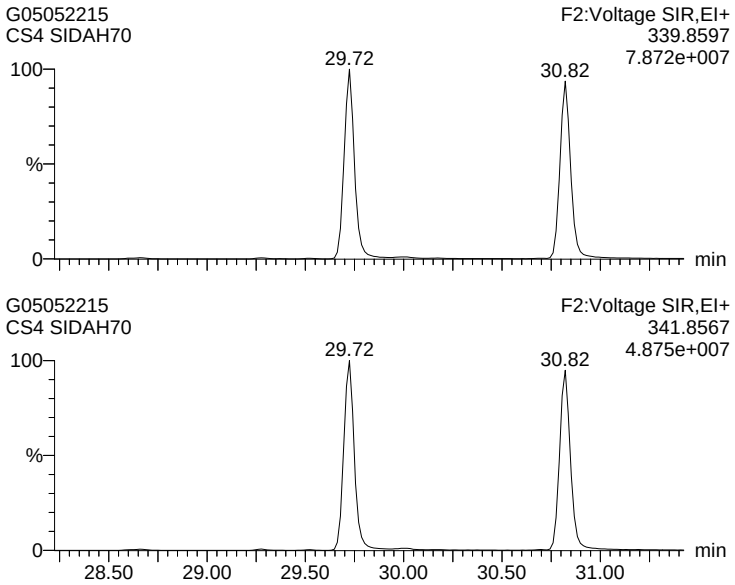
12489-PeCDF (R)



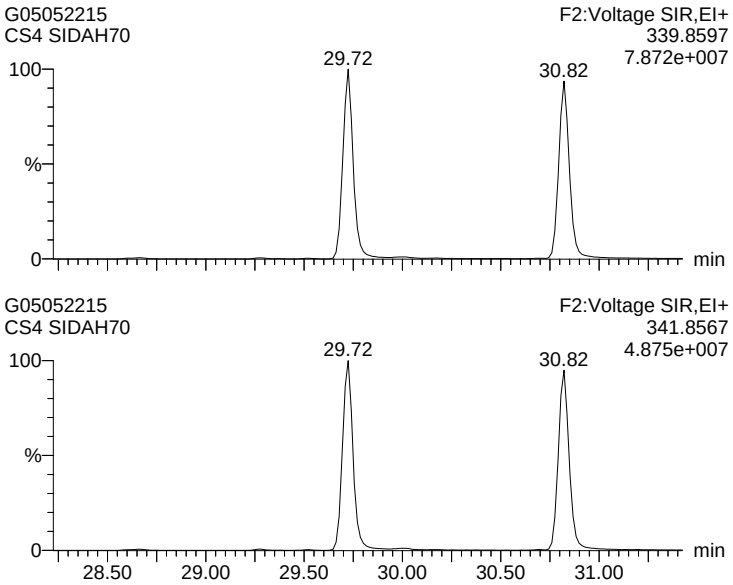
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

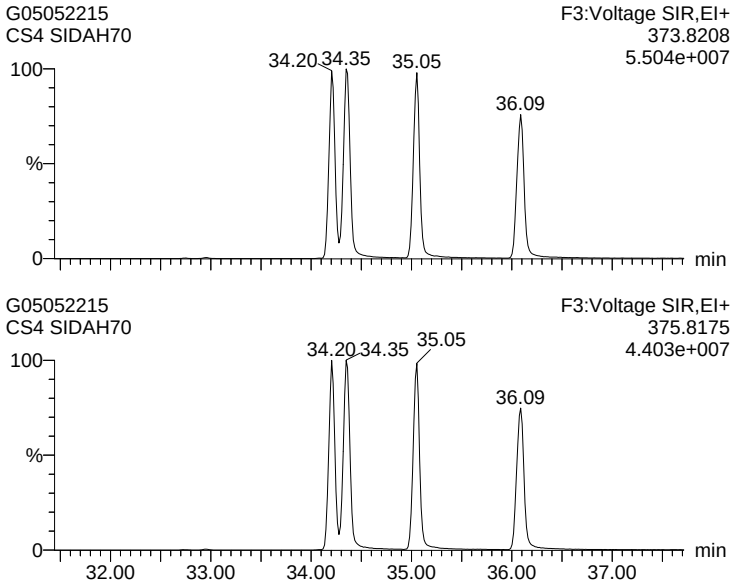
12349-PeCDF



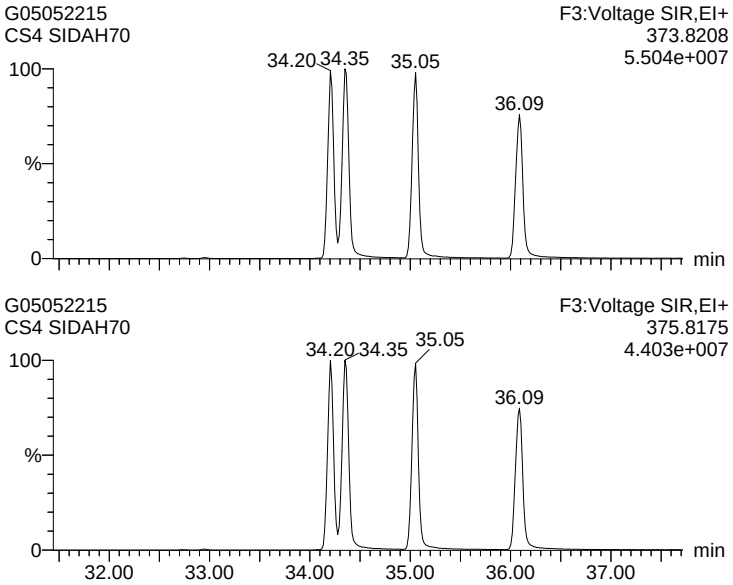
12389-PeCDF



123468-HxCDF



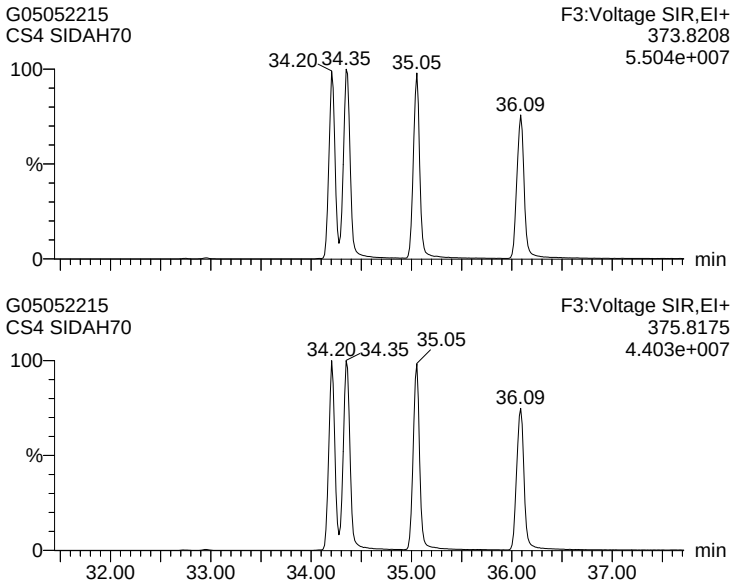
124678/134678-HxCDF



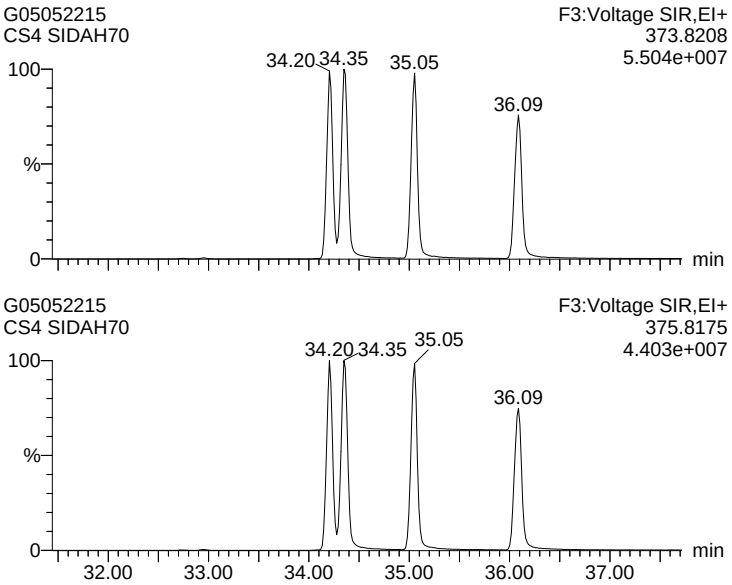
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

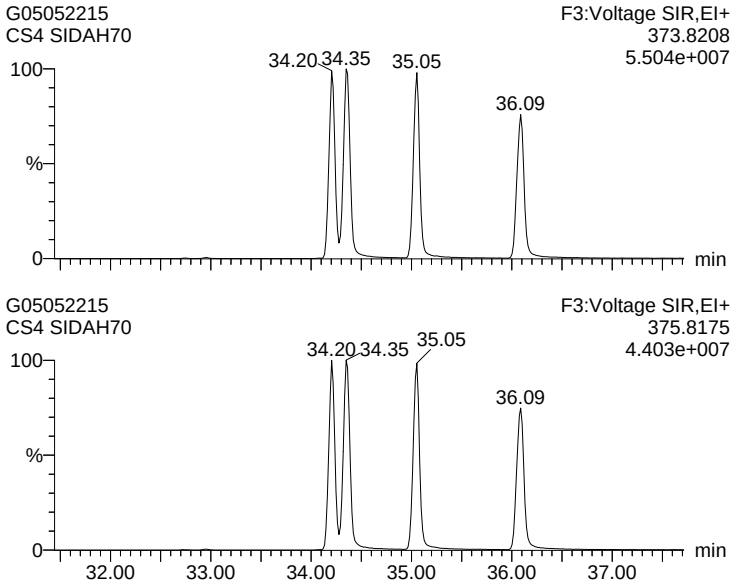
134679-HxCDF



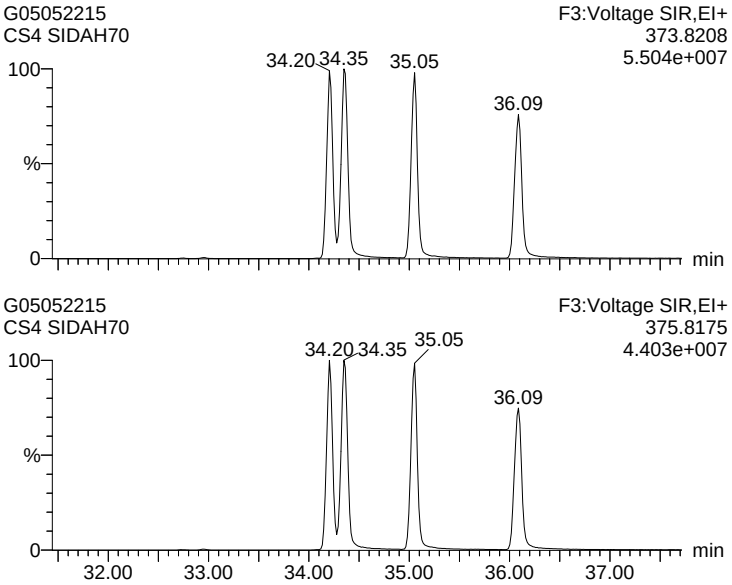
124679-HxCDF



124689-HxCDF



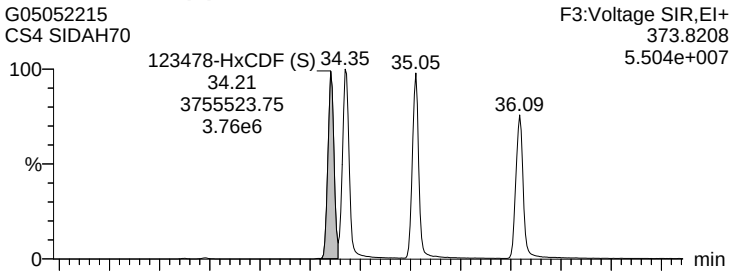
123467-HxCDF

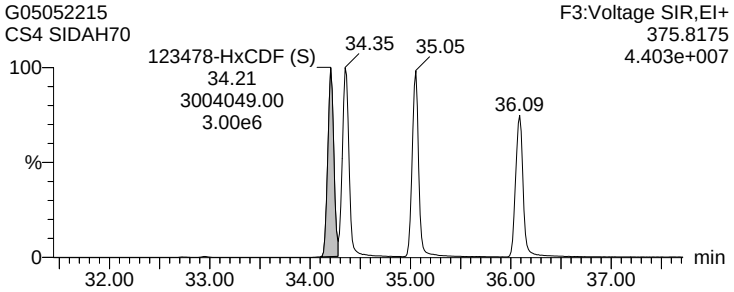


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

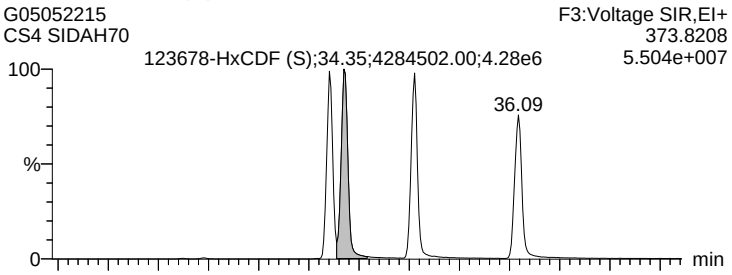
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

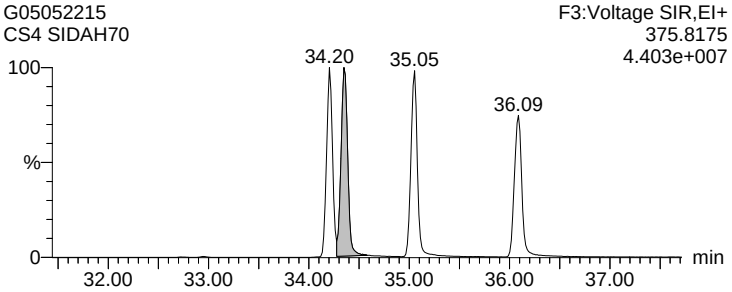
123478-HxCDF (S)



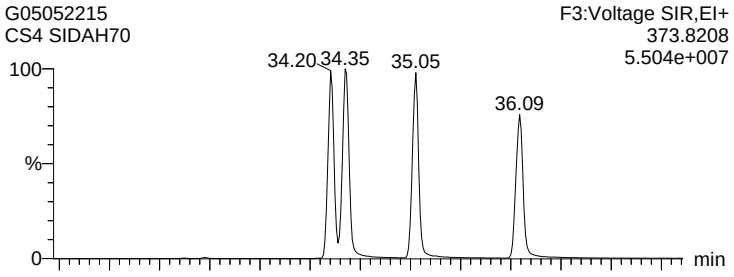


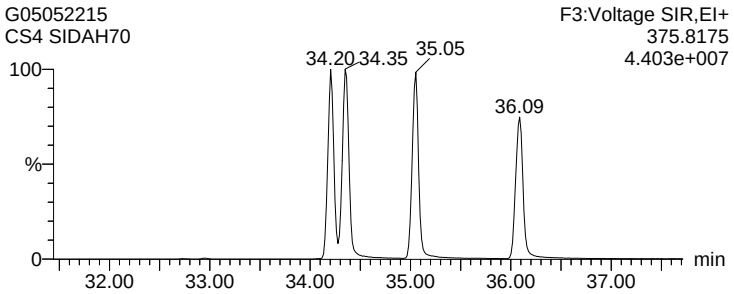
123678-HxCDF (S)



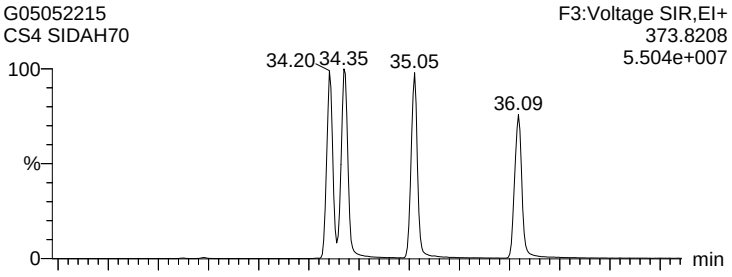


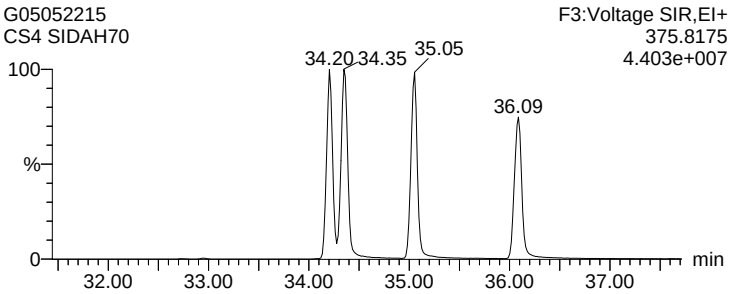
123479-HxCDF





123469-HxCDF

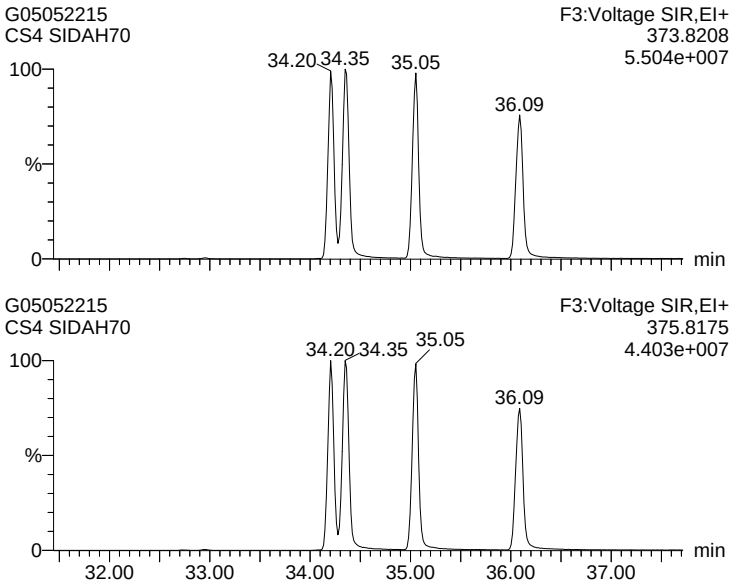




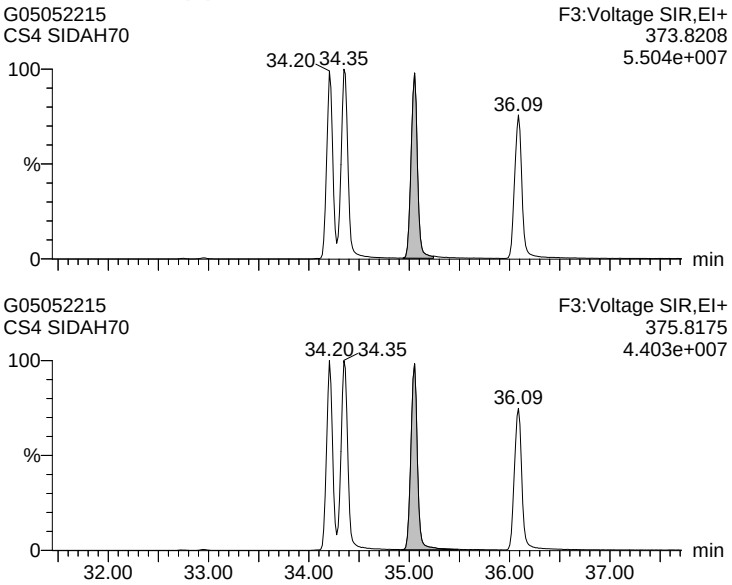
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

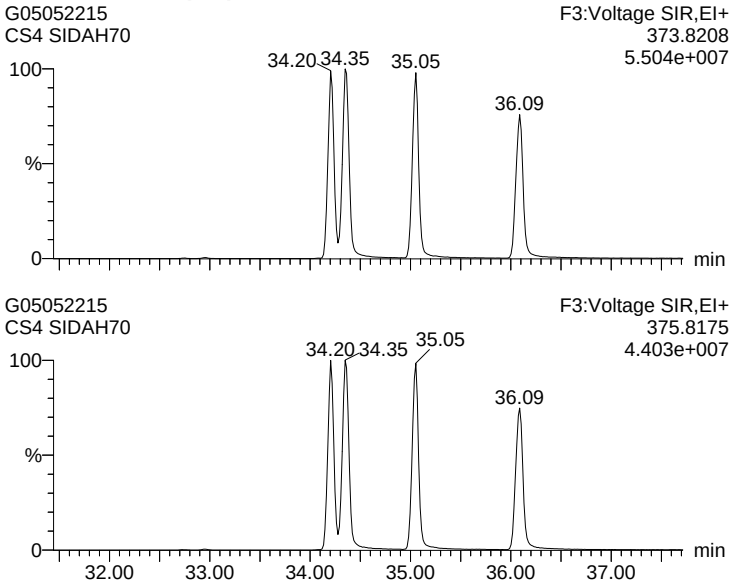
123679-HxCDF



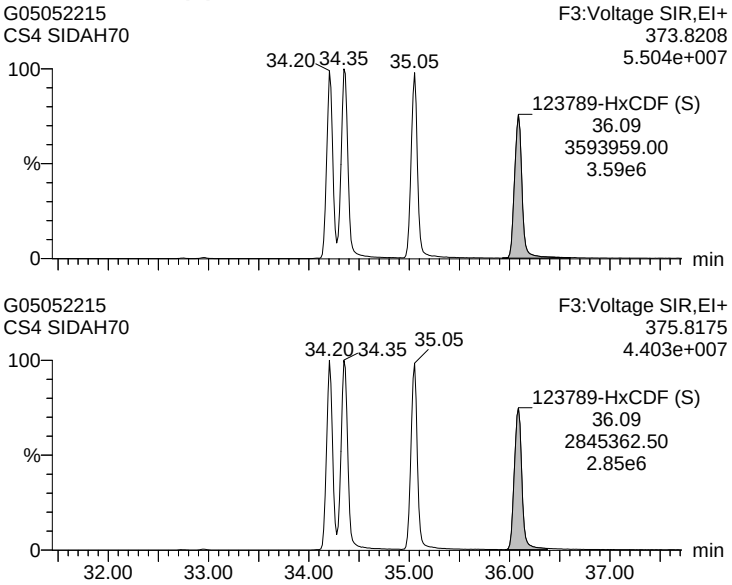
234678-HxCDF (S)



123689-HxCDF (NR)



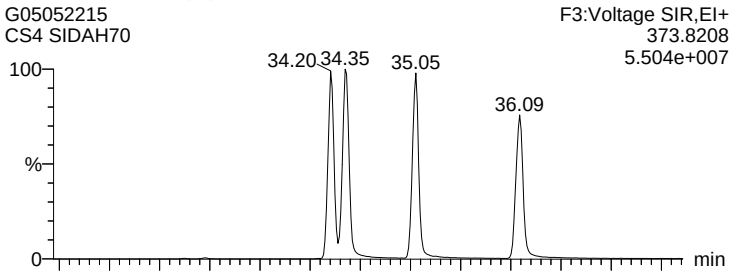
123789-HxCDF (S)

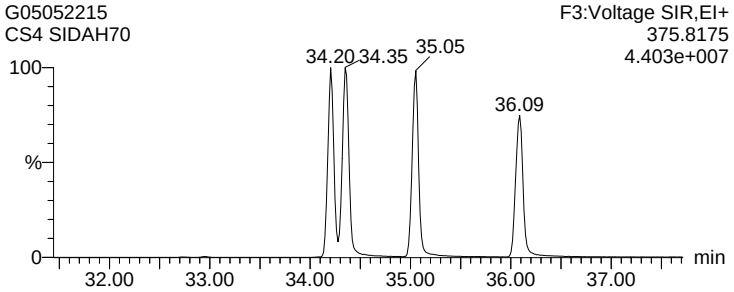


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

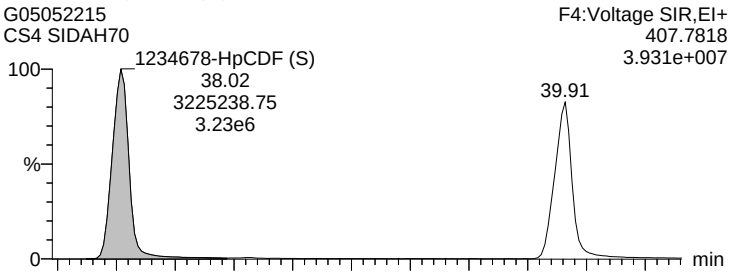
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

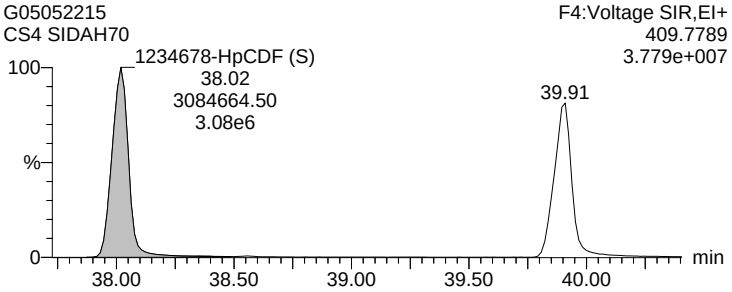
123489-HxCDF (R)



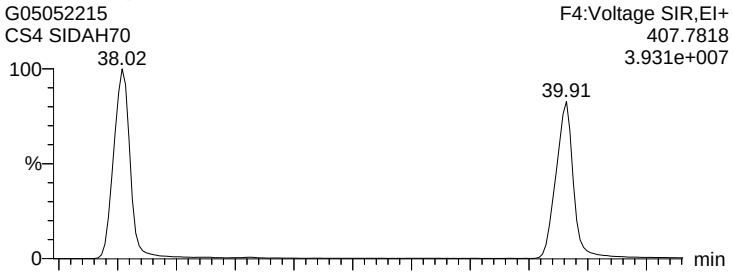


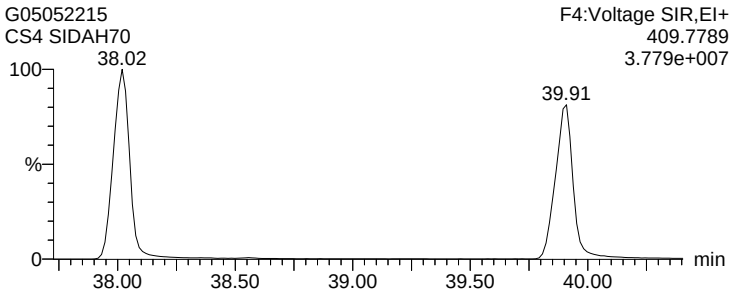
1234678-HpCDF (S)



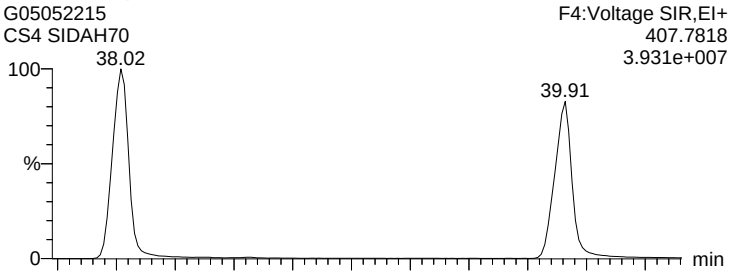


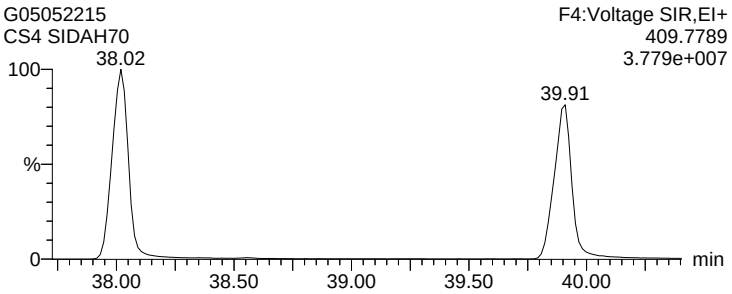
1234679-HpCDF





1234689-HpCDF

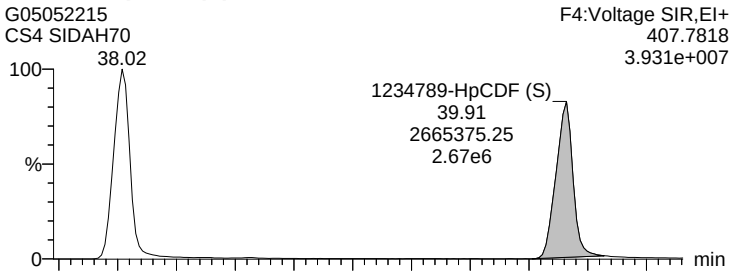


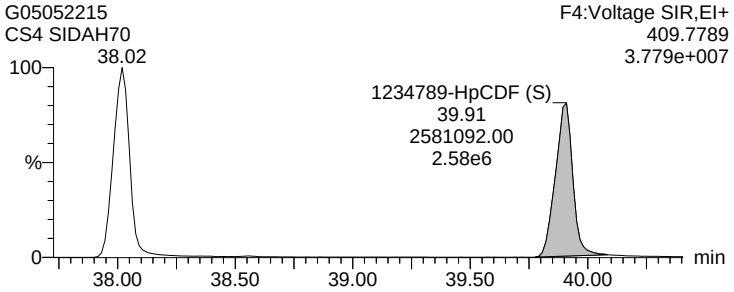


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

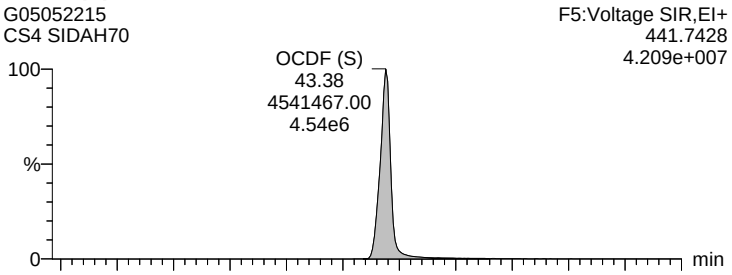
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

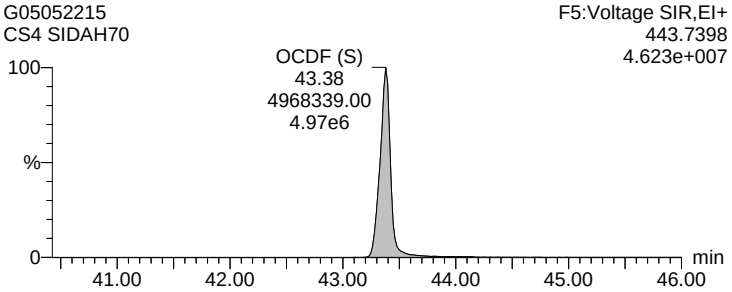
1234789-HpCDF (S)



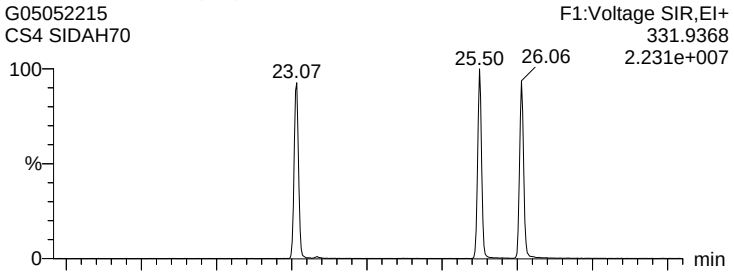


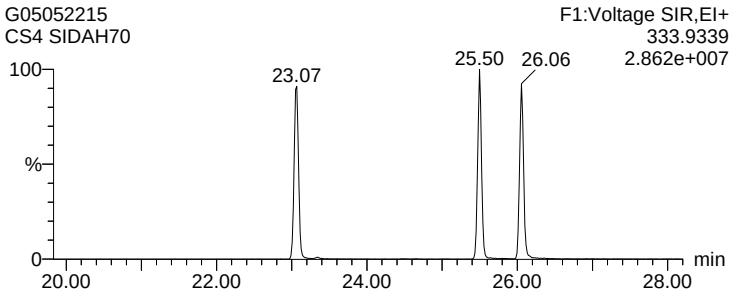
OCDF (S)



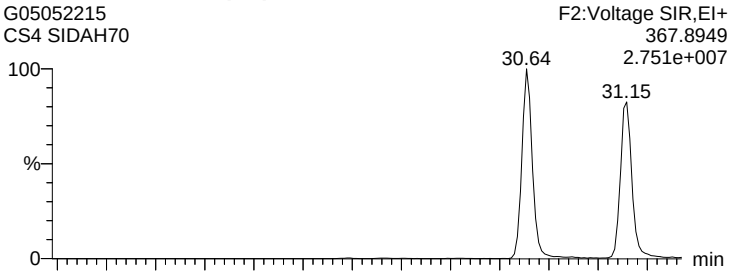


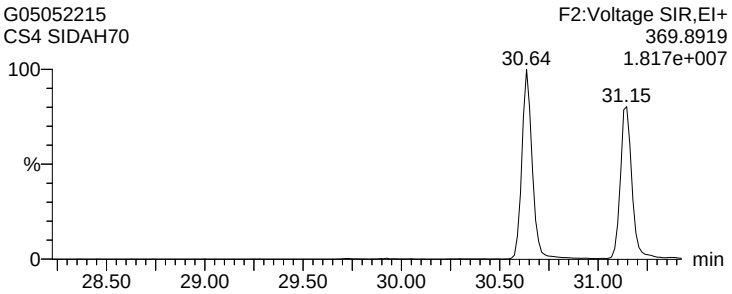
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

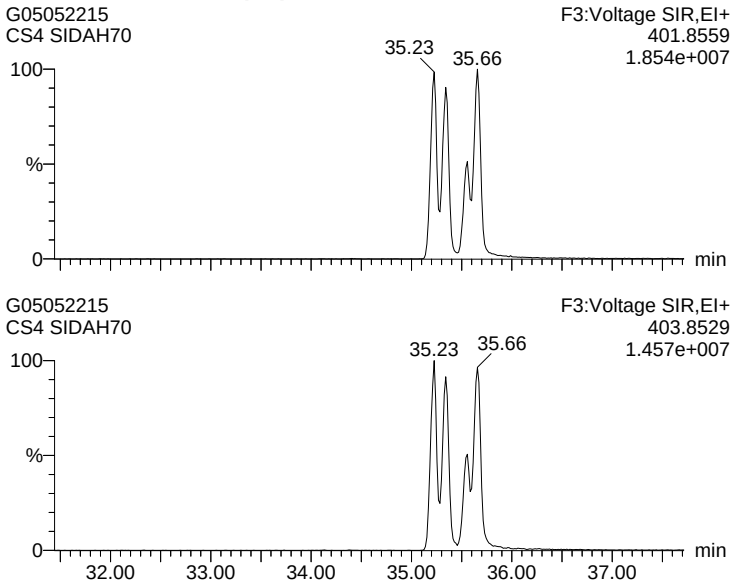




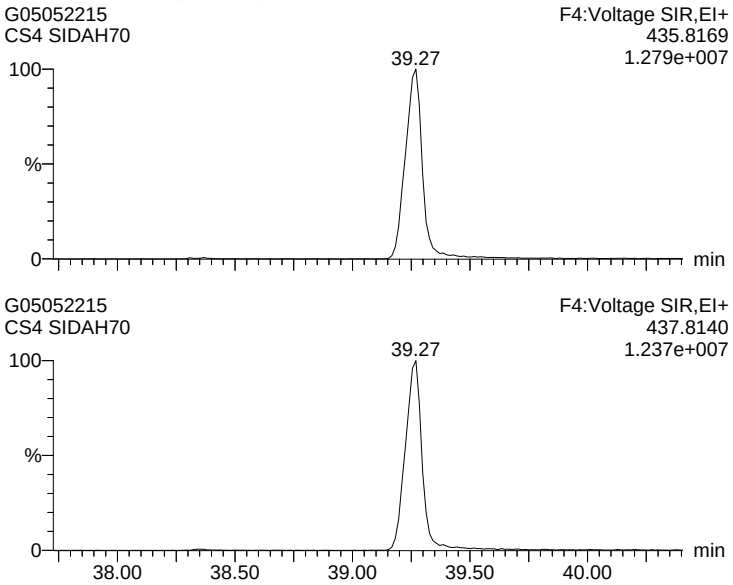
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

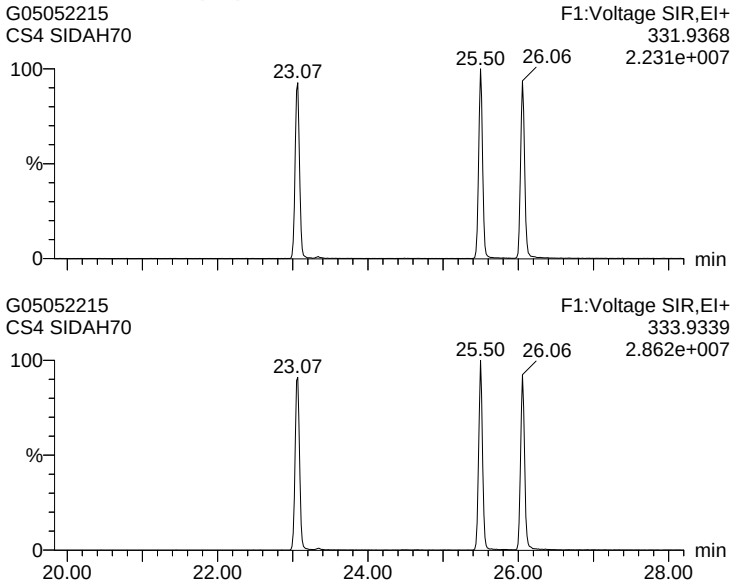
13C-123468-HxCDD (FS)



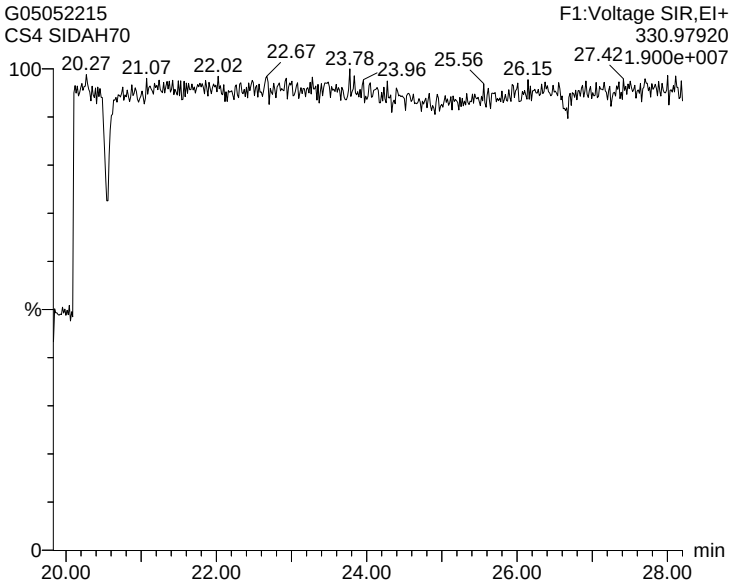
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



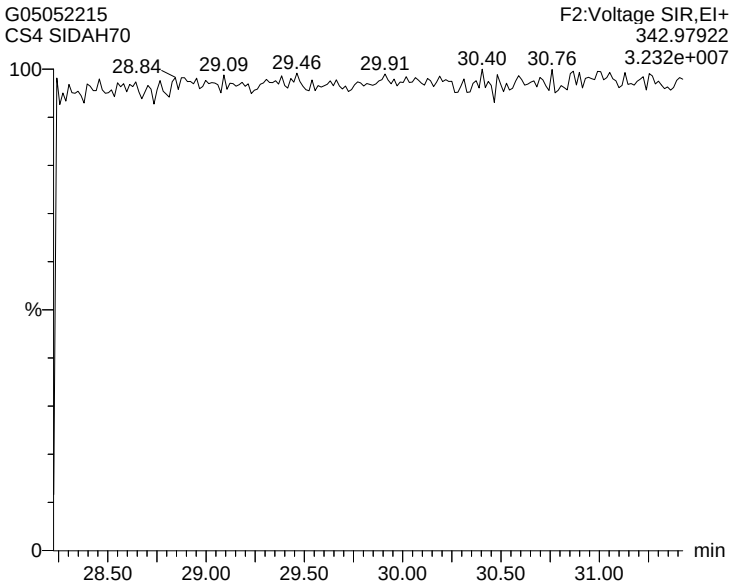
QC Check Ion Fn 1



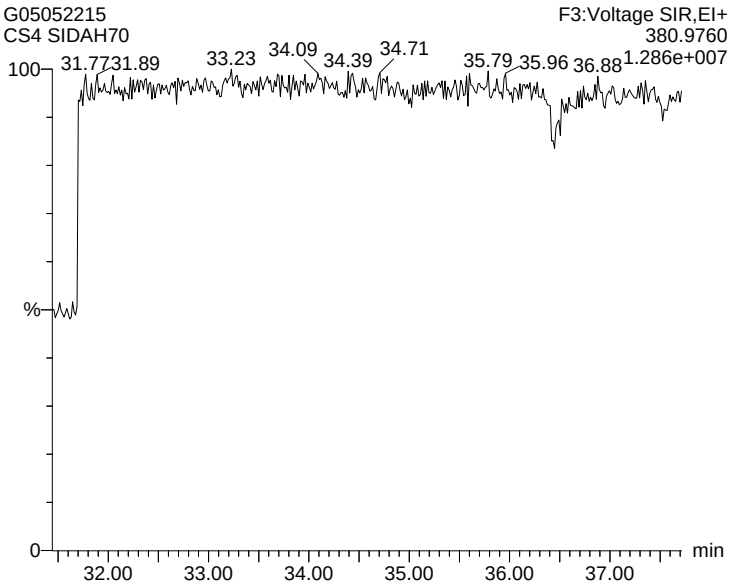
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

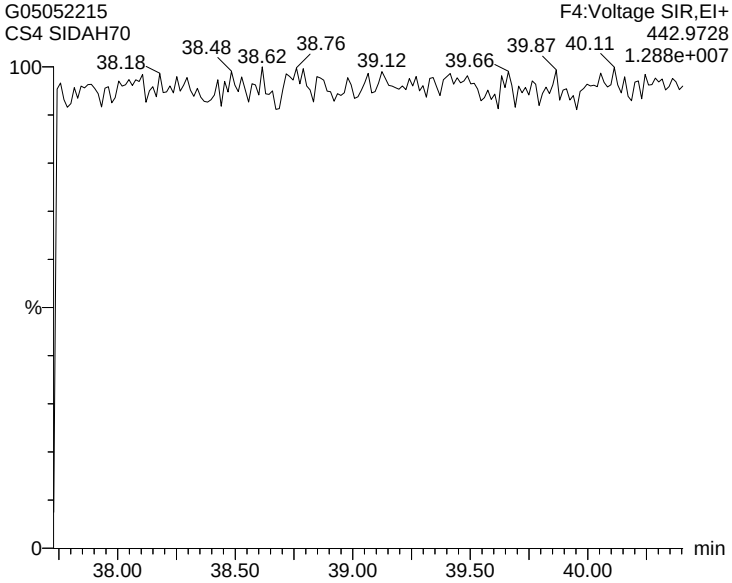
QC Check Ion Fn 2



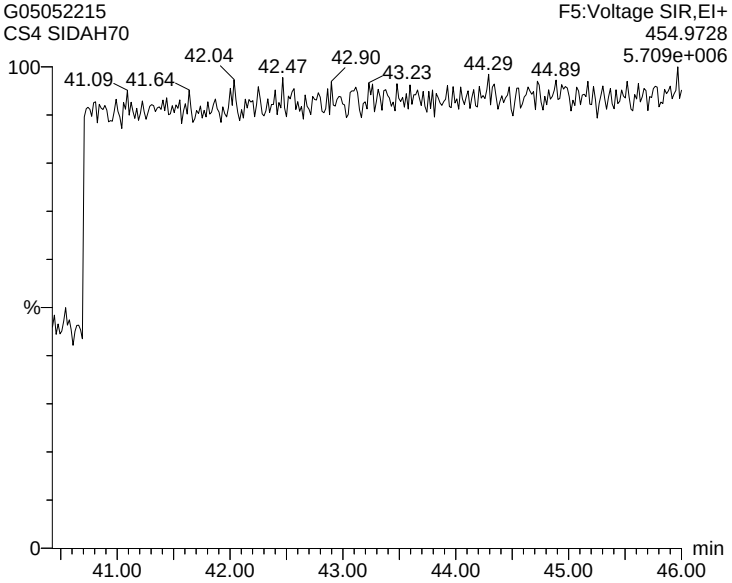
QC Check Ion Fn 3



QC Check Ion Fn 4



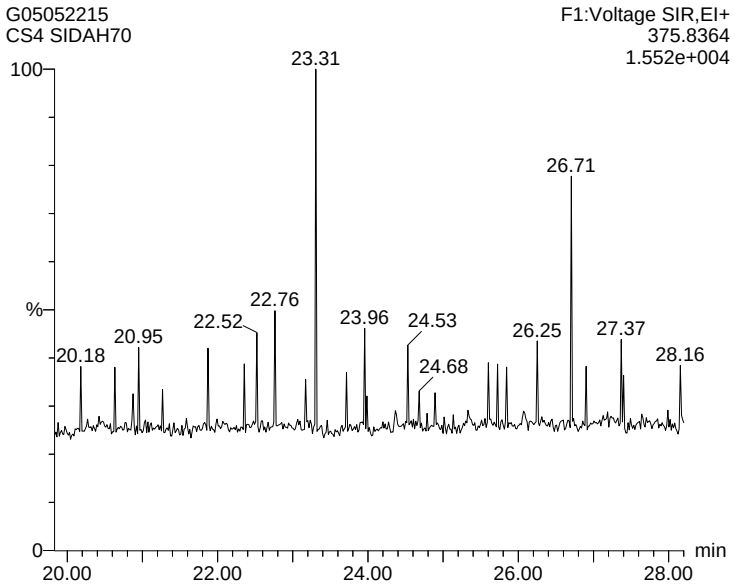
QC Check Ion Fn 5



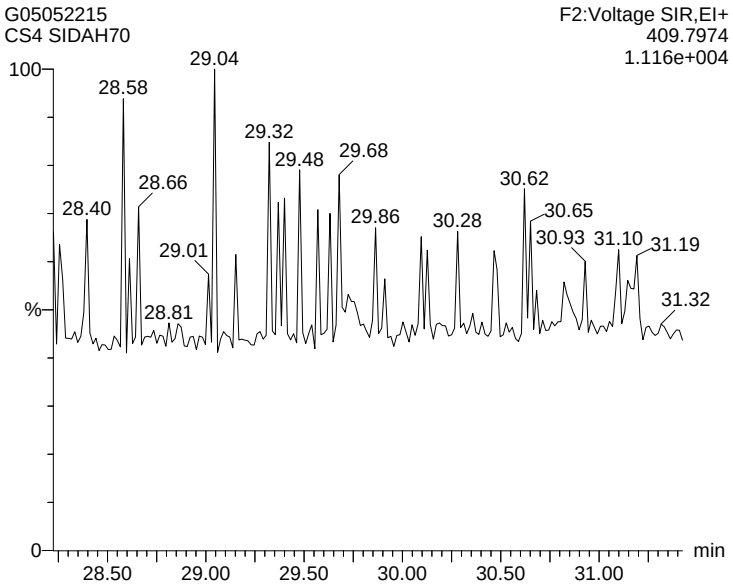
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

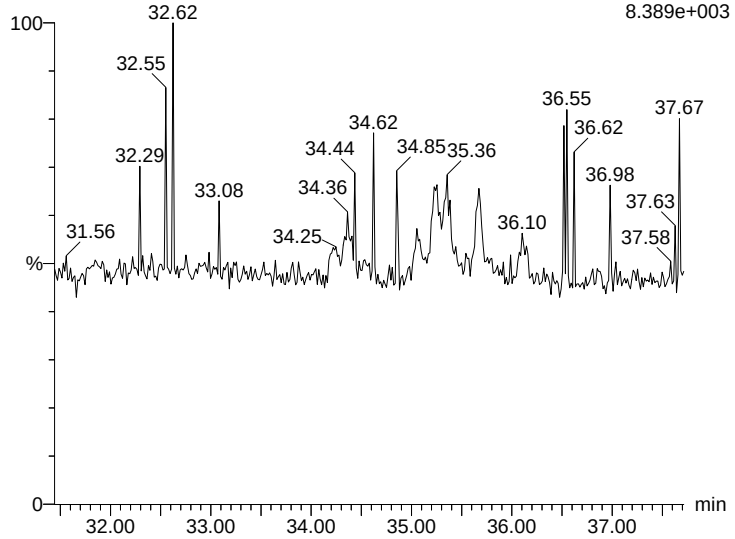
HxDPE



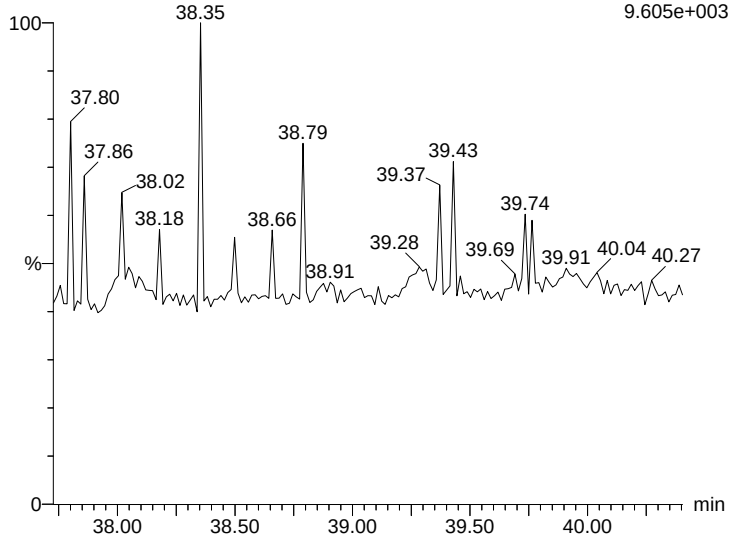
HpDPE



OcDPE



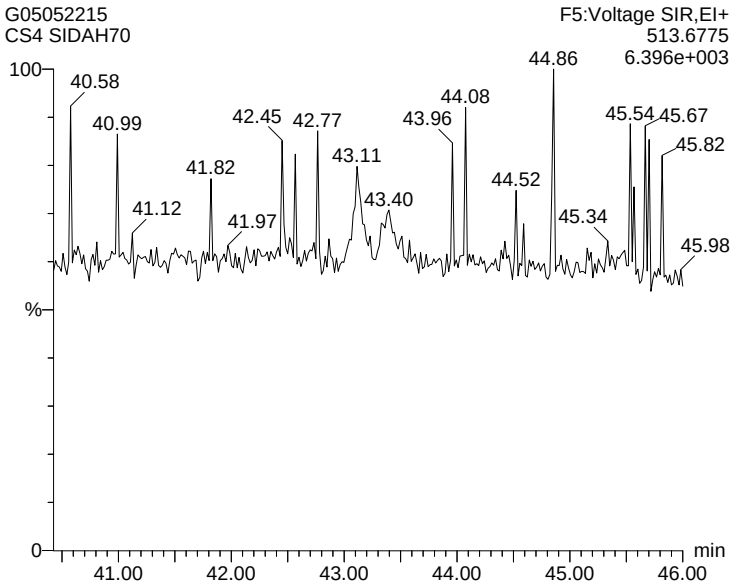
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1319028.875		2962653.625	bb	103.1	3.1
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1813950.250		4079828.250	bb	105.0	5.0
3	3	13C-123467-HxCDD (JS)	401.8559	35.56	580091.313		1055754.251	bd	51.2	2.4
4	4	13C-2378-TCDD (ES)	331.9368	26.06	1262529.125	1319028.875	95.082	bb	101.3	1.3
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1493850.125	1319028.875	82.896	bb	101.6	1.6
6	6	13C-123478-HxCDD (ES)	401.8559	35.23	1298604.000	580091.313	109.955	bd	105.0	5.0
7	7	13C-123678-HxCDD (ES)	401.8559	35.34	1192719.125	580091.313	101.538	db	102.8	2.8
8	8	13C-123789-HxCDD (ES)	401.8559	35.66	1366529.250	580091.313	116.741	db	104.8	4.8
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	1028646.938	580091.313	95.206	bb	103.4	3.4
10	10	13C-OCDD (ES)	469.7780	43.11	1531126.000	580091.313	72.513	bb	205.5	2.8
11	11	13C-2378-TCDF (ES)	315.9419	25.32	1729206.750	1813950.250	96.944	bb	98.3	-1.7
12	12	13C-12378-PeCDF (ES)	351.9000	29.18	2180034.000	1813950.250	86.490	bb	99.4	-0.6
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	2087039.625	1813950.250	85.164	bb	100.8	0.8
14	14	13C-123478-HxCDF (ES)	383.8639	34.19	864952.375	580091.313	121.075	bd	102.4	2.4
15	15	13C-123678-HxCDF (ES)	383.8639	34.33	1070978.000	580091.313	147.589	db	103.8	3.8
16	16	13C-234678-HxCDF (ES)	383.8639	35.04	979339.938	580091.313	135.605	bb	104.8	4.8
17	17	13C-123789-HxCDF (ES)	383.8639	36.07	874790.250	580091.313	121.895	bb	103.2	3.2
18	18	13C-1234678-HpCDF (ES)	417.8253	38.00	656095.125	580091.313	99.208	bb	102.4	2.4
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	591064.750	580091.313	90.428	bb	103.5	3.5
20	20	13C-OCDF (ES)	453.7830	43.36	1868837.625	580091.313	88.507	bb	204.8	2.4
21	21	37Cl-2378-TCDD (CS)	327.8847	26.07	1372819.500	1319028.875	46.337	bb	41.3	3.2
22	22	13C-12347-PeCDD (CS)	367.8949	30.64	1644917.500	1319028.875	91.648	bb	104.2	4.2
23	23	13C-12346-PeCDF (CS)	351.9000	29.18	2180034.000	1813950.250	86.490	bb	99.4	-0.6
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	914436.938	580091.313	125.325	bb	101.7	1.7
25	25	13C-1234689-HpCDF (CS)	417.8253	38.54	651449.188	580091.313	98.642	bb	102.5	2.5
26	26	37Cl-2378-TCDD (SS)	327.8847	26.07	1372819.500	1262529.125	48.734	bb	40.7	1.8
27	27	13C-12347-PeCDD (SS)	367.8949	30.64	1594419.000	1493850.125	107.997	bb	102.5	2.5
28	28	13C-12346-PeCDF (SS)	351.9000	29.18	2180034.000	2180034.000	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	914436.938	1070978.000	84.915	bb	99.4	-0.6
30	30	13C-1234689-HpCDF (SS)	417.8253	38.54	651449.188	656095.125	99.430	bb	100.2	0.2
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1378267.625	1319028.875	106.195	bb	101.8	1.8
32	32	13C-1368-TCDF (AS)	315.9419	21.56	2059262.500	1813950.250	113.758	bb	99.8	-0.2
33	33	1368-TCDD	319.8965			1262529.125				
34	34	1379-TCDD	319.8965			1262529.125				
35	35	1369-TCDD	319.8965			1262529.125				
36	36	1469-TCDD	319.8965			1262529.125				
37	37	1247/1246/1248/1249-TC...	319.8965			1262529.125				
38	38	1378-TCDD	319.8965			1262529.125				
39	39	1268-TCDD	319.8965			1262529.125				
40	40	1478-TCDD	319.8965			1262529.125				
41	41	1279-TCDD	319.8965			1262529.125				
42	42	1234/1269-TCDD	319.8965			1262529.125				
43	43	1236-TCDD	319.8965			1262529.125				
44	44	1237/1238-TCDD	319.8965			1262529.125				
45	45	1239-TCDD [CE]	319.8965			1262529.125				
46	46	2378-TCDD (S)	319.8965	26.09	561215.875	1262529.125	45.155	bb	39.6	-0.9
47	47	1278-TCDD	319.8965			1262529.125				
48	48	1267-TCDD	319.8965			1262529.125				
49	49	1289-TCDD	319.8965			1262529.125				
50	50	12479/12468-PeCDD	355.8546			1493850.125				
51	51	12469-PeCDD	355.8546			1493850.125				
52	52	12368-PeCDD	355.8546			1493850.125				
53	53	12478-PeCDD	355.8546			1493850.125				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1493850.125				
55	55	12369/12467/12489-PeCDD	355.8546			1493850.125				
56	56	12346/12347-PeCDD	355.8546			1493850.125				
57	57	12378-PeCDD (S)	355.8546	31.16	3189066.000	1493850.125	209.270	bs	206.7	3.3
58	58	12367-PeCDD	355.8546			1493850.125				
59	59	12389-PeCDD	355.8546			1493850.125				
60	60	124679/124689-HxCDD	389.8157			1298604.000				
61	61	123468-HxCDD	389.8157			1298604.000				
62	62	123679/123689-HxCDD	389.8157			1298604.000				
63	63	123469-HxCDD	389.8157			1298604.000				
64	64	123478-HxCDD (S)	389.8157	35.24	2682261.500	1298604.000	209.132	bd	198.2	-0.9
65	65	123678-HxCDD (S)	389.8157	35.35	2637254.750	1192719.125	221.450	db	201.3	0.7
66	66	123467-HxCDD	389.8157			1366529.250				
67	67	123789-HxCDD (S)	389.8157	35.67	2699282.500	1366529.250	203.601	bb	194.7	-2.6
68	68	1234679-HpCDD	423.7766			1028646.938				
69	69	1234678-HpCDD (S)	423.7766	39.28	2166146.500	1028646.938	211.510	bb	201.7	0.9
70	70	OCDD (S)	457.7377	43.11	3587988.500	1531126.000	468.673	bd	412.2	3.1
71	71	1368-TCDF	303.9016			1729206.750				
72	72	1468-TCDF	303.9016			1729206.750				
73	73	2468-TCDF	303.9016			1729206.750				
74	74	1346/1246-TCDF	303.9016			1729206.750				
75	75	1347/1378/1247-TCDF	303.9016			1729206.750				
76	76	1348-TCDF	303.9016			1729206.750				
77	77	1248/1367/1379-TCDF	303.9016			1729206.750				
78	78	1268-TCDF	303.9016			1729206.750				
79	79	1467-TCDF	303.9016			1729206.750				
80	80	1478-TCDF	303.9016			1729206.750				
81	81	1369/1237-TCDF	303.9016			1729206.750				
82	82	2467-TCDF	303.9016			1729206.750				
83	83	2368-TCDF	303.9016			1729206.750				
84	84	1238/1234/1678/1469/123...	303.9016			1729206.750				
85	85	1278-TCDF	303.9016			1729206.750				
86	86	1349-TCDF	303.9016			1729206.750				
87	87	1267-TCDF	303.9016			1729206.750				
88	88	2346/1249-TCDF	303.9016			1729206.750				
89	89	2347/1279-TCDF	303.9016			1729206.750				
90	90	2348-TCDF [CE]	303.9016			1729206.750				
91	91	2378-TCDF (S)	303.9016	25.35	784924.125	1729206.750	45.237	bs	40.7	1.8
92	92	2367/3467-TCDF	303.9016			1729206.750				
93	93	1269-TCDF	303.9016			1729206.750				
94	94	1239-TCDF	303.9016			1729206.750				
95	95	1289-TCDF	303.9016			1729206.750				
96	96	13468/12466-PeCDF	339.8597			2180034.000				
97	97	13678/13467/12467-PeCDF	339.8597			2180034.000				
98	98	12368/13478/12478-PeCDF	339.8597			2180034.000				
99	99	14678-PeCDF	339.8597			2180034.000				
100	1...	13479-PeCDF	339.8597			2180034.000				
101	1...	13469/12479-PeCDF	339.8597			2180034.000				
102	1...	12346-PeCDF	339.8597			2180034.000				
103	1...	23468/12469-PeCDF	339.8597			2180034.000				
104	1...	12347-PeCDF	339.8597			2180034.000				
105	1...	12348-PeCDF	339.8597			2180034.000				
106	1...	12378-PeCDF (S)	339.8597	29.72	4801509.000	2180034.000	220.877	bd	205.5	2.8

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
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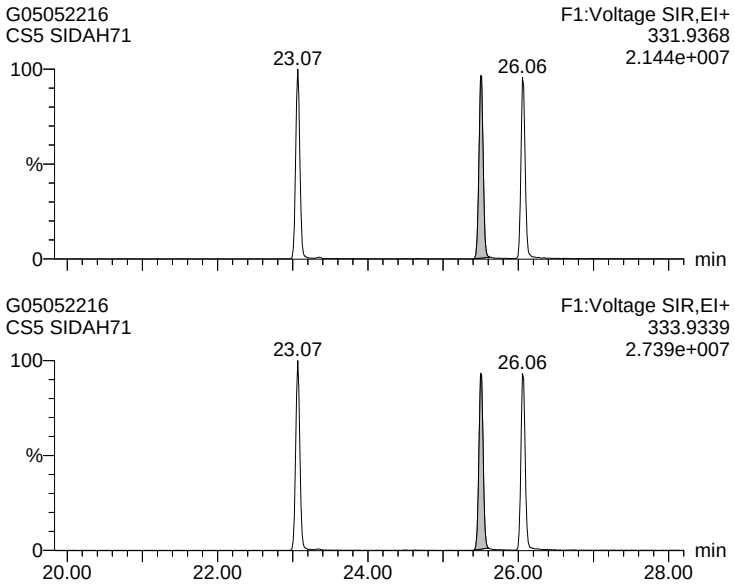
Name: G05052215, Date: 05-May-2022, Time: 20:23:45, ID: SIDAH70, Description: CS4, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2180034.000				
108	1...	12379-PeCDF	339.8597			2180034.000				
109	1...	12679-PeCDF	339.8597			2087039.625				
110	1...	23467/12369-PeCDF	339.8597			2087039.625				
111	1...	23478-PeCDF (S)	339.8597	30.82	4683352.000	2087039.625	220.287	ds	208.2	4.1
112	1...	12489-PeCDF (R)	339.8597			2087039.625				
113	1...	12349-PeCDF	339.8597			2087039.625				
114	1...	12389-PeCDF	339.8597			2087039.625				
115	1...	123468-HxCDF	373.8208			864952.375				
116	1...	124678/134678-HxCDF	373.8208			864952.375				
117	1...	134679-HxCDF	373.8208			864952.375				
118	1...	124679-HxCDF	373.8208			864952.375				
119	1...	124689-HxCDF	373.8208			864952.375				
120	1...	123467-HxCDF	373.8208			864952.375				
121	1...	123478-HxCDF (S)	373.8208	34.21	3755523.750	864952.375	264.407	dd	202.8	1.4
122	1...	123678-HxCDF (S)	373.8208	34.35	4284502.000	1070978.000	244.299	ds	202.3	1.2
123	1...	123479-HxCDF	373.8208			1070978.000				
124	1...	123469-HxCDF	373.8208			979339.938				
125	1...	123679-HxCDF	373.8208			979339.938				
126	1...	234678-HxCDF (S)	373.8208	35.05	3905289.000	979339.938	249.071	bs	200.9	0.4
127	1...	123689-HxCDF (NR)	373.8208			979339.938				
128	1...	123789-HxCDF (S)	373.8208	36.09	3593959.000	874790.250	250.186	bd	204.8	2.4
129	1...	123489-HxCDF (R)	373.8208			874790.250				
130	1...	1234678-HpCDF (S)	407.7818	38.02	3225238.750	656095.125	301.221	bd	204.4	2.2
131	1...	1234679-HpCDF	407.7818			656095.125				
132	1...	1234689-HpCDF	407.7818			656095.125				
133	1...	1234789-HpCDF (S)	407.7818	39.91	2665375.250	591064.750	274.772	bb	197.7	-1.1
134	1...	OCDF (S)	441.7428	43.38	4541467.000	1868837.625	486.021	dd	412.7	3.2
135	1...	13C-1278-TCDD (FS)	331.9368			1262529.125				
136	1...	13C-12478-PeCDD (FS)	367.8949			1493850.125				
137	1...	13C-123468-HxCDD (FS)	401.8559			580091.313				
138	1...	13C-1234679-HpCDD (FS)	435.8169			1028646.938				
139	1...	13C-1378-TCDD (TS)	331.9368			1262529.125				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

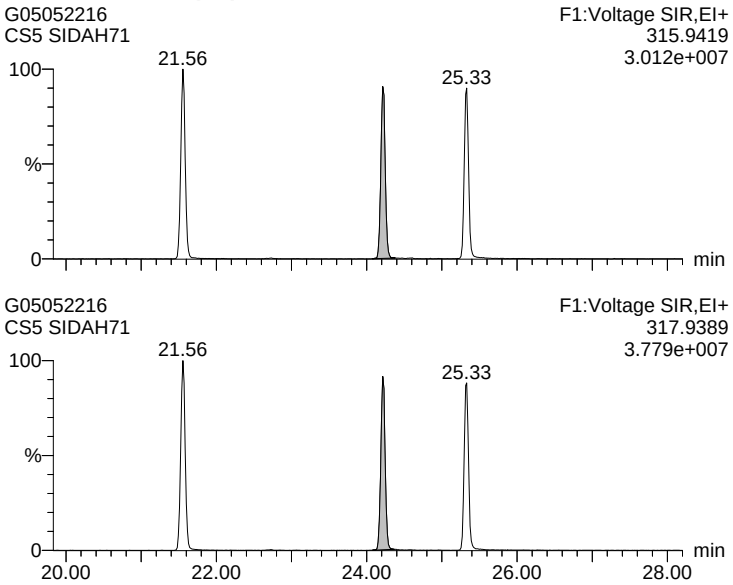
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

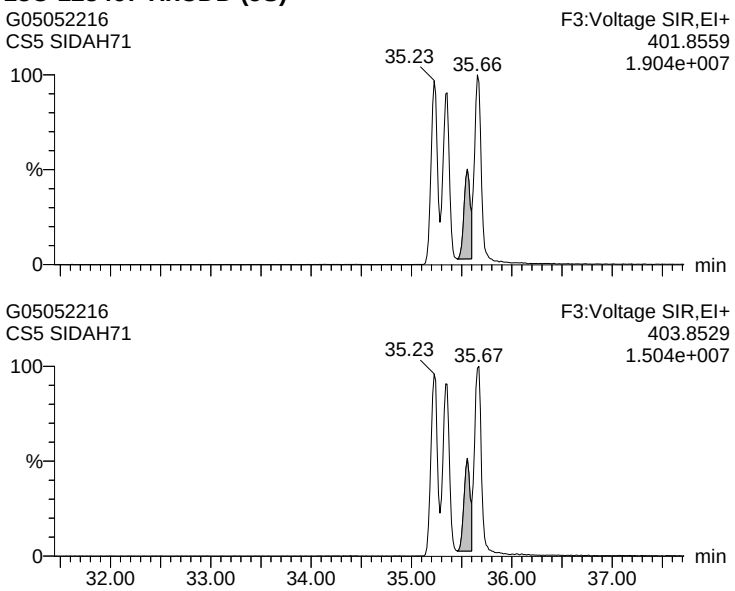
13C-1234-TCDD (JS)



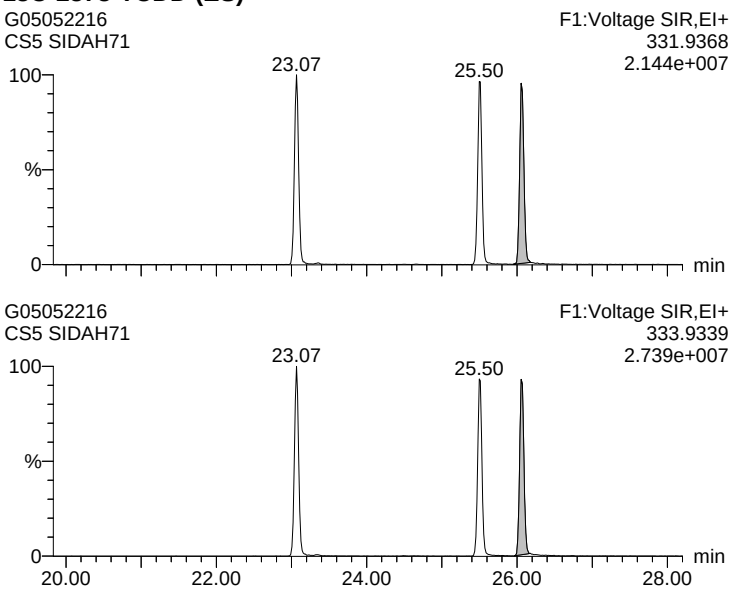
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



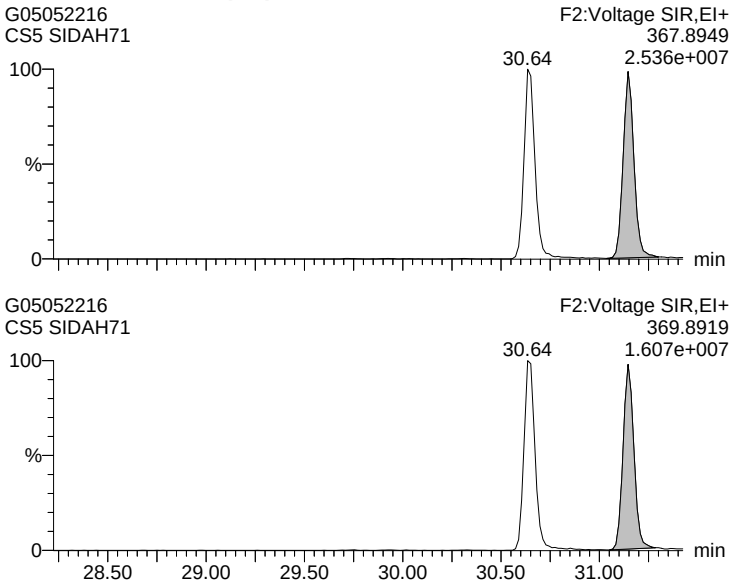
13C-2378-TCDD (ES)



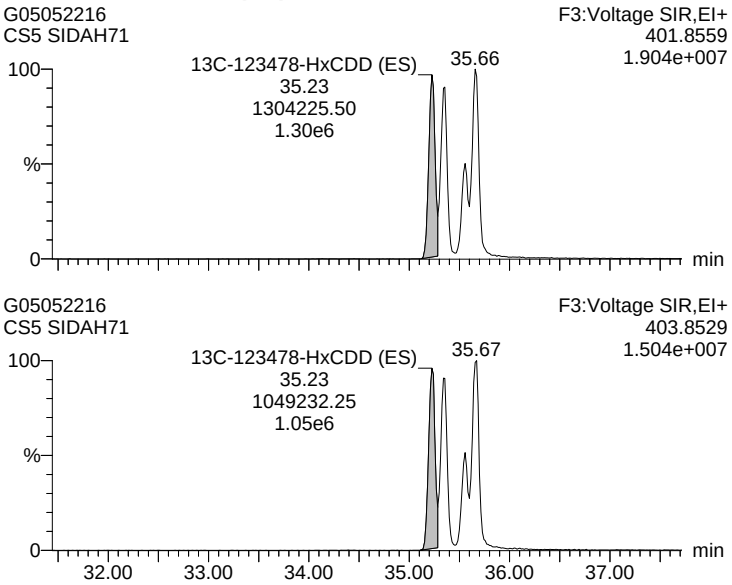
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

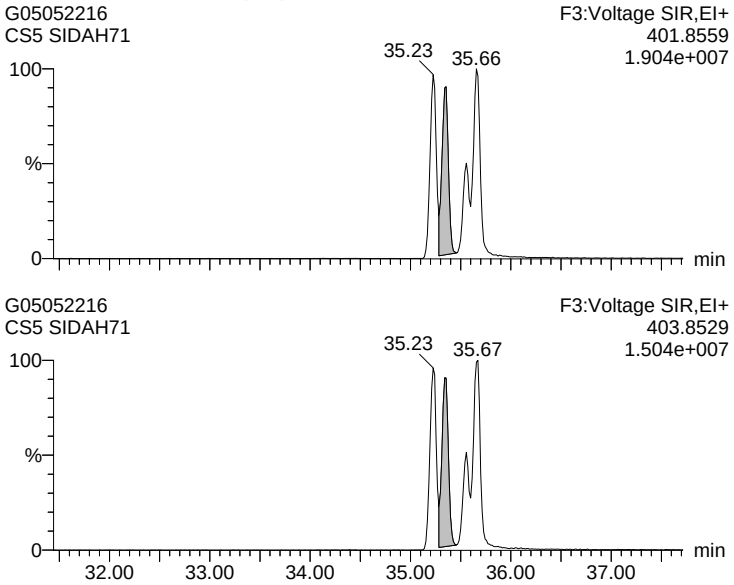
13C-12378-PeCDD (ES)



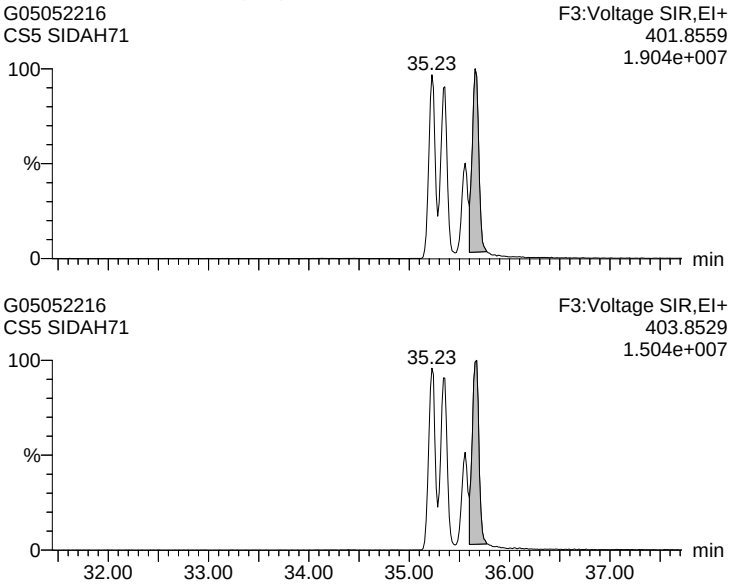
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



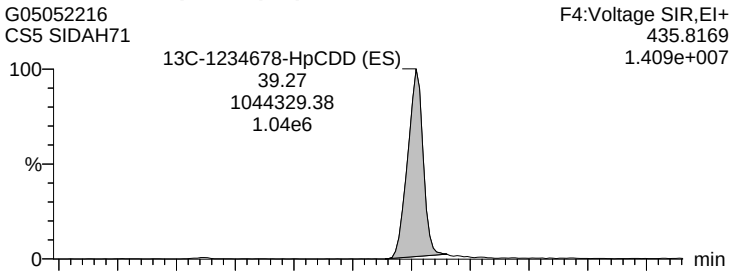
13C-123789-HxCDD (ES)

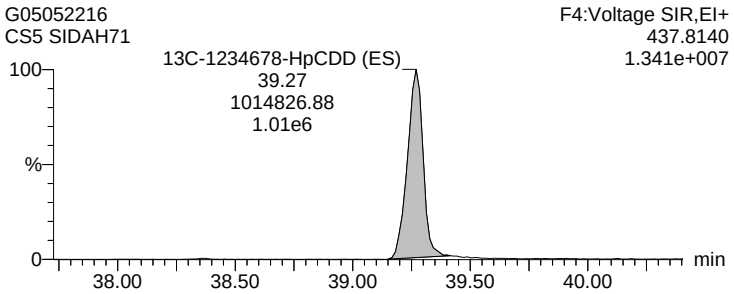


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

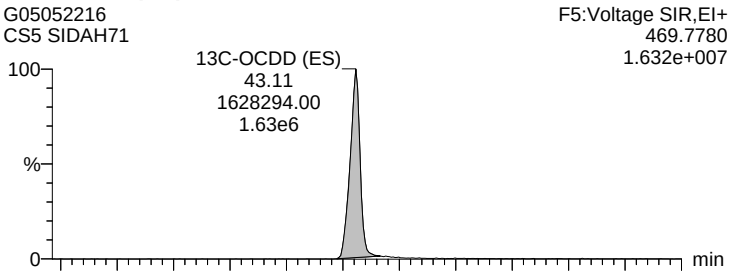
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

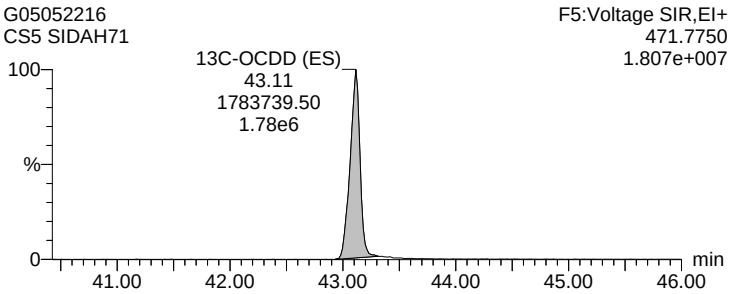
13C-1234678-HpCDD (ES)



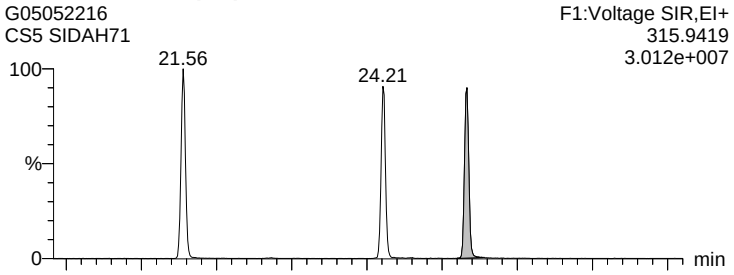


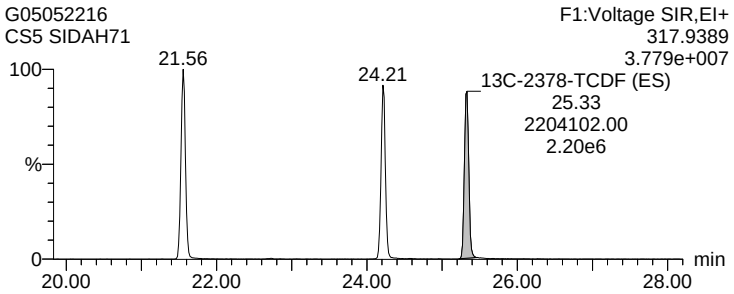
13C-OCDD (ES)



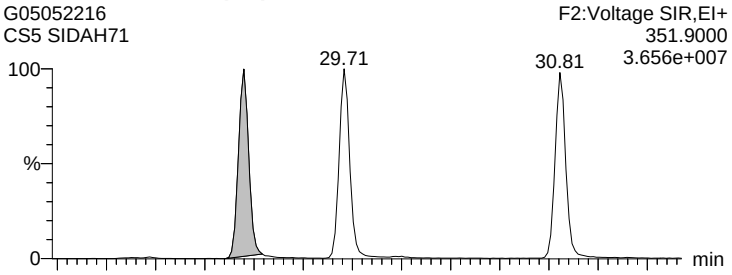


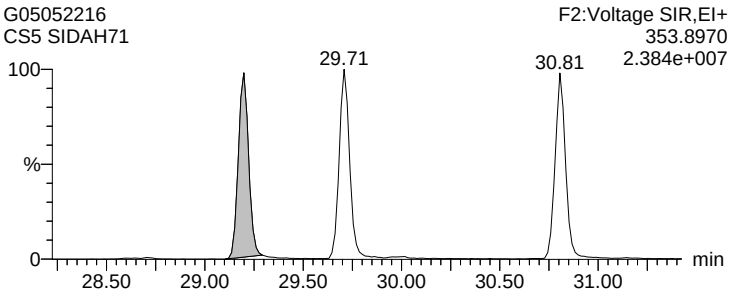
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)

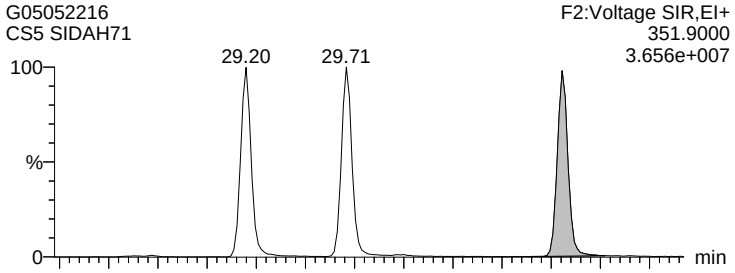


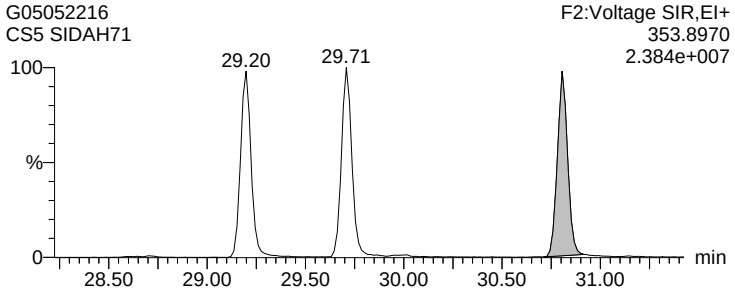


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

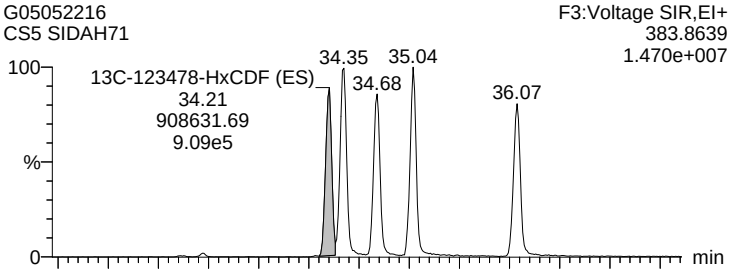
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

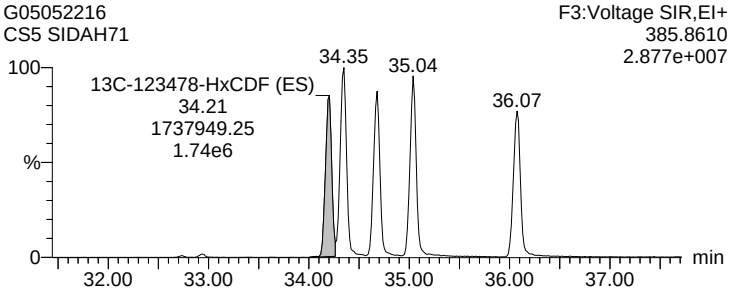
13C-23478-PeCDF (ES)



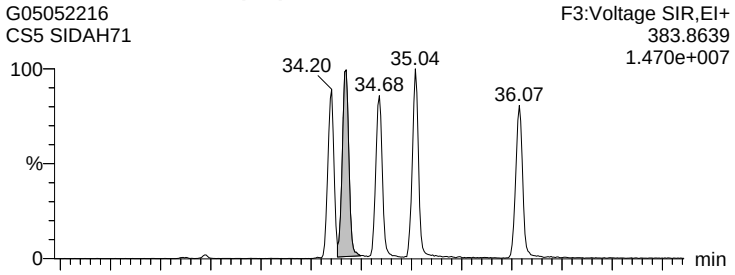


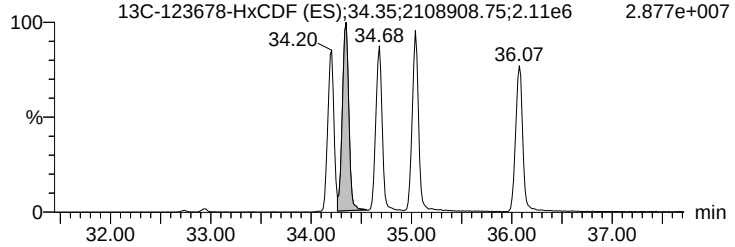
13C-123478-HxCDF (ES)



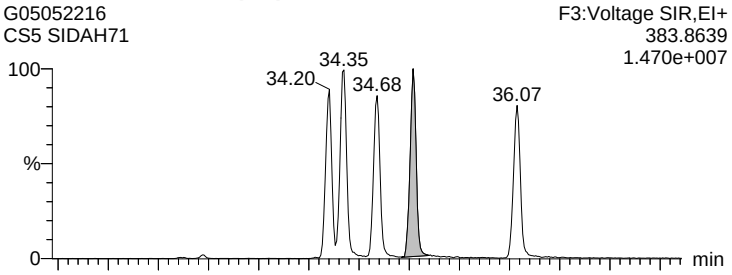


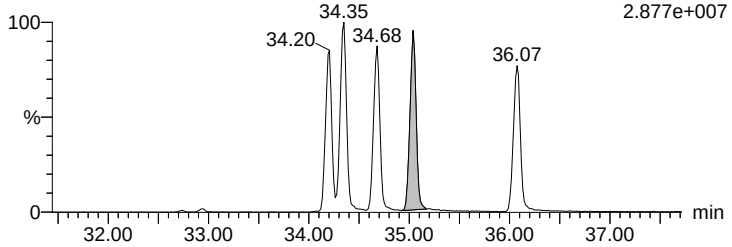
13C-123678-HxCDF (ES)





13C-234678-HxCDF (ES)

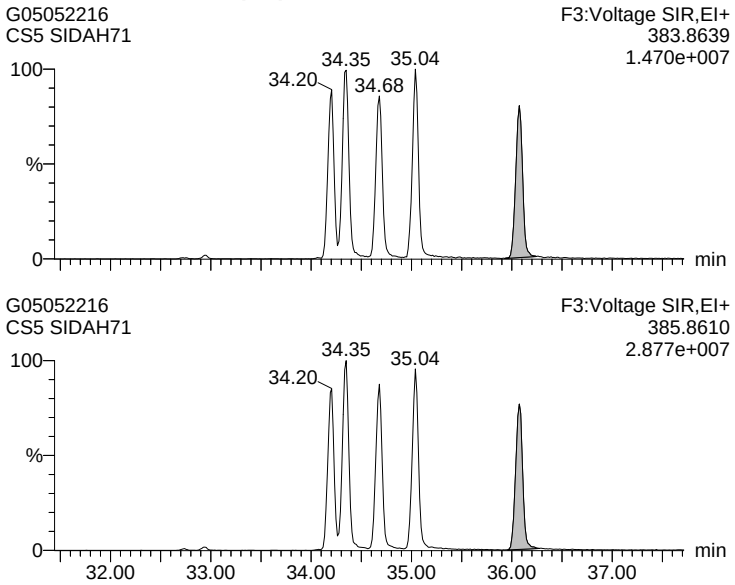




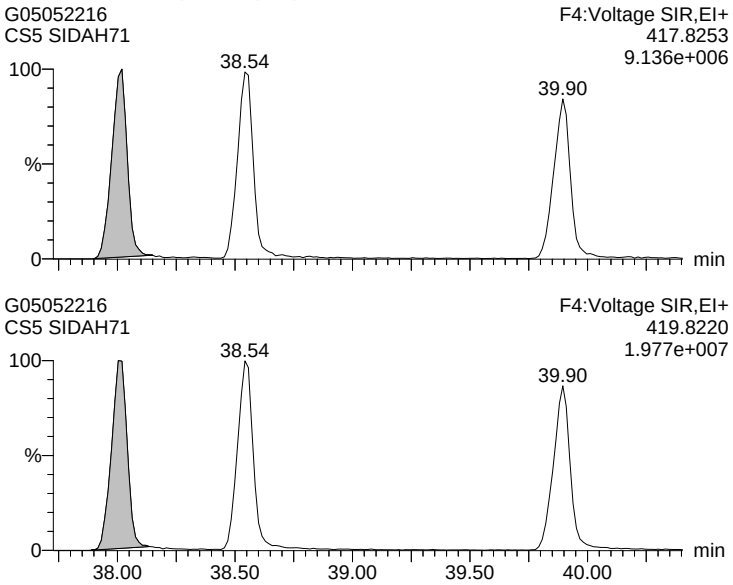
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

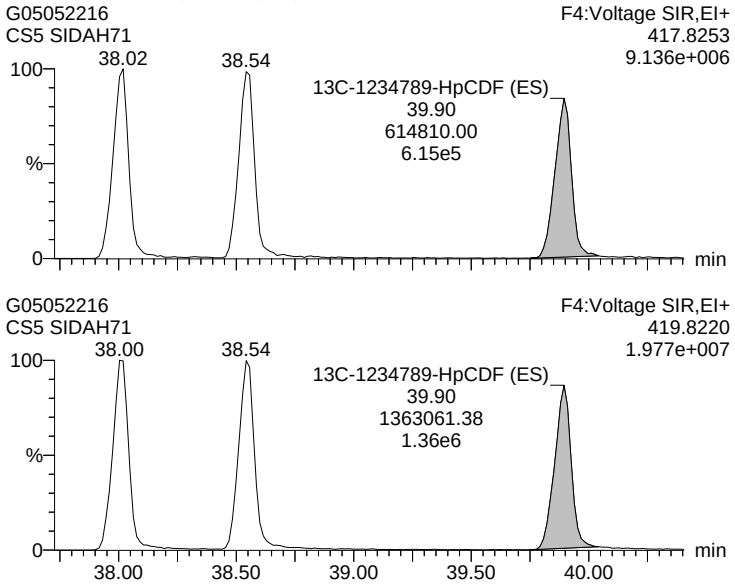
13C-123789-HxCDF (ES)



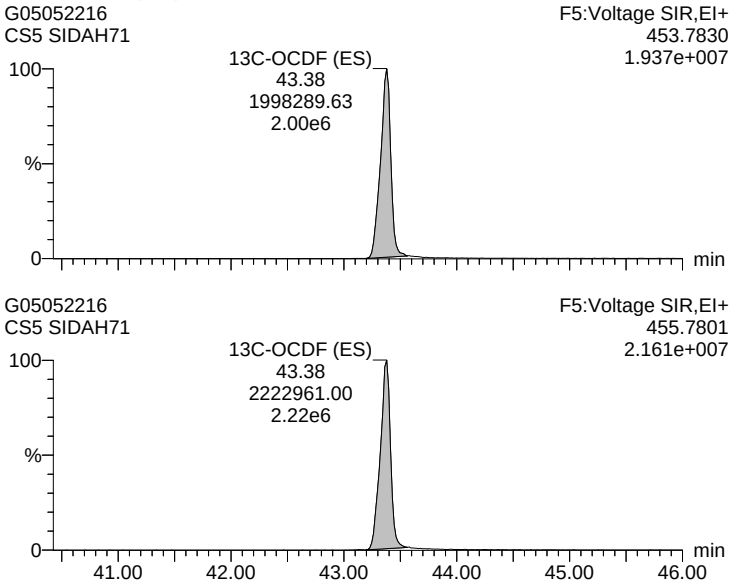
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



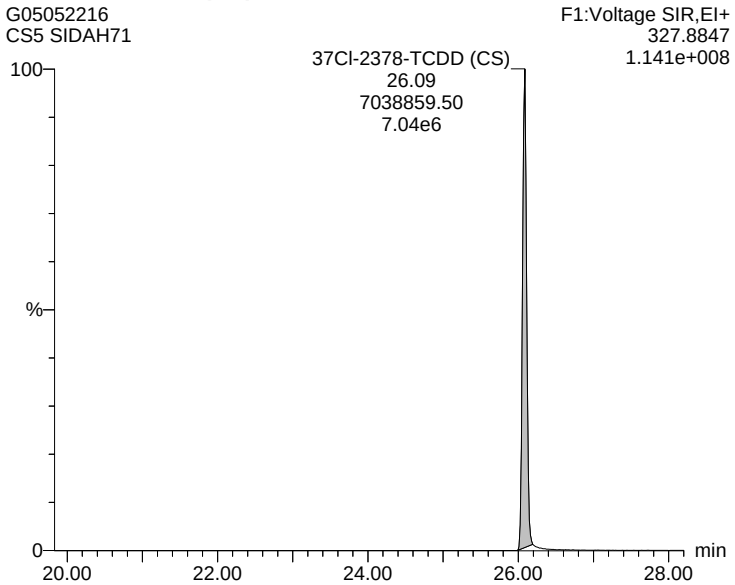
13C-OCDF (ES)



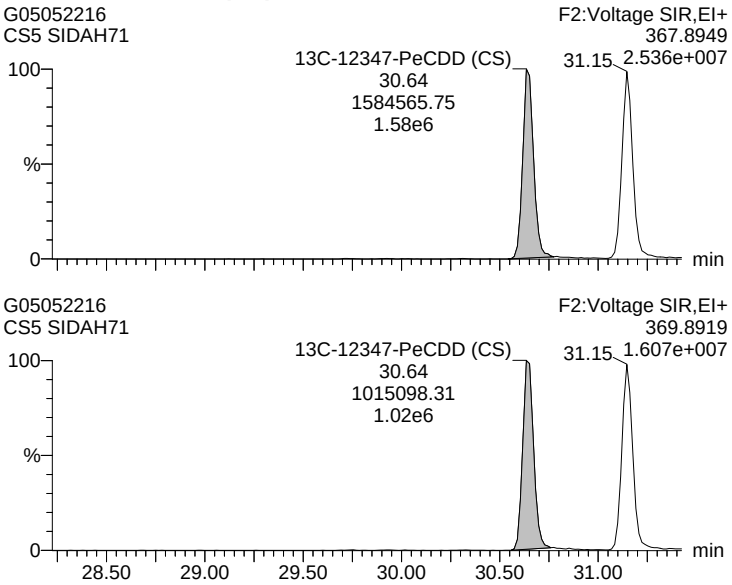
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

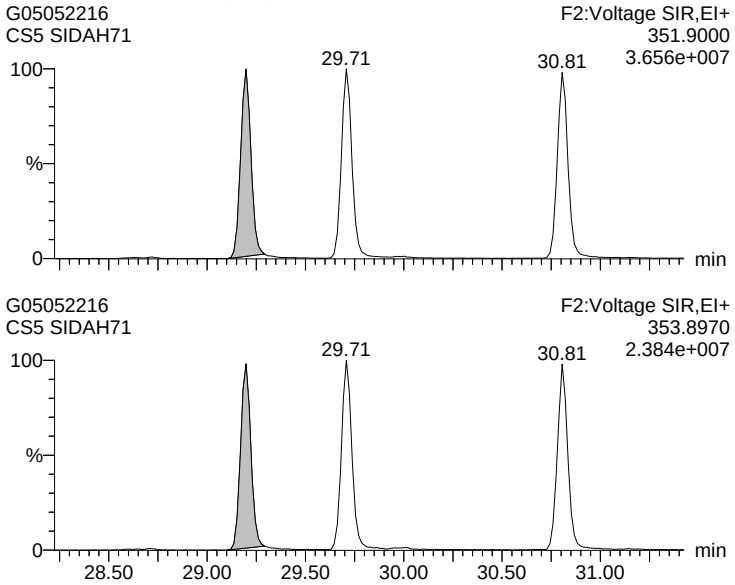
37Cl-2378-TCDD (CS)



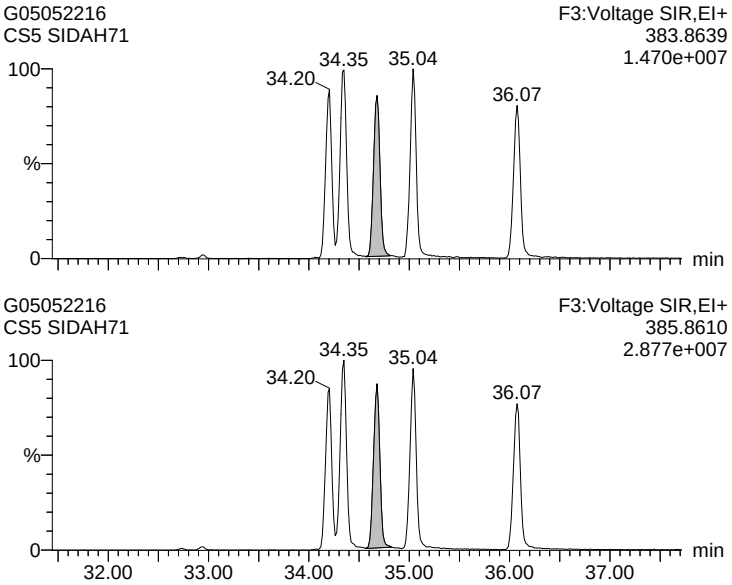
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



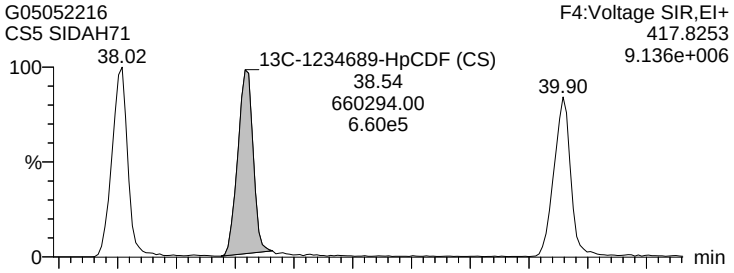
13C-123469-HxCDF (CS)

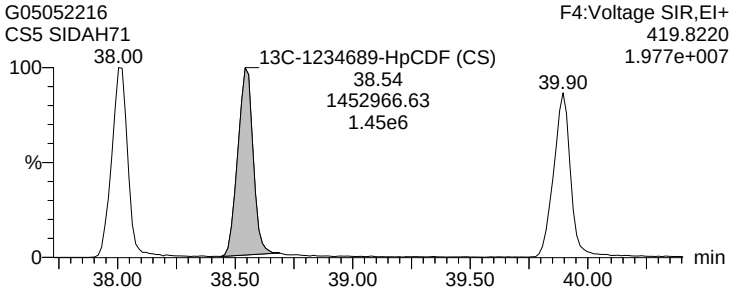


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

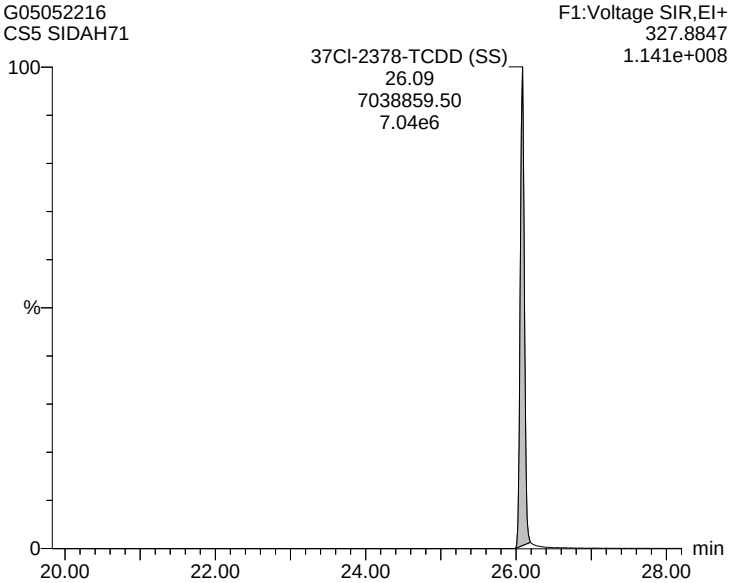
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

13C-1234689-HpCDF (CS)

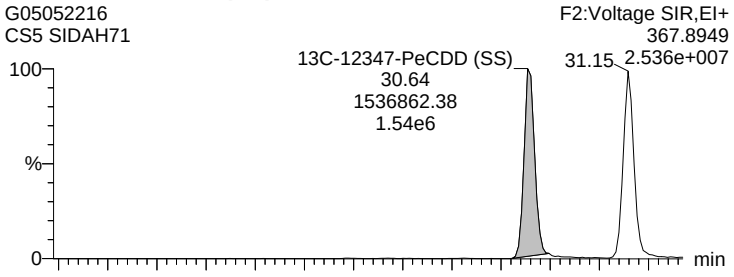


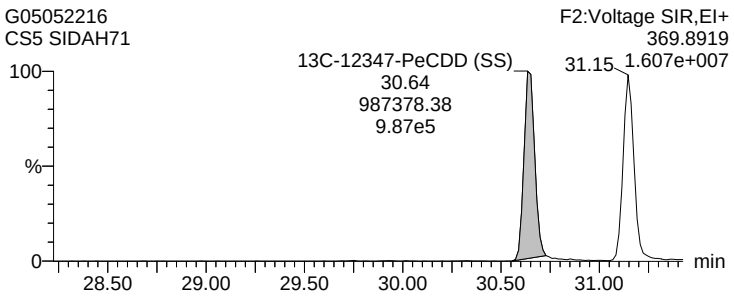


37Cl-2378-TCDD (SS)

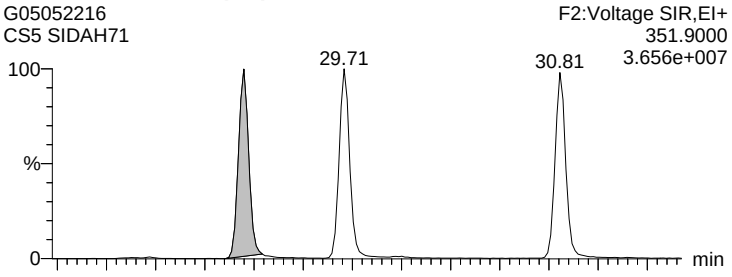


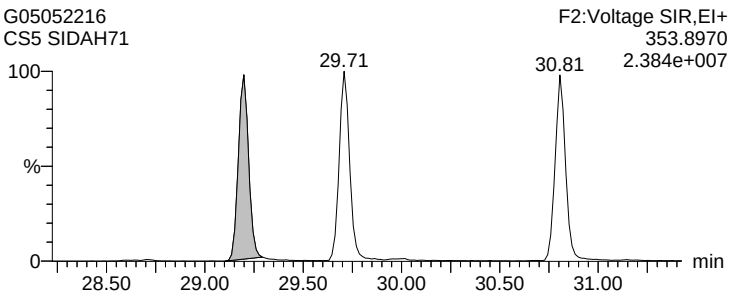
13C-12347-PeCDD (SS)





13C-12346-PeCDF (SS)

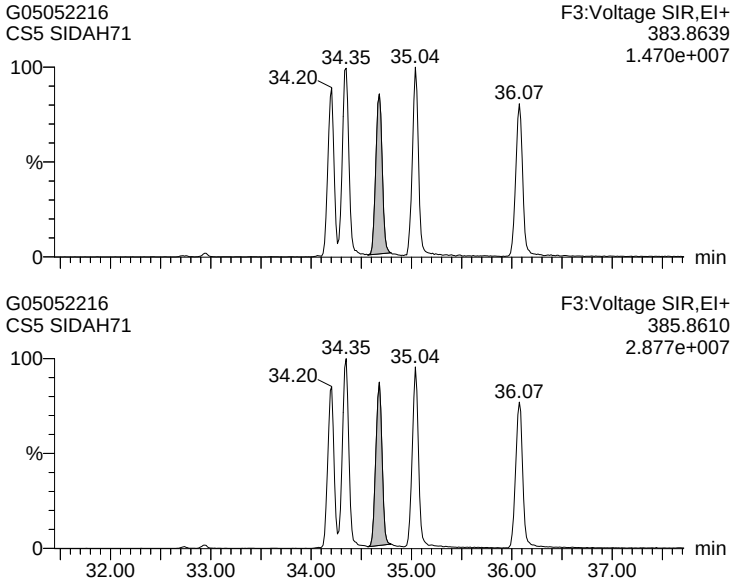




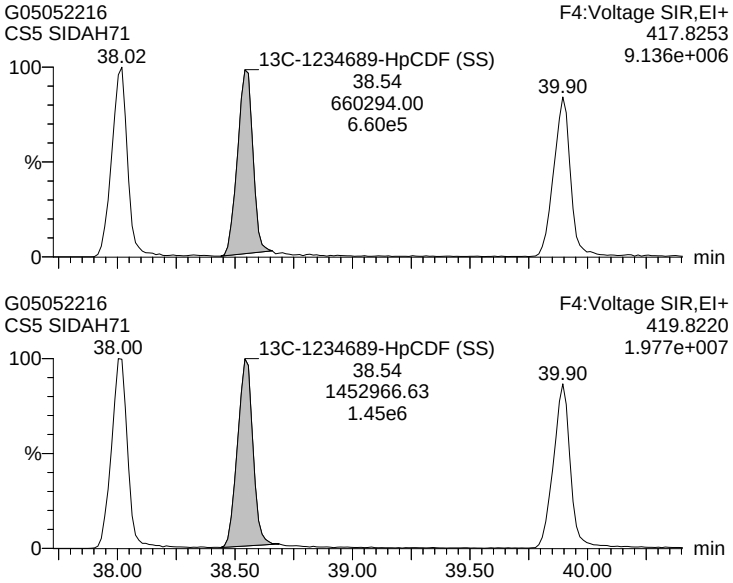
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

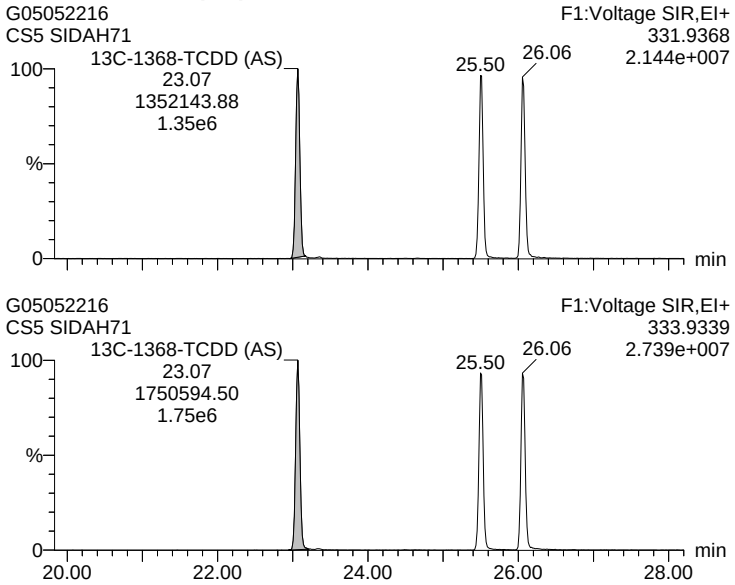
13C-123469-HxCDF (SS)



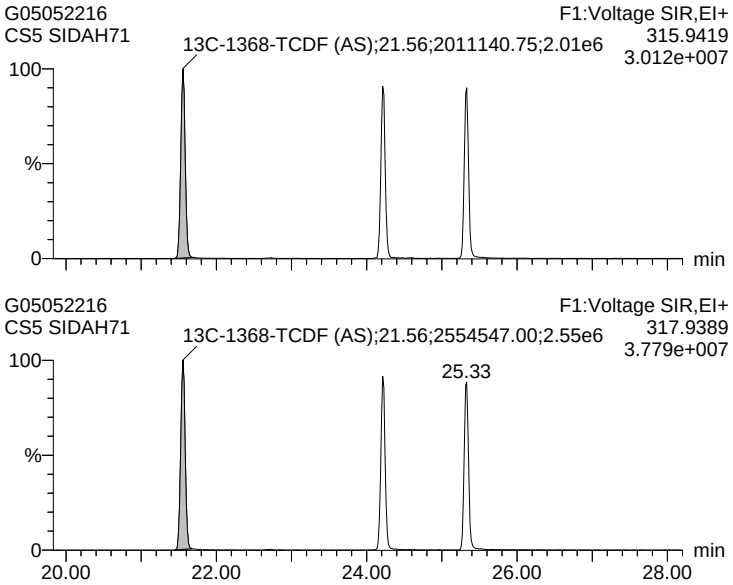
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



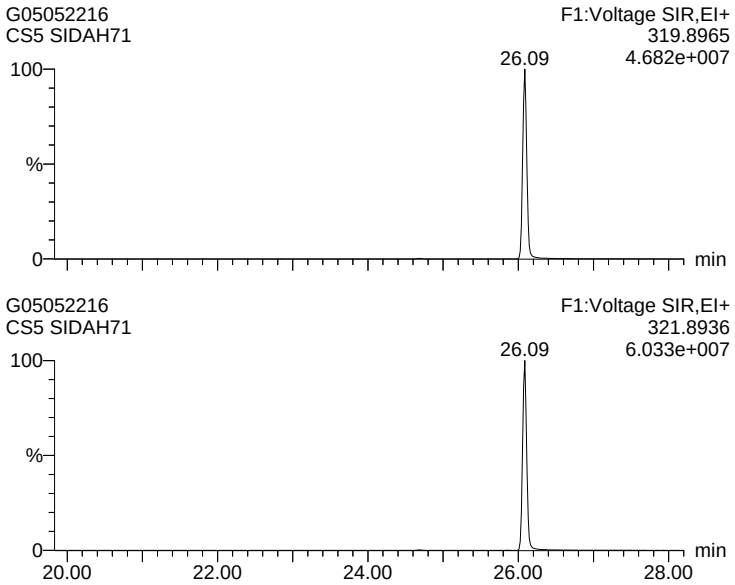
13C-1368-TCDF (AS)



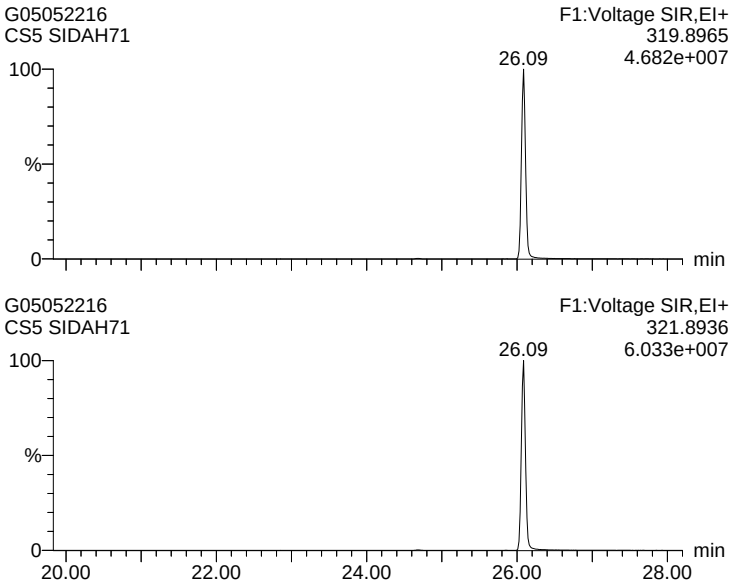
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

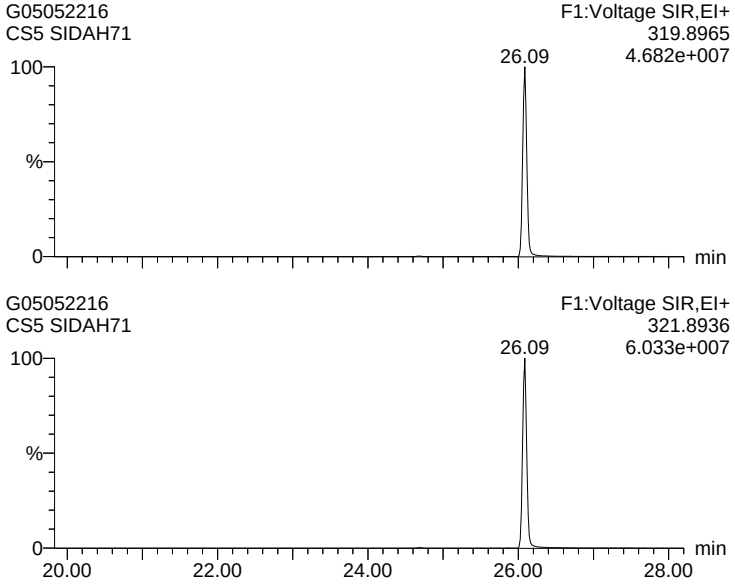
1368-TCDD



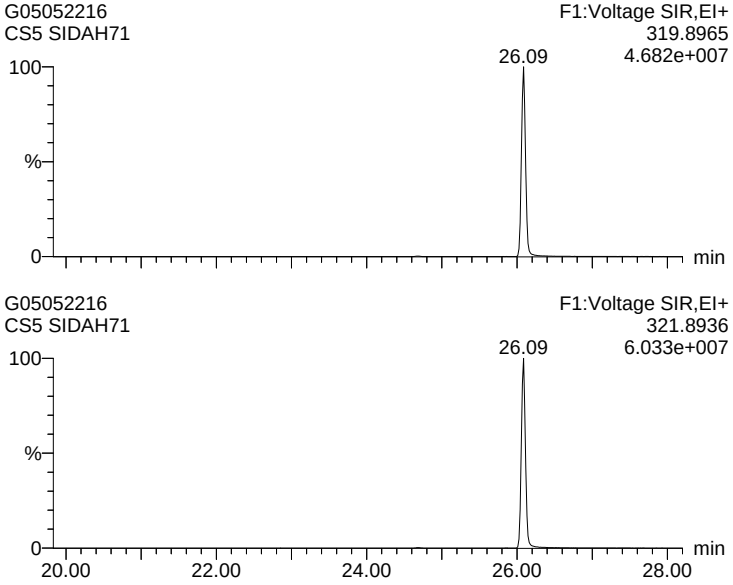
1379-TCDD



1369-TCDD



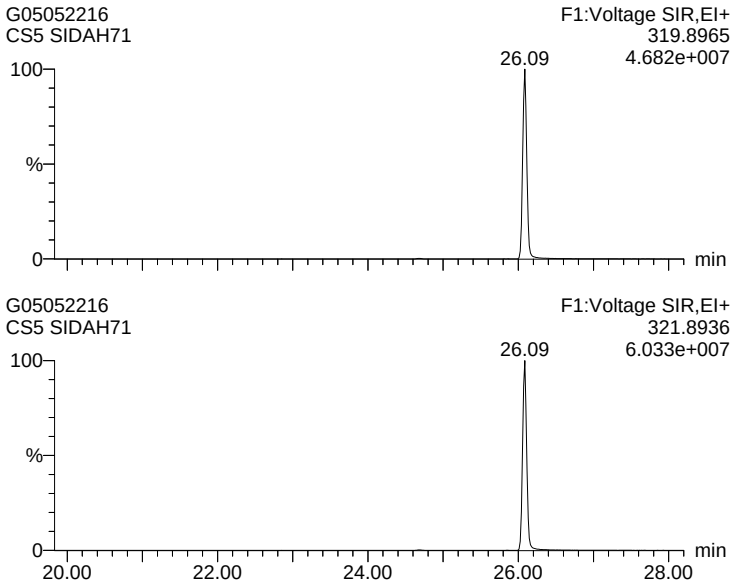
1469-TCDD



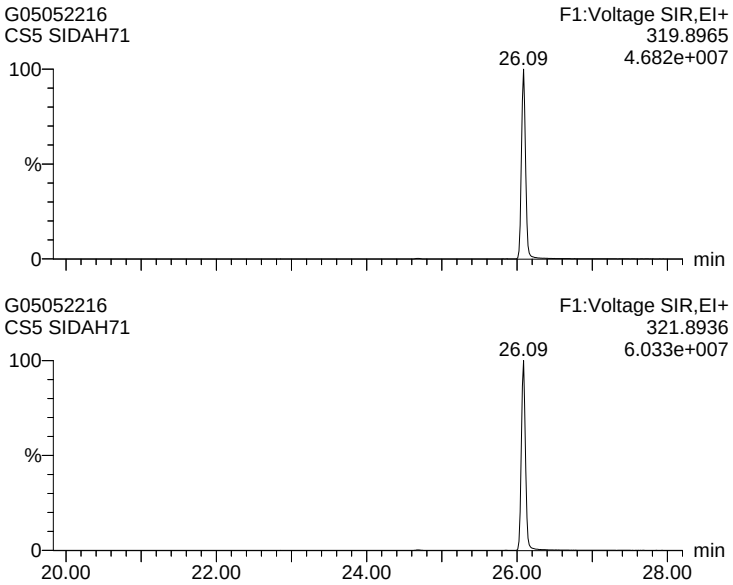
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

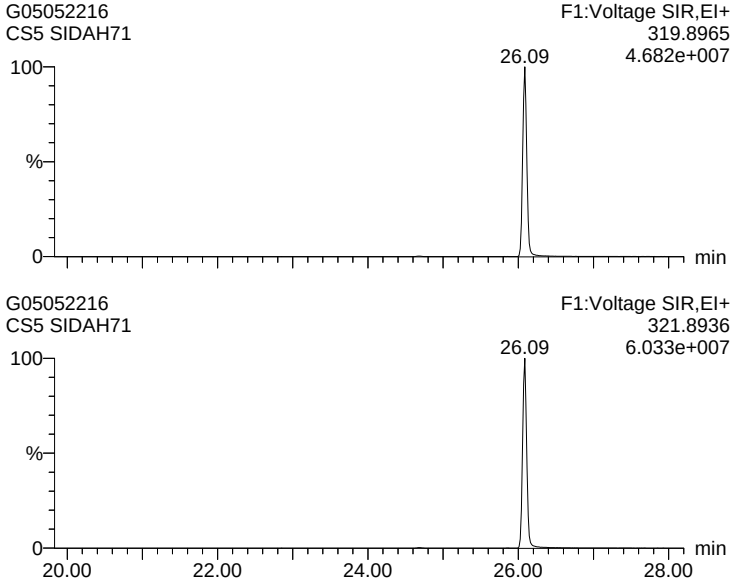
1247/1246/1248/1249-TCDD



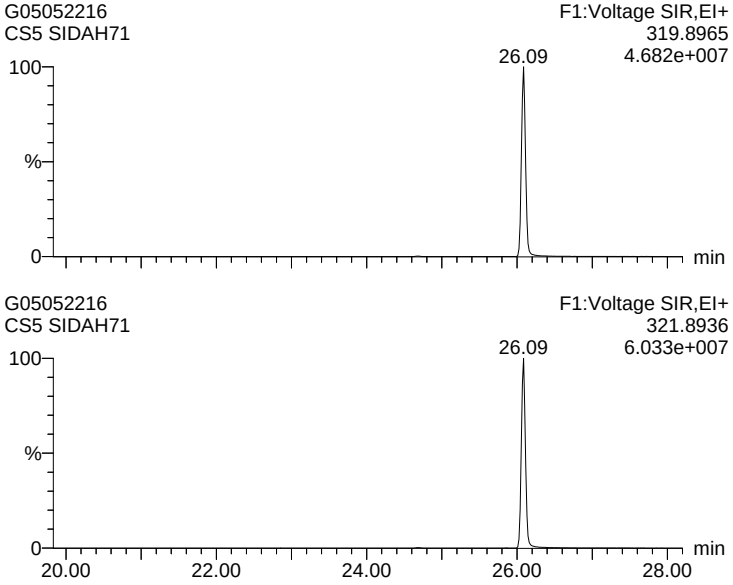
1378-TCDD



1268-TCDD



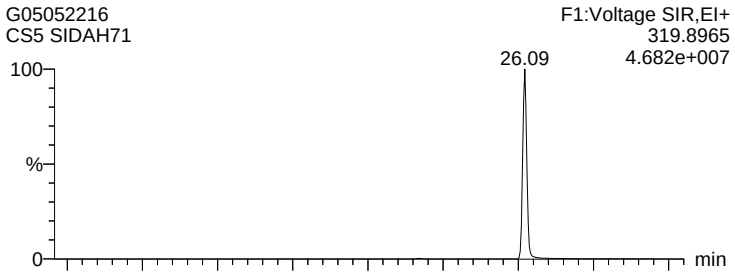
1478-TCDD

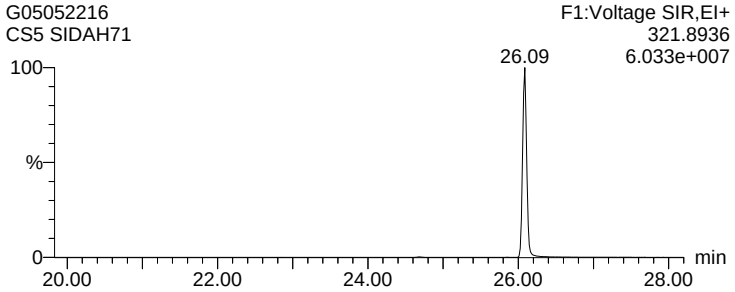


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

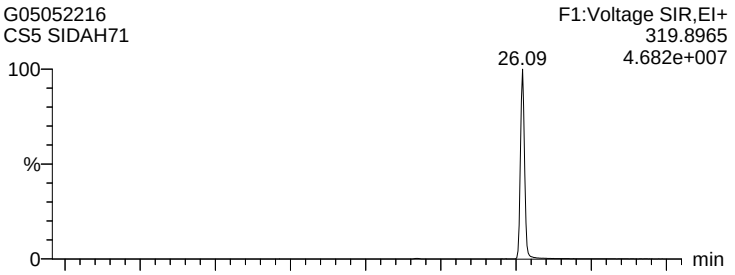
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

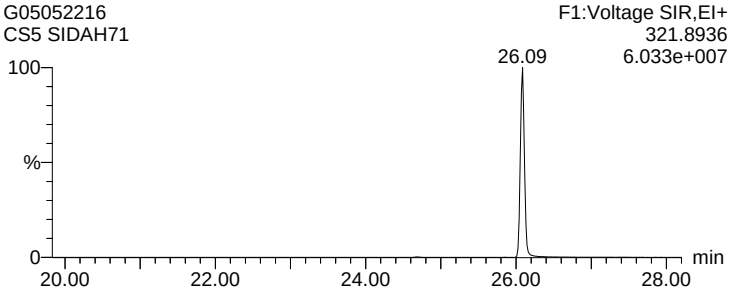
1279-TCDD



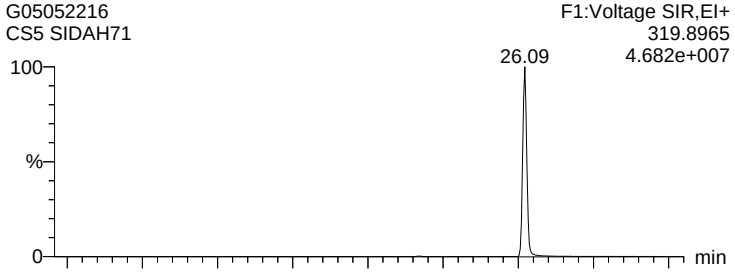


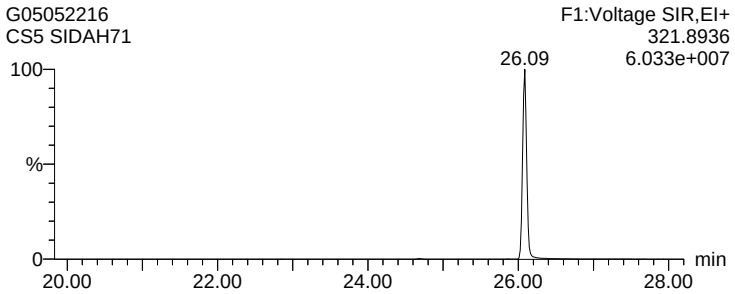
1234/1269-TCDD



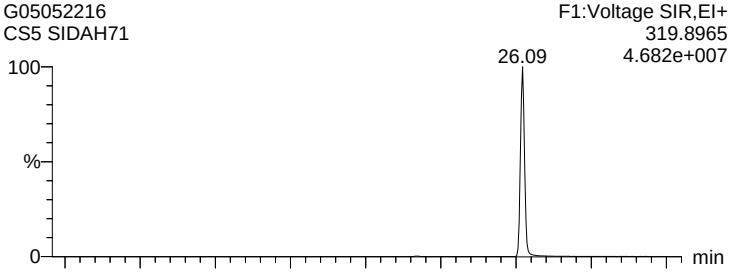


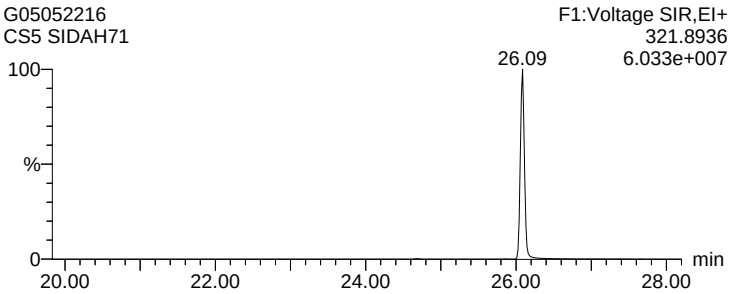
1236-TCDD





1237/1238-TCDD

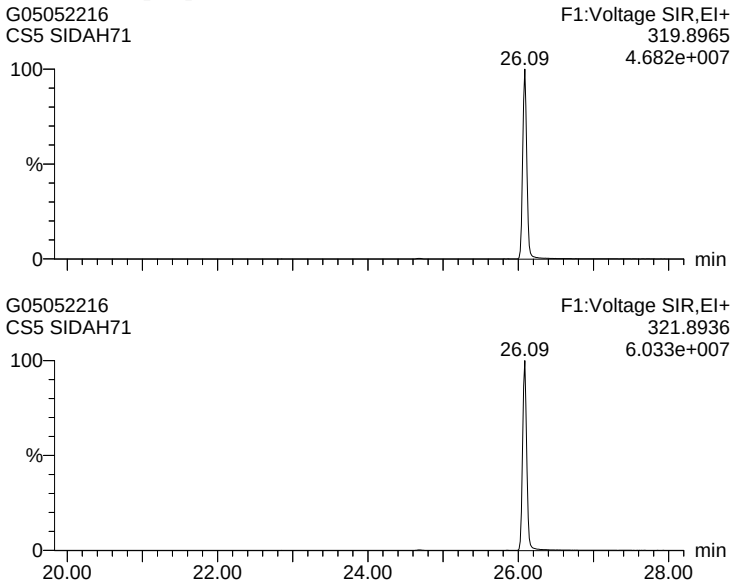




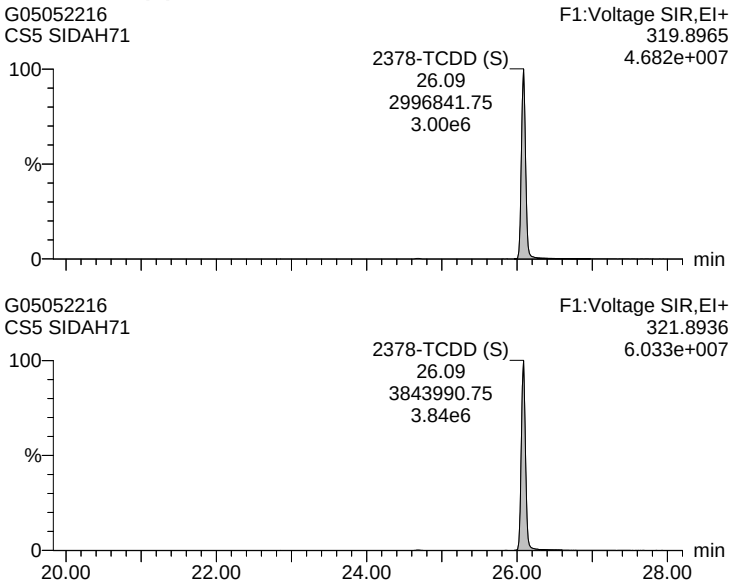
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

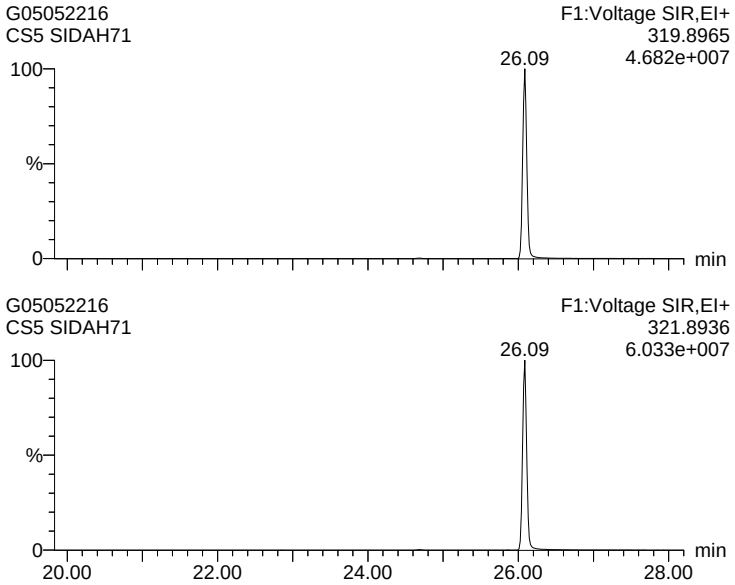
1239-TCDD [CE]



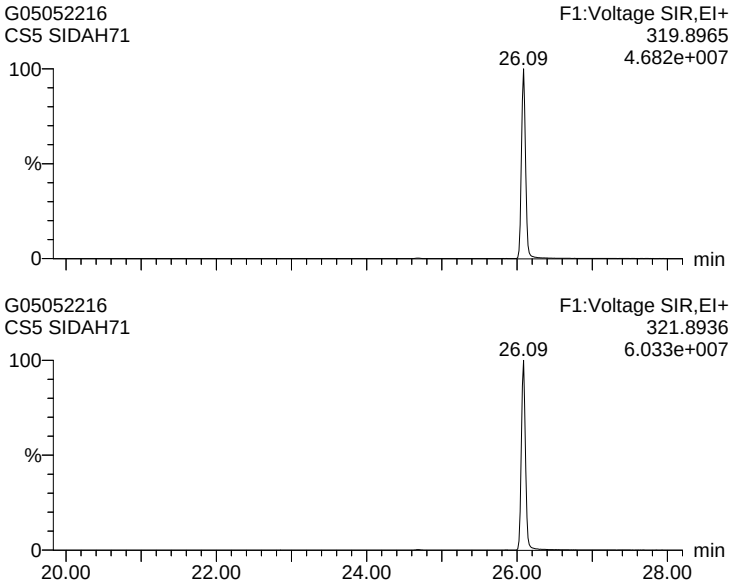
2378-TCDD (S)



1278-TCDD



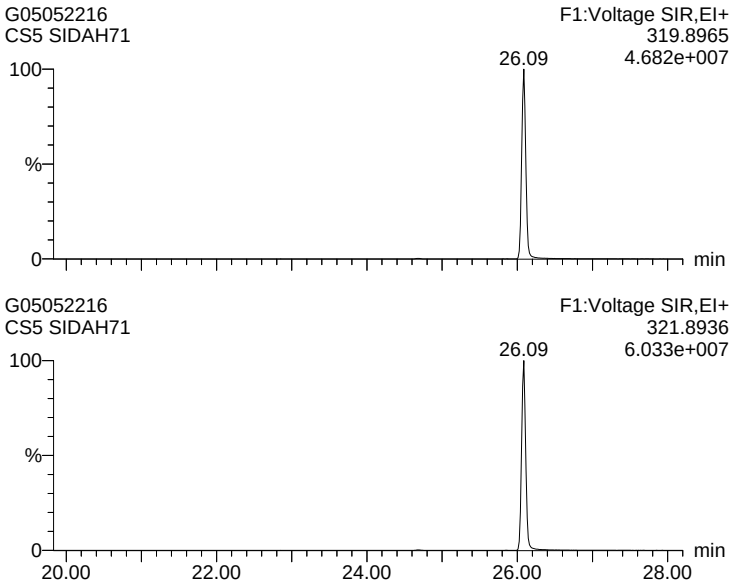
1267-TCDD



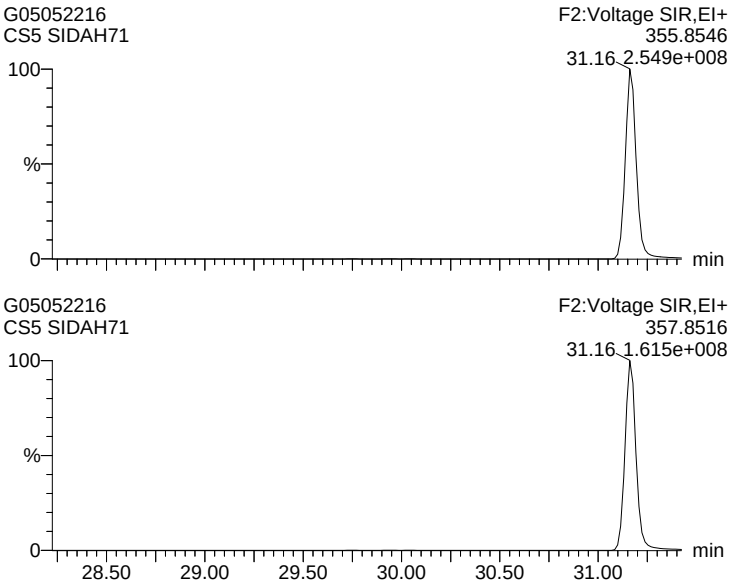
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

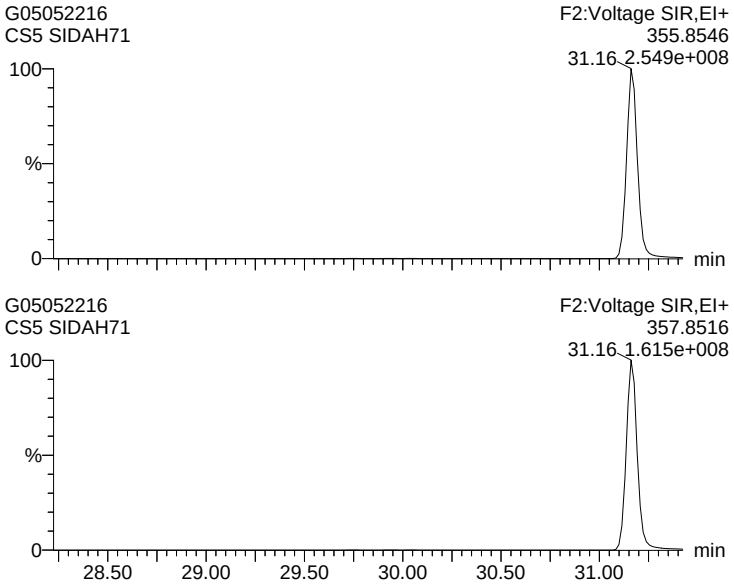
1289-TCDD



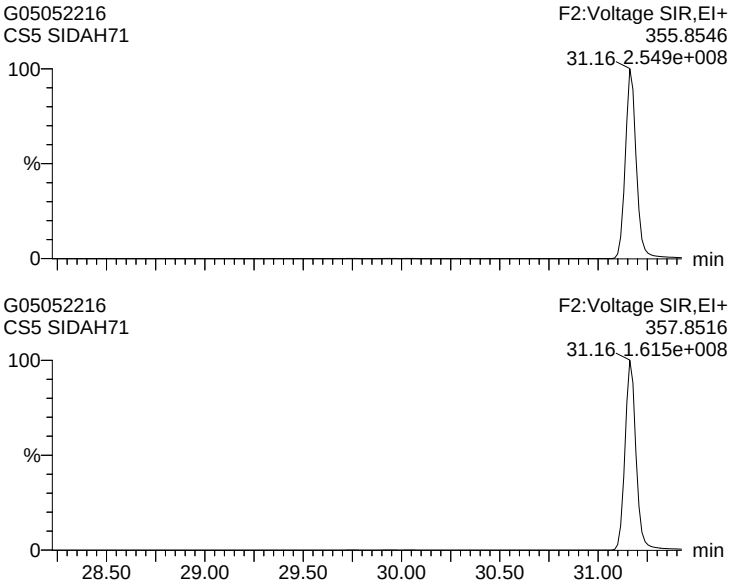
12479/12468-PeCDD



12469-PeCDD



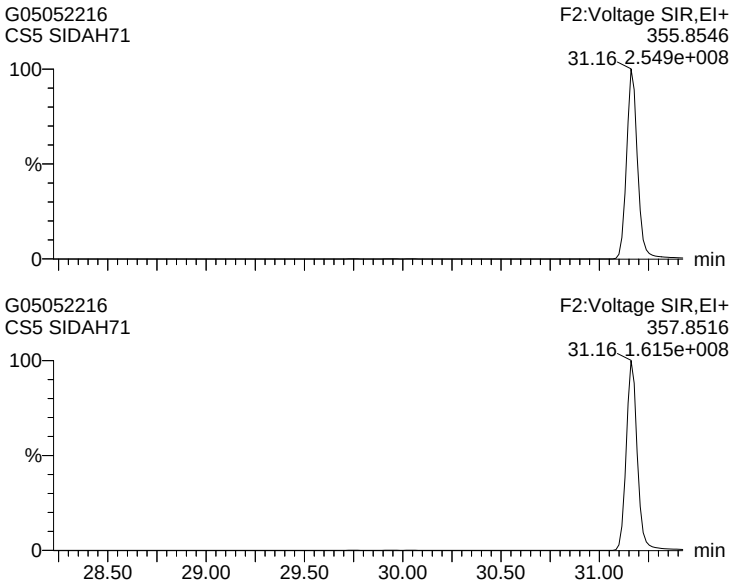
12368-PeCDD



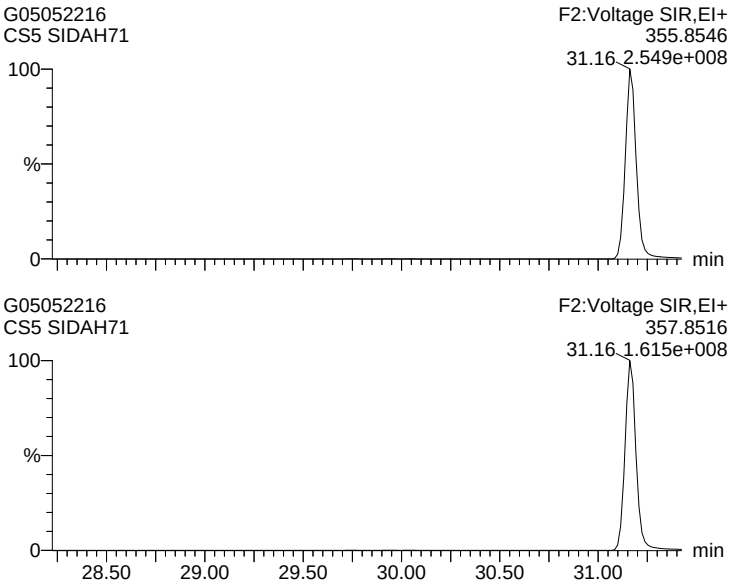
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

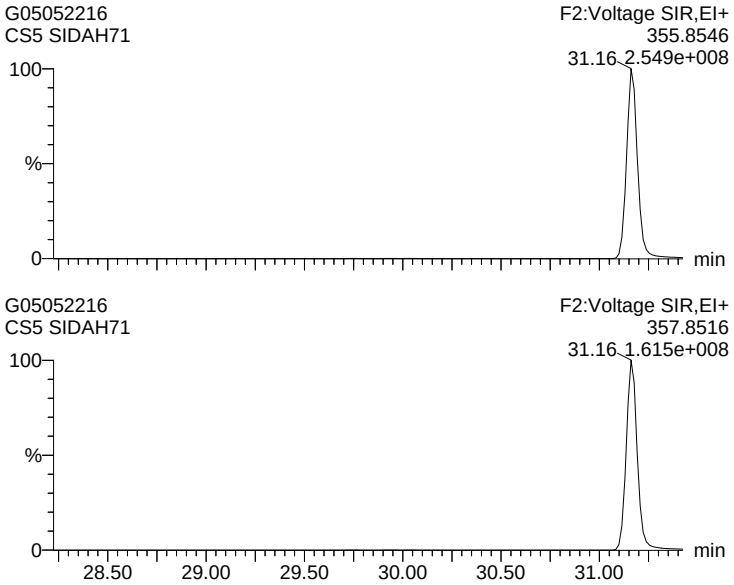
12478-PeCDD



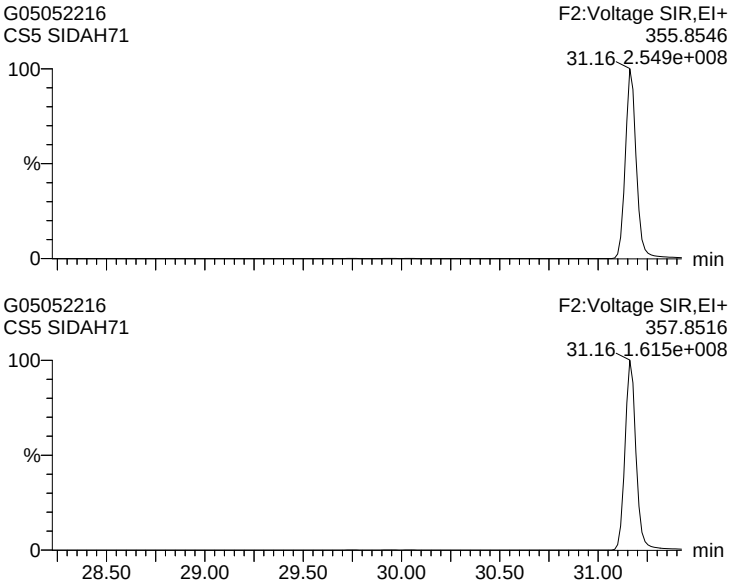
12379-PeCDD



12369/12467/12489-PeCDD



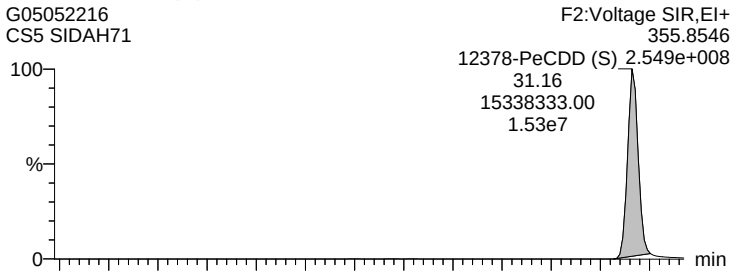
12346/12347-PeCDD

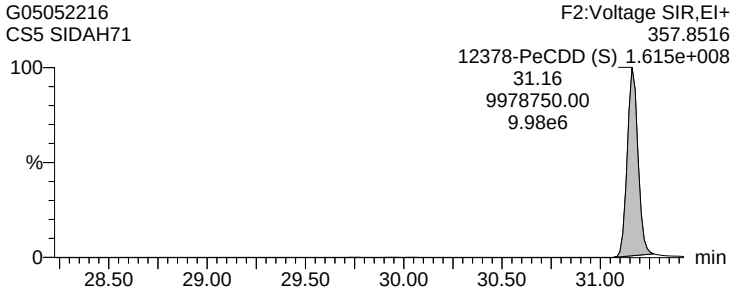


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

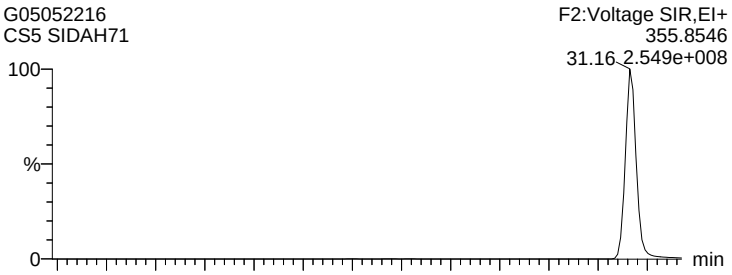
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

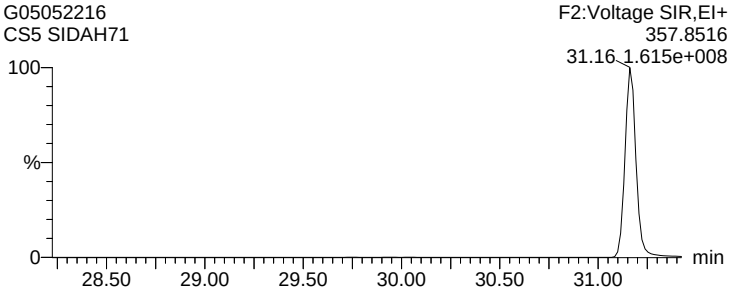
12378-PeCDD (S)



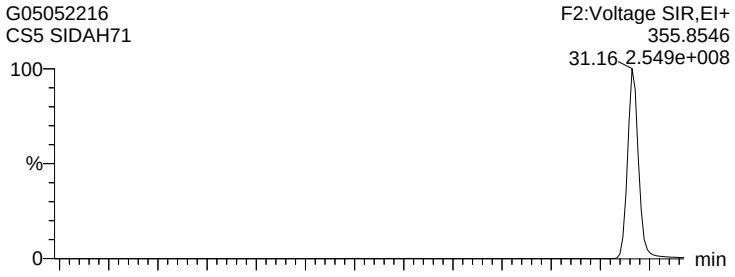


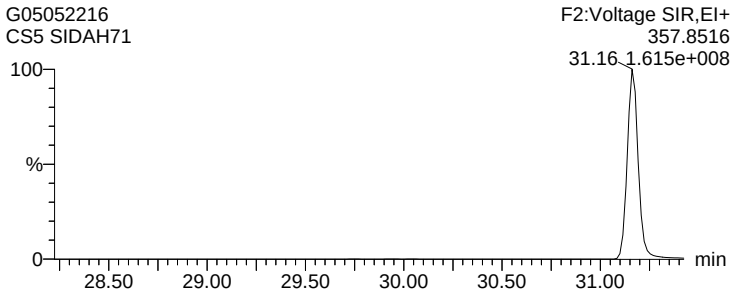
12367-PeCDD



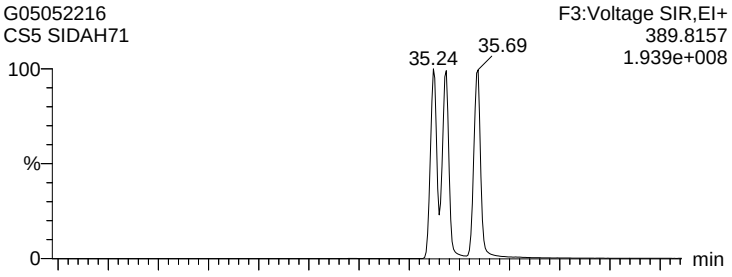


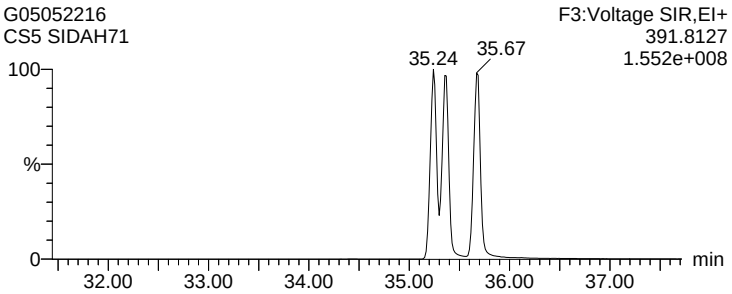
12389-PeCDD





124679/124689-HxCDD

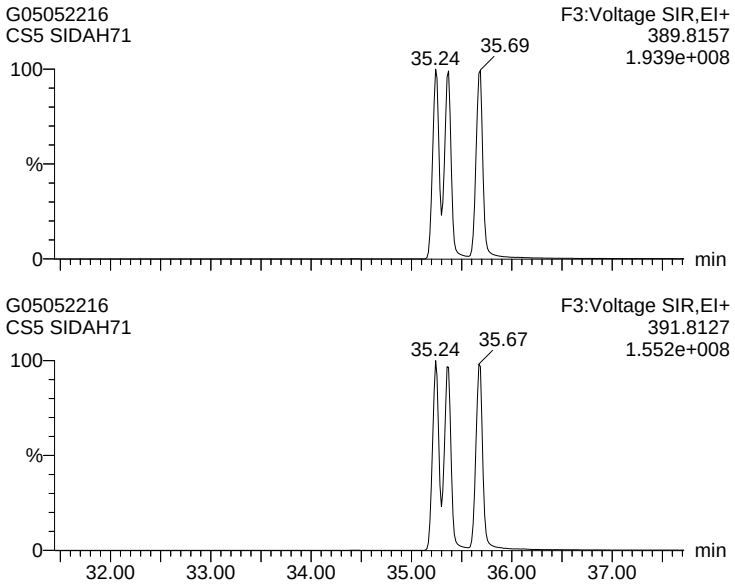




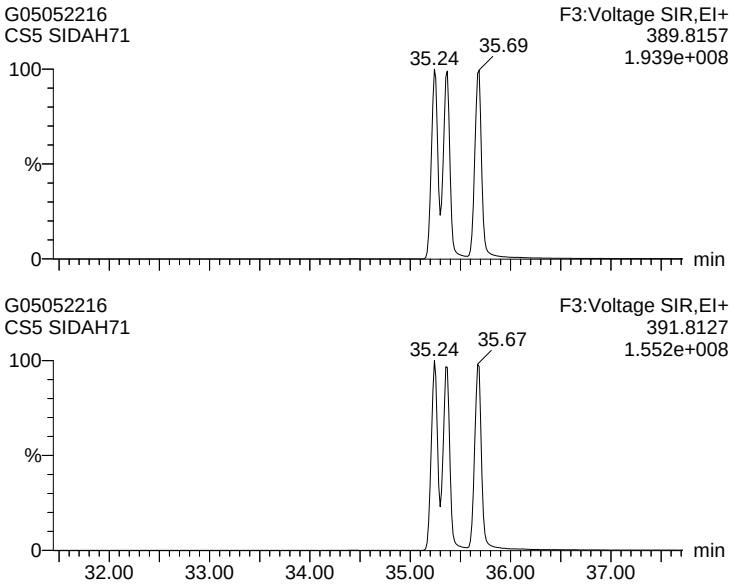
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

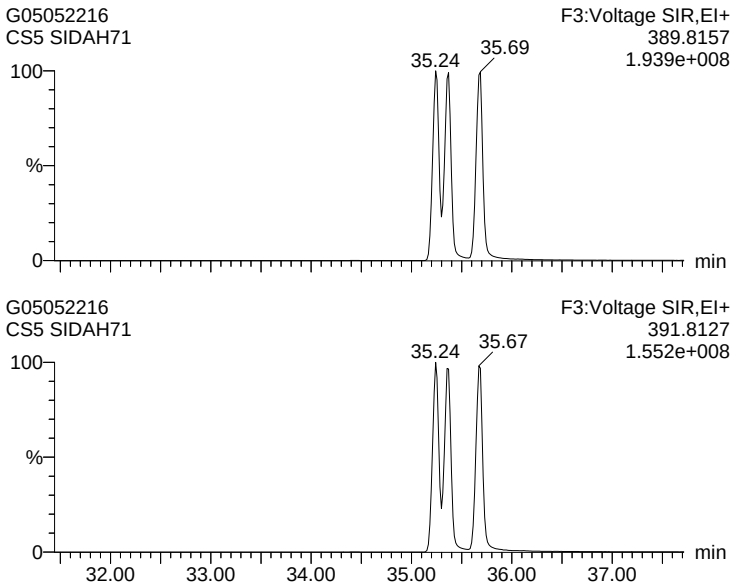
123468-HxCDD



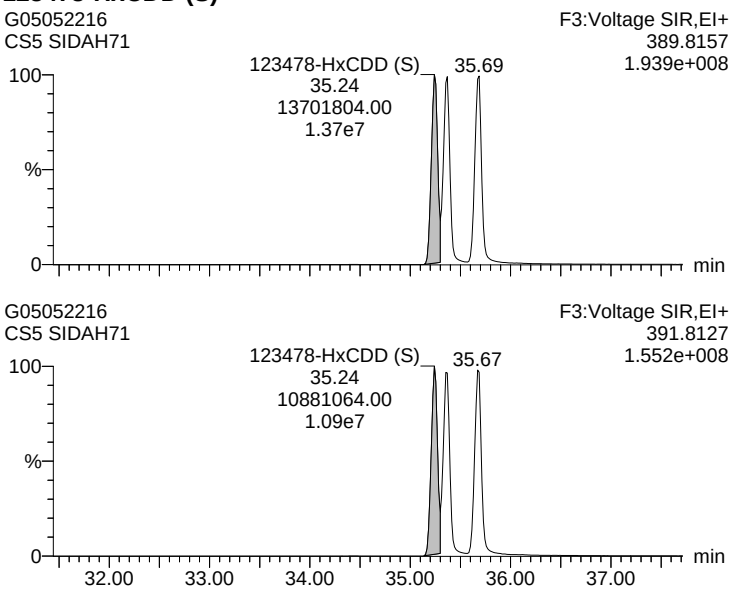
123679/123689-HxCDD



123469-HxCDD



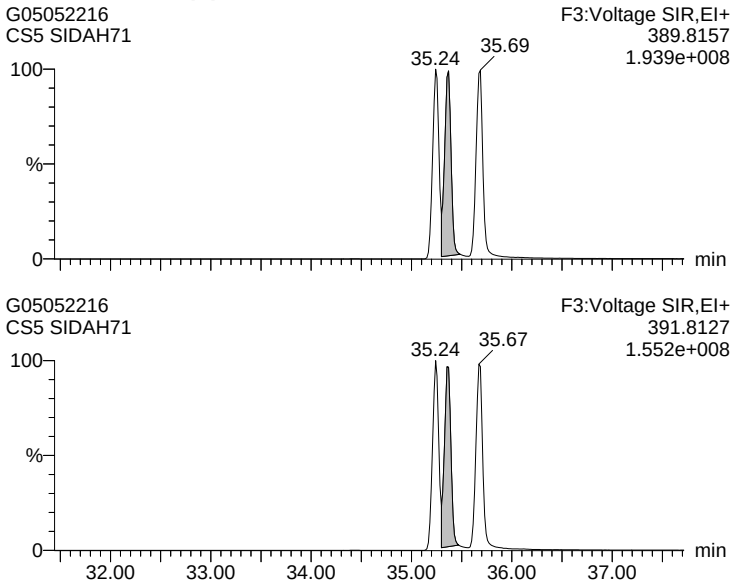
123478-HxCDD (S)



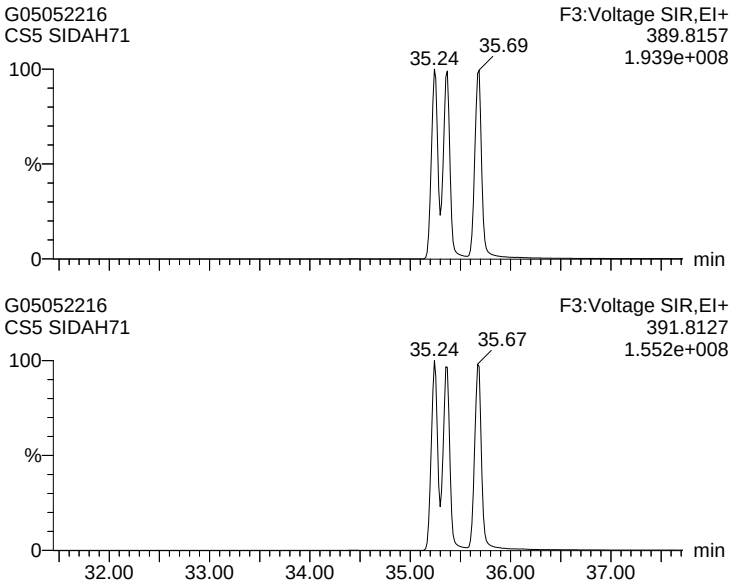
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

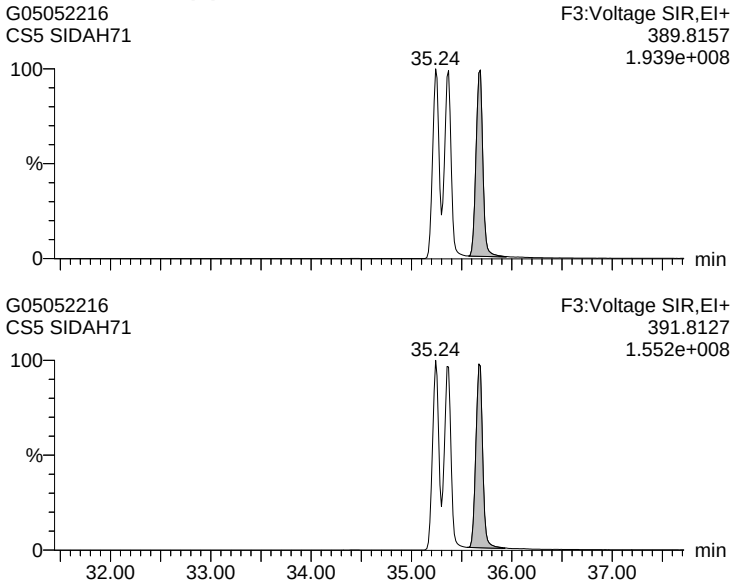
123678-HxCDD (S)



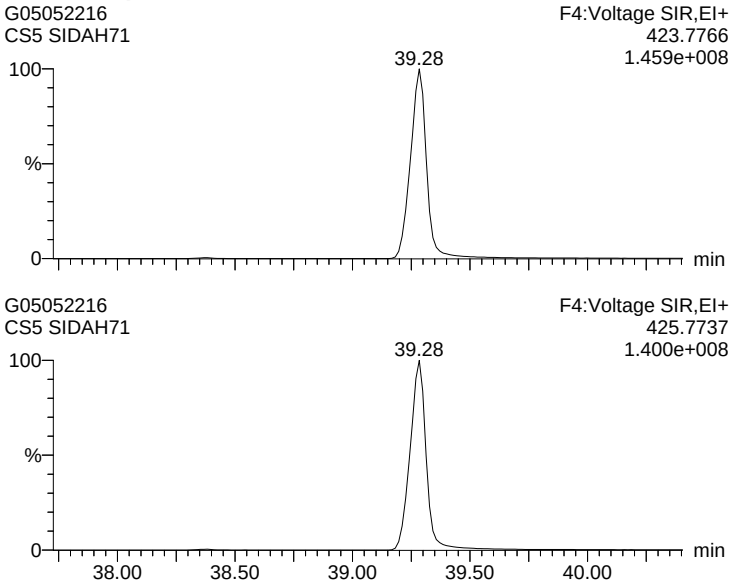
123467-HxCDD



123789-HxCDD (S)



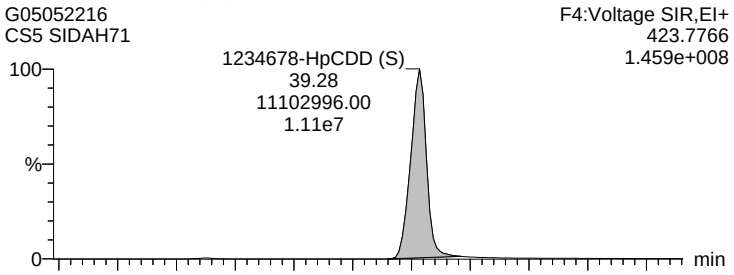
1234679-HpCDD

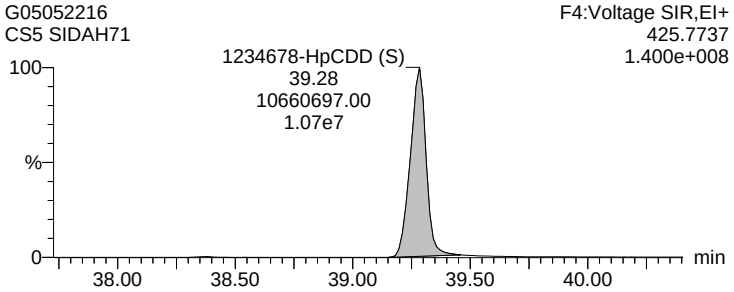


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

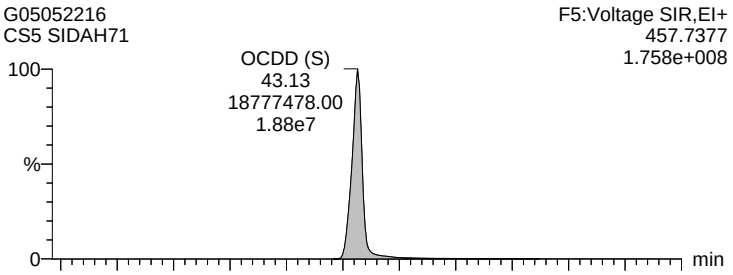
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

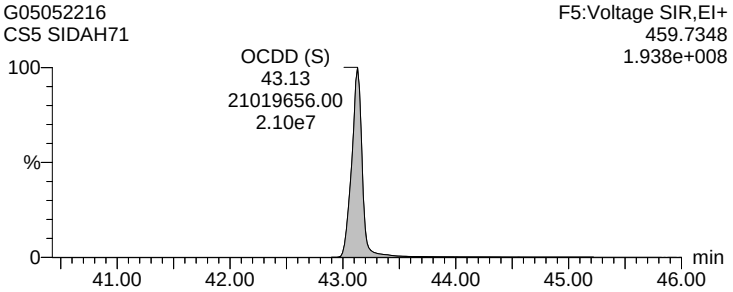
1234678-HpCDD (S)



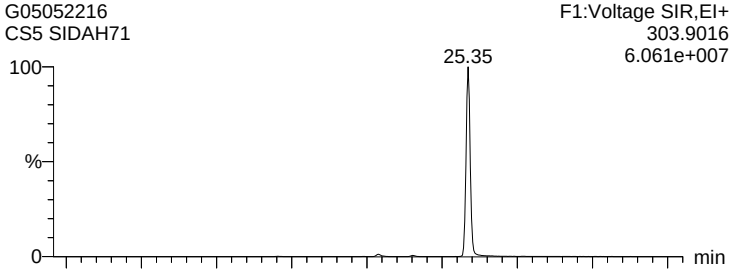


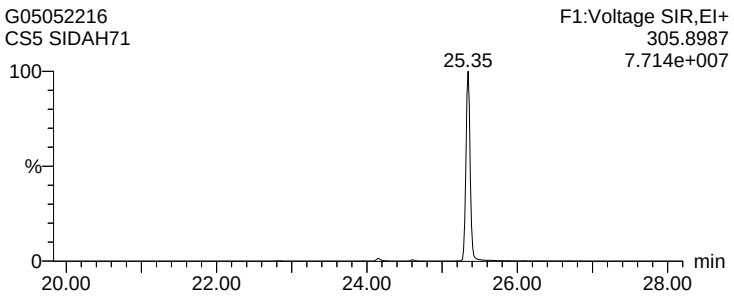
OCDD (S)



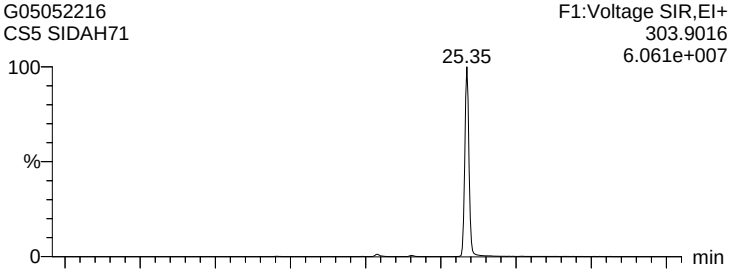


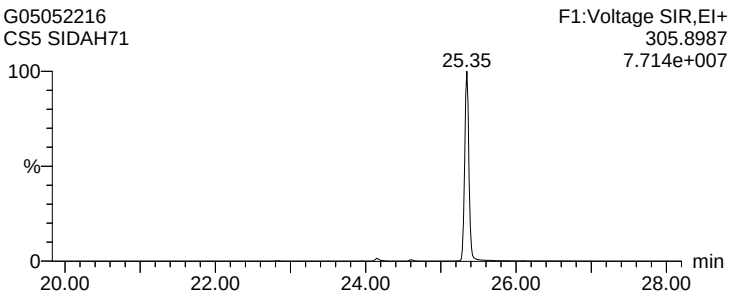
1368-TCDF





1468-TCDF

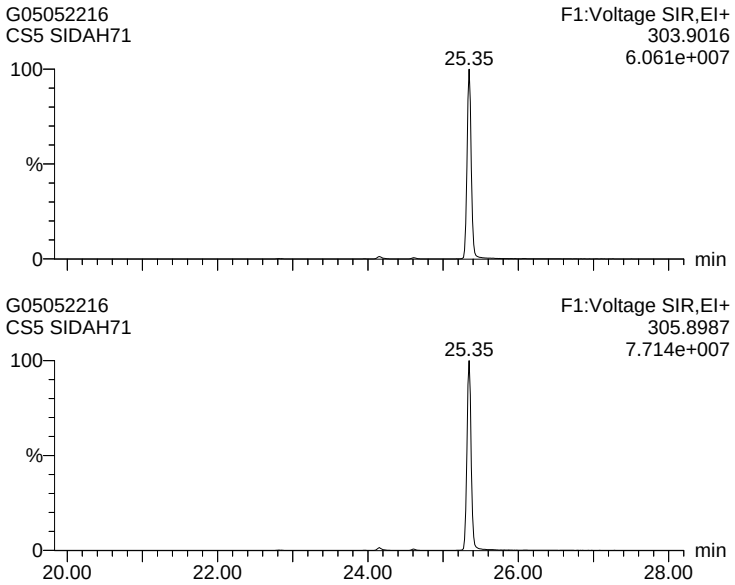




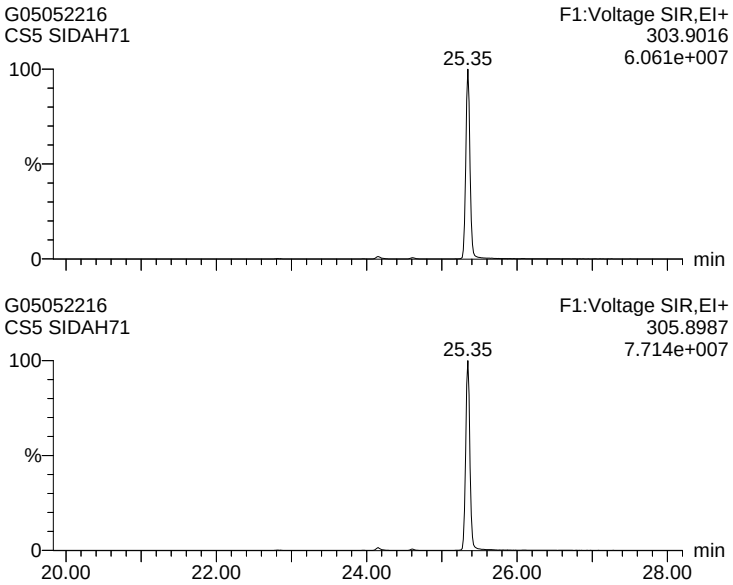
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

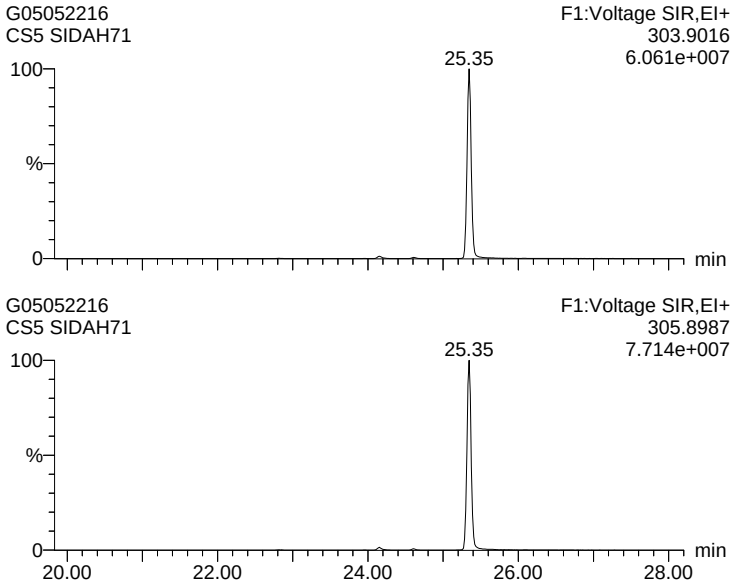
2468-TCDF



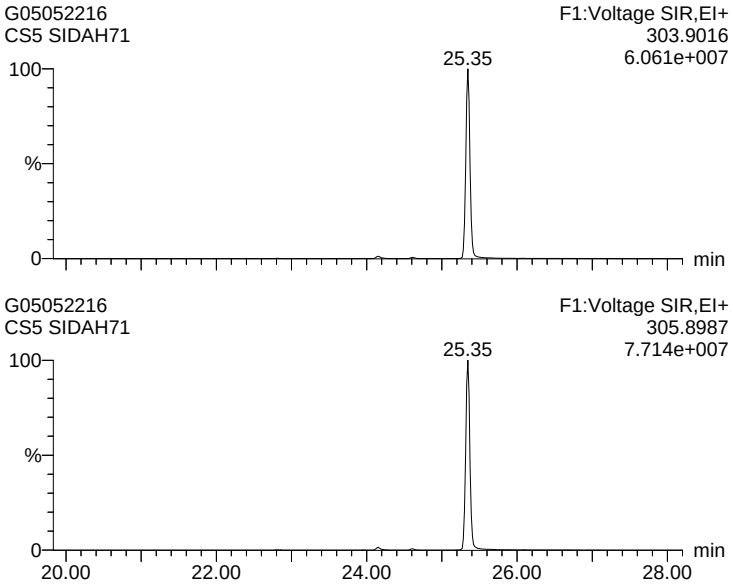
1346/1246-TCDF



1347/1378/1247-TCDF



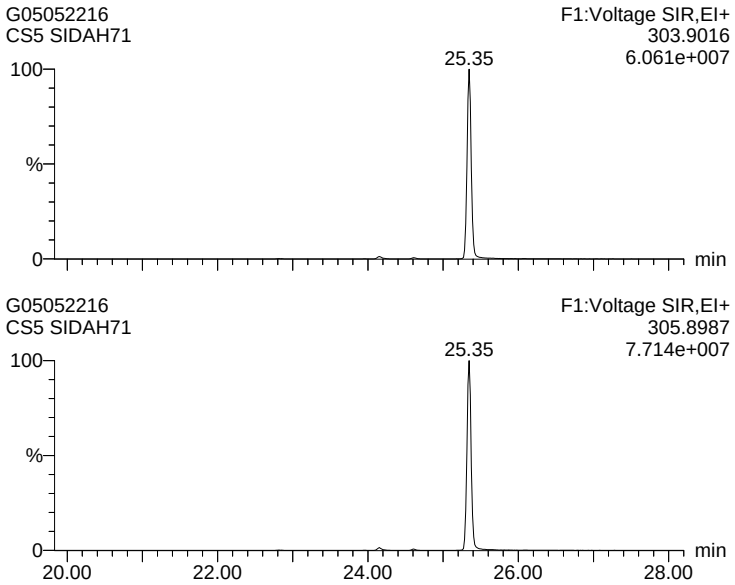
1348-TCDF



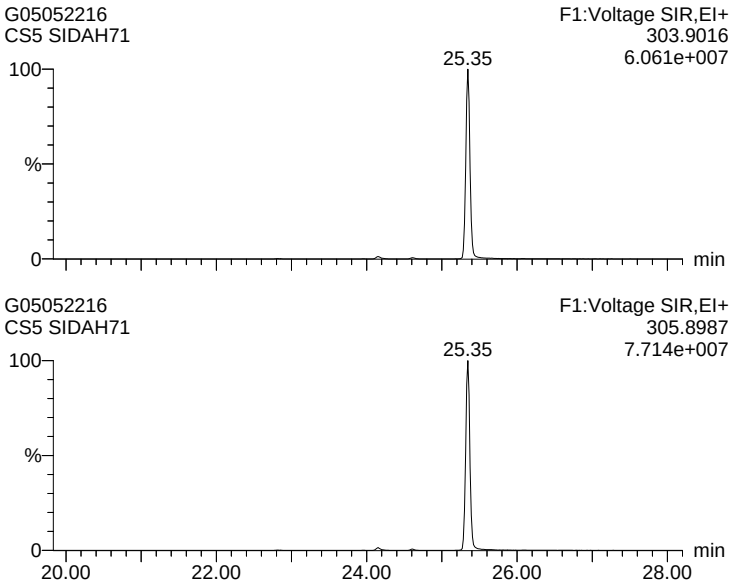
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

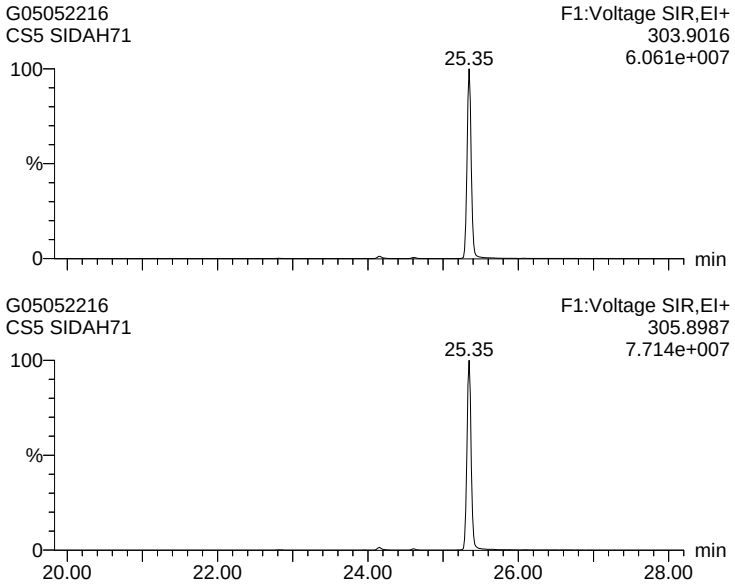
1248/1367/1379-TCDF



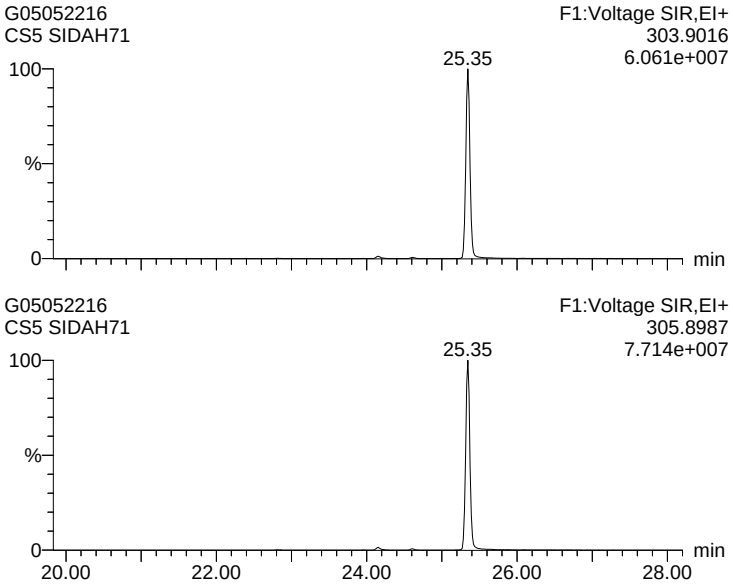
1268-TCDF



1467-TCDF



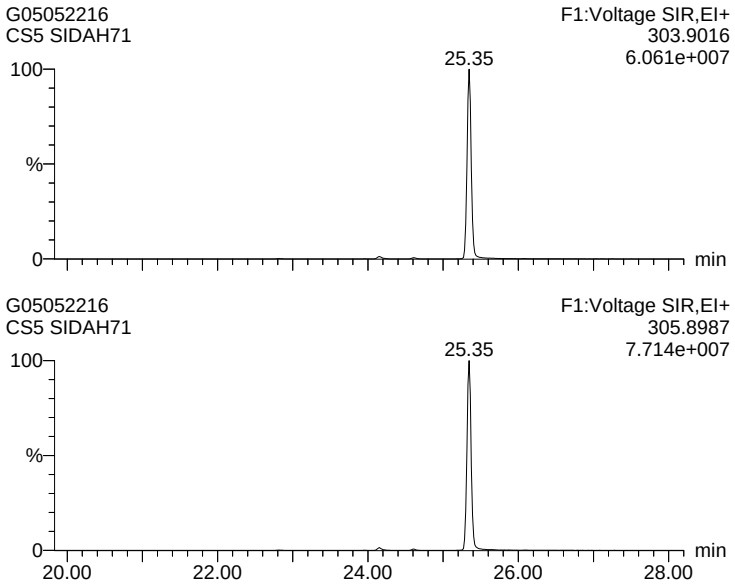
1478-TCDF



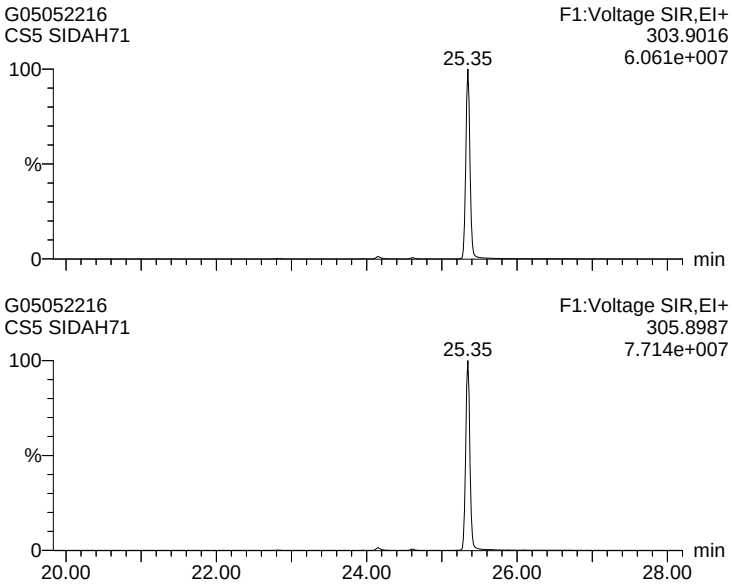
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

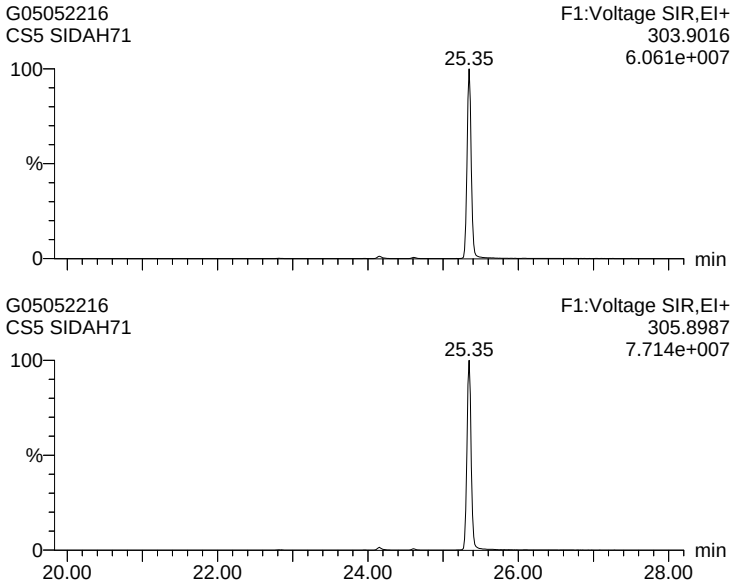
1369/1237-TCDF



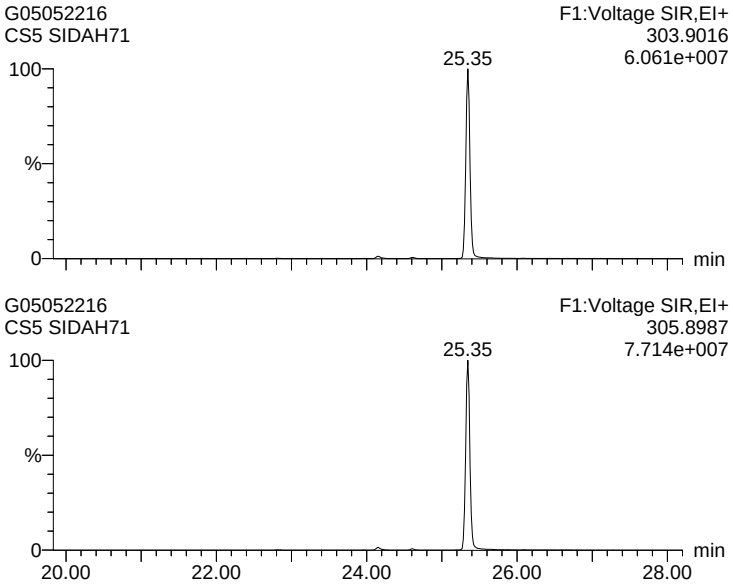
2467-TCDF



2368-TCDF



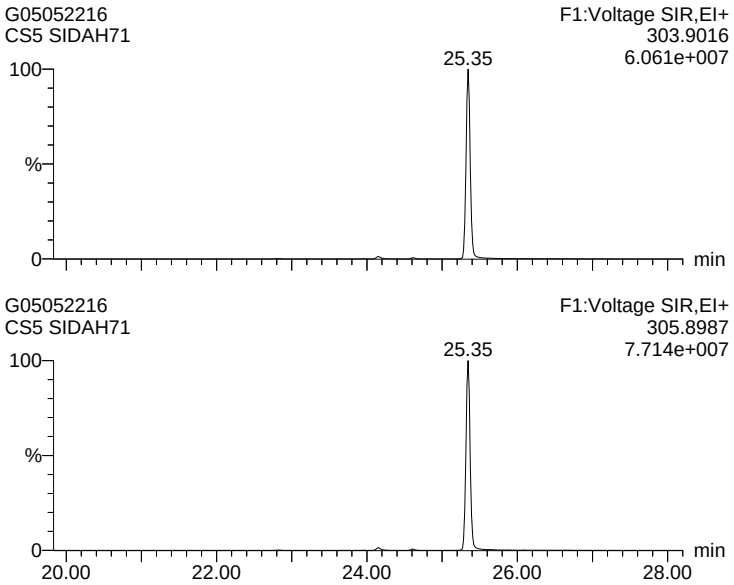
1238/1234/1678/1469/1236-TCDF



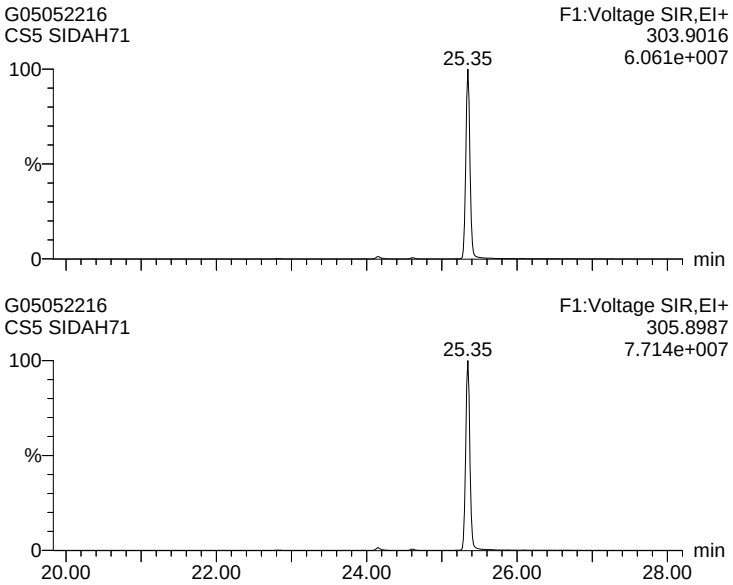
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

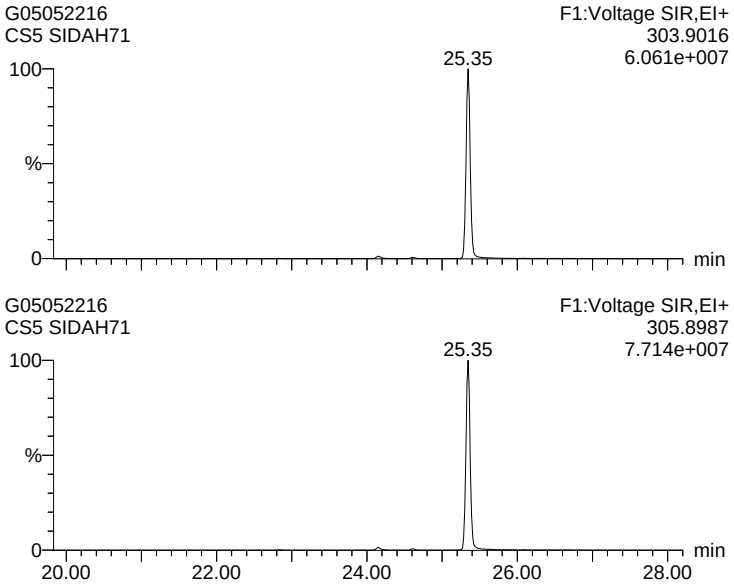
1278-TCDF



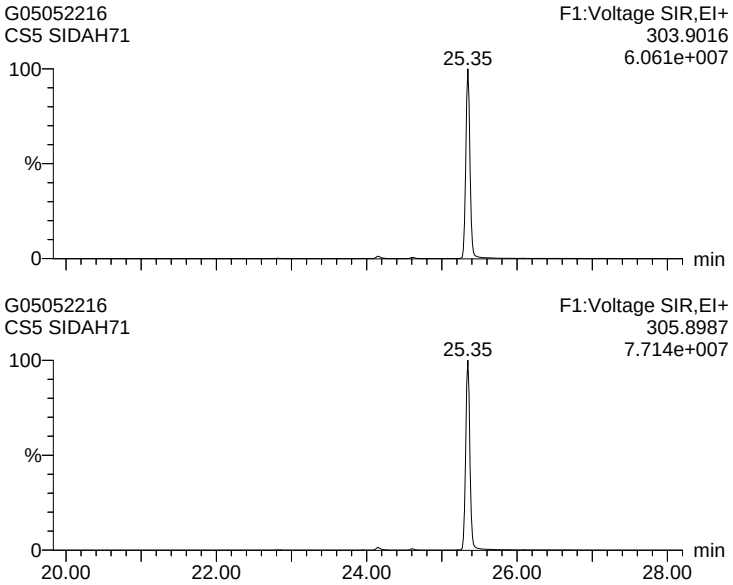
1349-TCDF



1267-TCDF



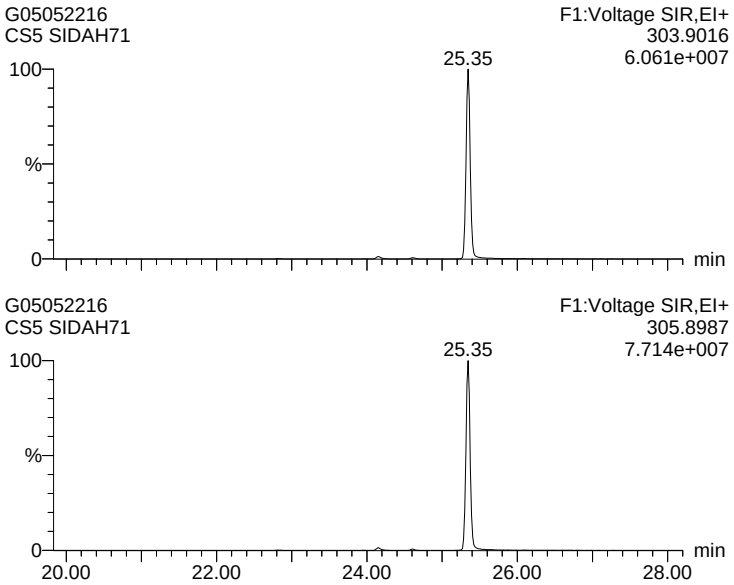
2346/1249-TCDF



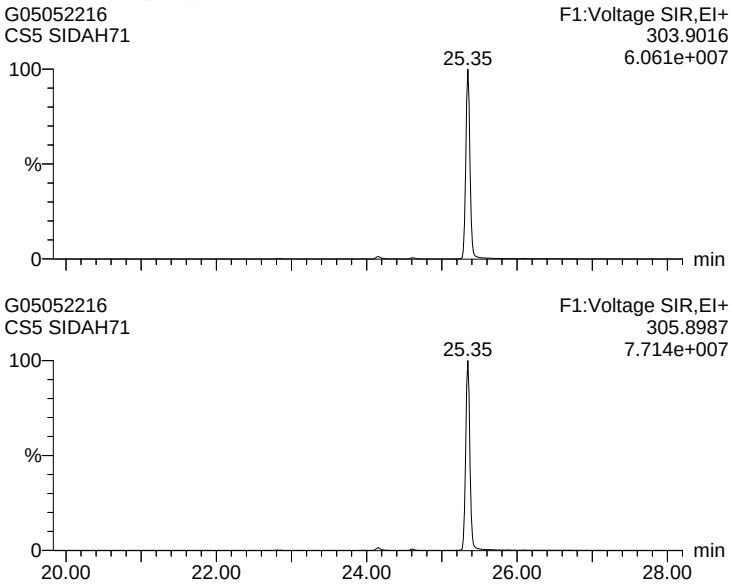
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

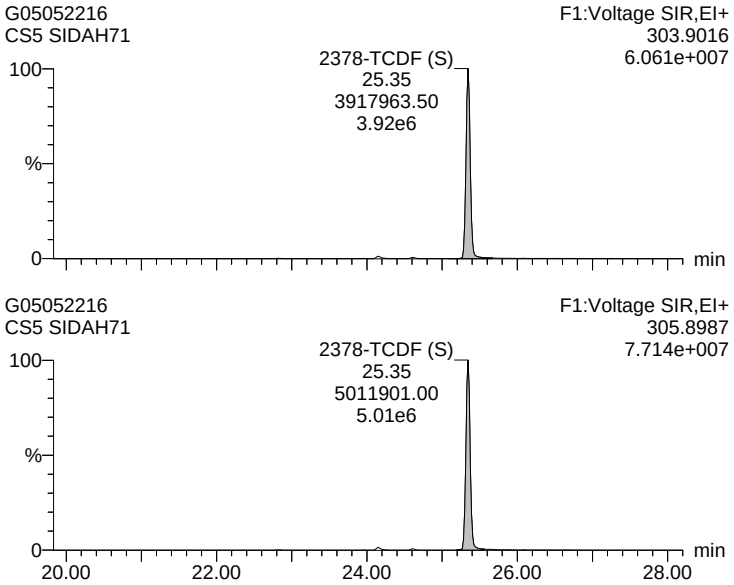
2347/1279-TCDF



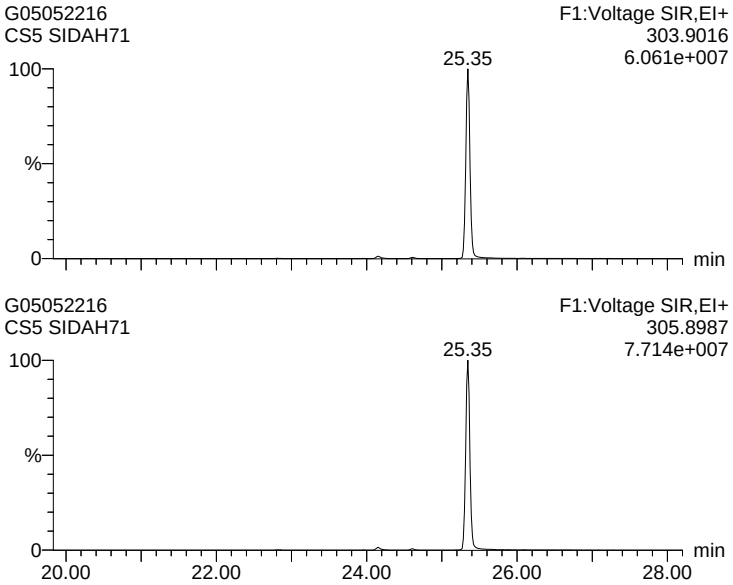
2348-TCDF [CE]



2378-TCDF (S)



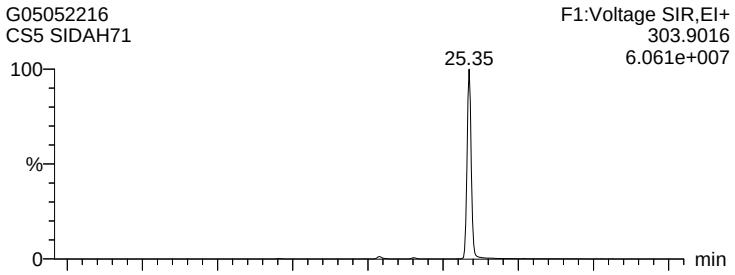
2367/3467-TCDF

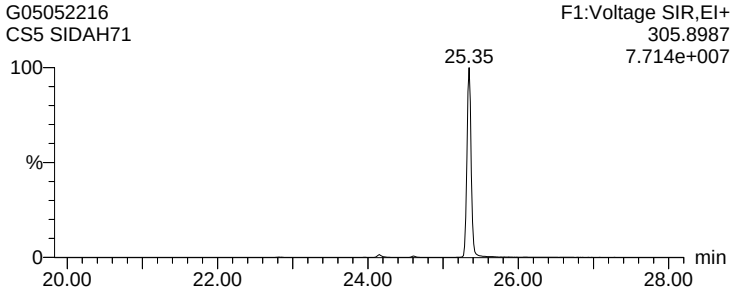


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

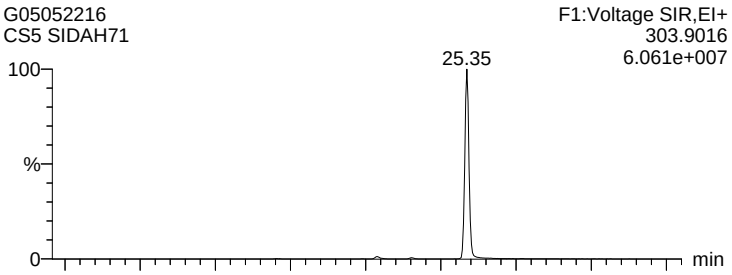
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

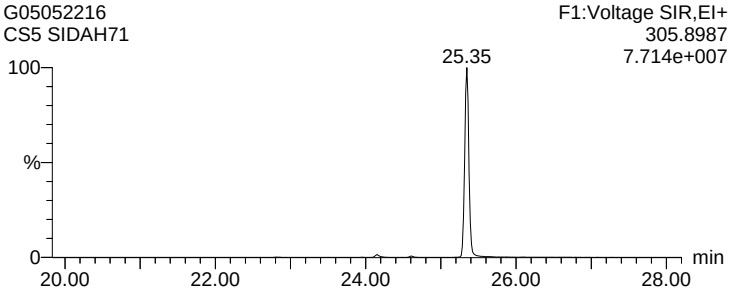
1269-TCDF



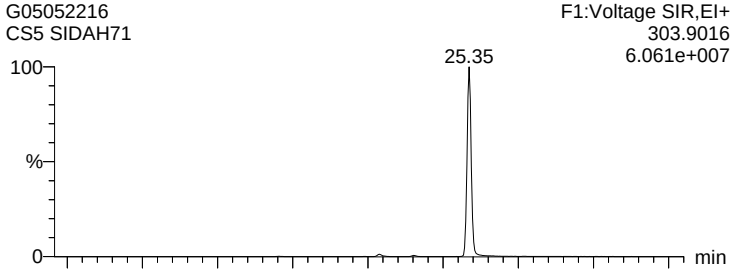


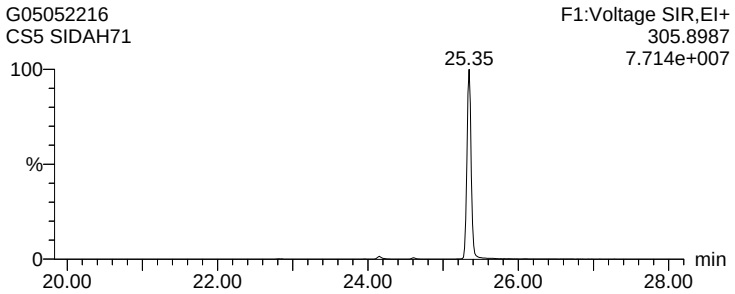
1239-TCDF



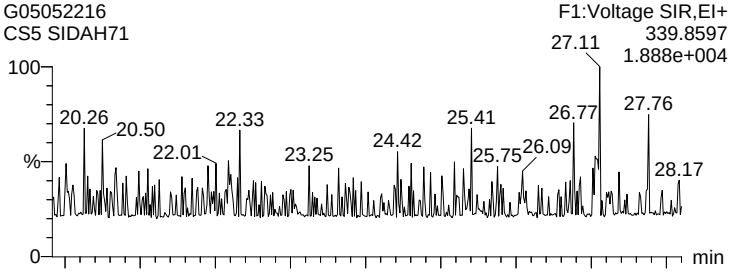


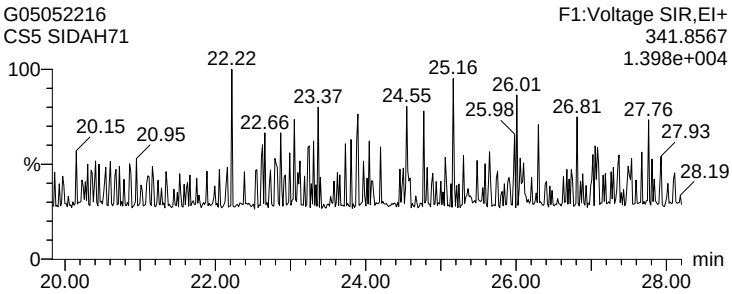
1289-TCDF





13468/12466-PeCDF

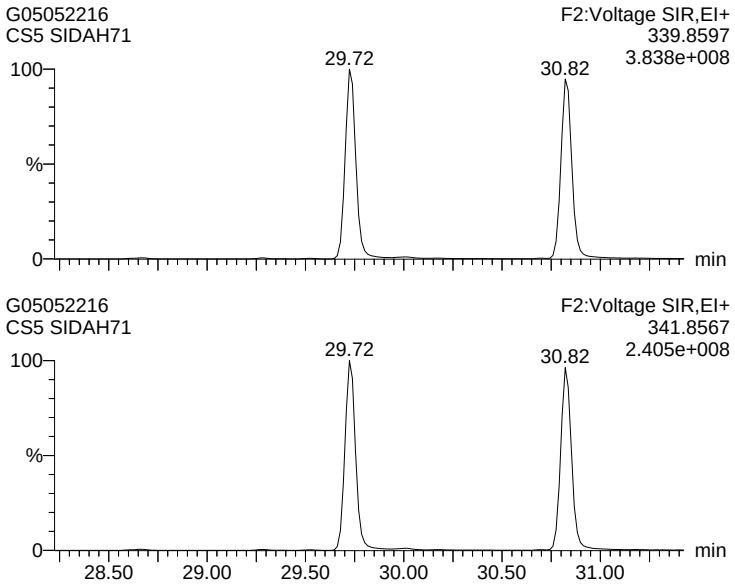




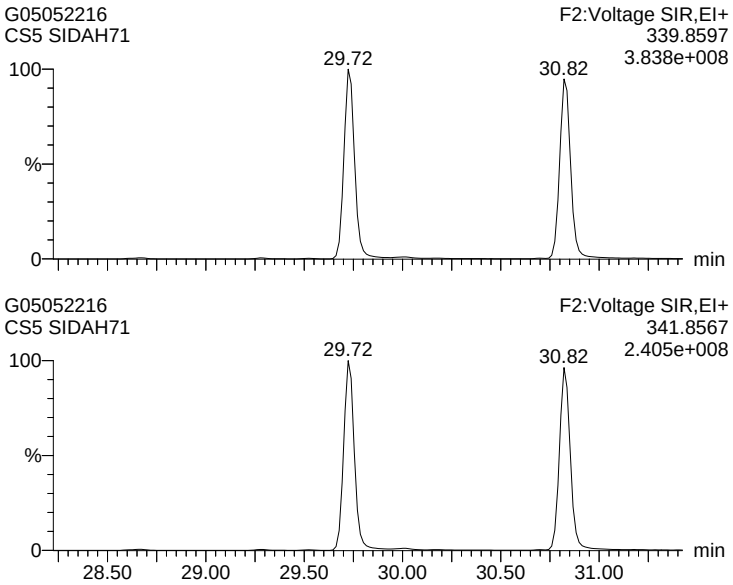
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

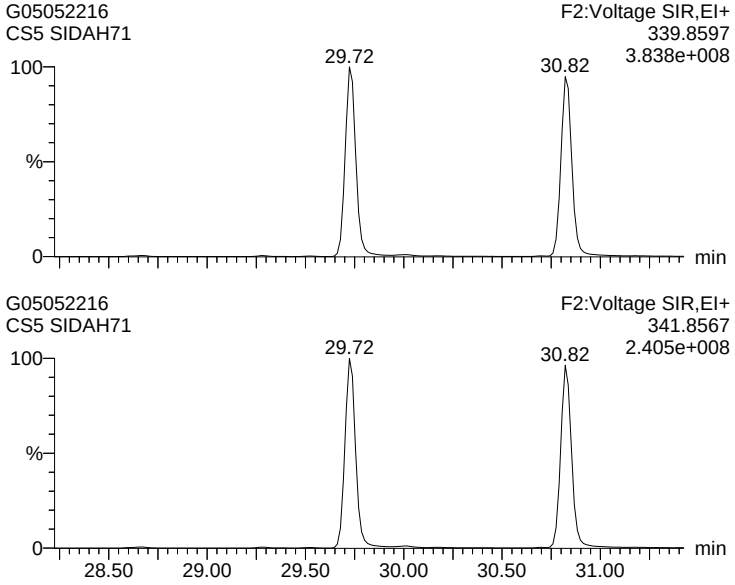
13678/13467/12467-PeCDF



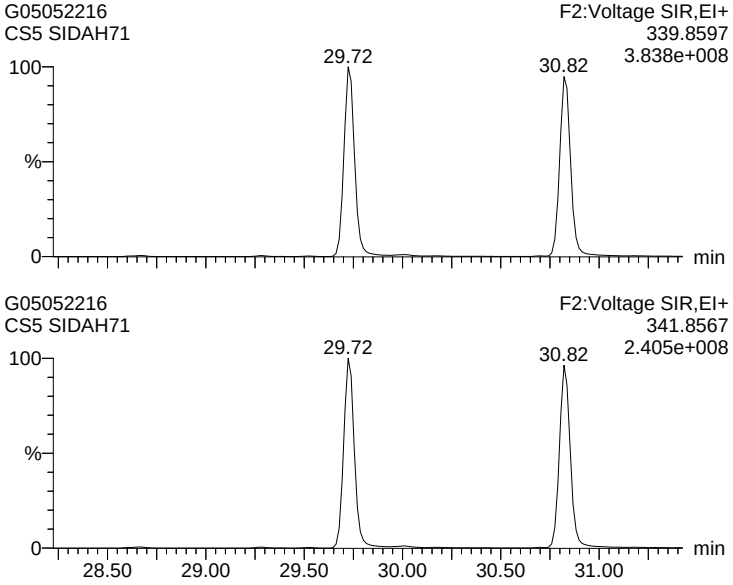
12368/13478/12478-PeCDF



14678-PeCDF



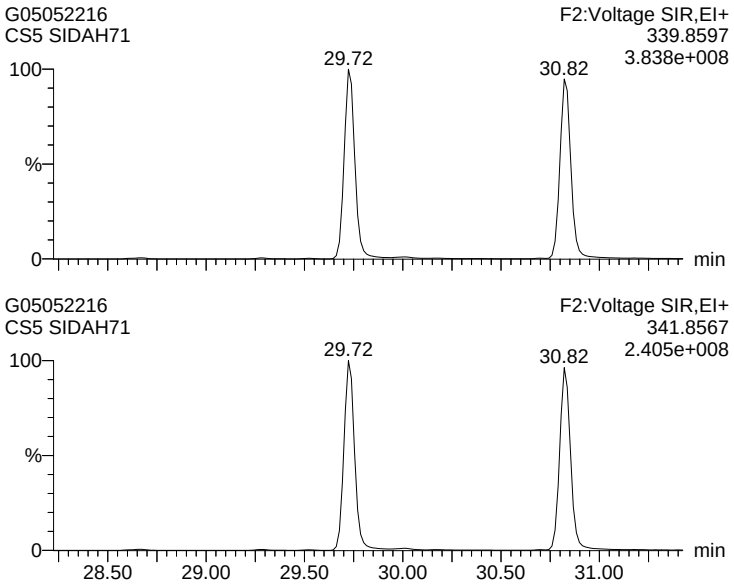
13479-PeCDF



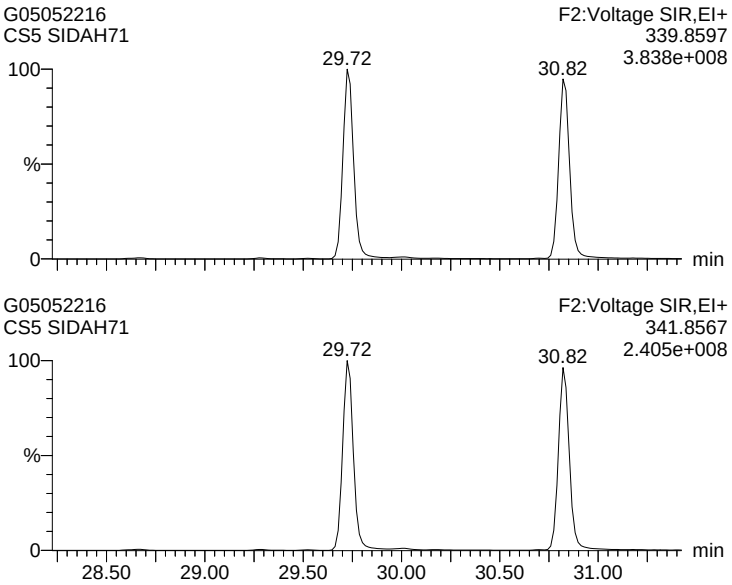
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

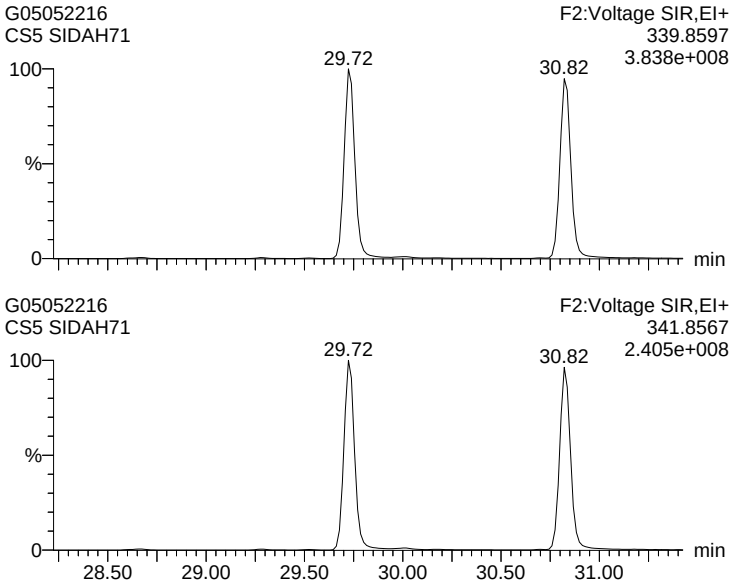
13469/12479-PeCDF



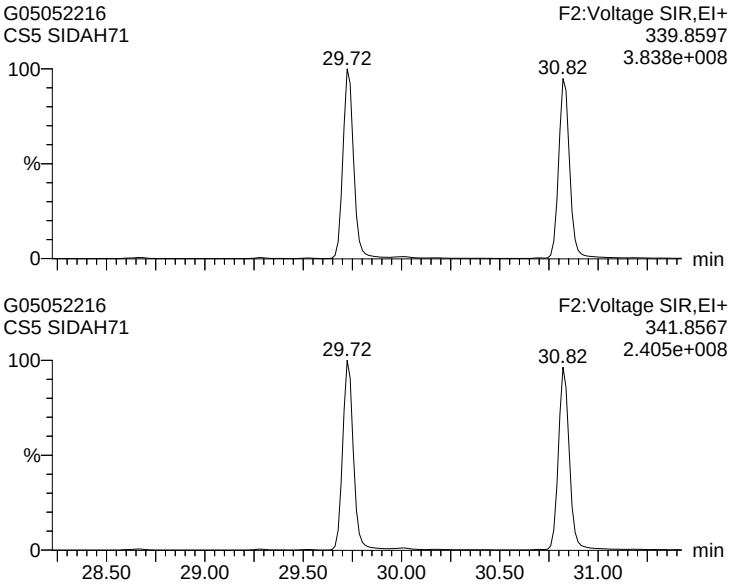
12346-PeCDF



23468/12469-PeCDF



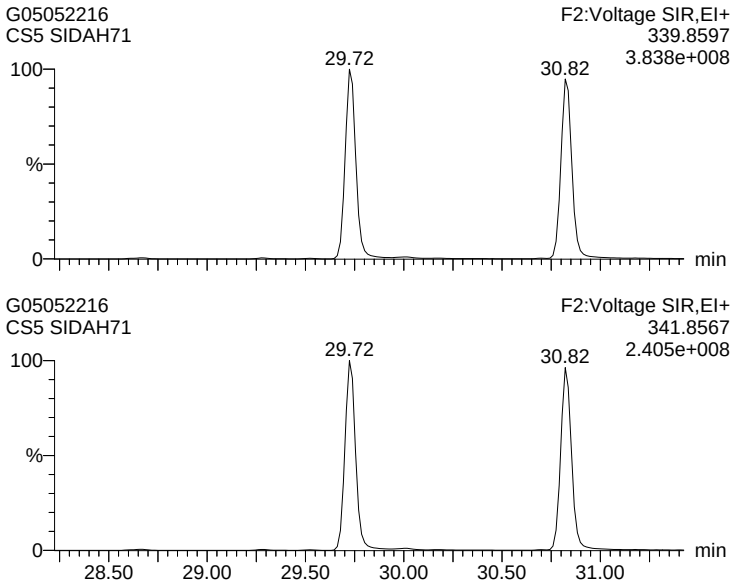
12347-PeCDF



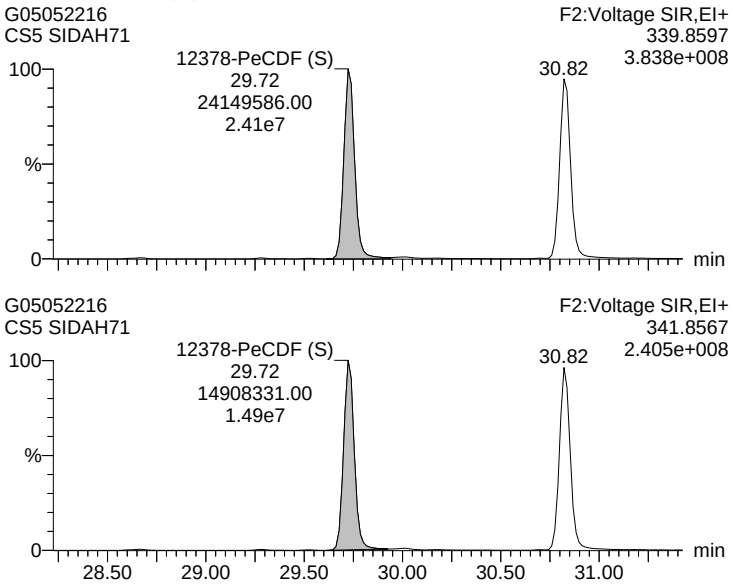
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

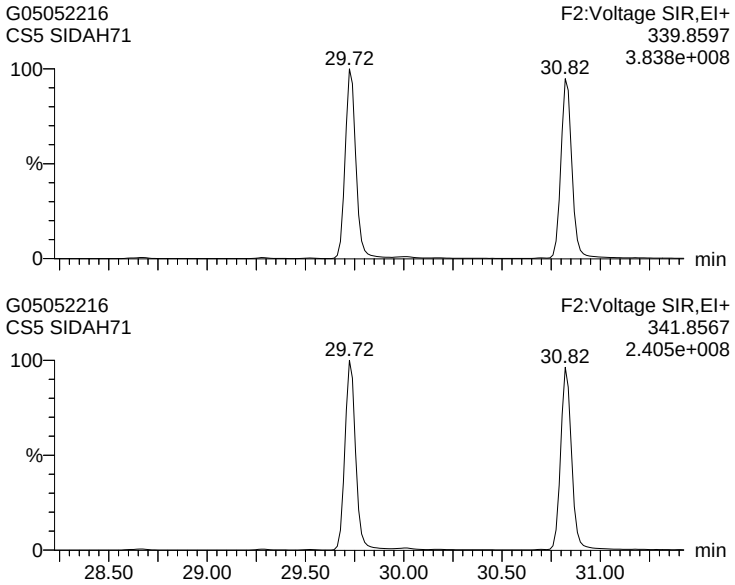
12348-PeCDF



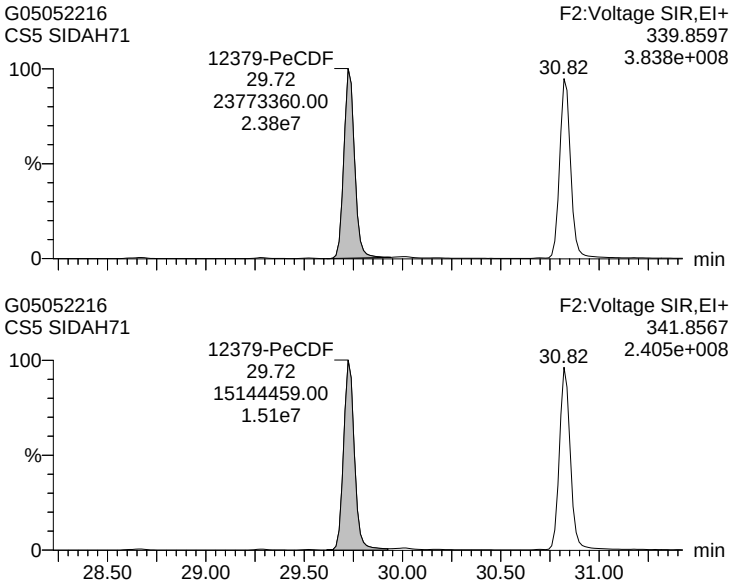
12378-PeCDF (S)



12678/12367-PeCDF



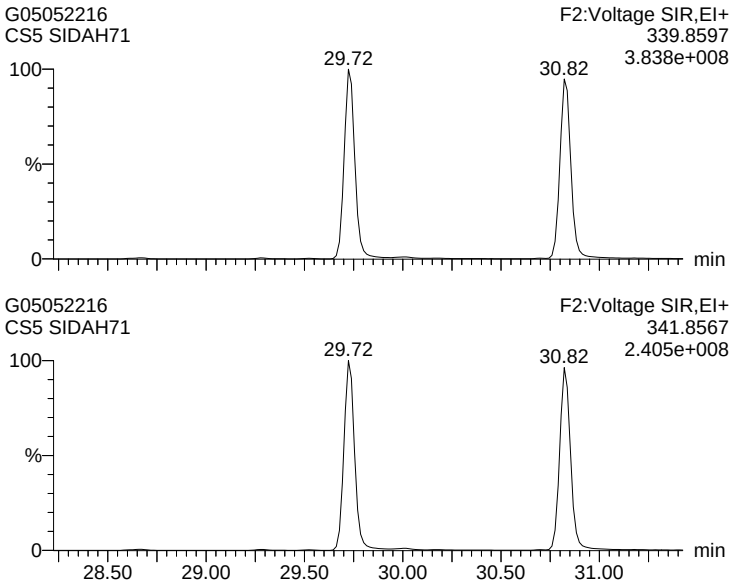
12379-PeCDF



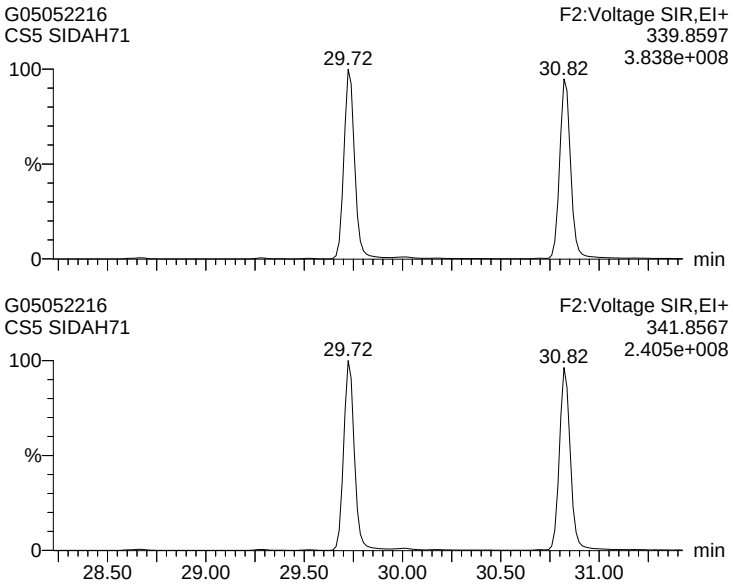
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

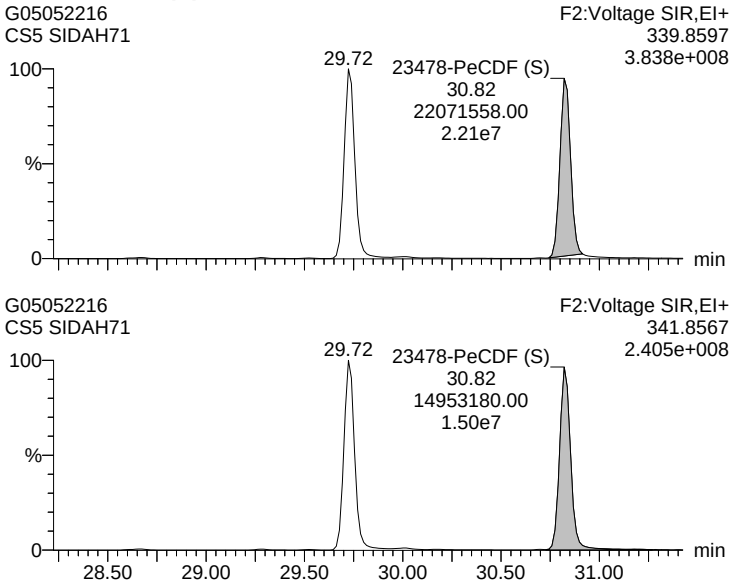
12679-PeCDF



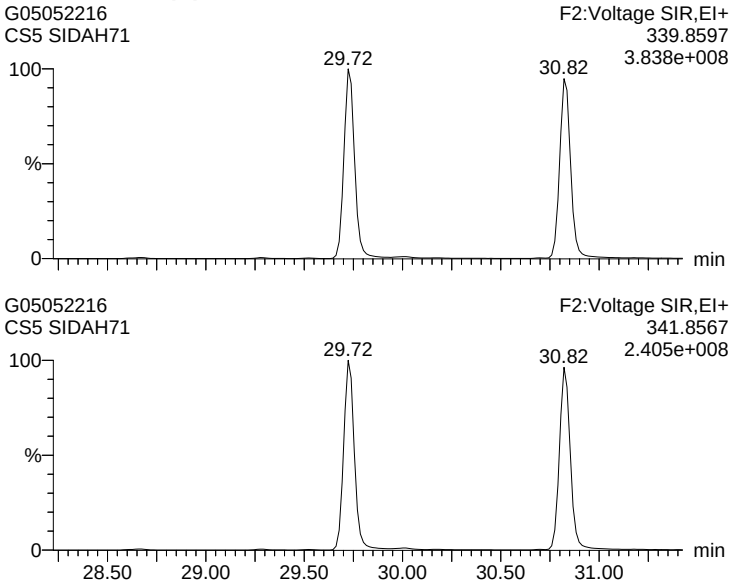
23467/12369-PeCDF



23478-PeCDF (S)



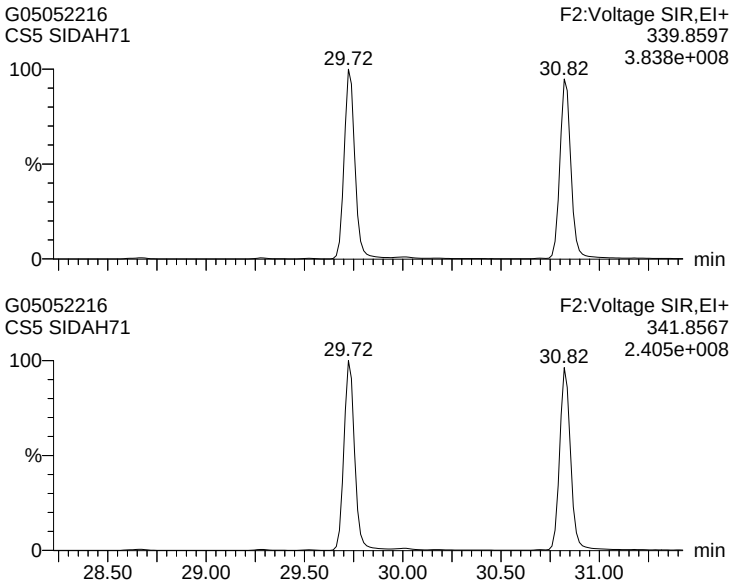
12489-PeCDF (R)



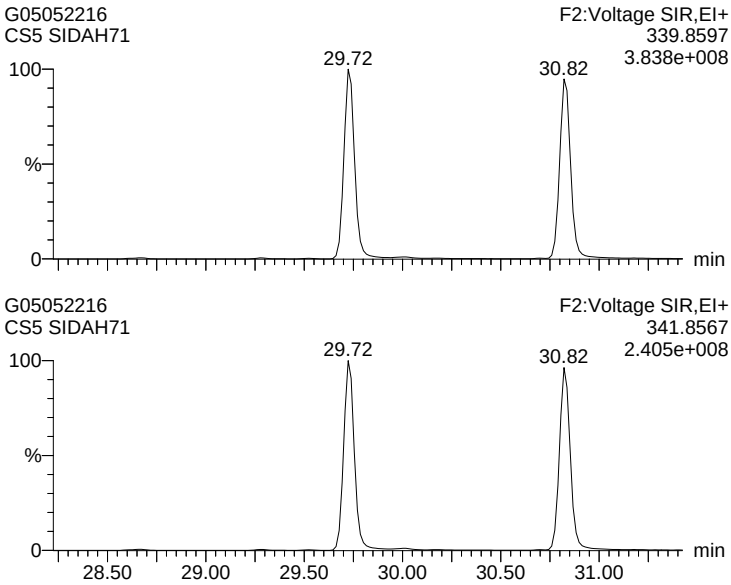
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

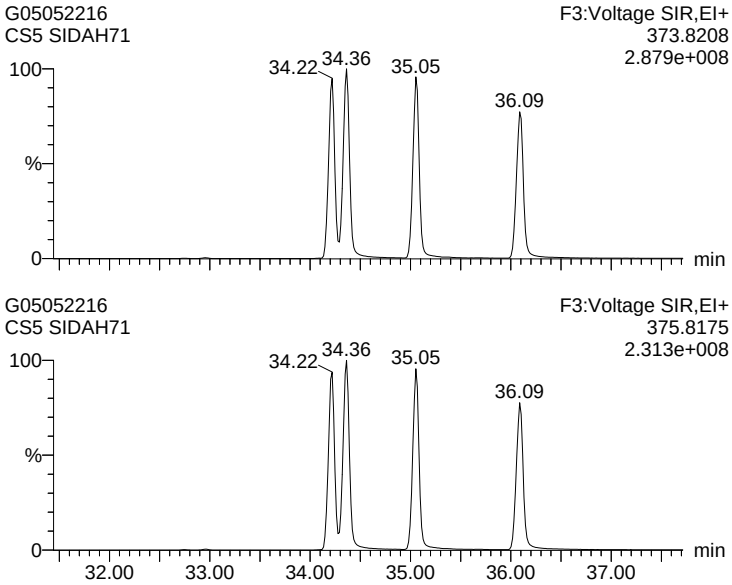
12349-PeCDF



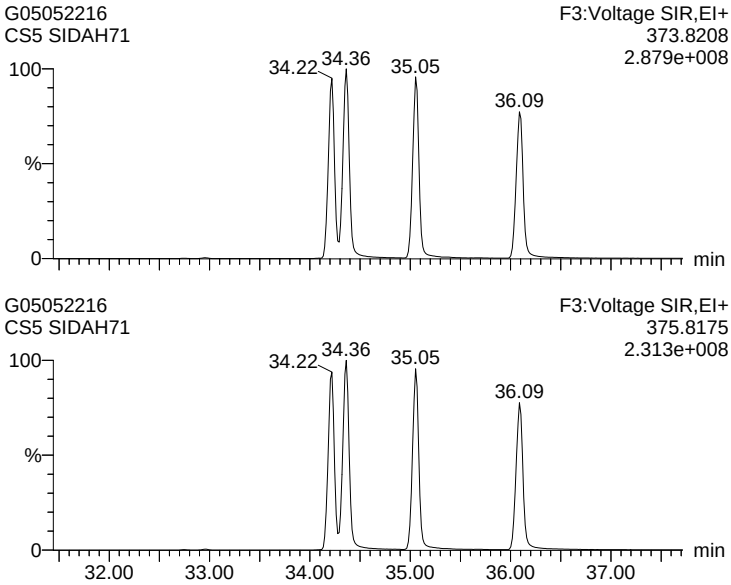
12389-PeCDF



123468-HxCDF



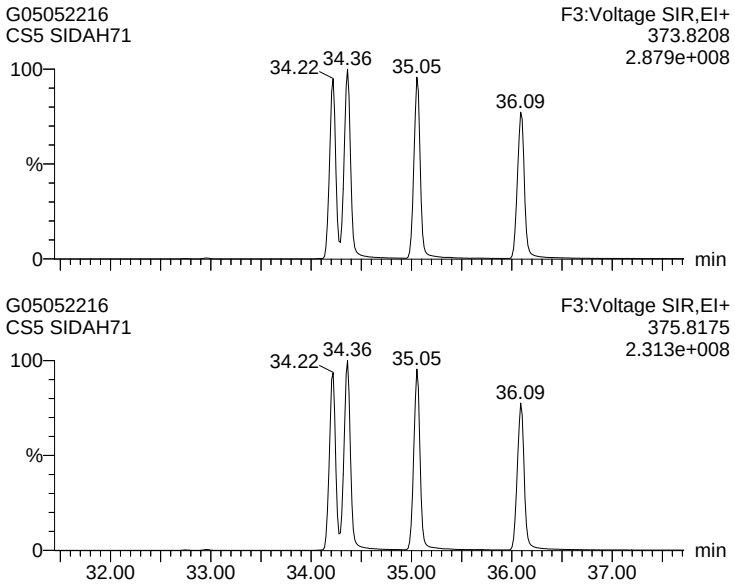
124678/134678-HxCDF



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

134679-HxCDF



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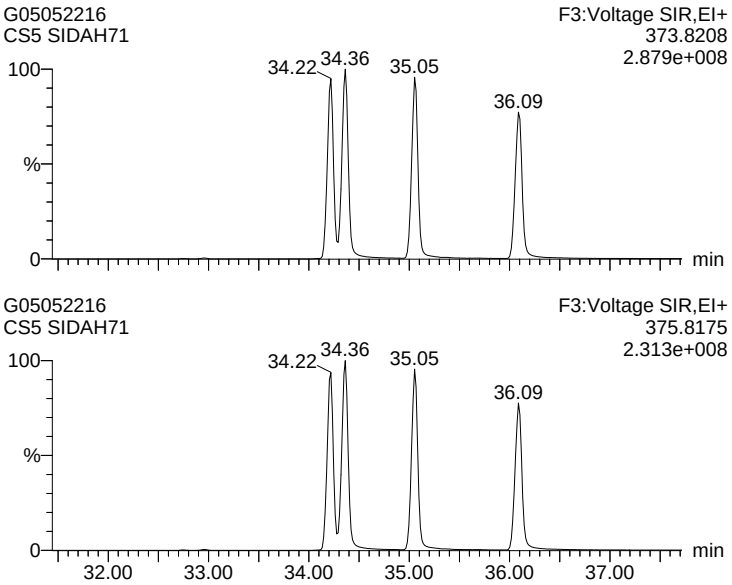
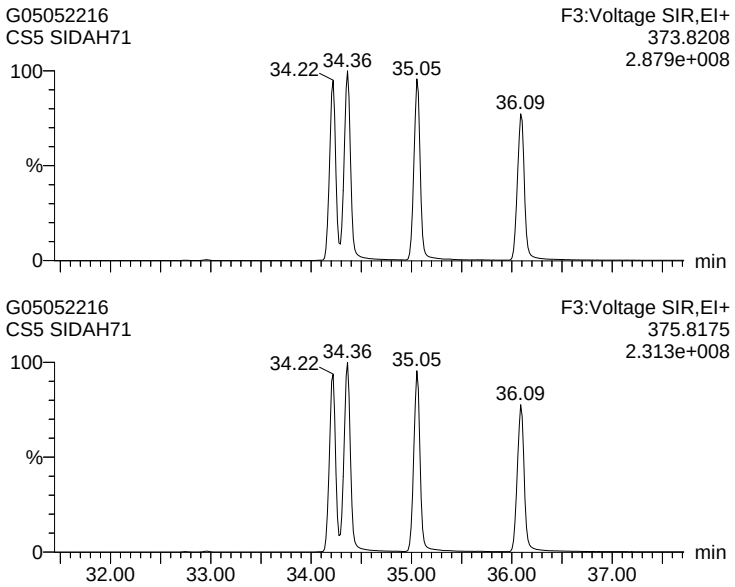
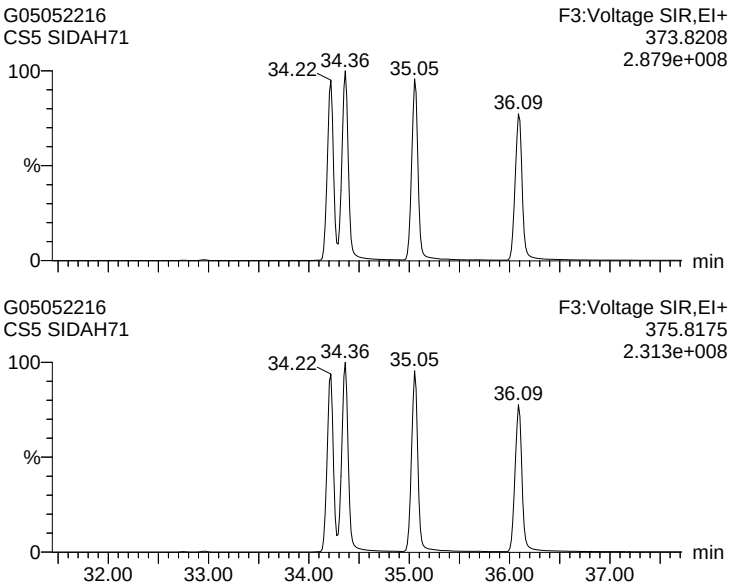


124689-HxCDF



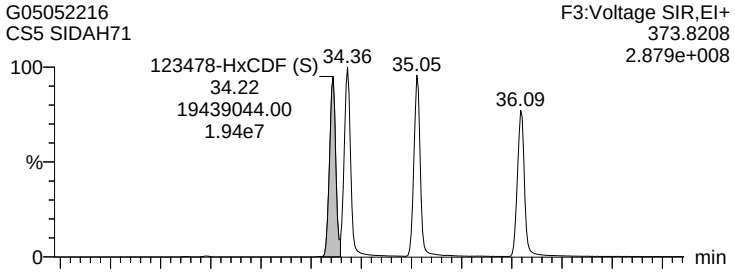
123467-HxCDF

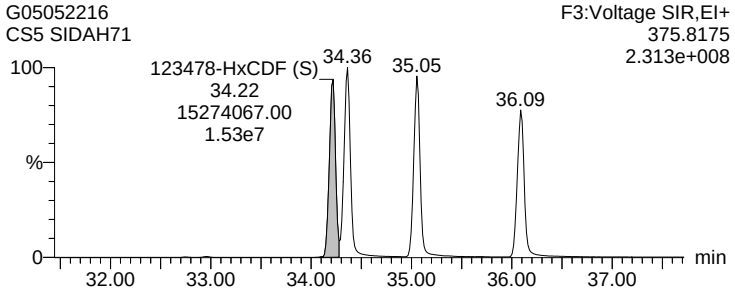


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

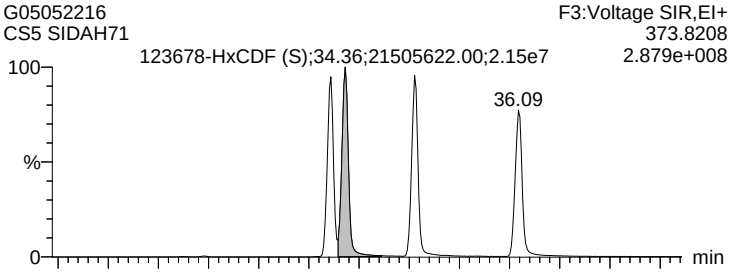
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

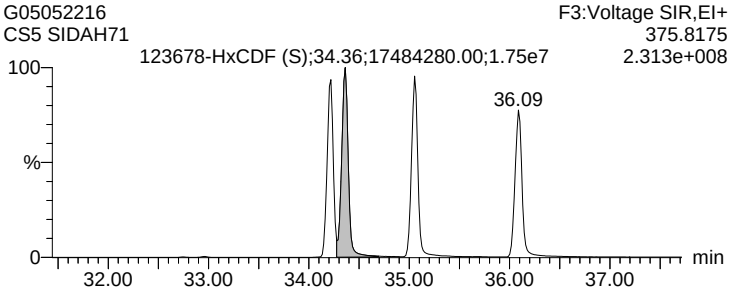
123478-HxCDF (S)



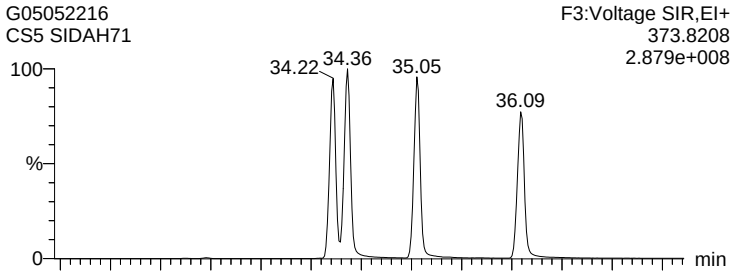


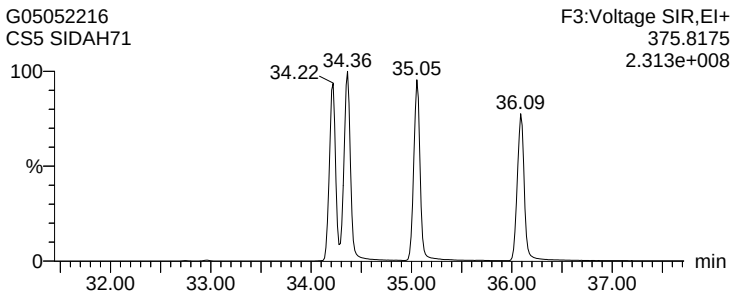
123678-HxCDF (S)



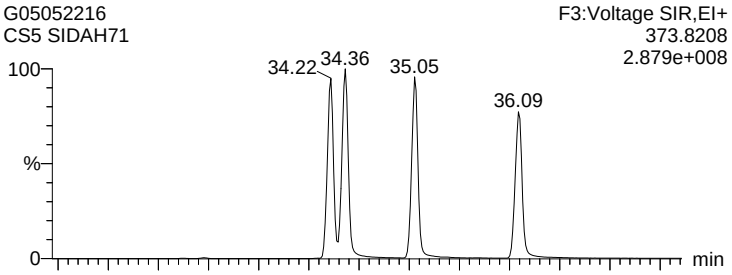


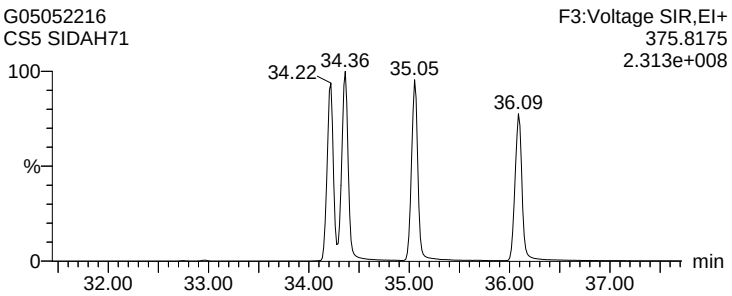
123479-HxCDF





123469-HxCDF

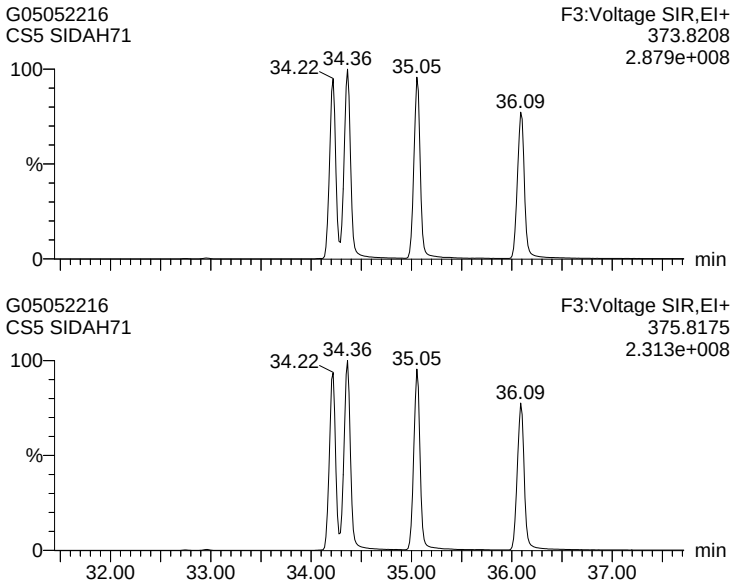




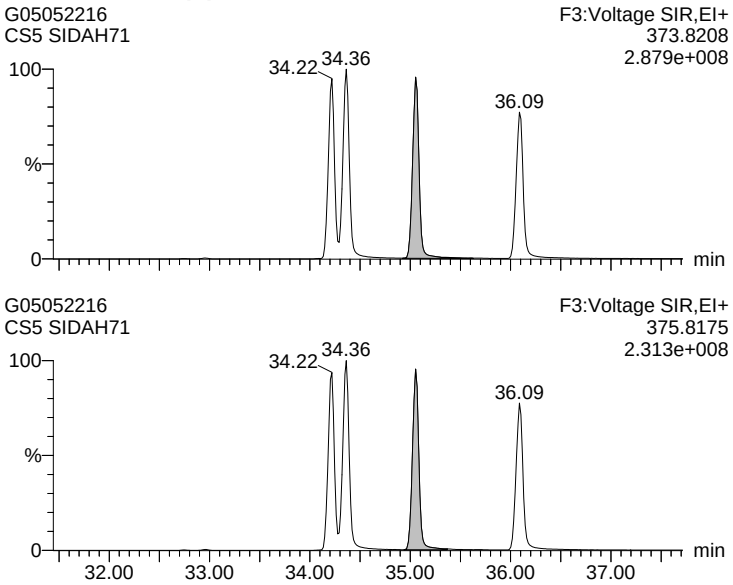
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

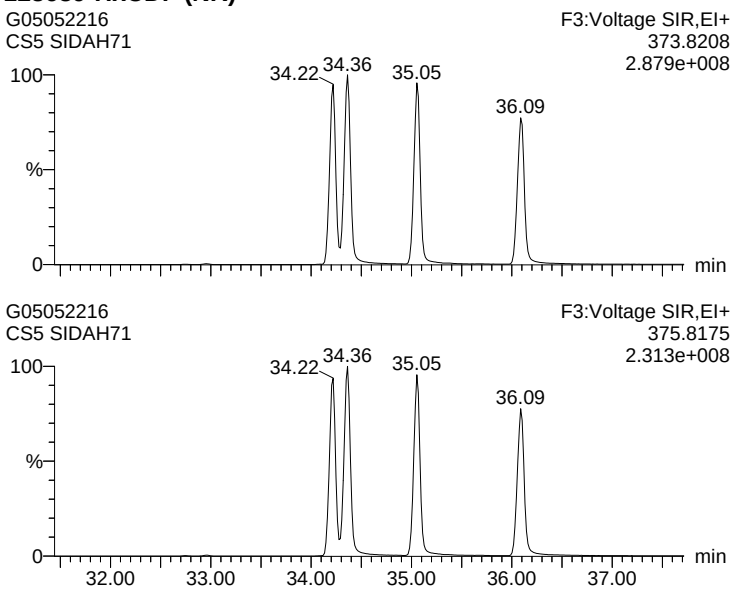
123679-HxCDF



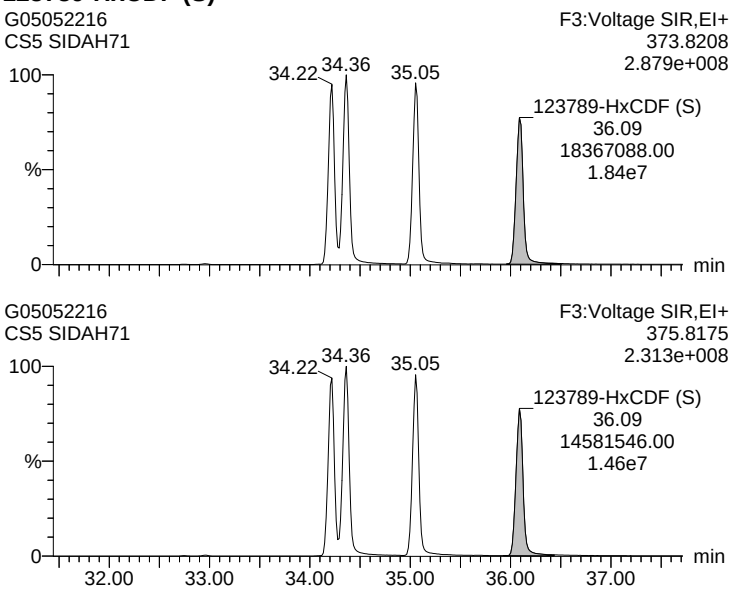
234678-HxCDF (S)



123689-HxCDF (NR)



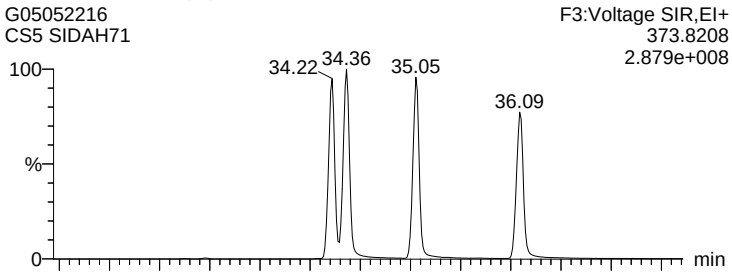
123789-HxCDF (S)

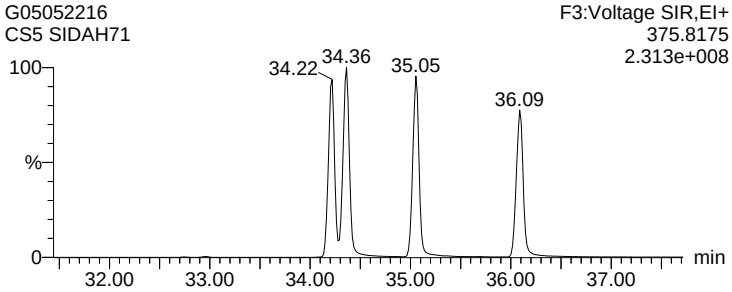


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

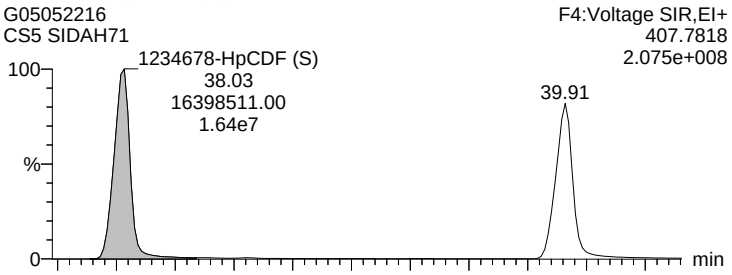
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

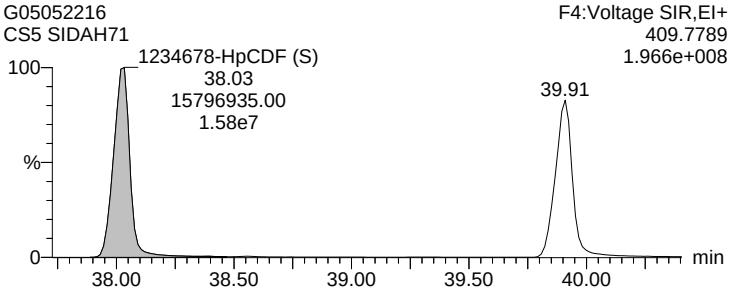
123489-HxCDF (R)



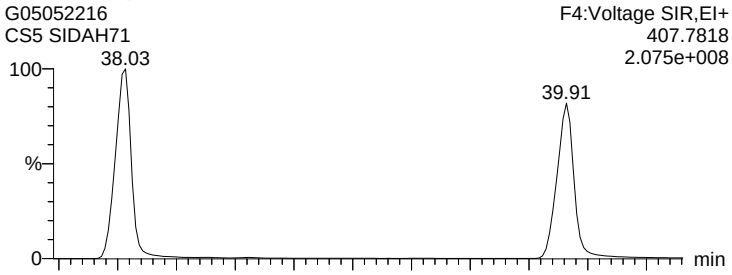


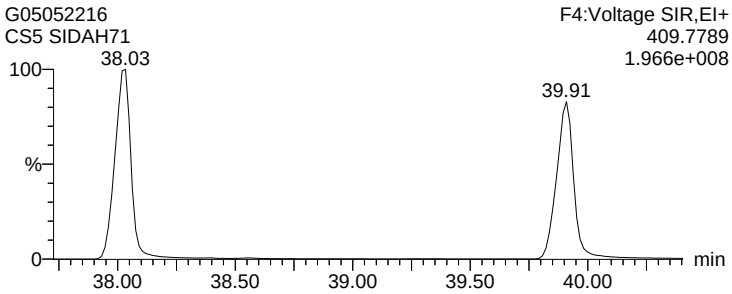
1234678-HpCDF (S)



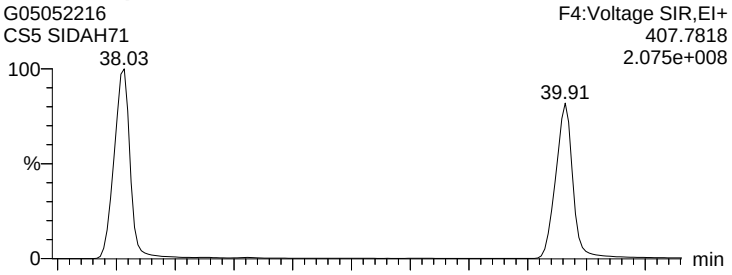


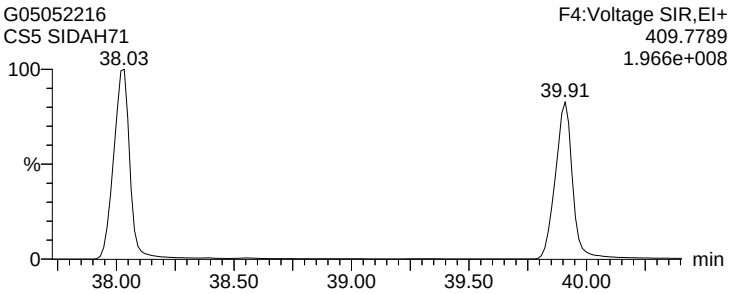
1234679-HpCDF





1234689-HpCDF

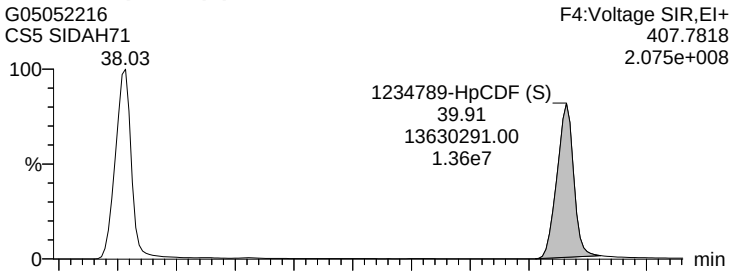


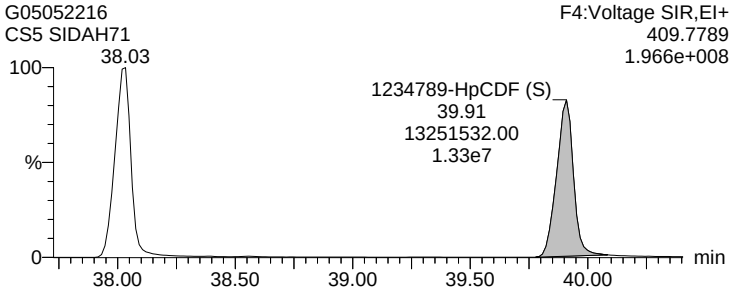


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

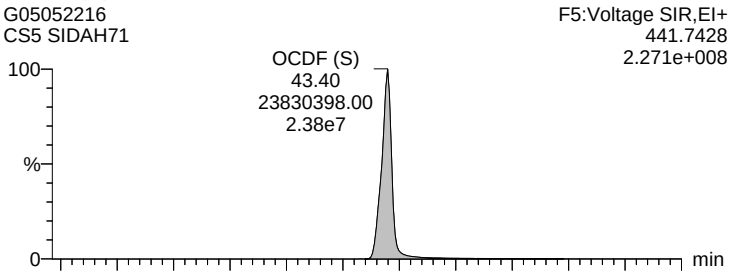
Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

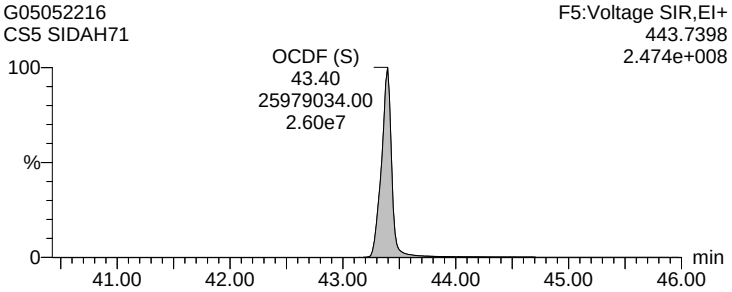
1234789-HpCDF (S)



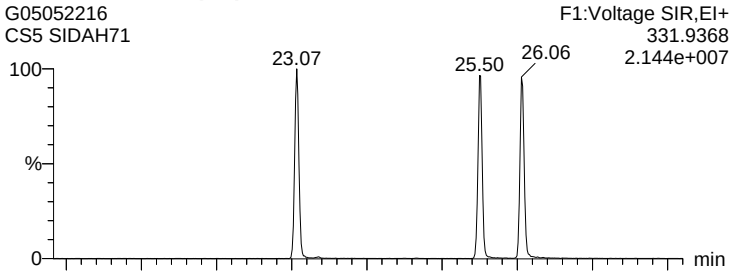


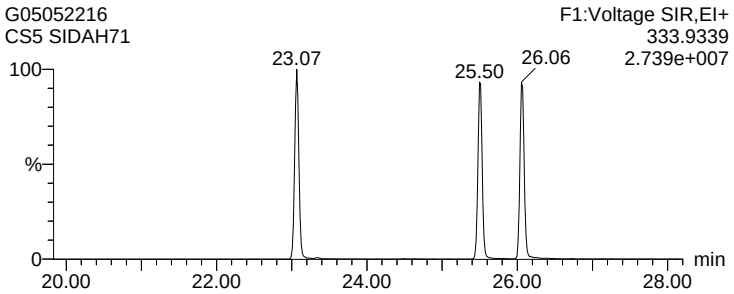
OCDF (S)



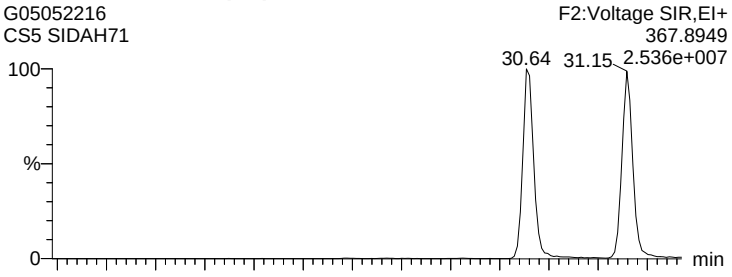


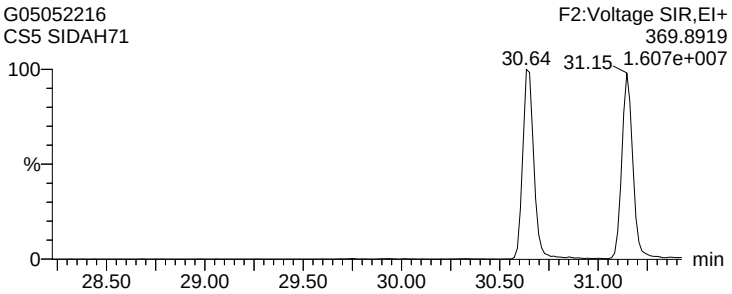
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

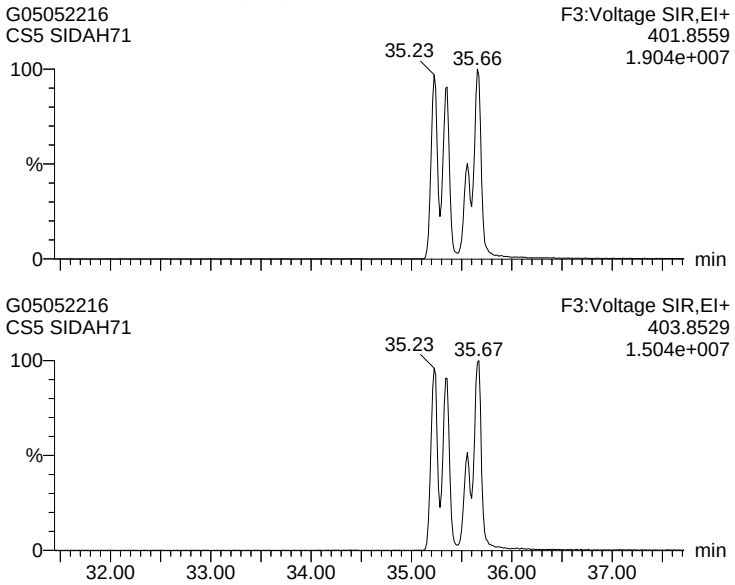




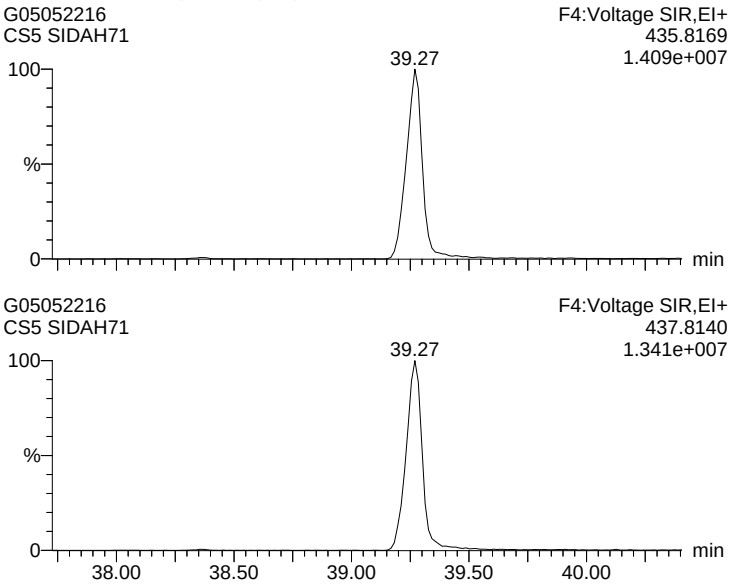
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

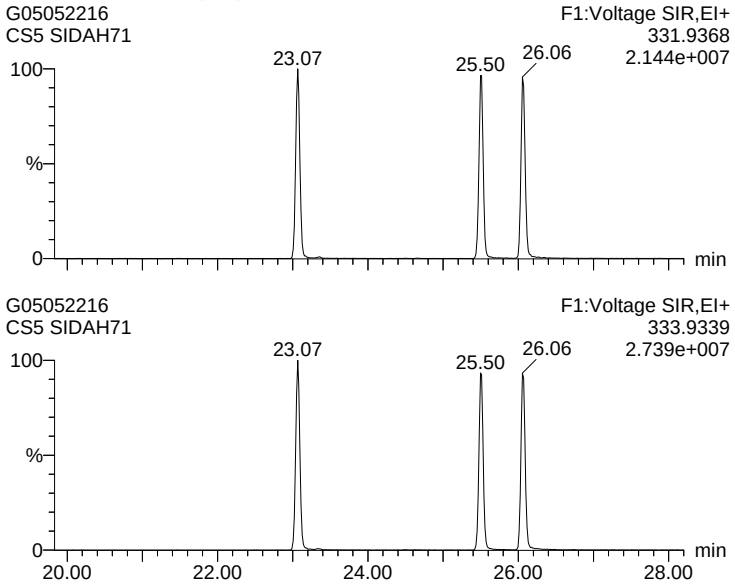
13C-123468-HxCDD (FS)



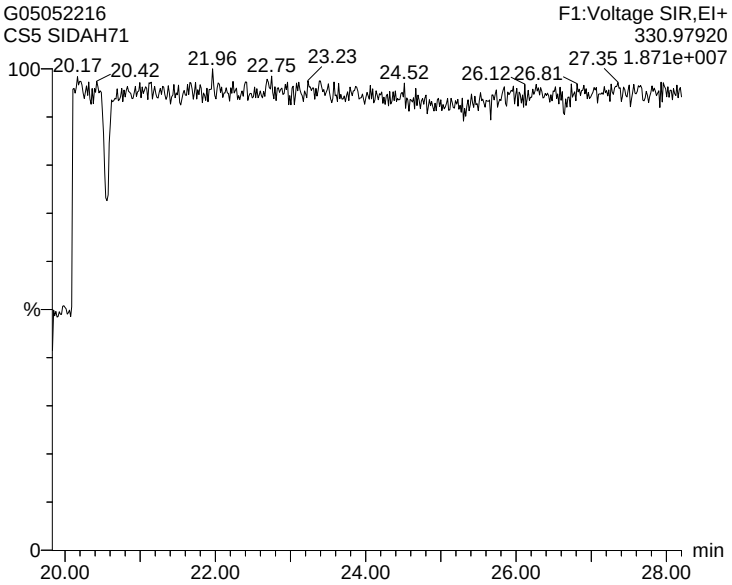
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



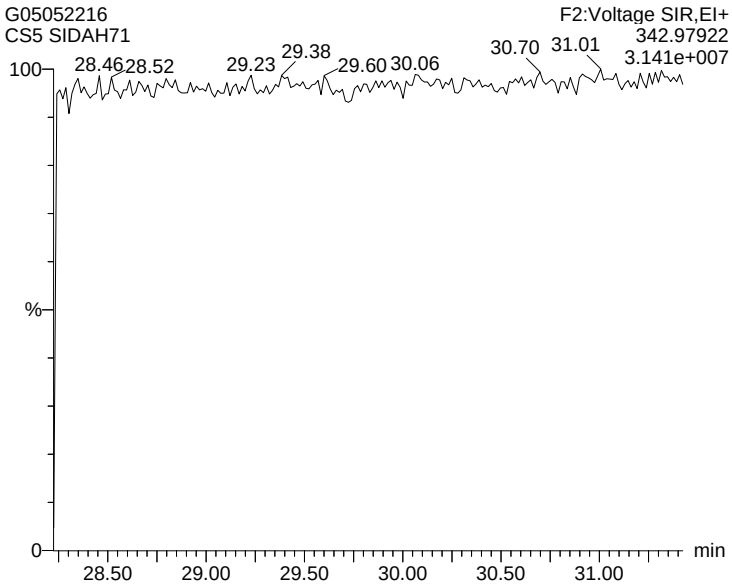
QC Check Ion Fn 1



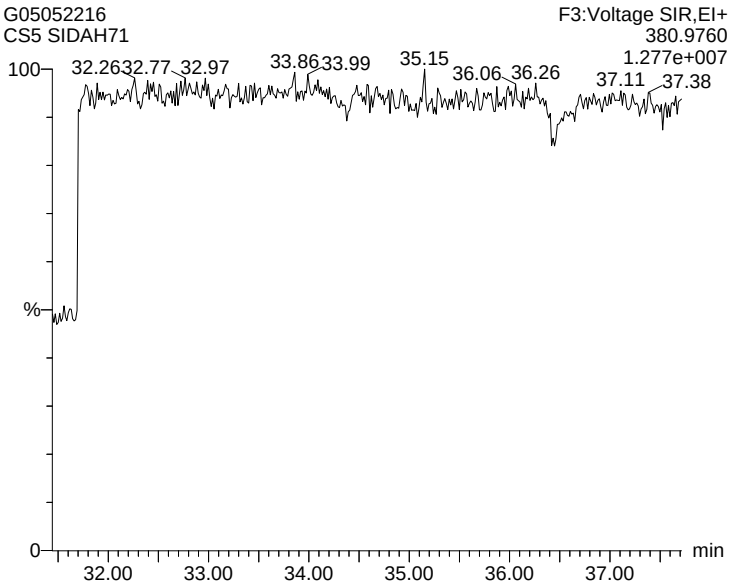
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

QC Check Ion Fn 2



QC Check Ion Fn 3



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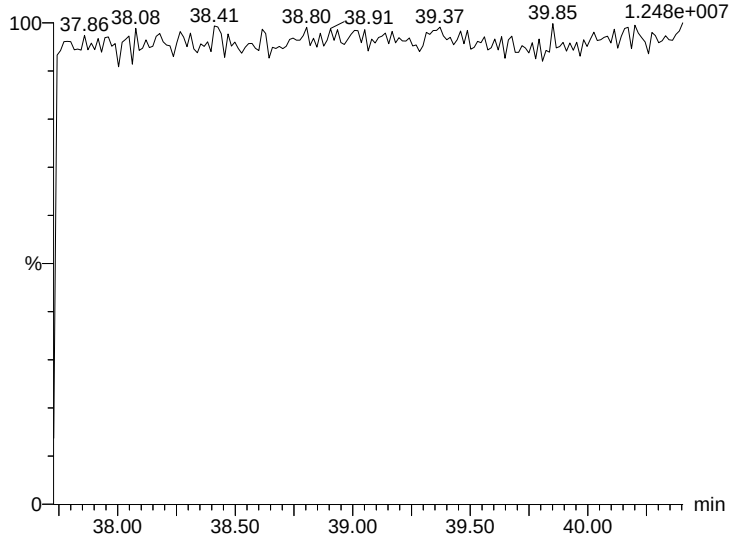
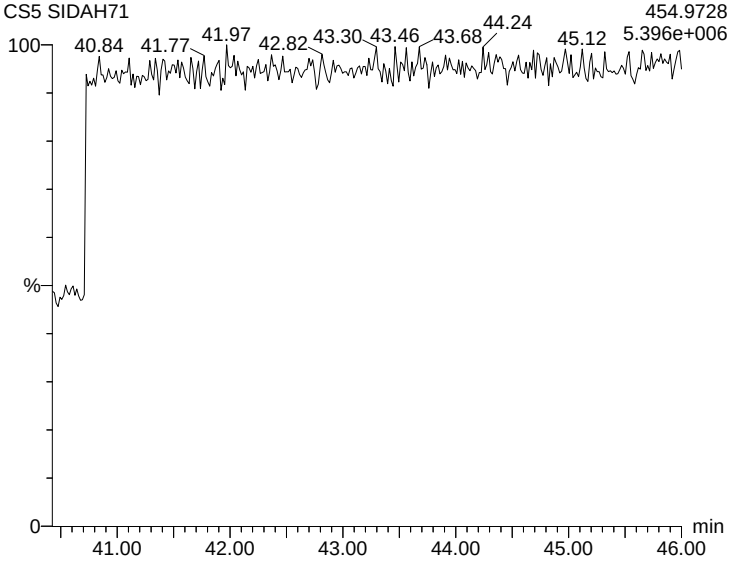


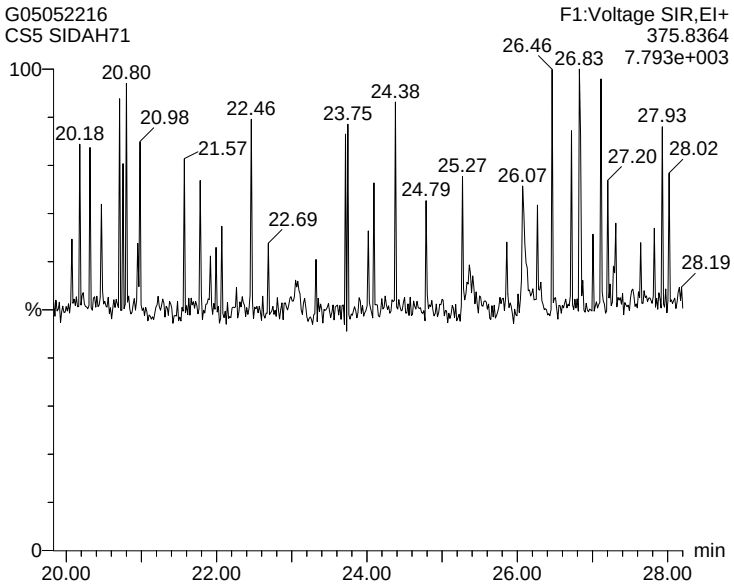
QC Check Ion Fn 5



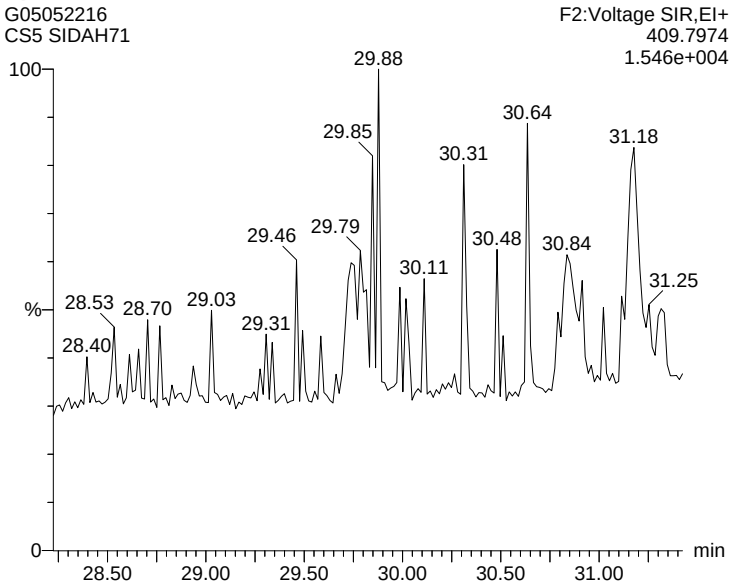
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

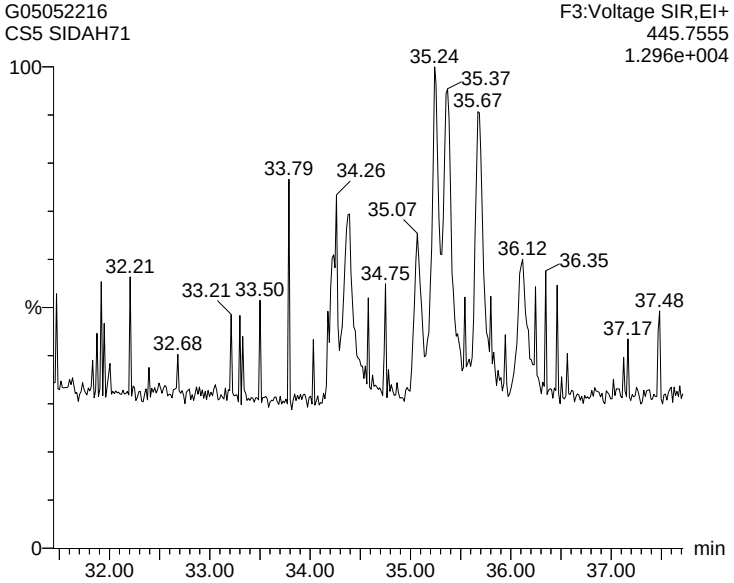
HxDPE



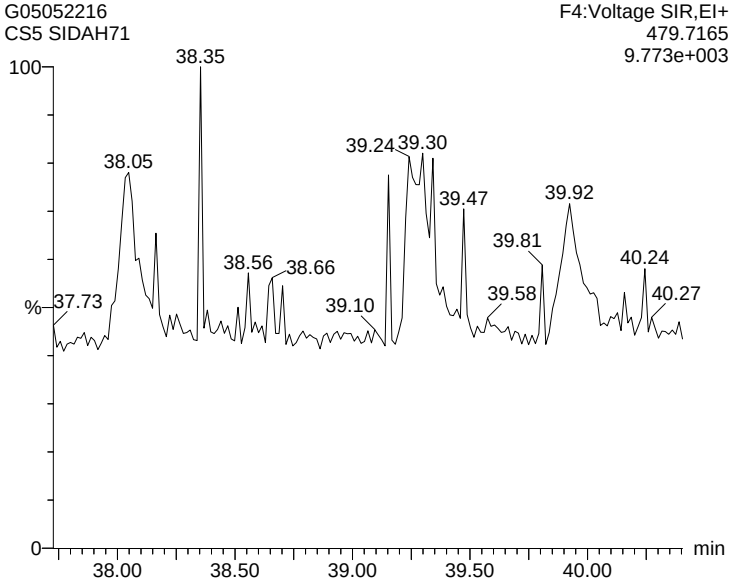
HpDPE



OcDPE



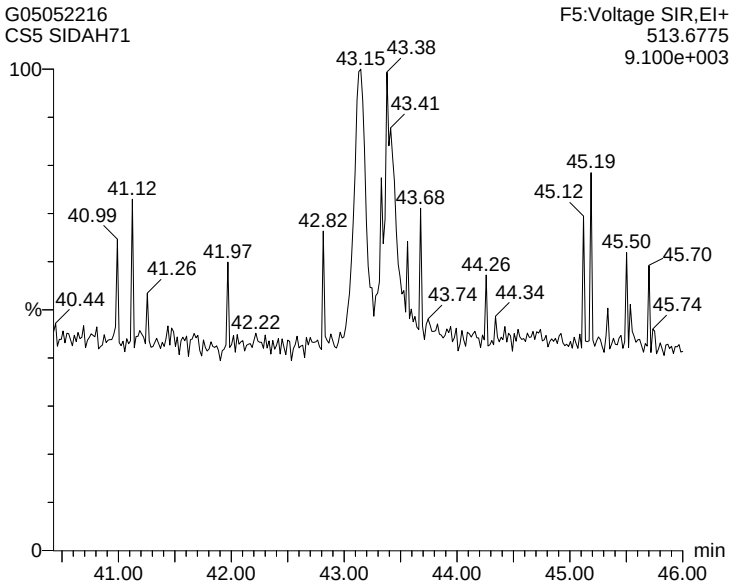
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1320610.000		2949105.125	bb	102.7	2.7
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1805178.000		4051562.250	bb	104.2	4.2
3	3	13C-123467-HxCDD (JS)	401.8559	35.56	624844.875		1130829.063	bd	54.9	9.7
4	4	13C-2378-TCDD (ES)	331.9368	26.06	1287588.625	1320610.000	98.774	bb	105.2	5.2
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1557590.875	1320610.000	86.188	bb	105.6	5.6
6	6	13C-123478-HxCDD (ES)	401.8559	35.23	1304225.500	624844.875	104.059	bd	99.4	-0.6
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1244918.375	624844.875	99.550	db	100.8	0.8
8	8	13C-123789-HxCDD (ES)	401.8559	35.66	1383940.375	624844.875	111.013	db	99.7	-0.3
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	1044329.375	624844.875	91.046	bb	98.9	-1.1
10	10	13C-OCDD (ES)	469.7780	43.11	1628294.000	624844.875	71.996	bb	204.0	2.0
11	11	13C-2378-TCDF (ES)	315.9419	25.33	1792701.000	1805178.000	98.648	bb	100.1	0.1
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2162384.000	1805178.000	87.728	bb	100.8	0.8
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	2228700.500	1805178.000	89.093	bb	105.4	5.4
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	908631.688	624844.875	117.019	bd	98.9	-1.1
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	1089737.125	624844.875	141.429	db	99.4	-0.6
16	16	13C-234678-HxCDF (ES)	383.8639	35.04	999448.250	624844.875	128.276	bb	99.2	-0.8
17	17	13C-123789-HxCDF (ES)	383.8639	36.07	924486.250	624844.875	119.084	bb	100.8	0.8
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	678447.688	624844.875	96.105	bb	99.2	-0.8
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	614810.000	624844.875	87.452	bb	100.1	0.1
20	20	13C-OCDF (ES)	453.7830	43.38	1998289.625	624844.875	88.355	bb	204.4	2.2
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	7038859.500	1320610.000	238.678	bb	212.5	6.3
22	22	13C-12347-PeCDD (CS)	367.8949	30.64	1584565.750	1320610.000	88.151	bb	100.2	0.2
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2162384.000	1805178.000	87.728	bb	100.8	0.8
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	920588.000	624844.875	119.895	bb	97.3	-2.7
25	25	13C-1234689-HpCDF (CS)	417.8253	38.54	660294.000	624844.875	93.439	bb	97.1	-2.9
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	7038859.500	1287588.625	241.641	bb	201.9	0.9
27	27	13C-12347-PeCDD (SS)	367.8949	30.64	1536862.375	1557590.875	99.310	bb	94.3	-5.7
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2162384.000	2162384.000	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	908760.250	1089737.125	83.488	bb	97.7	-2.3
30	30	13C-1234689-HpCDF (SS)	417.8253	38.54	660294.000	678447.688	97.226	bb	97.9	-2.1
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1352143.875	1320610.000	105.209	bb	100.9	0.9
32	32	13C-1368-TCDF (AS)	315.9419	21.56	2011140.750	1805178.000	112.690	bb	98.9	-1.1
33	33	1368-TCDD	319.8965			1287588.625				
34	34	1379-TCDD	319.8965			1287588.625				
35	35	1369-TCDD	319.8965			1287588.625				
36	36	1469-TCDD	319.8965			1287588.625				
37	37	1247/1246/1248/1249-TC...	319.8965			1287588.625				
38	38	1378-TCDD	319.8965			1287588.625				
39	39	1268-TCDD	319.8965			1287588.625				
40	40	1478-TCDD	319.8965			1287588.625				
41	41	1279-TCDD	319.8965			1287588.625				
42	42	1234/1269-TCDD	319.8965			1287588.625				
43	43	1236-TCDD	319.8965			1287588.625				
44	44	1237/1238-TCDD	319.8965			1287588.625				
45	45	1239-TCDD [CE]	319.8965			1287588.625				
46	46	2378-TCDD (S)	319.8965	26.09	2996841.750	1287588.625	234.843	bd	206.1	3.1
47	47	1278-TCDD	319.8965			1287588.625				
48	48	1267-TCDD	319.8965			1287588.625				
49	49	1289-TCDD	319.8965			1287588.625				
50	50	12479/12468-PeCDD	355.8546			1557590.875				
51	51	12469-PeCDD	355.8546			1557590.875				
52	52	12368-PeCDD	355.8546			1557590.875				
53	53	12478-PeCDD	355.8546			1557590.875				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1557590.875				
55	55	12369/12467/12489-PeCDD	355.8546			1557590.875				
56	56	12346/12347-PeCDD	355.8546			1557590.875				
57	57	12378-PeCDD (S)	355.8546	31.16	15338333.0...	1557590.875	996.036	bb	983.6	-1.6
58	58	12367-PeCDD	355.8546			1557590.875				
59	59	12389-PeCDD	355.8546			1557590.875				
60	60	124679/124689-HxCDD	389.8157			1304225.500				
61	61	123468-HxCDD	389.8157			1304225.500				
62	62	123679/123689-HxCDD	389.8157			1304225.500				
63	63	123469-HxCDD	389.8157			1304225.500				
64	64	123478-HxCDD (S)	389.8157	35.24	13701804.0...	1304225.500	1044.543	bd	990.1	-1.0
65	65	123678-HxCDD (S)	389.8157	35.37	13952984.0...	1244918.375	1105.770	db	1005.3	0.5
66	66	123467-HxCDD	389.8157			1383940.375				
67	67	123789-HxCDD (S)	389.8157	35.69	14808026.0...	1383940.375	1054.971	bs	1009.0	0.9
68	68	1234679-HpCDD	423.7766			1044329.375				
69	69	1234678-HpCDD (S)	423.7766	39.28	11102996.0...	1044329.375	1056.923	bb	1008.0	0.8
70	70	OCDD (S)	457.7377	43.13	18777478.0...	1628294.000	2306.399	bd	2028.5	1.4
71	71	1368-TCDF	303.9016			1792701.000				
72	72	1468-TCDF	303.9016			1792701.000				
73	73	2468-TCDF	303.9016			1792701.000				
74	74	1346/1246-TCDF	303.9016			1792701.000				
75	75	1347/1378/1247-TCDF	303.9016			1792701.000				
76	76	1348-TCDF	303.9016			1792701.000				
77	77	1248/1367/1379-TCDF	303.9016			1792701.000				
78	78	1268-TCDF	303.9016			1792701.000				
79	79	1467-TCDF	303.9016			1792701.000				
80	80	1478-TCDF	303.9016			1792701.000				
81	81	1369/1237-TCDF	303.9016			1792701.000				
82	82	2467-TCDF	303.9016			1792701.000				
83	83	2368-TCDF	303.9016			1792701.000				
84	84	1238/1234/1678/1469/123...	303.9016			1792701.000				
85	85	1278-TCDF	303.9016			1792701.000				
86	86	1349-TCDF	303.9016			1792701.000				
87	87	1267-TCDF	303.9016			1792701.000				
88	88	2346/1249-TCDF	303.9016			1792701.000				
89	89	2347/1279-TCDF	303.9016			1792701.000				
90	90	2348-TCDF [CE]	303.9016			1792701.000				
91	91	2378-TCDF (S)	303.9016	25.35	3917963.500	1792701.000	223.425	bs	201.2	0.6
92	92	2367/3467-TCDF	303.9016			1792701.000				
93	93	1269-TCDF	303.9016			1792701.000				
94	94	1239-TCDF	303.9016			1792701.000				
95	95	1289-TCDF	303.9016			1792701.000				
96	96	13468/12466-PeCDF	339.8597			2162384.000				
97	97	13678/13467/12467-PeCDF	339.8597			2162384.000				
98	98	12368/13478/12478-PeCDF	339.8597			2162384.000				
99	99	14678-PeCDF	339.8597			2162384.000				
100	1...	13479-PeCDF	339.8597			2162384.000				
101	1...	13469/12479-PeCDF	339.8597			2162384.000				
102	1...	12346-PeCDF	339.8597			2162384.000				
103	1...	23468/12469-PeCDF	339.8597			2162384.000				
104	1...	12347-PeCDF	339.8597			2162384.000				
105	1...	12348-PeCDF	339.8597			2162384.000				
106	1...	12378-PeCDF (S)	339.8597	29.72	24149586.0...	2162384.000	1098.878	bd	1022.5	2.2

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052216, Date: 05-May-2022, Time: 21:13:30, ID: SIDAH71, Description: CS5, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2162384.000				
108	1...	12379-PeCDF	339.8597	29.72	23773360.0...	2162384.000	1094.936	MM	1052.8	5.3
109	1...	12679-PeCDF	339.8597			2228700.500				
110	1...	23467/12369-PeCDF	339.8597			2228700.500				
111	1...	23478-PeCDF (S)	339.8597	30.82	22071558.0...	2228700.500	1025.708	bb	969.4	-3.1
112	1...	12489-PeCDF (R)	339.8597			2228700.500				
113	1...	12349-PeCDF	339.8597			2228700.500				
114	1...	12389-PeCDF	339.8597			2228700.500				
115	1...	123468-HxCDF	373.8208			908631.688				
116	1...	124678/134678-HxCDF	373.8208			908631.688				
117	1...	134679-HxCDF	373.8208			908631.688				
118	1...	124679-HxCDF	373.8208			908631.688				
119	1...	124689-HxCDF	373.8208			908631.688				
120	1...	123467-HxCDF	373.8208			908631.688				
121	1...	123478-HxCDF (S)	373.8208	34.22	19439044.0...	908631.688	1311.621	dd	1006.0	0.6
122	1...	123678-HxCDF (S)	373.8208	34.36	21505622.0...	1089737.125	1218.950	ds	1009.5	1.0
123	1...	123479-HxCDF	373.8208			1089737.125				
124	1...	123469-HxCDF	373.8208			999448.250				
125	1...	123679-HxCDF	373.8208			999448.250				
126	1...	234678-HxCDF (S)	373.8208	35.05	20279190.0...	999448.250	1255.036	bd	1012.2	1.2
127	1...	123689-HxCDF (NR)	373.8208			999448.250				
128	1...	123789-HxCDF (S)	373.8208	36.09	18367088.0...	924486.250	1223.365	bs	1001.6	0.2
129	1...	123489-HxCDF (R)	373.8208			924486.250				
130	1...	1234678-HpCDF (S)	407.7818	38.03	16398511.0...	678447.688	1481.231	bd	1005.3	0.5
131	1...	1234679-HpCDF	407.7818			678447.688				
132	1...	1234689-HpCDF	407.7818			678447.688				
133	1...	1234789-HpCDF (S)	407.7818	39.91	13630291.0...	614810.000	1359.129	bb	978.1	-2.2
134	1...	OCDF (S)	441.7428	43.40	23830398.0...	1998289.625	2385.079	dd	2025.0	1.3
135	1...	13C-1278-TCDD (FS)	331.9368			1287588.625				
136	1...	13C-12478-PeCDD (FS)	367.8949			1557590.875				
137	1...	13C-123468-HxCDD (FS)	401.8559			624844.875				
138	1...	13C-1234679-HpCDD (FS)	435.8169			1044329.375				
139	1...	13C-1378-TCDD (TS)	331.9368			1287588.625				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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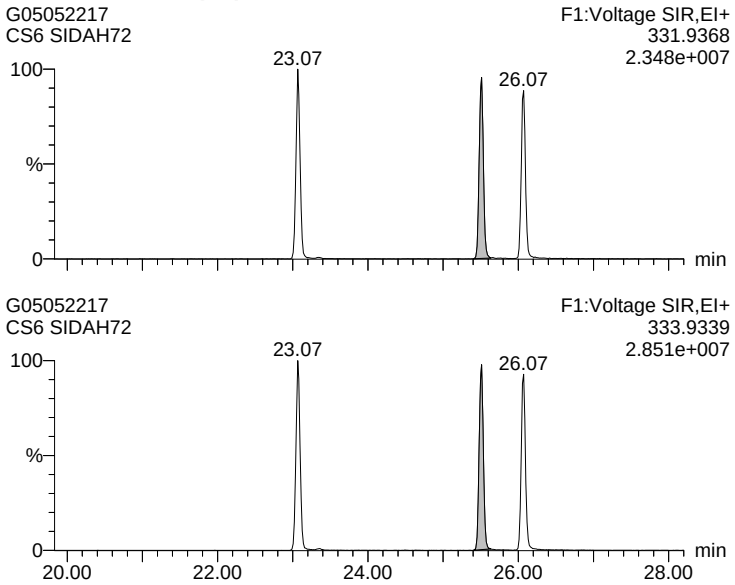
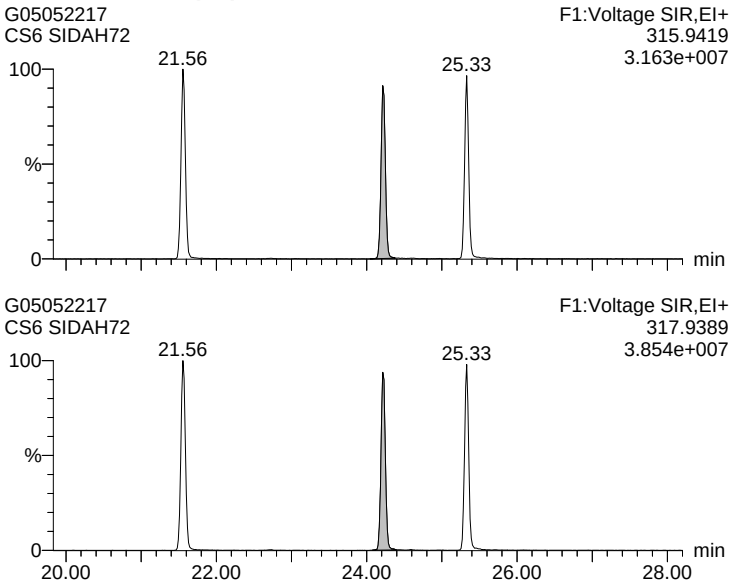
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

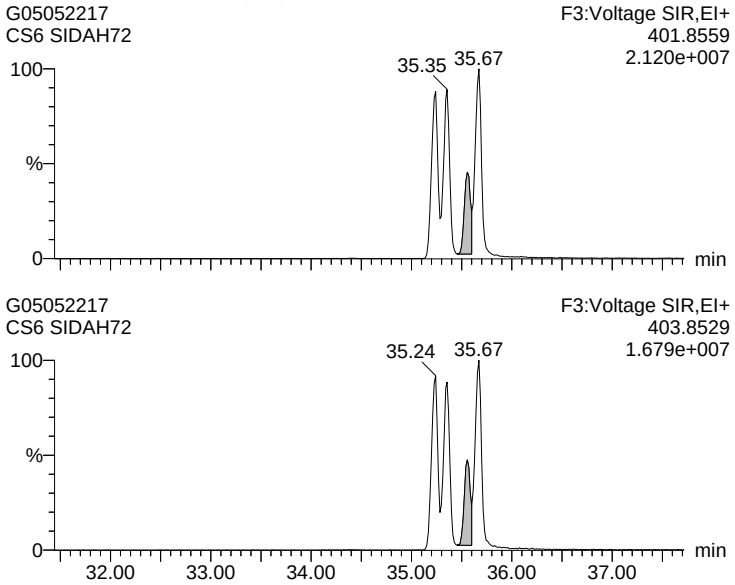
13C-1234-TCDD (JS)



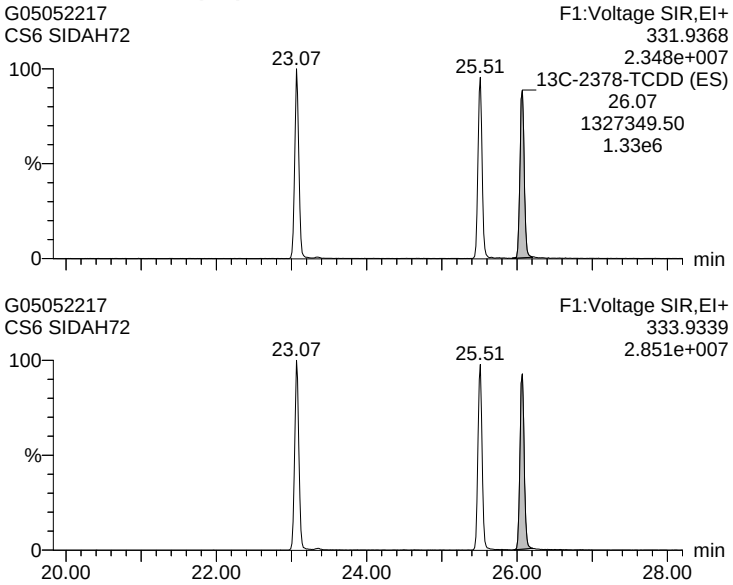
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



13C-2378-TCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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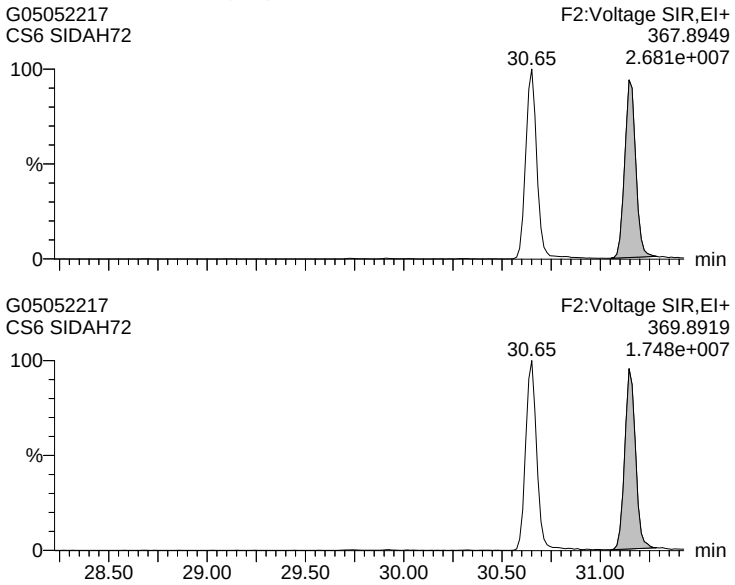
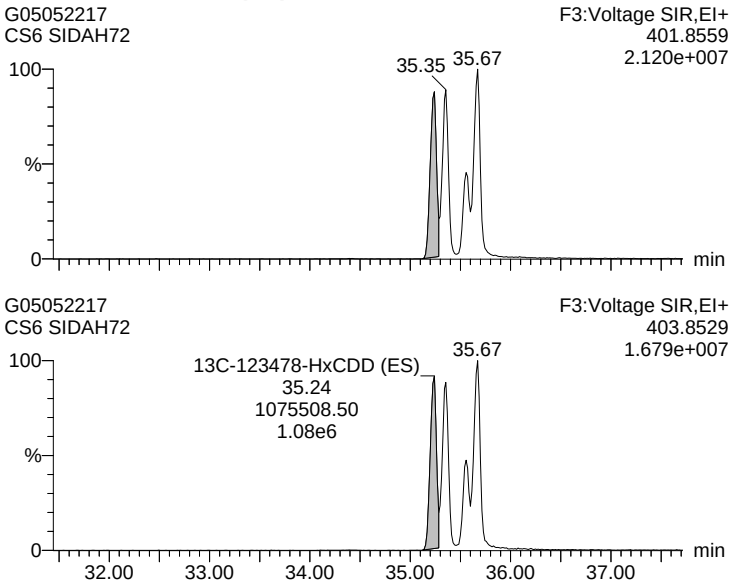
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

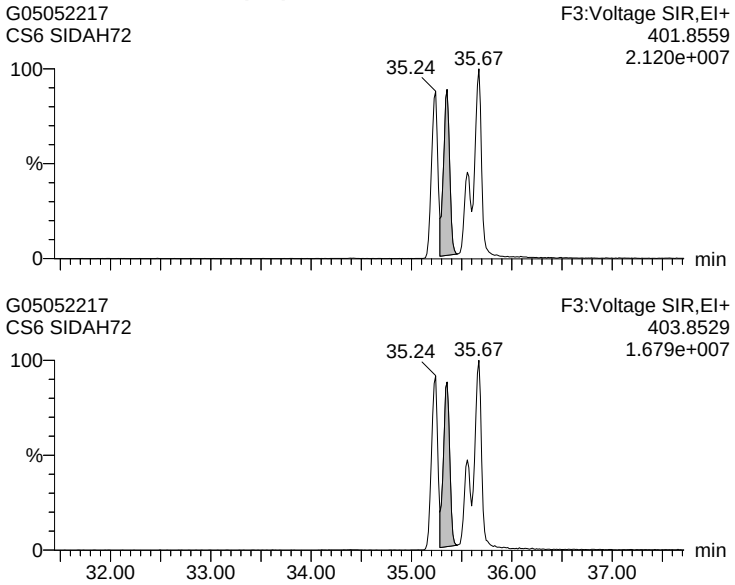
13C-12378-PeCDD (ES)



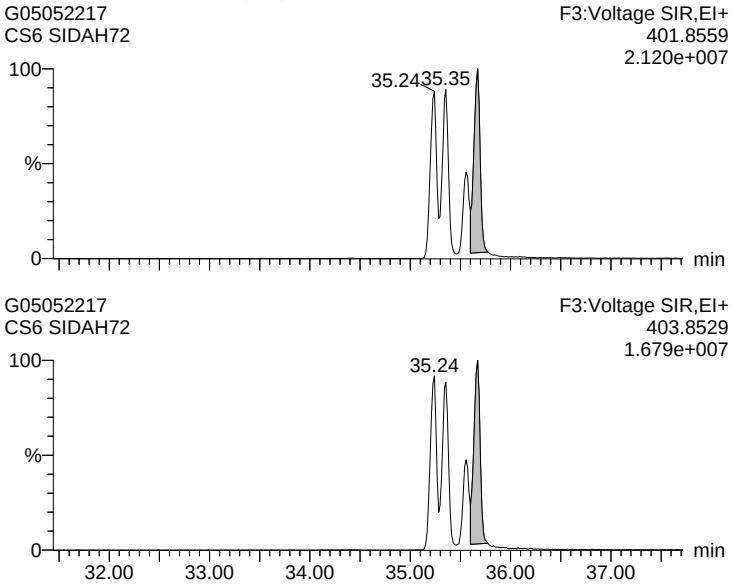
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



13C-123789-HxCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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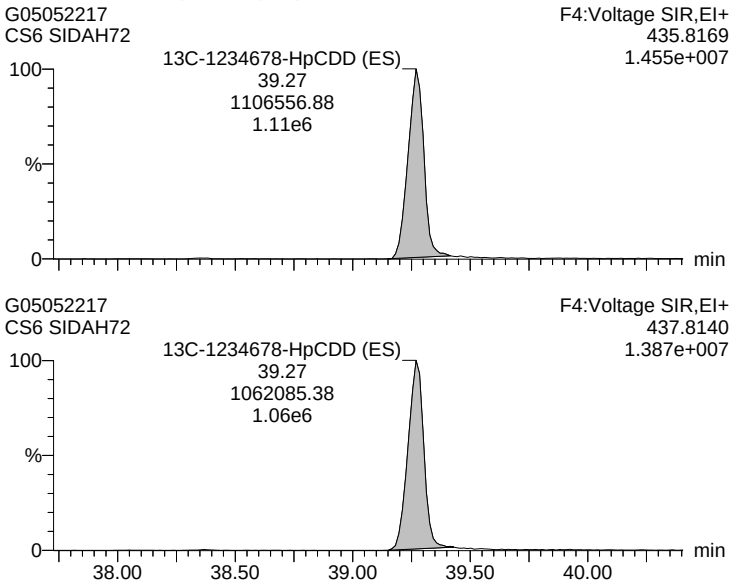
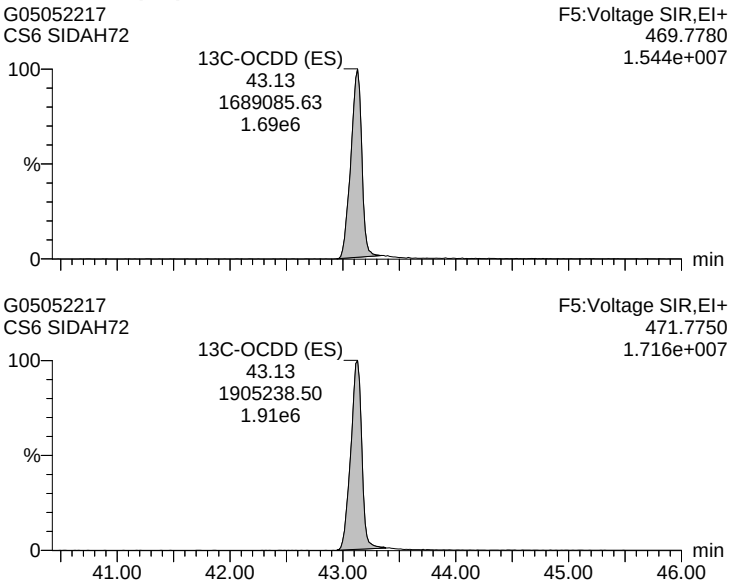
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

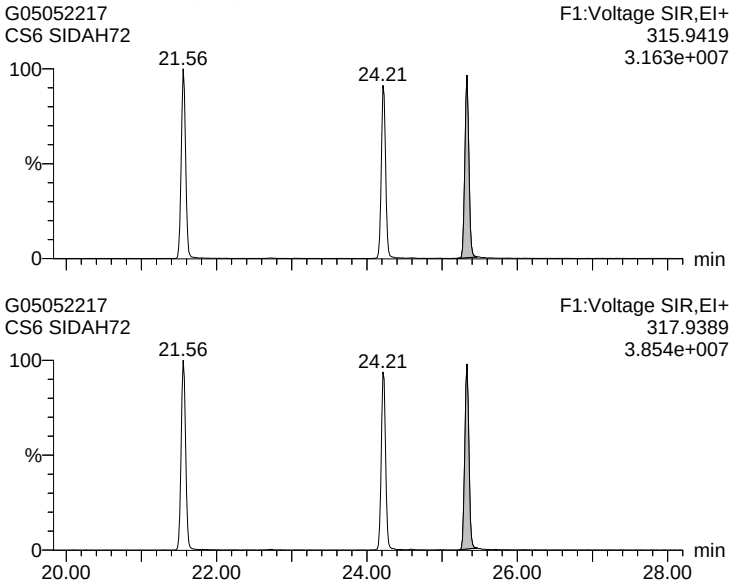
13C-1234678-HpCDD (ES)



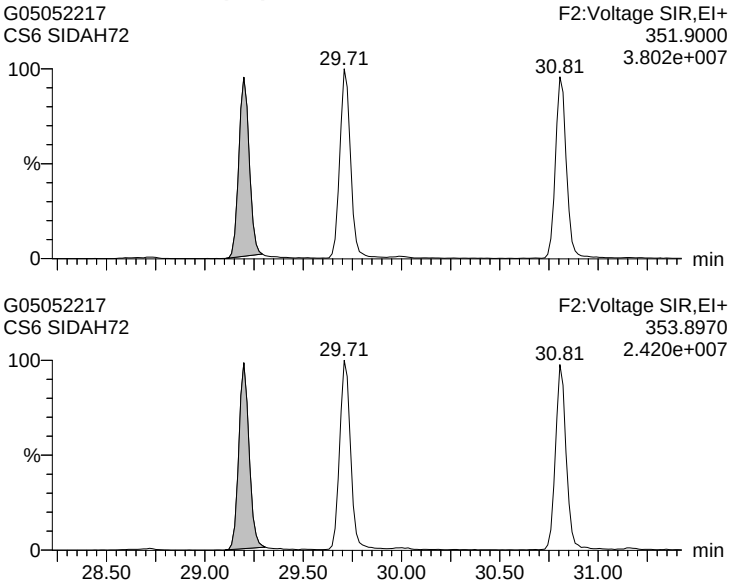
13C-OCDD (ES)



13C-2378-TCDF (ES)



13C-12378-PeCDF (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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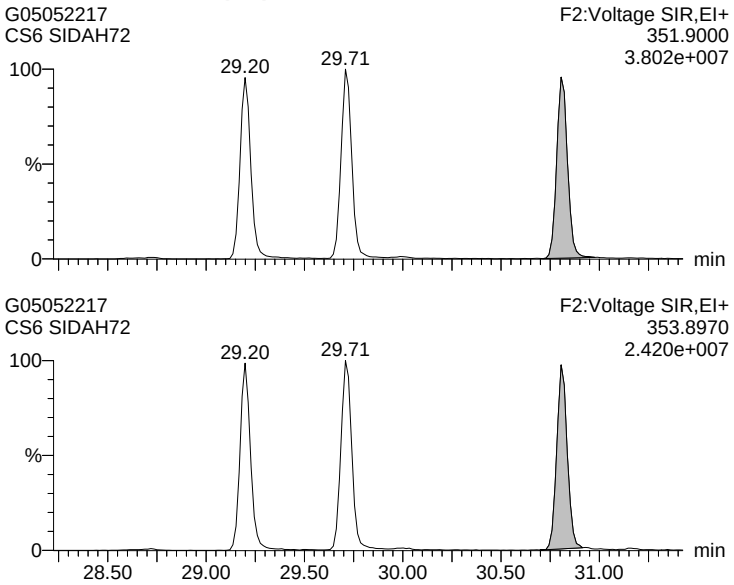
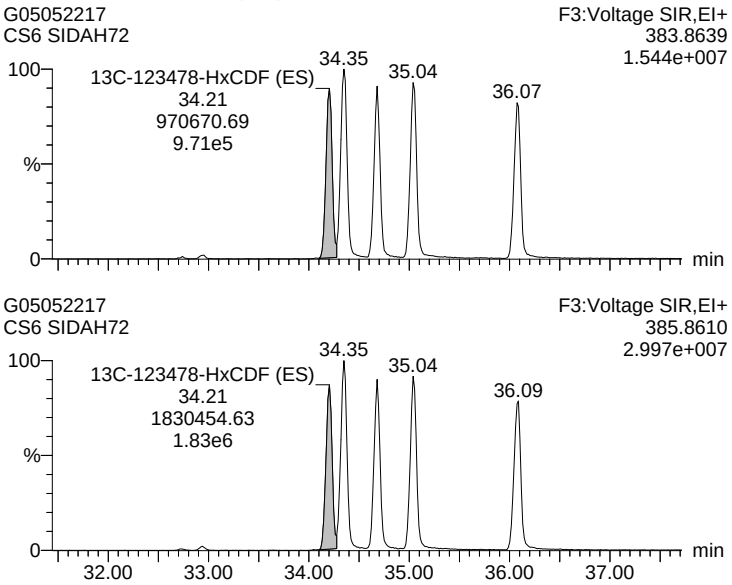
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

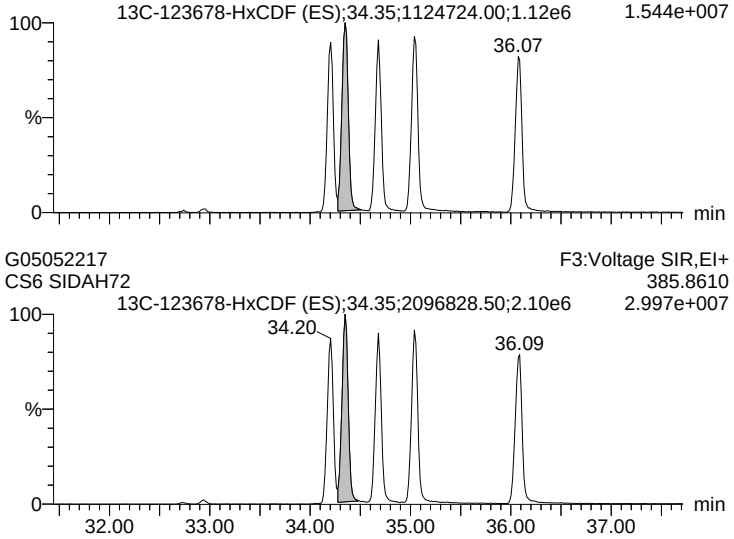
13C-23478-PeCDF (ES)



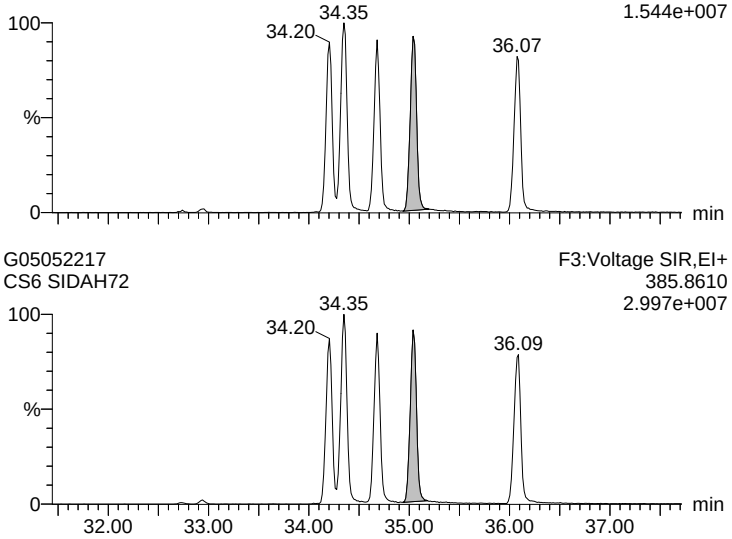
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



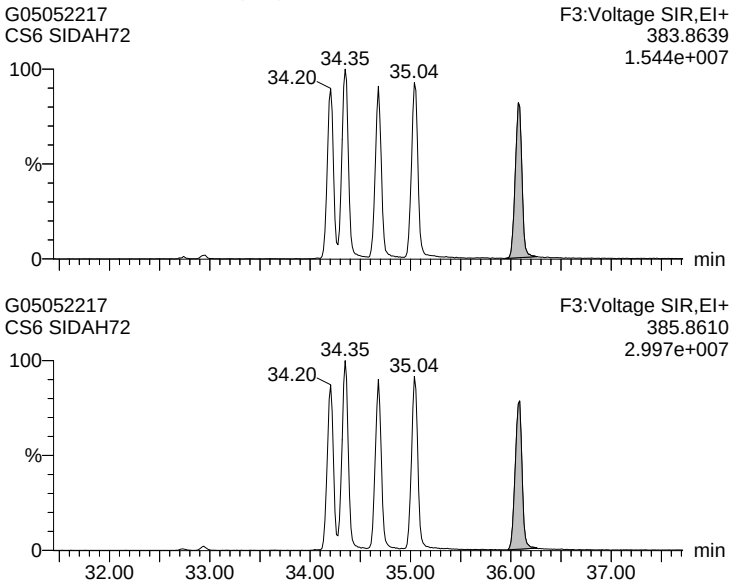
13C-234678-HxCDF (ES)



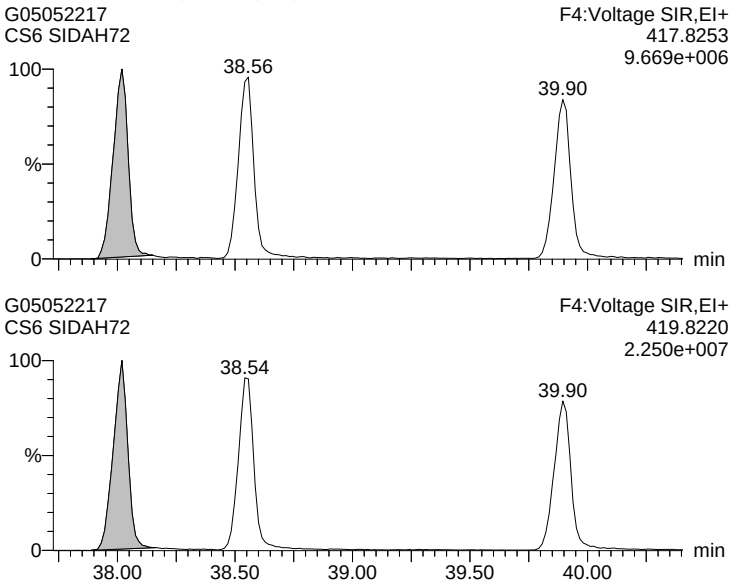
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

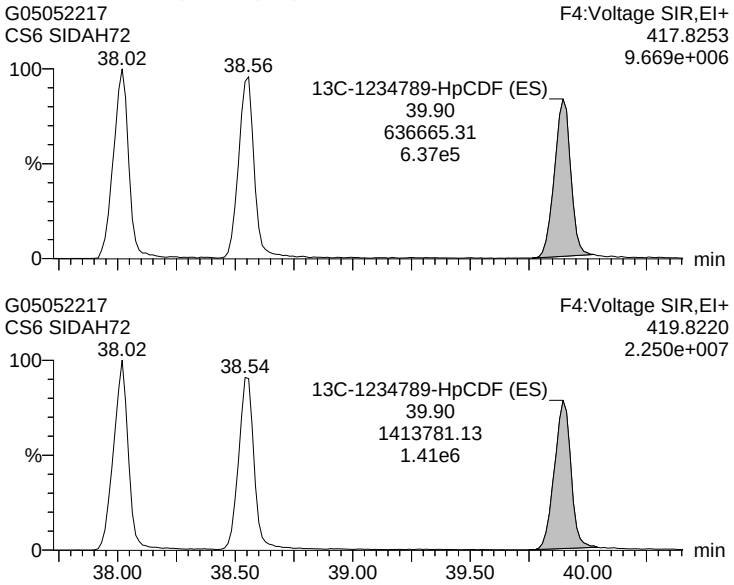
13C-123789-HxCDF (ES)



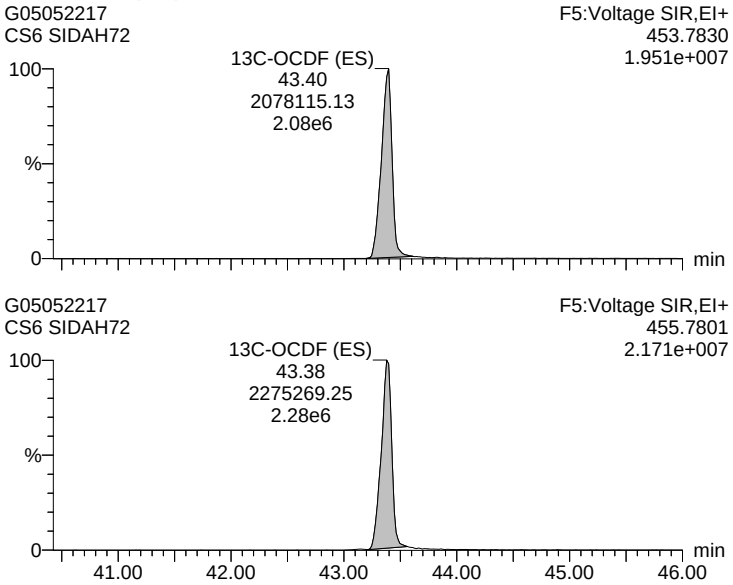
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



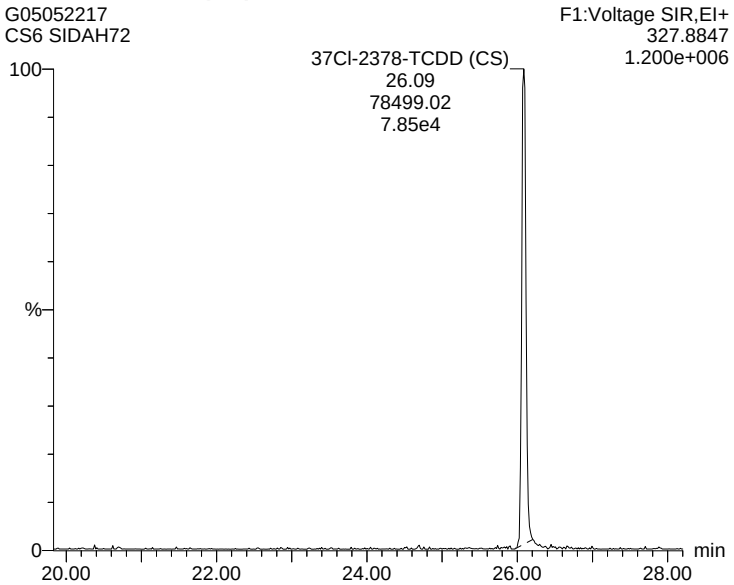
13C-OCDF (ES)



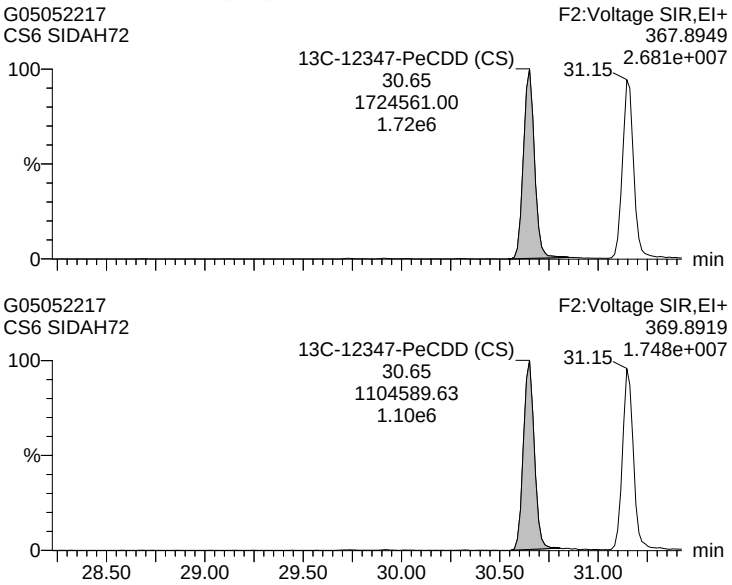
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

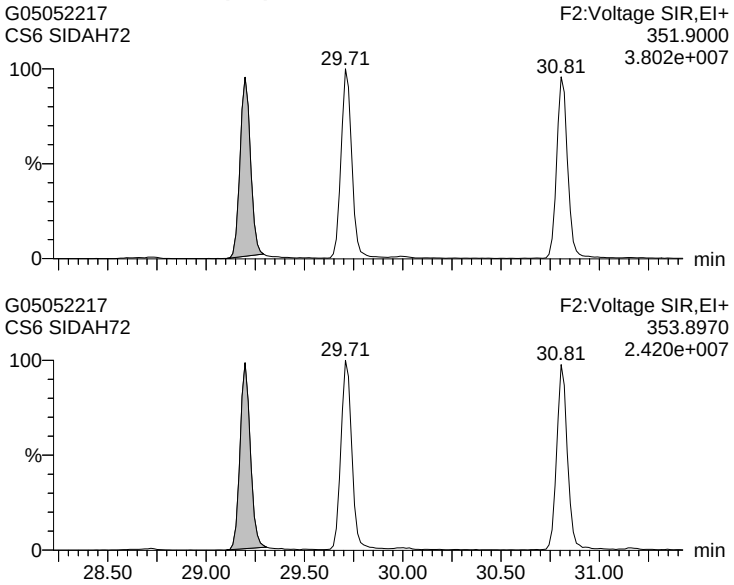
37Cl-2378-TCDD (CS)



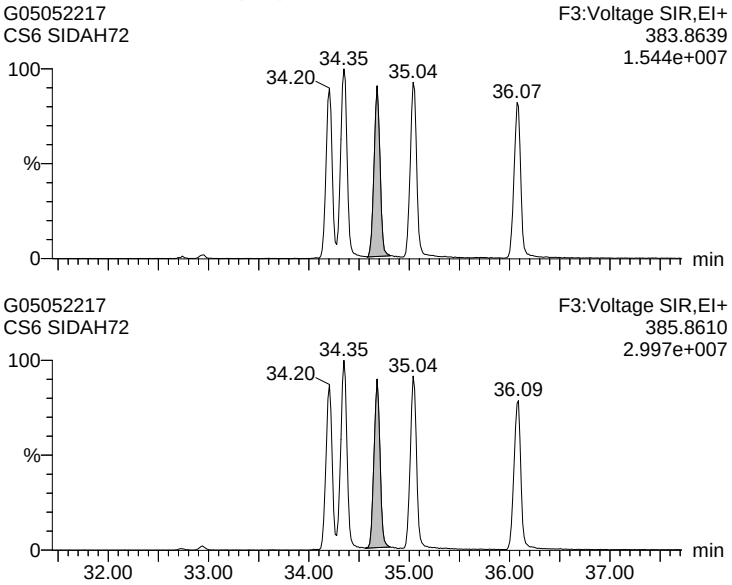
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



13C-123469-HxCDF (CS)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

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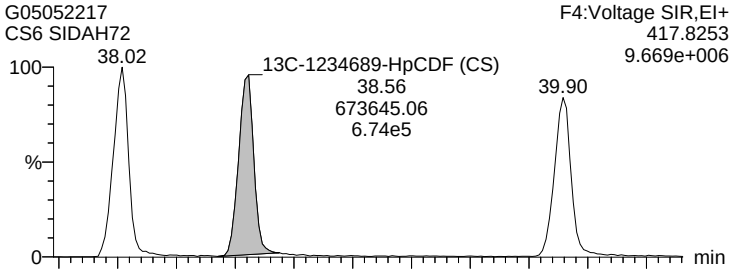
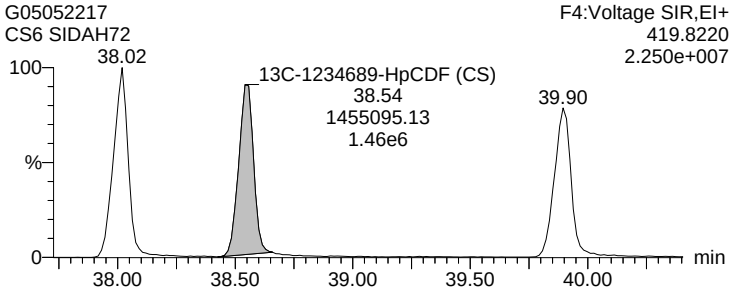
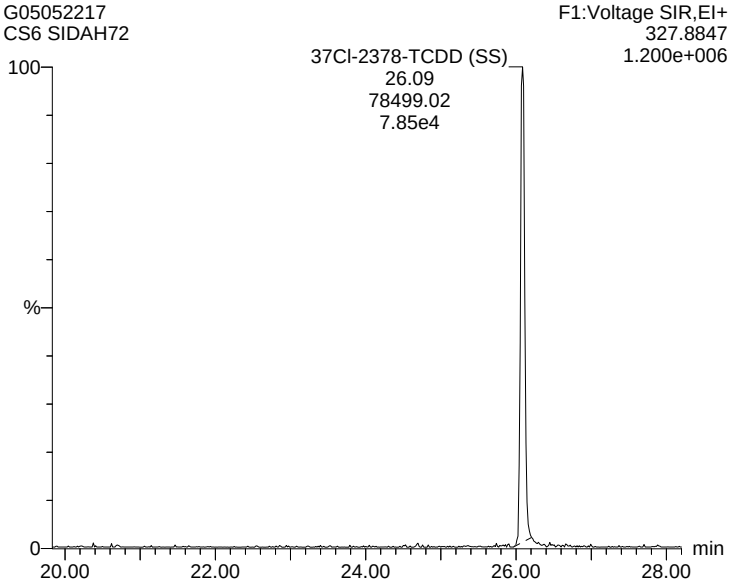
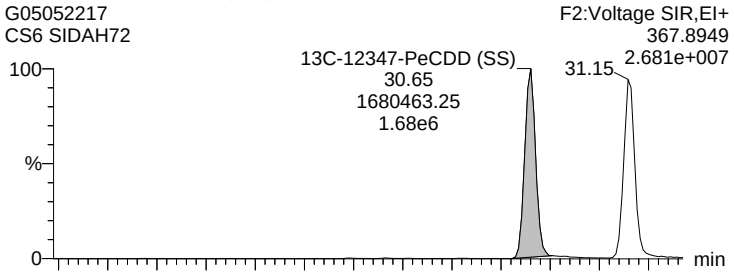


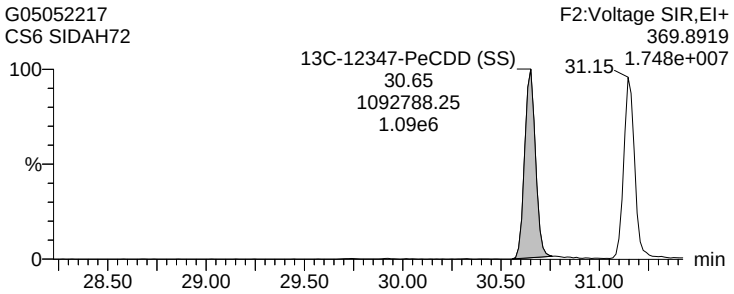


37Cl-2378-TCDD (SS)

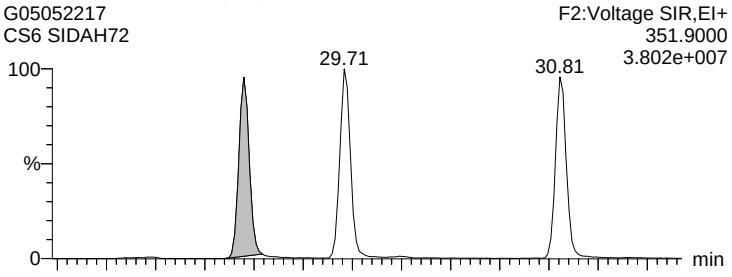


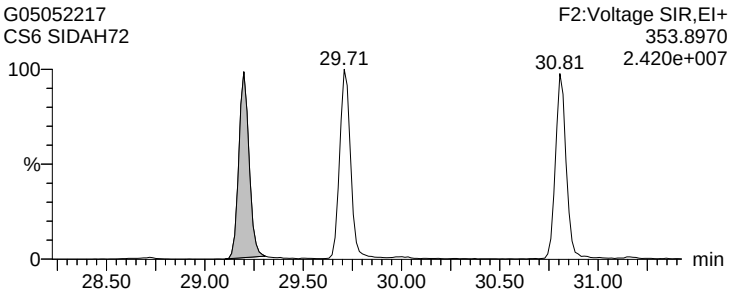
13C-12347-PeCDD (SS)





13C-12346-PeCDF (SS)

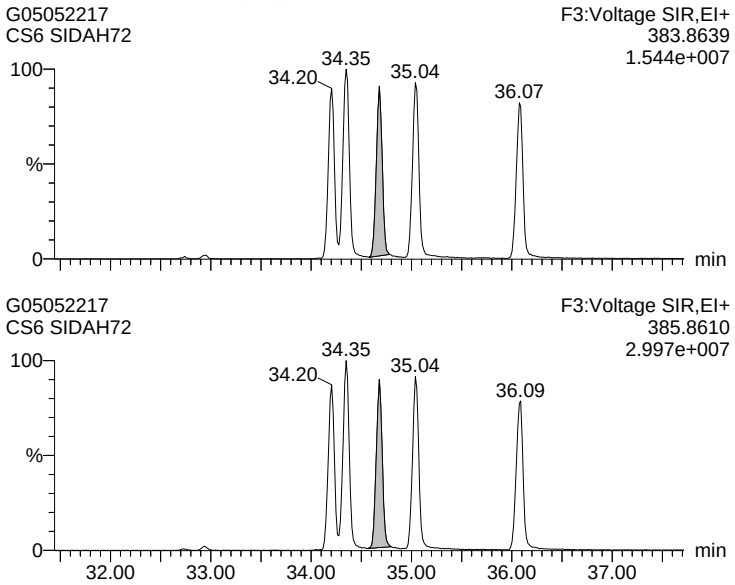




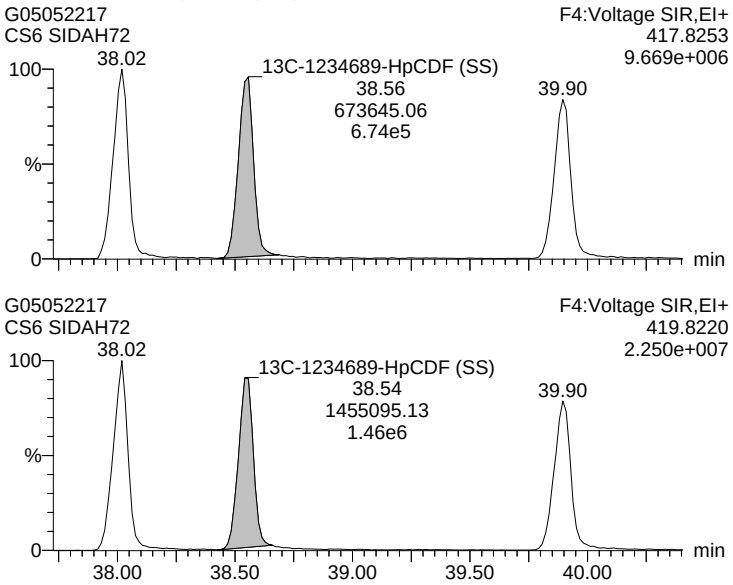
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

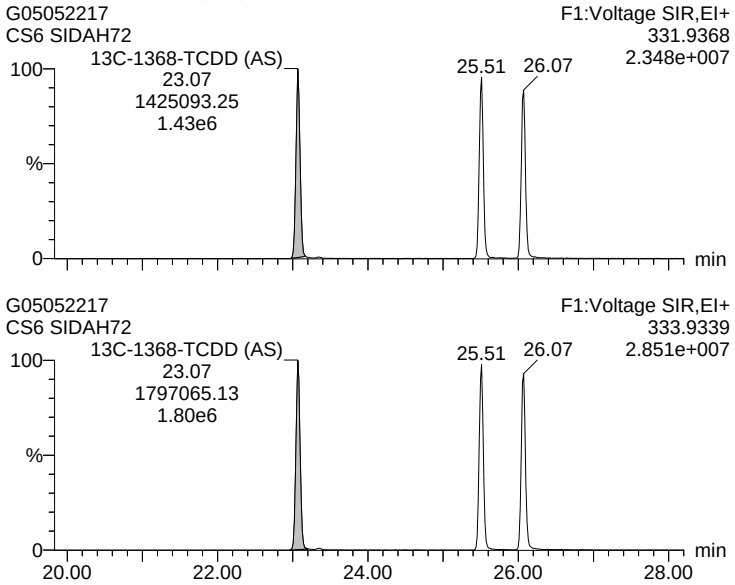
13C-123469-HxCDF (SS)



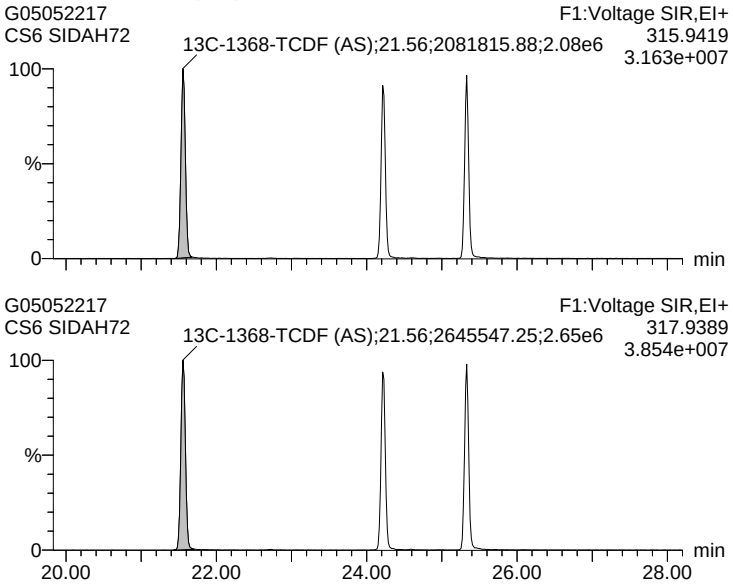
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



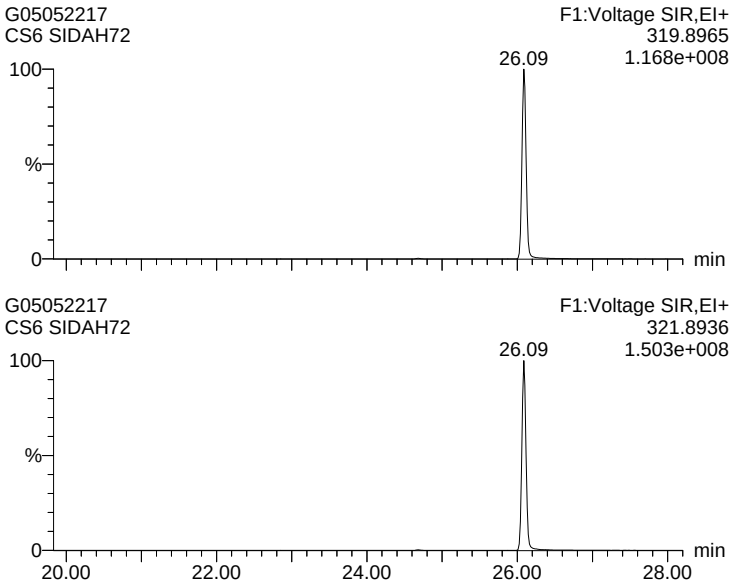
13C-1368-TCDF (AS)



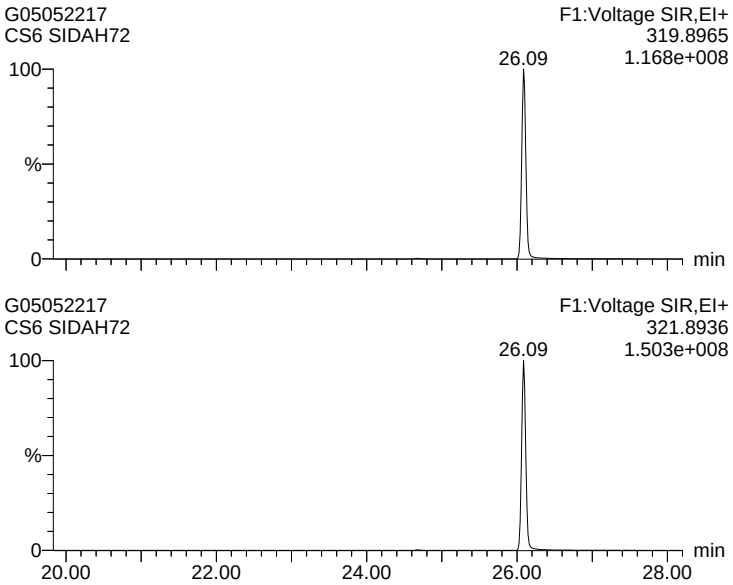
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

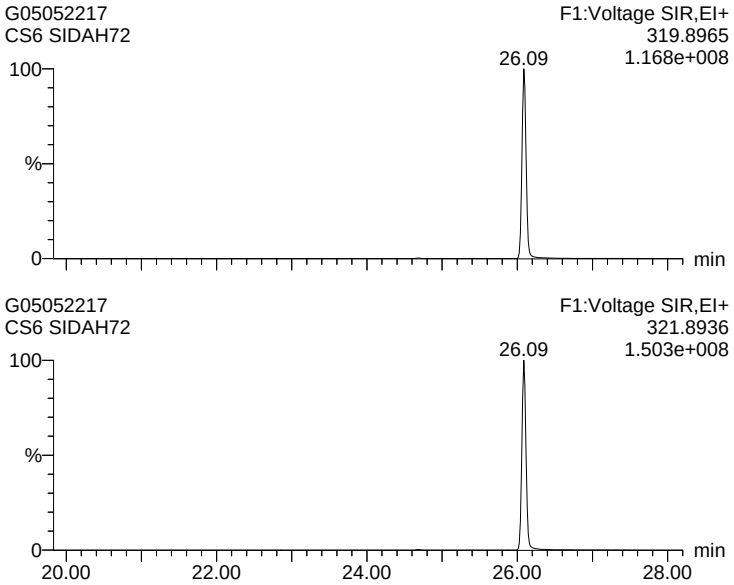
1368-TCDD



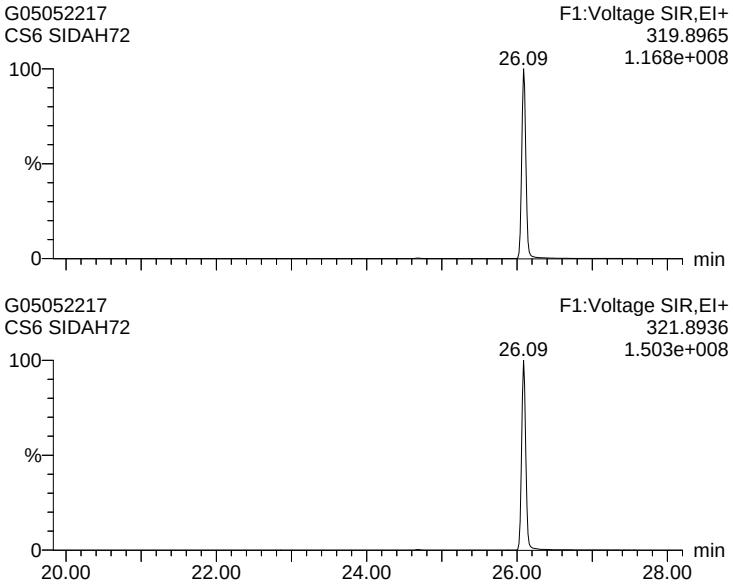
1379-TCDD



1369-TCDD



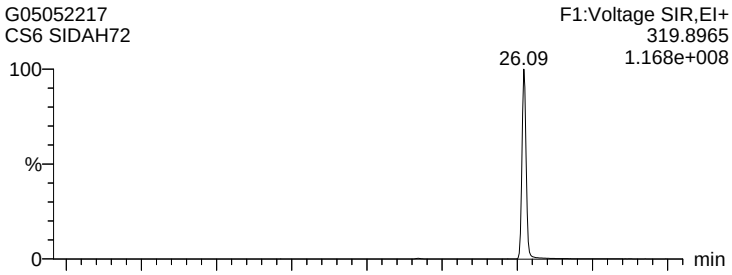
1469-TCDD

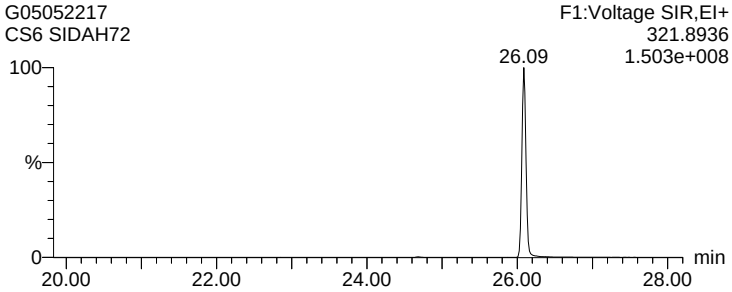


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

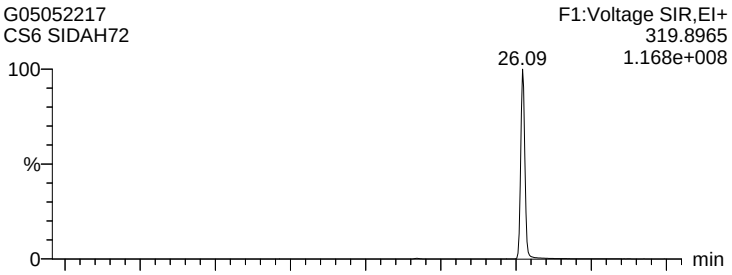
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

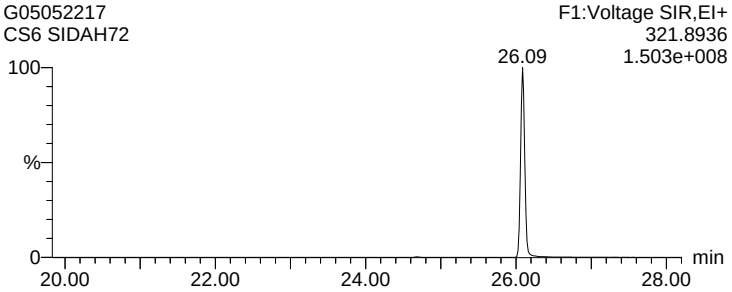
1247/1246/1248/1249-TCDD



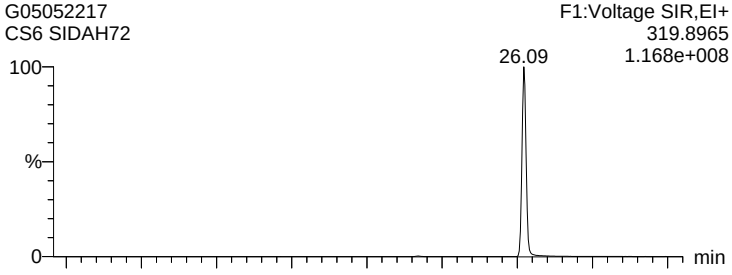


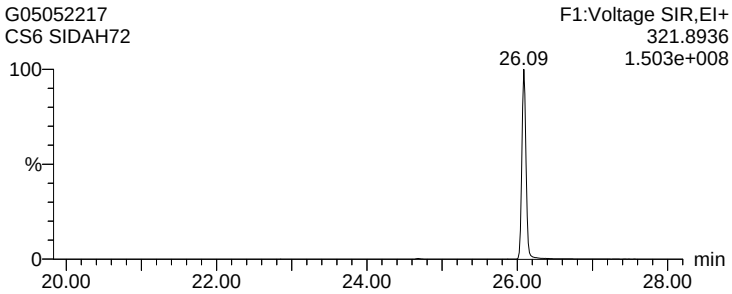
1378-TCDD



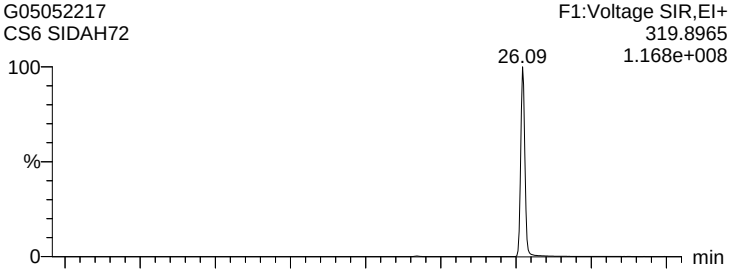


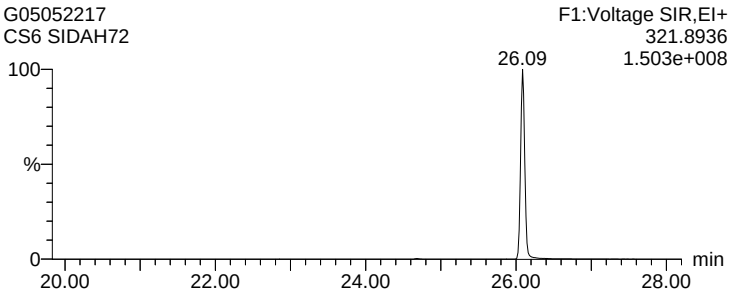
1268-TCDD





1478-TCDD

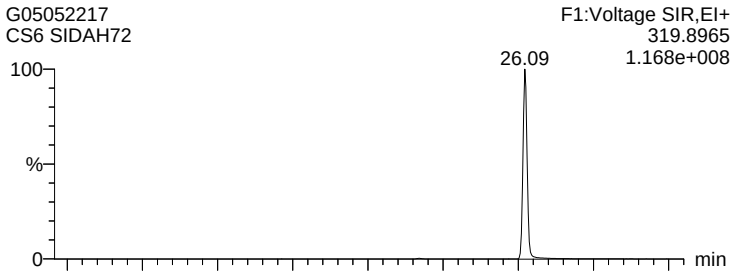


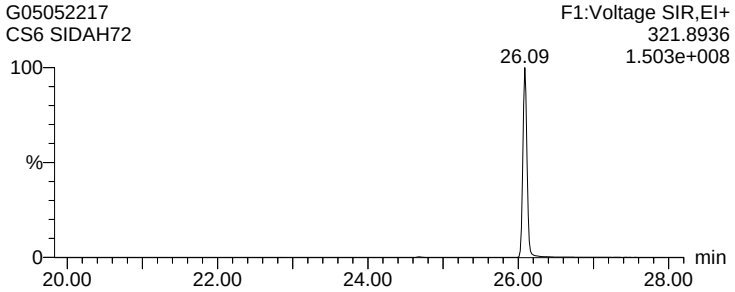


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

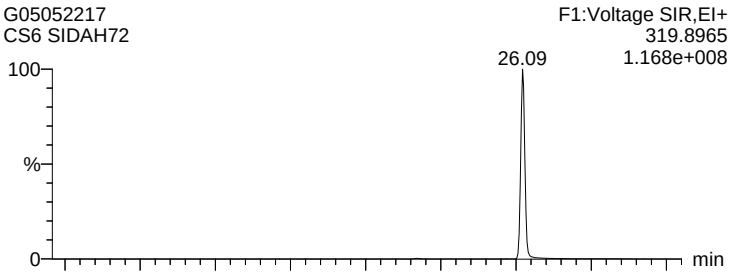
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

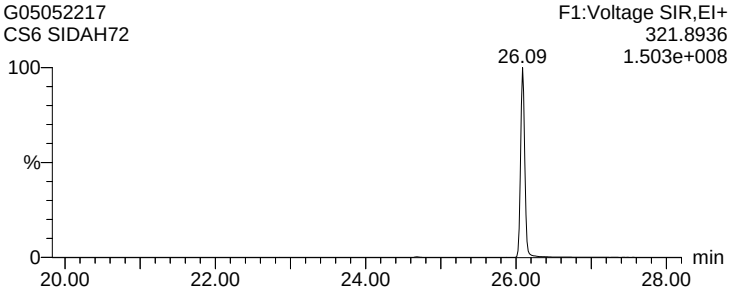
1279-TCDD



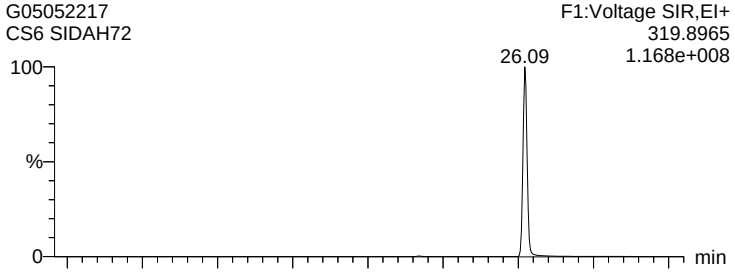


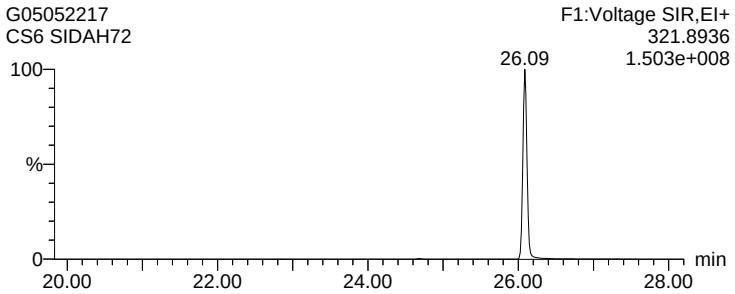
1234/1269-TCDD



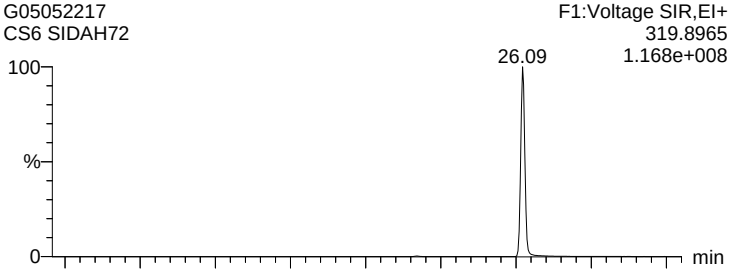


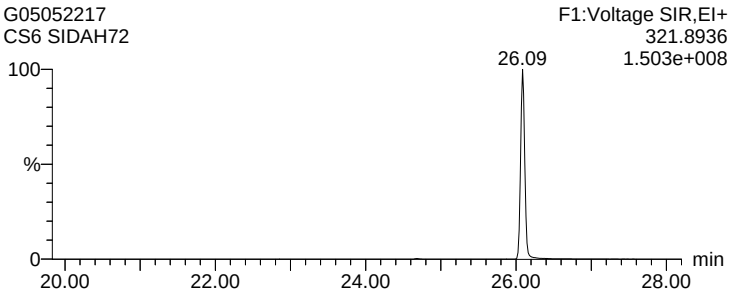
1236-TCDD





1237/1238-TCDD

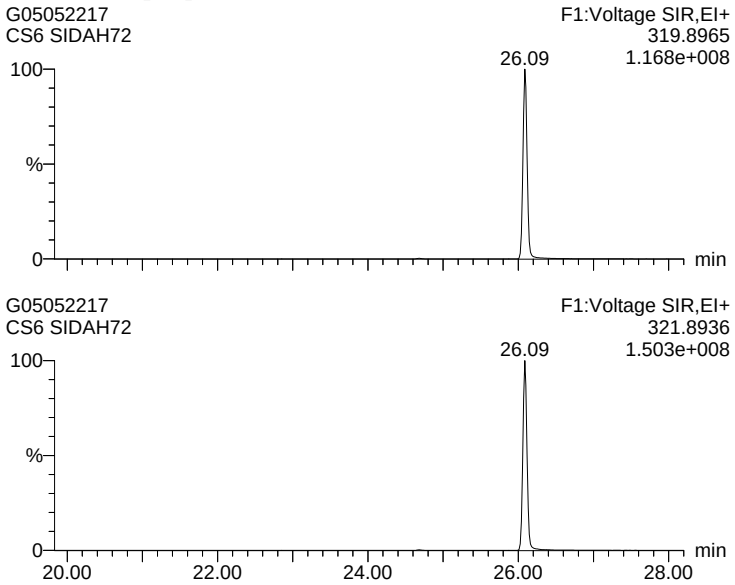




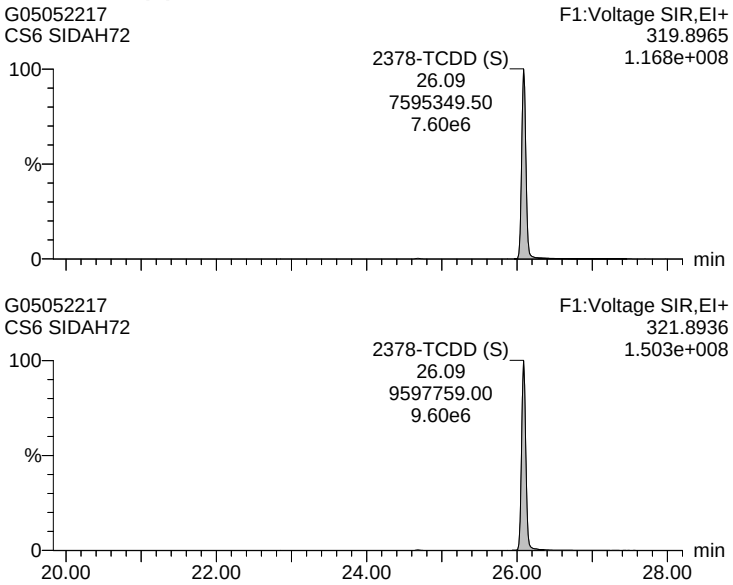
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

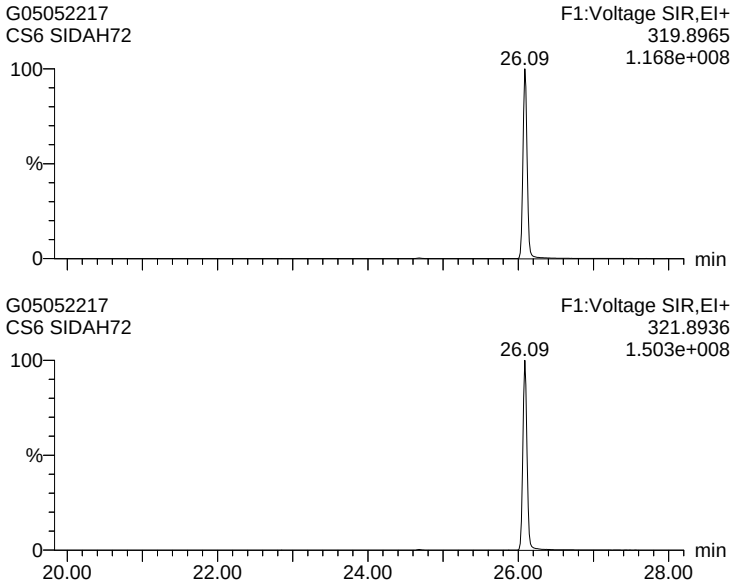
1239-TCDD [CE]



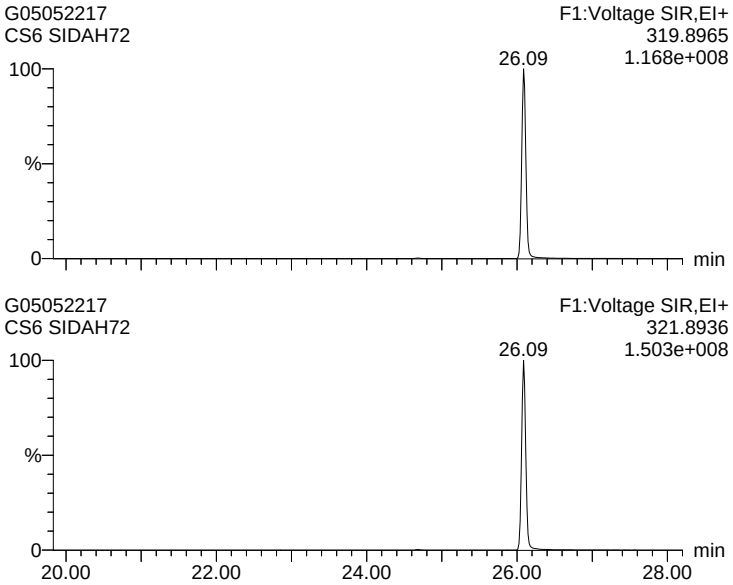
2378-TCDD (S)



1278-TCDD



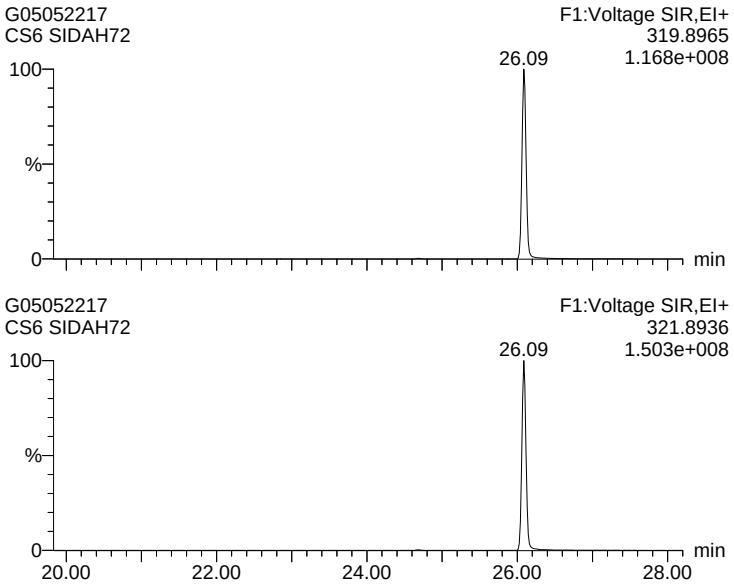
1267-TCDD



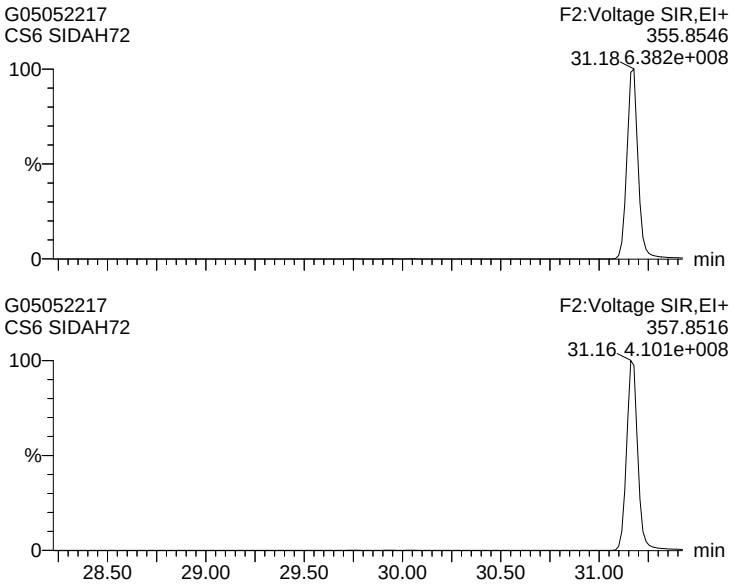
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

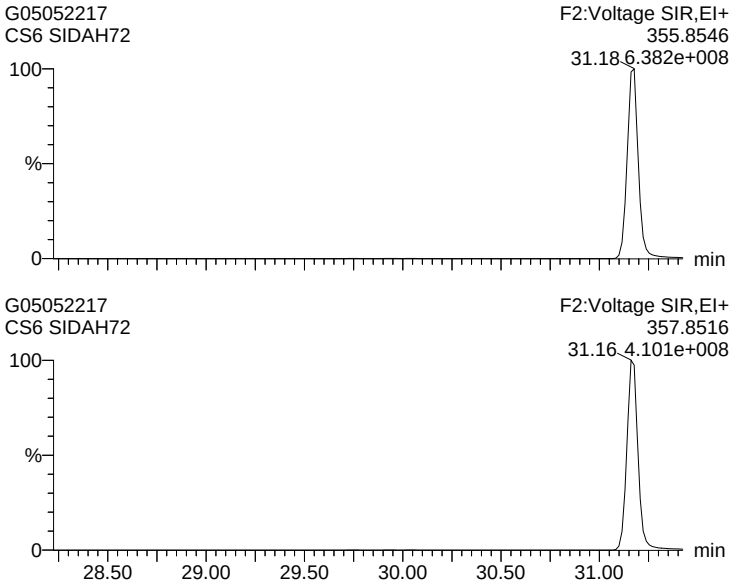
1289-TCDD



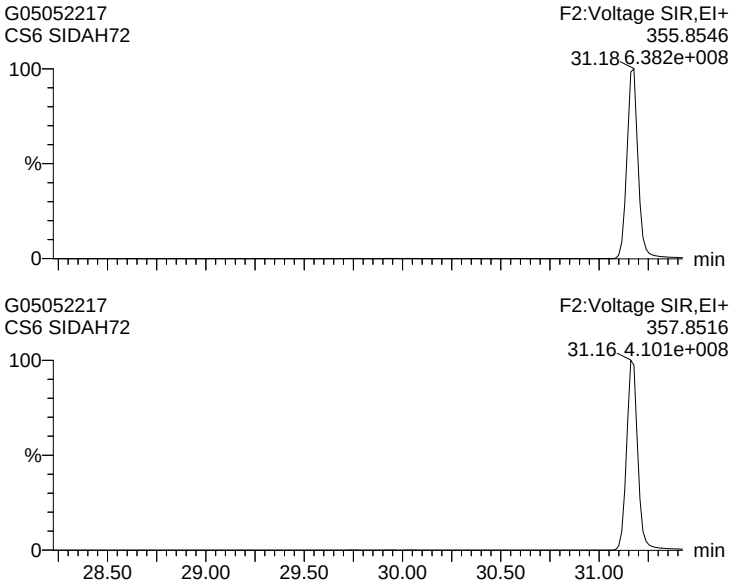
12479/12468-PeCDD



12469-PeCDD



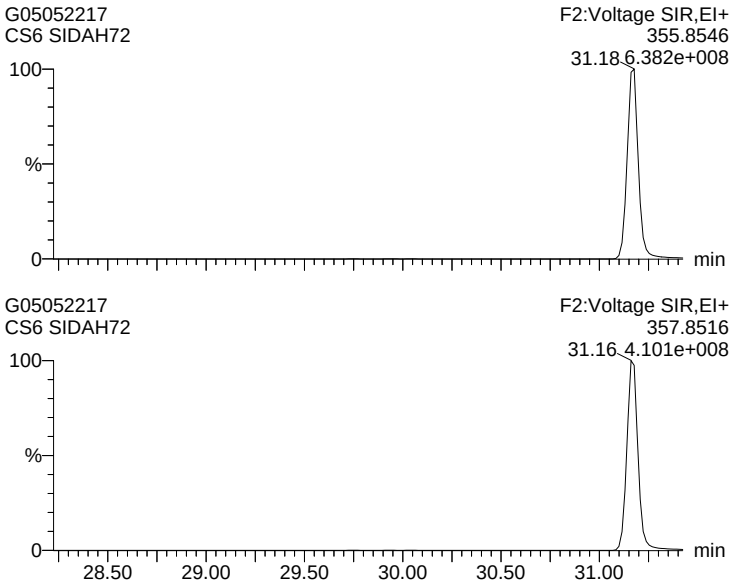
12368-PeCDD



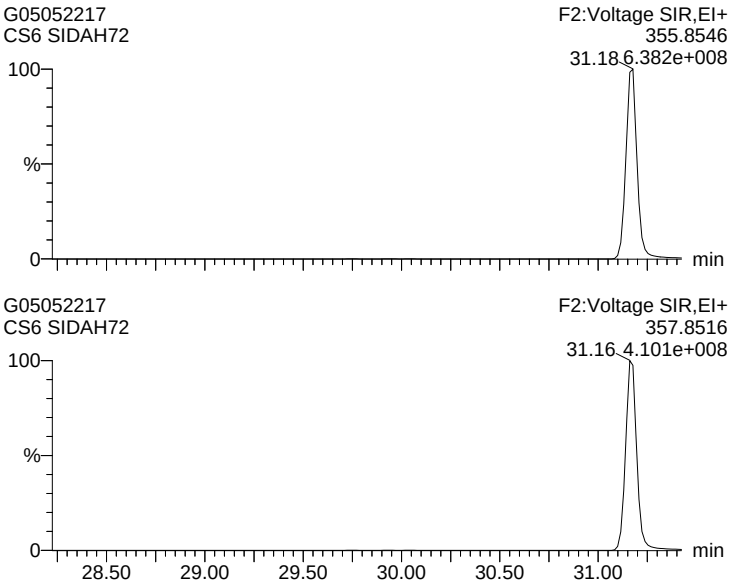
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

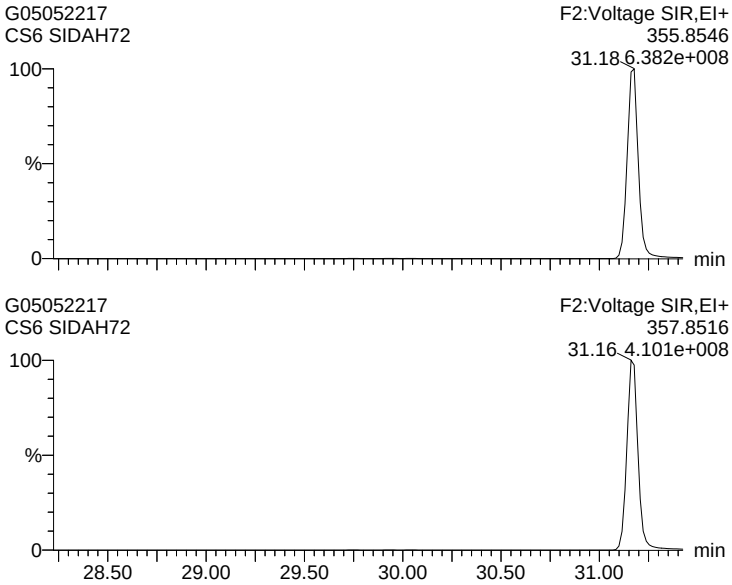
12478-PeCDD



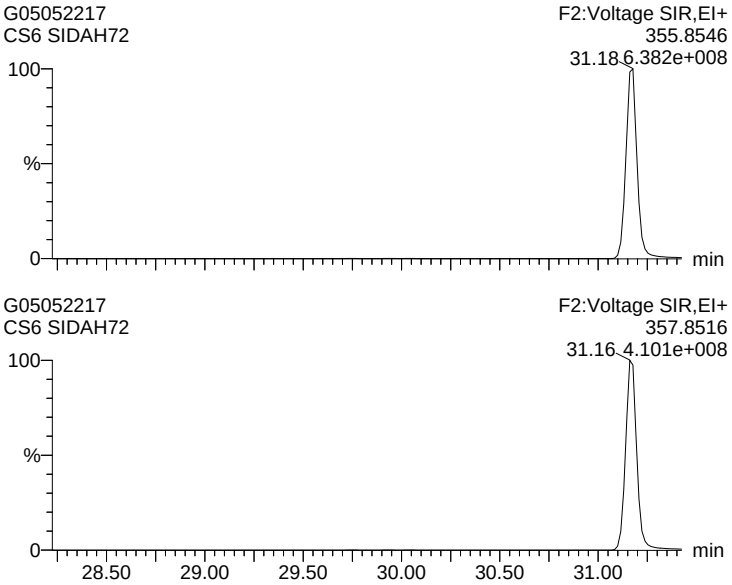
12379-PeCDD



12369/12467/12489-PeCDD



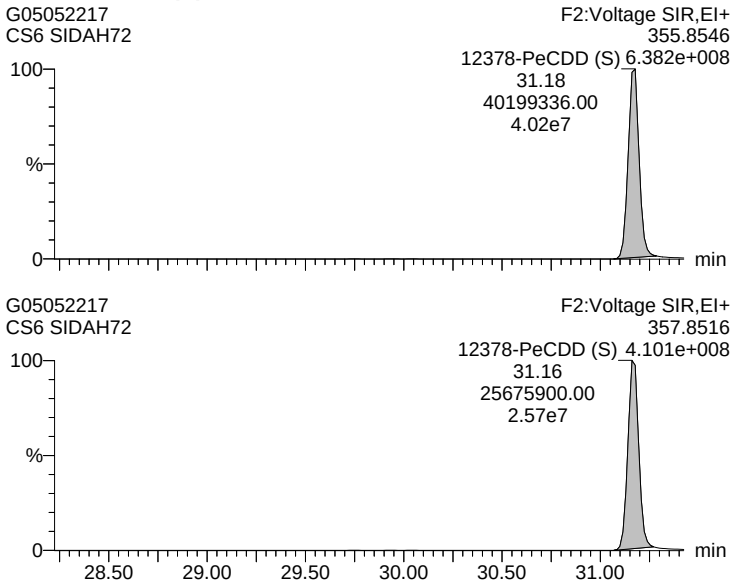
12346/12347-PeCDD



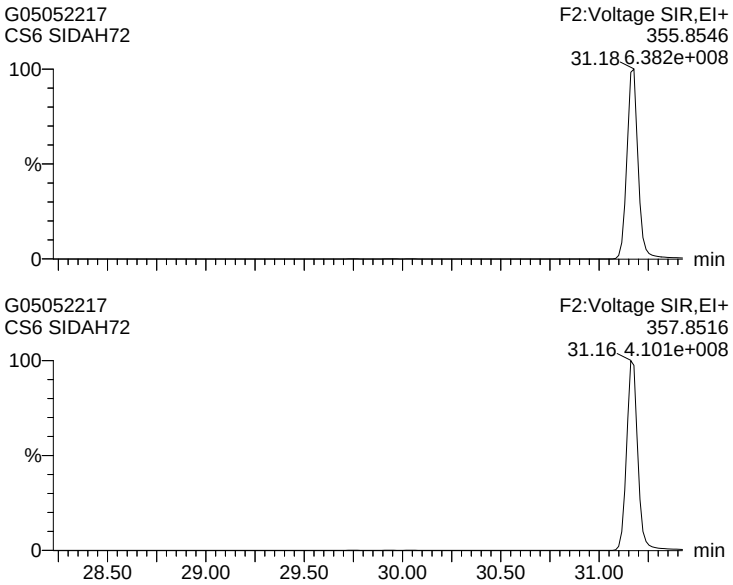
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

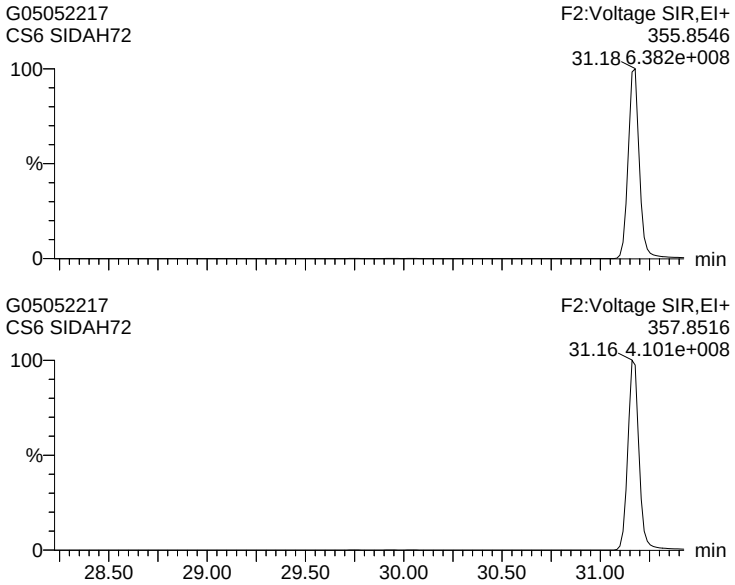
12378-PeCDD (S)



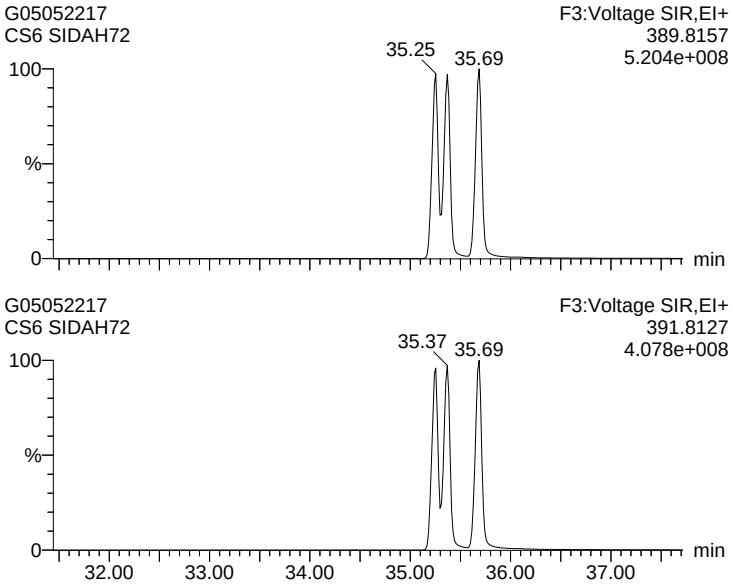
12367-PeCDD



12389-PeCDD



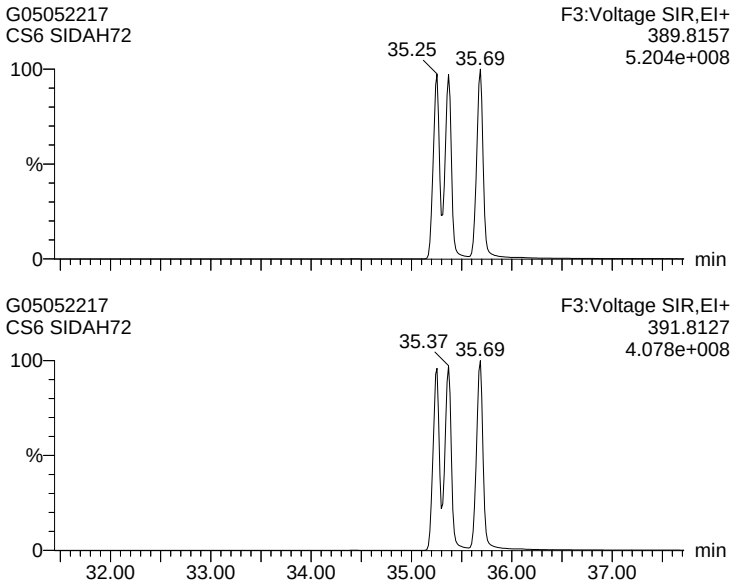
124679/124689-HxCDD



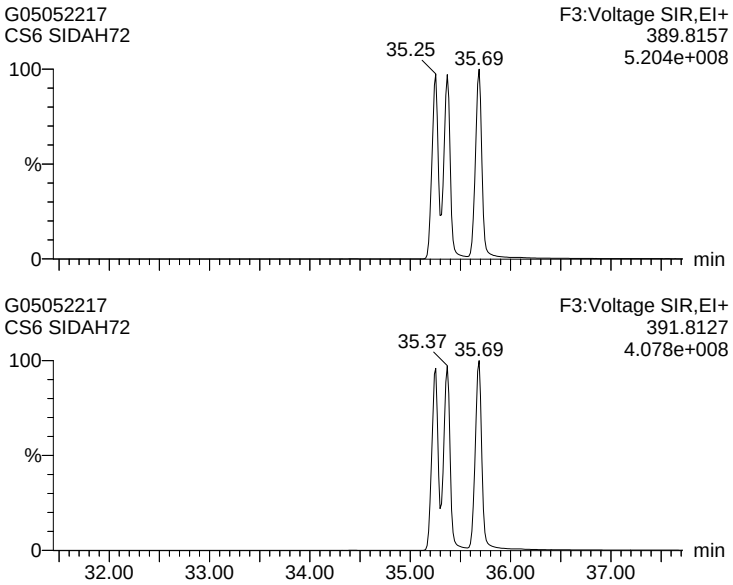
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

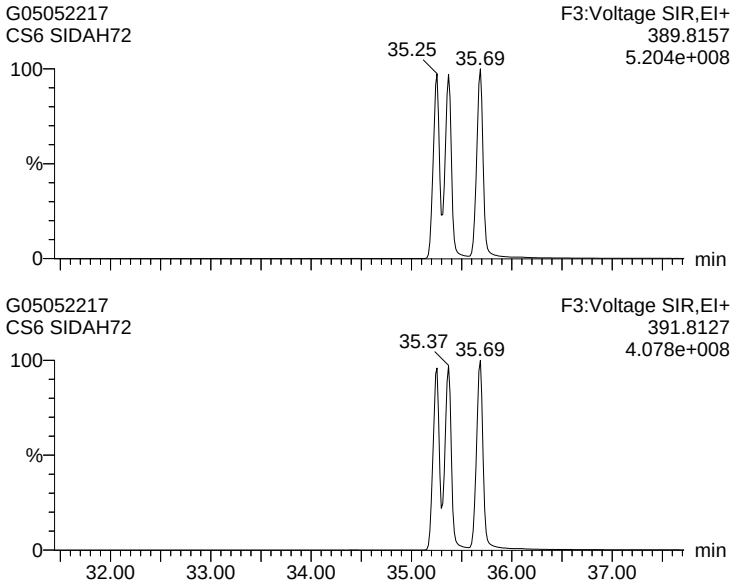
123468-HxCDD



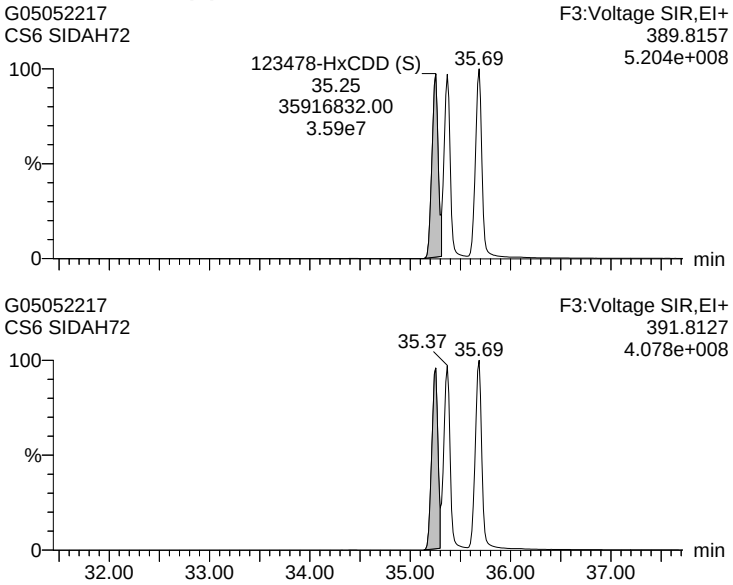
123679/123689-HxCDD



123469-HxCDD



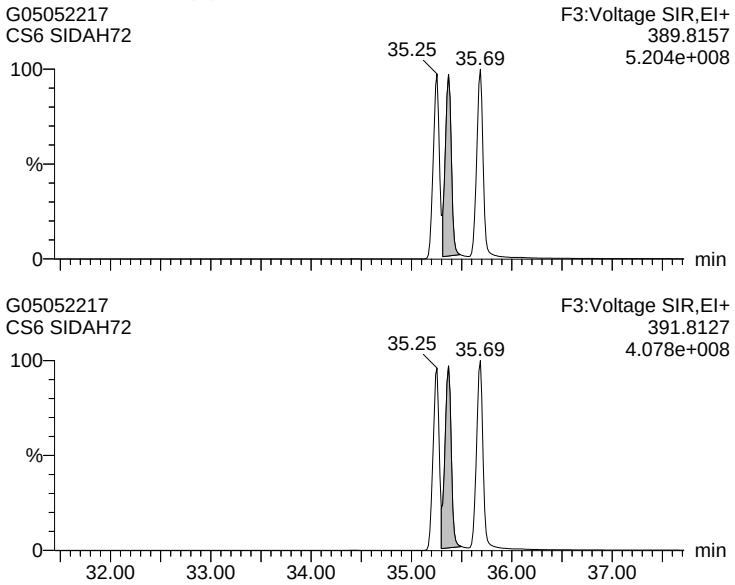
123478-HxCDD (S)



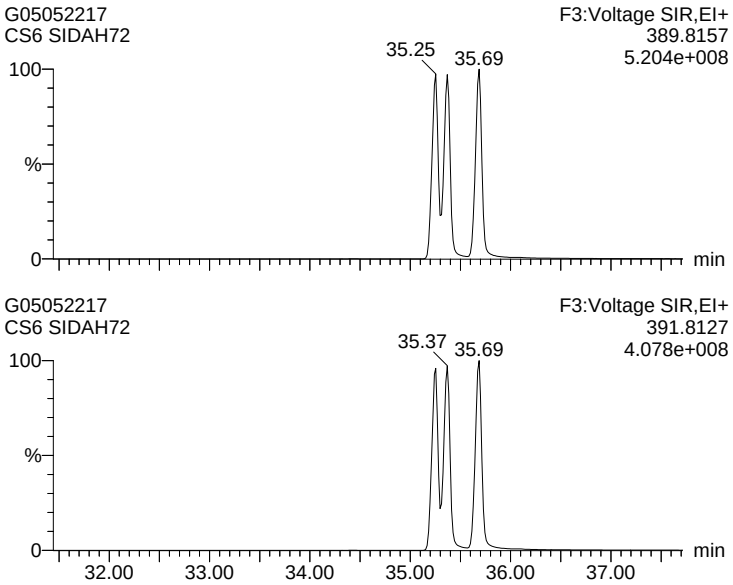
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

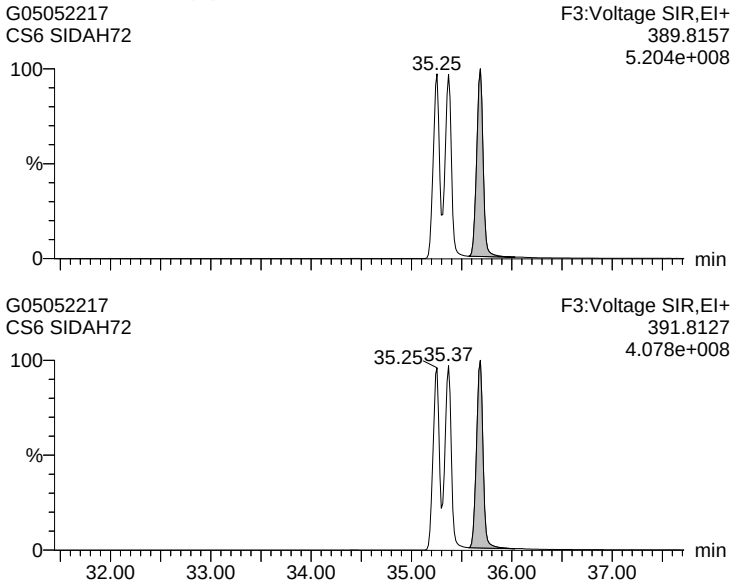
123678-HxCDD (S)



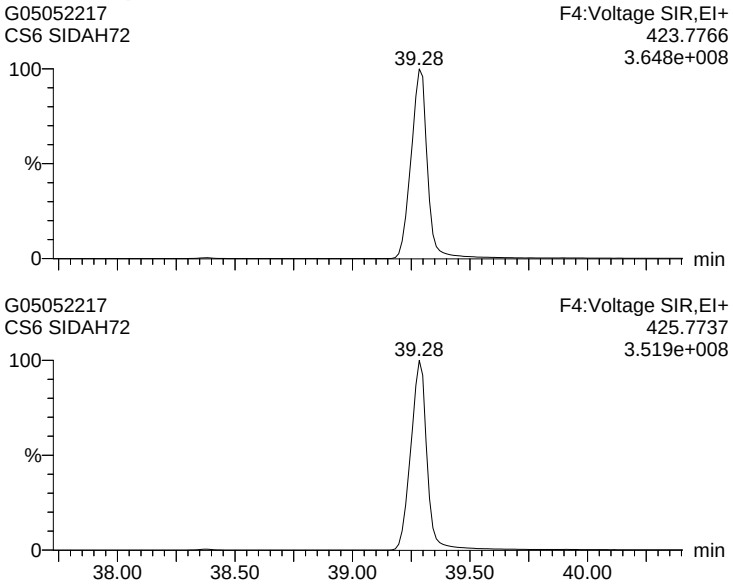
123467-HxCDD



123789-HxCDD (S)



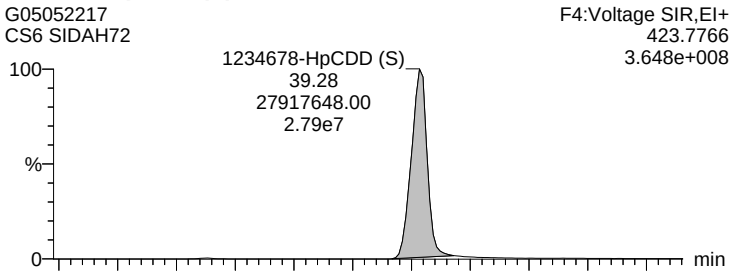
1234679-HpCDD

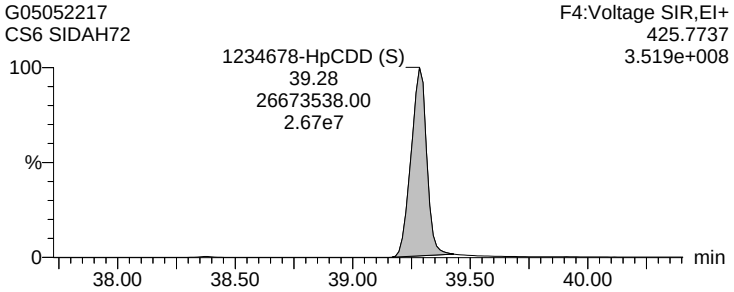


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

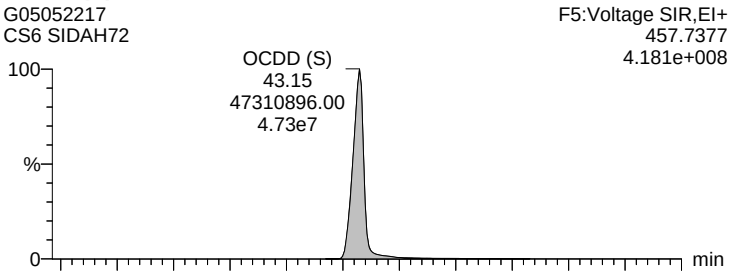
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

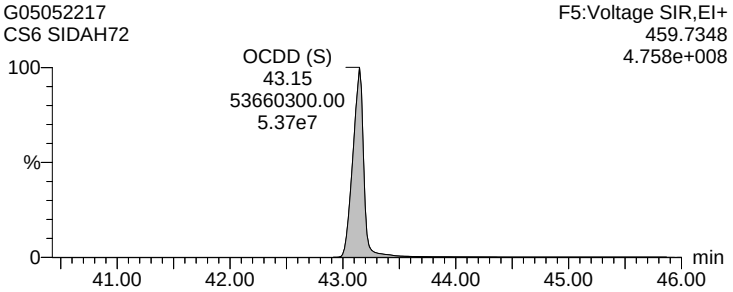
1234678-HpCDD (S)



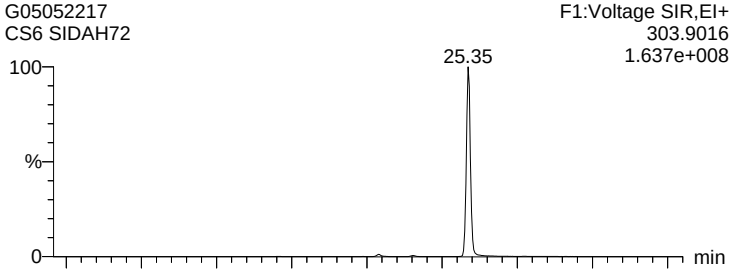


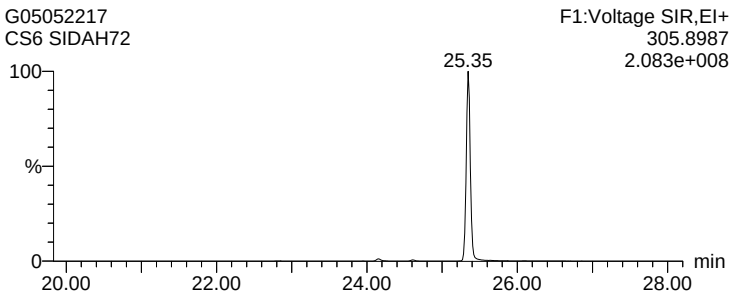
OCDD (S)



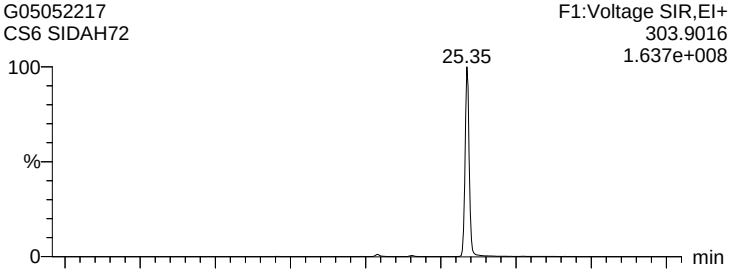


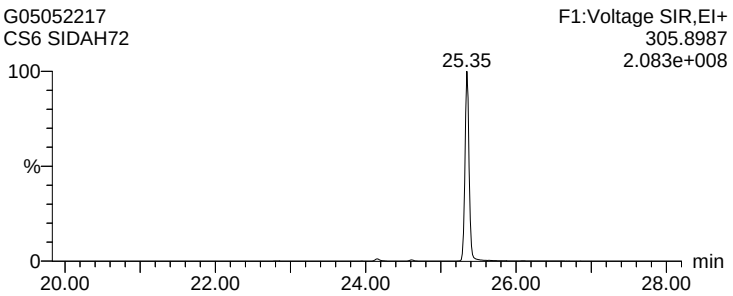
1368-TCDF





1468-TCDF

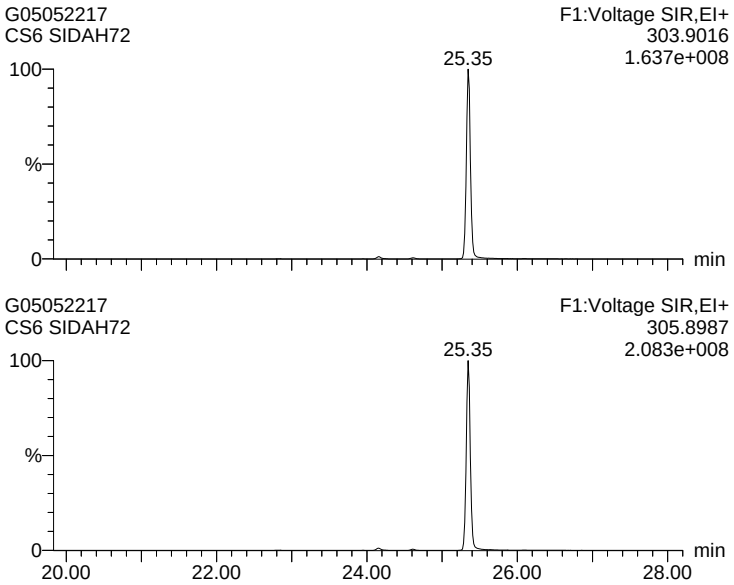




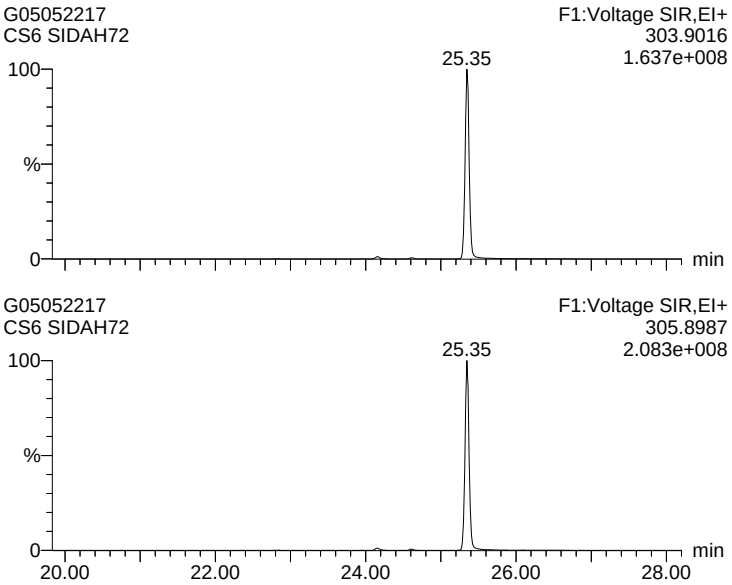
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

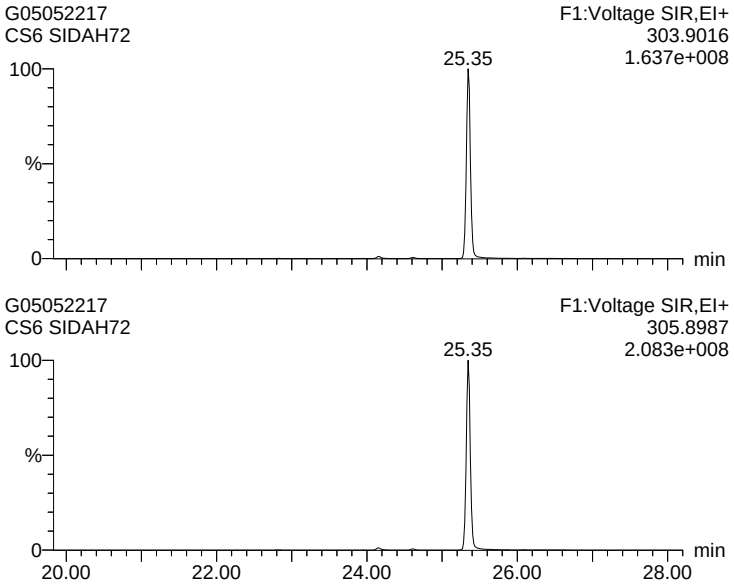
2468-TCDF



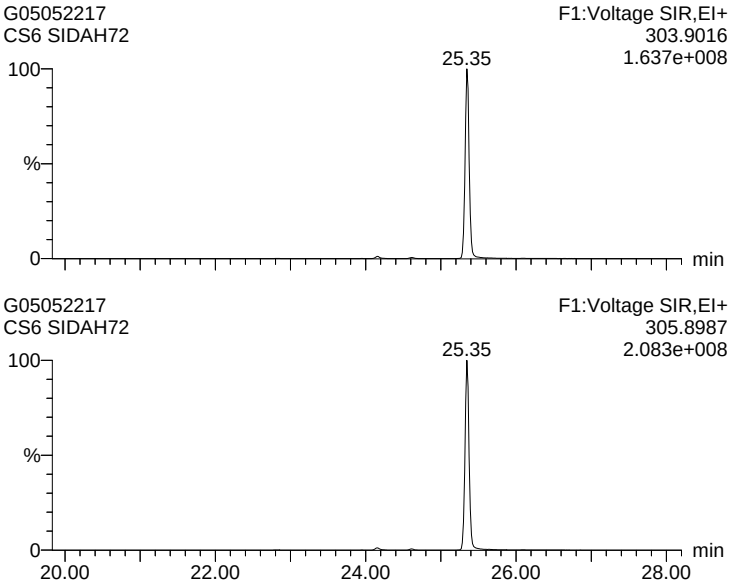
1346/1246-TCDF



1347/1378/1247-TCDF



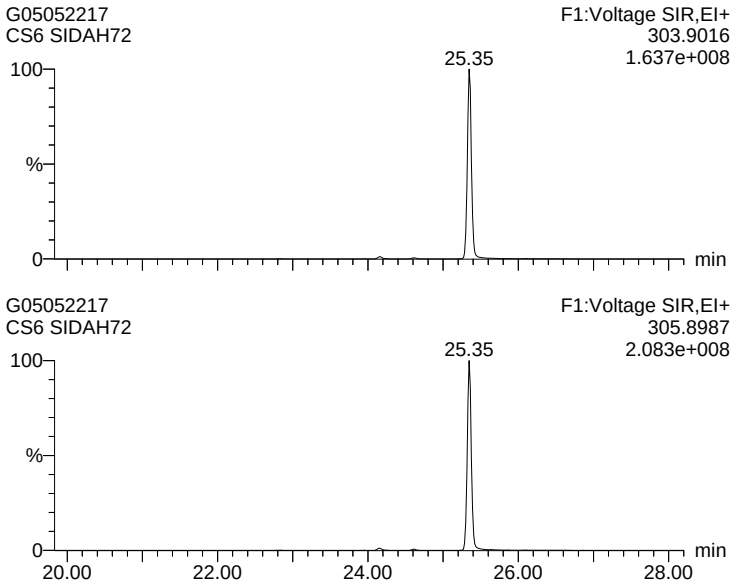
1348-TCDF



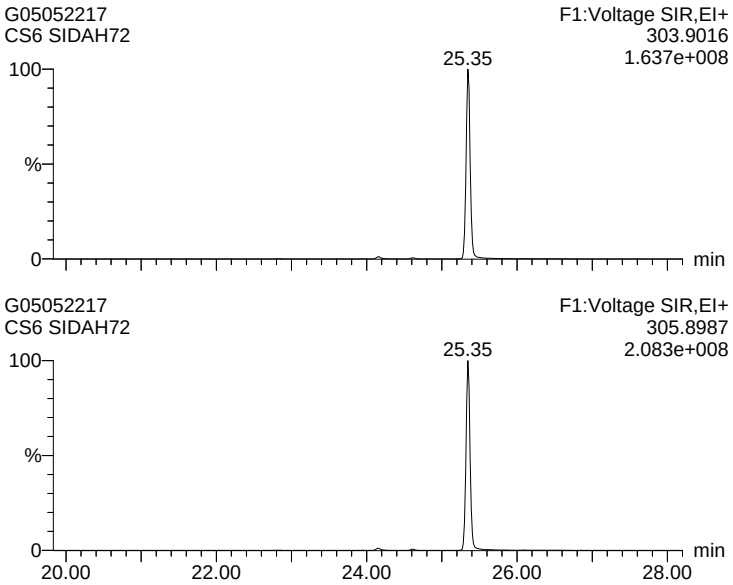
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

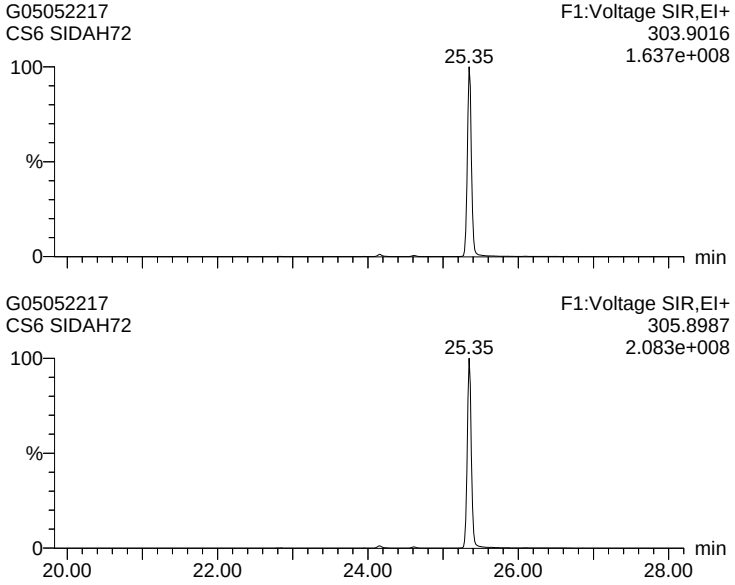
1248/1367/1379-TCDF



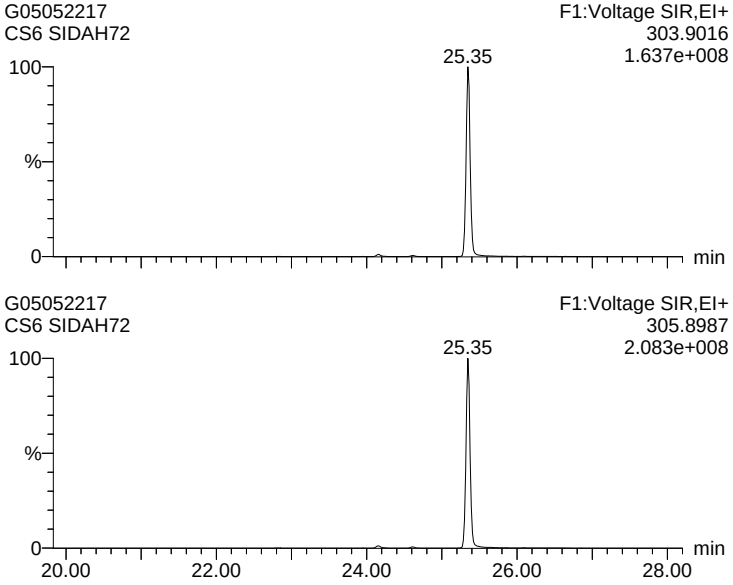
1268-TCDF



1467-TCDF



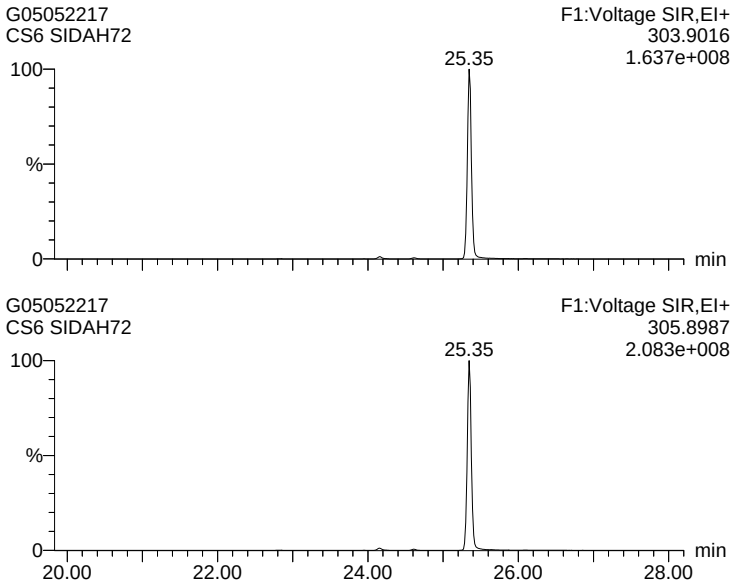
1478-TCDF



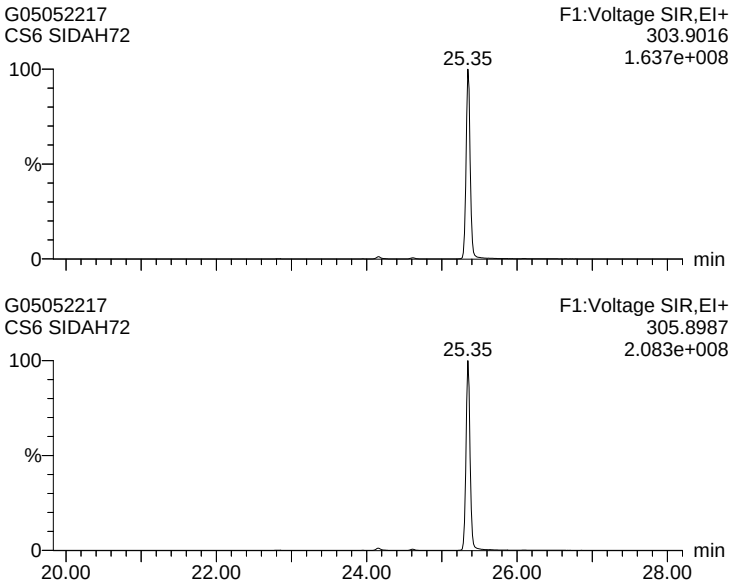
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

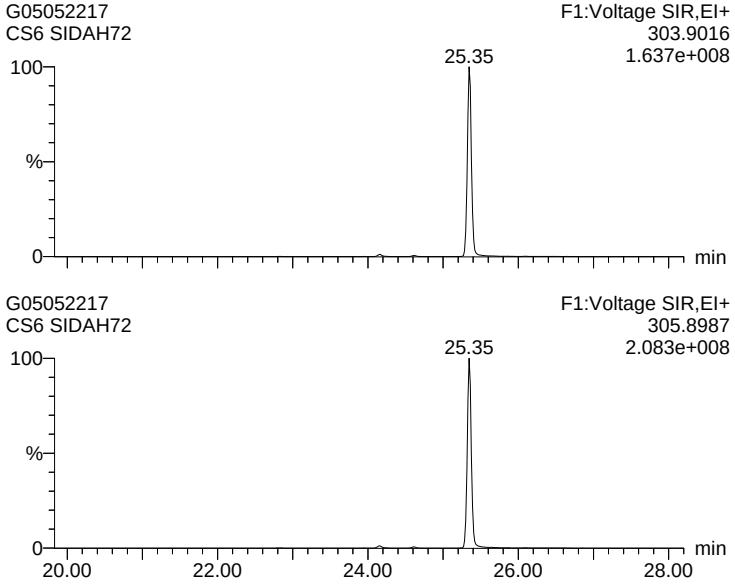
1369/1237-TCDF



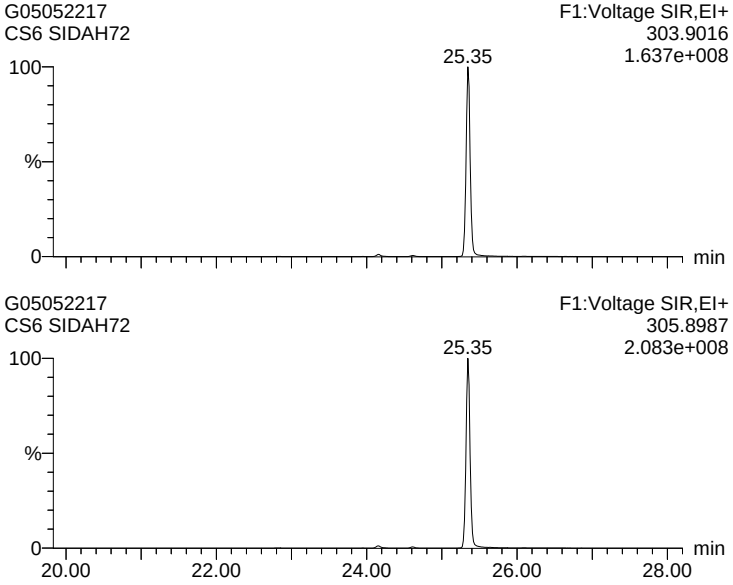
2467-TCDF



2368-TCDF



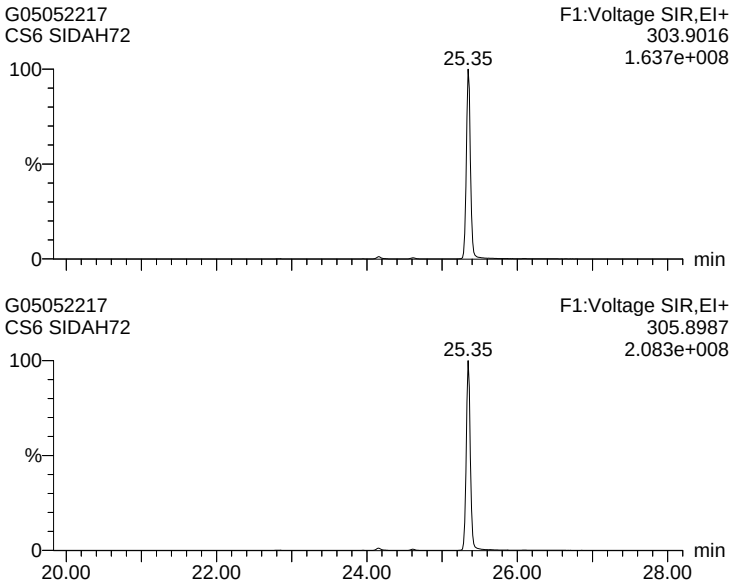
1238/1234/1678/1469/1236-TCDF



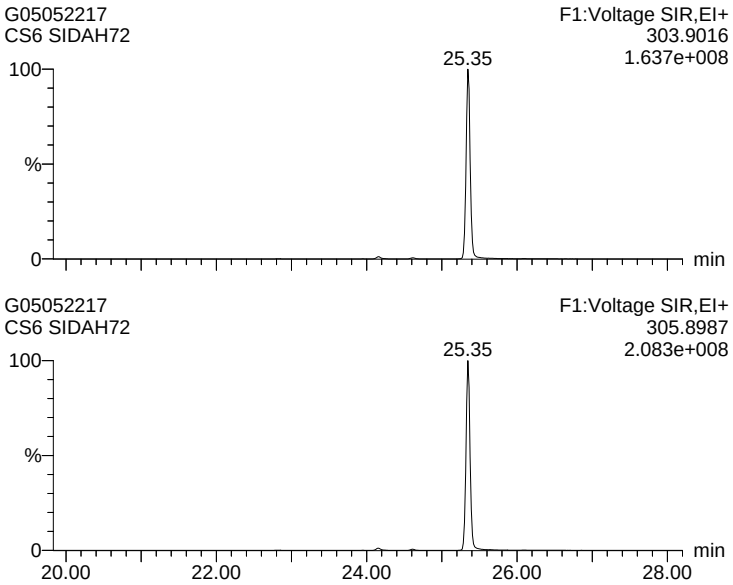
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

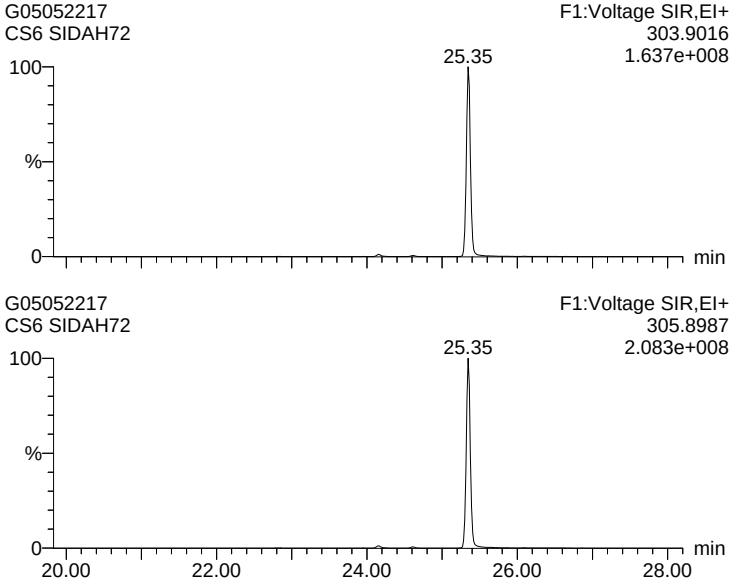
1278-TCDF



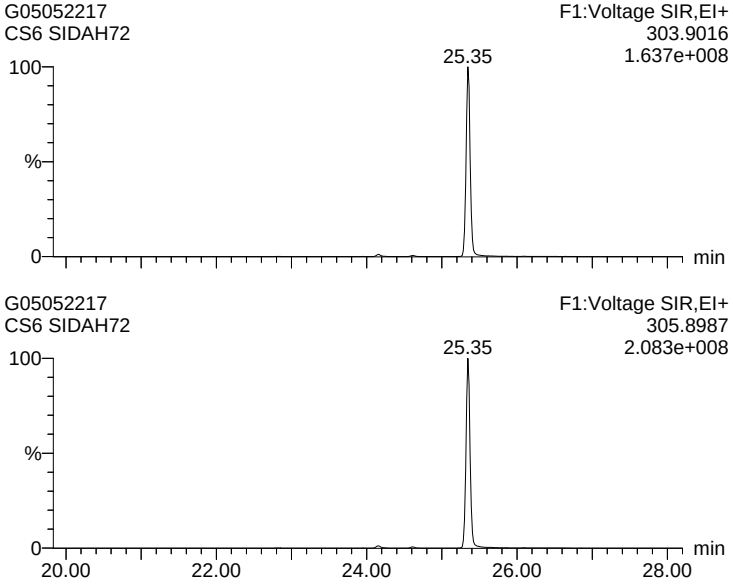
1349-TCDF



1267-TCDF



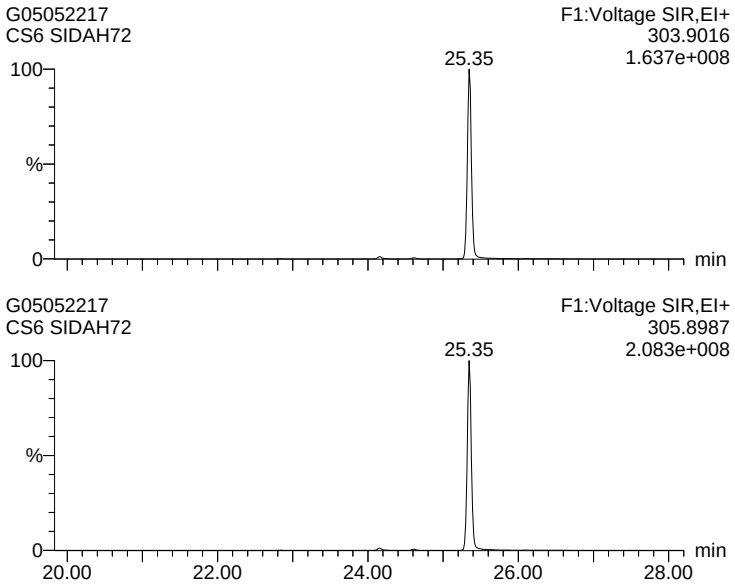
2346/1249-TCDF



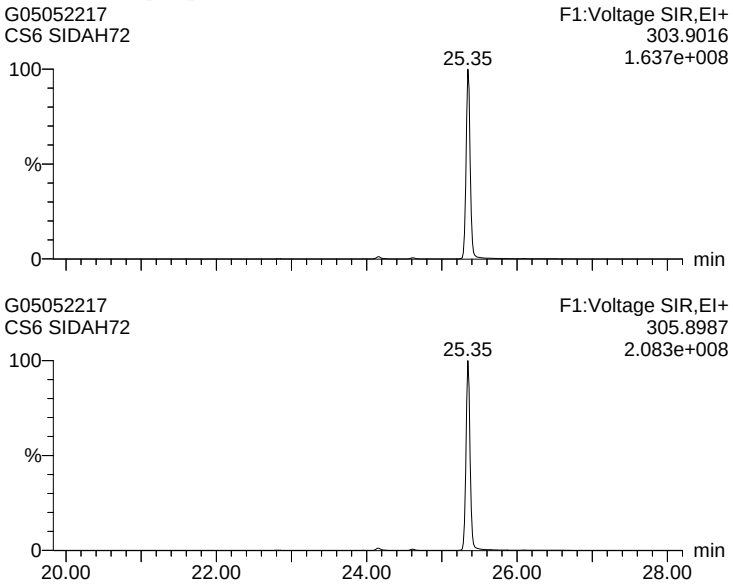
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

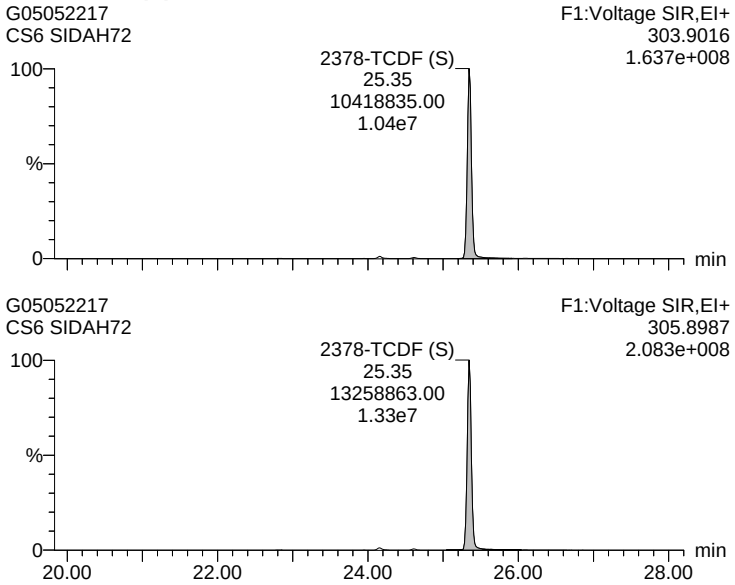
2347/1279-TCDF



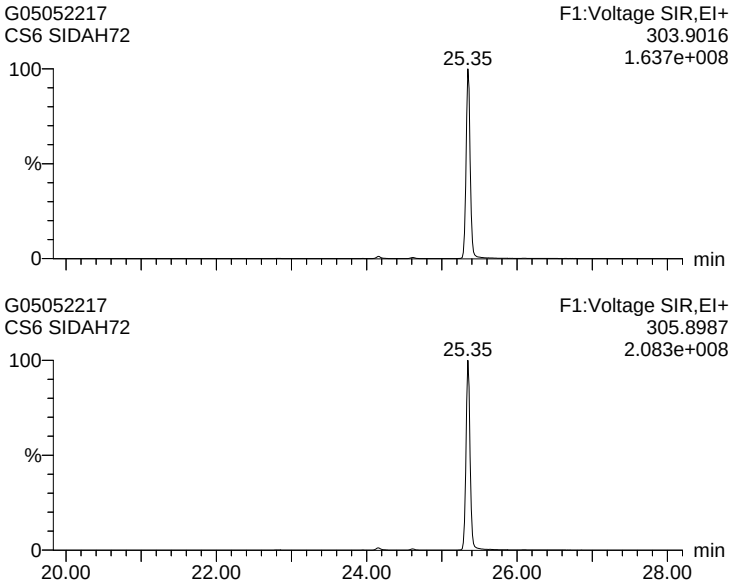
2348-TCDF [CE]



2378-TCDF (S)



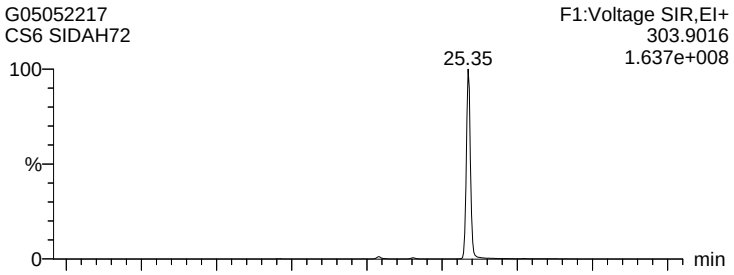
2367/3467-TCDF

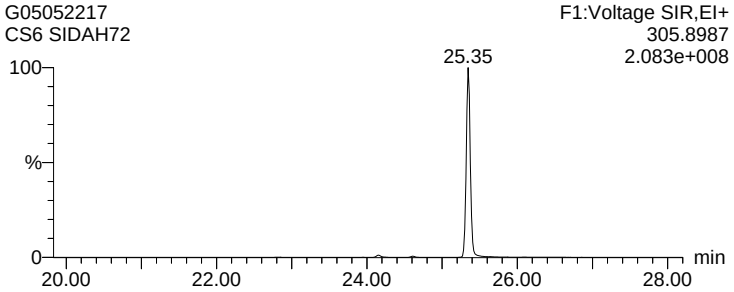


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

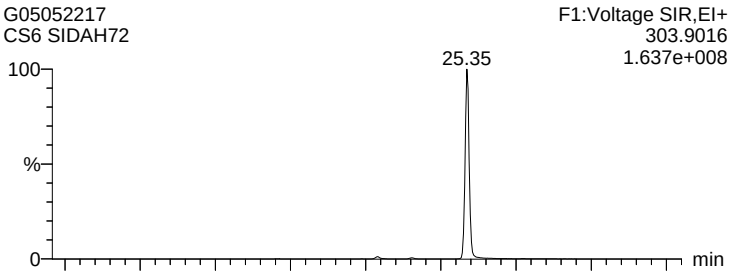
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

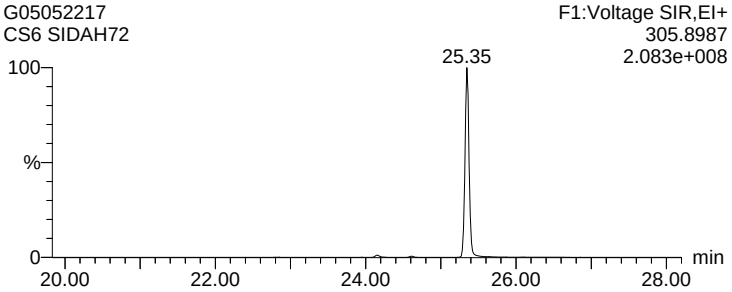
1269-TCDF



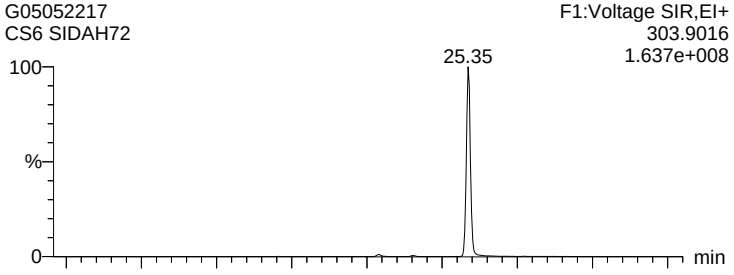


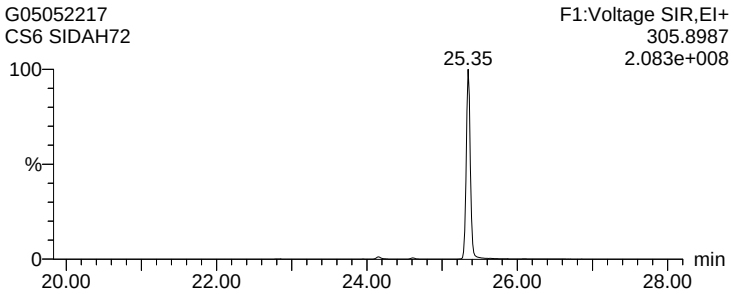
1239-TCDF



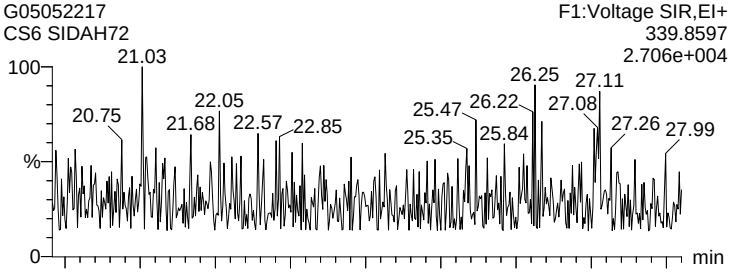


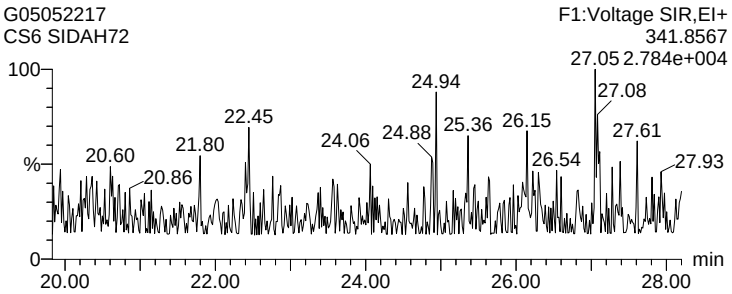
1289-TCDF





13468/12466-PeCDF

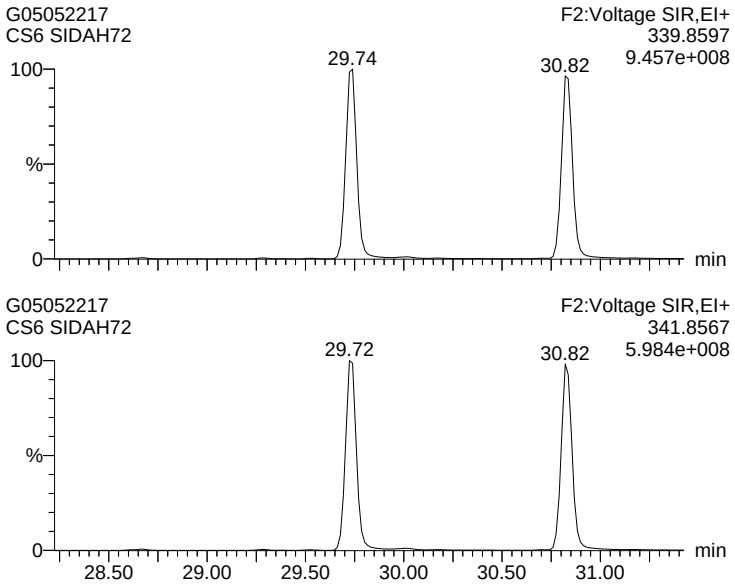




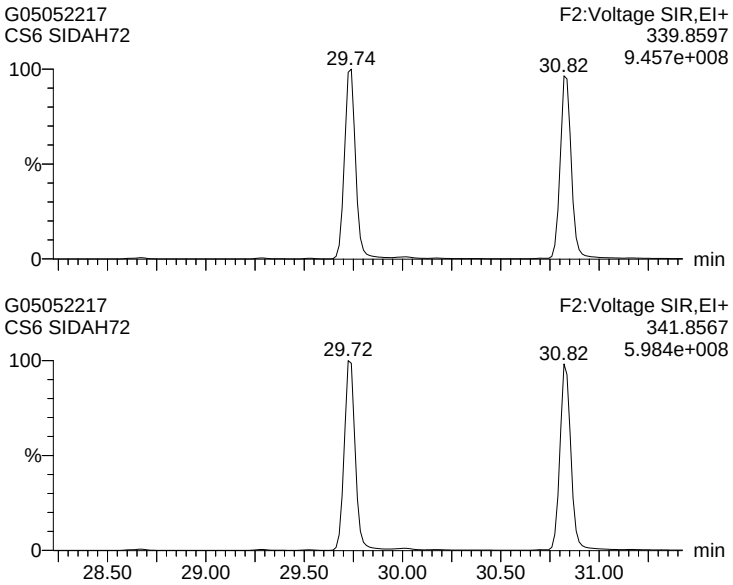
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

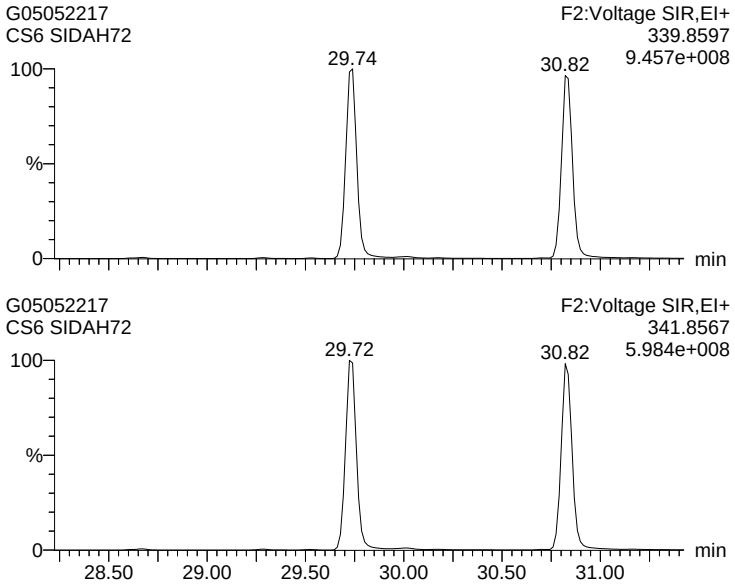
13678/13467/12467-PeCDF



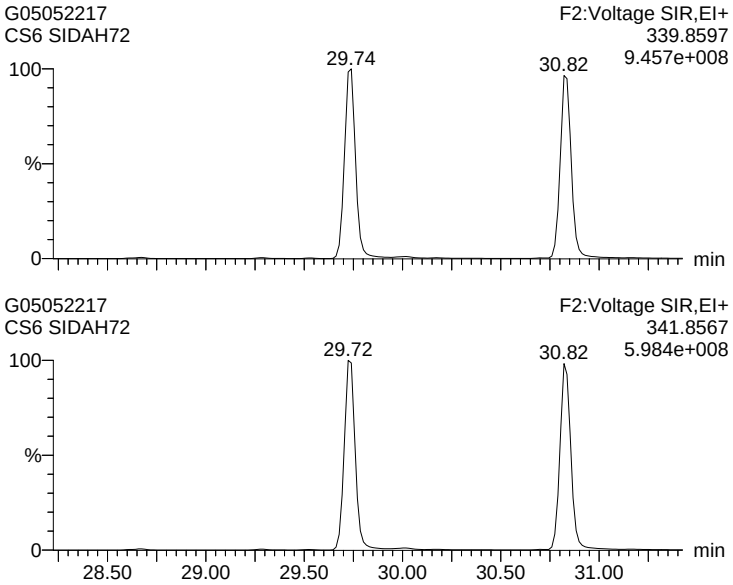
12368/13478/12478-PeCDF



14678-PeCDF



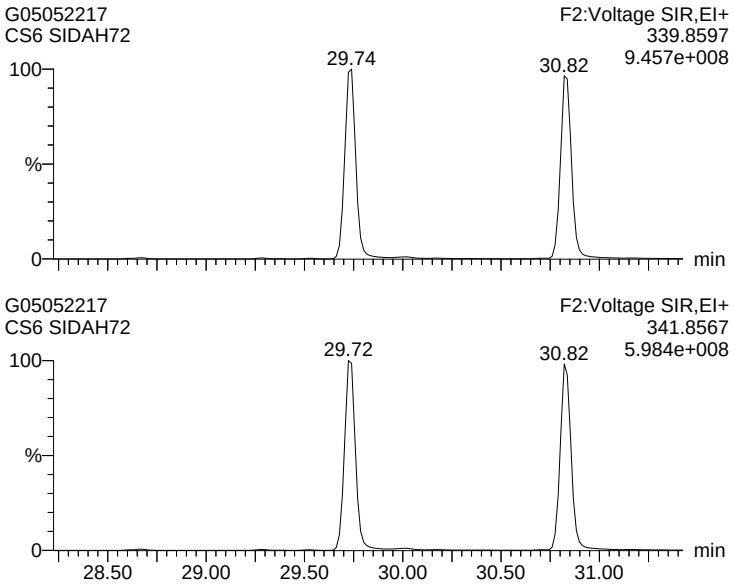
13479-PeCDF



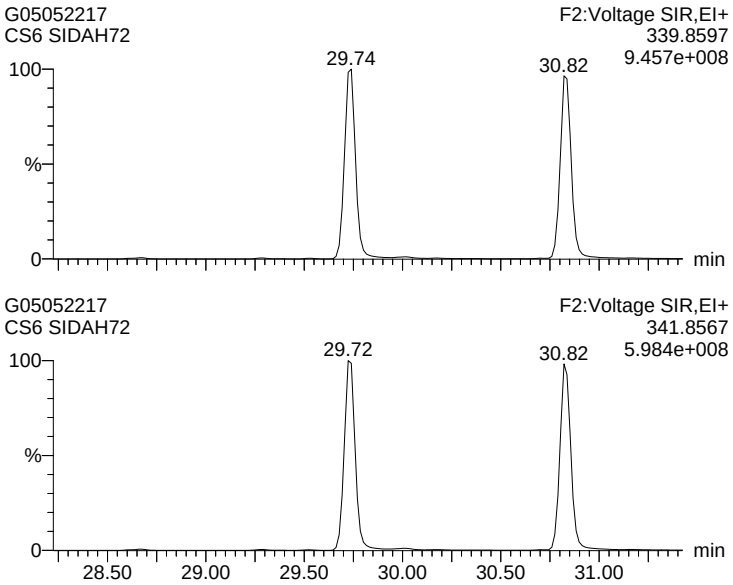
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

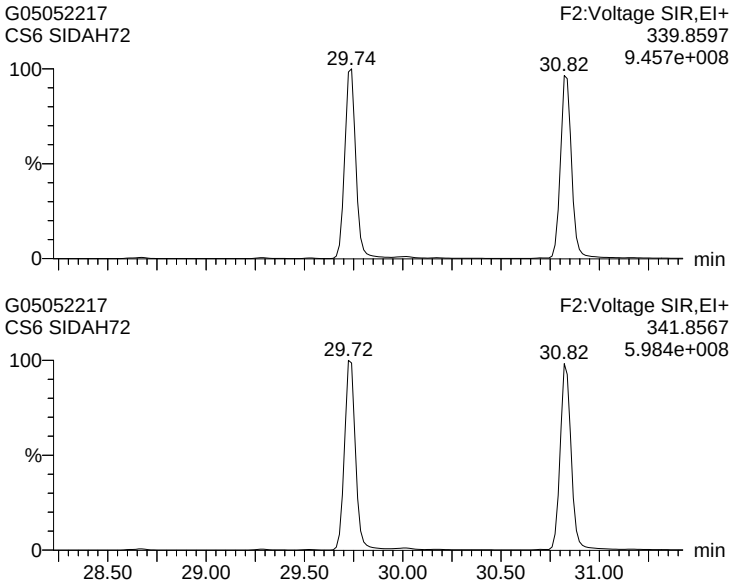
13469/12479-PeCDF



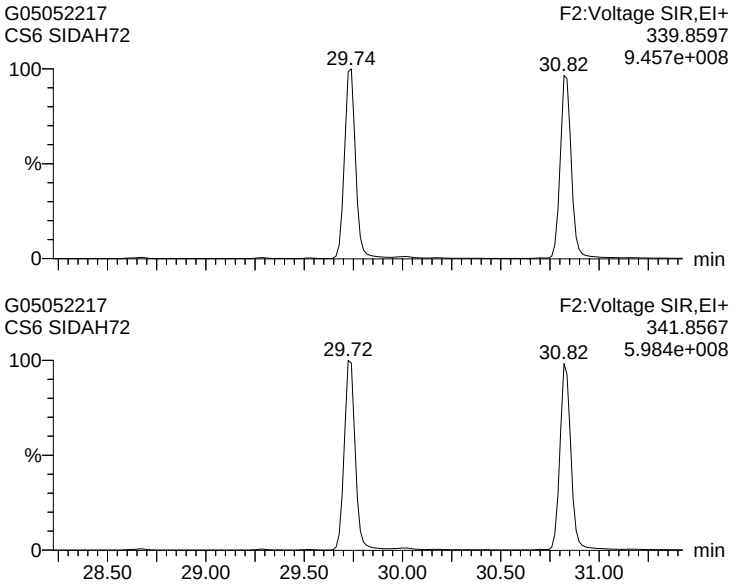
12346-PeCDF



23468/12469-PeCDF



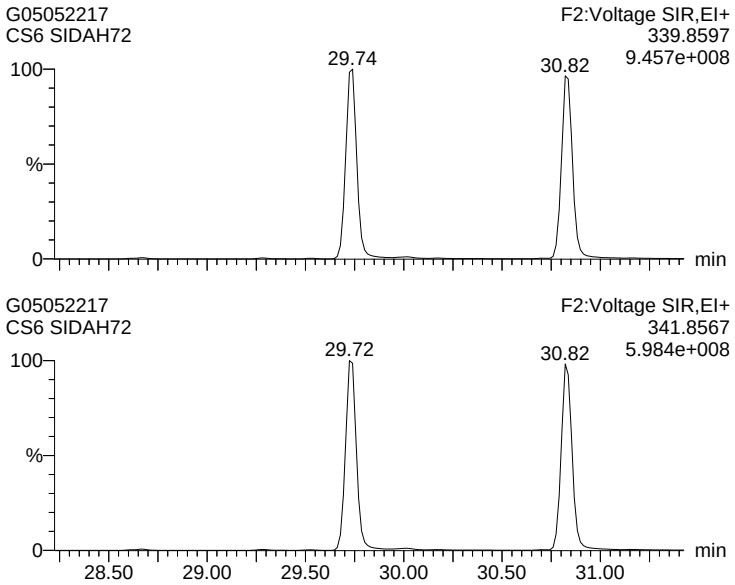
12347-PeCDF



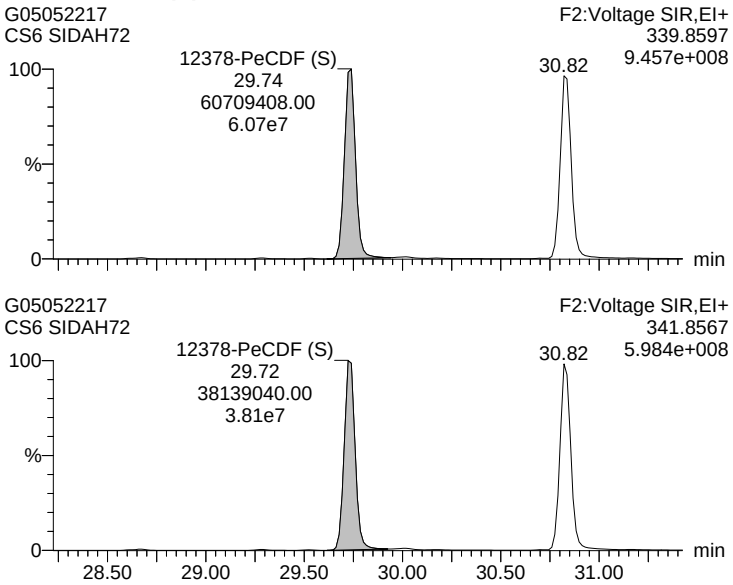
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

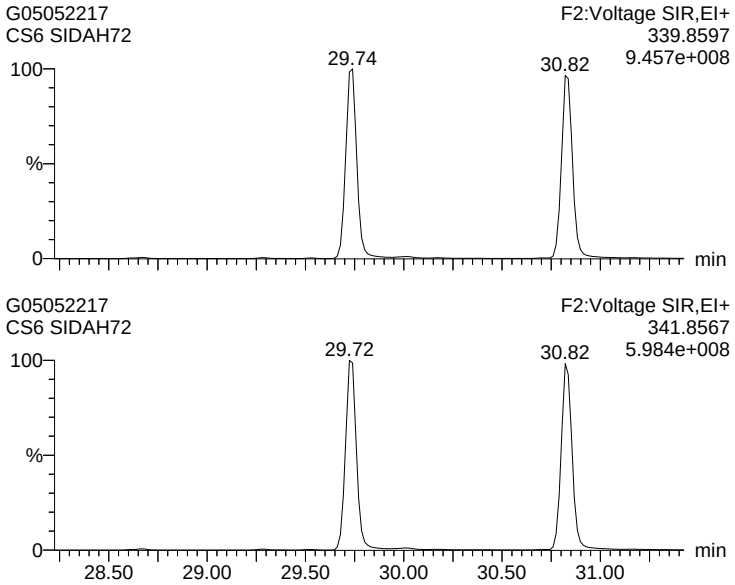
12348-PeCDF



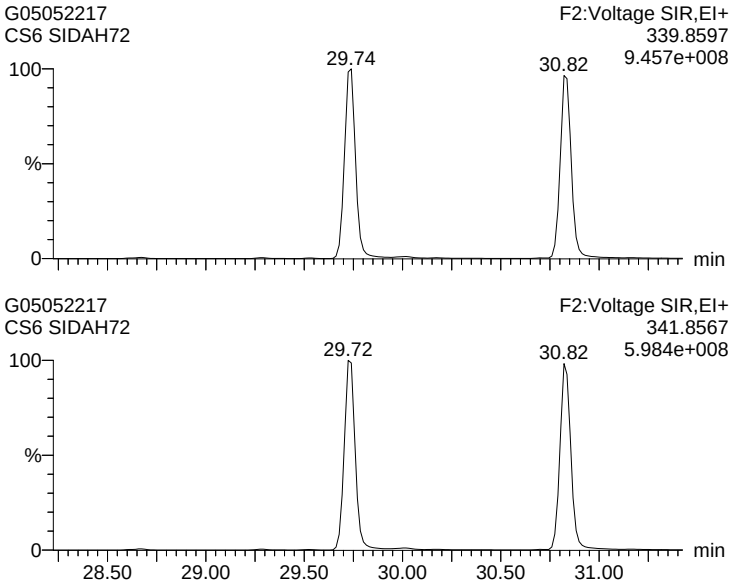
12378-PeCDF (S)



12678/12367-PeCDF



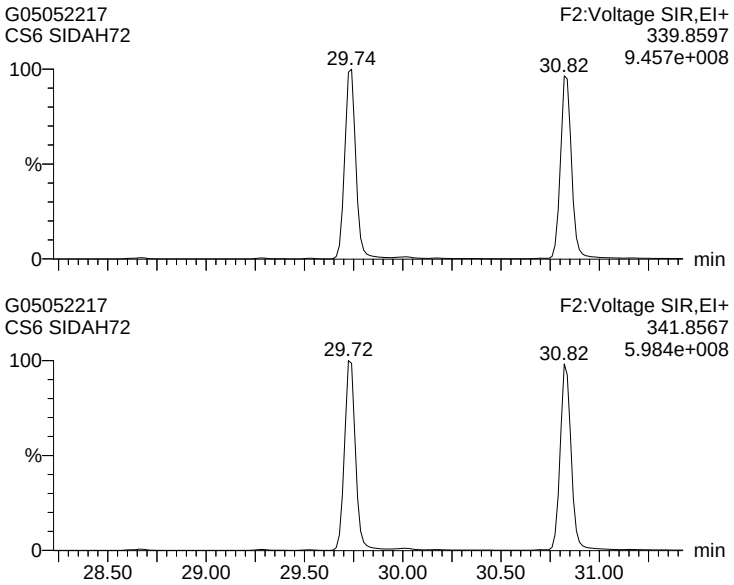
12379-PeCDF



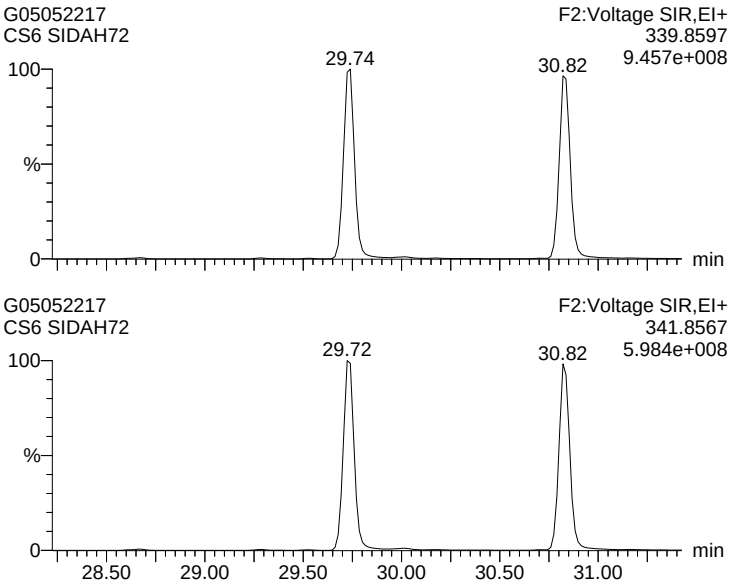
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

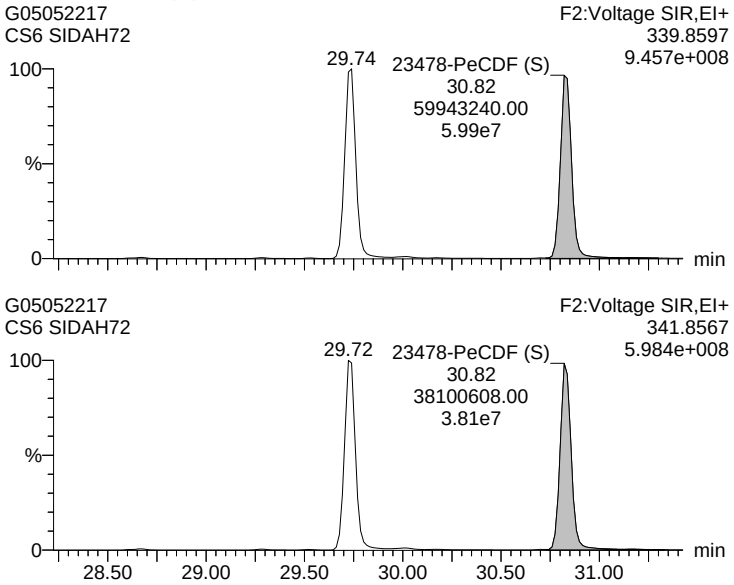
12679-PeCDF



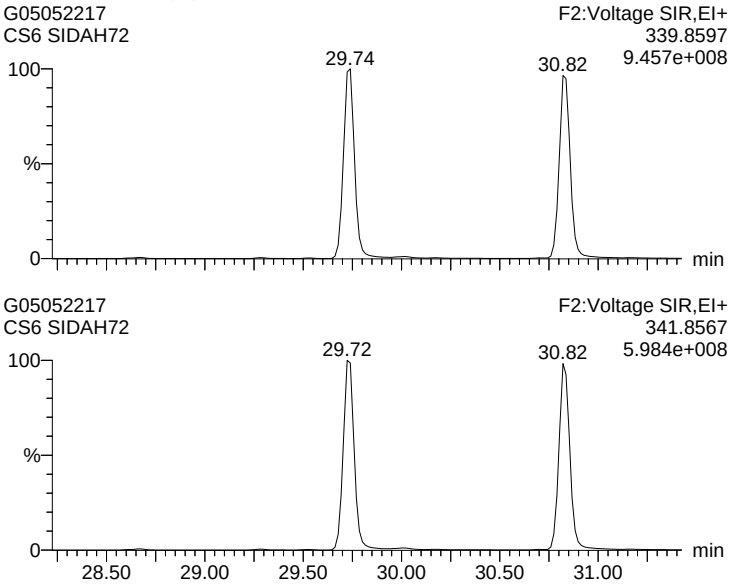
23467/12369-PeCDF



23478-PeCDF (S)



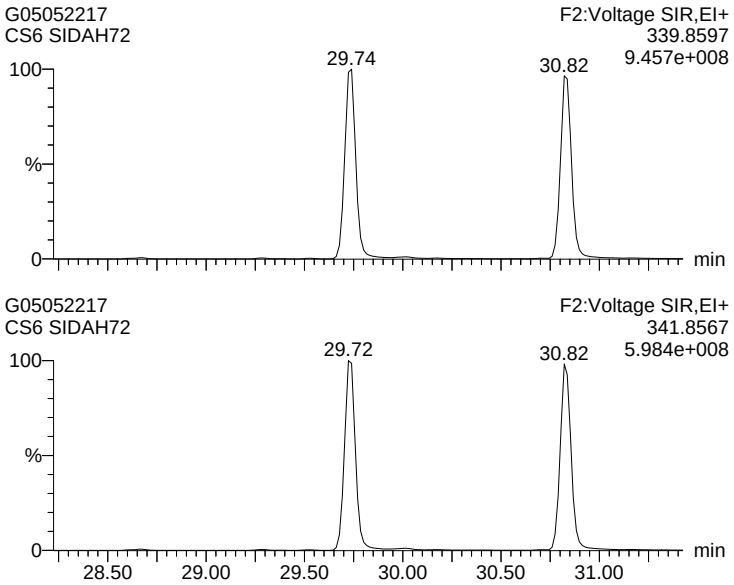
12489-PeCDF (R)



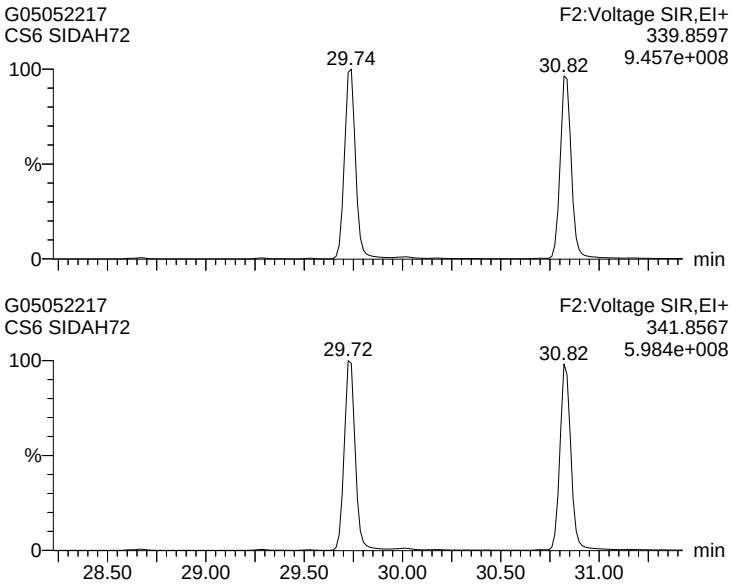
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

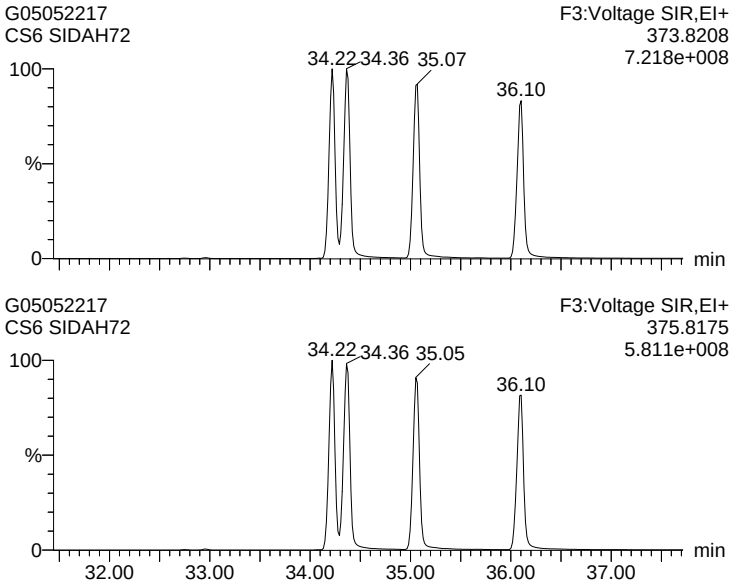
12349-PeCDF



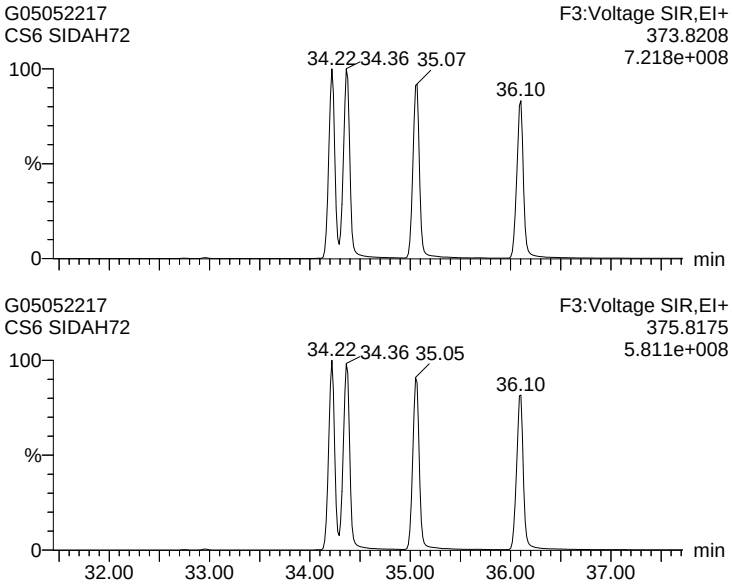
12389-PeCDF



123468-HxCDF



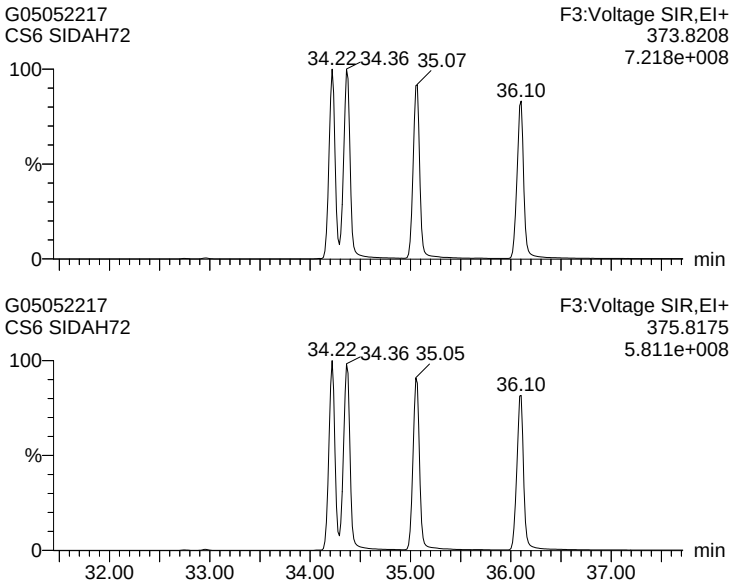
124678/134678-HxCDF



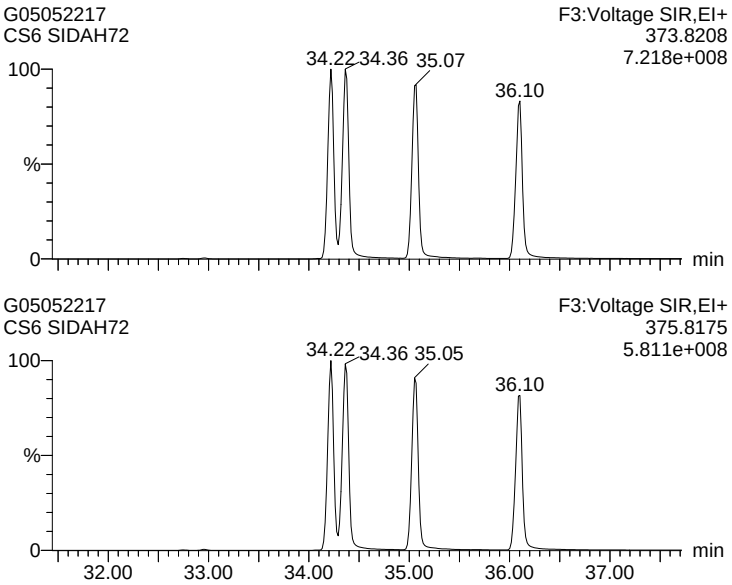
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

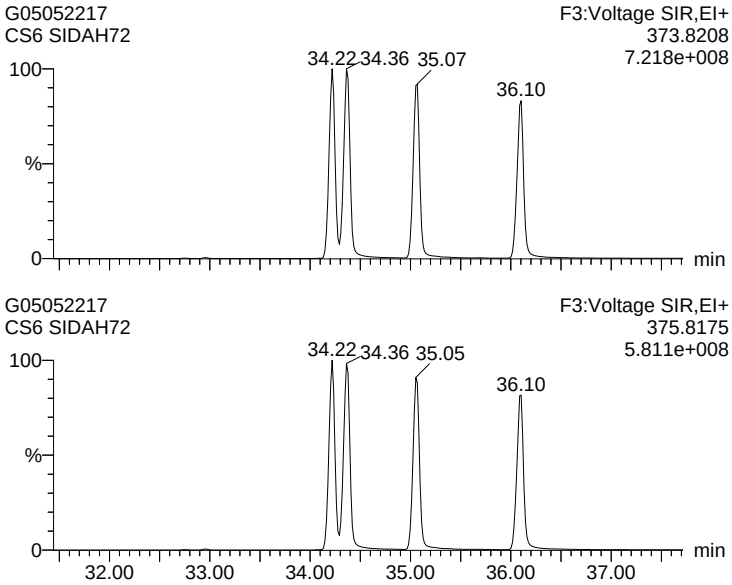
134679-HxCDF



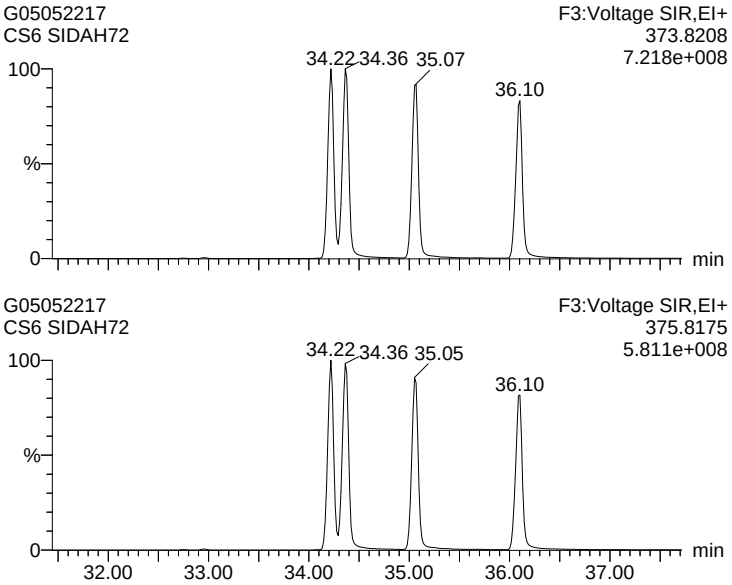
124679-HxCDF



124689-HxCDF



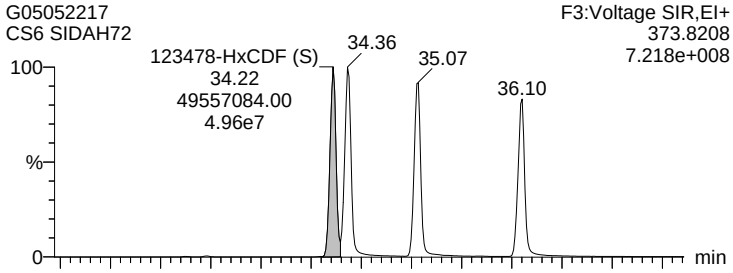
123467-HxCDF

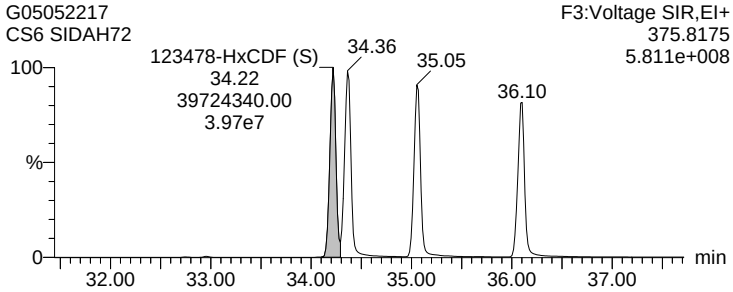


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

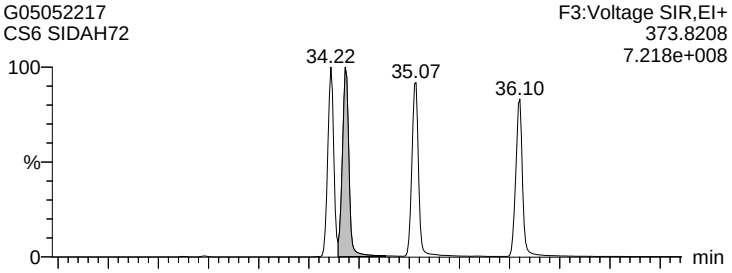
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

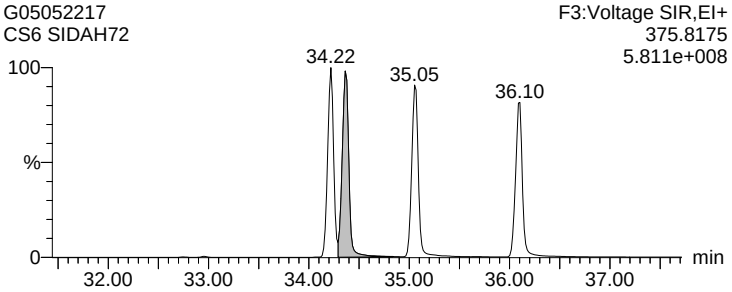
123478-HxCDF (S)



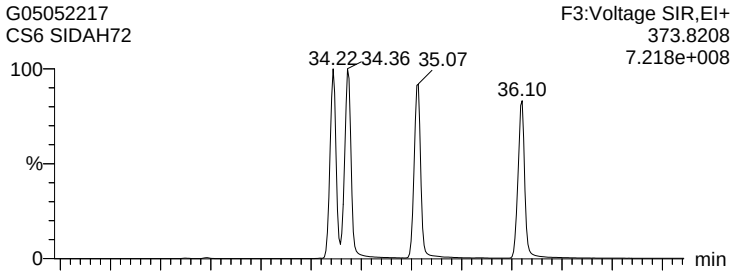


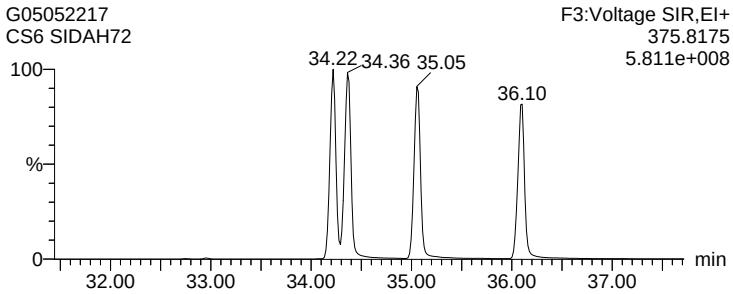
123678-HxCDF (S)



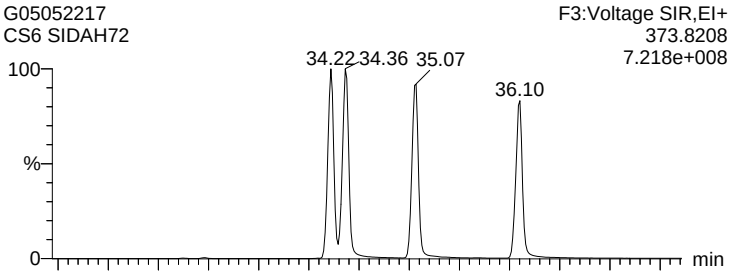


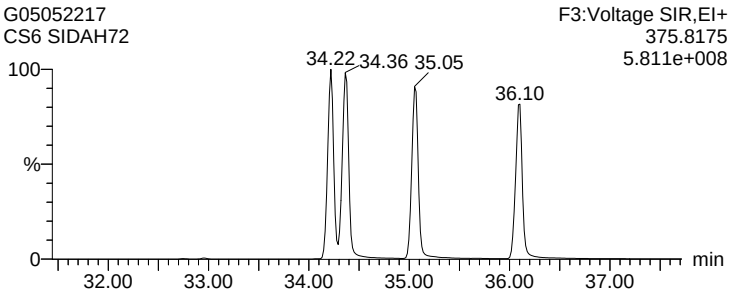
123479-HxCDF





123469-HxCDF

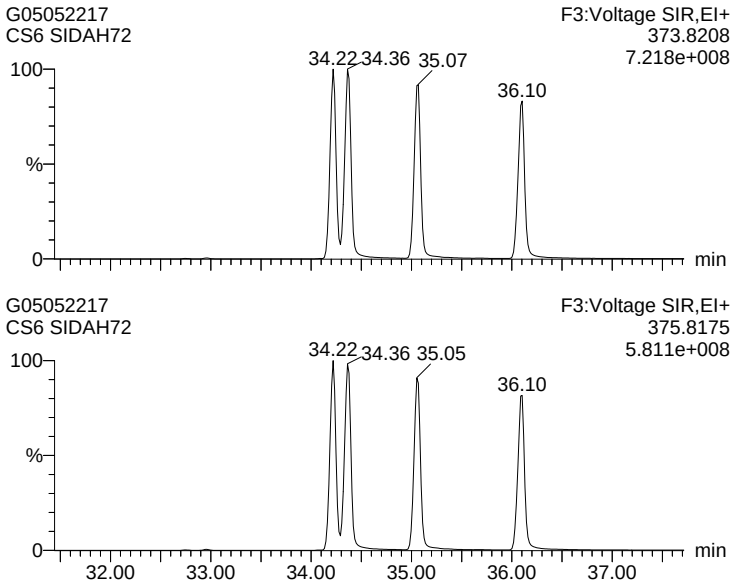




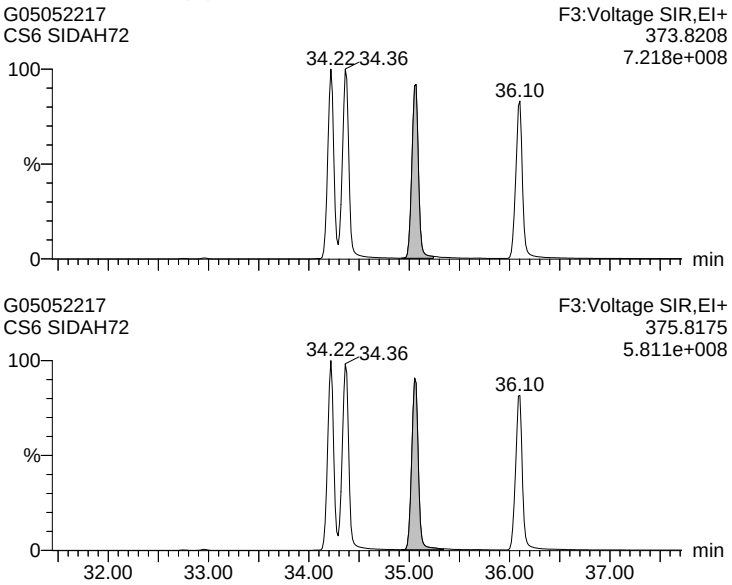
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

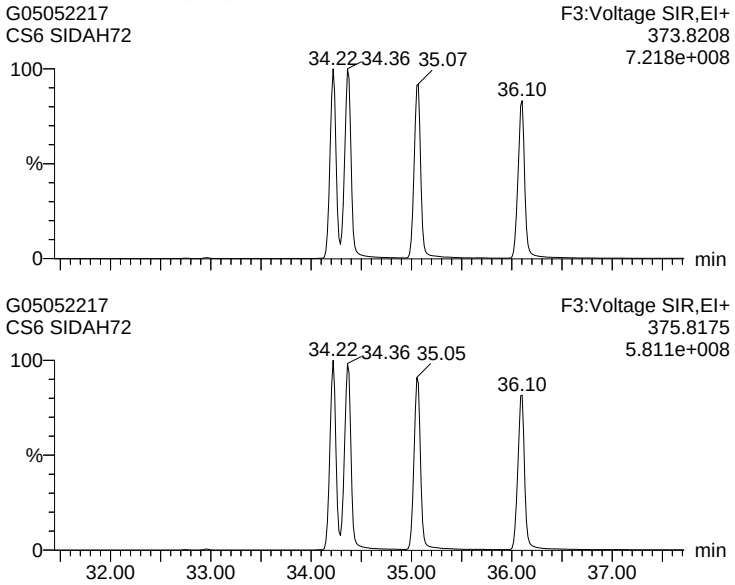
123679-HxCDF



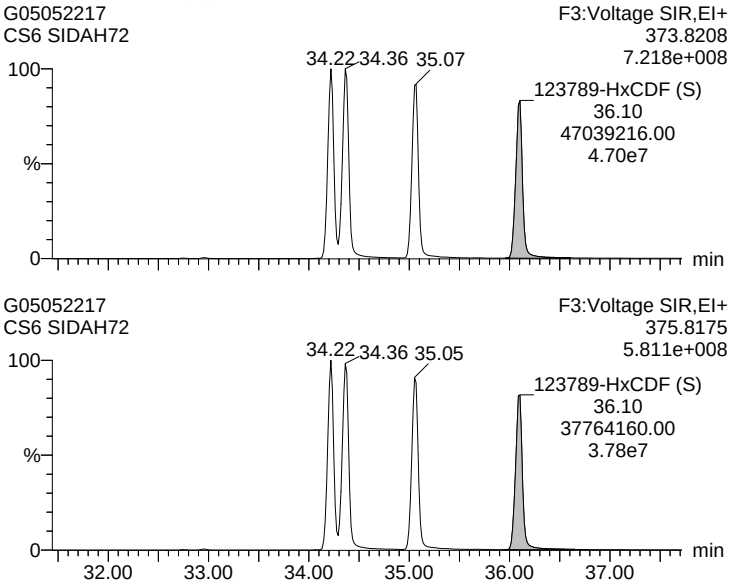
234678-HxCDF (S)



123689-HxCDF (NR)



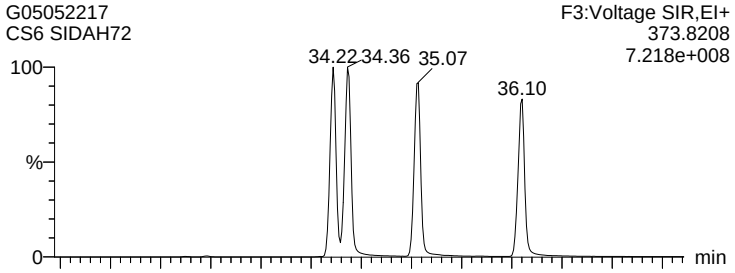
123789-HxCDF (S)

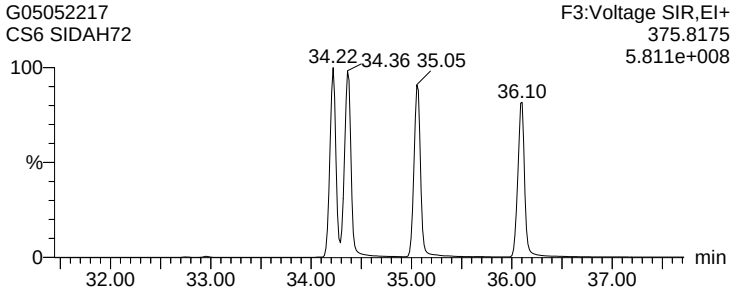


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

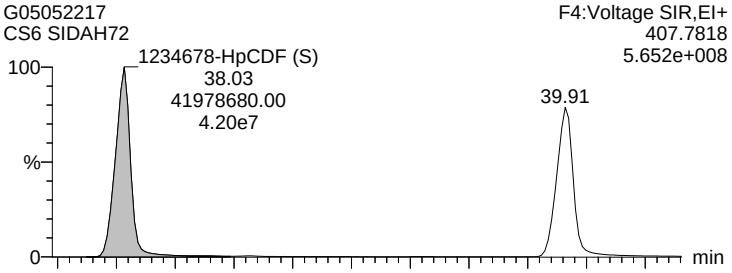
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

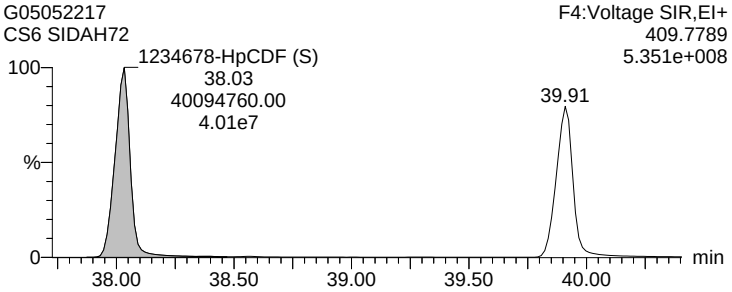
123489-HxCDF (R)



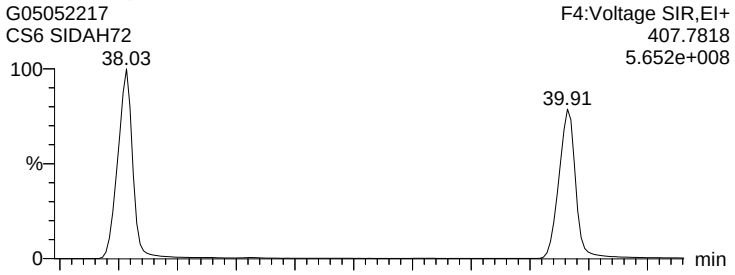


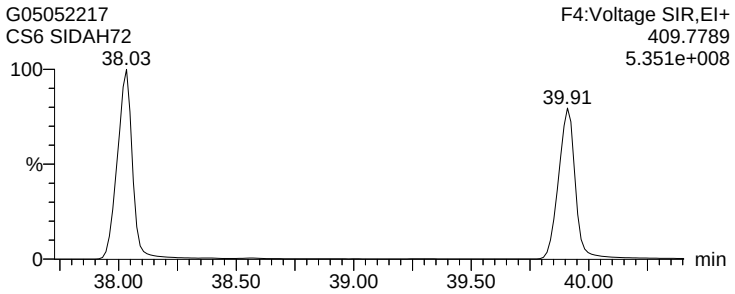
1234678-HpCDF (S)



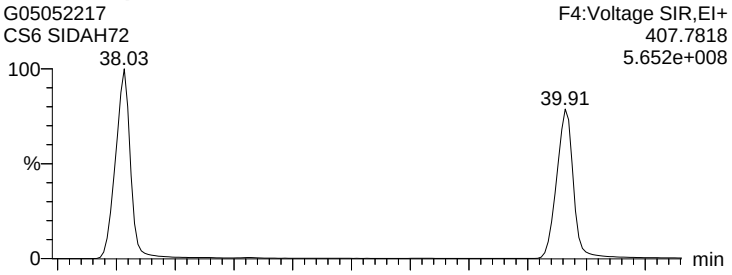


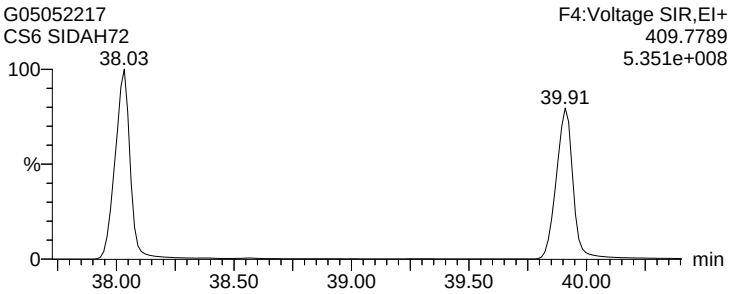
1234679-HpCDF





1234689-HpCDF

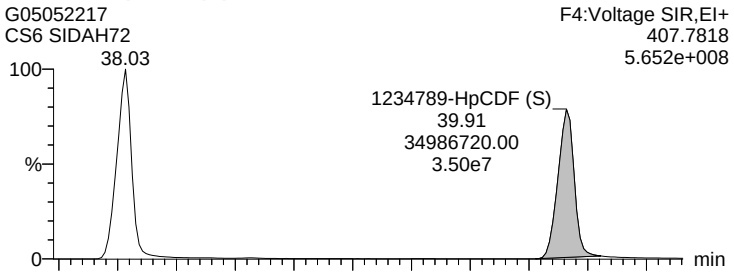


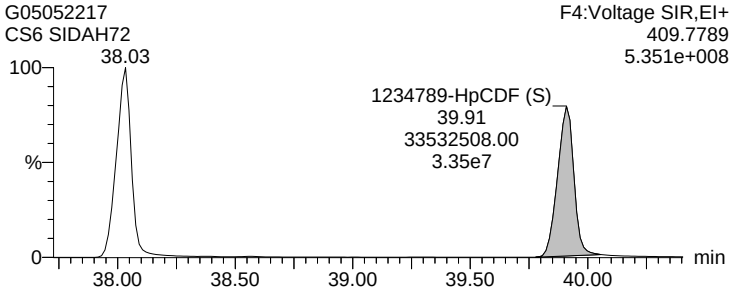


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

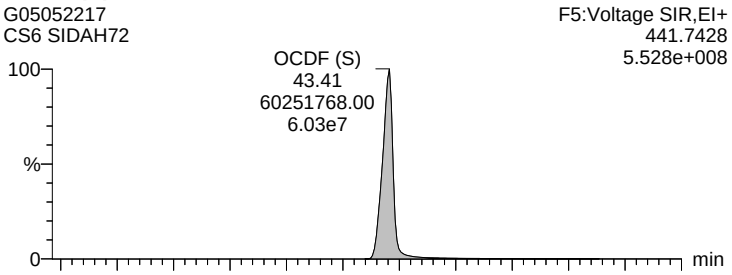
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

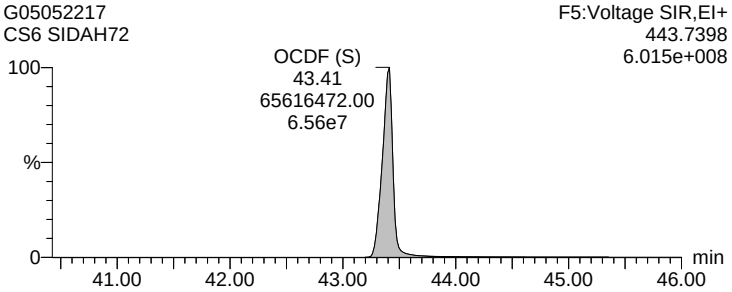
1234789-HpCDF (S)



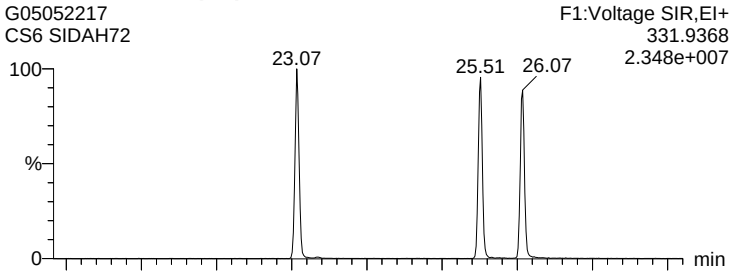


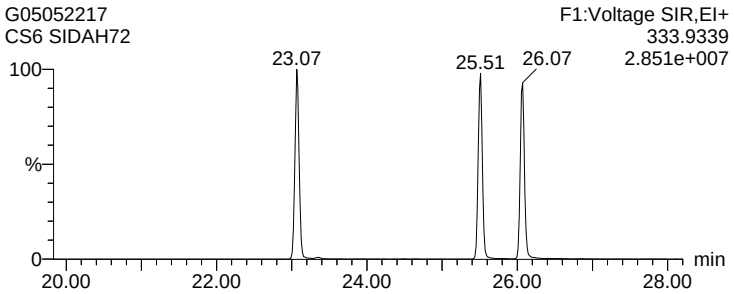
OCDF (S)



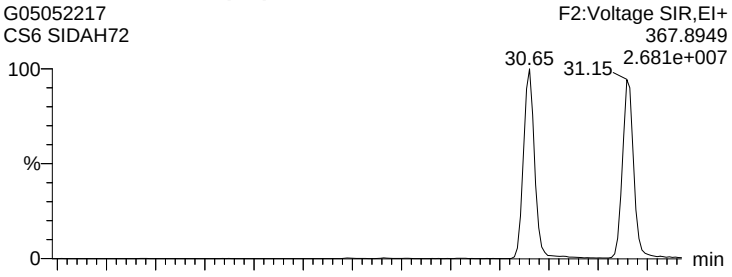


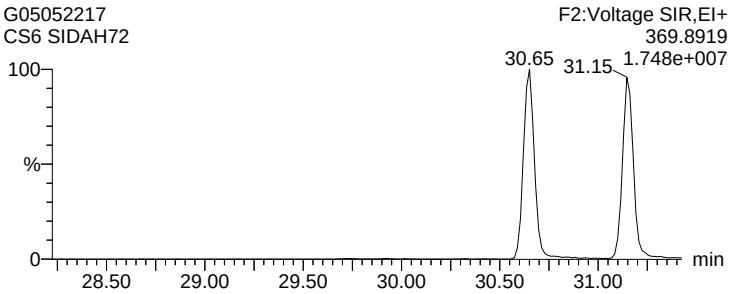
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

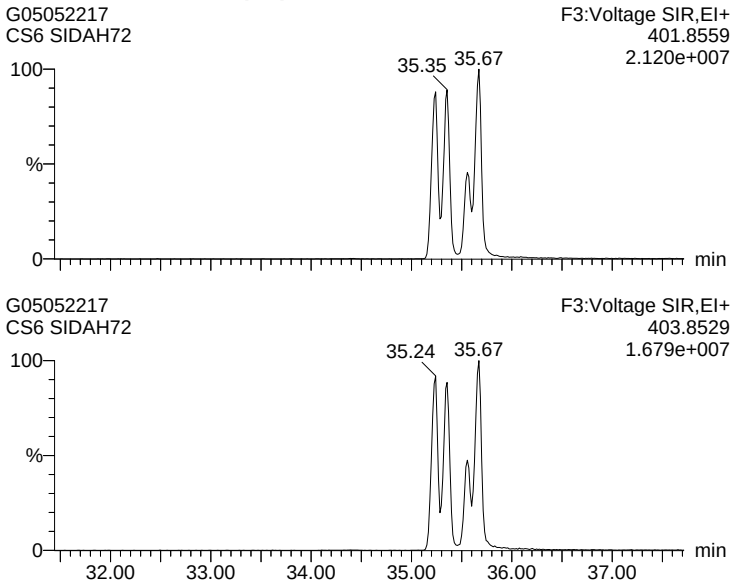




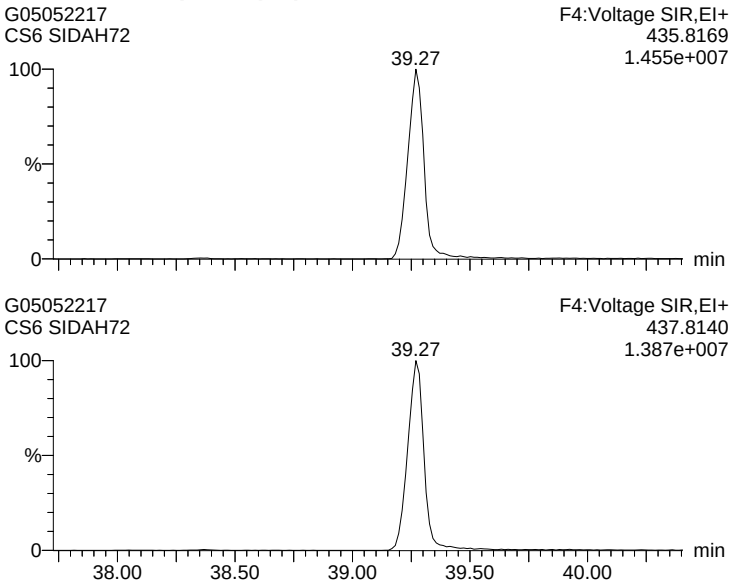
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

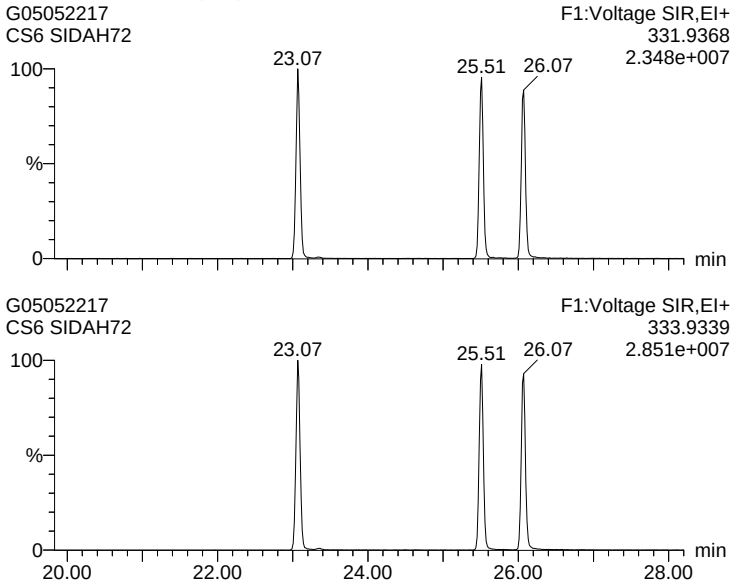
13C-123468-HxCDD (FS)



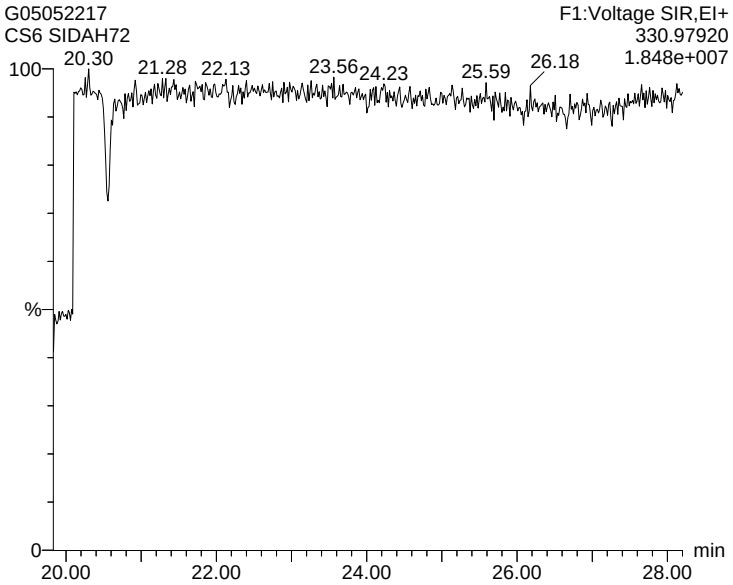
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



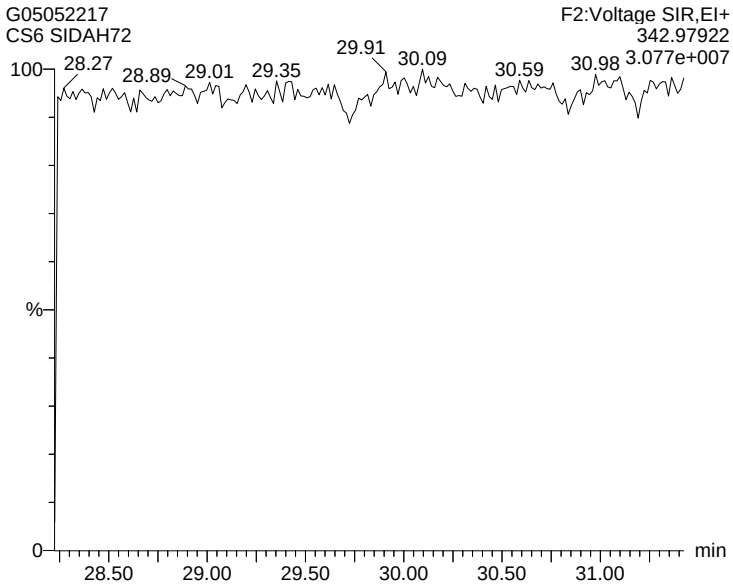
QC Check Ion Fn 1



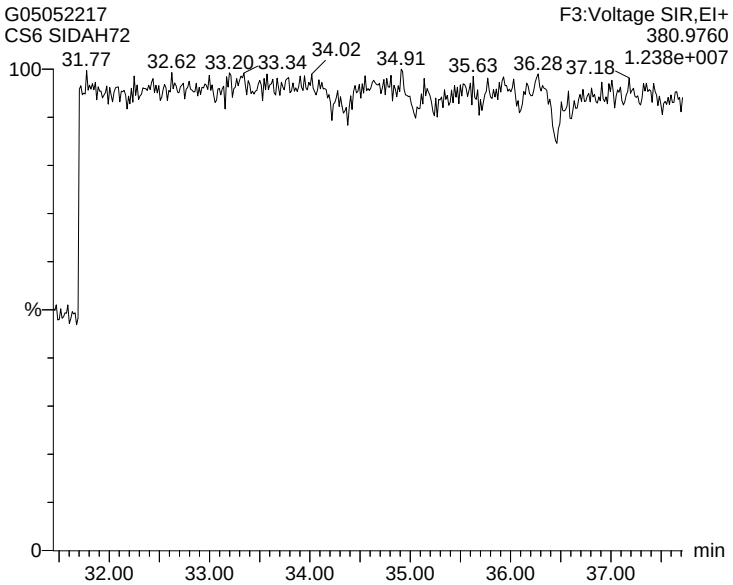
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

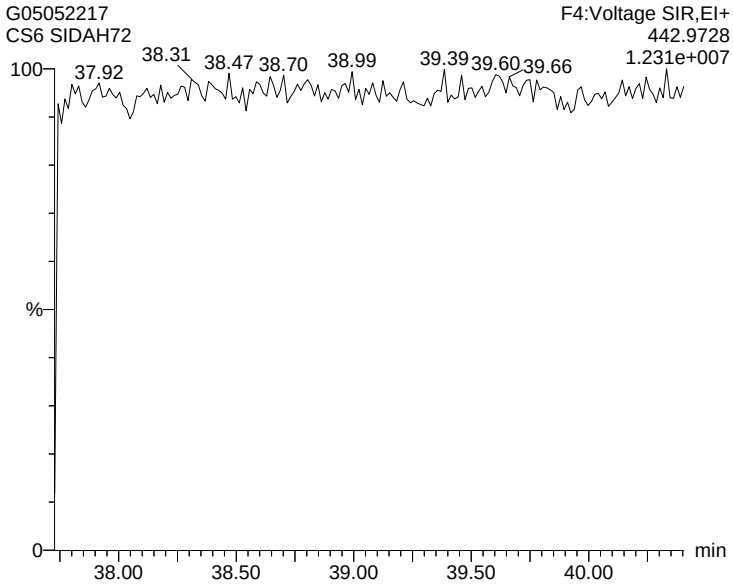
QC Check Ion Fn 2



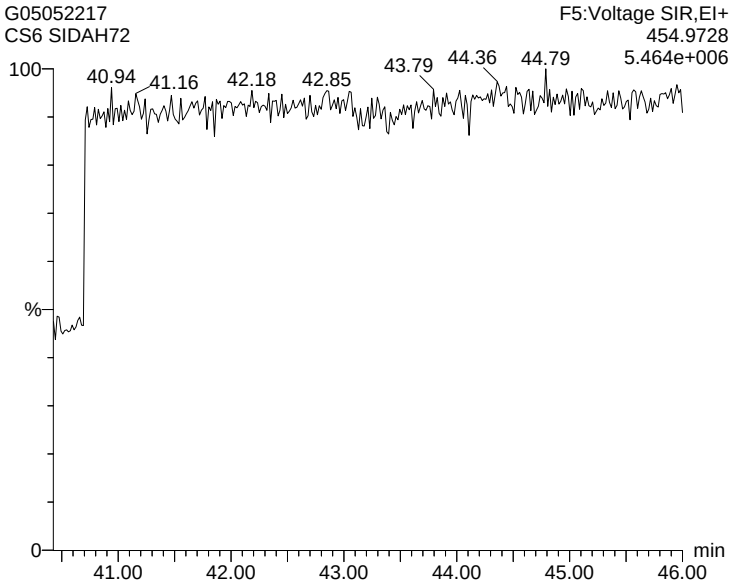
QC Check Ion Fn 3



QC Check Ion Fn 4



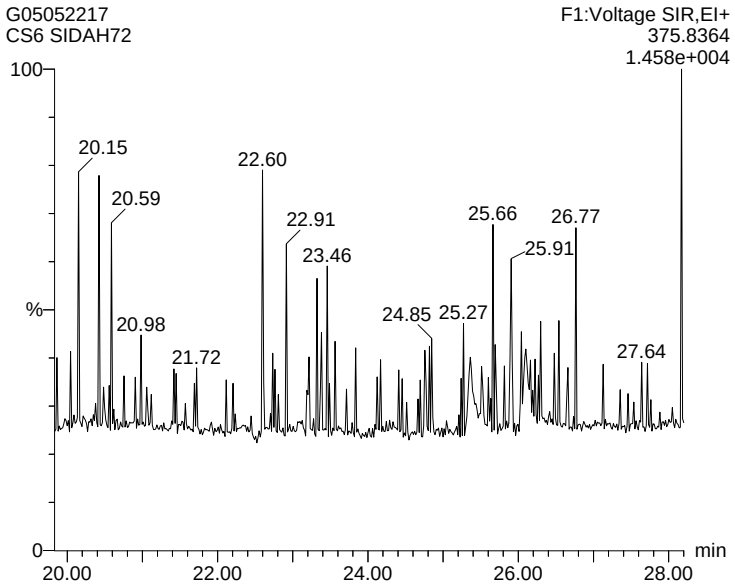
QC Check Ion Fn 5



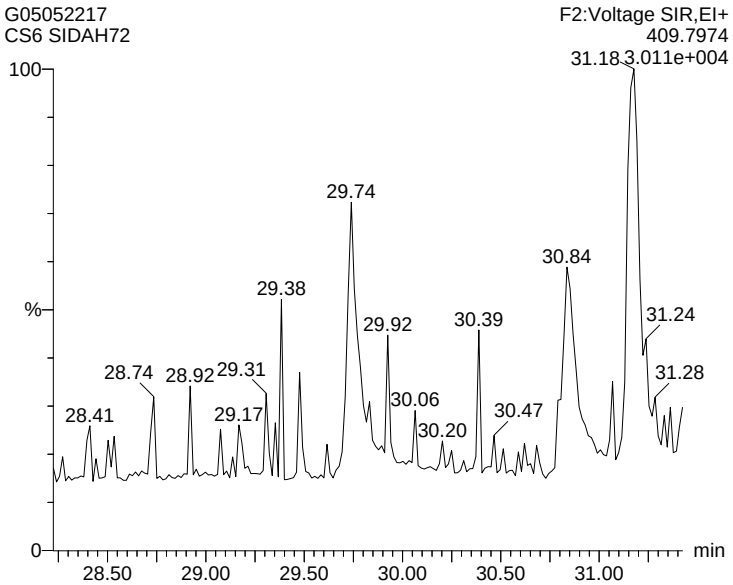
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

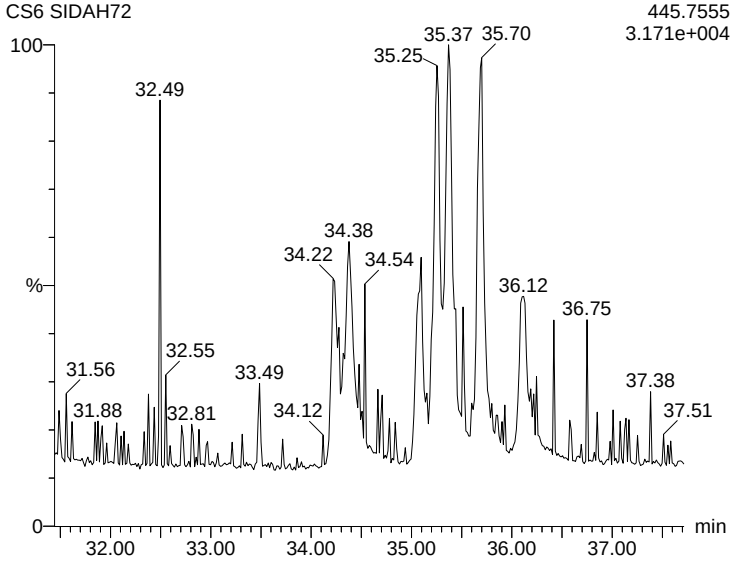
HxDPE



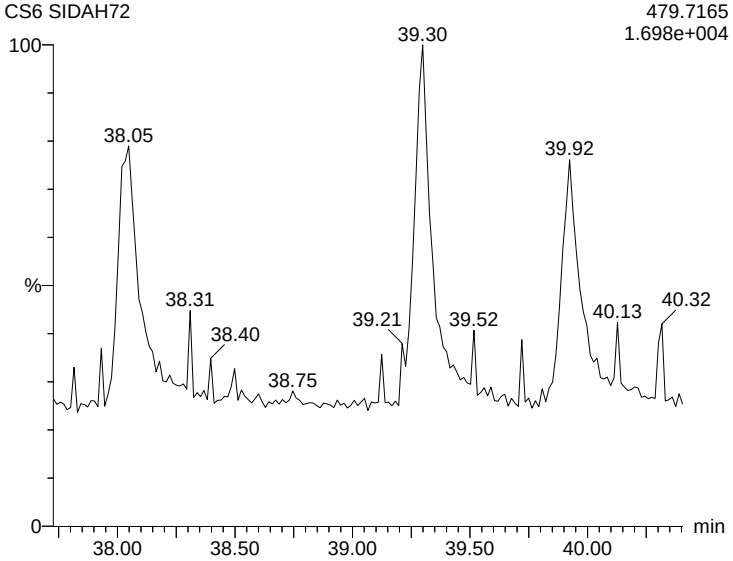
HpDPE



OcDPE



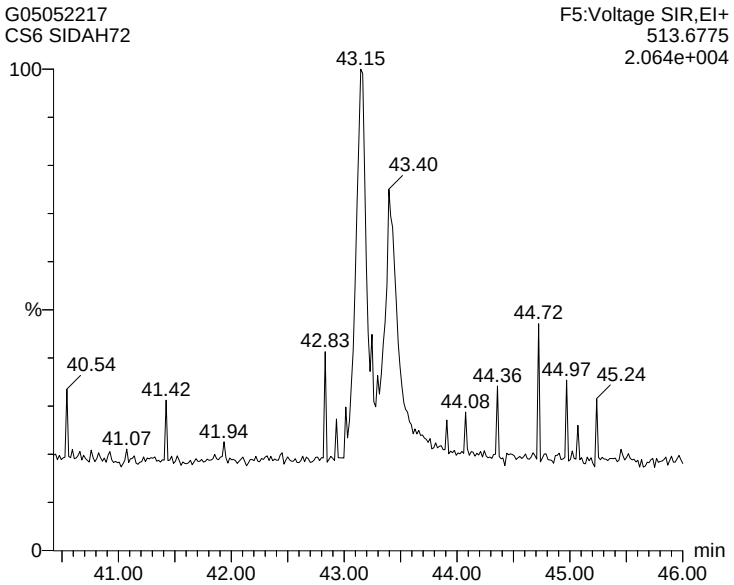
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.51	1403075.500		3150972.000	bb	109.7	9.7
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1867467.375		4232611.625	bb	108.9	8.9
3	3	13C-123467-HxCDD (JS)	401.8559	35.56	625982.188		1137503.001	bd	55.2	10.3
4	4	13C-2378-TCDD (ES)	331.9368	26.07	1327349.500	1403075.500	95.371	bb	101.6	1.6
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1612407.125	1403075.500	84.257	bb	103.2	3.2
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	1312917.625	625982.188	104.985	bd	100.3	0.3
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1314299.250	625982.188	104.116	db	105.4	5.4
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1468337.625	625982.188	115.997	db	104.2	4.2
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	1106556.875	625982.188	95.325	bb	103.5	3.5
10	10	13C-OCDD (ES)	469.7780	43.13	1689085.625	625982.188	74.245	bb	210.4	5.2
11	11	13C-2378-TCDF (ES)	315.9419	25.33	1862381.500	1867467.375	99.596	bb	101.0	1.0
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2186497.000	1867467.375	85.249	bb	97.9	-2.1
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	2295118.750	1867467.375	88.213	bb	104.4	4.4
14	14	13C-123478-HxCDF (ES)	383.8639	34.21	970670.688	625982.188	123.126	bd	104.1	4.1
15	15	13C-123678-HxCDF (ES)	383.8639	34.35	1124724.000	625982.188	141.606	db	99.5	-0.5
16	16	13C-234678-HxCDF (ES)	383.8639	35.04	1029422.000	625982.188	129.490	bb	100.1	0.1
17	17	13C-123789-HxCDF (ES)	383.8639	36.07	958675.938	625982.188	122.846	bb	104.0	4.0
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	698371.813	625982.188	100.102	bb	103.3	3.3
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	636665.313	625982.188	90.129	bb	103.1	3.1
20	20	13C-OCDF (ES)	453.7830	43.40	2078115.125	625982.188	91.345	bb	211.3	5.7
21	21	37Cl-2378-TCDD (CS)	327.8847			1403075.500		MM-		
22	22	13C-12347-PeCDD (CS)	367.8949	30.65	1724561.000	1403075.500	89.787	bb	102.1	2.1
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2186497.000	1867467.375	85.249	bb	97.9	-2.1
24	24	13C-123469-HxCDF (CS)	383.8639	34.68	941188.500	625982.188	121.134	bb	98.3	-1.7
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	673645.063	625982.188	93.571	bb	97.2	-2.8
26	26	37Cl-2378-TCDD (SS)	327.8847			1327349.500		MM-		
27	27	13C-12347-PeCDD (SS)	367.8949	30.65	1680463.250	1612407.125	104.458	bb	99.2	-0.8
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2186497.000	2186497.000	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.68	924474.188	1124724.000	84.653	bb	99.1	-0.9
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	673645.063	698371.813	93.475	bb	94.2	-5.8
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1425093.250	1403075.500	102.259	bb	98.1	-1.9
32	32	13C-1368-TCDF (AS)	315.9419	21.56	2081815.875	1867467.375	111.689	bb	98.0	-2.0
33	33	1368-TCDD	319.8965			1327349.500				
34	34	1379-TCDD	319.8965			1327349.500				
35	35	1369-TCDD	319.8965			1327349.500				
36	36	1469-TCDD	319.8965			1327349.500				
37	37	1247/1246/1248/1249-TC...	319.8965			1327349.500				
38	38	1378-TCDD	319.8965			1327349.500				
39	39	1268-TCDD	319.8965			1327349.500				
40	40	1478-TCDD	319.8965			1327349.500				
41	41	1279-TCDD	319.8965			1327349.500				
42	42	1234/1269-TCDD	319.8965			1327349.500				
43	43	1236-TCDD	319.8965			1327349.500				
44	44	1237/1238-TCDD	319.8965			1327349.500				
45	45	1239-TCDD [CE]	319.8965			1327349.500				
46	46	2378-TCDD (S)	319.8965	26.09	7595349.500	1327349.500	572.129	dd	502.1	0.4
47	47	1278-TCDD	319.8965			1327349.500				
48	48	1267-TCDD	319.8965			1327349.500				
49	49	1289-TCDD	319.8965			1327349.500				
50	50	12479/12468-PeCDD	355.8546			1612407.125				
51	51	12469-PeCDD	355.8546			1612407.125				
52	52	12368-PeCDD	355.8546			1612407.125				
53	53	12478-PeCDD	355.8546			1612407.125				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1612407.125				
55	55	12369/12467/12489-PeCDD	355.8546			1612407.125				
56	56	12346/12347-PeCDD	355.8546			1612407.125				
57	57	12378-PeCDD (S)	355.8546	31.18	40199336.0...	1612407.125	2481.266	bb	2450.3	-2.0
58	58	12367-PeCDD	355.8546			1612407.125				
59	59	12389-PeCDD	355.8546			1612407.125				
60	60	124679/124689-HxCDD	389.8157			1312917.625				
61	61	123468-HxCDD	389.8157			1312917.625				
62	62	123679/123689-HxCDD	389.8157			1312917.625				
63	63	123469-HxCDD	389.8157			1312917.625				
64	64	123478-HxCDD (S)	389.8157	35.25	35916832.0...	1312917.625	2635.308	bd	2497.9	-0.1
65	65	123678-HxCDD (S)	389.8157	35.37	34266320.0...	1314299.250	2647.710	db	2407.1	-3.7
66	66	123467-HxCDD	389.8157			1468337.625				
67	67	123789-HxCDD (S)	389.8157	35.69	37809476.0...	1468337.625	2567.661	bd	2455.8	-1.8
68	68	1234679-HpCDD	423.7766			1106556.875				
69	69	1234678-HpCDD (S)	423.7766	39.28	27917648.0...	1106556.875	2517.298	bb	2400.9	-4.0
70	70	OCDD (S)	457.7377	43.15	47310896.0...	1689085.625	5601.954	bd	4927.1	-1.5
71	71	1368-TCDF	303.9016			1862381.500				
72	72	1468-TCDF	303.9016			1862381.500				
73	73	2468-TCDF	303.9016			1862381.500				
74	74	1346/1246-TCDF	303.9016			1862381.500				
75	75	1347/1378/1247-TCDF	303.9016			1862381.500				
76	76	1348-TCDF	303.9016			1862381.500				
77	77	1248/1367/1379-TCDF	303.9016			1862381.500				
78	78	1268-TCDF	303.9016			1862381.500				
79	79	1467-TCDF	303.9016			1862381.500				
80	80	1478-TCDF	303.9016			1862381.500				
81	81	1369/1237-TCDF	303.9016			1862381.500				
82	82	2467-TCDF	303.9016			1862381.500				
83	83	2368-TCDF	303.9016			1862381.500				
84	84	1238/1234/1678/1469/123...	303.9016			1862381.500				
85	85	1278-TCDF	303.9016			1862381.500				
86	86	1349-TCDF	303.9016			1862381.500				
87	87	1267-TCDF	303.9016			1862381.500				
88	88	2346/1249-TCDF	303.9016			1862381.500				
89	89	2347/1279-TCDF	303.9016			1862381.500				
90	90	2348-TCDF [CE]	303.9016			1862381.500				
91	91	2378-TCDF (S)	303.9016	25.35	10418835.0...	1862381.500	561.678	ds	505.8	1.2
92	92	2367/3467-TCDF	303.9016			1862381.500				
93	93	1269-TCDF	303.9016			1862381.500				
94	94	1239-TCDF	303.9016			1862381.500				
95	95	1289-TCDF	303.9016			1862381.500				
96	96	13468/12466-PeCDF	339.8597			2186497.000				
97	97	13678/13467/12467-PeCDF	339.8597			2186497.000				
98	98	12368/13478/12478-PeCDF	339.8597			2186497.000				
99	99	14678-PeCDF	339.8597			2186497.000				
100	1...	13479-PeCDF	339.8597			2186497.000				
101	1...	13469/12479-PeCDF	339.8597			2186497.000				
102	1...	12346-PeCDF	339.8597			2186497.000				
103	1...	23468/12469-PeCDF	339.8597			2186497.000				
104	1...	12347-PeCDF	339.8597			2186497.000				
105	1...	12348-PeCDF	339.8597			2186497.000				
106	1...	12378-PeCDF (S)	339.8597	29.74	60709408.0...	2186497.000	2739.503	MM	2549.0	2.0

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICAL_V2.qld
Last Altered: Friday, May 06, 2022 10:14:37 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:43:13 Eastern Daylight Time

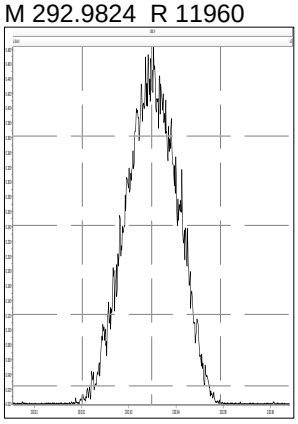
Name: G05052217, Date: 05-May-2022, Time: 22:03:13, ID: SIDAH72, Description: CS6, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2186497.000				
108	1...	12379-PeCDF	339.8597			2186497.000				
109	1...	12679-PeCDF	339.8597			2295118.750				
110	1...	23467/12369-PeCDF	339.8597			2295118.750				
111	1...	23478-PeCDF (S)	339.8597	30.82	59943240.0...	2295118.750	2625.912	ds	2481.8	-0.7
112	1...	12489-PeCDF (R)	339.8597			2295118.750				
113	1...	12349-PeCDF	339.8597			2295118.750				
114	1...	12389-PeCDF	339.8597			2295118.750				
115	1...	123468-HxCDF	373.8208			970670.688				
116	1...	124678/134678-HxCDF	373.8208			970670.688				
117	1...	134679-HxCDF	373.8208			970670.688				
118	1...	124679-HxCDF	373.8208			970670.688				
119	1...	124689-HxCDF	373.8208			970670.688				
120	1...	123467-HxCDF	373.8208			970670.688				
121	1...	123478-HxCDF (S)	373.8208	34.22	49557084.0...	970670.688	3187.341	dd	2444.6	-2.2
122	1...	123678-HxCDF (S)	373.8208	34.36	53883204.0...	1124724.000	3012.035	ds	2494.6	-0.2
123	1...	123479-HxCDF	373.8208			1124724.000				
124	1...	123469-HxCDF	373.8208			1029422.000				
125	1...	123679-HxCDF	373.8208			1029422.000				
126	1...	234678-HxCDF (S)	373.8208	35.07	49761232.0...	1029422.000	3038.466	bs	2450.5	-2.0
127	1...	123689-HxCDF (NR)	373.8208			1029422.000				
128	1...	123789-HxCDF (S)	373.8208	36.10	47039216.0...	958675.938	3034.382	bs	2484.2	-0.6
129	1...	123489-HxCDF (R)	373.8208			958675.938				
130	1...	1234678-HpCDF (S)	407.7818	38.03	41978680.0...	698371.813	3603.932	bd	2446.0	-2.2
131	1...	1234679-HpCDF	407.7818			698371.813				
132	1...	1234689-HpCDF	407.7818			698371.813				
133	1...	1234789-HpCDF (S)	407.7818	39.91	34986720.0...	636665.313	3341.674	bb	2404.7	-3.8
134	1...	OCDF (S)	441.7428	43.41	60251768.0...	2078115.125	5798.694	dd	4923.3	-1.5
135	1...	13C-1278-TCDD (FS)	331.9368			1327349.500				
136	1...	13C-12478-PeCDD (FS)	367.8949			1612407.125				
137	1...	13C-123468-HxCDD (FS)	401.8559			625982.188				
138	1...	13C-1234679-HpCDD (FS)	435.8169			1106556.875				
139	1...	13C-1378-TCDD (TS)	331.9368			1327349.500				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

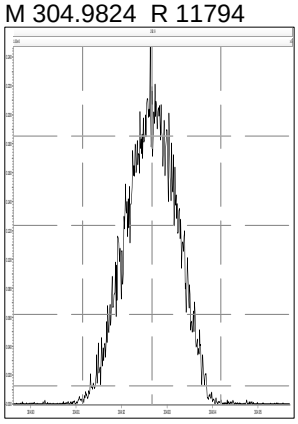
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 1 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:03:27 Eastern Daylight Time

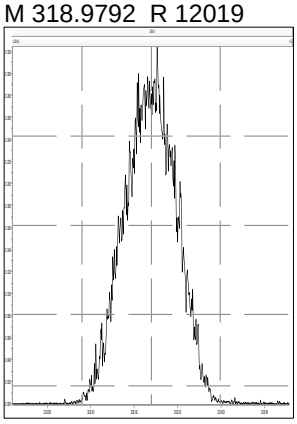
M 292.9824 R 11960



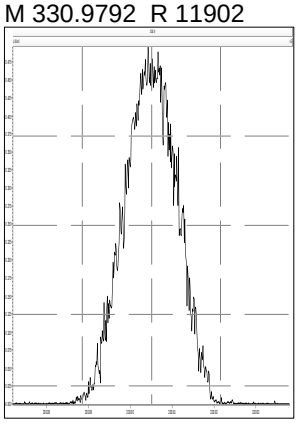
M 304.9824 R 11794



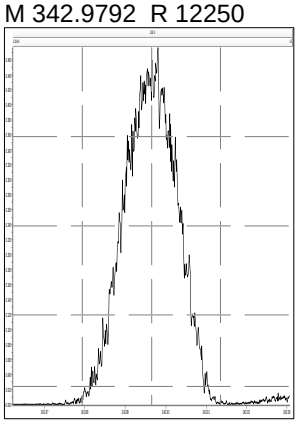
M 318.9792 R 12019



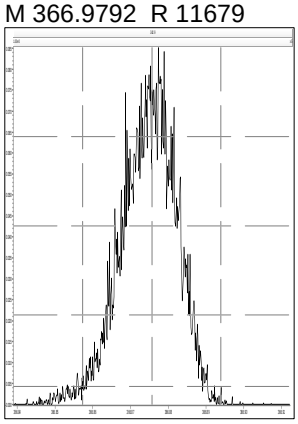
M 330.9792 R 11902



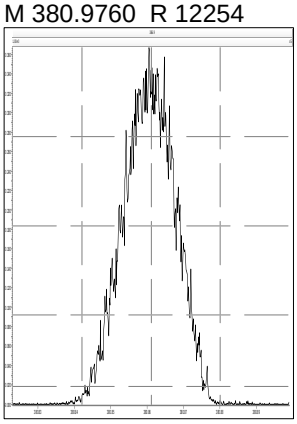
M 342.9792 R 12250



M 366.9792 R 11679



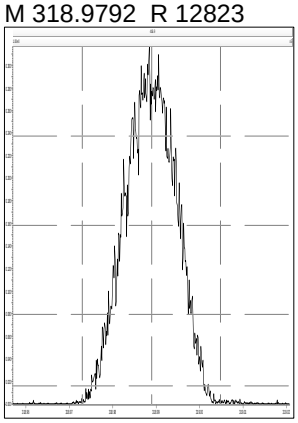
M 380.9760 R 12254



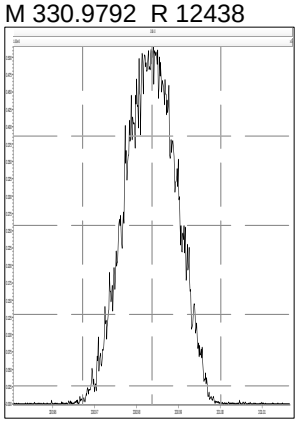
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 2 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:03:56 Eastern Daylight Time

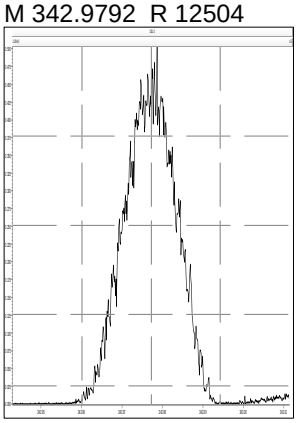
M 318.9792 R 12823



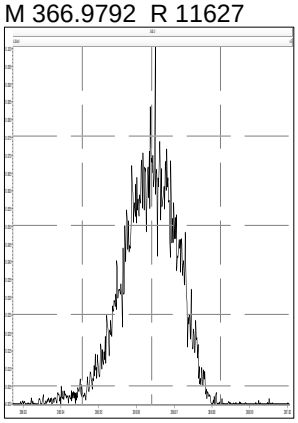
M 330.9792 R 12438



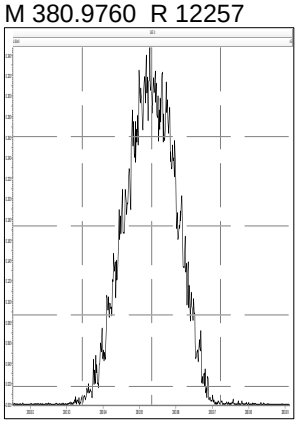
M 342.9792 R 12504



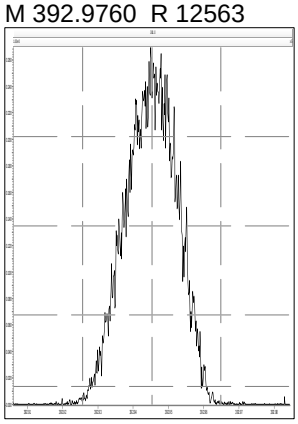
M 366.9792 R 11627



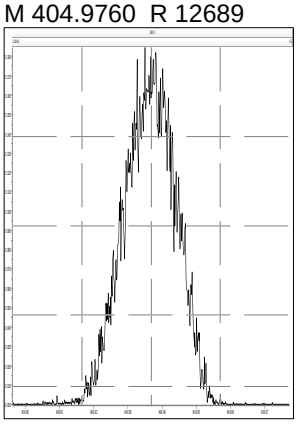
M 380.9760 R 12257



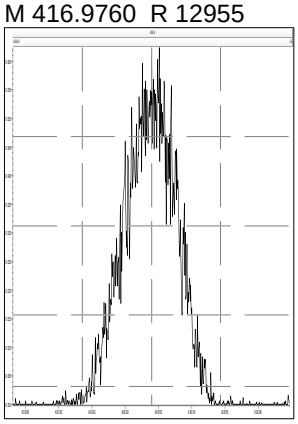
M 392.9760 R 12563



M 404.9760 R 12689



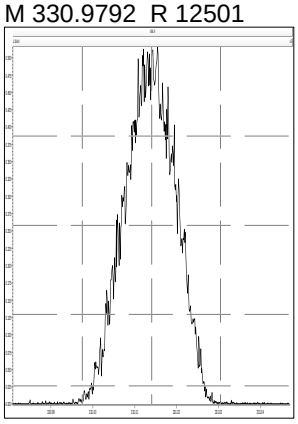
M 416.9760 R 12955



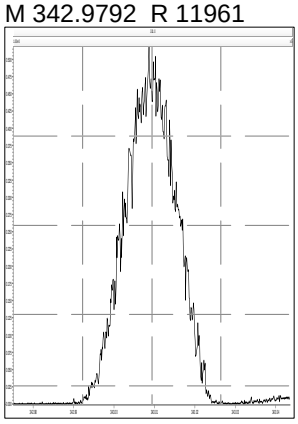
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 3 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:04:32 Eastern Daylight Time

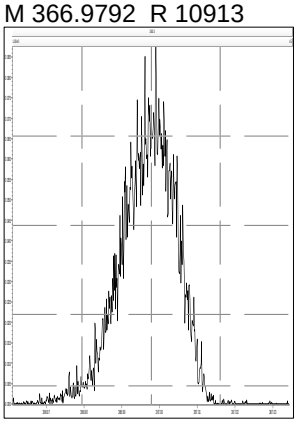
M 330.9792 R 12501



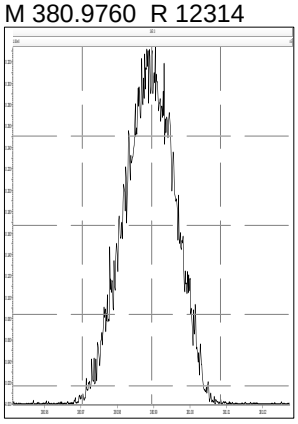
M 342.9792 R 11961



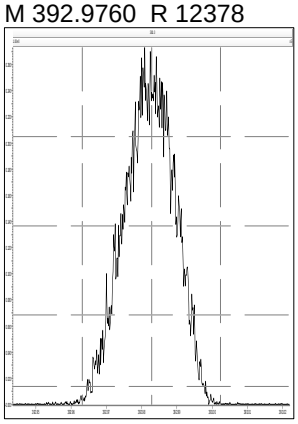
M 366.9792 R 10913



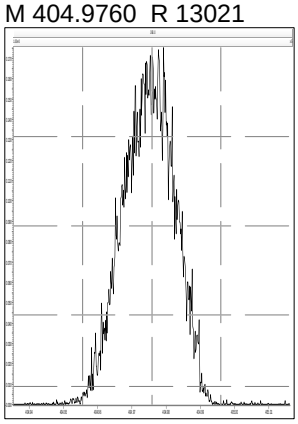
M 380.9760 R 12314



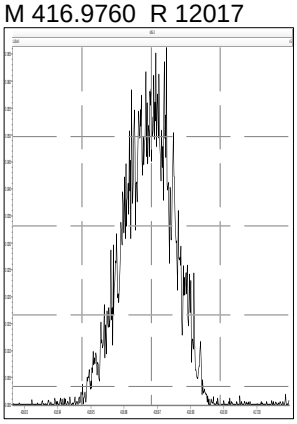
M 392.9760 R 12378



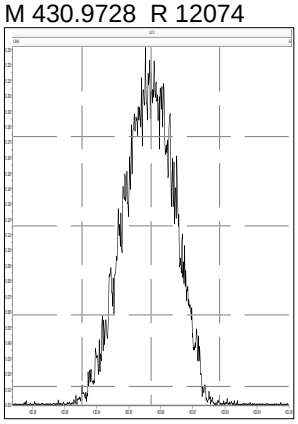
M 404.9760 R 13021



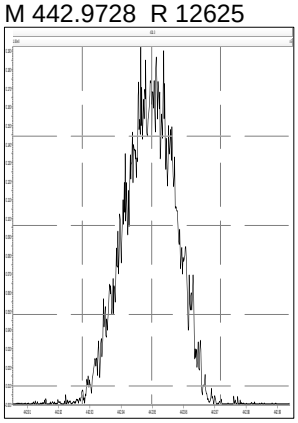
M 416.9760 R 12017



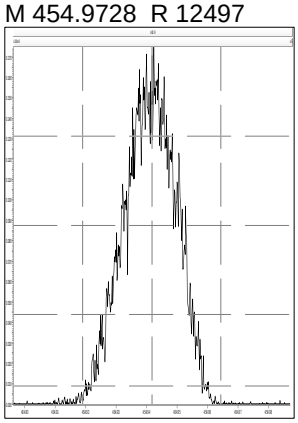
M 430.9728 R 12074



M 442.9728 R 12625



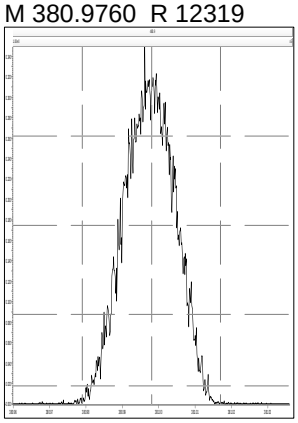
M 454.9728 R 12497



File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 4 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:05:05 Eastern Daylight Time

M 380.9760 R 12319



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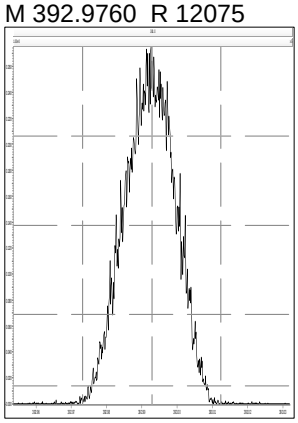
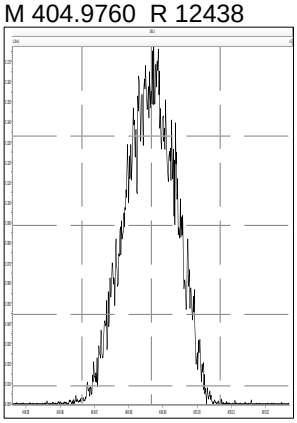
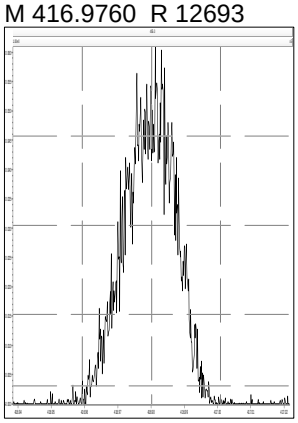


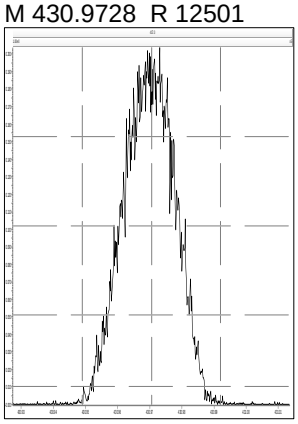
M 404.9760 R 12438



M 416.9760 R 12693



M 430.9728 R 12501



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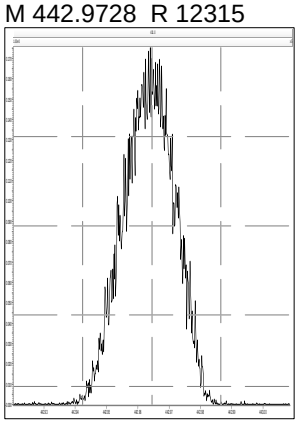

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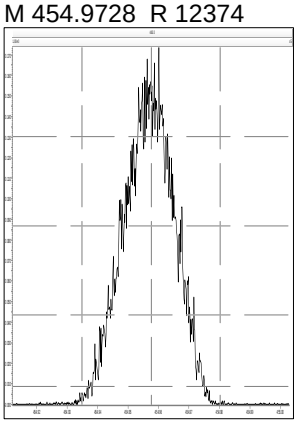

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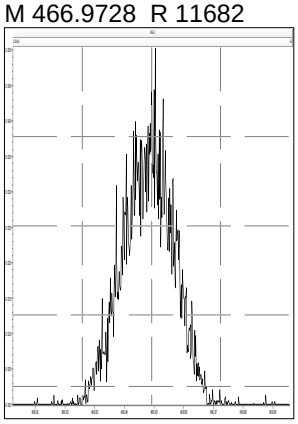

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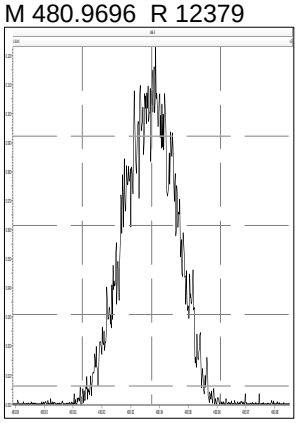

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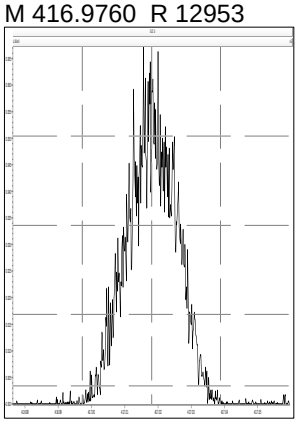

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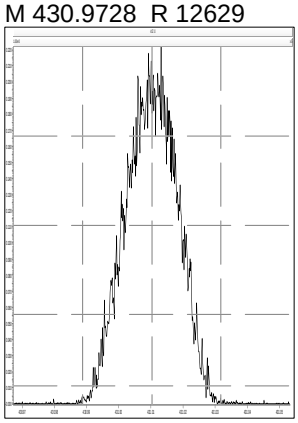

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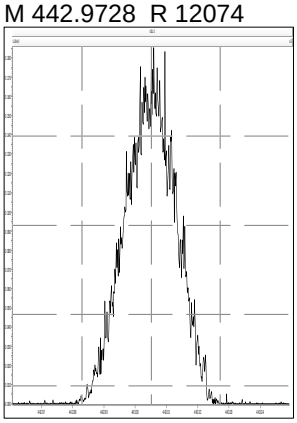
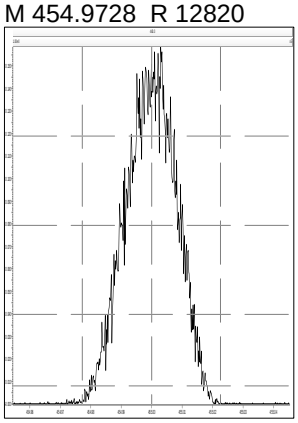


M 454.9728 R 12820



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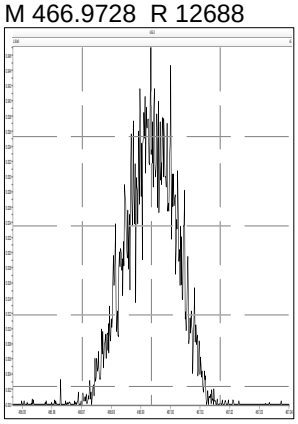

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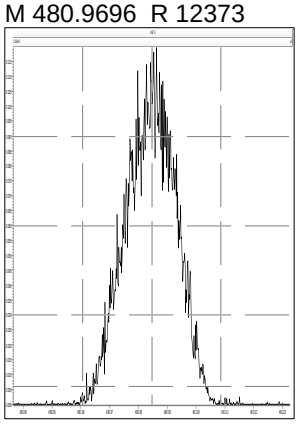
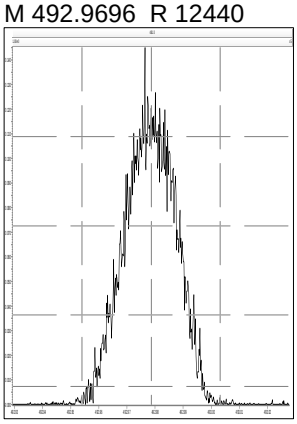


M 492.9696 R 12440



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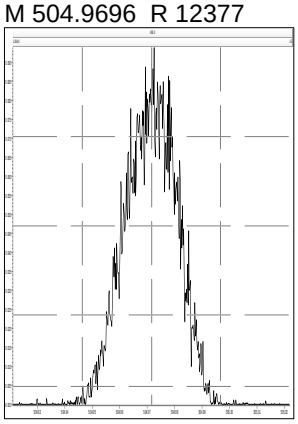

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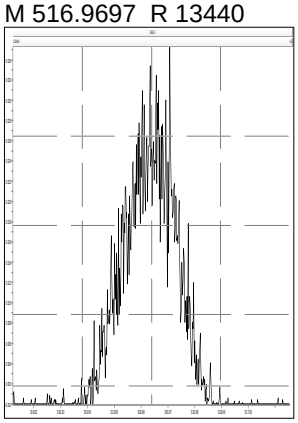

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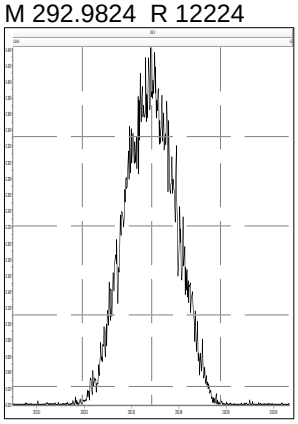

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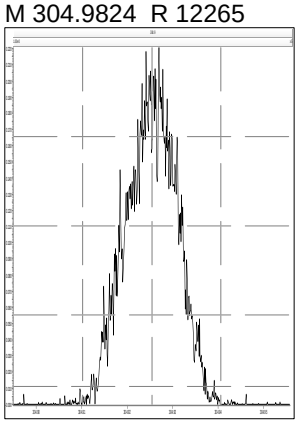
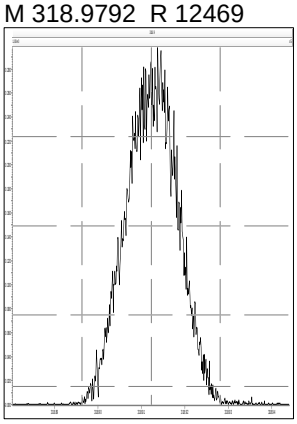


M 318.9792 R 12469



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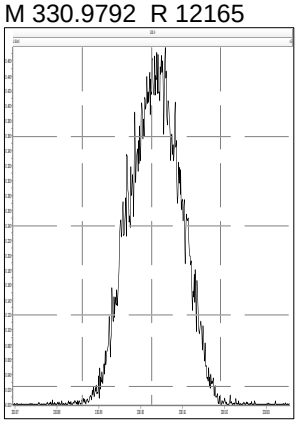

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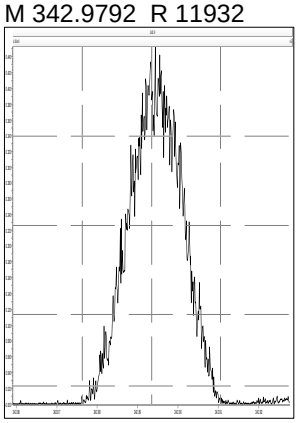

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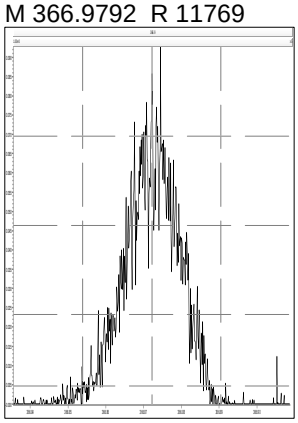
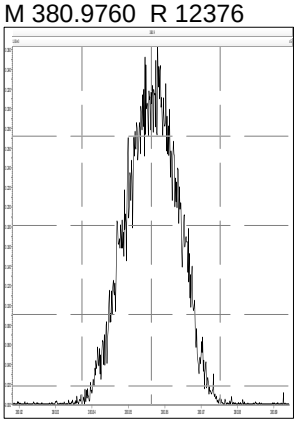


M 380.9760 R 12376



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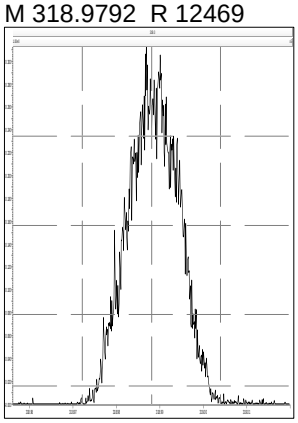

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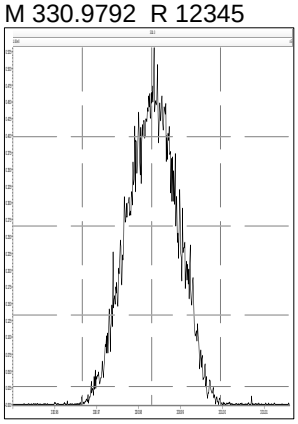

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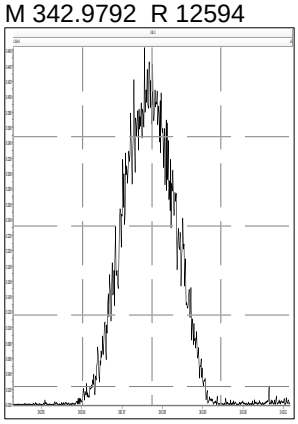

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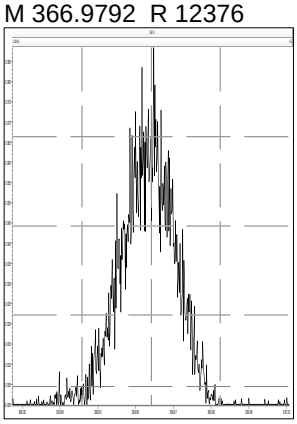

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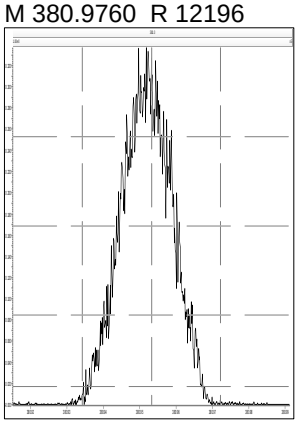

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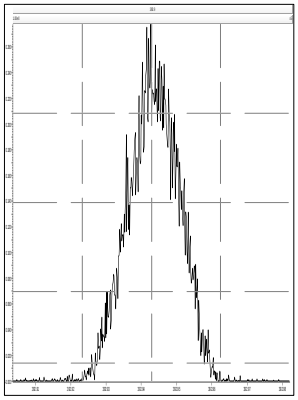
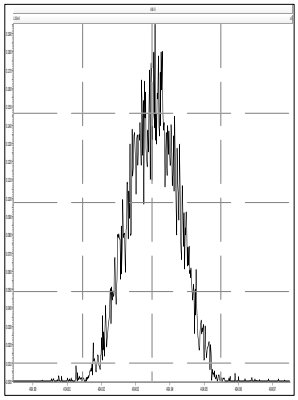


M 404.9760 R 12470



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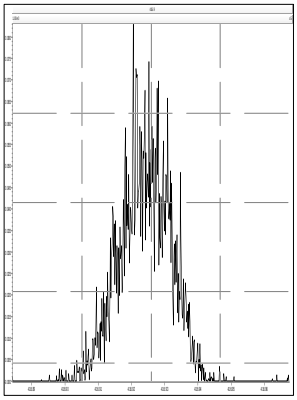

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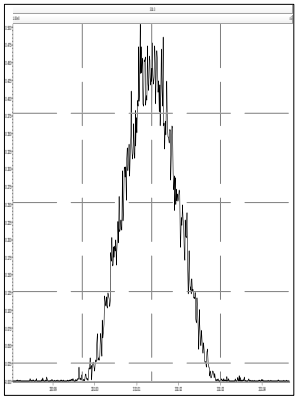

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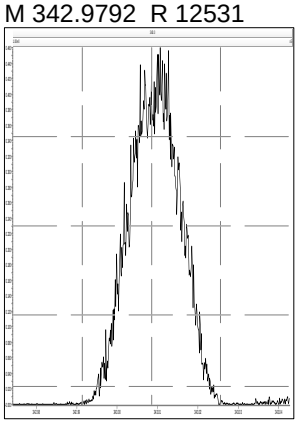
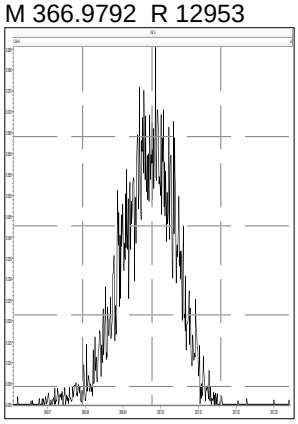


M 366.9792 R 12953



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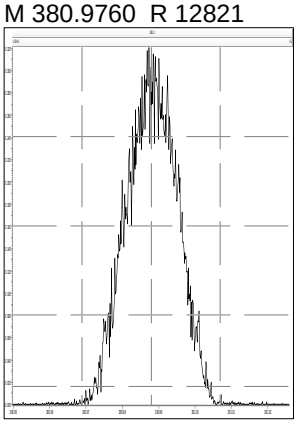

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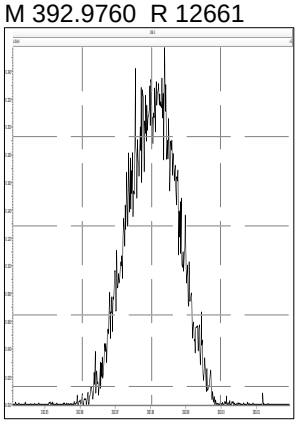

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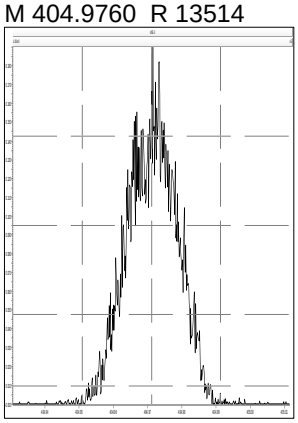
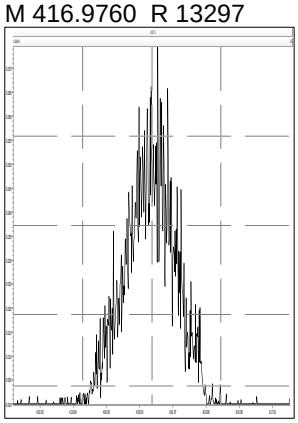


M 416.9760 R 13297



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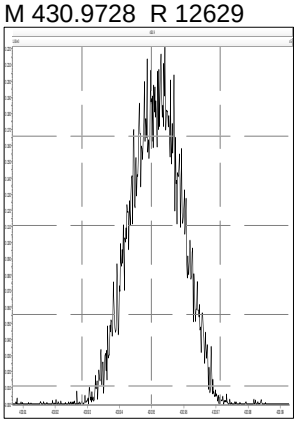

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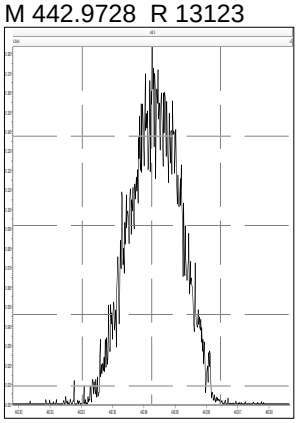

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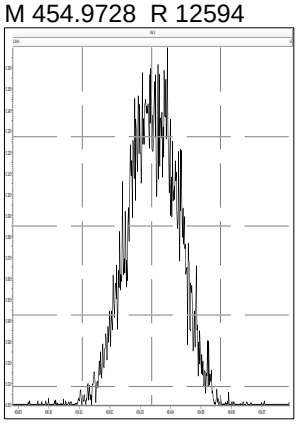

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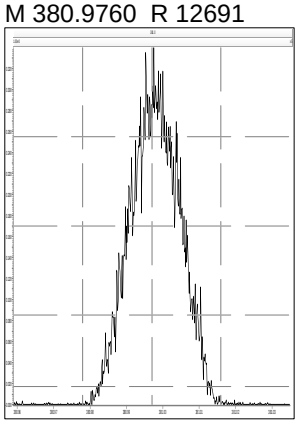

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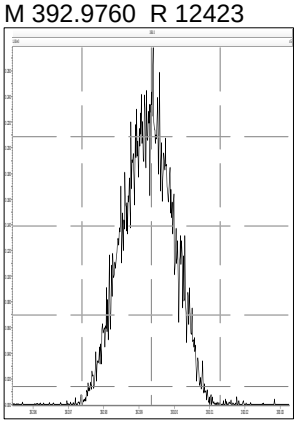

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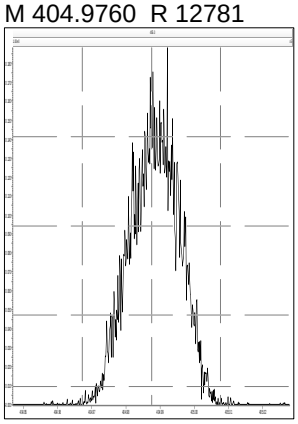
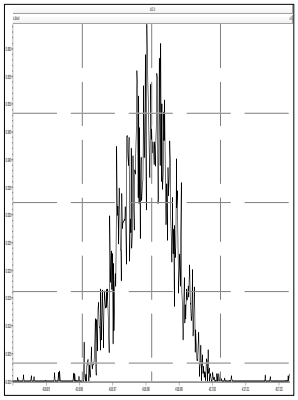


M 416.9760 R 13440



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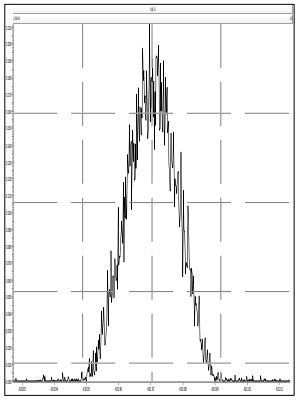

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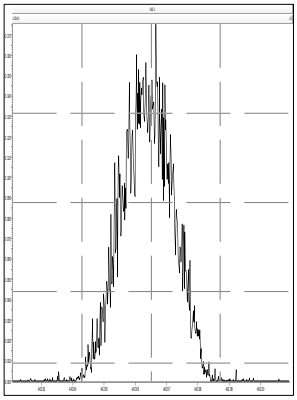
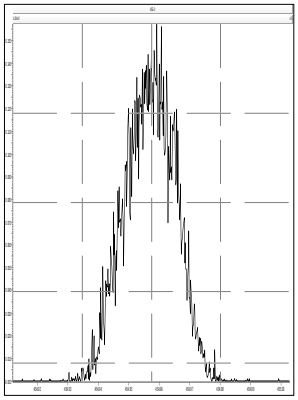


M 454.9728 R 12470



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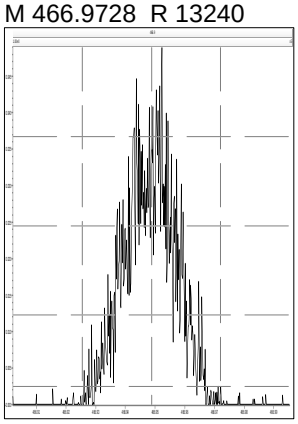

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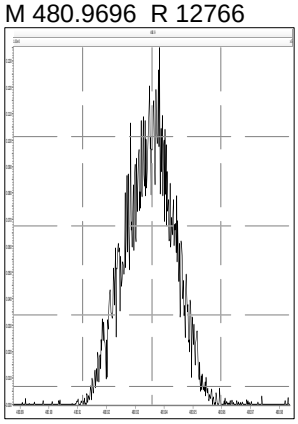

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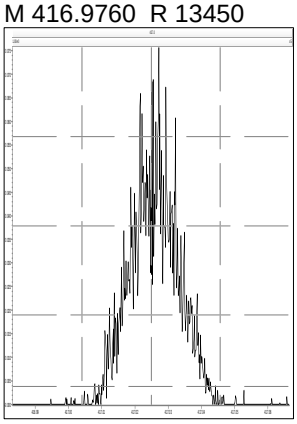

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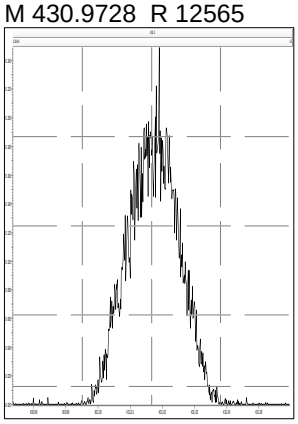

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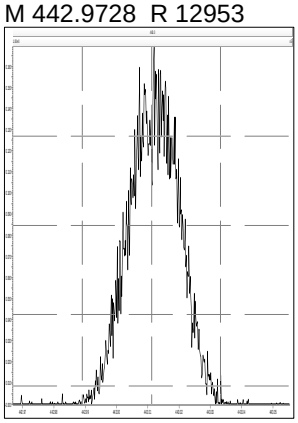
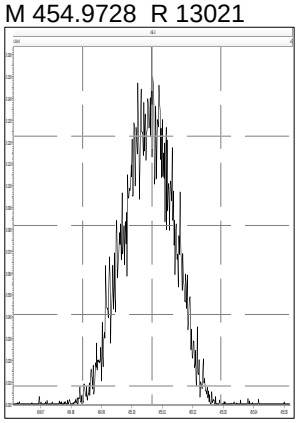
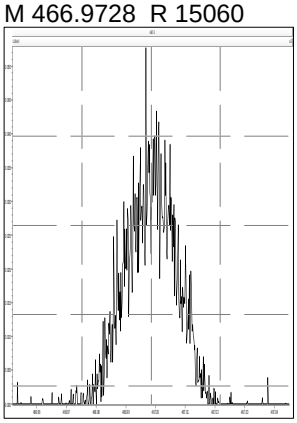


M 454.9728 R 13021



M 466.9728 R 15060



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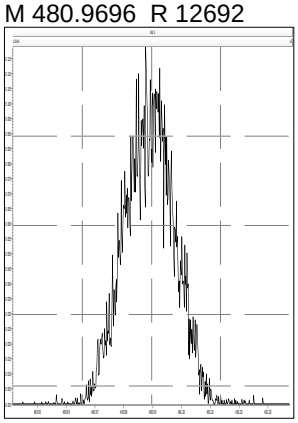
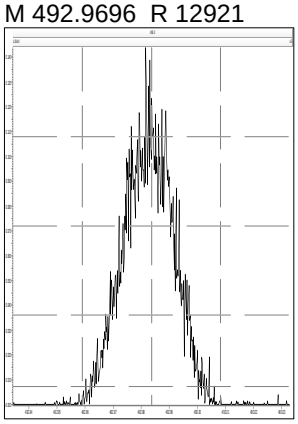
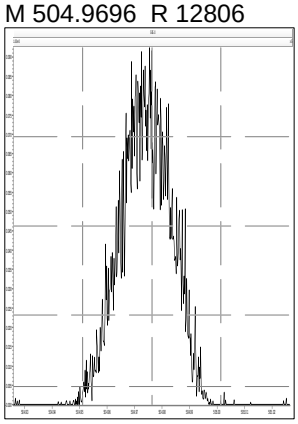


M 492.9696 R 12921



M 504.9696 R 12806



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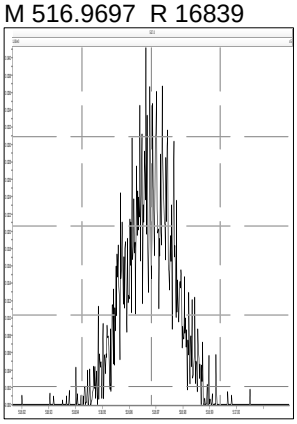

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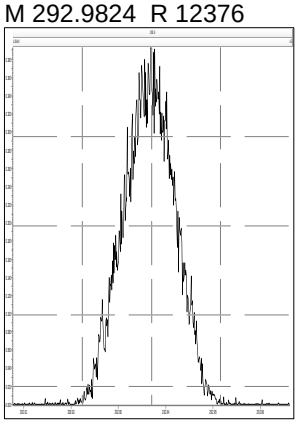
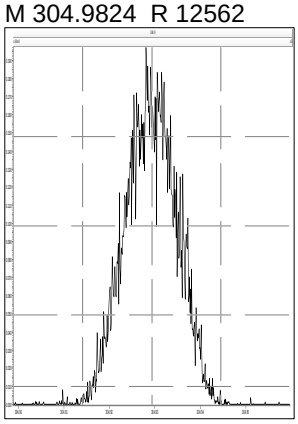
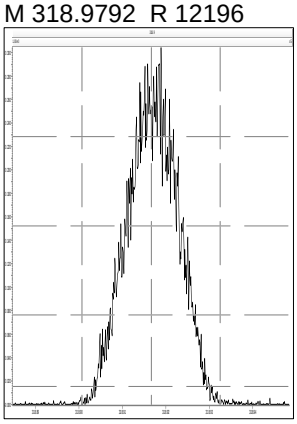
M 292.9824 R 12376



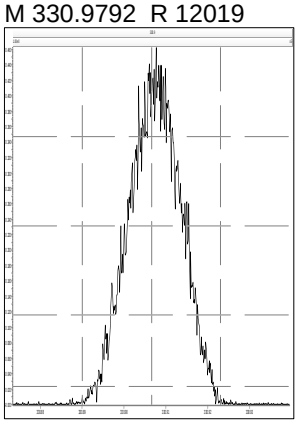
M 304.9824 R 12562



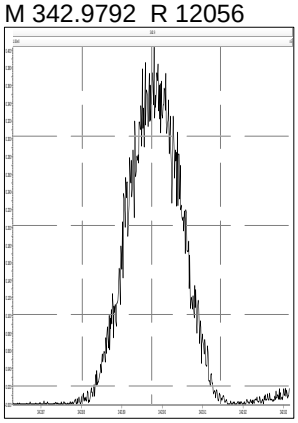
M 318.9792 R 12196



M 330.9792 R 12019



M 342.9792 R 12056



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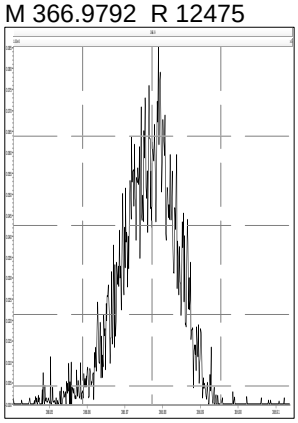
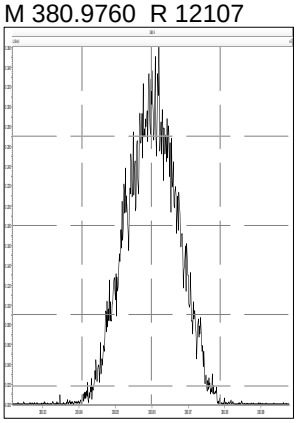


M 380.9760 R 12107



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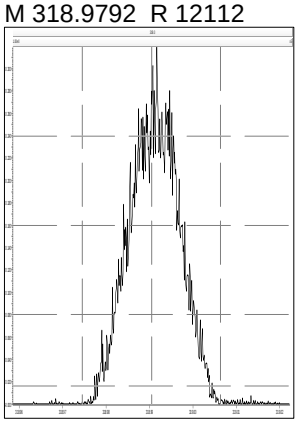
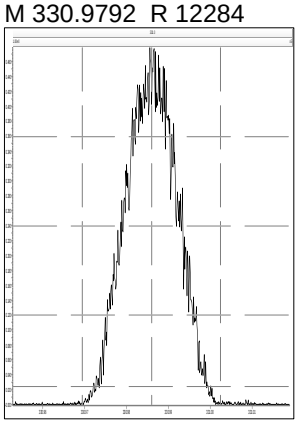


M 330.9792 R 12284



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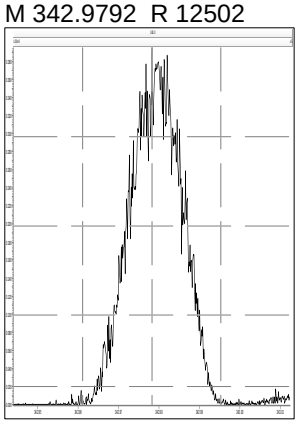

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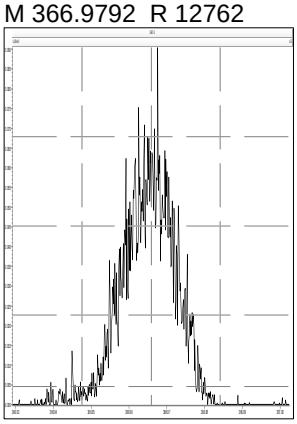
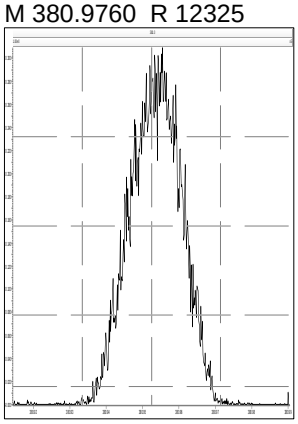


M 380.9760 R 12325



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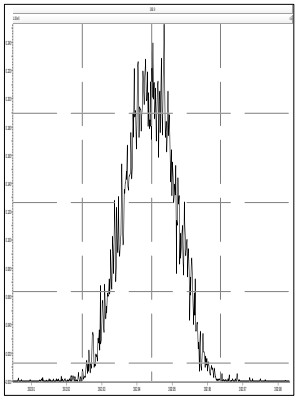

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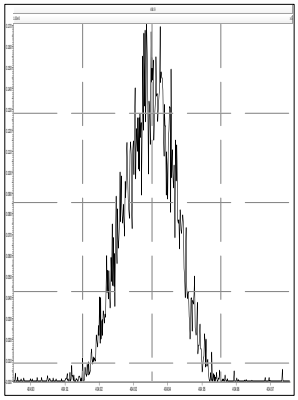
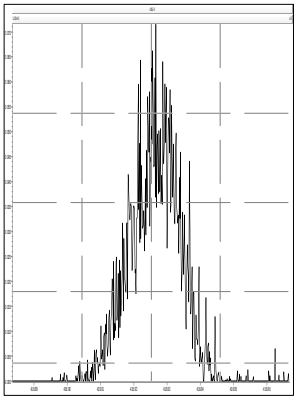
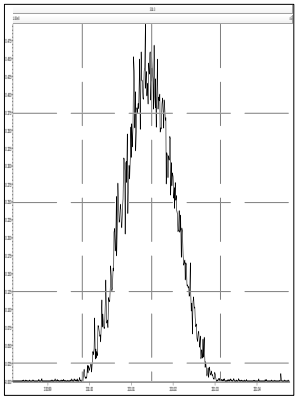


M 416.9760 R 13170



M 330.9792 R 12377



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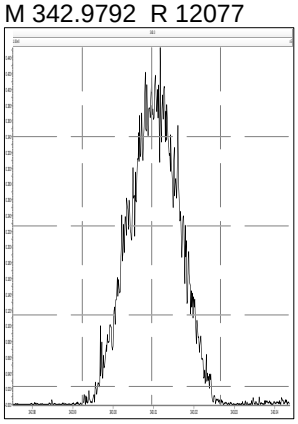
M 342.9792 R 12077



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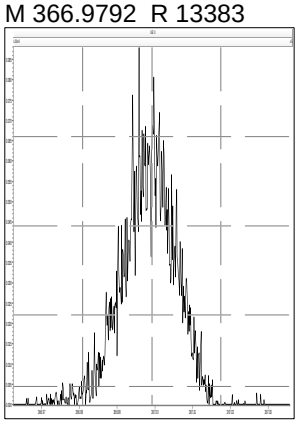
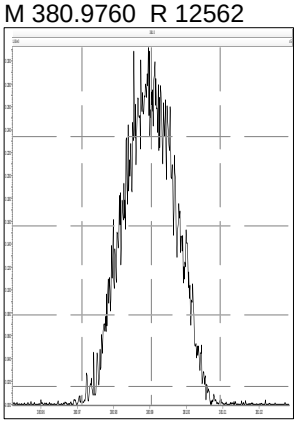


M 380.9760 R 12562



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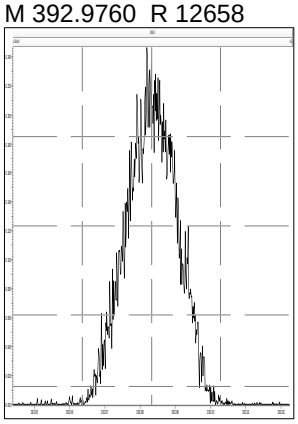
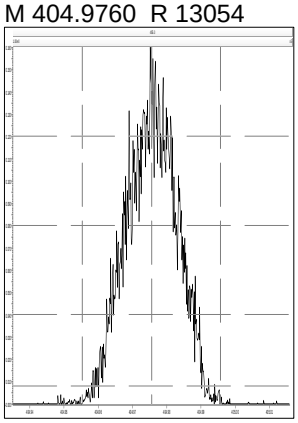
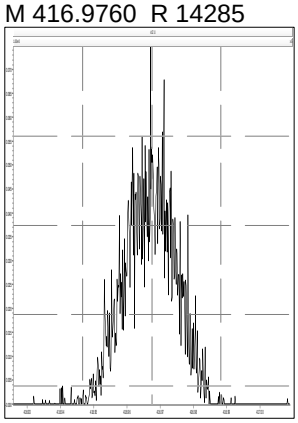


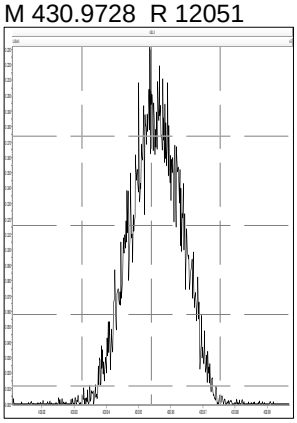
M 404.9760 R 13054



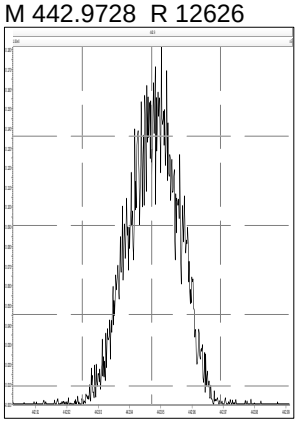
M 416.9760 R 14285



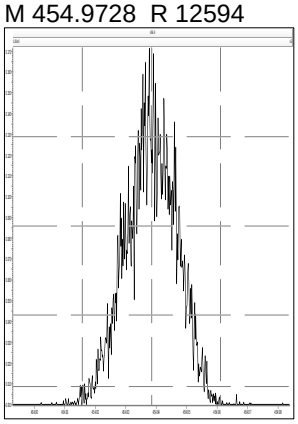
M 430.9728 R 12051



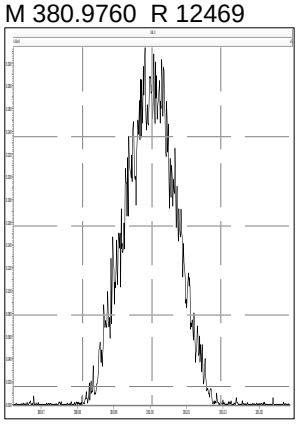
M 442.9728 R 12626



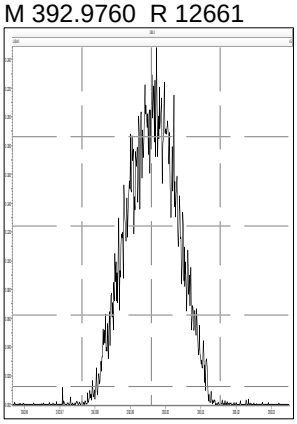
M 454.9728 R 12594



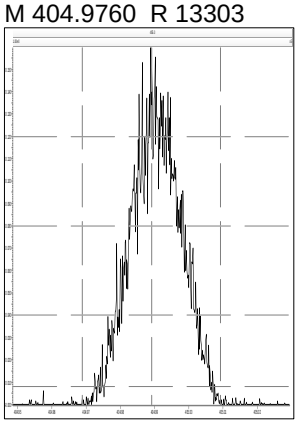
M 380.9760 R 12469



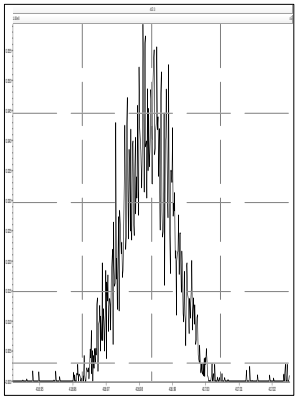
M 392.9760 R 12661



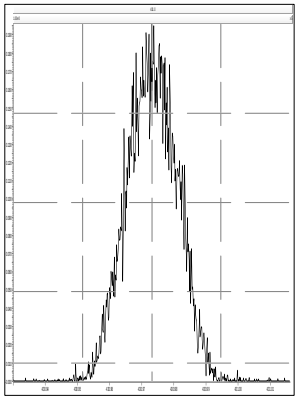
M 404.9760 R 13303



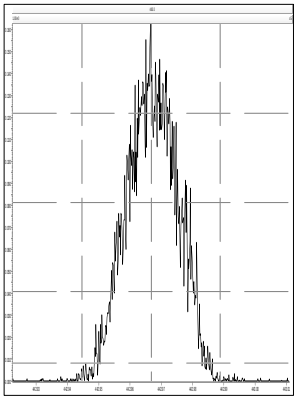
M 416.9760 R 13440



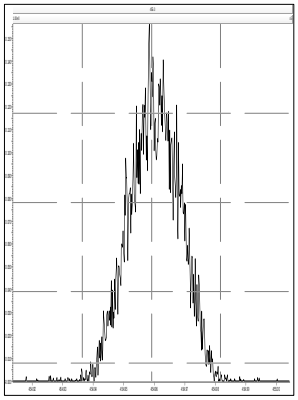
M 430.9728 R 12501



M 442.9728 R 12540



M 454.9728 R 12667



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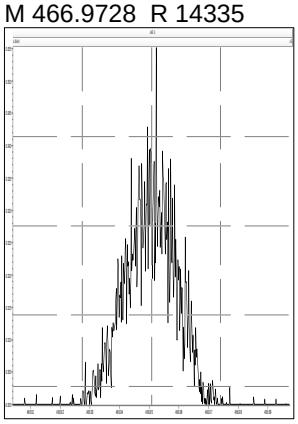
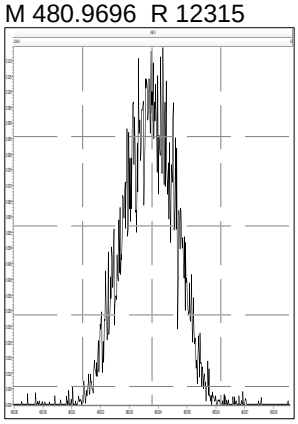
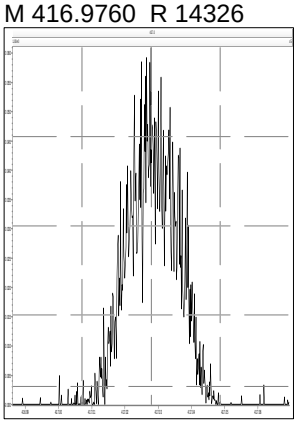


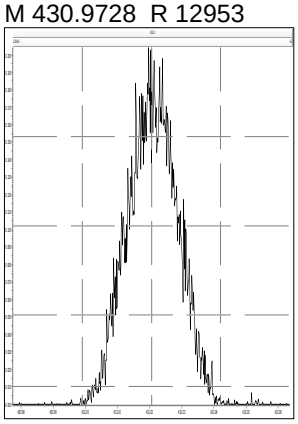
M 480.9696 R 12315



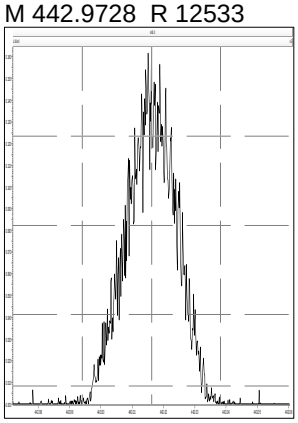
M 416.9760 R 14326



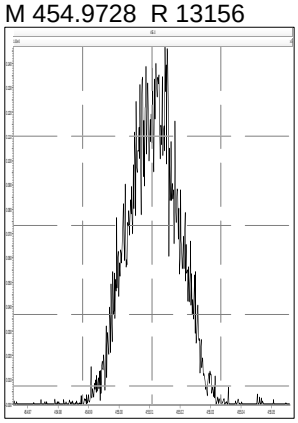
M 430.9728 R 12953



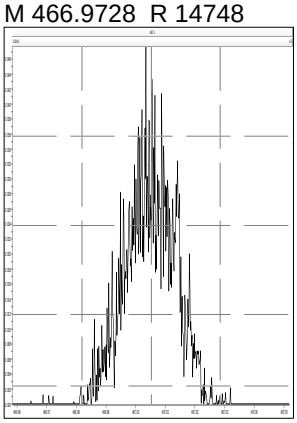
M 442.9728 R 12533



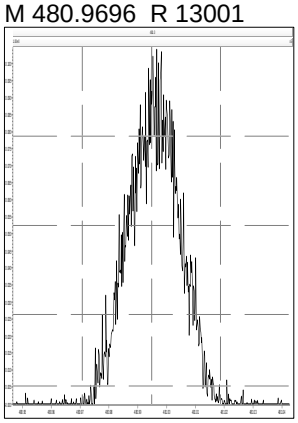
M 454.9728 R 13156



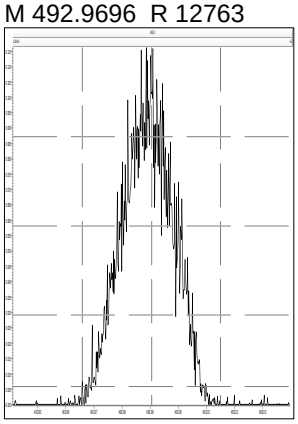
M 466.9728 R 14748



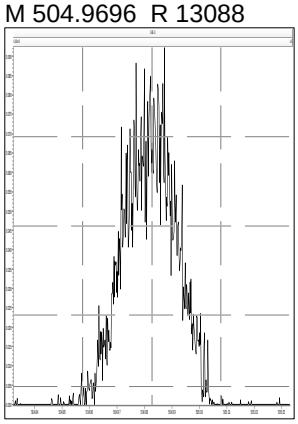
M 480.9696 R 13001



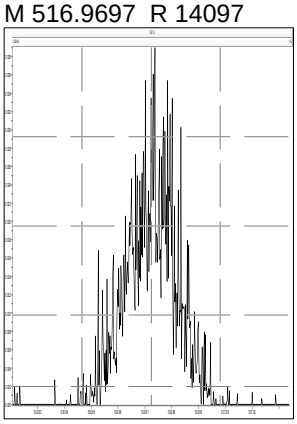
M 492.9696 R 12763



M 504.9696 R 13088



M 516.9697 R 14097



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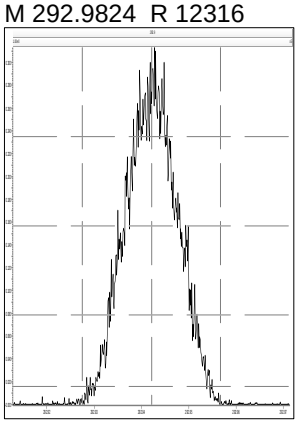
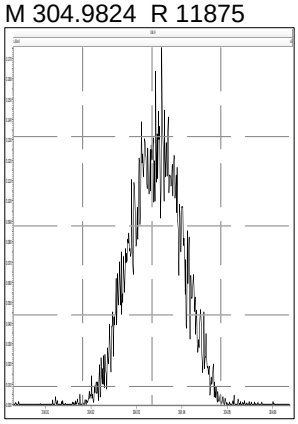
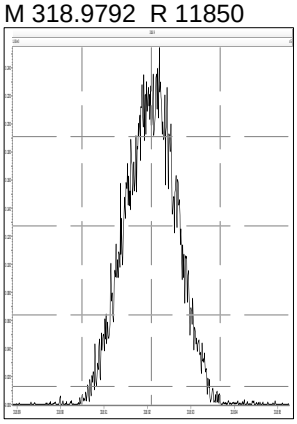


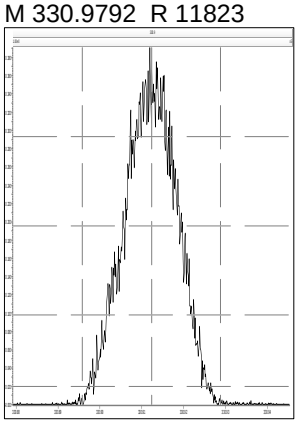
M 304.9824 R 11875



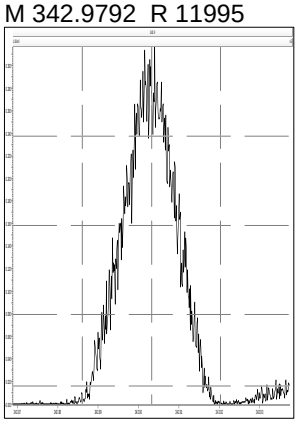
M 318.9792 R 11850



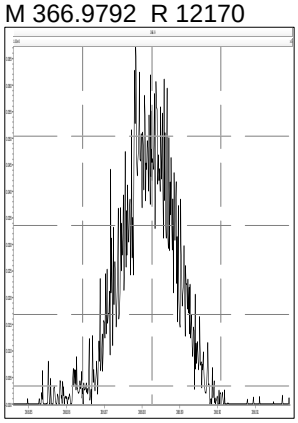
M 330.9792 R 11823



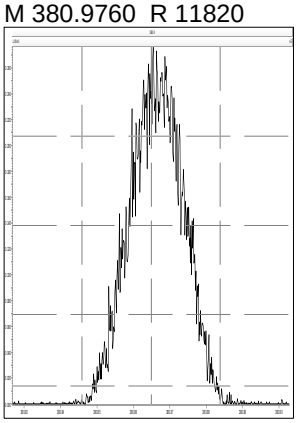
M 342.9792 R 11995



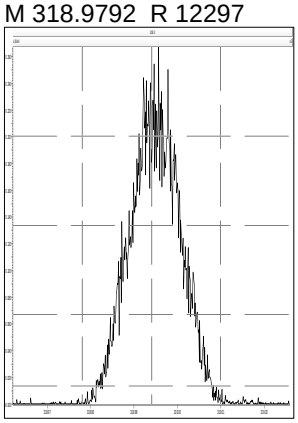
M 366.9792 R 12170



M 380.9760 R 11820



M 318.9792 R 12297



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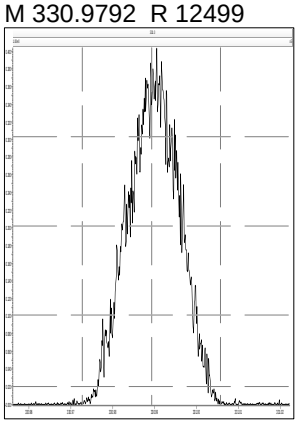

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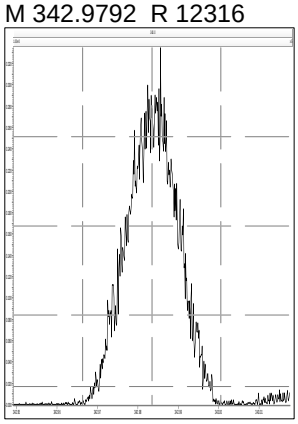
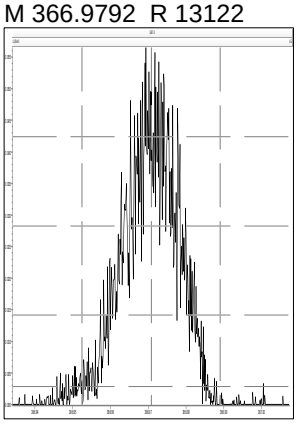


M 366.9792 R 13122



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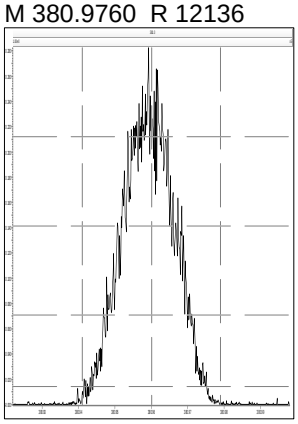

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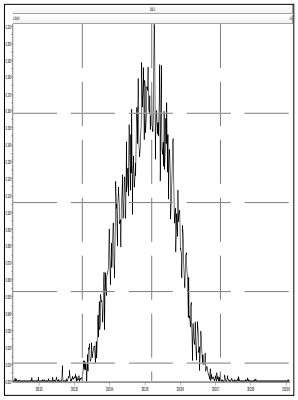

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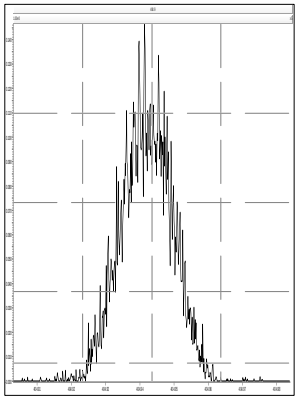

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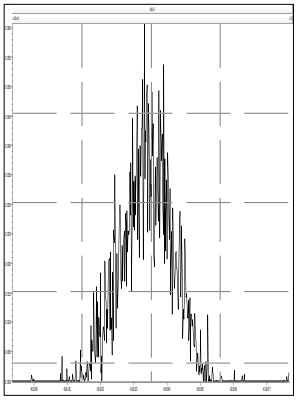

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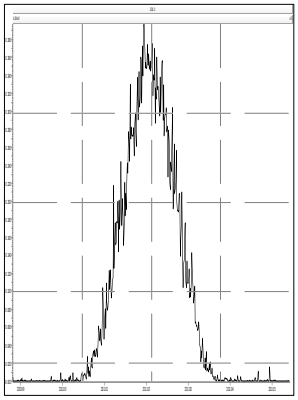

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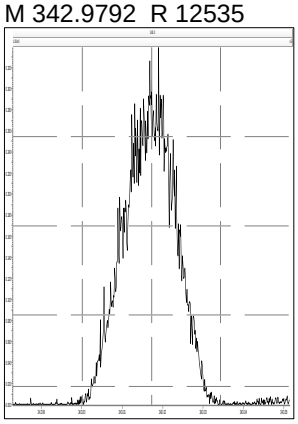
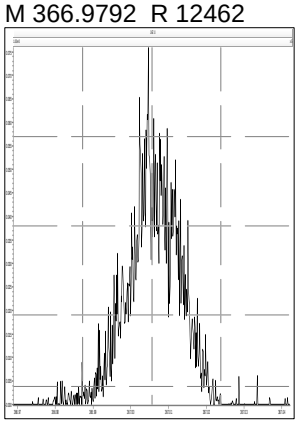
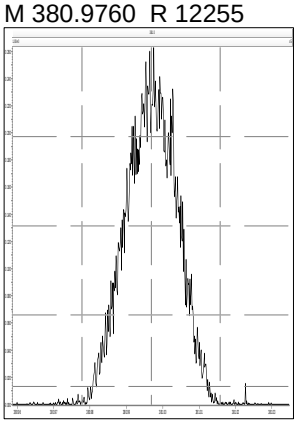
M 342.9792 R 12535



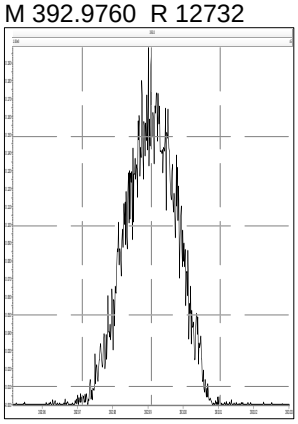
M 366.9792 R 12462



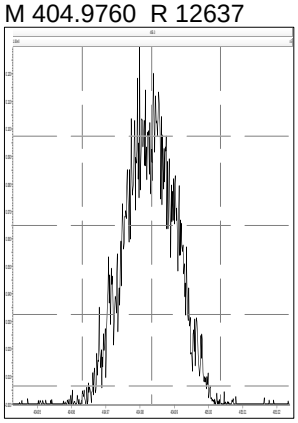
M 380.9760 R 12255



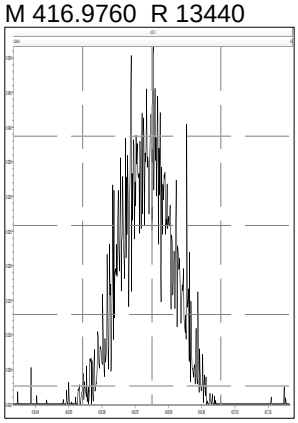
M 392.9760 R 12732



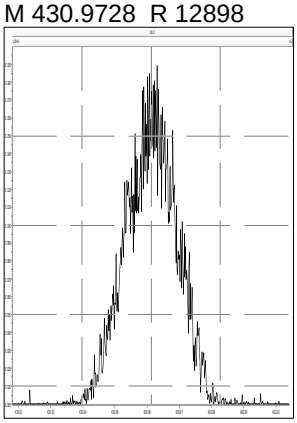
M 404.9760 R 12637



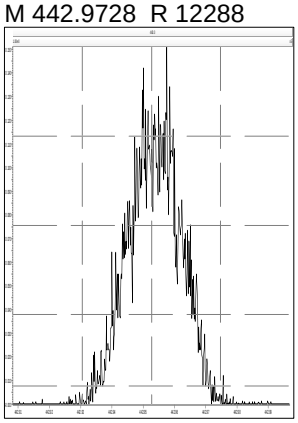
M 416.9760 R 13440



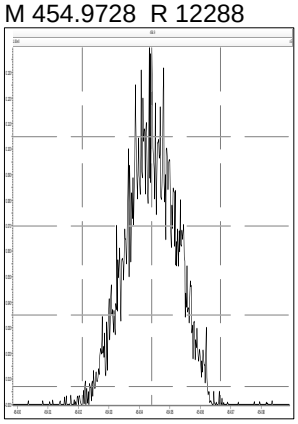
M 430.9728 R 12898



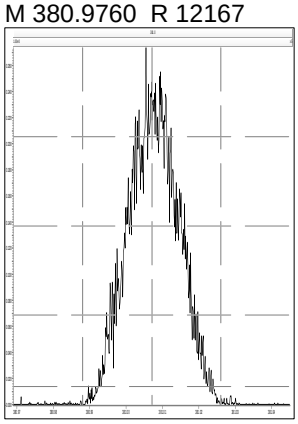
M 442.9728 R 12288



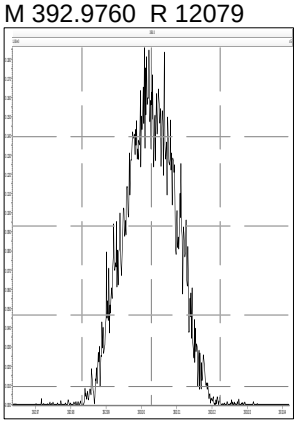
M 454.9728 R 12288



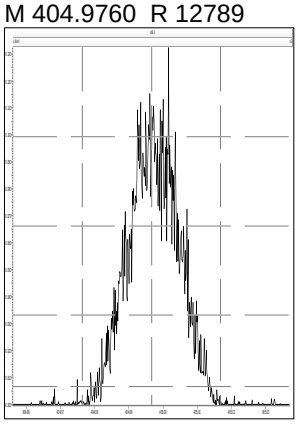
M 380.9760 R 12167



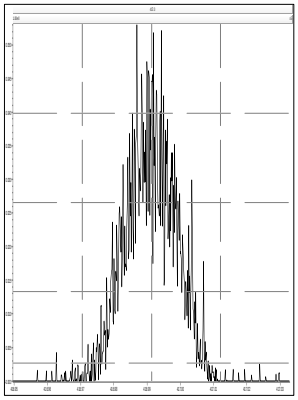
M 392.9760 R 12079



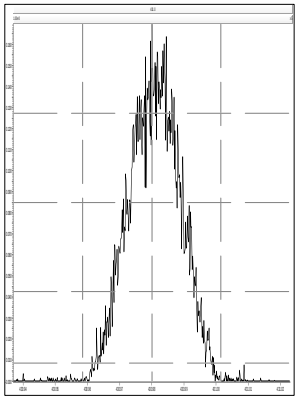
M 404.9760 R 12789



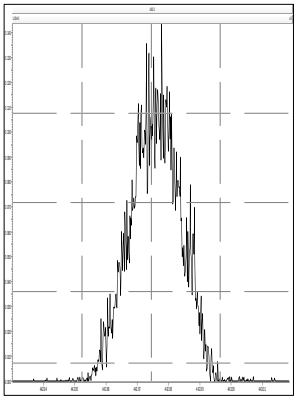
M 416.9760 R 13368



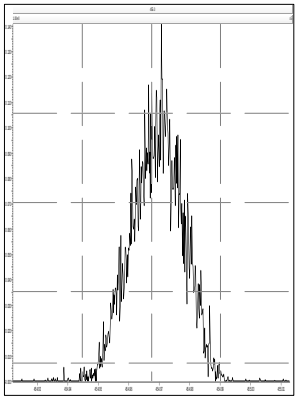
M 430.9728 R 12570



M 442.9728 R 13194



M 454.9728 R 12499



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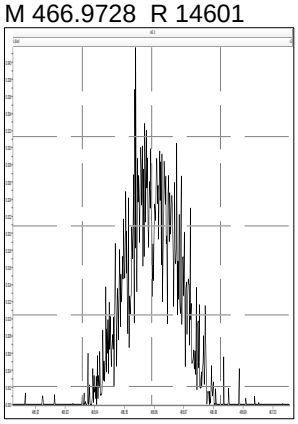
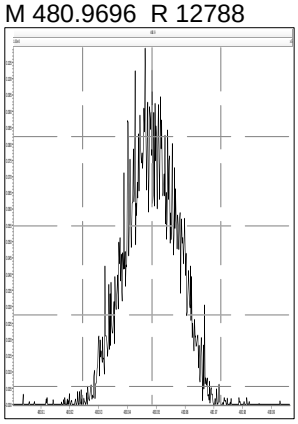
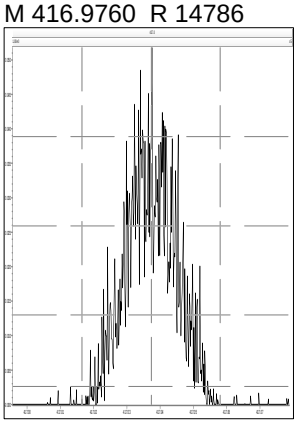
M 466.9728 R 14601



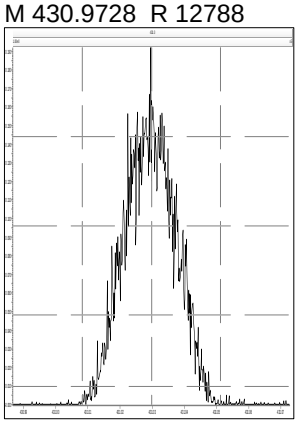
M 480.9696 R 12788



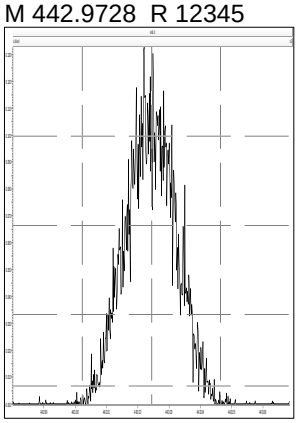
M 416.9760 R 14786



M 430.9728 R 12788



M 442.9728 R 12345



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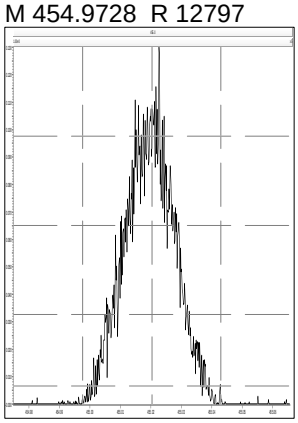
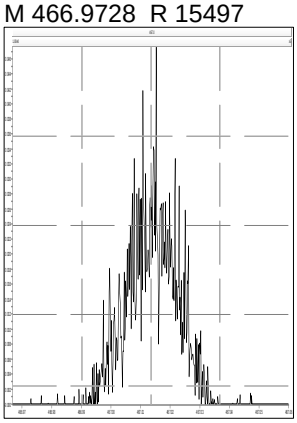
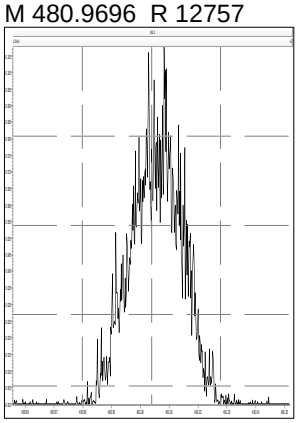


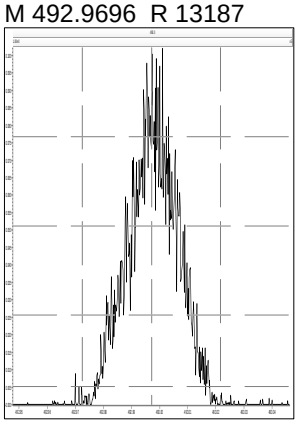
M 466.9728 R 15497



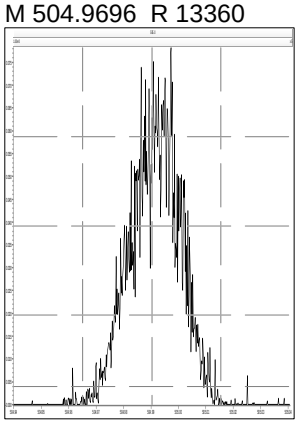
M 480.9696 R 12757



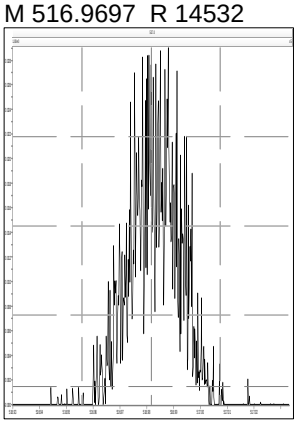
M 492.9696 R 13187



M 504.9696 R 13360



M 516.9697 R 14532



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_136-Dioxins_template-v8.mdb 06 May 2022 07:27:57
Calibration: 06 May 2022 13:19:29

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

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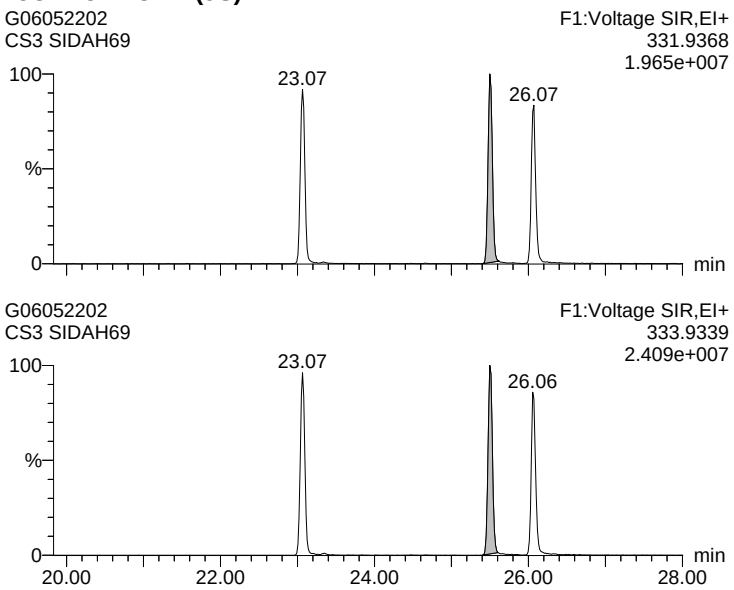

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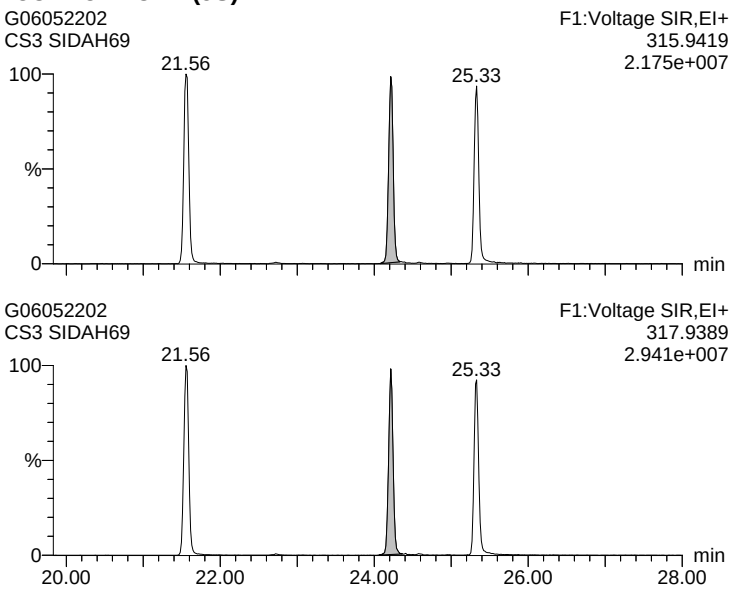

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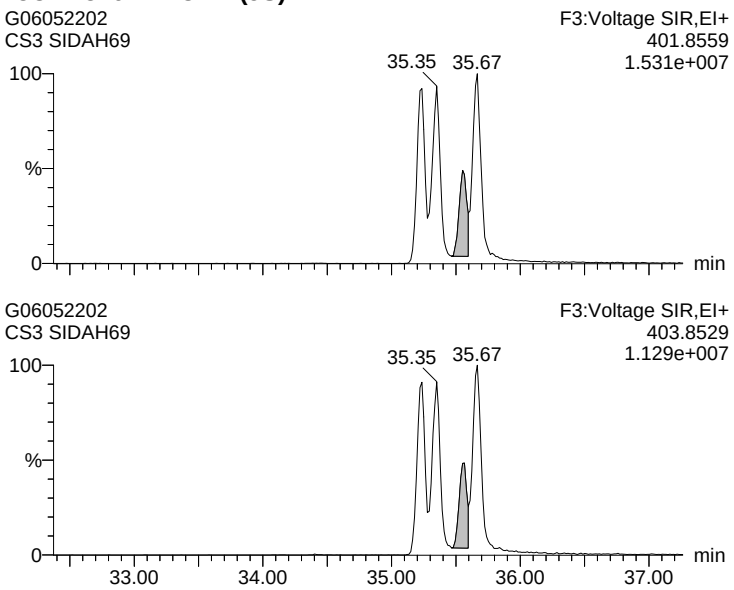
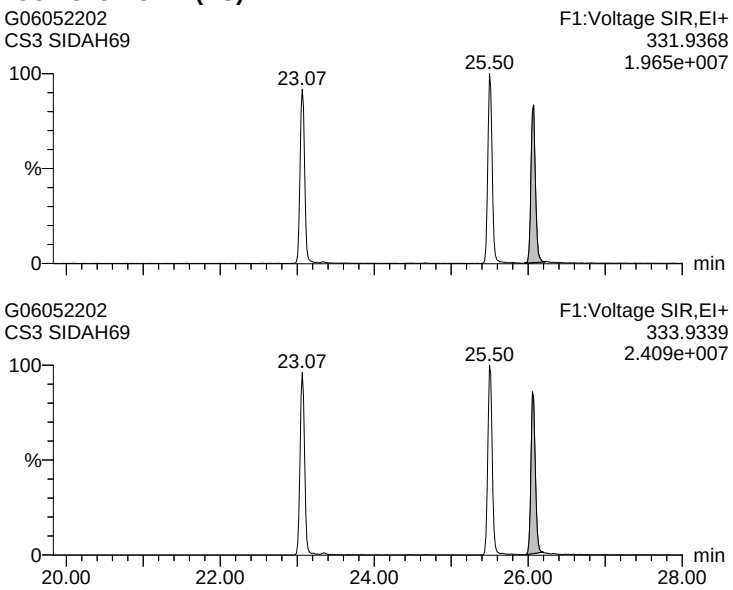


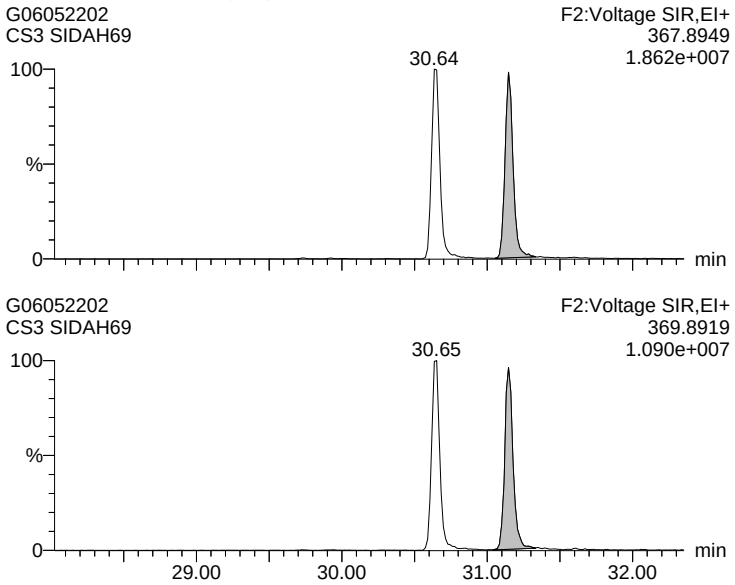
13C-2378-TCDD (ES)



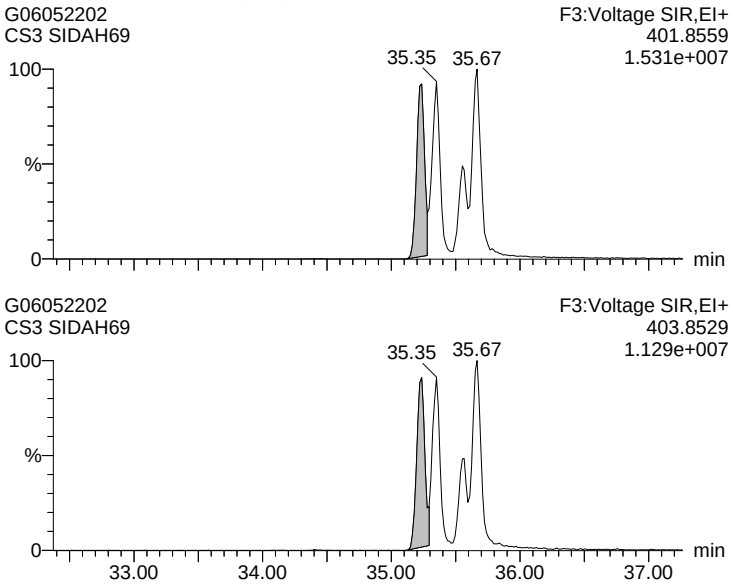
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

13C-12378-PeCDD (ES)



13C-123478-HxCDD (ES)



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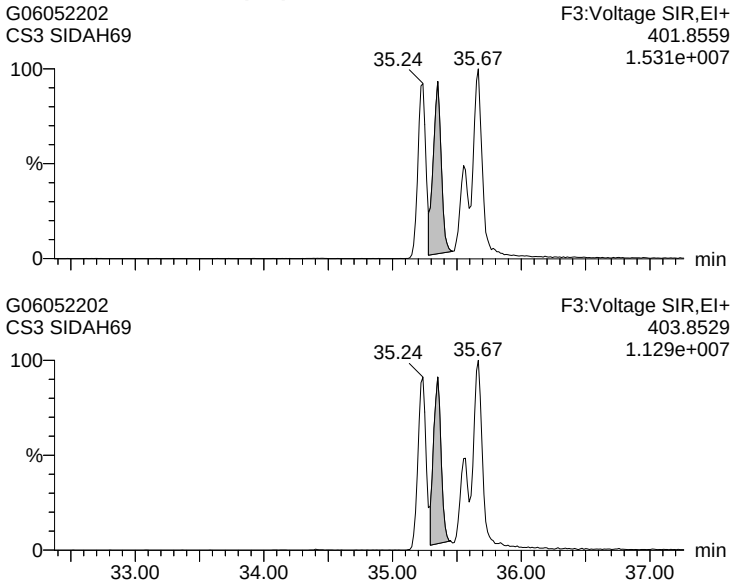
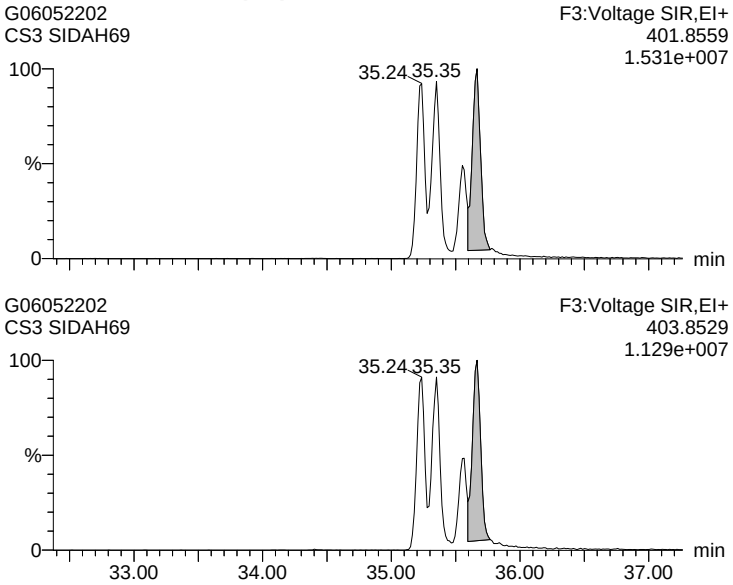


13C-123789-HxCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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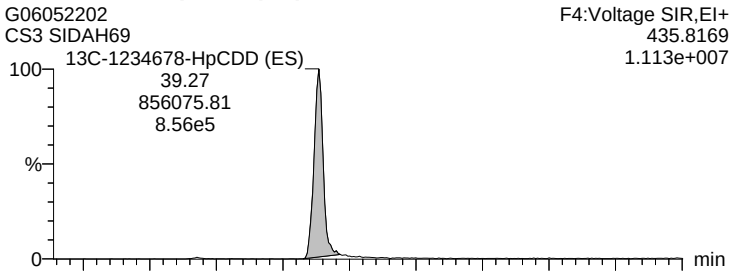
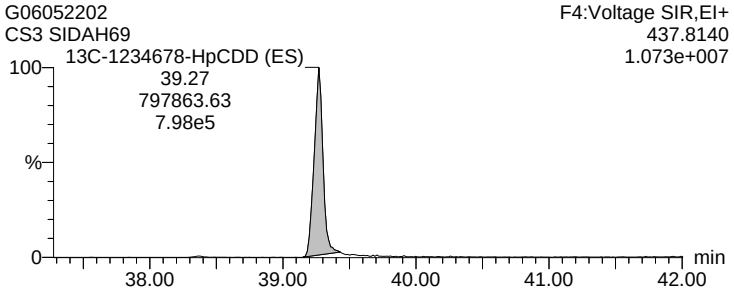
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

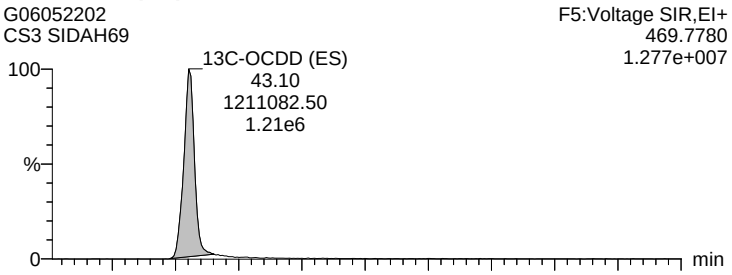
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

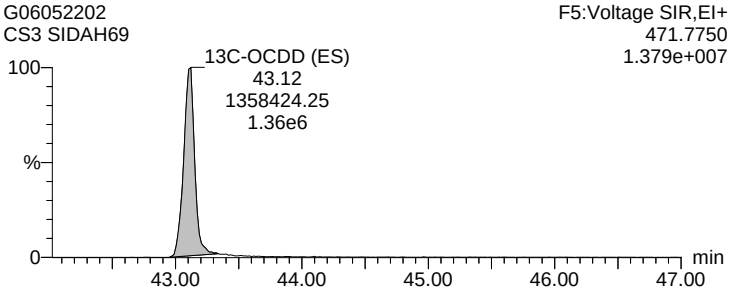
13C-1234678-HpCDD (ES)



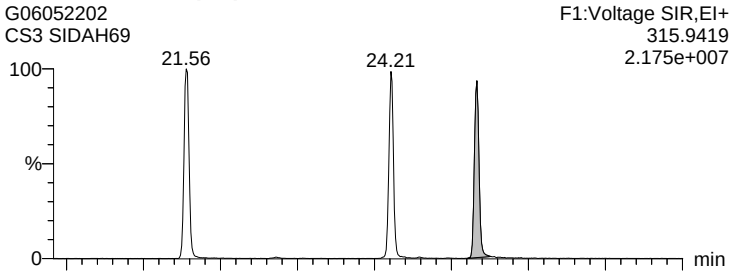


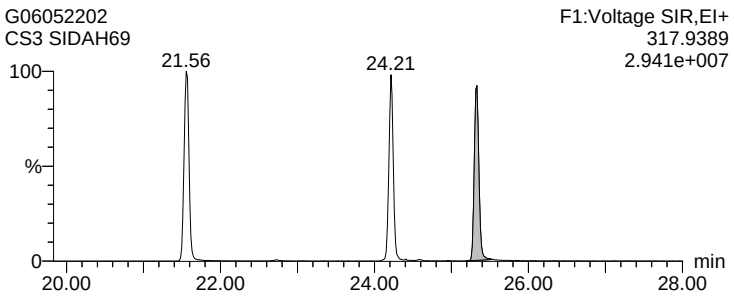
13C-OCDD (ES)



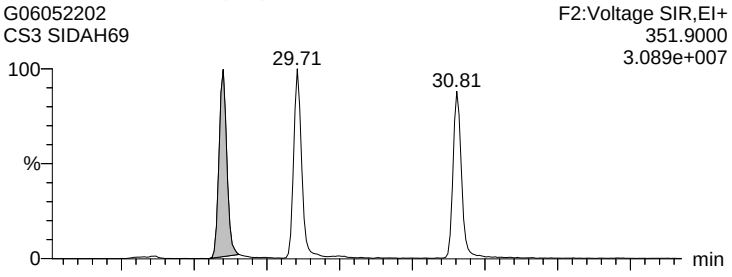


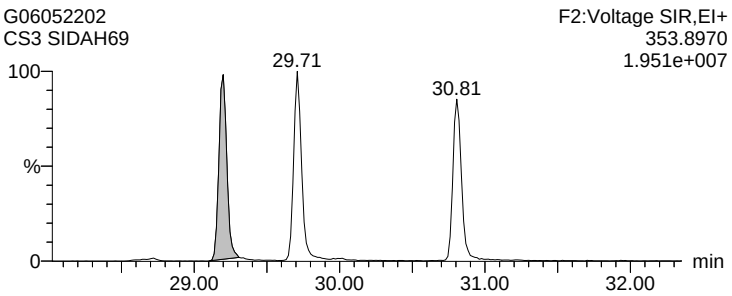
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)

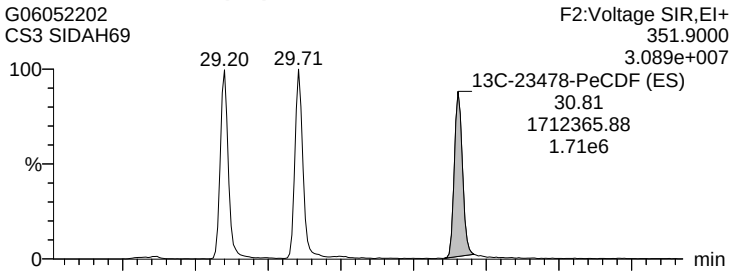


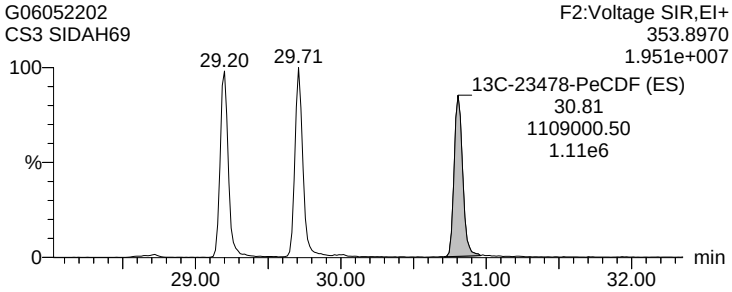


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

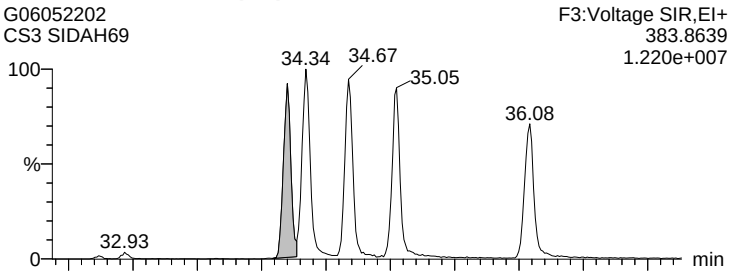
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

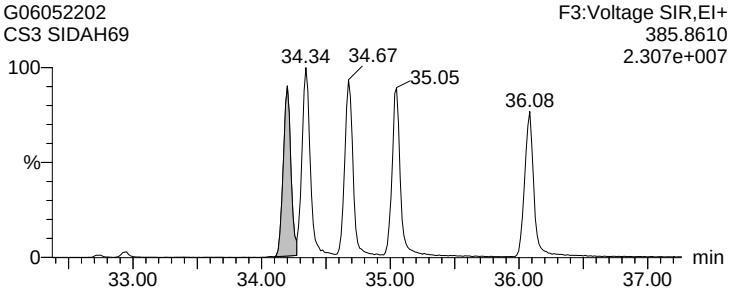
13C-23478-PeCDF (ES)



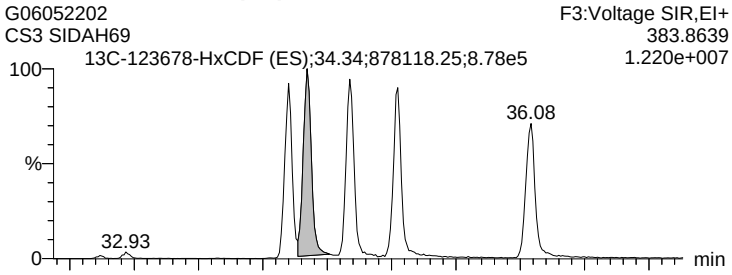


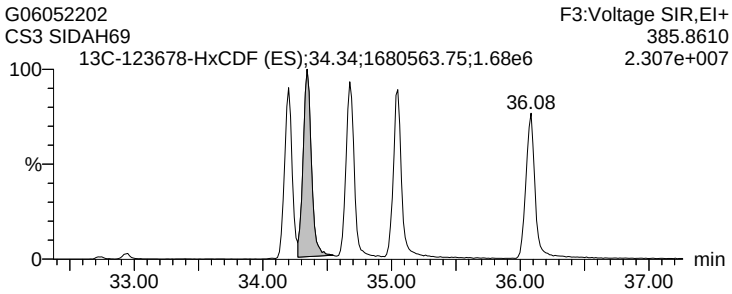
13C-123478-HxCDF (ES)



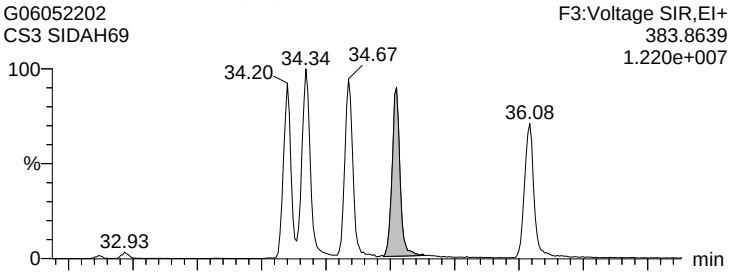


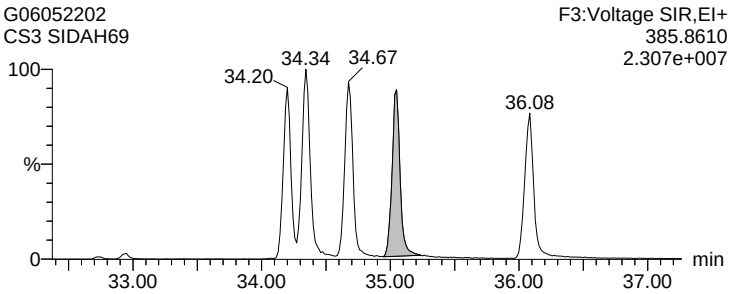
13C-123678-HxCDF (ES)





13C-234678-HxCDF (ES)

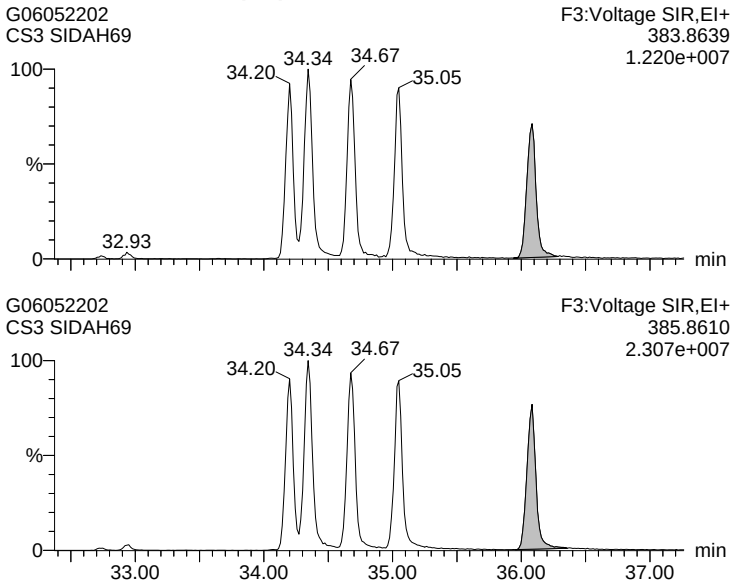




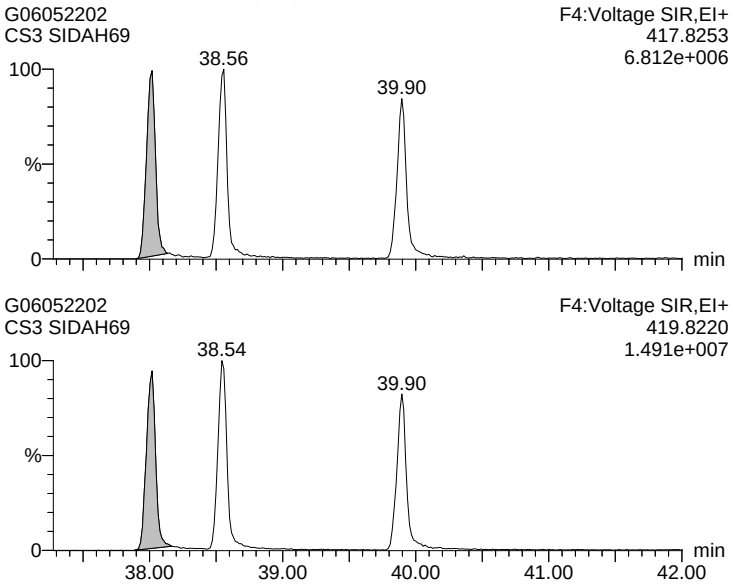
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

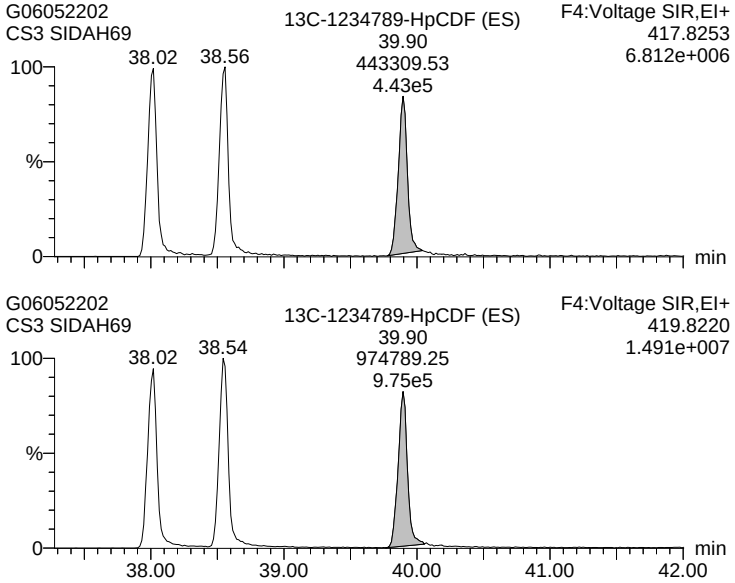
13C-123789-HxCDF (ES)



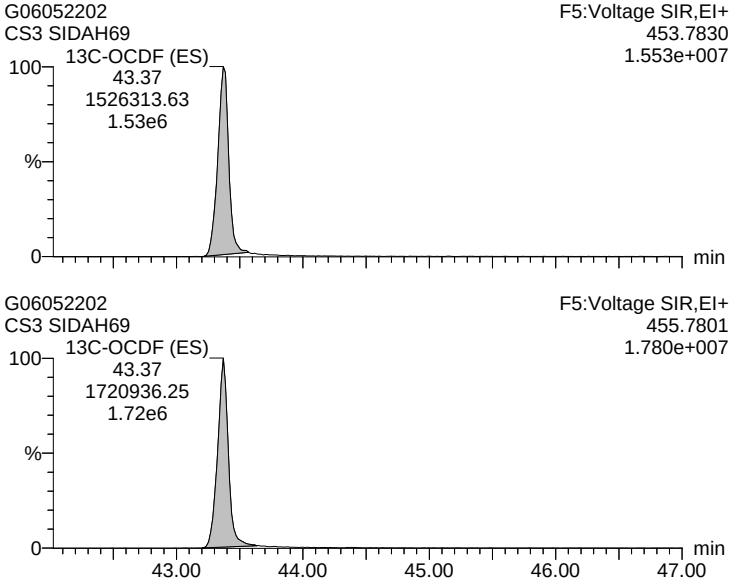
13C-1234678-HpCDF (ES)



13C-1234789-HpCDF (ES)



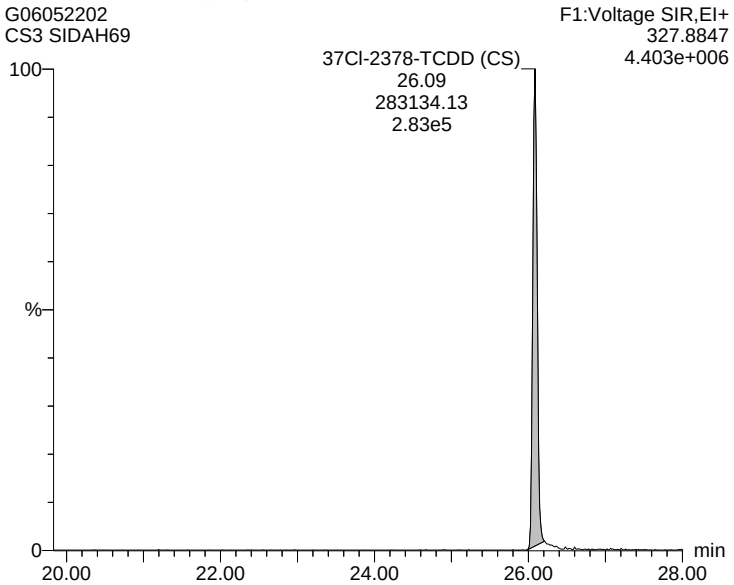
13C-OCDF (ES)



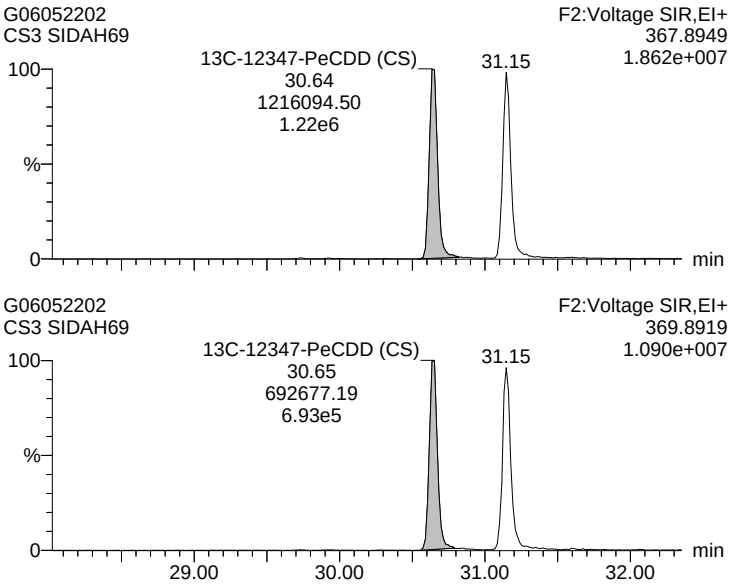
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

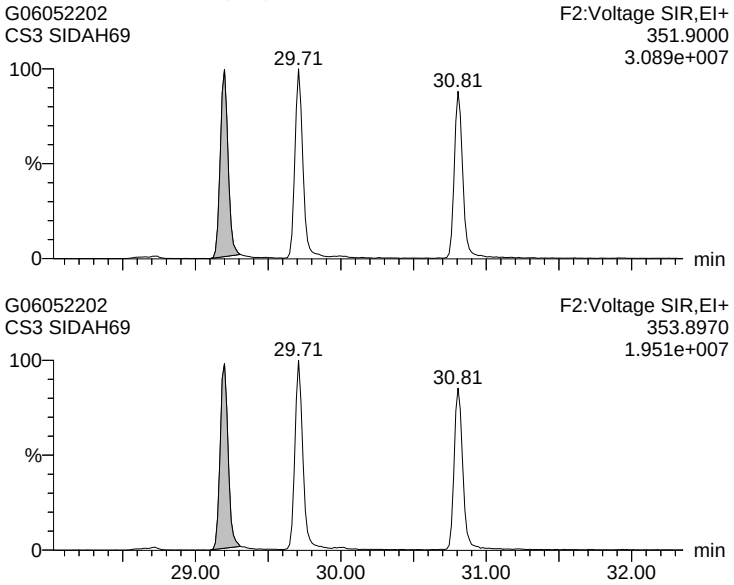
37Cl-2378-TCDD (CS)



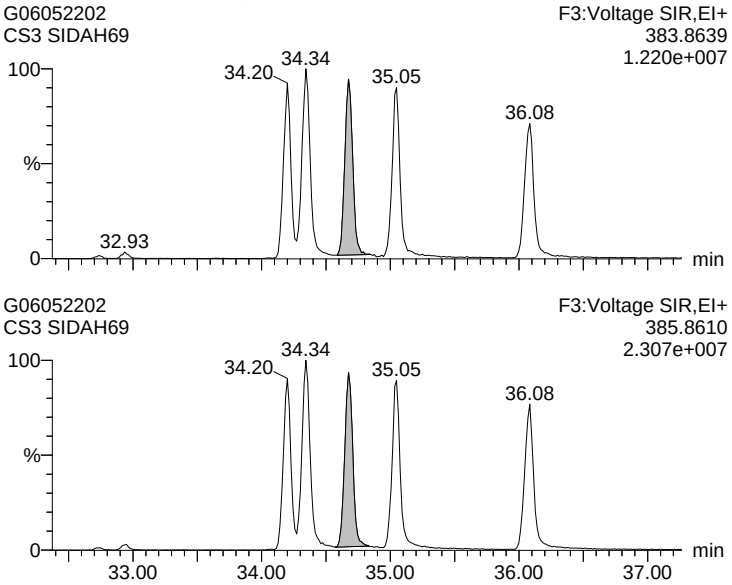
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



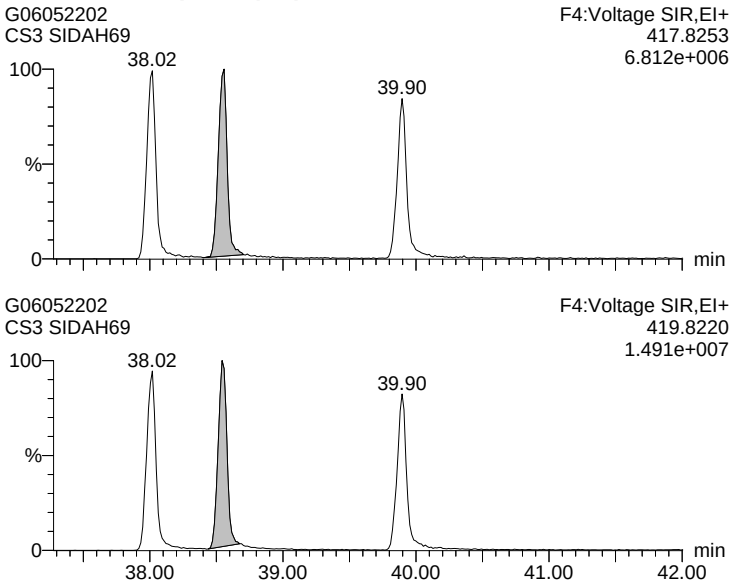
13C-123469-HxCDF (CS)



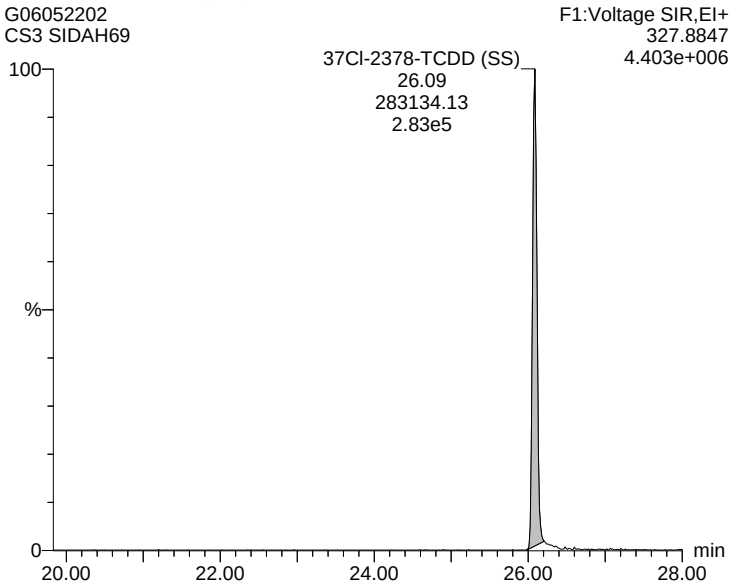
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

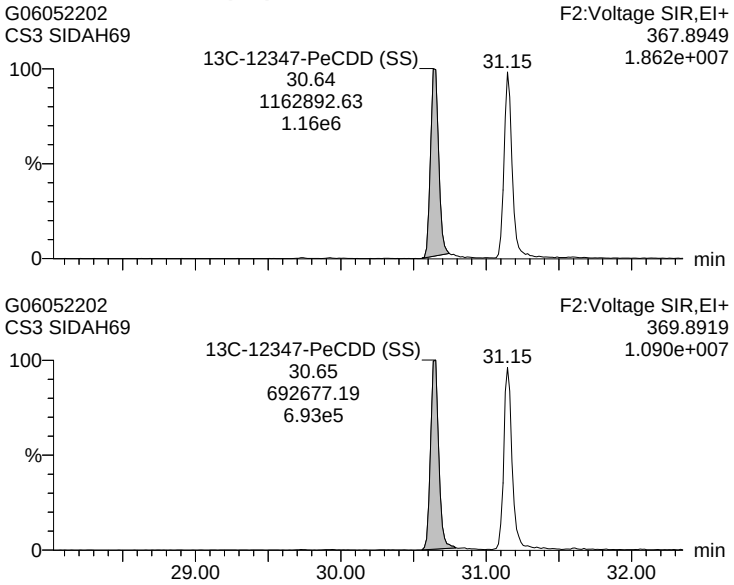
13C-1234689-HpCDF (CS)



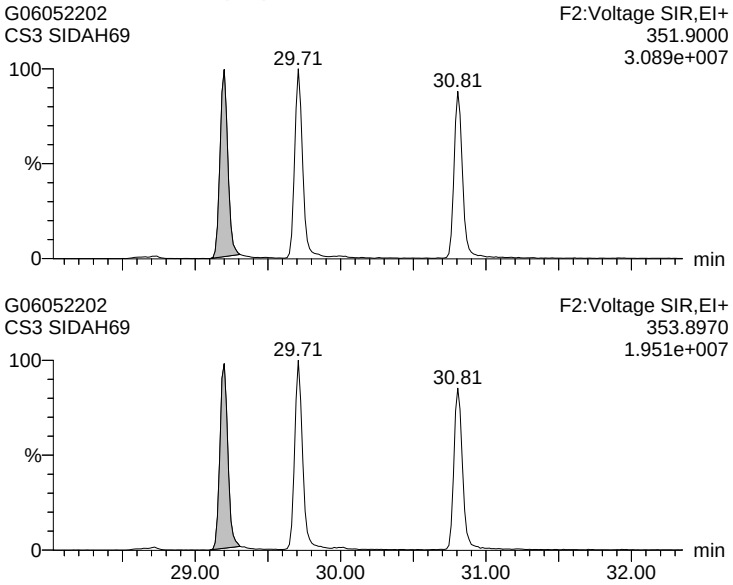
37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



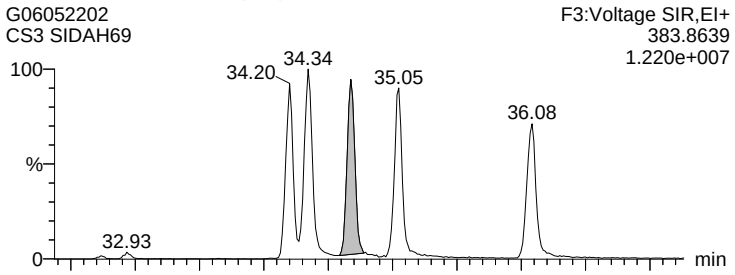
13C-12346-PeCDF (SS)

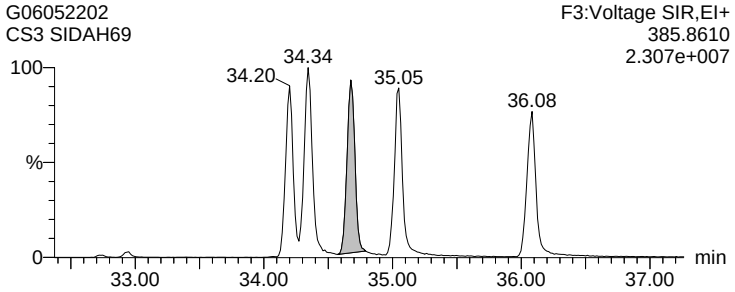


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

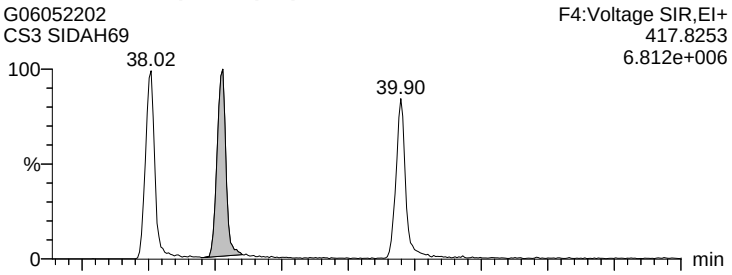
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

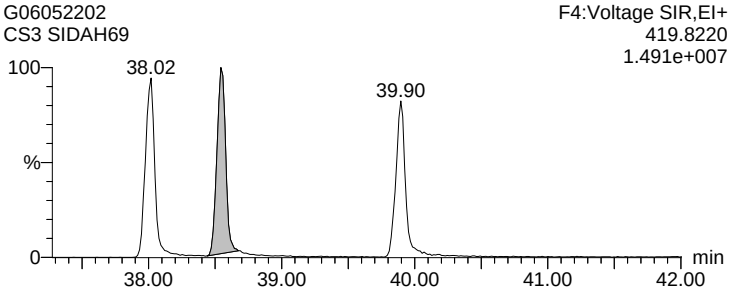
13C-123469-HxCDF (SS)



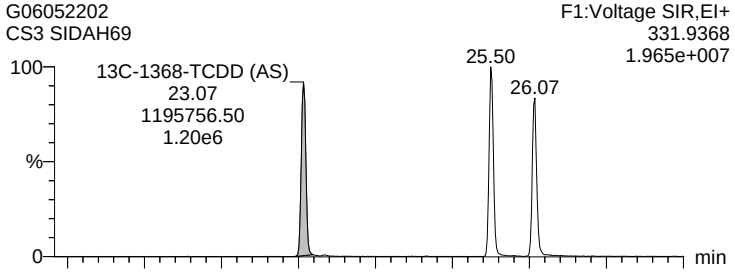


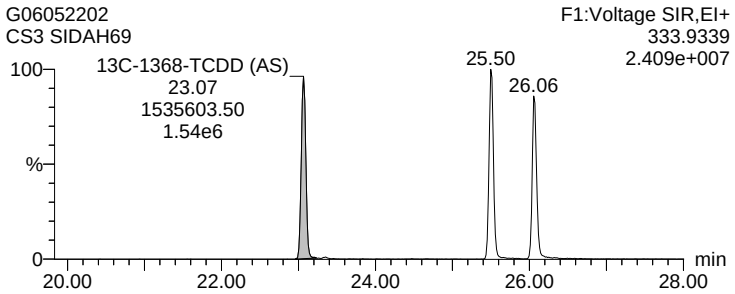
13C-1234689-HpCDF (SS)



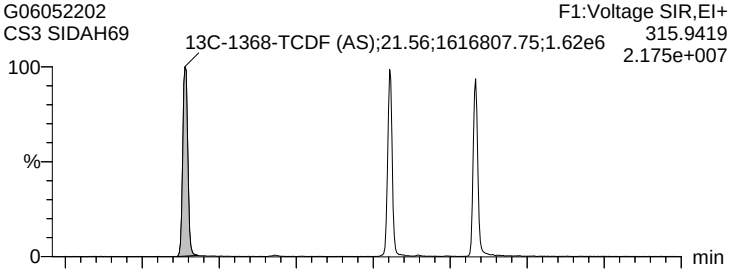


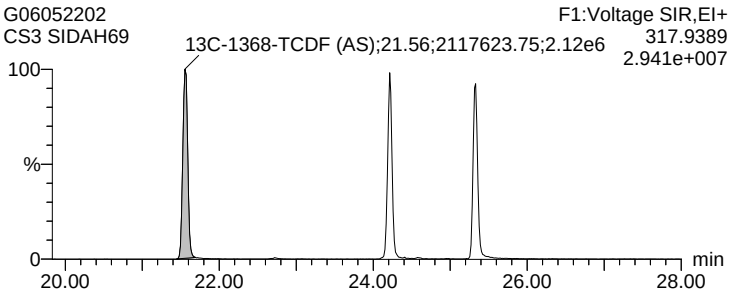
13C-1368-TCDD (AS)





13C-1368-TCDF (AS)

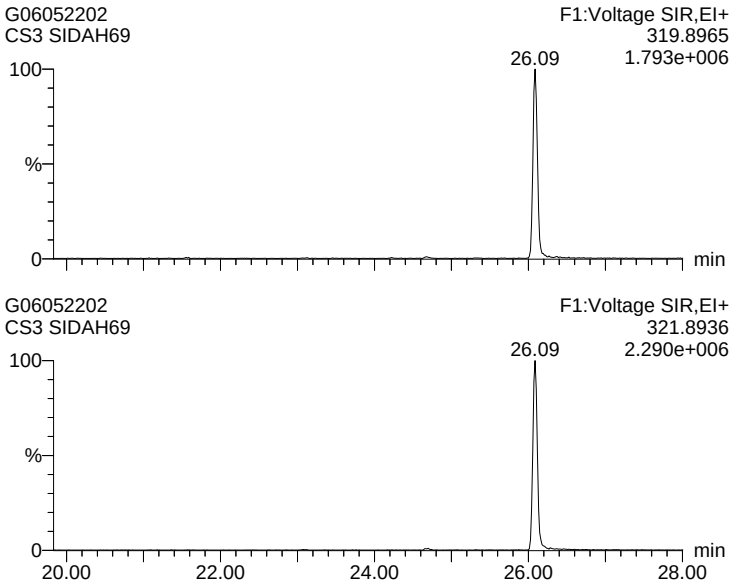




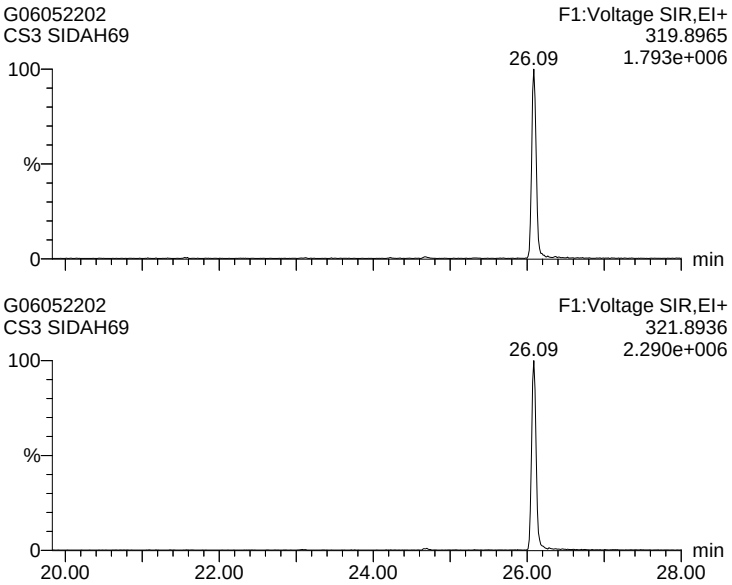
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

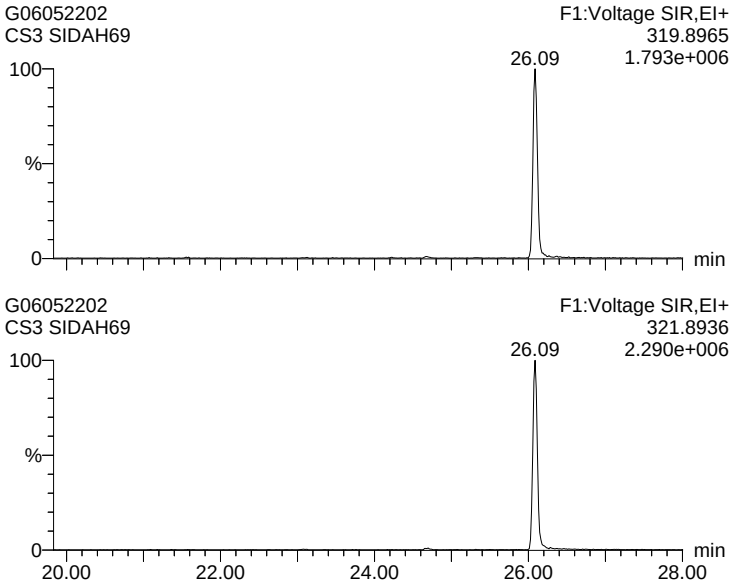
1368-TCDD



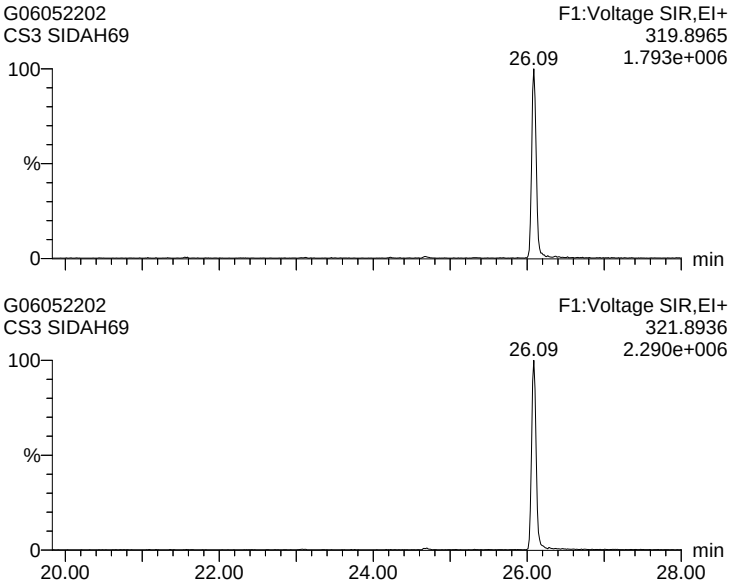
1379-TCDD



1369-TCDD



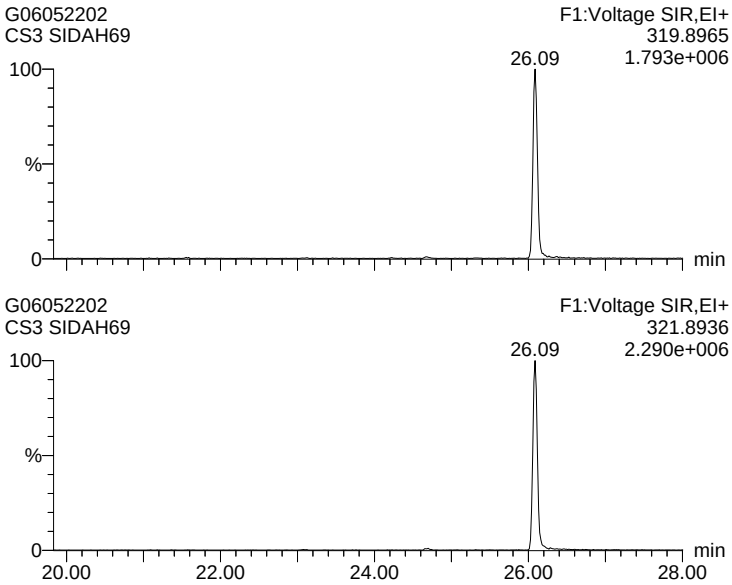
1469-TCDD



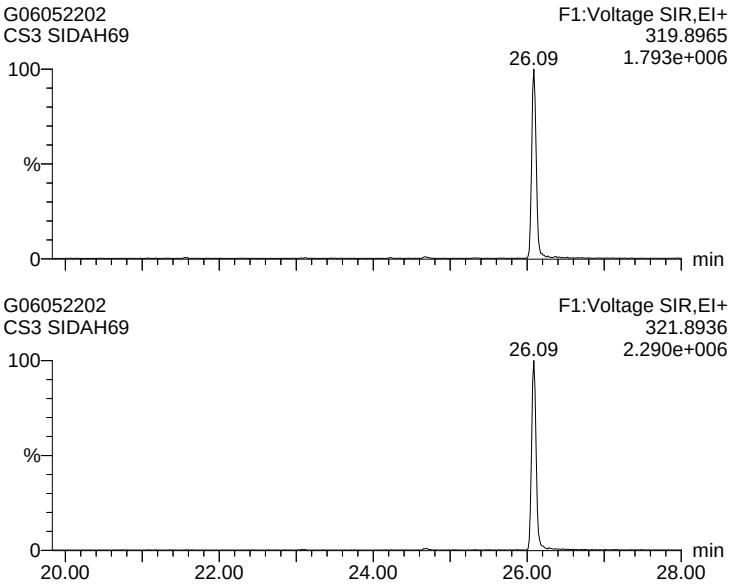
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

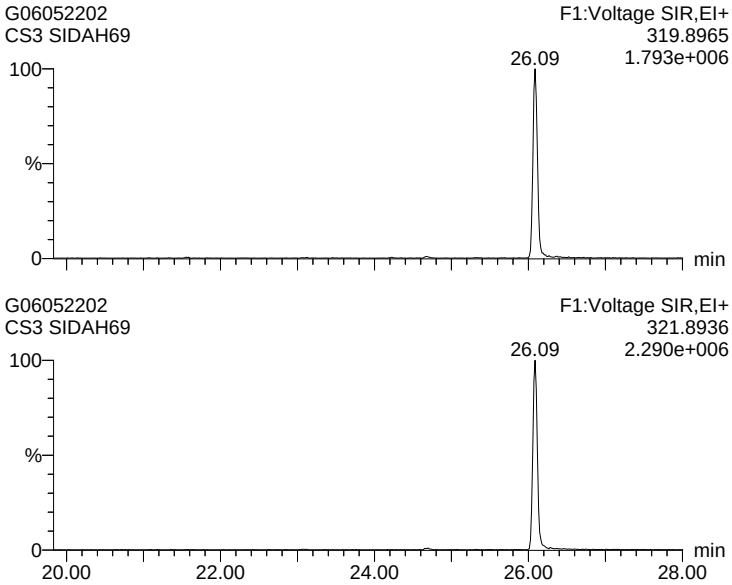
1247/1246/1248/1249-TCDD



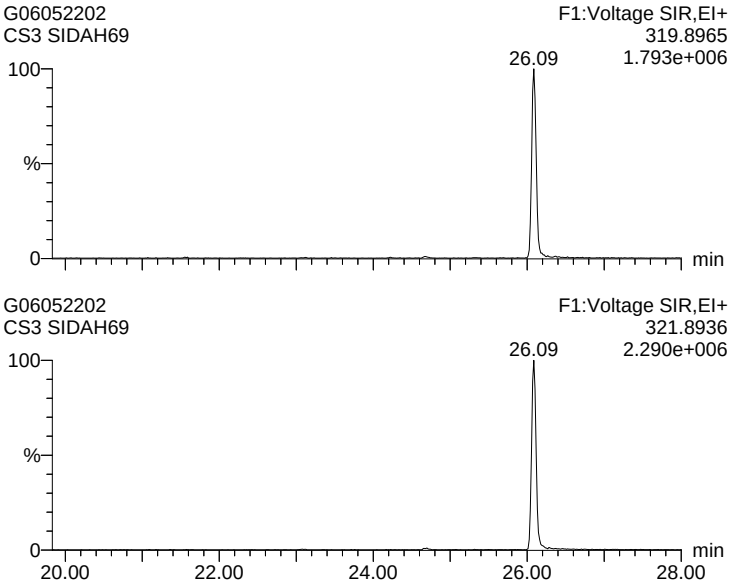
1378-TCDD



1268-TCDD



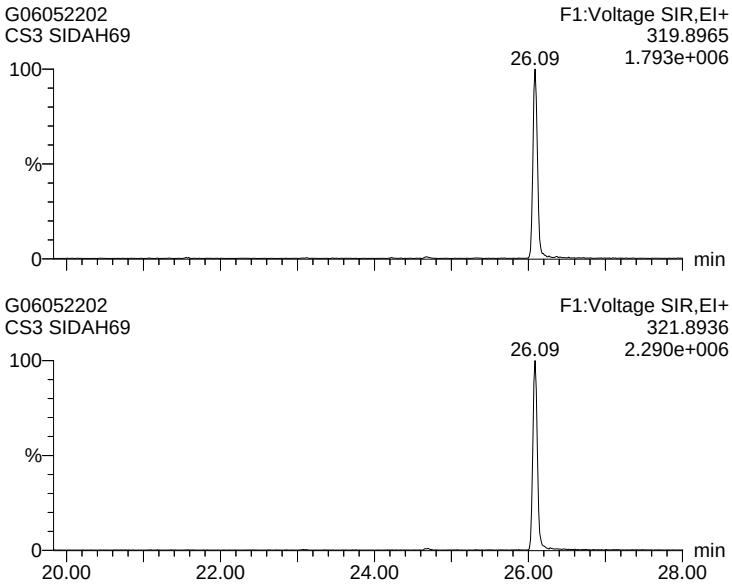
1478-TCDD



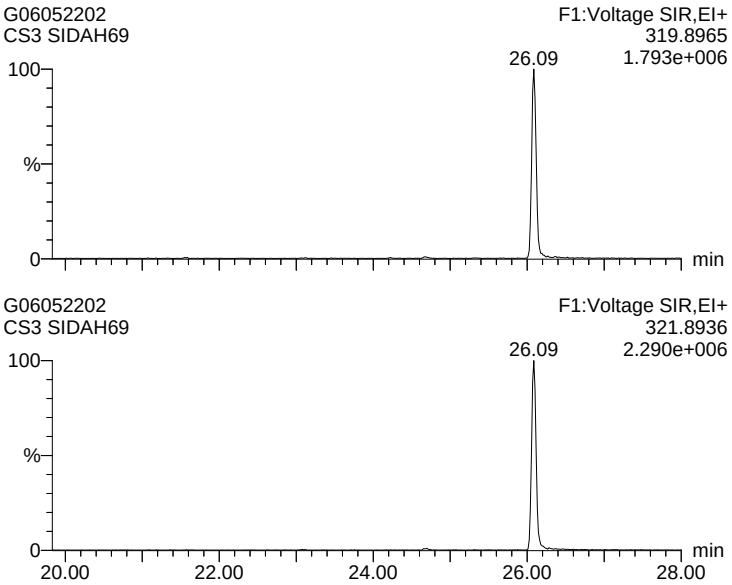
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

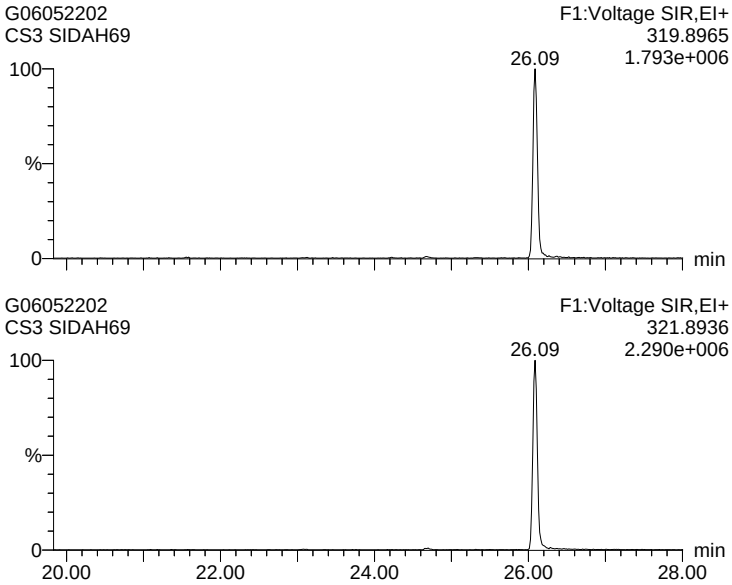
1279-TCDD



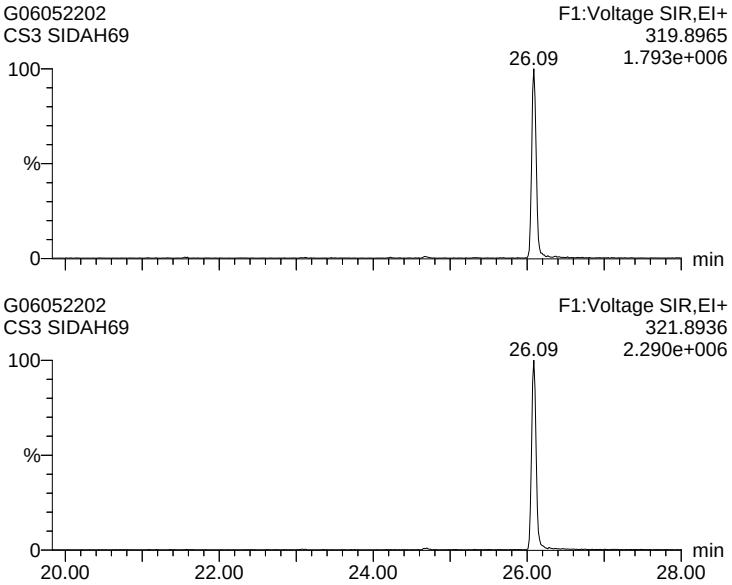
1234/1269-TCDD



1236-TCDD



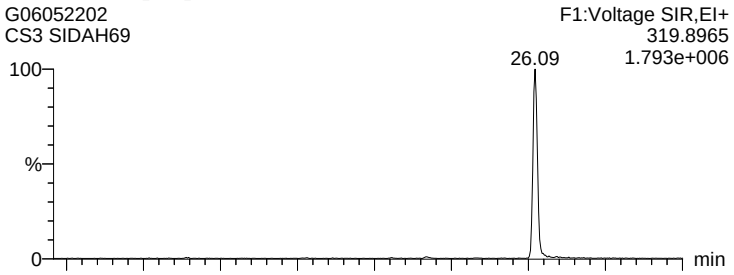
1237/1238-TCDD

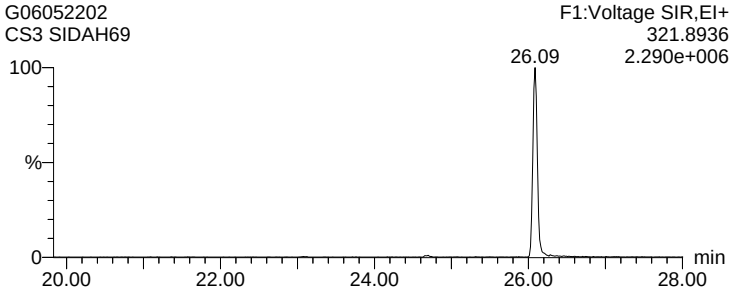


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

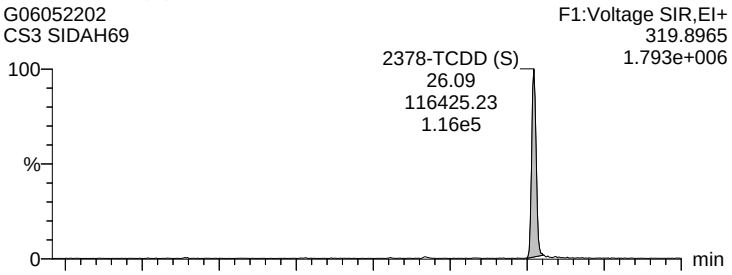
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

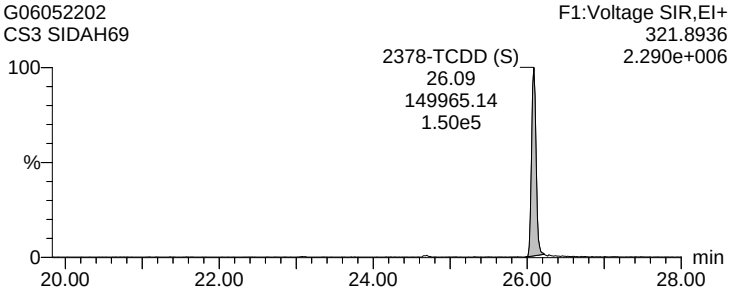
1239-TCDD [CE]



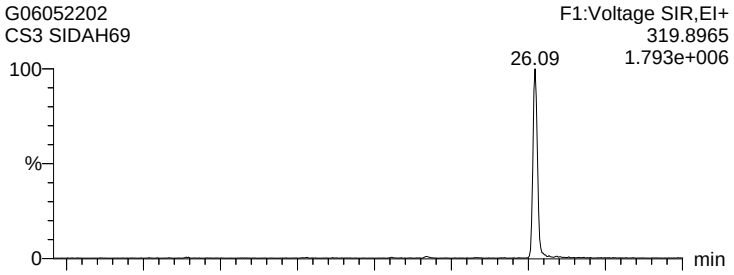


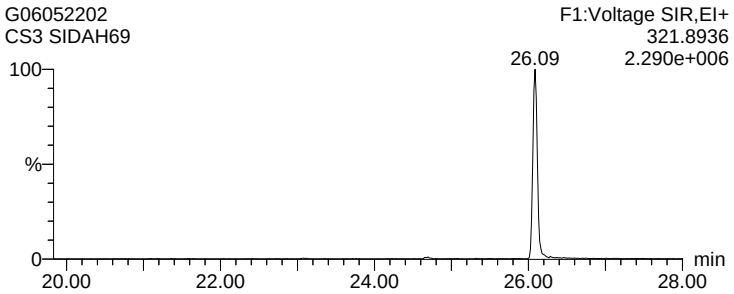
2378-TCDD (S)



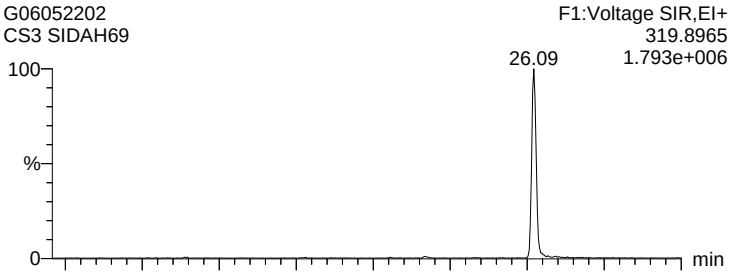


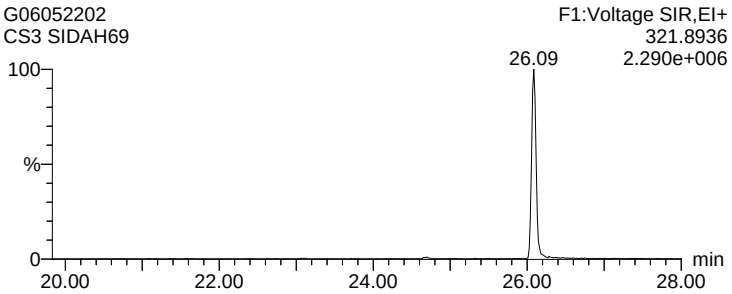
1278-TCDD





1267-TCDD

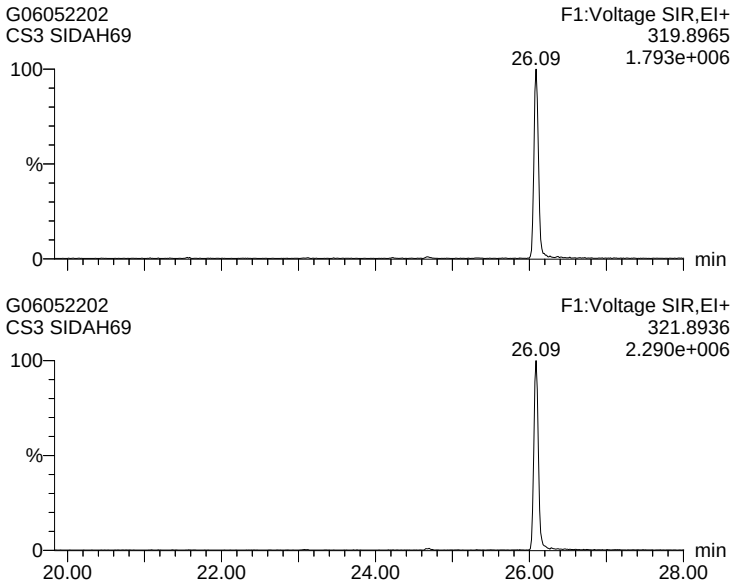




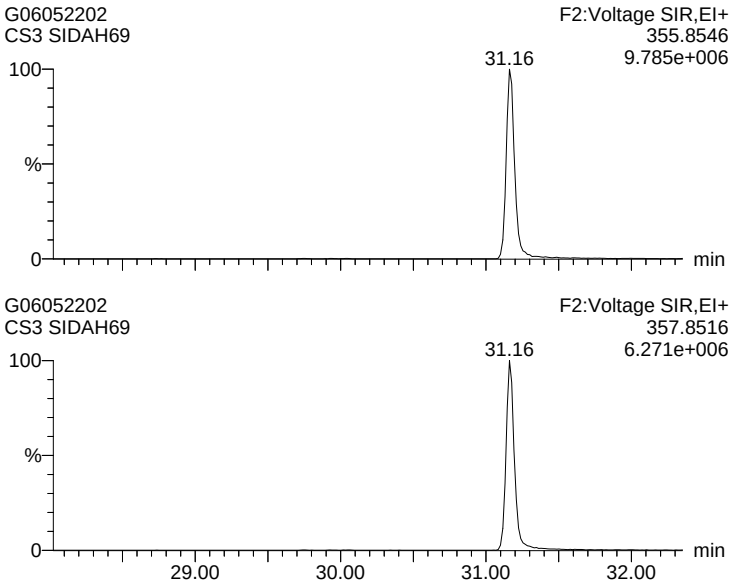
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

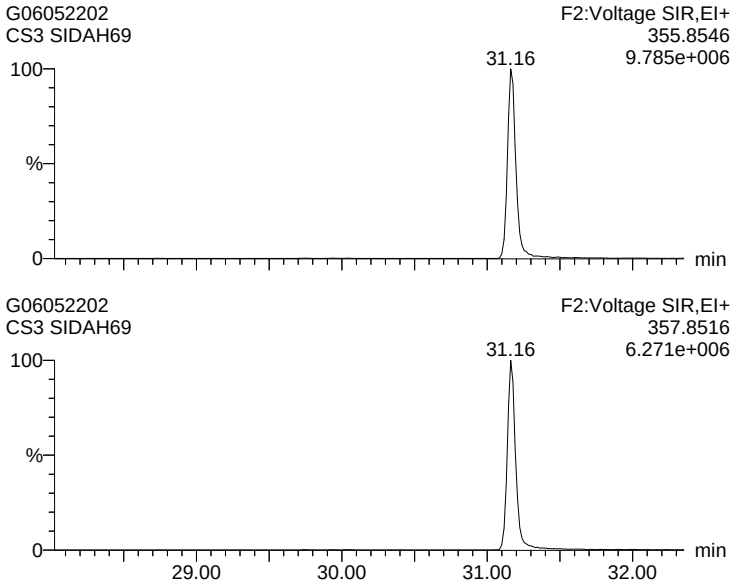
1289-TCDD



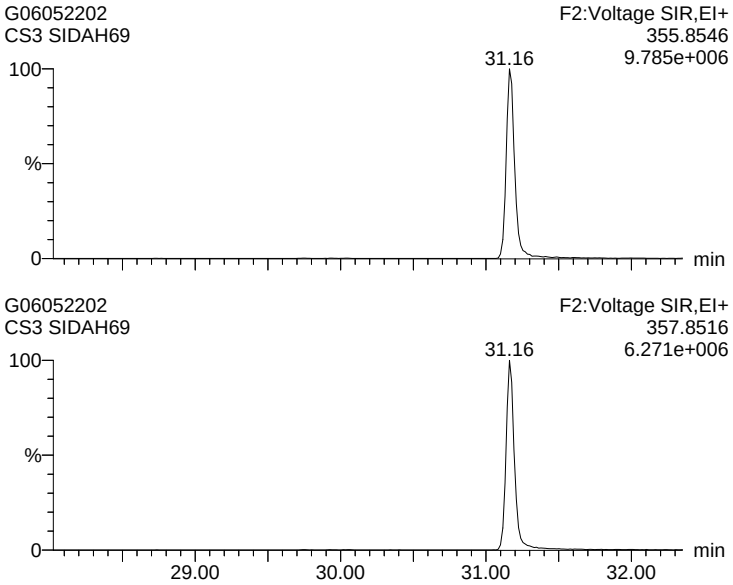
12479/12468-PeCDD



12469-PeCDD



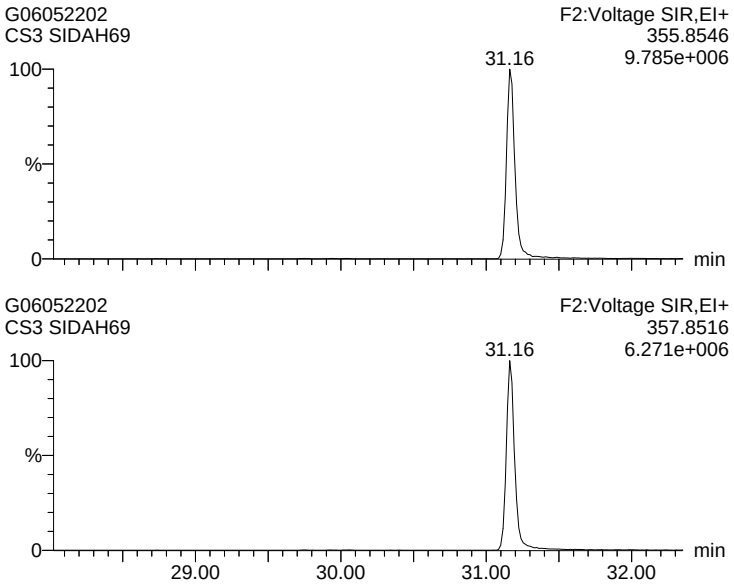
12368-PeCDD



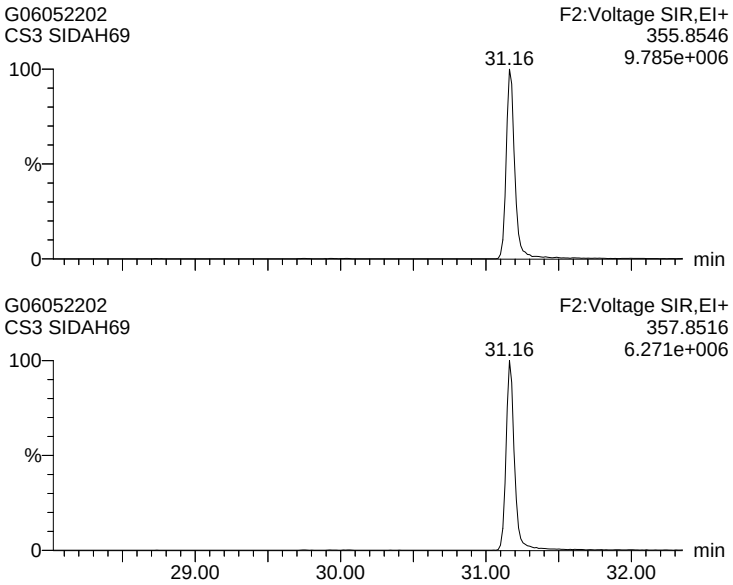
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

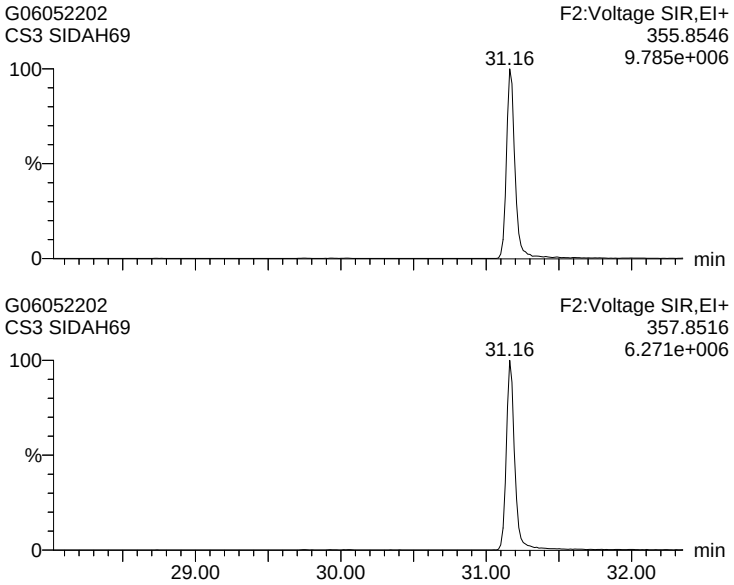
12478-PeCDD



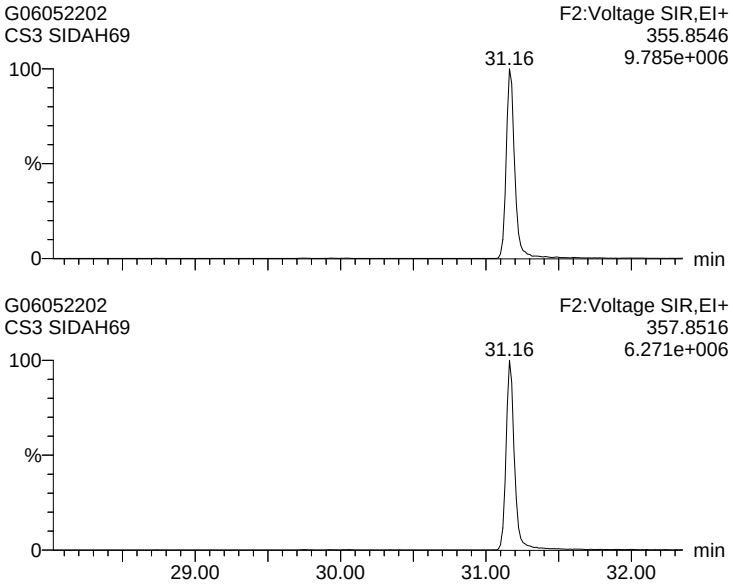
12379-PeCDD



12369/12467/12489-PeCDD



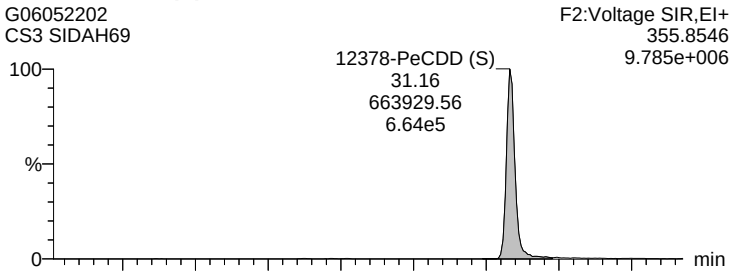
12346/12347-PeCDD

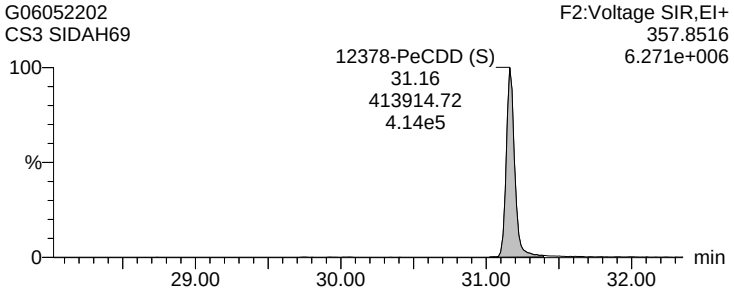


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

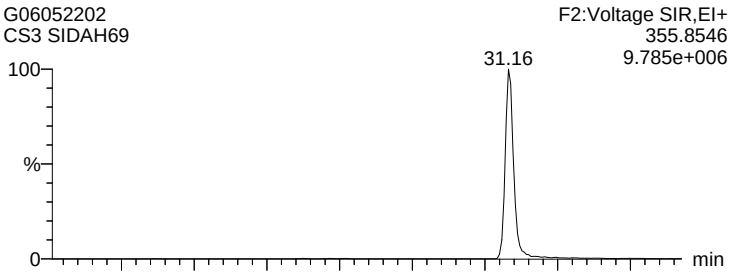
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

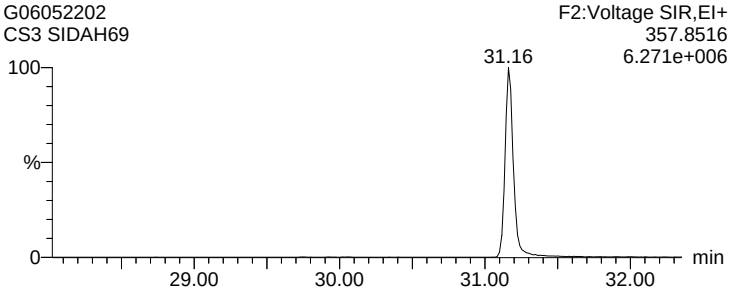
12378-PeCDD (S)



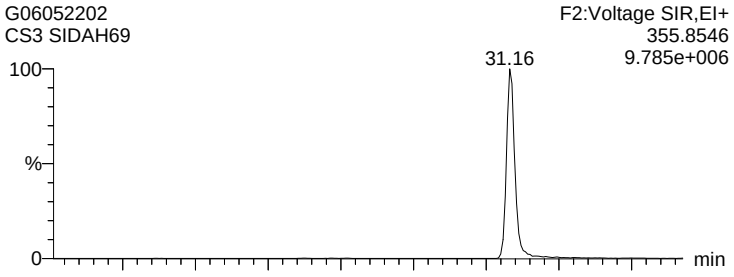


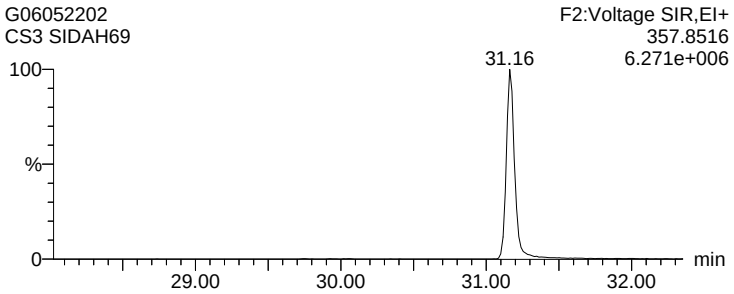
12367-PeCDD



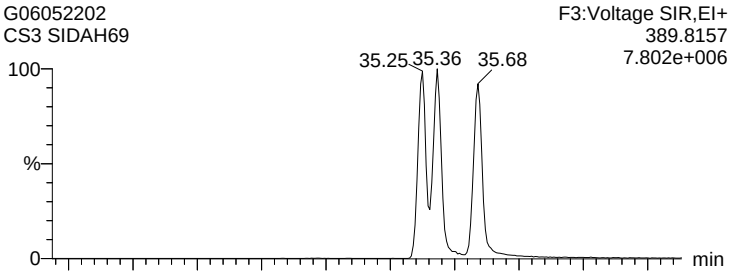


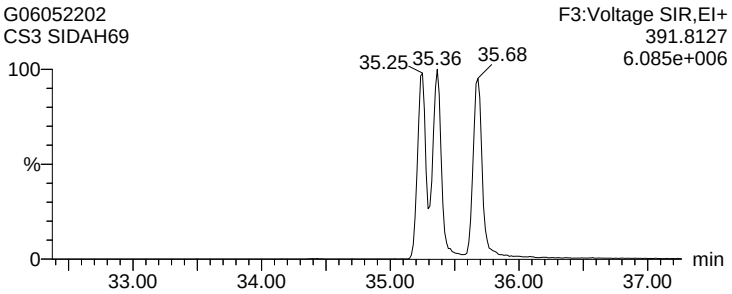
12389-PeCDD





124679/124689-HxCDD

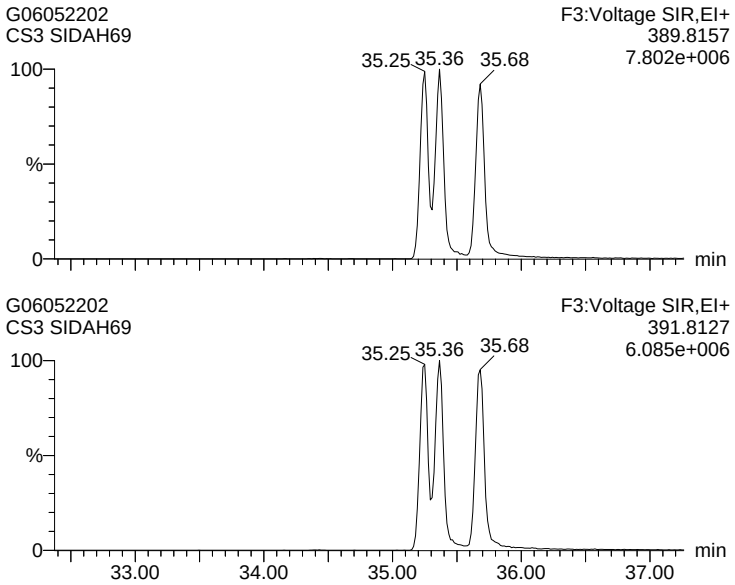




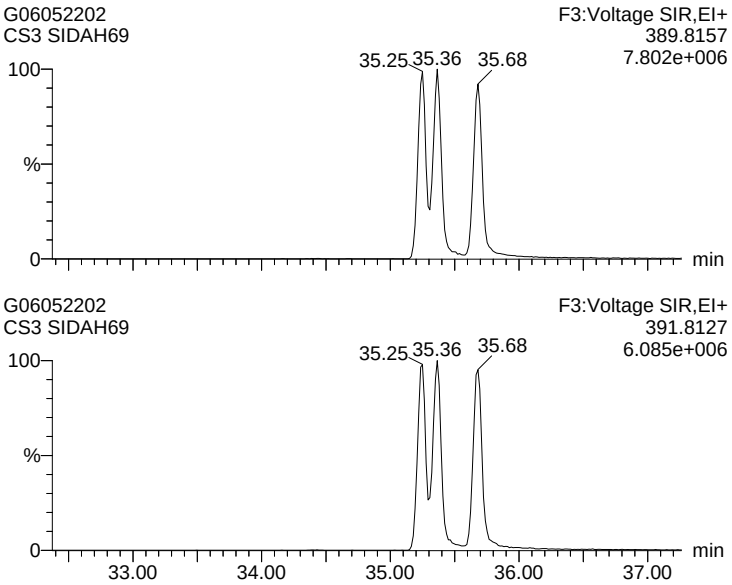
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

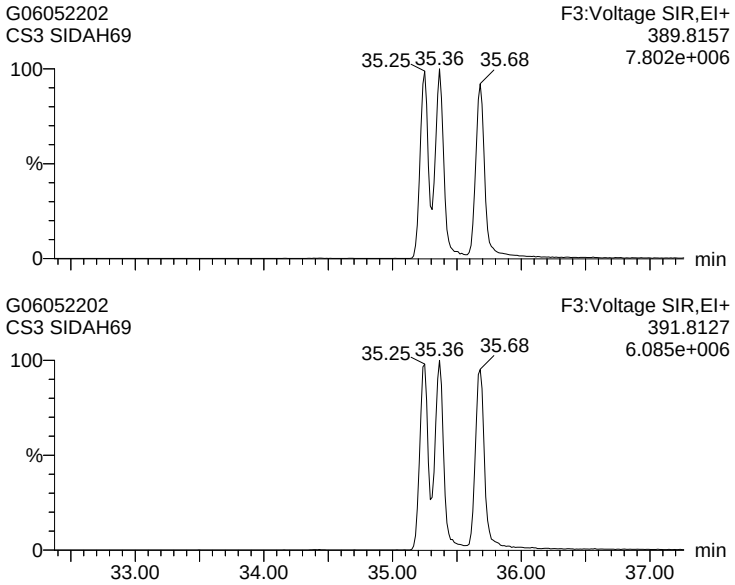
123468-HxCDD



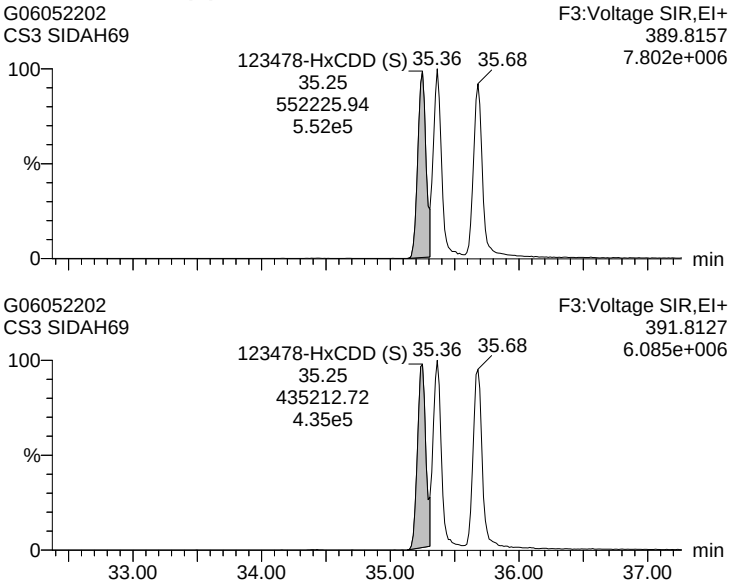
123679/123689-HxCDD



123469-HxCDD



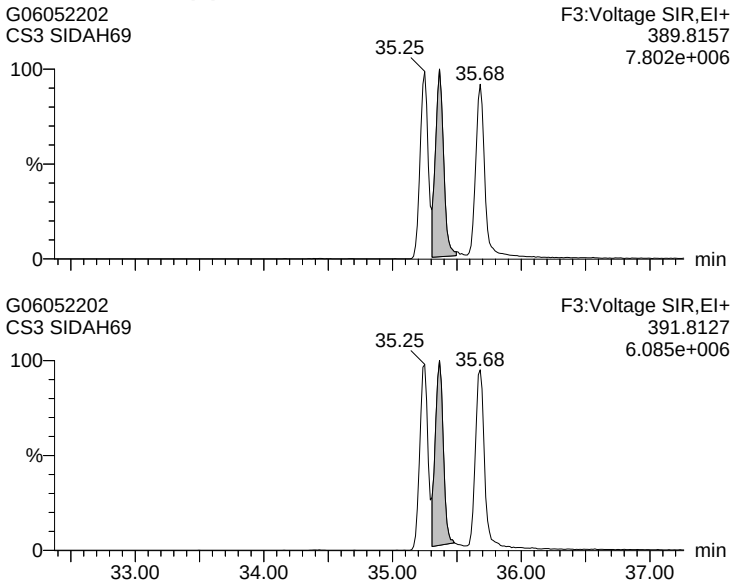
123478-HxCDD (S)



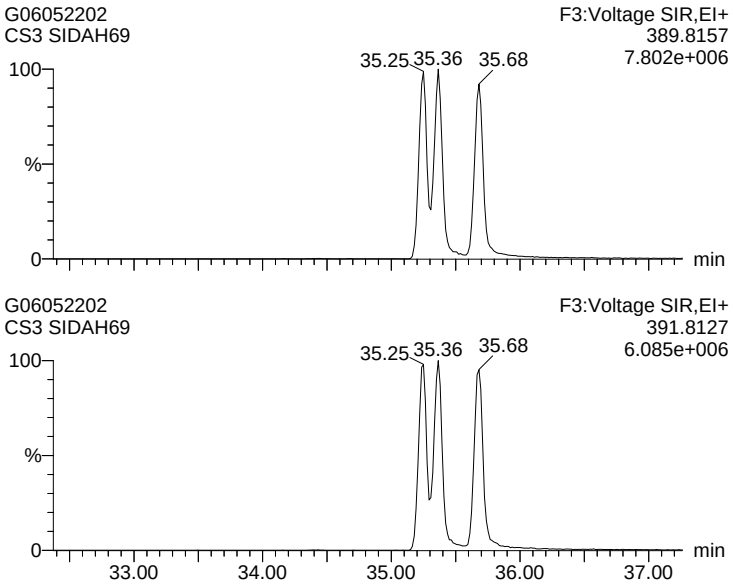
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

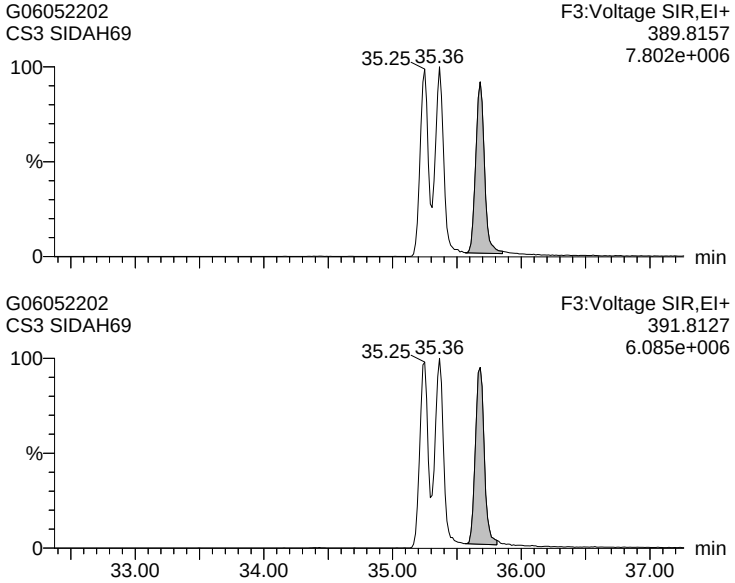
123678-HxCDD (S)



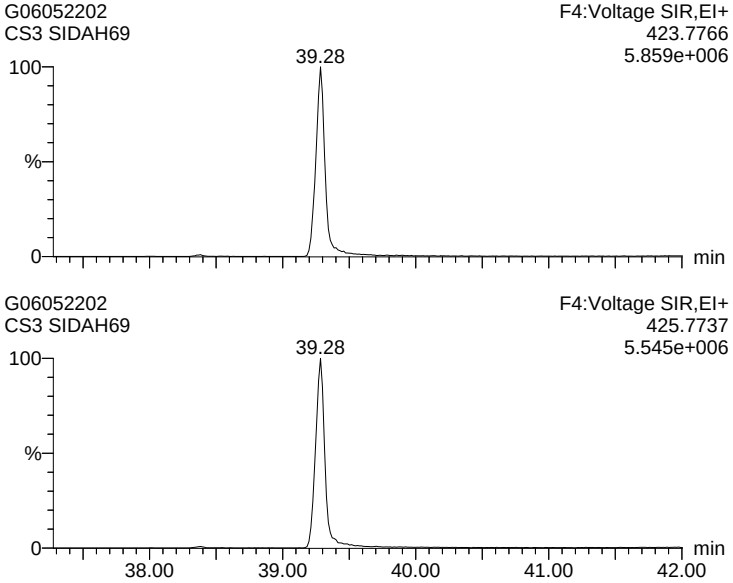
123467-HxCDD



123789-HxCDD (S)



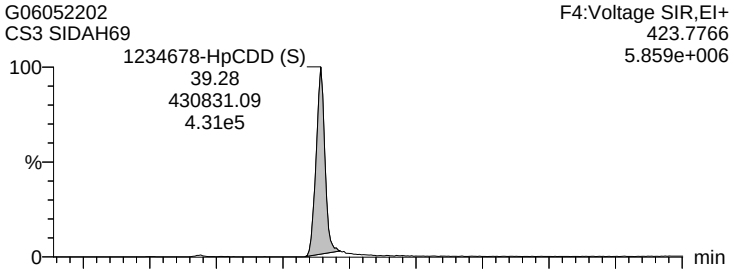
1234679-HpCDD

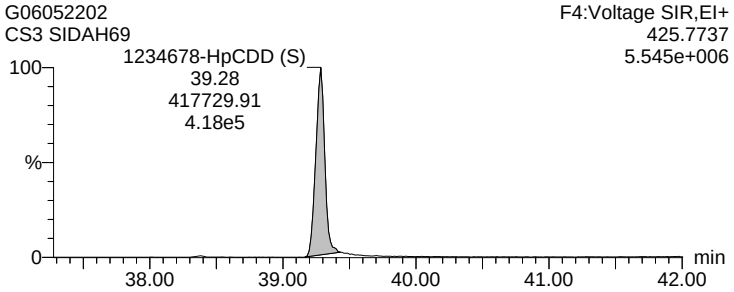


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

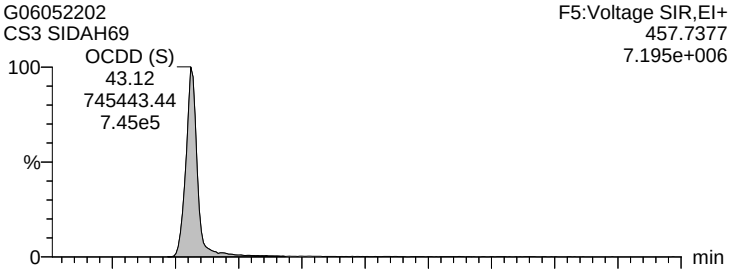
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

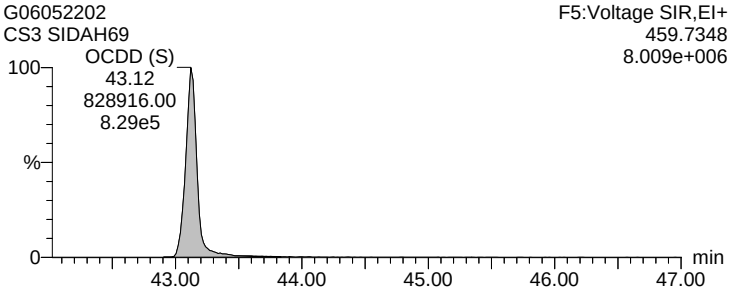
1234678-HpCDD (S)



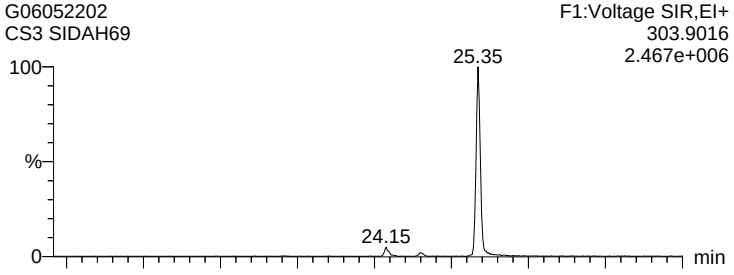


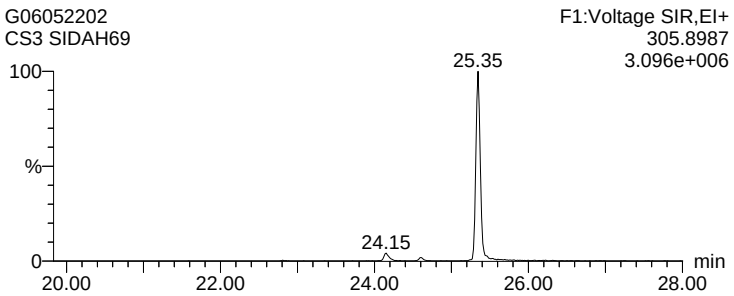
OCDD (S)



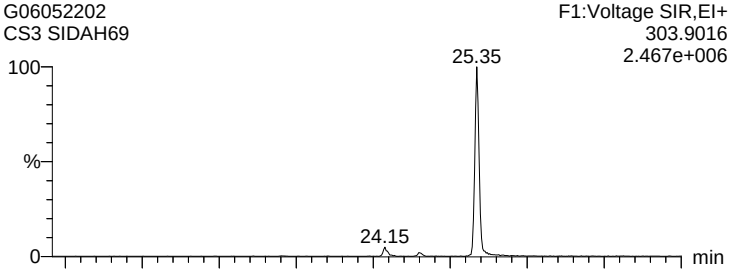


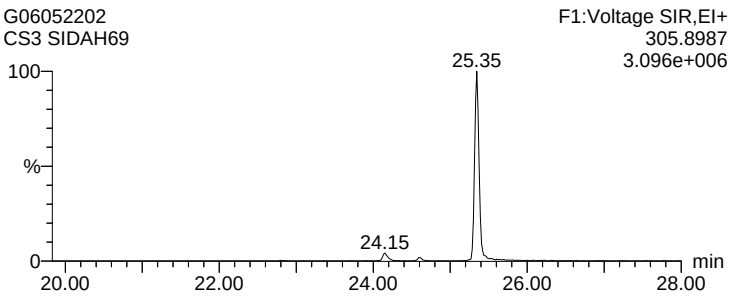
1368-TCDF





1468-TCDF

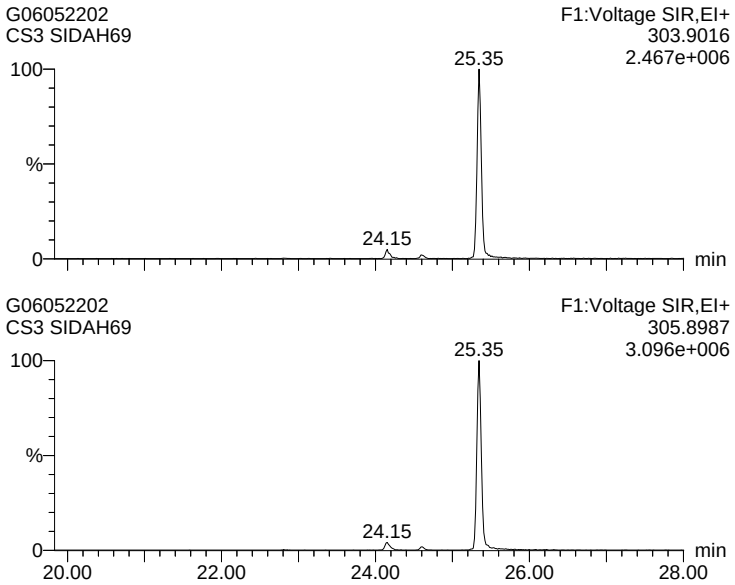




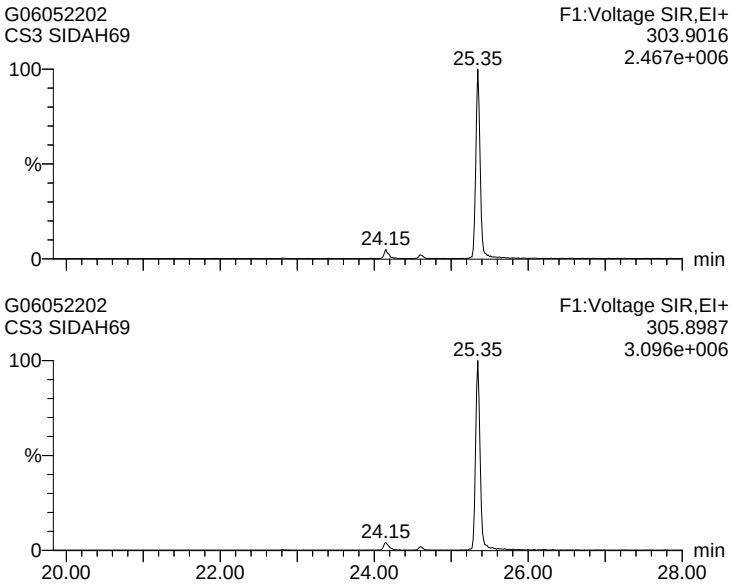
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

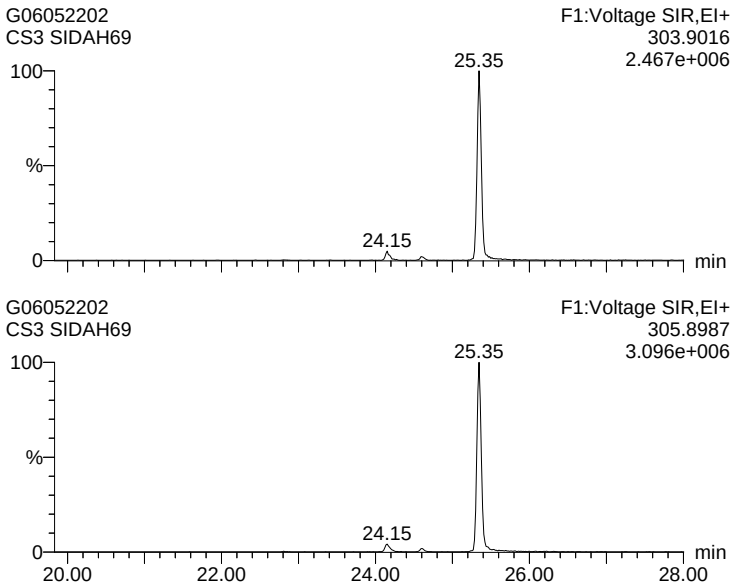
2468-TCDF



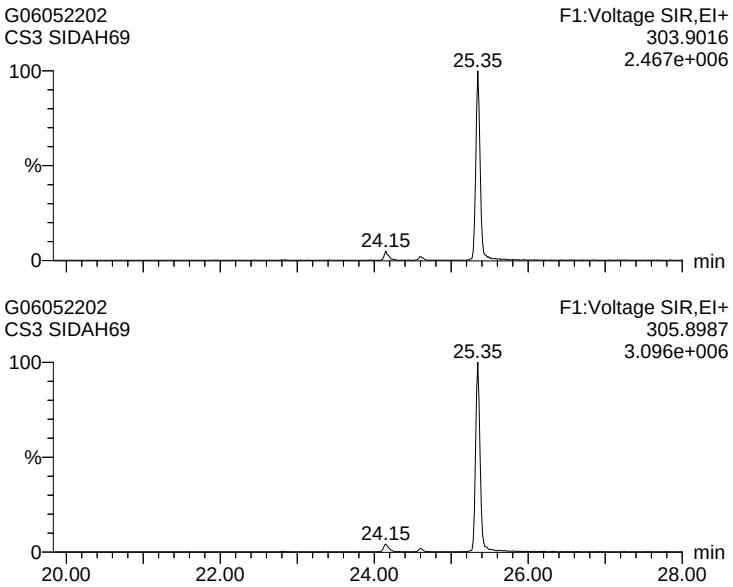
1346/1246-TCDF



1347/1378/1247-TCDF



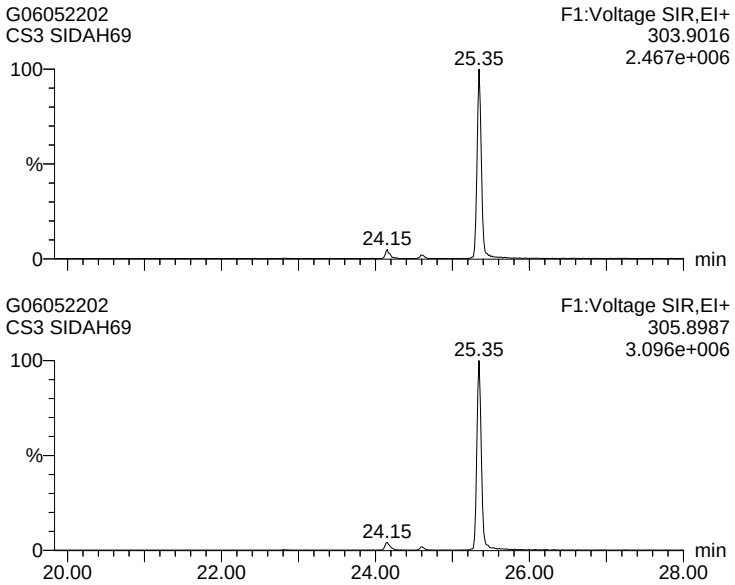
1348-TCDF



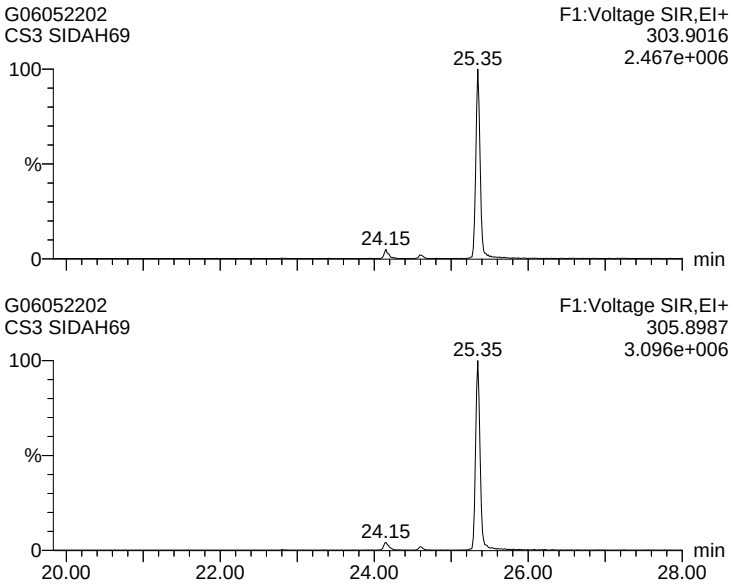
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

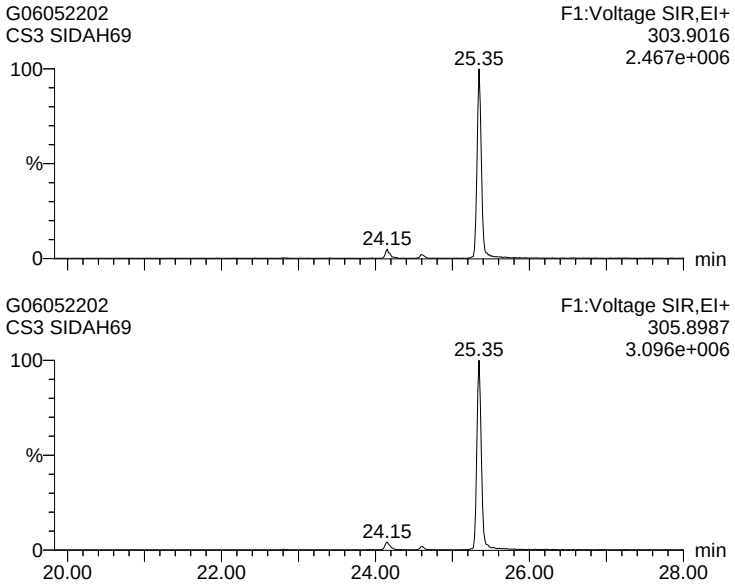
1248/1367/1379-TCDF



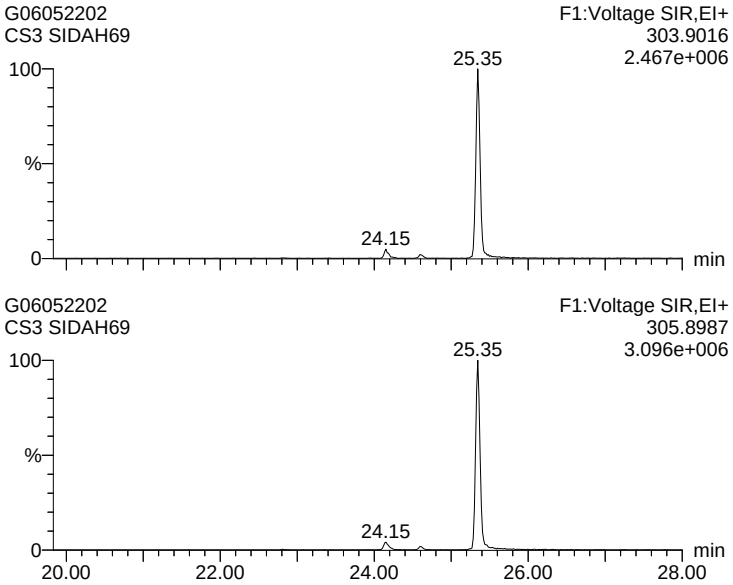
1268-TCDF



1467-TCDF



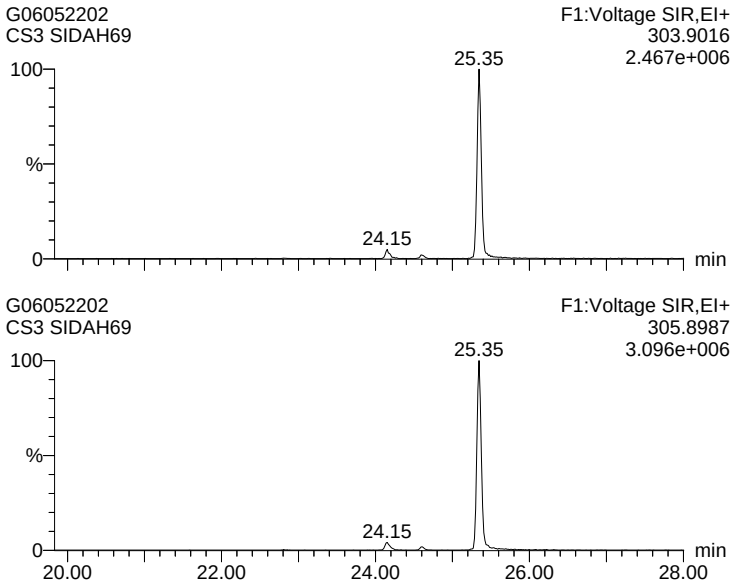
1478-TCDF



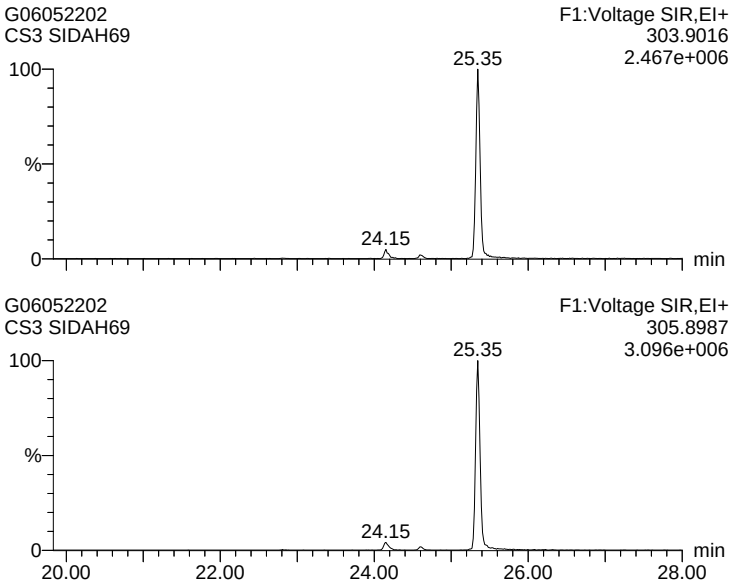
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

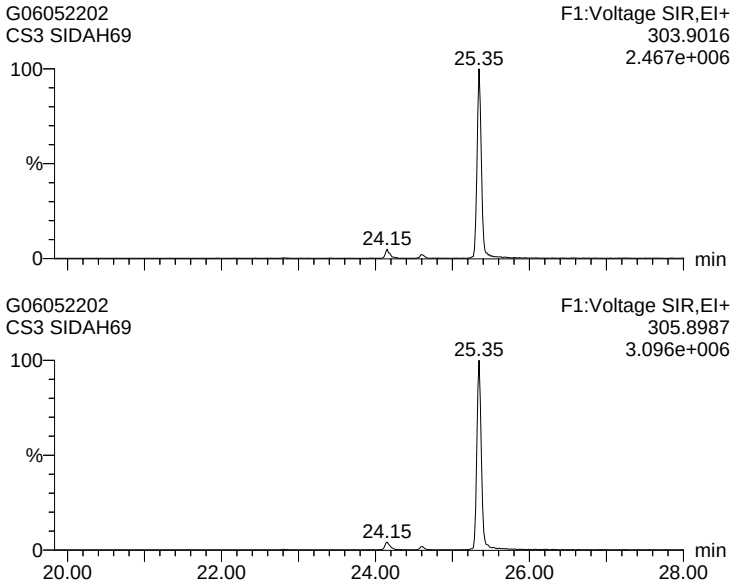
1369/1237-TCDF



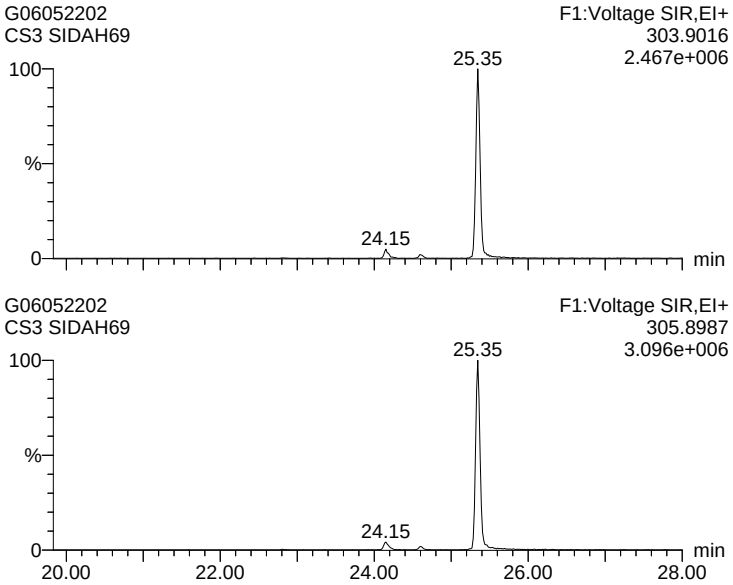
2467-TCDF



2368-TCDF



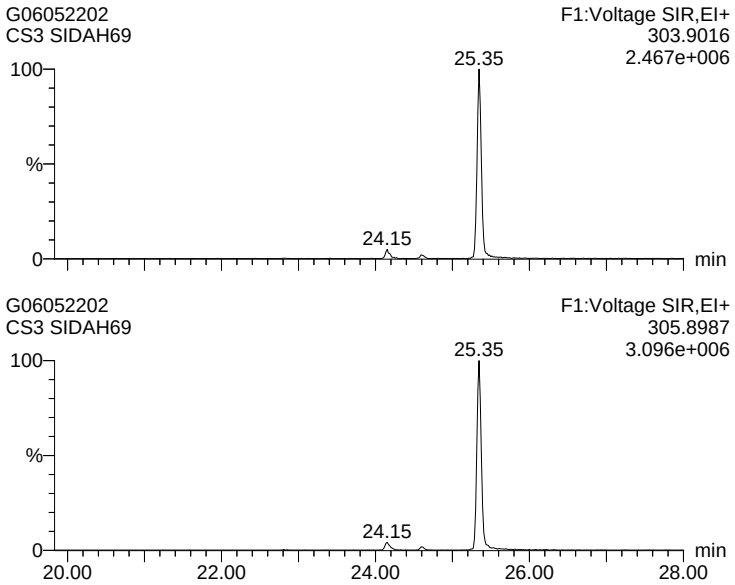
1238/1234/1678/1469/1236-TCDF



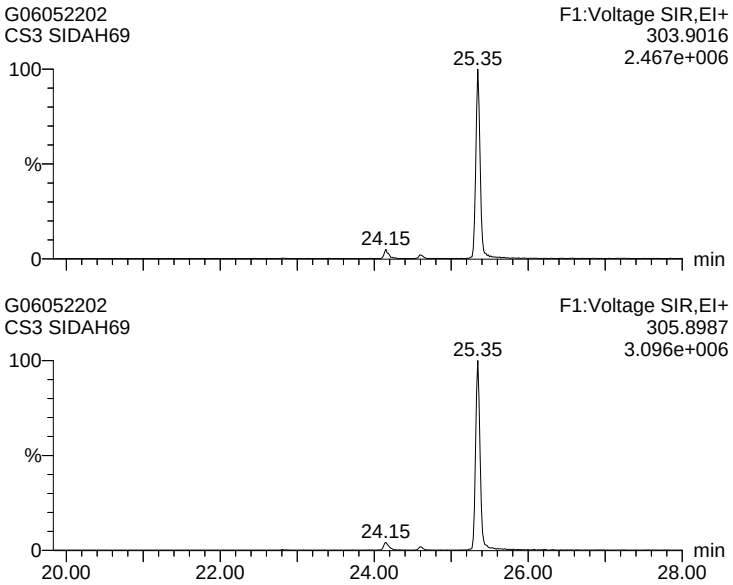
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

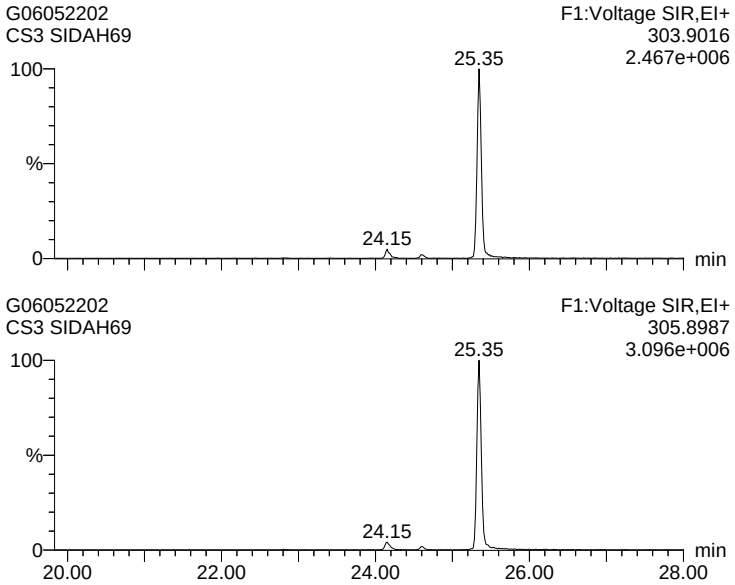
1278-TCDF



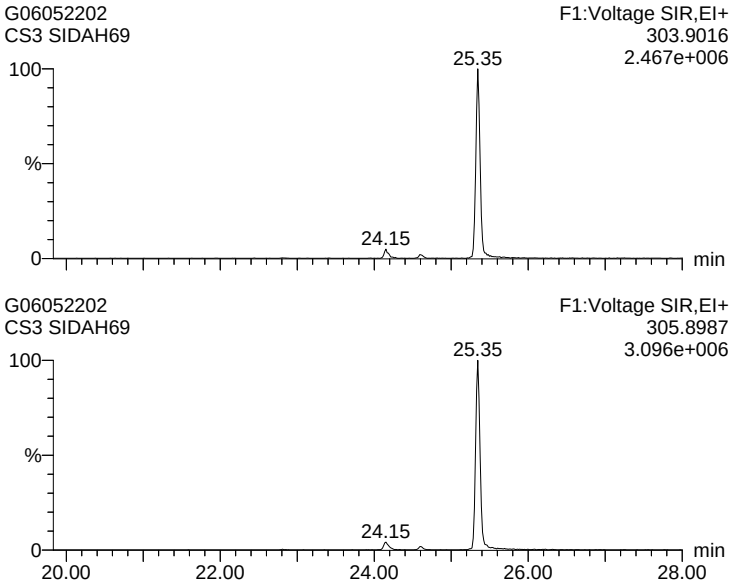
1349-TCDF



1267-TCDF



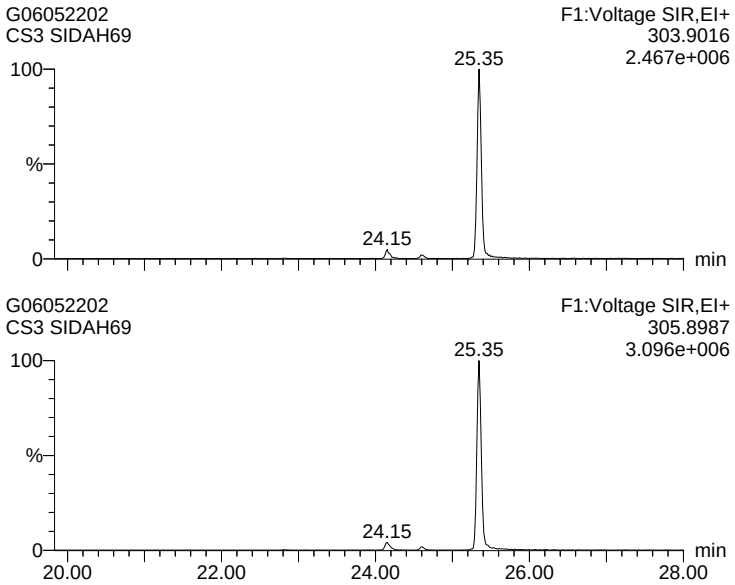
2346/1249-TCDF



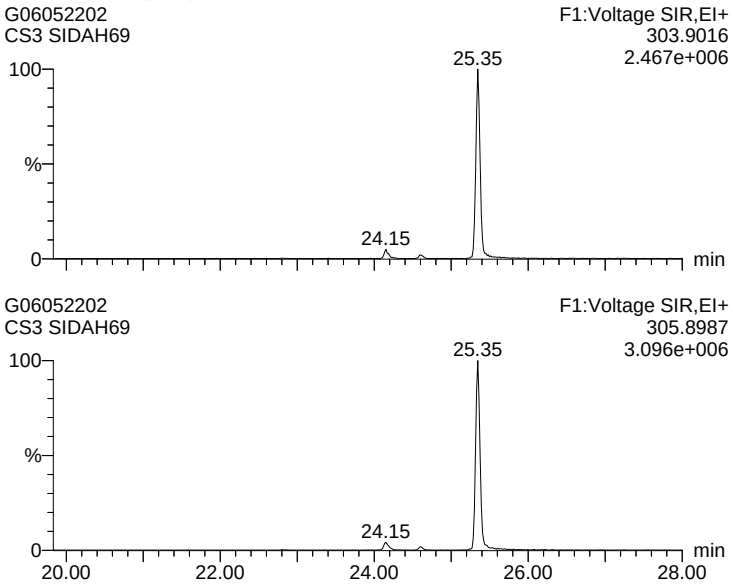
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

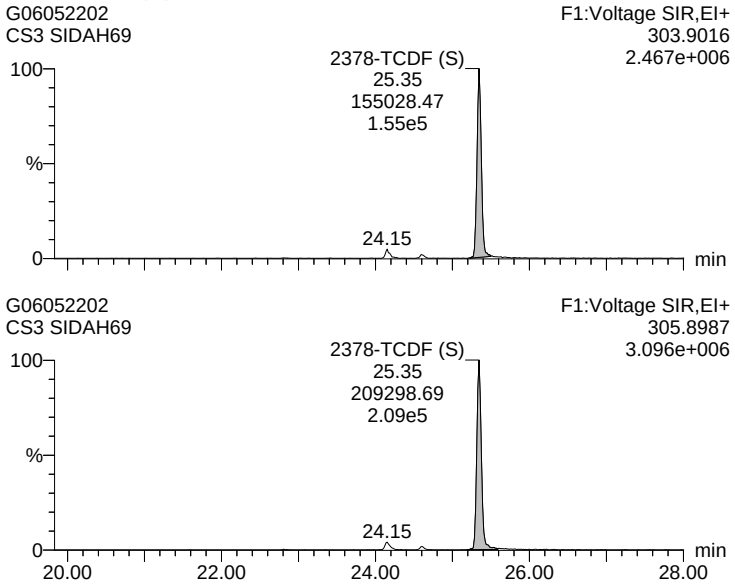
2347/1279-TCDF



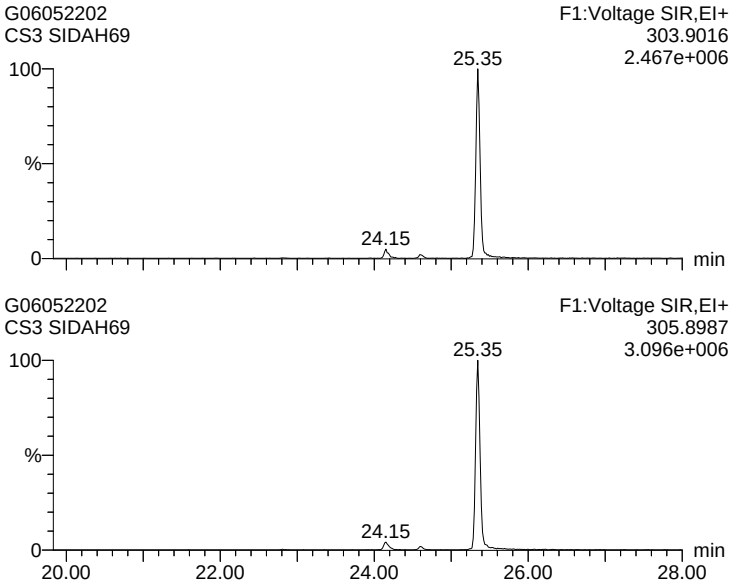
2348-TCDF [CE]



2378-TCDF (S)



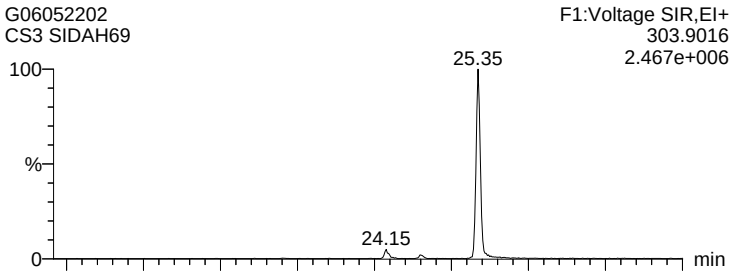
2367/3467-TCDF

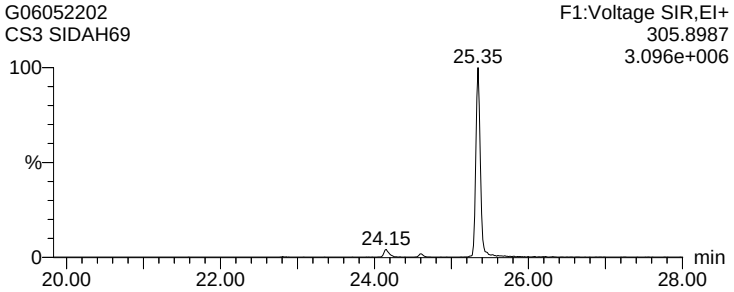


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

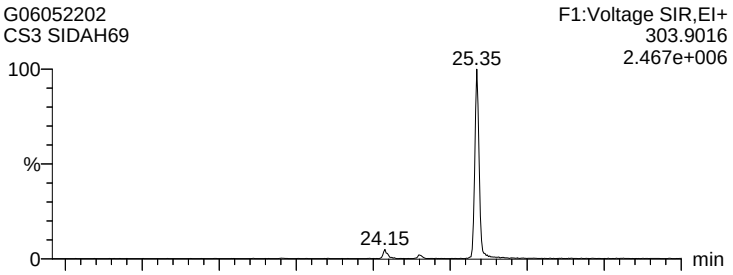
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

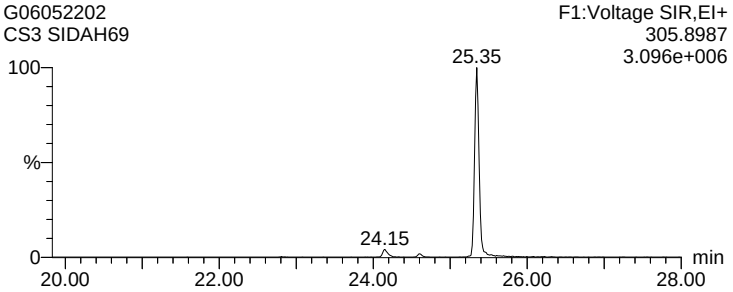
1269-TCDF



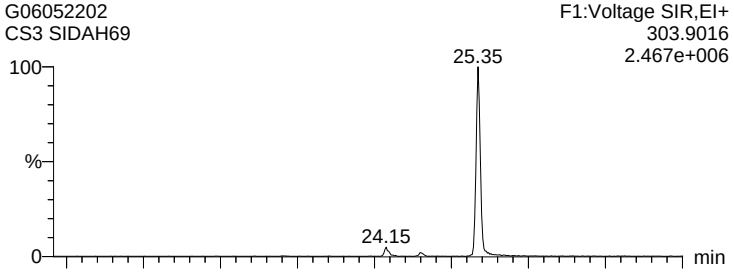


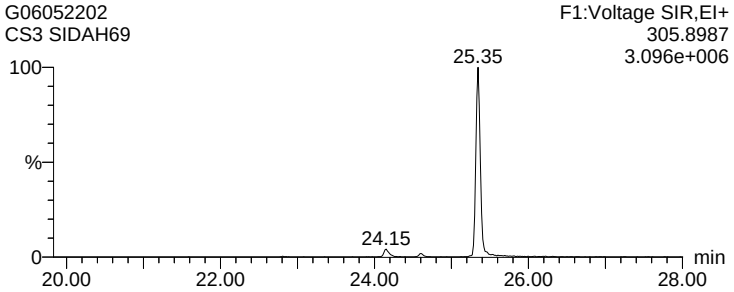
1239-TCDF



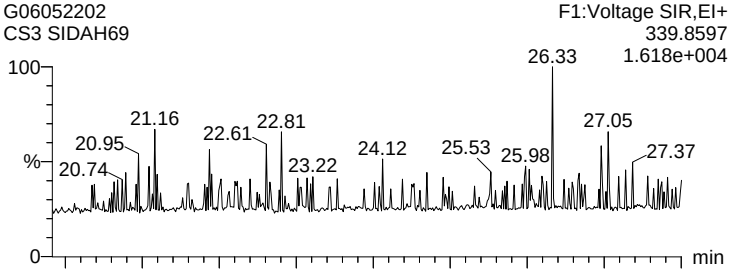


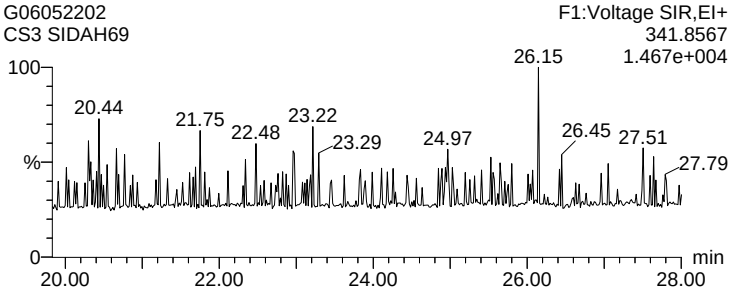
1289-TCDF





13468/12466-PeCDF

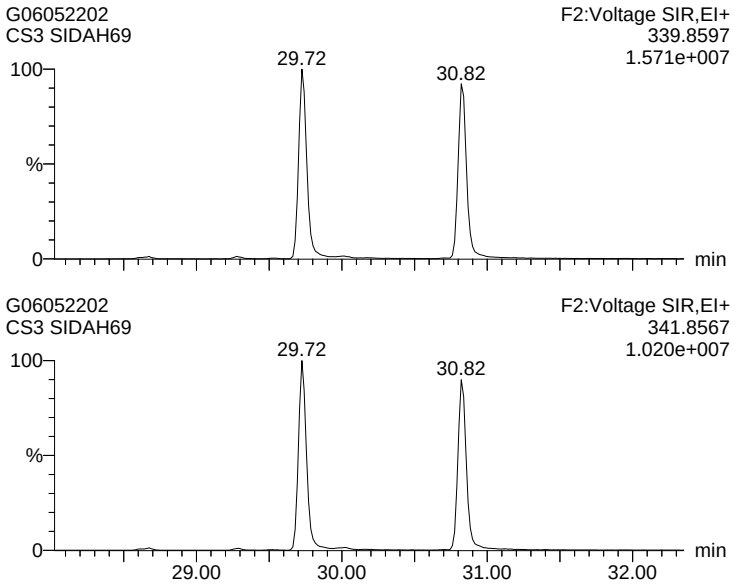




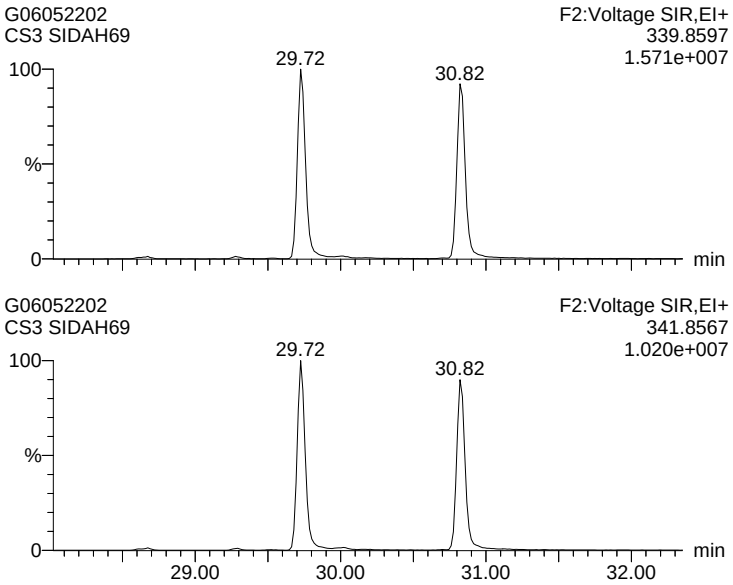
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

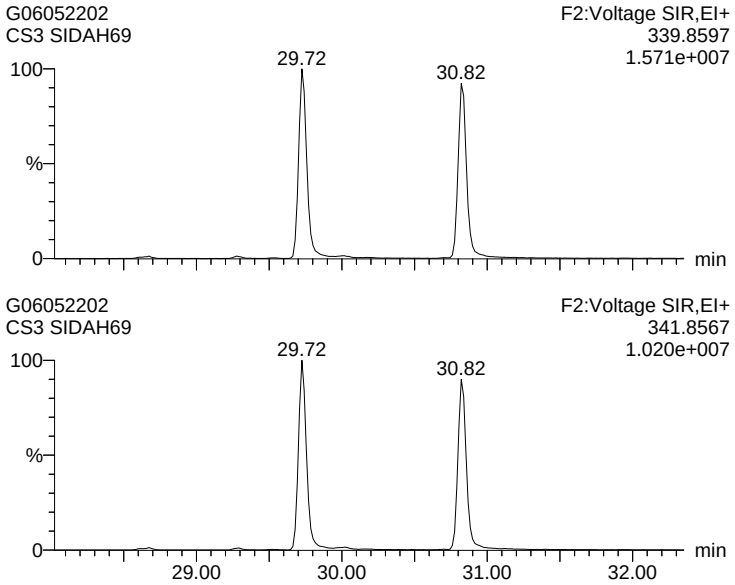
13678/13467/12467-PeCDF



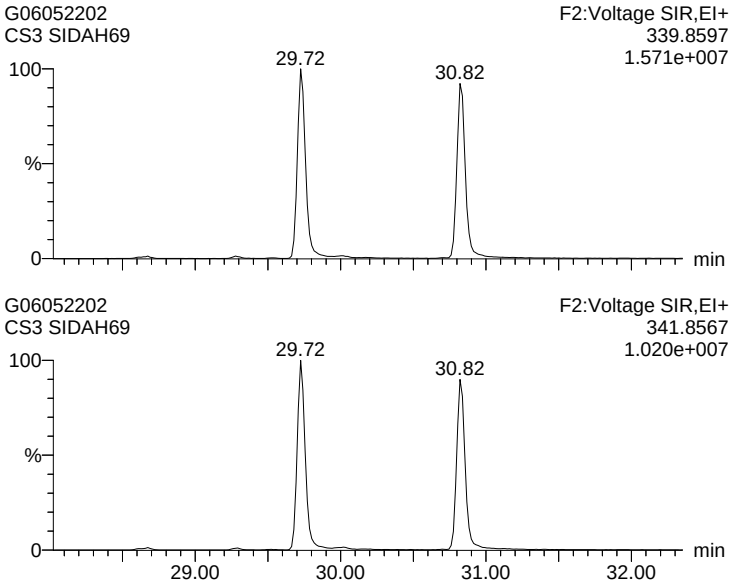
12368/13478/12478-PeCDF



14678-PeCDF



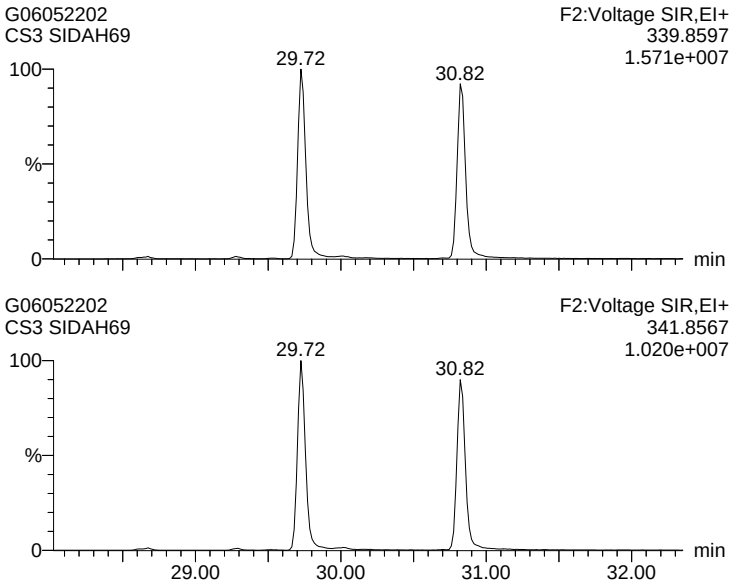
13479-PeCDF



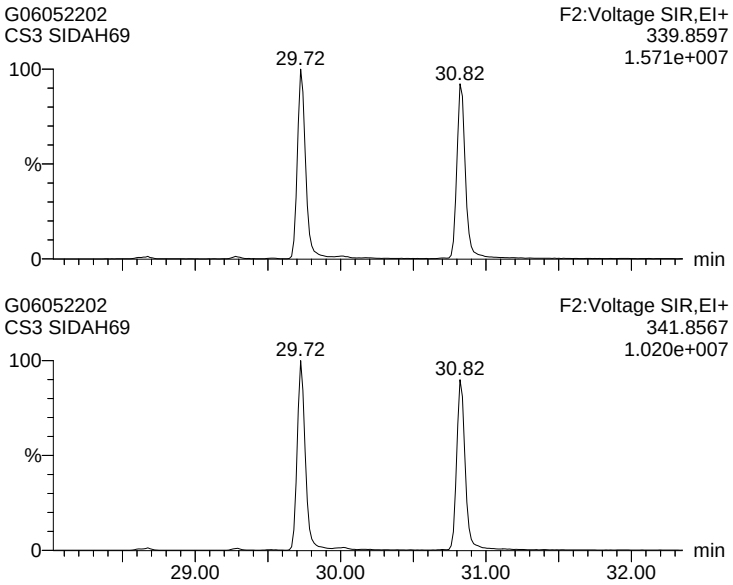
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

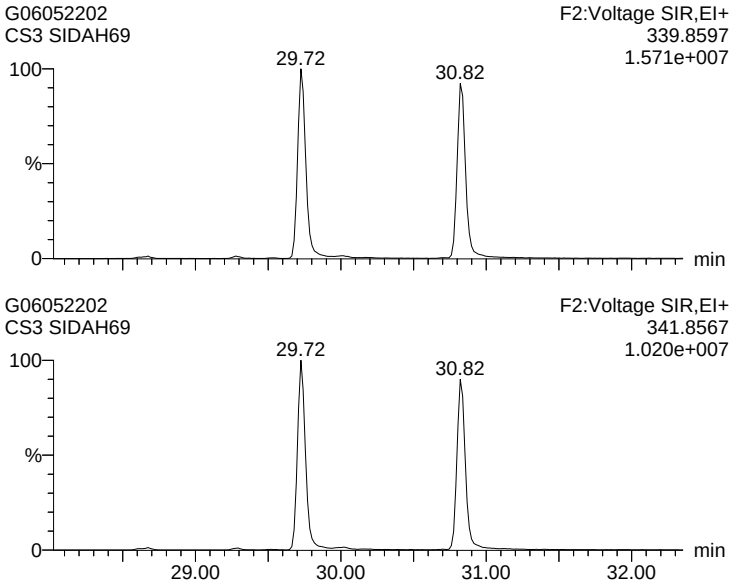
13469/12479-PeCDF



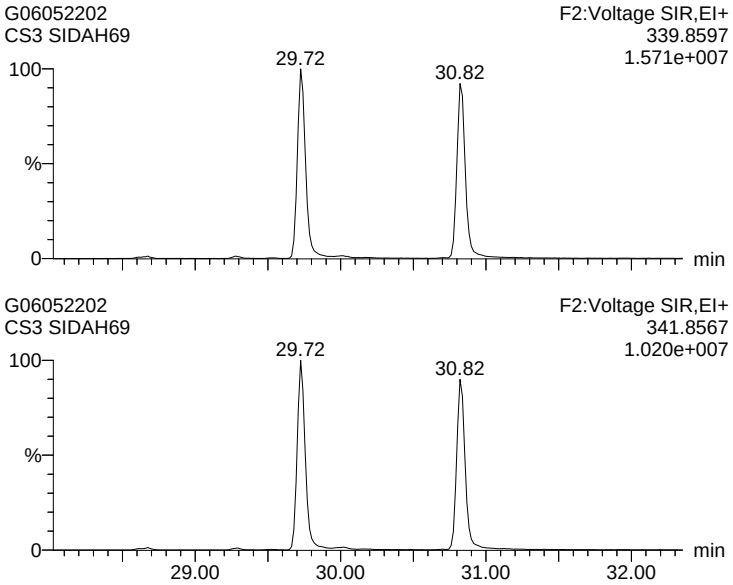
12346-PeCDF



23468/12469-PeCDF



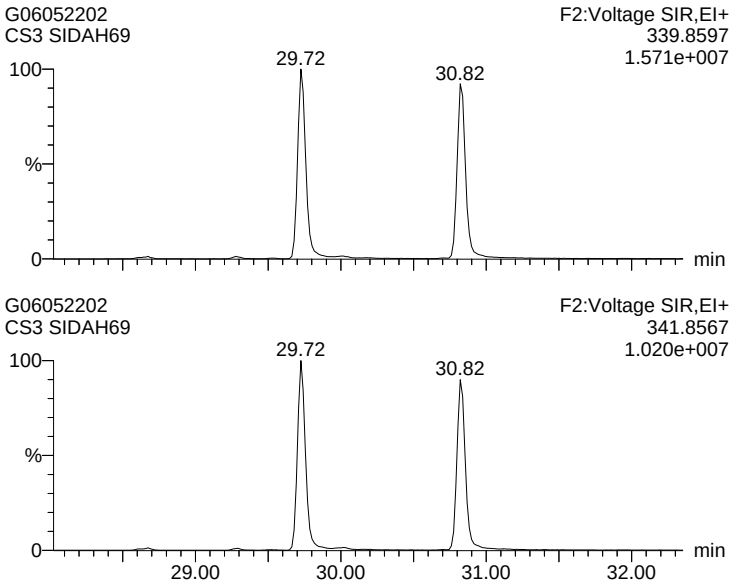
12347-PeCDF



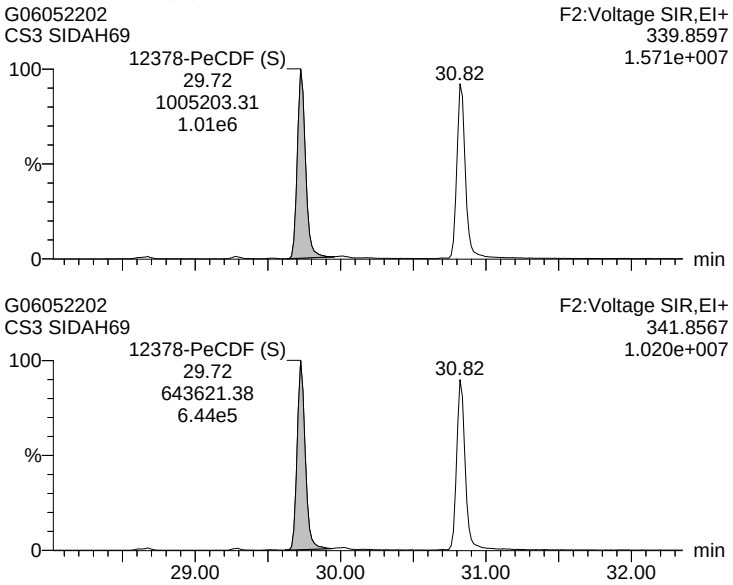
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

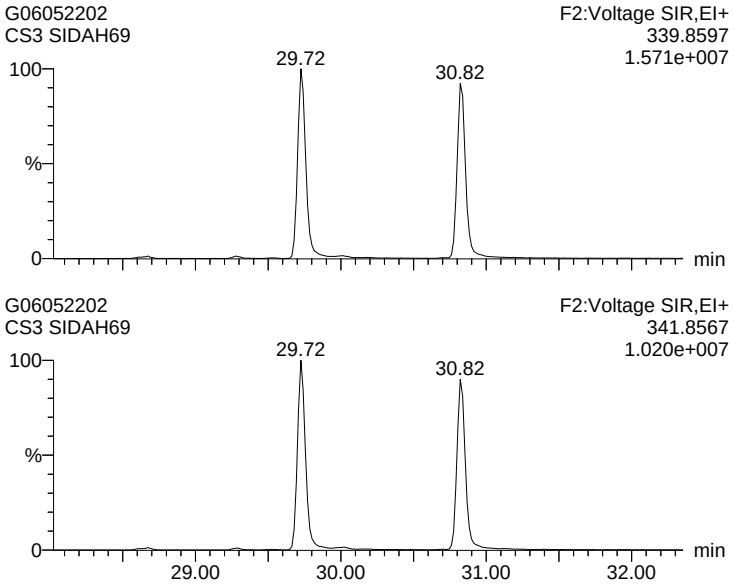
12348-PeCDF



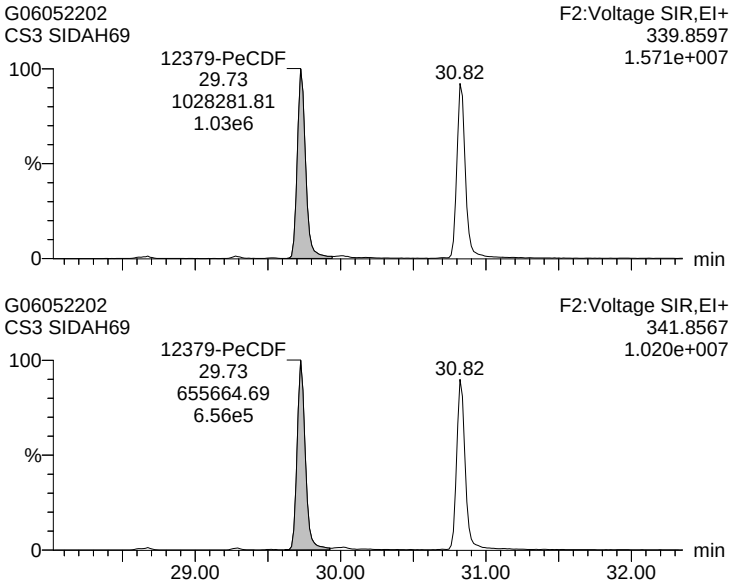
12378-PeCDF (S)



12678/12367-PeCDF



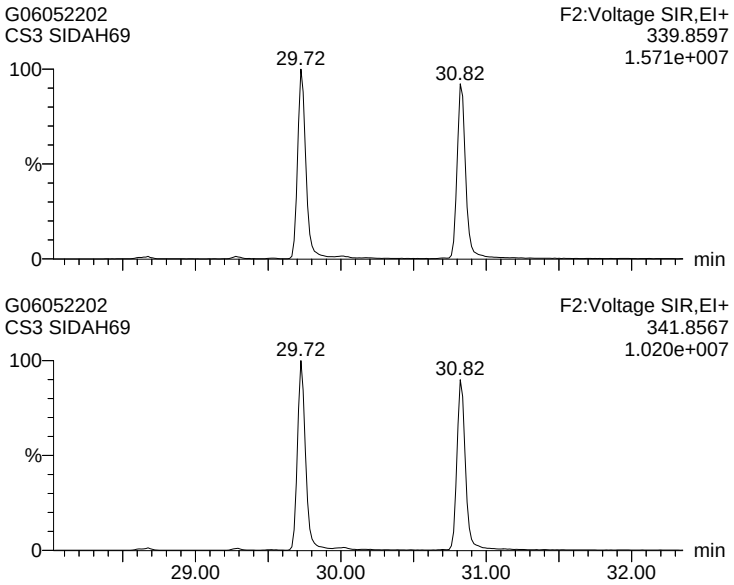
12379-PeCDF



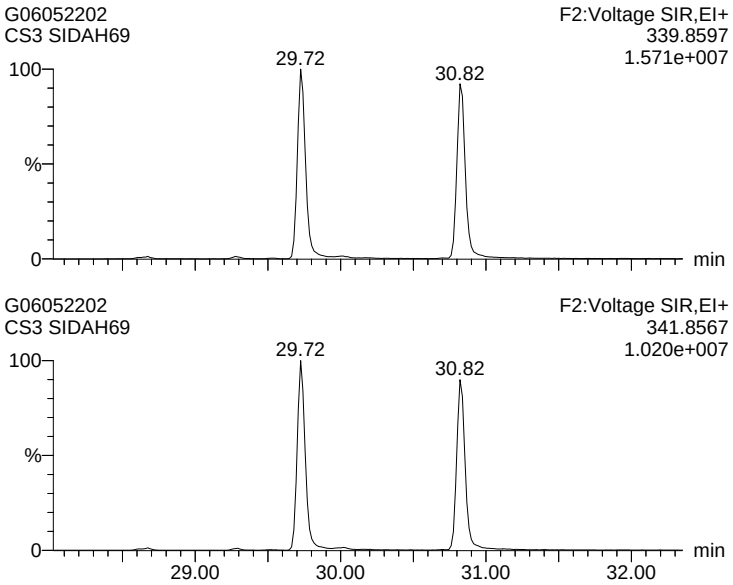
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

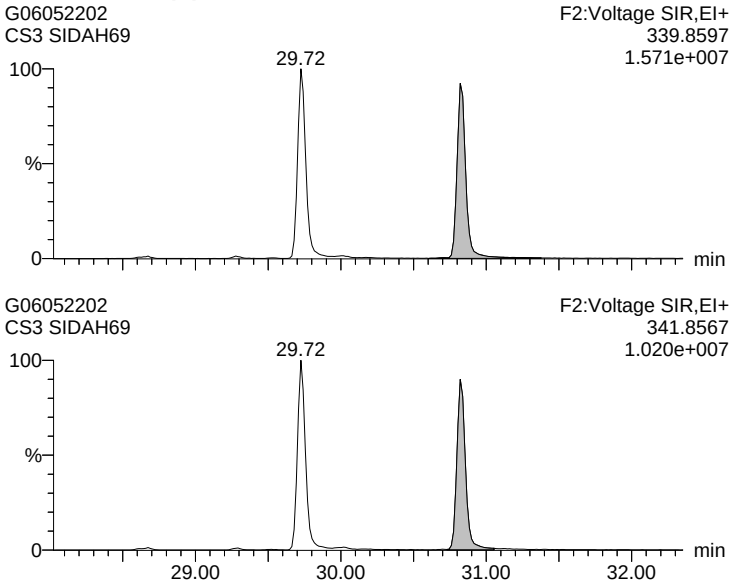
12679-PeCDF



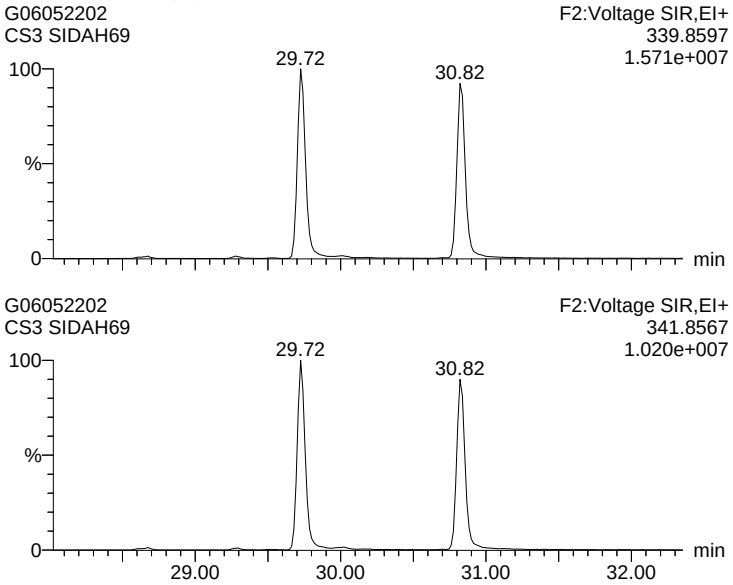
23467/12369-PeCDF



23478-PeCDF (S)



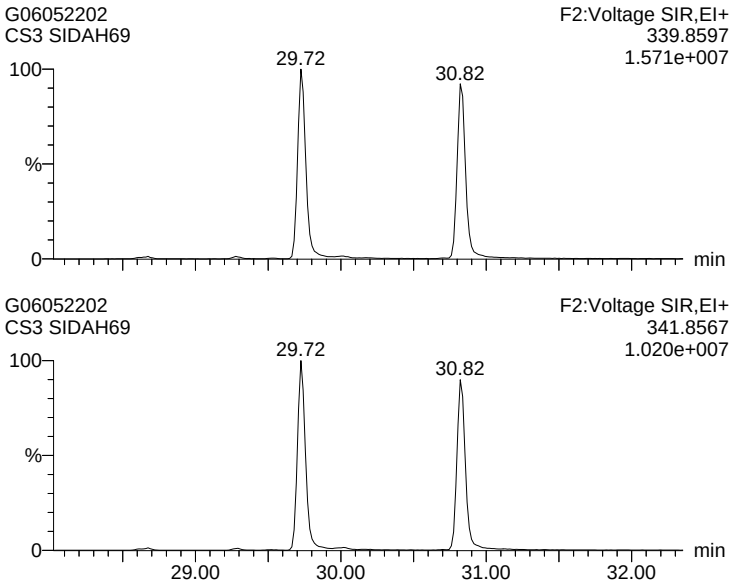
12489-PeCDF (R)



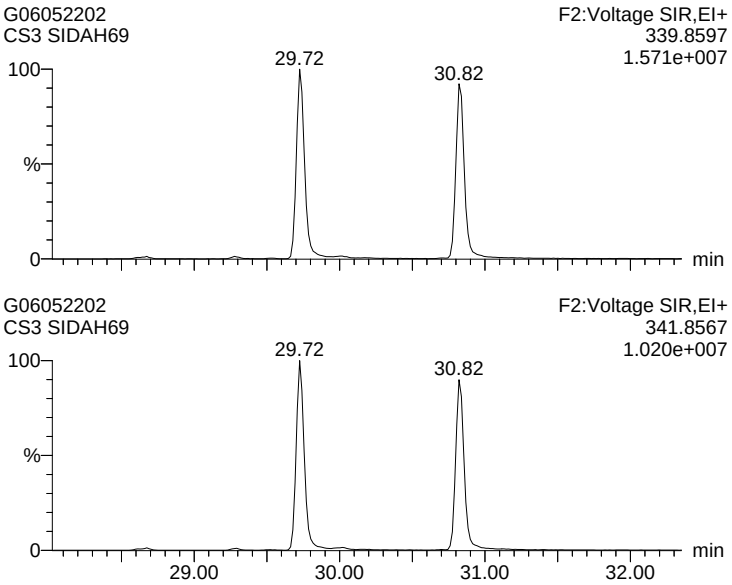
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

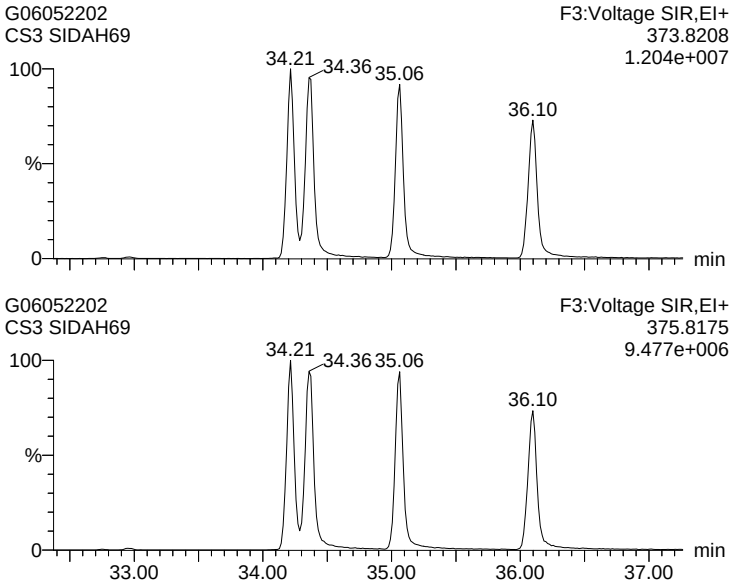
12349-PeCDF



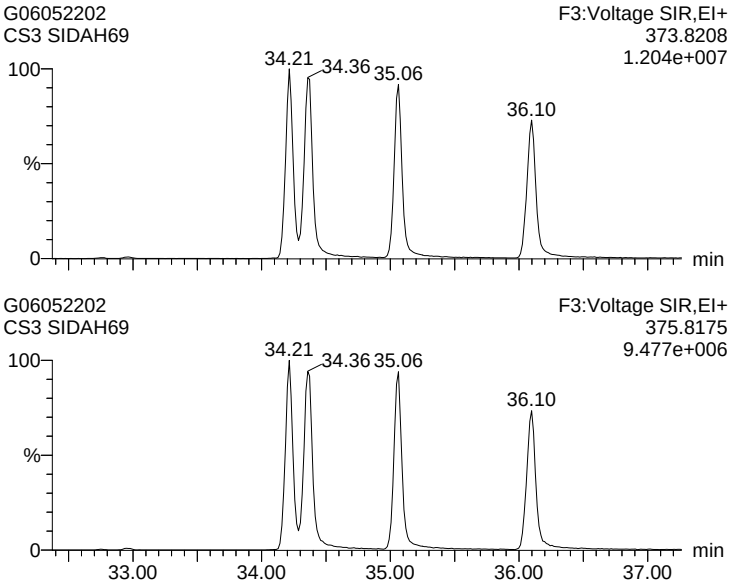
12389-PeCDF



123468-HxCDF



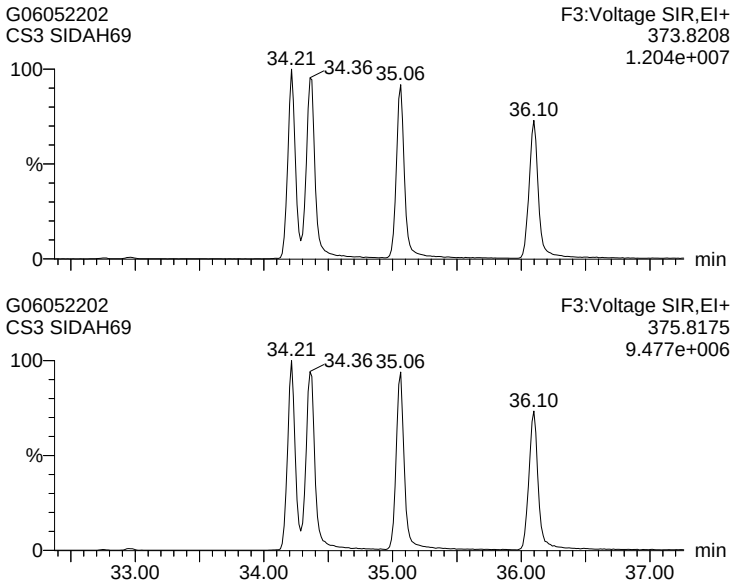
124678/134678-HxCDF



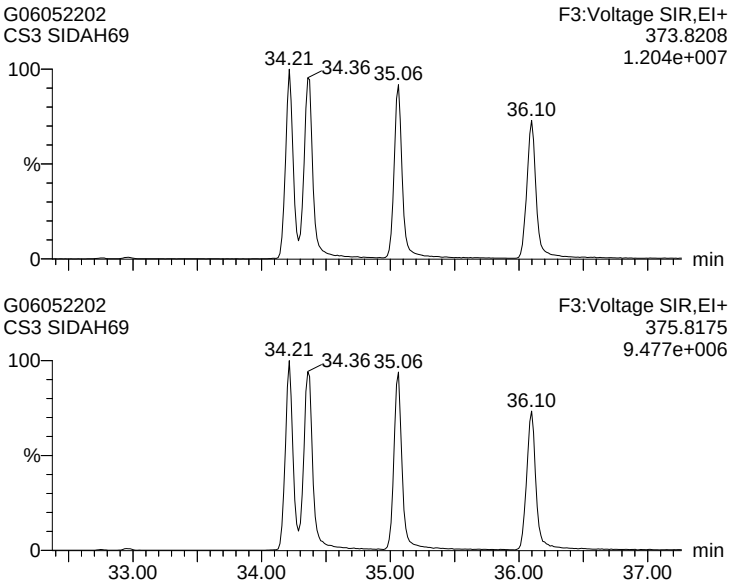
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

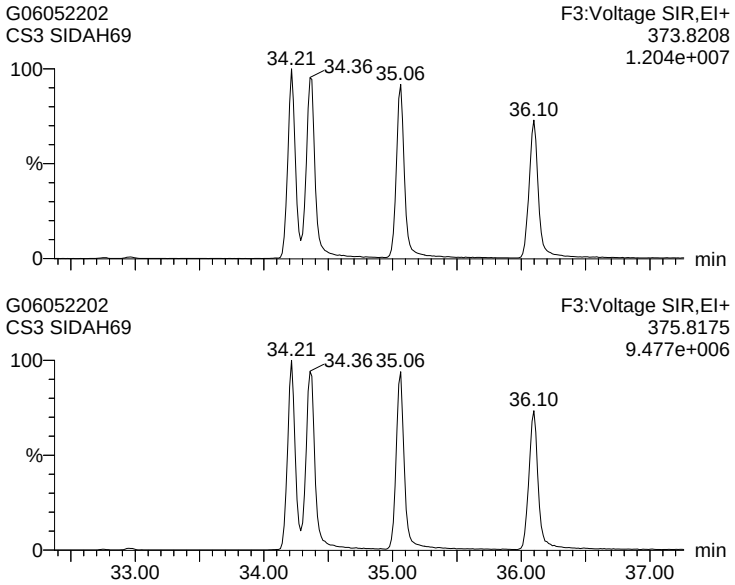
134679-HxCDF



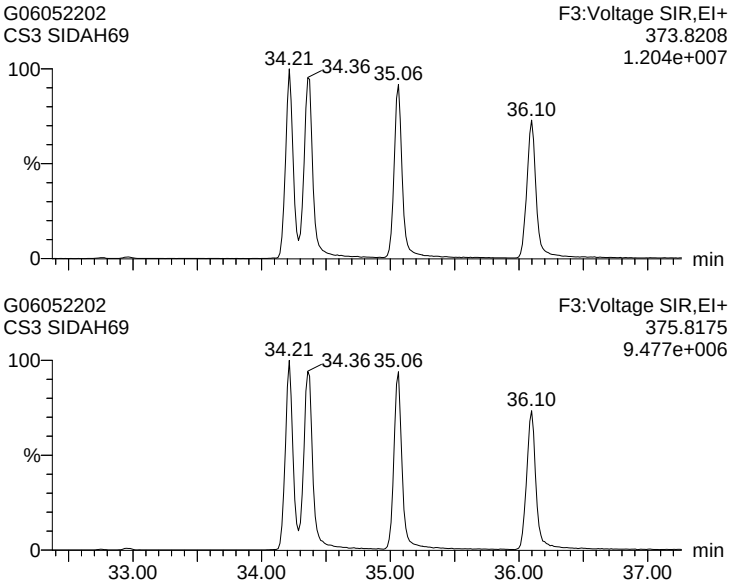
124679-HxCDF



124689-HxCDF



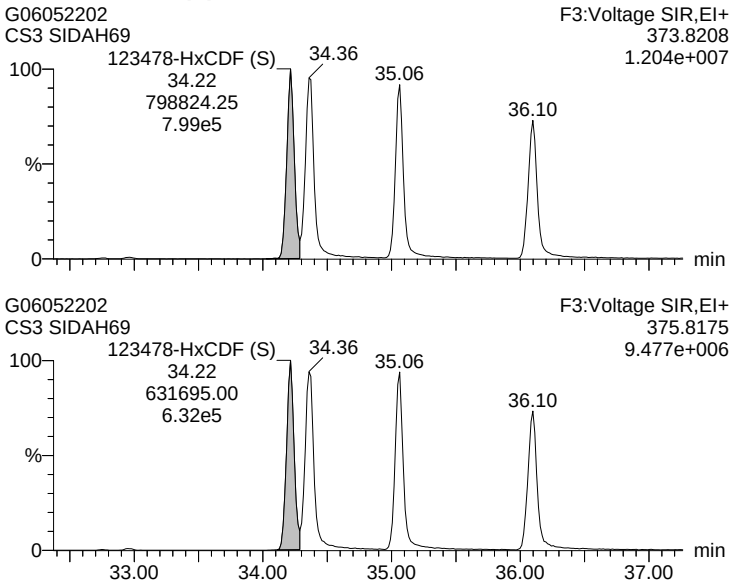
123467-HxCDF



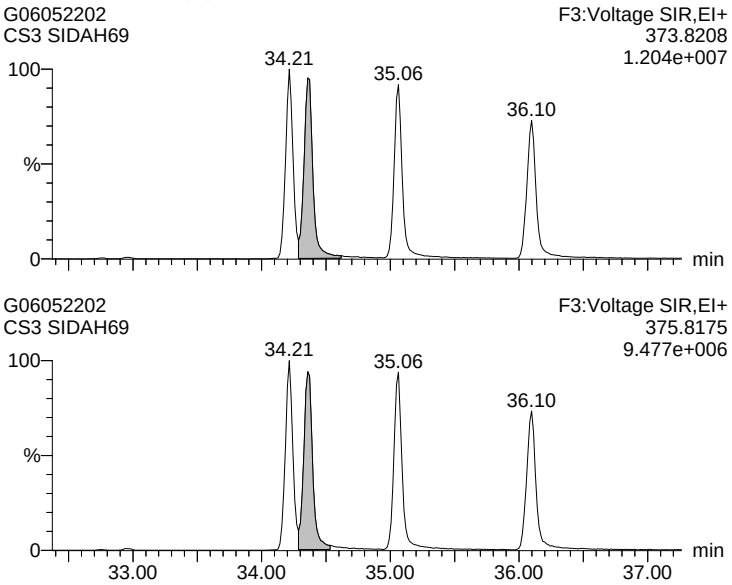
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

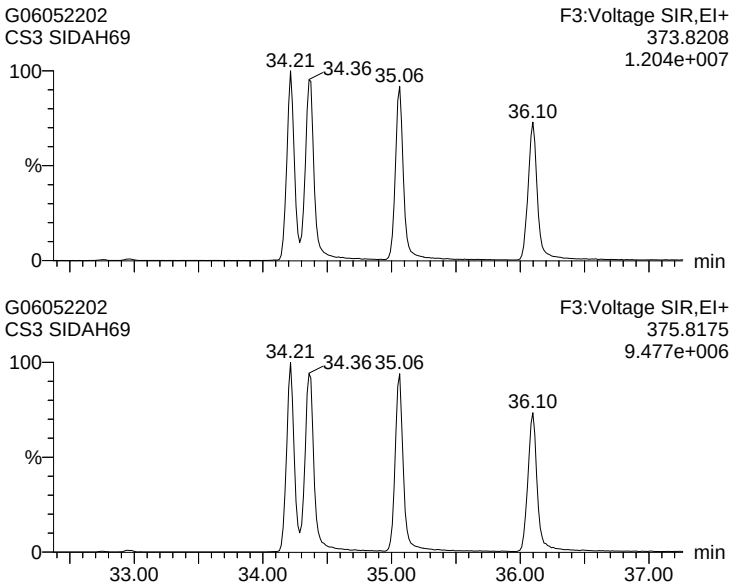
123478-HxCDF (S)



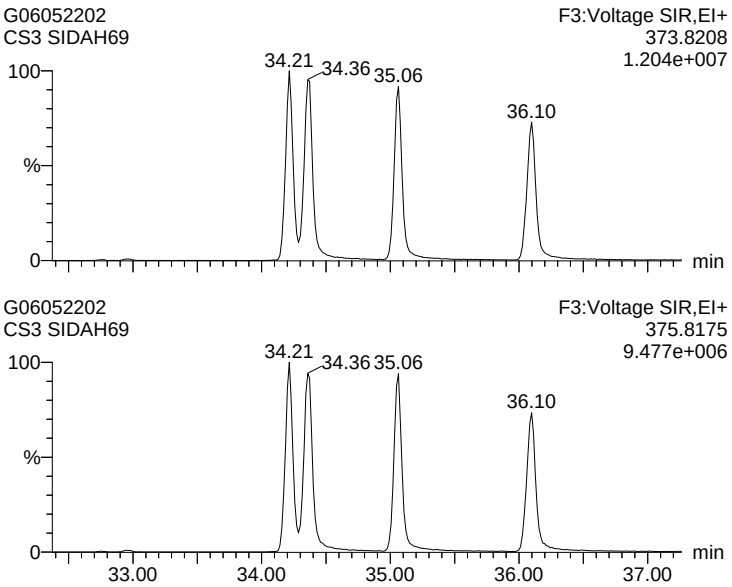
123678-HxCDF (S)



123479-HxCDF



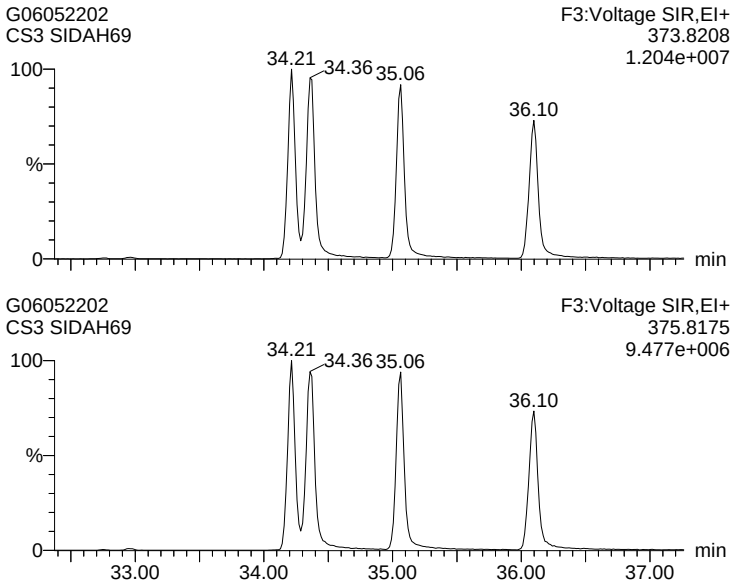
123469-HxCDF



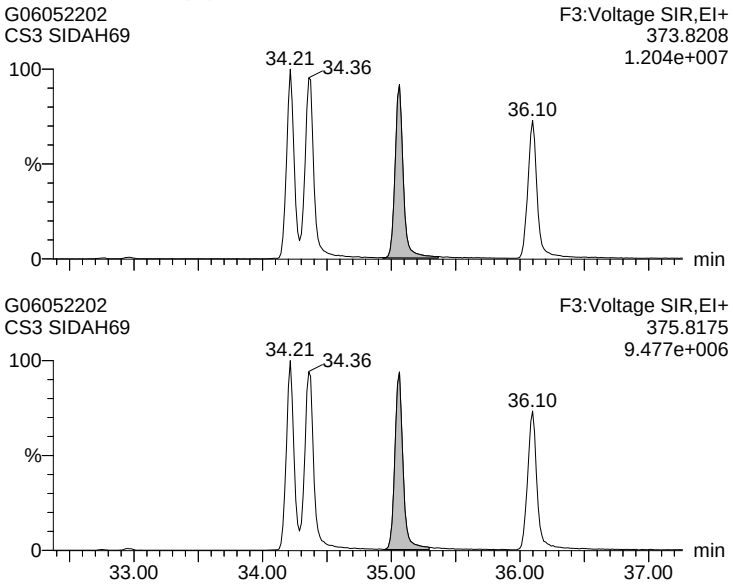
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

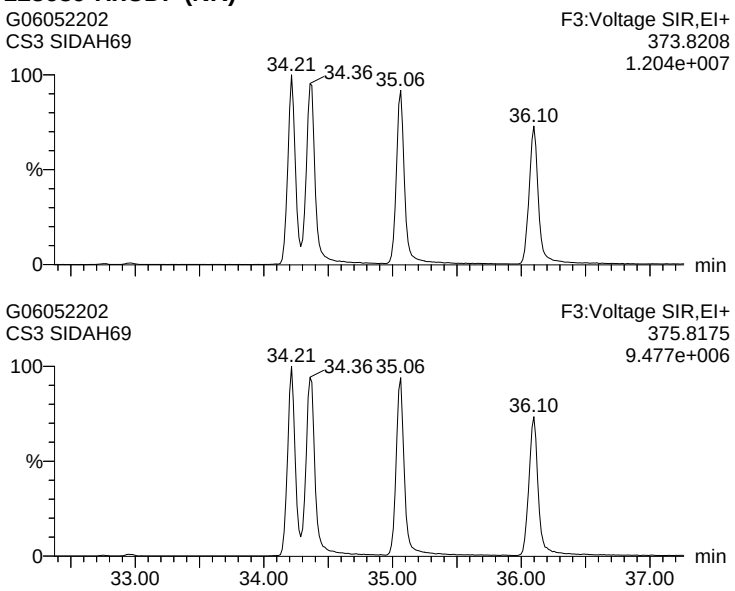
123679-HxCDF



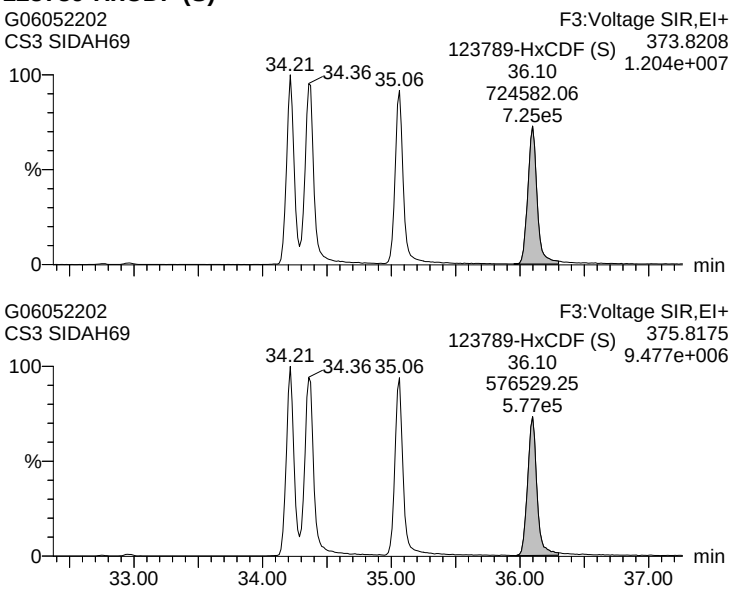
234678-HxCDF (S)



123689-HxCDF (NR)



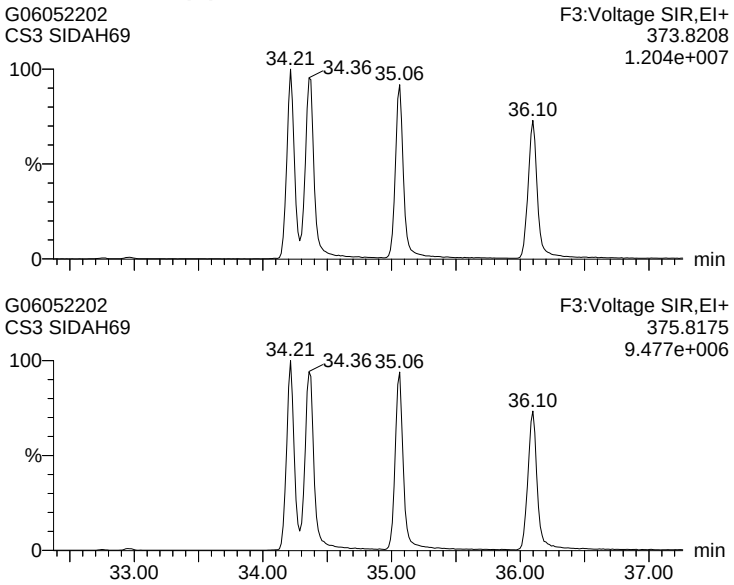
123789-HxCDF (S)



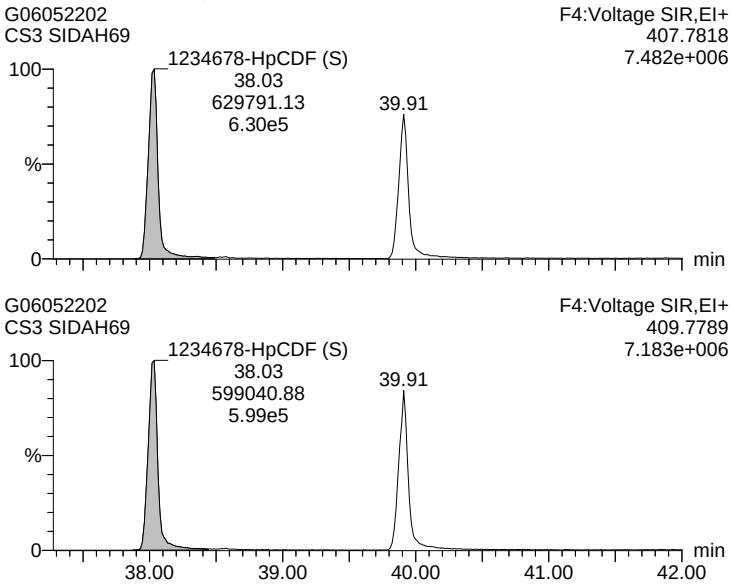
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

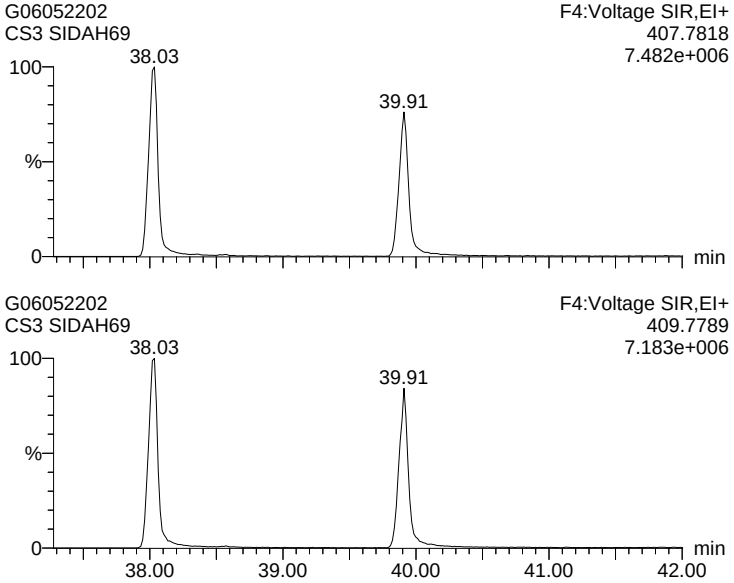
123489-HxCDF (R)



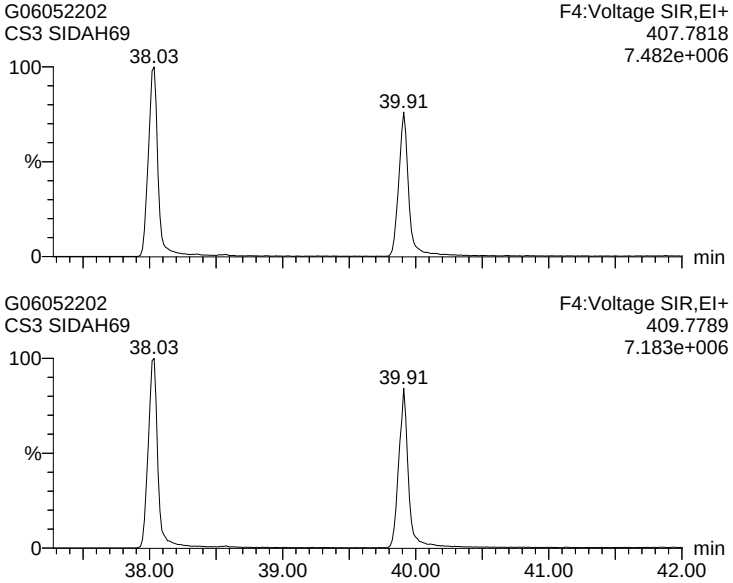
1234678-HpCDF (S)



1234679-HpCDF



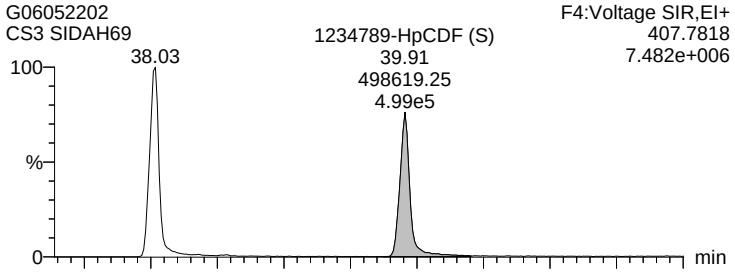
1234689-HpCDF

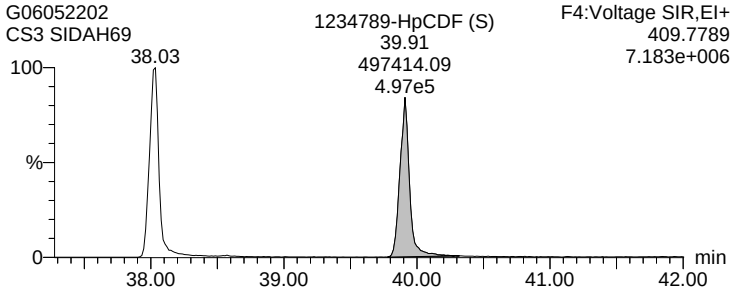


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

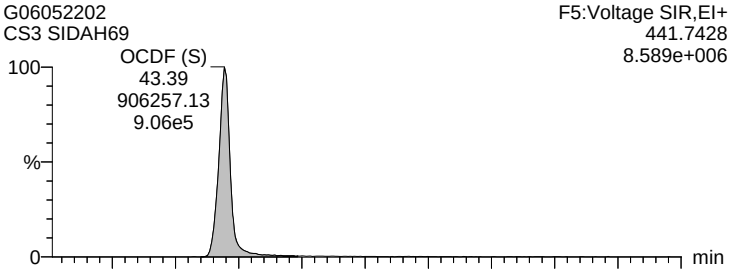
Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

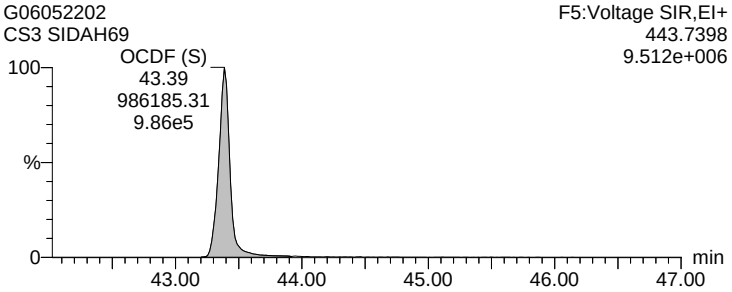
1234789-HpCDF (S)



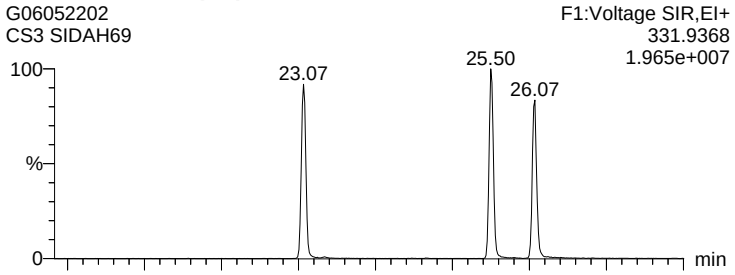


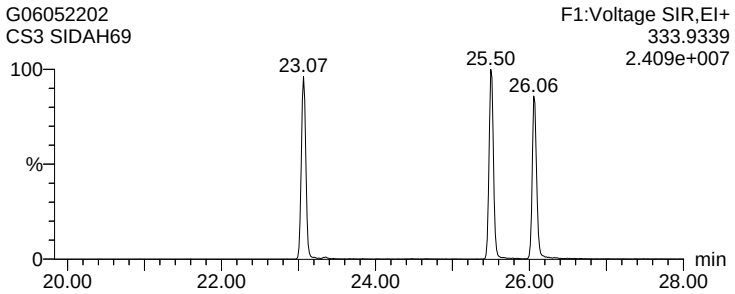
OCDF (S)



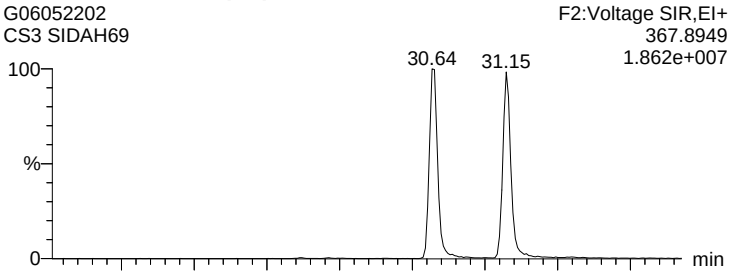


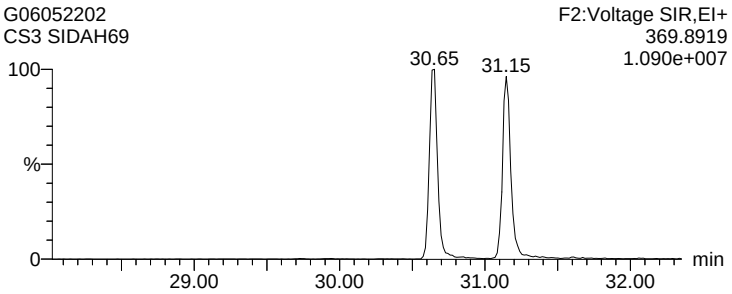
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

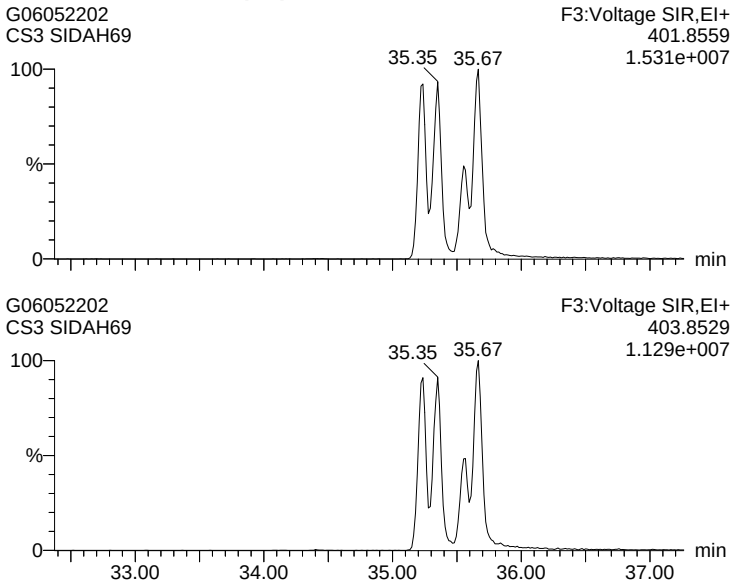




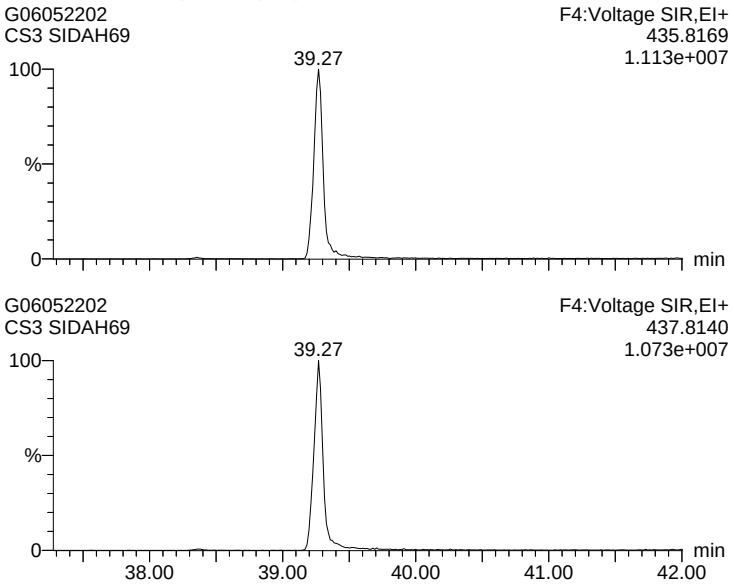
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

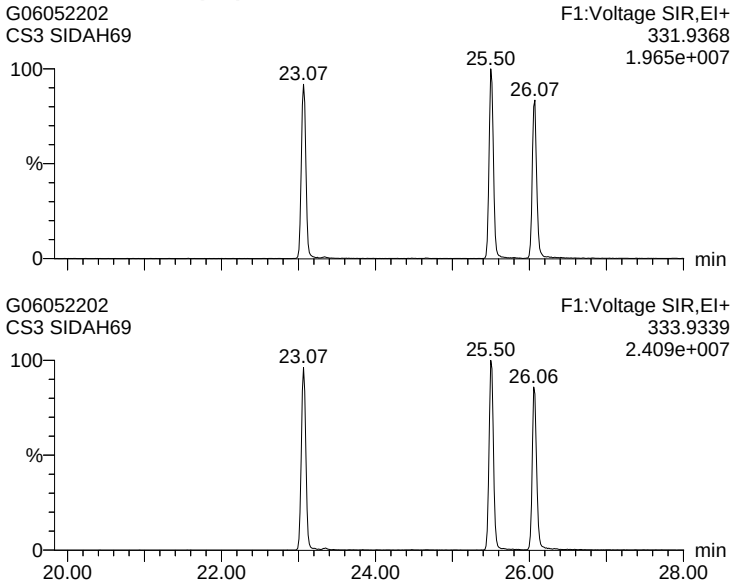
13C-123468-HxCDD (FS)



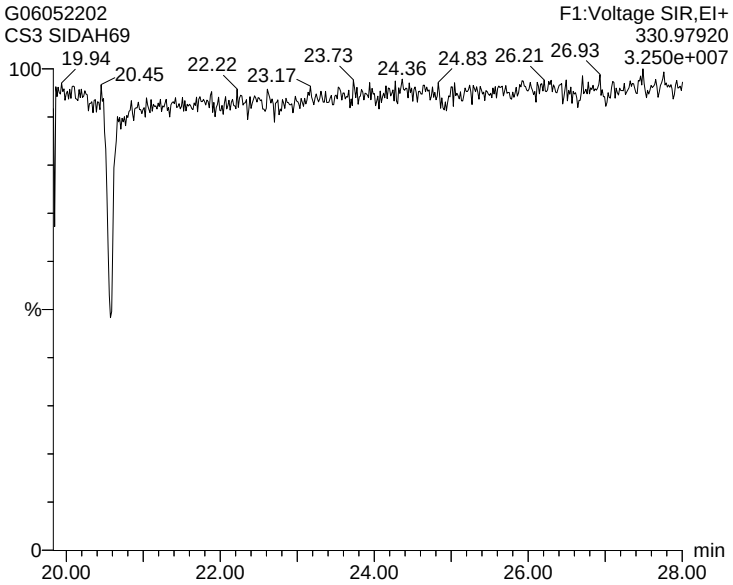
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



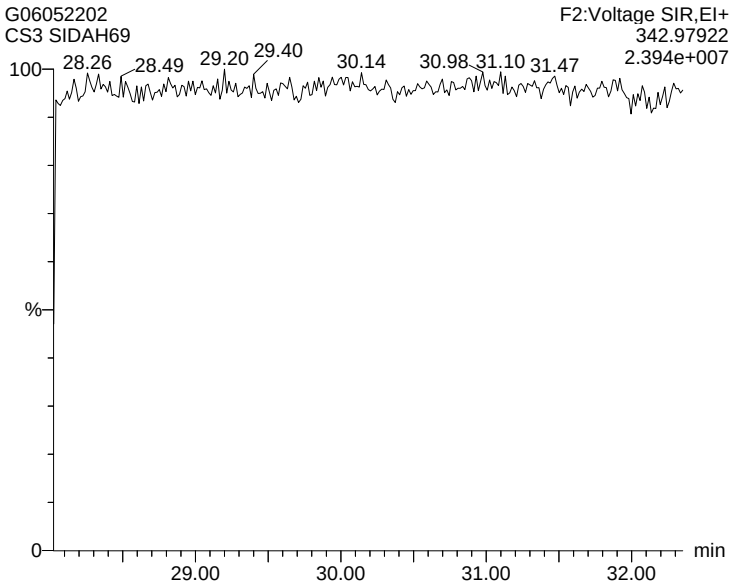
QC Check Ion Fn 1



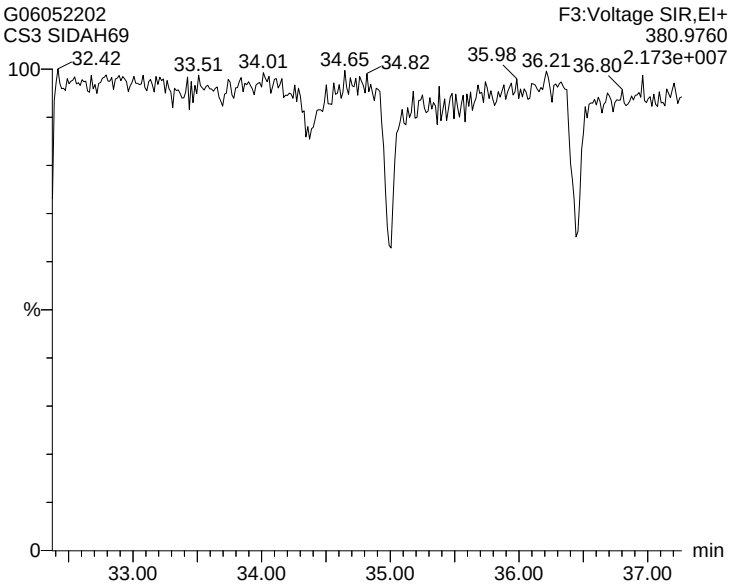
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

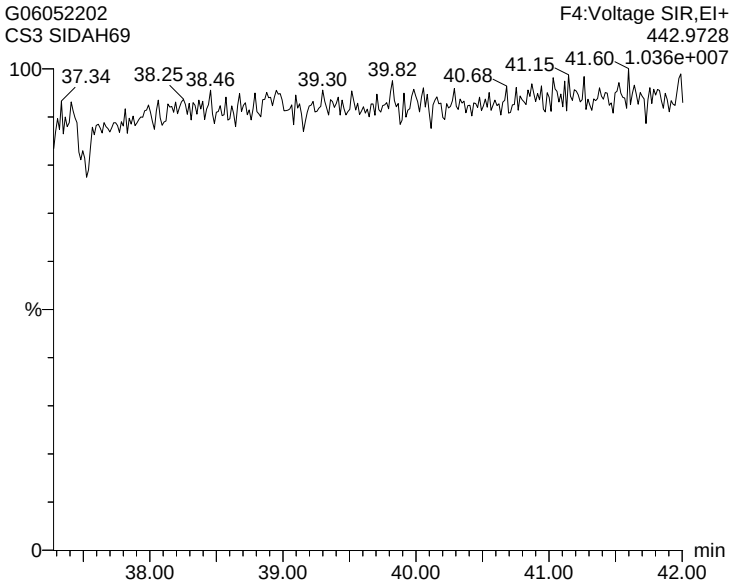
QC Check Ion Fn 2



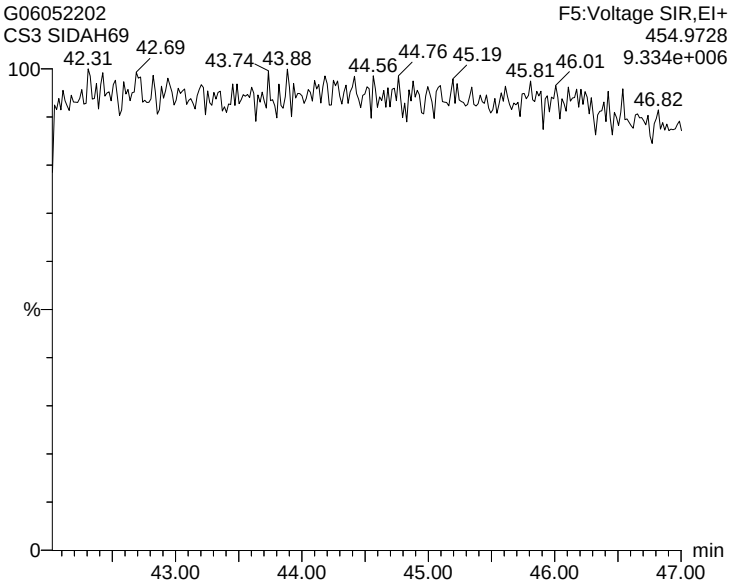
QC Check Ion Fn 3



QC Check Ion Fn 4



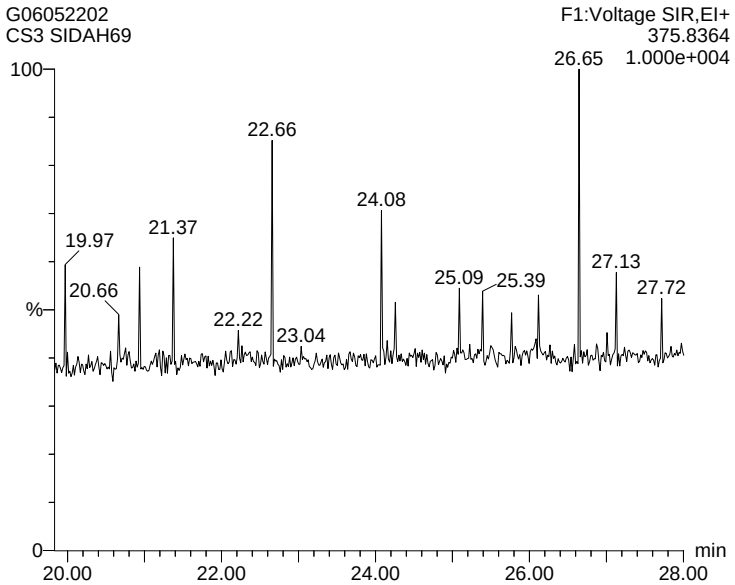
QC Check Ion Fn 5



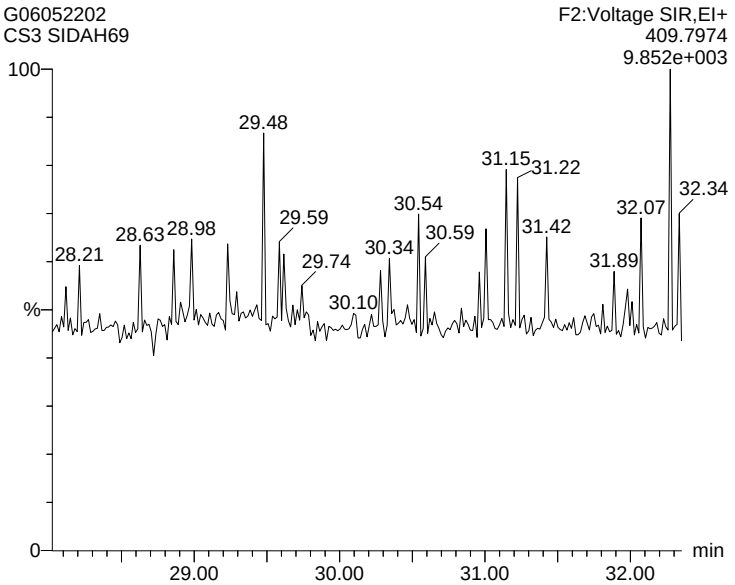
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

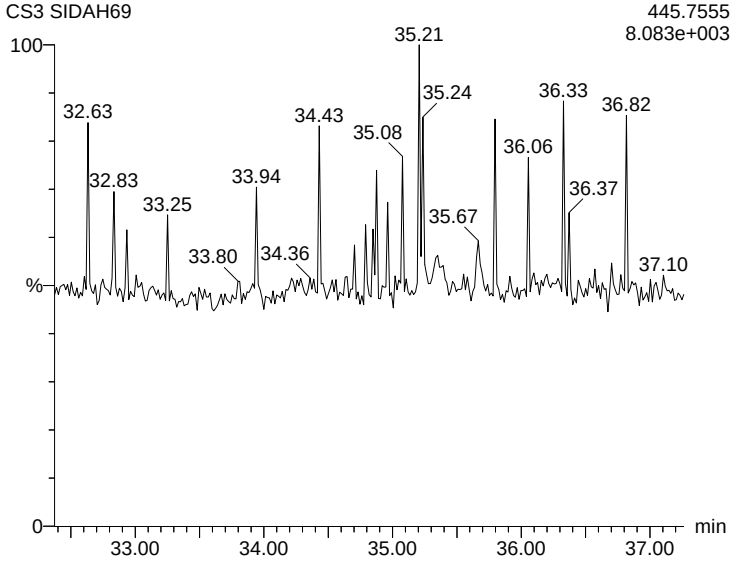
HxDPE



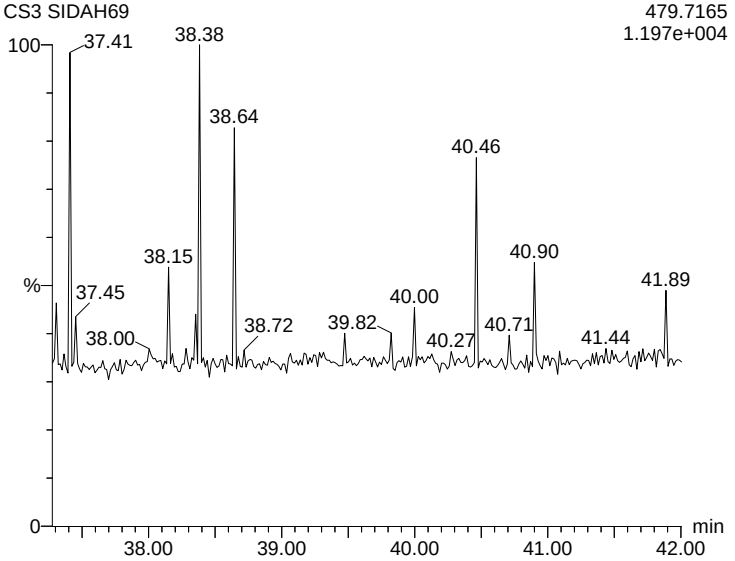
HpDPE



OcDPE



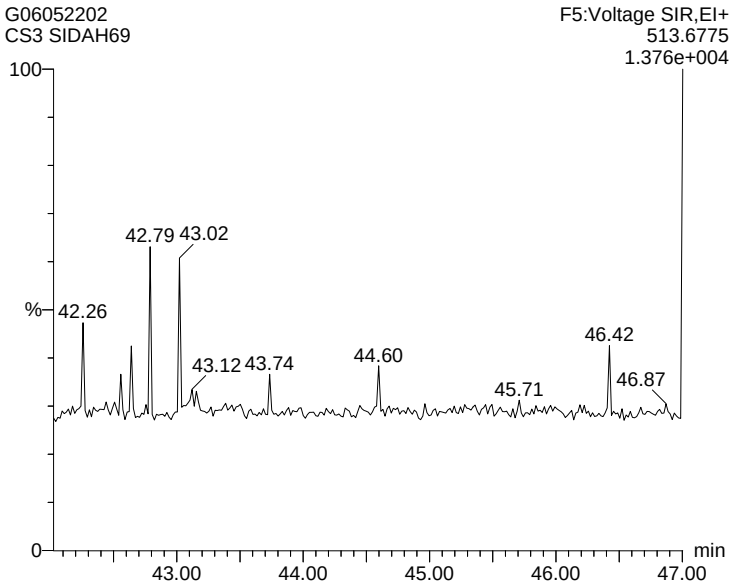
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1234383.000		2772899.000	bb	87.8	-12.2
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1440990.625		3331157.250	bb	86.1	-13.9
3	3	13C-123467-HxCDD (JS)	401.8559	35.55	453491.813		787624.594	bd	41.9	-16.1
4	4	13C-2378-TCDD (ES)	331.9368	26.07	1065186.375	1234383.000	85.741	bb	98.2	-1.8
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1158964.000	1234383.000	66.518	bb	97.2	-2.8
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	967357.688	453491.813	107.789	bd	100.9	0.9
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1005681.938	453491.813	106.548	db	99.8	-0.2
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1084257.250	453491.813	119.421	db	100.7	0.7
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	856075.813	453491.813	104.995	bb	102.5	2.5
10	10	13C-OCDD (ES)	469.7780	43.10	1211082.500	453491.813	76.882	bb	194.6	-2.7
11	11	13C-2378-TCDF (ES)	315.9419	25.33	1408464.125	1440990.625	98.802	bb	100.8	0.8
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	1860269.500	1440990.625	91.317	bb	99.3	-0.7
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	1712365.875	1440990.625	84.696	bb	98.2	-1.8
14	14	13C-123478-HxCDF (ES)	383.8639	34.20	738360.063	453491.813	135.927	bd	100.6	0.6
15	15	13C-123678-HxCDF (ES)	383.8639	34.34	878118.250	453491.813	162.430	db	100.4	0.4
16	16	13C-234678-HxCDF (ES)	383.8639	35.05	763611.375	453491.813	139.842	bb	99.0	-1.0
17	17	13C-123789-HxCDF (ES)	383.8639	36.08	713457.063	453491.813	135.287	bb	99.0	-1.0
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	509461.656	453491.813	101.697	bb	100.9	0.9
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	443309.531	453491.813	90.024	bb	101.6	1.6
20	20	13C-OCDF (ES)	453.7830	43.37	1526313.625	453491.813	96.893	bb	199.8	-0.1
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	283134.125	1234383.000	10.211	bb	9.9	-1.1
22	22	13C-12347-PeCDD (CS)	367.8949	30.64	1216094.500	1234383.000	68.837	bb	101.0	1.0
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	1860269.500	1440990.625	91.317	bb	99.3	-0.7
24	24	13C-123469-HxCDF (CS)	383.8639	34.67	794742.438	453491.813	146.971	bb	102.5	2.5
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	512774.625	453491.813	102.547	bb	101.4	1.4
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	283134.125	1065186.375	11.909	bb	10.1	0.7
27	27	13C-12347-PeCDD (SS)	367.8949	30.64	1162892.625	1158964.000	100.602	bb	103.4	3.4
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	1860269.500	1860269.500	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.67	779851.125	878118.250	88.386	bb	102.2	2.2
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	512774.625	509461.656	100.836	bb	100.5	0.5
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1195756.500	1234383.000	98.502	bb	98.4	-1.6
32	32	13C-1368-TCDF (AS)	315.9419	21.56	1616807.750	1440990.625	112.106	bb	99.1	-0.9
33	33	1368-TCDD	319.8965			1065186.375				
34	34	1379-TCDD	319.8965			1065186.375				
35	35	1369-TCDD	319.8965			1065186.375				
36	36	1469-TCDD	319.8965			1065186.375				
37	37	1247/1246/1248/1249-TC...	319.8965			1065186.375				
38	38	1378-TCDD	319.8965			1065186.375				
39	39	1268-TCDD	319.8965			1065186.375				
40	40	1478-TCDD	319.8965			1065186.375				
41	41	1279-TCDD	319.8965			1065186.375				
42	42	1234/1269-TCDD	319.8965			1065186.375				
43	43	1236-TCDD	319.8965			1065186.375				
44	44	1237/1238-TCDD	319.8965			1065186.375				
45	45	1239-TCDD [CE]	319.8965			1065186.375				
46	46	2378-TCDD (S)	319.8965	26.09	116425.234	1065186.375	11.205	bb	9.7	-2.6
47	47	1278-TCDD	319.8965			1065186.375				
48	48	1267-TCDD	319.8965			1065186.375				
49	49	1289-TCDD	319.8965			1065186.375				
50	50	12479/12468-PeCDD	355.8546			1158964.000				
51	51	12469-PeCDD	355.8546			1158964.000				
52	52	12368-PeCDD	355.8546			1158964.000				
53	53	12478-PeCDD	355.8546			1158964.000				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1158964.000				
55	55	12369/12467/12489-PeCDD	355.8546			1158964.000				
56	56	12346/12347-PeCDD	355.8546			1158964.000				
57	57	12378-PeCDD (S)	355.8546	31.16	663929.563	1158964.000	58.436	bd	52.0	4.1
58	58	12367-PeCDD	355.8546			1158964.000				
59	59	12389-PeCDD	355.8546			1158964.000				
60	60	124679/124689-HxCDD	389.8157			967357.688				
61	61	123468-HxCDD	389.8157			967357.688				
62	62	123679/123689-HxCDD	389.8157			967357.688				
63	63	123469-HxCDD	389.8157			967357.688				
64	64	123478-HxCDD (S)	389.8157	35.25	552225.938	967357.688	58.155	bd	50.8	1.6
65	65	123678-HxCDD (S)	389.8157	35.37	562348.938	1005681.938	58.787	ds	49.9	-0.3
66	66	123467-HxCDD	389.8157			1084257.250				
67	67	123789-HxCDD (S)	389.8157	35.68	546181.313	1084257.250	52.899	bs	49.0	-2.0
68	68	1234679-HpCDD	423.7766			856075.813				
69	69	1234678-HpCDD (S)	423.7766	39.28	430831.094	856075.813	51.305	bb	49.2	-1.6
70	70	OCDD (S)	457.7377	43.12	745443.438	1211082.500	123.104	bd	103.1	3.1
71	71	1368-TCDF	303.9016			1408464.125				
72	72	1468-TCDF	303.9016			1408464.125				
73	73	2468-TCDF	303.9016			1408464.125				
74	74	1346/1246-TCDF	303.9016			1408464.125				
75	75	1347/1378/1247-TCDF	303.9016			1408464.125				
76	76	1348-TCDF	303.9016			1408464.125				
77	77	1248/1367/1379-TCDF	303.9016			1408464.125				
78	78	1268-TCDF	303.9016			1408464.125				
79	79	1467-TCDF	303.9016			1408464.125				
80	80	1478-TCDF	303.9016			1408464.125				
81	81	1369/1237-TCDF	303.9016			1408464.125				
82	82	2467-TCDF	303.9016			1408464.125				
83	83	2368-TCDF	303.9016			1408464.125				
84	84	1238/1234/1678/1469/123...	303.9016			1408464.125				
85	85	1278-TCDF	303.9016			1408464.125				
86	86	1349-TCDF	303.9016			1408464.125				
87	87	1267-TCDF	303.9016			1408464.125				
88	88	2346/1249-TCDF	303.9016			1408464.125				
89	89	2347/1279-TCDF	303.9016			1408464.125				
90	90	2348-TCDF [CE]	303.9016			1408464.125				
91	91	2378-TCDF (S)	303.9016	25.35	155028.469	1408464.125	11.070	bb	9.9	-1.4
92	92	2367/3467-TCDF	303.9016			1408464.125				
93	93	1269-TCDF	303.9016			1408464.125				
94	94	1239-TCDF	303.9016			1408464.125				
95	95	1289-TCDF	303.9016			1408464.125				
96	96	13468/12466-PeCDF	339.8597			1860269.500				
97	97	13678/13467/12467-PeCDF	339.8597			1860269.500				
98	98	12368/13478/12478-PeCDF	339.8597			1860269.500				
99	99	14678-PeCDF	339.8597			1860269.500				
100	1...	13479-PeCDF	339.8597			1860269.500				
101	1...	13469/12479-PeCDF	339.8597			1860269.500				
102	1...	12346-PeCDF	339.8597			1860269.500				
103	1...	23468/12469-PeCDF	339.8597			1860269.500				
104	1...	12347-PeCDF	339.8597			1860269.500				
105	1...	12348-PeCDF	339.8597			1860269.500				
106	1...	12378-PeCDF (S)	339.8597	29.72	1005203.313	1860269.500	54.203	MM	49.9	-0.2

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G06052202, Date: 06-May-2022, Time: 10:15:56, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			1860269.500				
108	1...	12379-PeCDF	339.8597	29.73	1028281.813	1860269.500	55.358	bd	53.2	6.5
109	1...	12679-PeCDF	339.8597			1712365.875				
110	1...	23467/12369-PeCDF	339.8597			1712365.875				
111	1...	23478-PeCDF (S)	339.8597	30.82	1000871.000	1712365.875	57.361	bd	49.2	-1.5
112	1...	12489-PeCDF (R)	339.8597			1712365.875				
113	1...	12349-PeCDF	339.8597			1712365.875				
114	1...	12389-PeCDF	339.8597			1712365.875				
115	1...	123468-HxCDF	373.8208			738360.063				
116	1...	124678/134678-HxCDF	373.8208			738360.063				
117	1...	134679-HxCDF	373.8208			738360.063				
118	1...	124679-HxCDF	373.8208			738360.063				
119	1...	124689-HxCDF	373.8208			738360.063				
120	1...	123467-HxCDF	373.8208			738360.063				
121	1...	123478-HxCDF (S)	373.8208	34.22	798824.250	738360.063	66.810	bd	49.8	-0.3
122	1...	123678-HxCDF (S)	373.8208	34.36	916106.313	878118.250	63.478	ds	50.9	1.9
123	1...	123479-HxCDF	373.8208			878118.250				
124	1...	123469-HxCDF	373.8208			763611.375				
125	1...	123679-HxCDF	373.8208			763611.375				
126	1...	234678-HxCDF (S)	373.8208	35.06	802451.438	763611.375	65.773	bs	50.6	1.1
127	1...	123689-HxCDF (NR)	373.8208			763611.375				
128	1...	123789-HxCDF (S)	373.8208	36.10	724582.063	713457.063	61.053	bs	50.3	0.6
129	1...	123489-HxCDF (R)	373.8208			713457.063				
130	1...	1234678-HpCDF (S)	407.7818	38.03	629791.125	509461.656	76.707	bd	50.4	0.8
131	1...	1234679-HpCDF	407.7818			509461.656				
132	1...	1234689-HpCDF	407.7818			509461.656				
133	1...	1234789-HpCDF (S)	407.7818	39.91	498619.250	443309.531	70.237	bd	48.4	-3.2
134	1...	OCDF (S)	441.7428	43.39	906257.125	1526313.625	118.751	bd	98.9	-1.1
135	1...	13C-1278-TCDD (FS)	331.9368			1065186.375				
136	1...	13C-12478-PeCDD (FS)	367.8949			1158964.000				
137	1...	13C-123468-HxCDD (FS)	401.8559			453491.813				
138	1...	13C-1234679-HpCDD (FS)	435.8169			856075.813				
139	1...	13C-1378-TCDD (TS)	331.9368			1065186.375				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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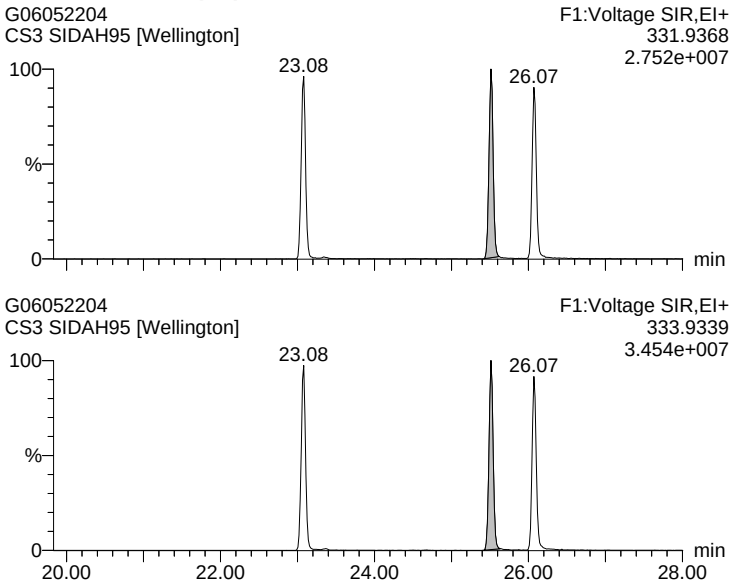
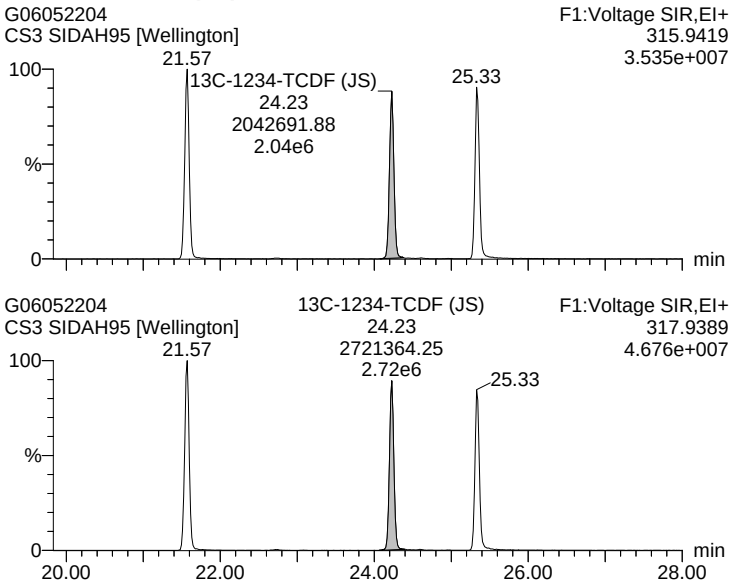
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

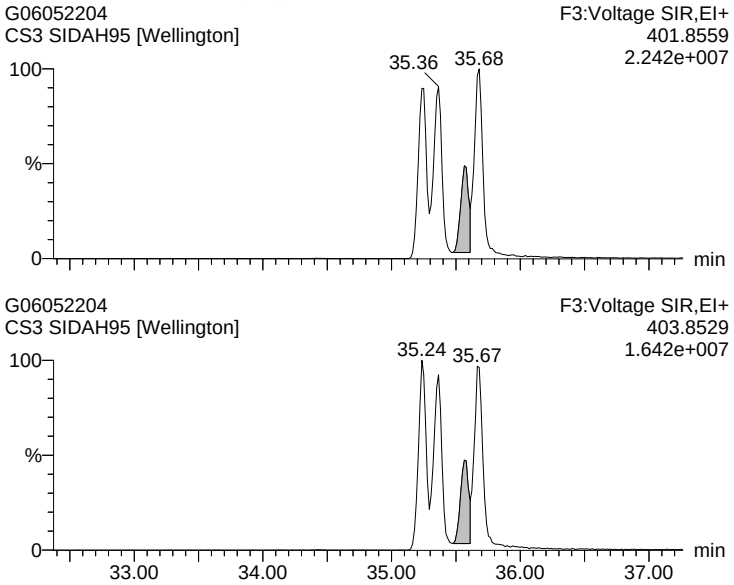
13C-1234-TCDD (JS)



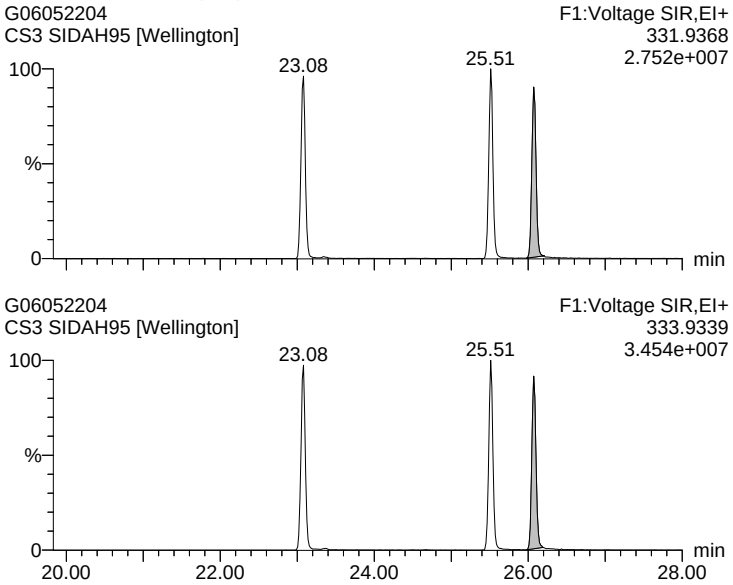
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



13C-2378-TCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
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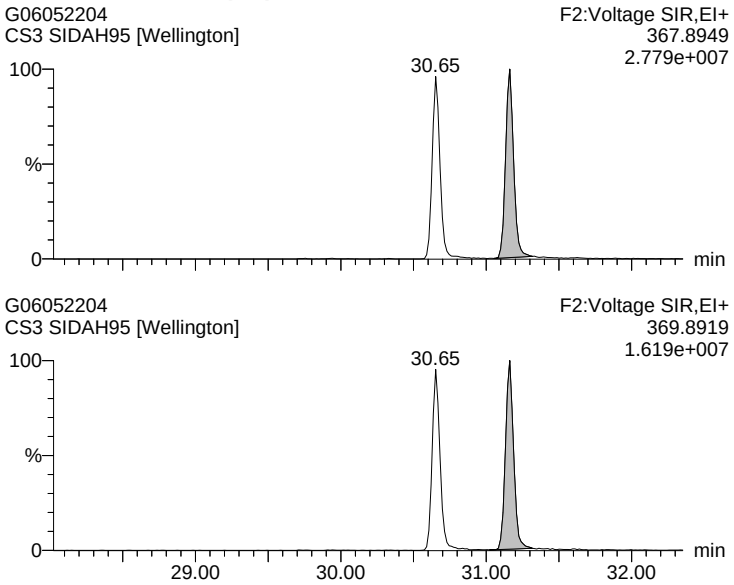
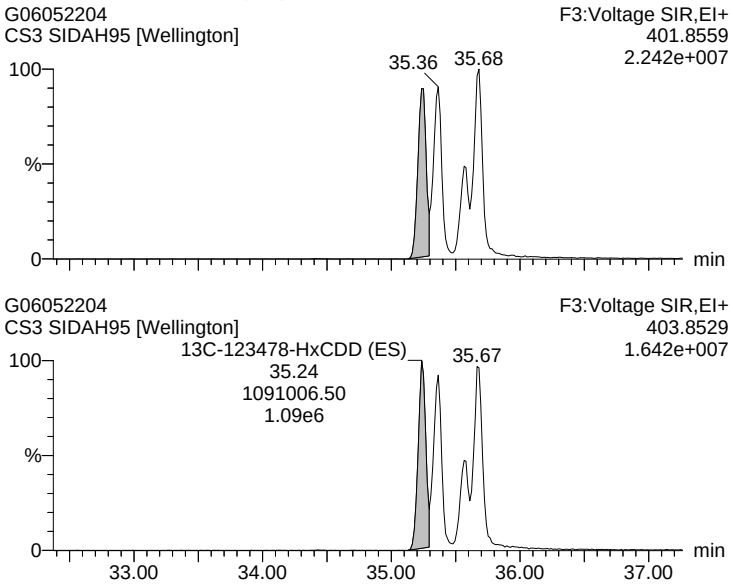
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

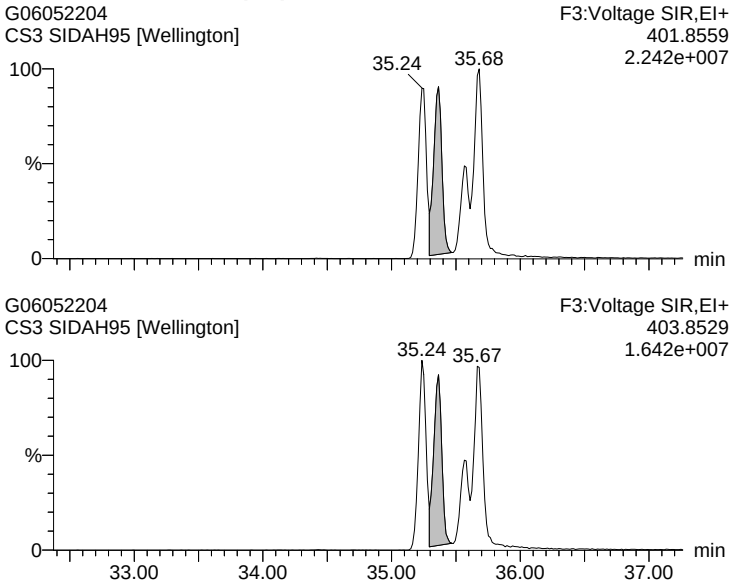
13C-12378-PeCDD (ES)



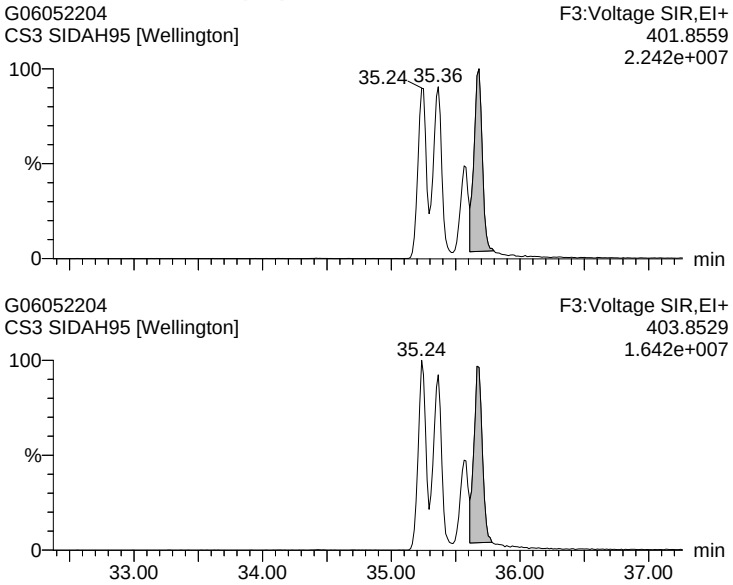
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



13C-123789-HxCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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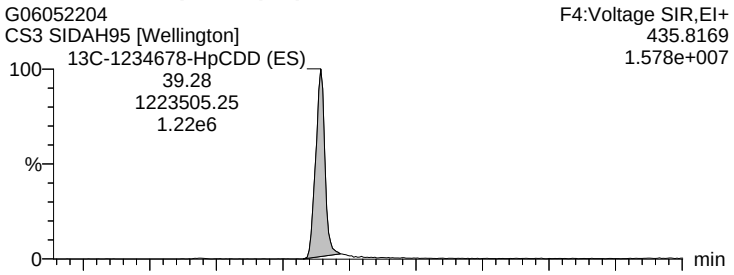
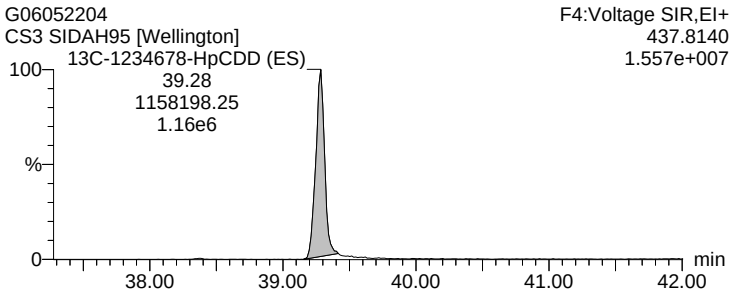
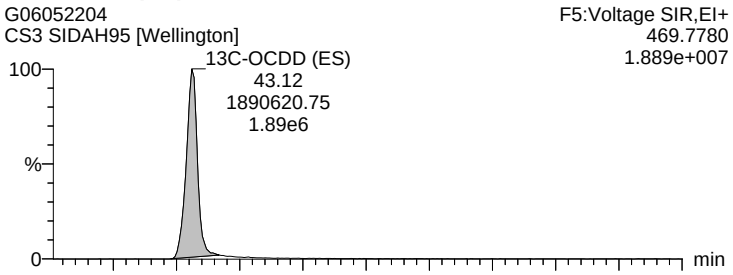
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

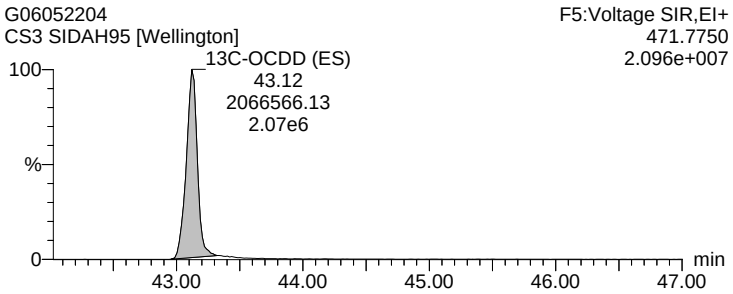
13C-1234678-HpCDD (ES)



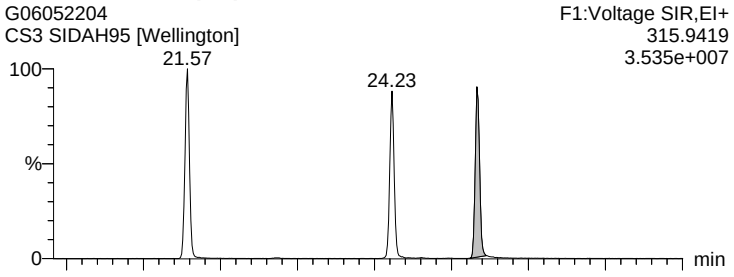


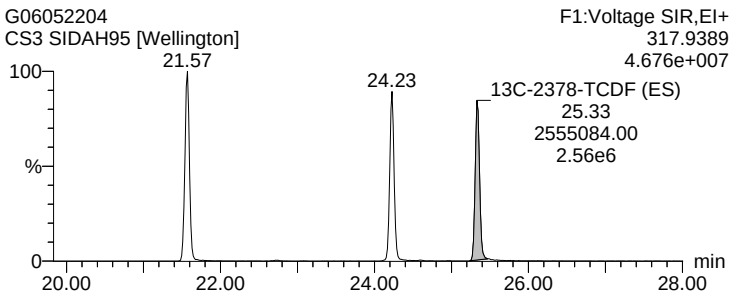
13C-OCDD (ES)



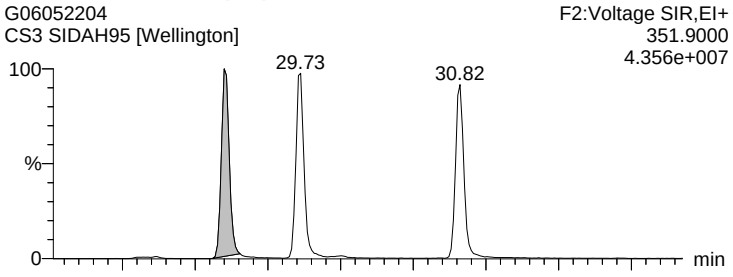


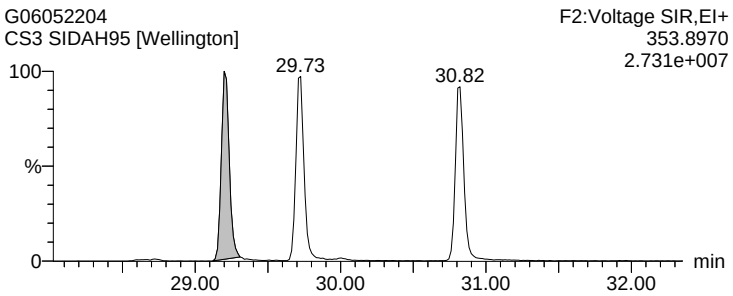
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)





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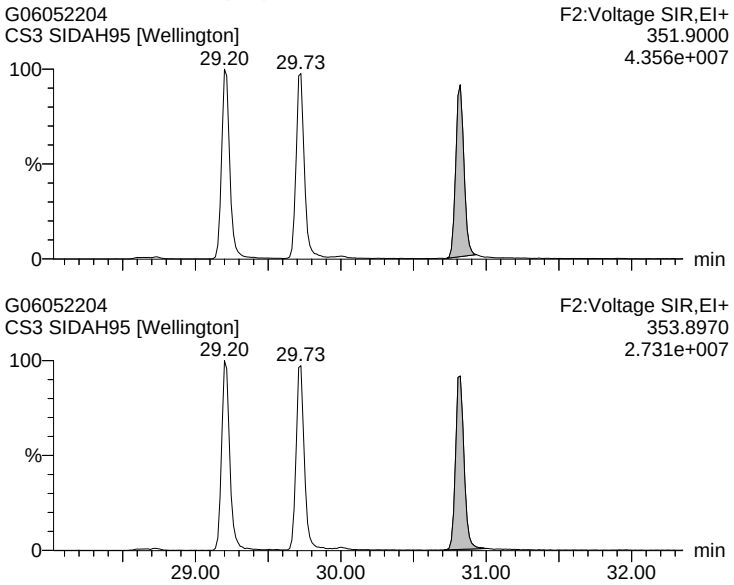
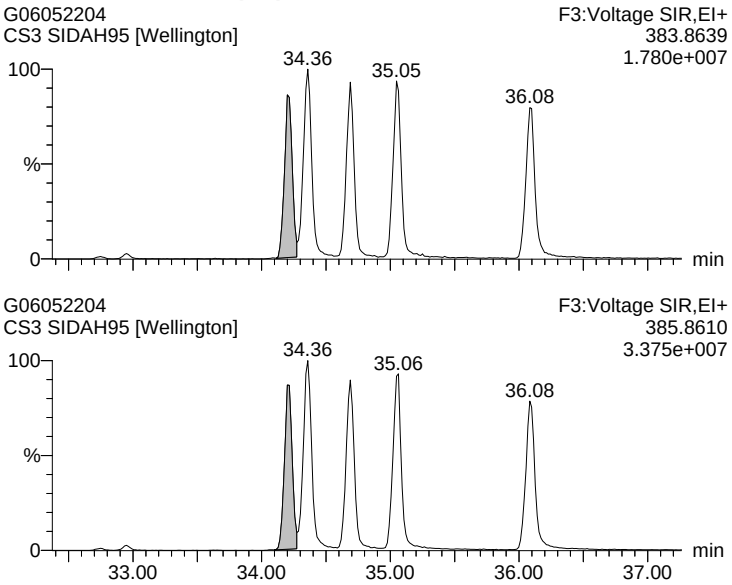
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

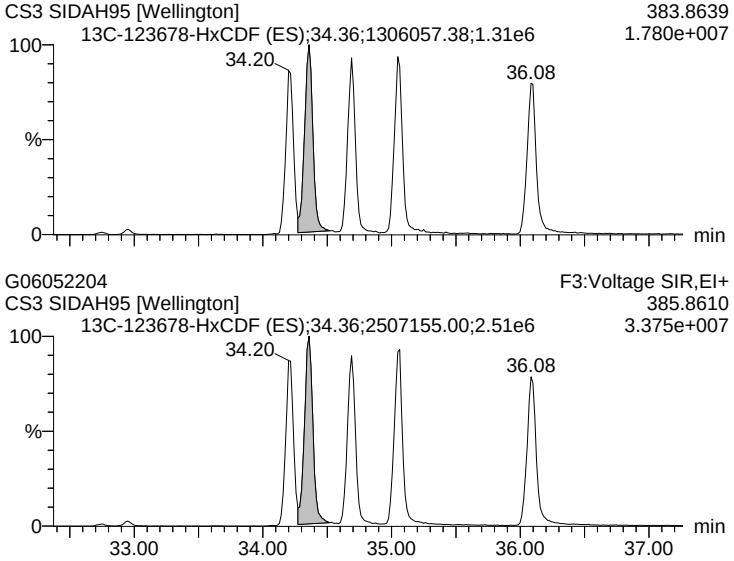
13C-23478-PeCDF (ES)



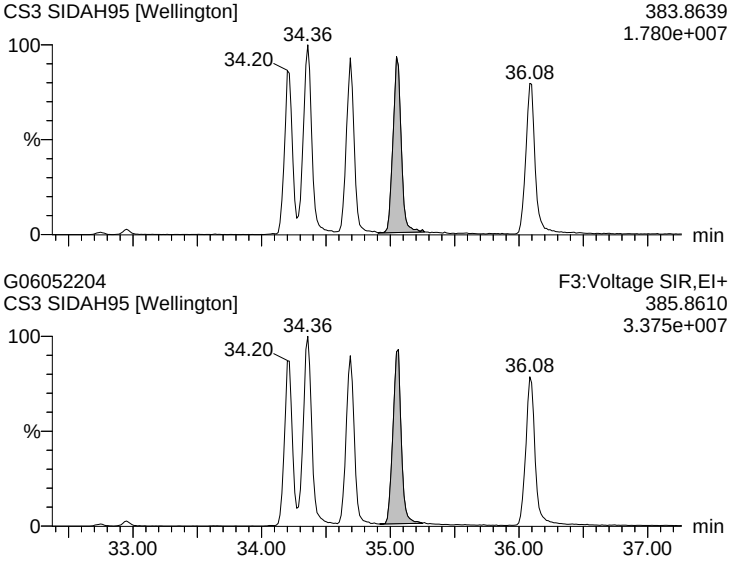
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



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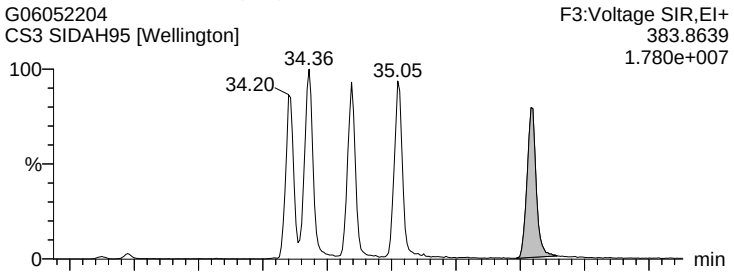
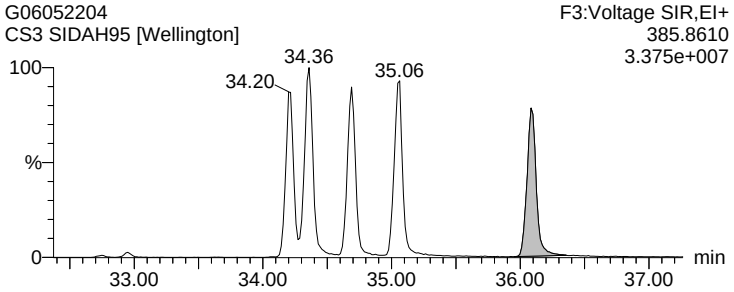
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

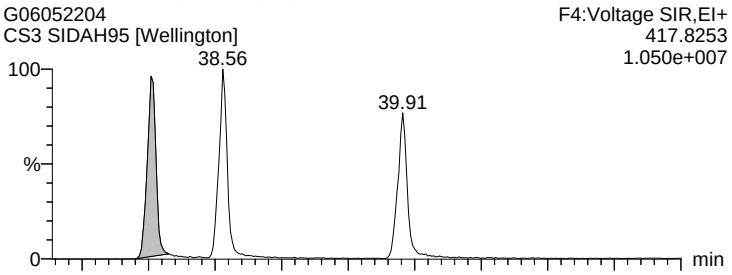
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

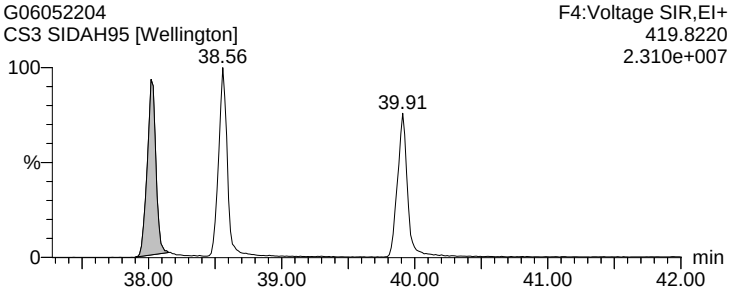
13C-123789-HxCDF (ES)



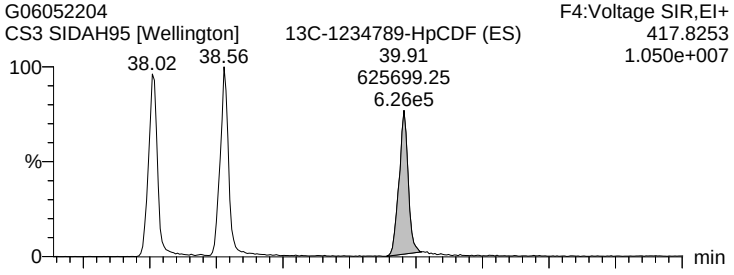


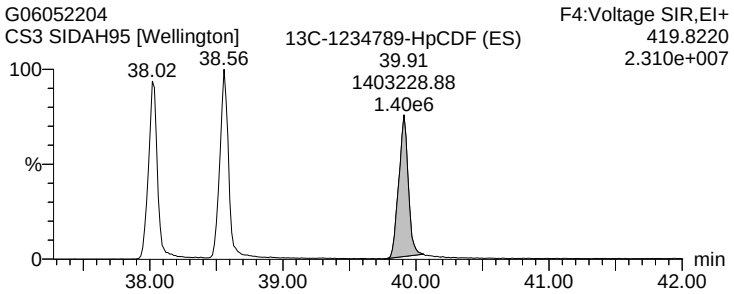
13C-1234678-HpCDF (ES)



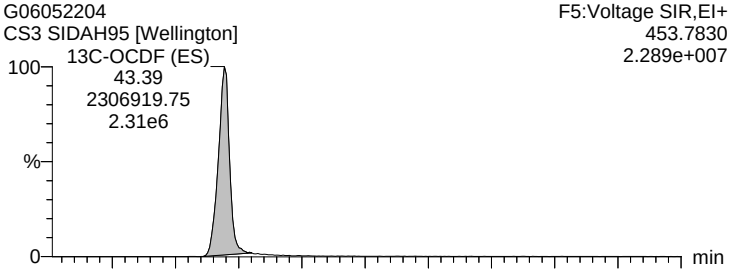


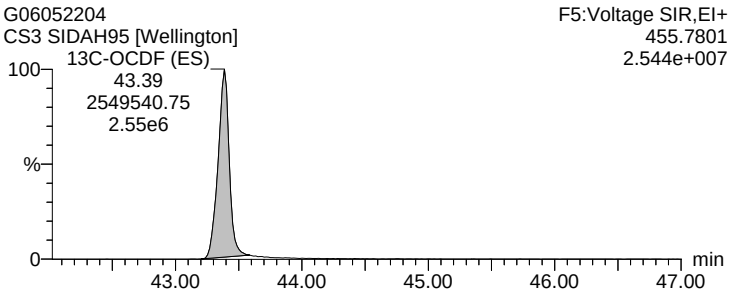
13C-1234789-HpCDF (ES)





13C-OCDF (ES)

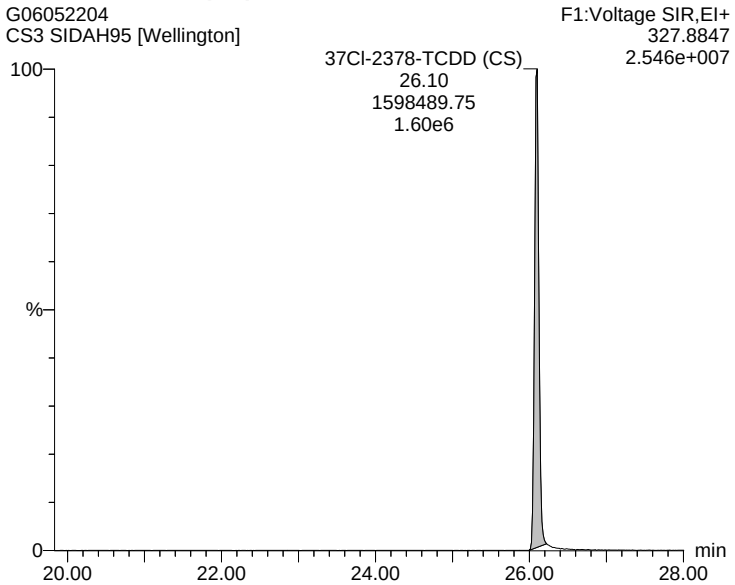




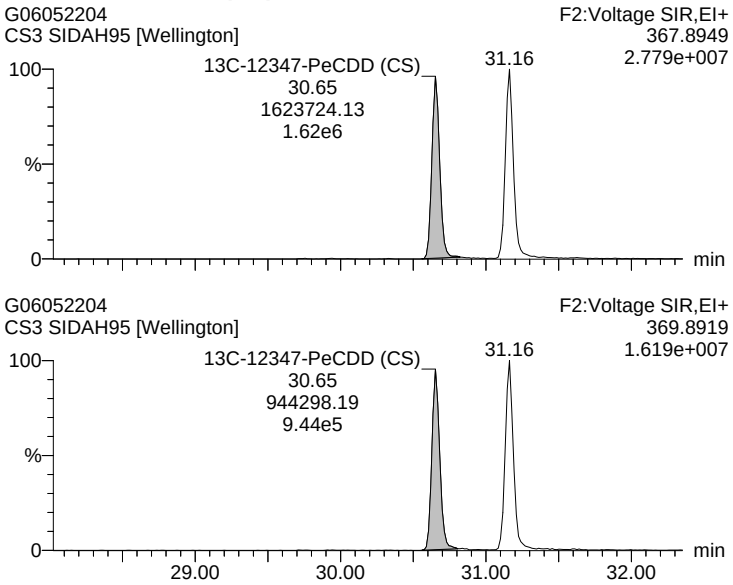
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

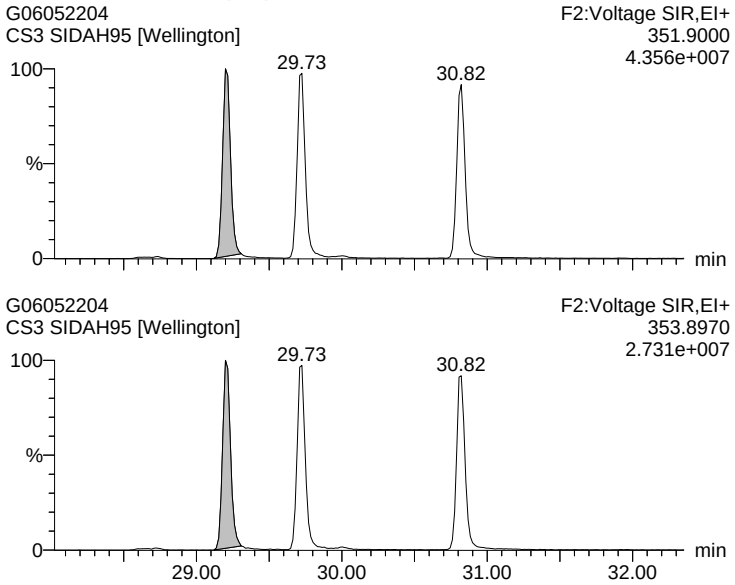
37Cl-2378-TCDD (CS)



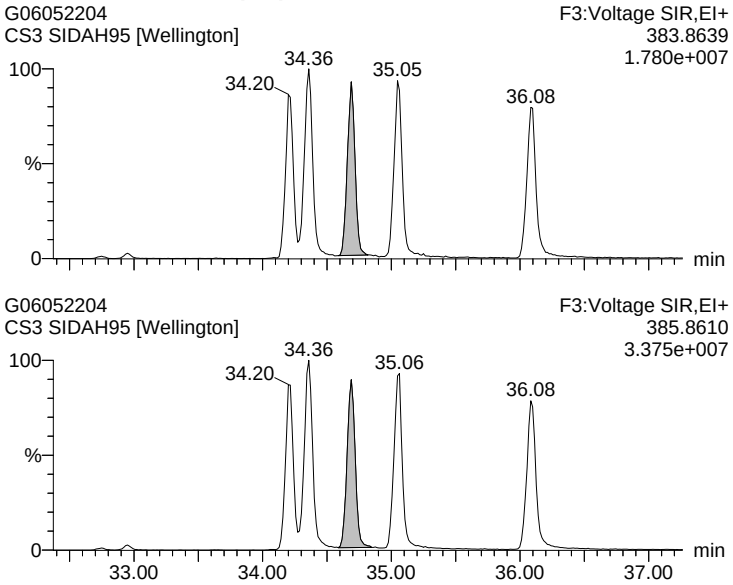
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



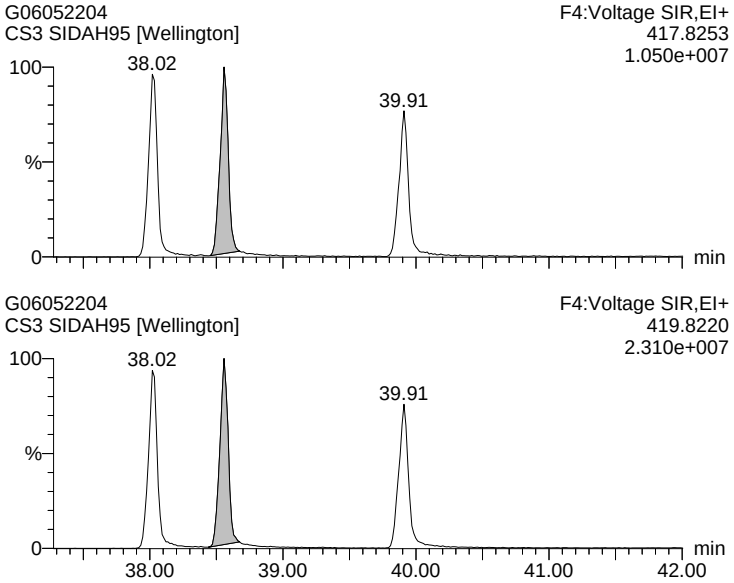
13C-123469-HxCDF (CS)



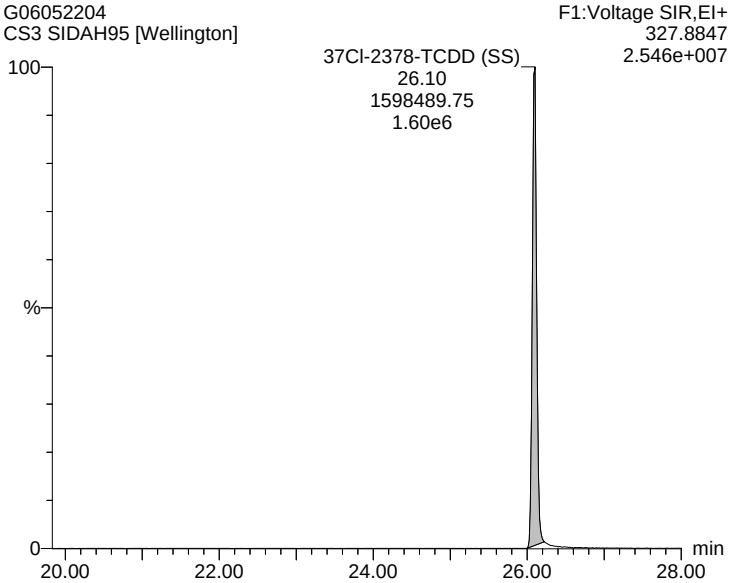
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

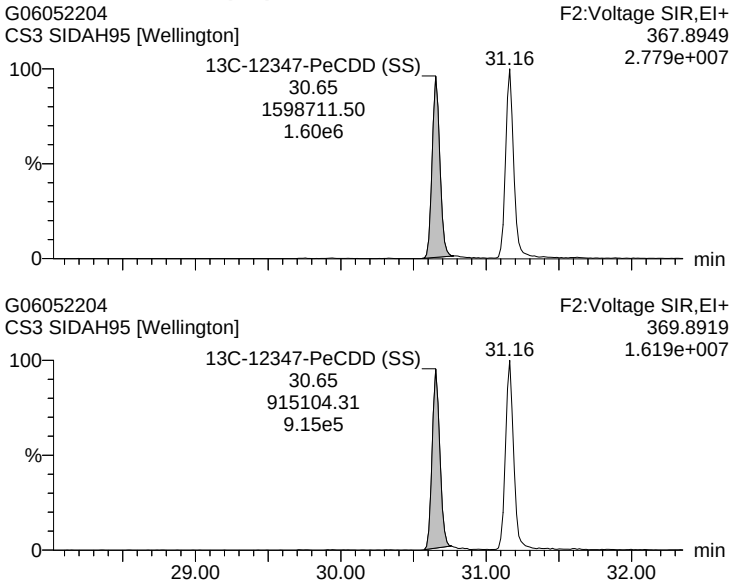
13C-1234689-HpCDF (CS)



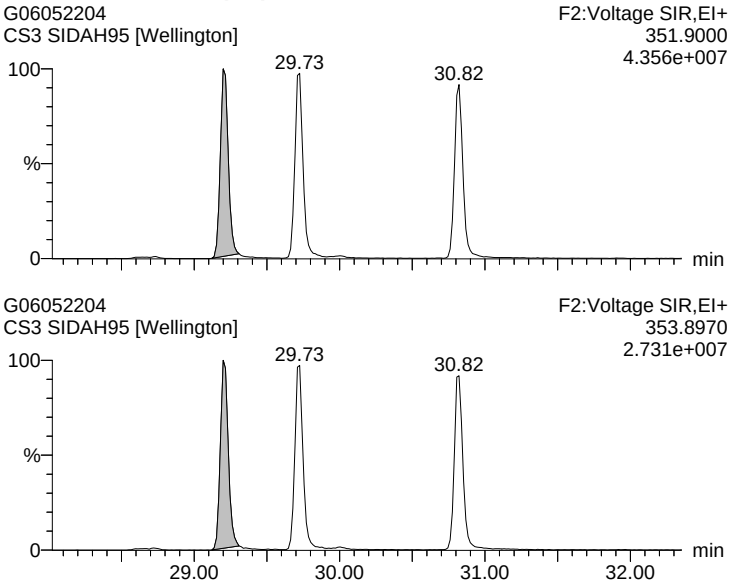
37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



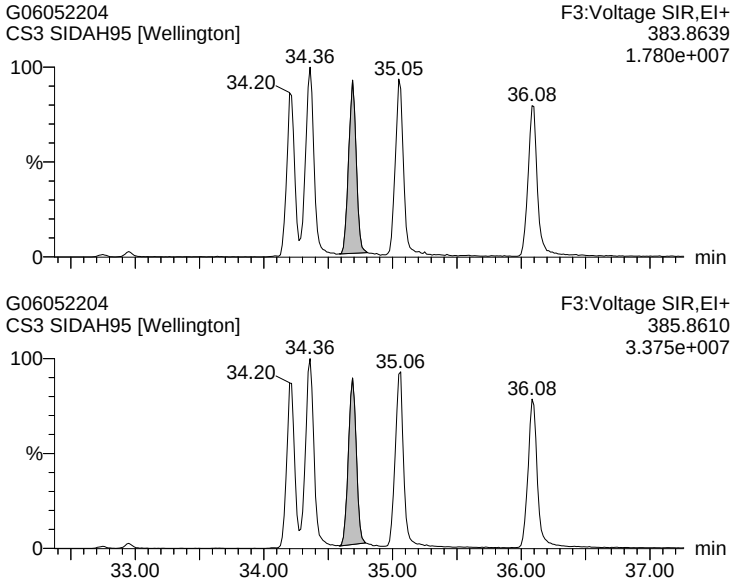
13C-12346-PeCDF (SS)



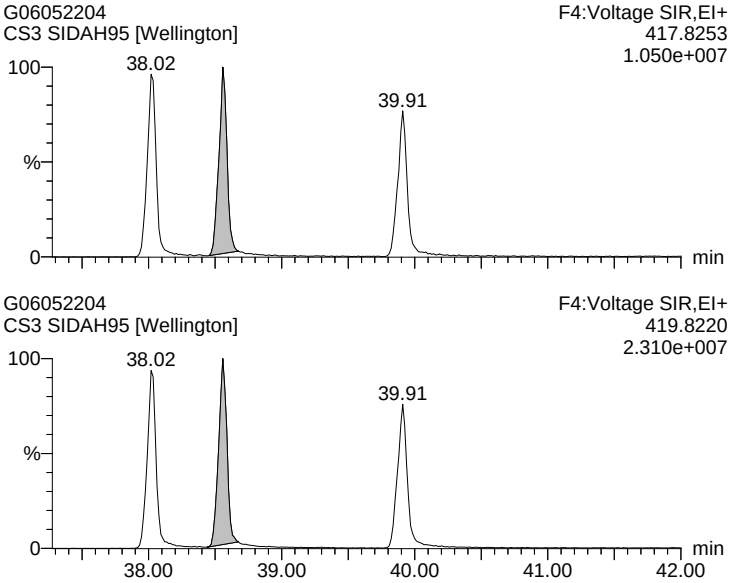
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

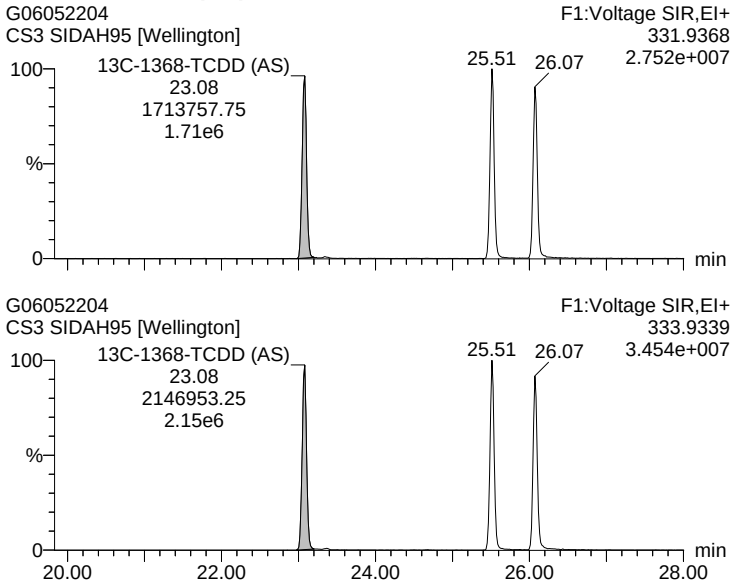
13C-123469-HxCDF (SS)



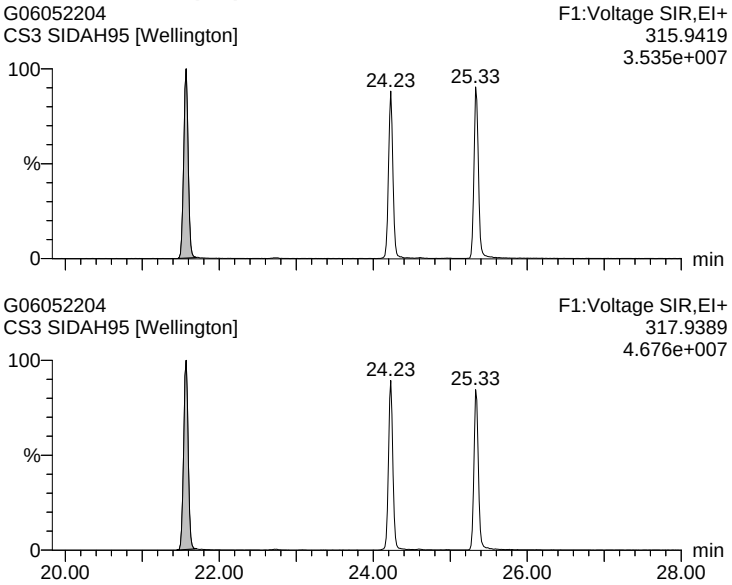
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



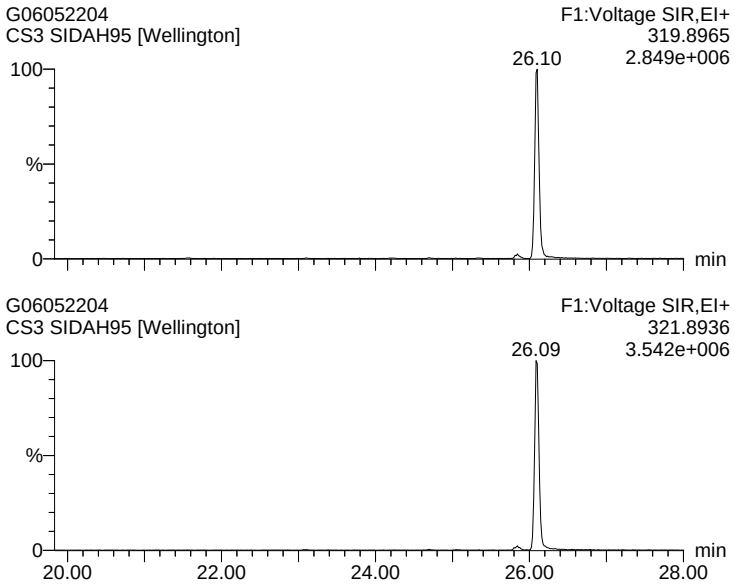
13C-1368-TCDF (AS)



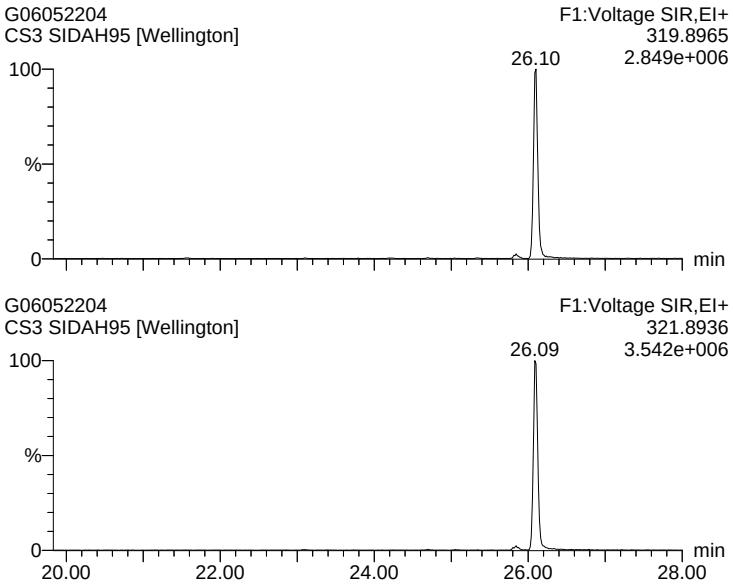
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

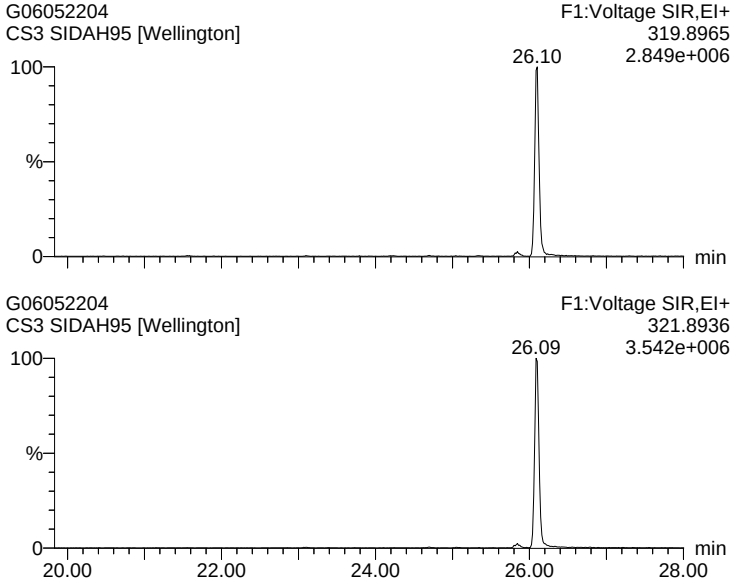
1368-TCDD



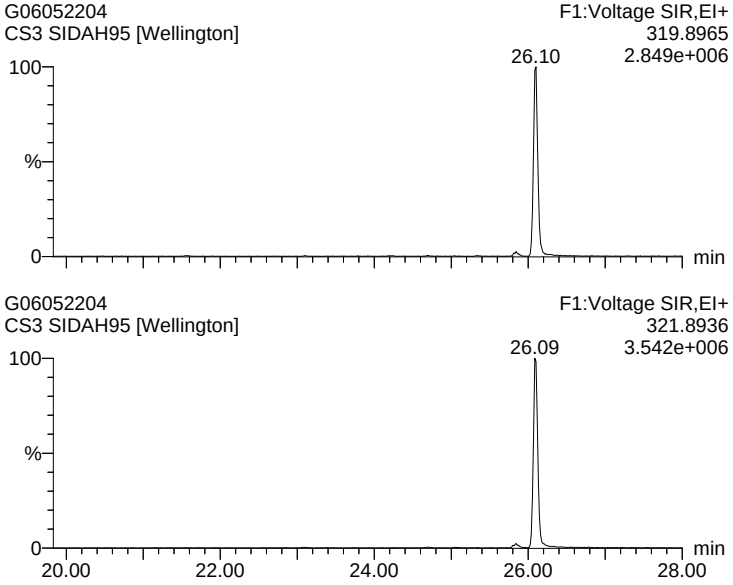
1379-TCDD



1369-TCDD



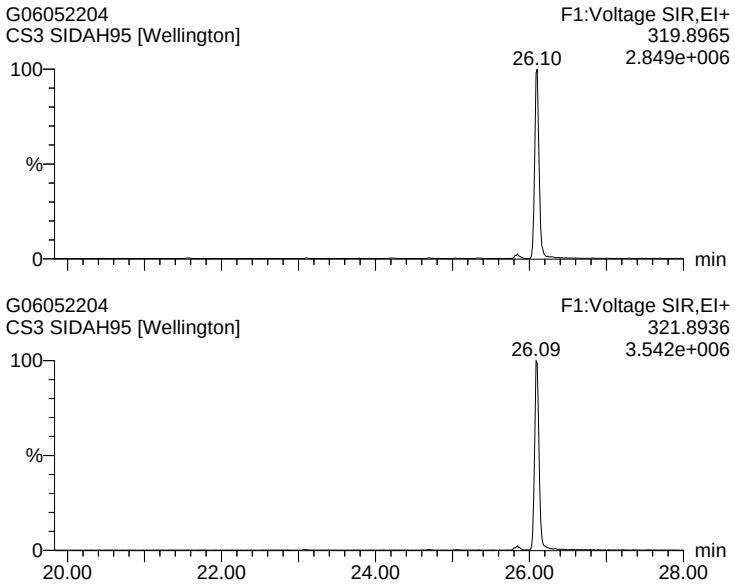
1469-TCDD



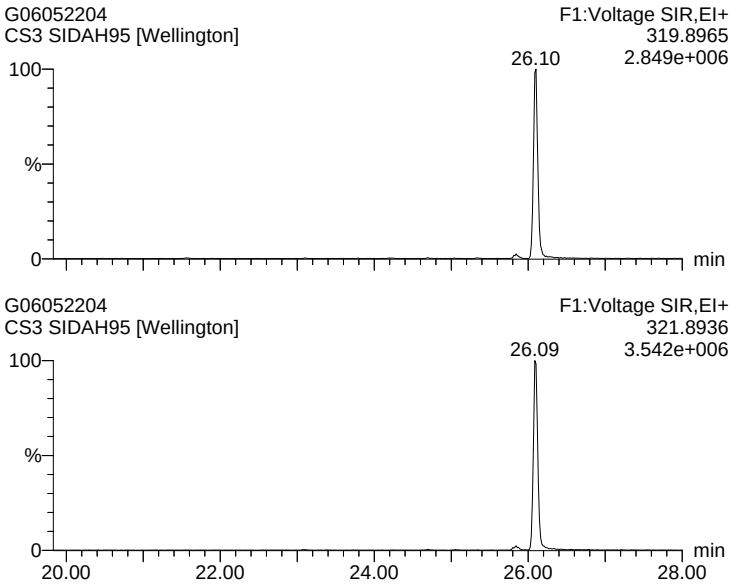
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

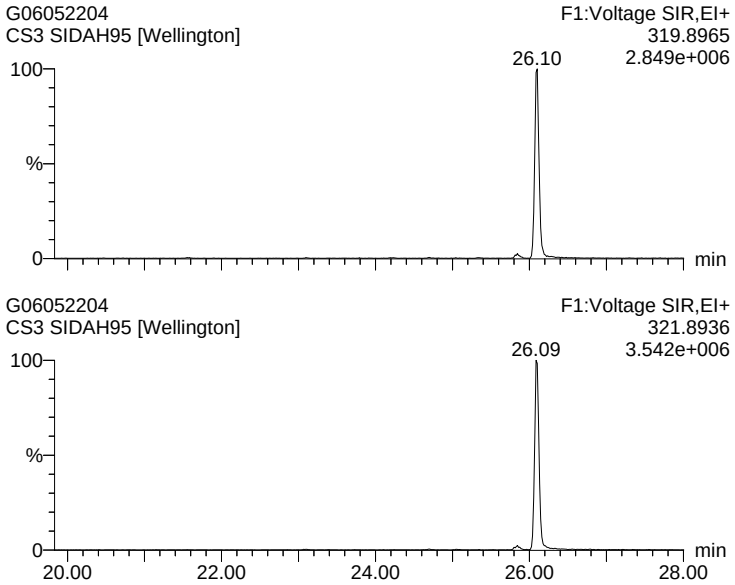
1247/1246/1248/1249-TCDD



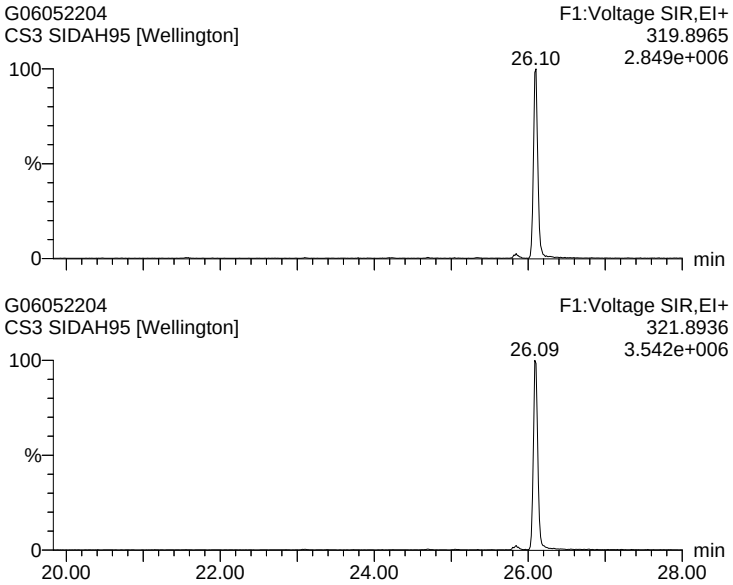
1378-TCDD



1268-TCDD



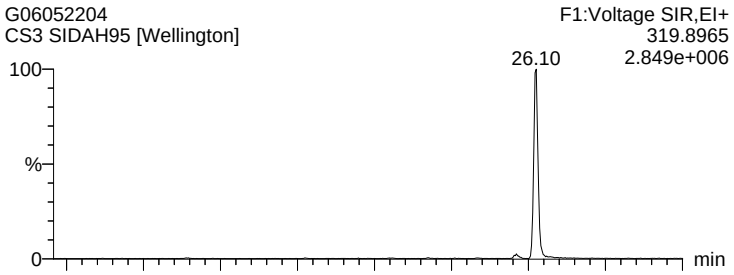
1478-TCDD

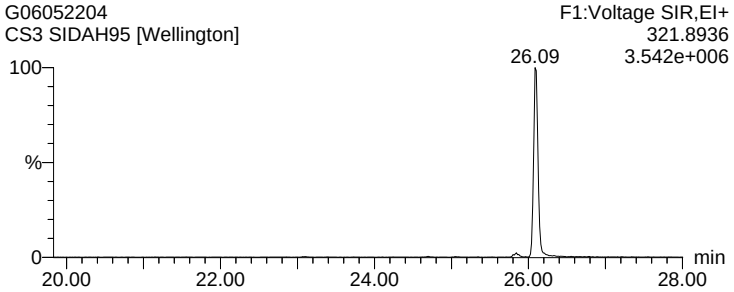


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

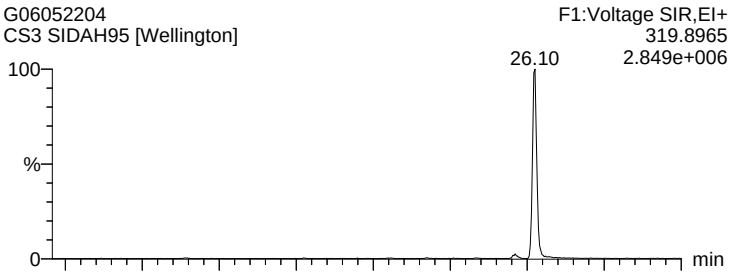
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

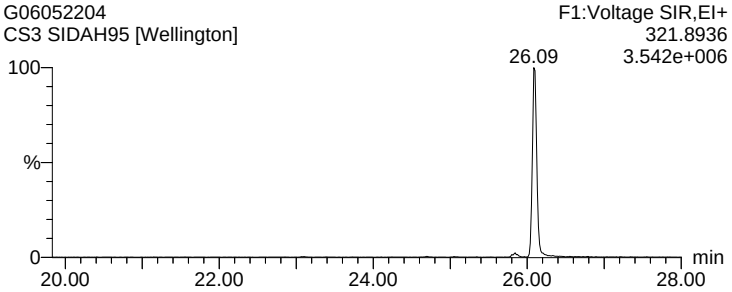
1279-TCDD



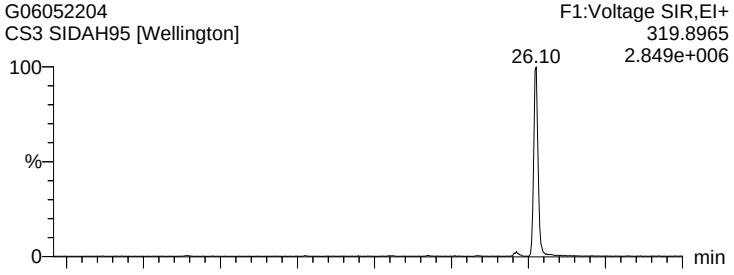


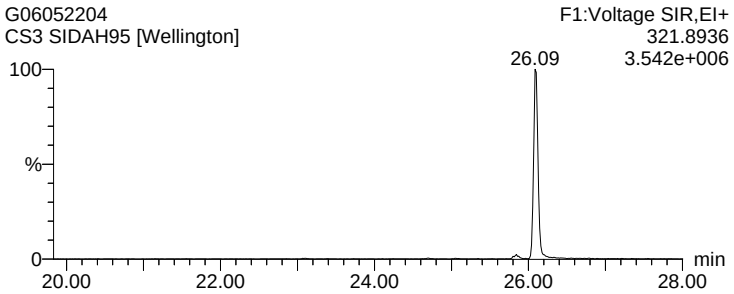
1234/1269-TCDD



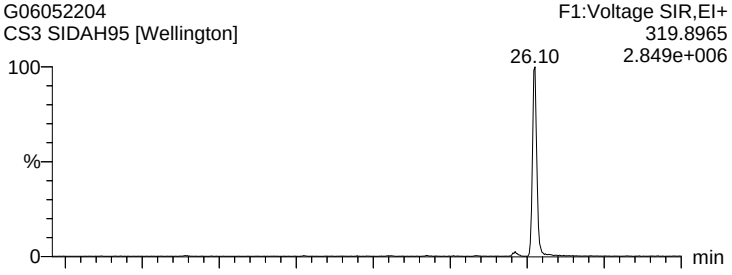


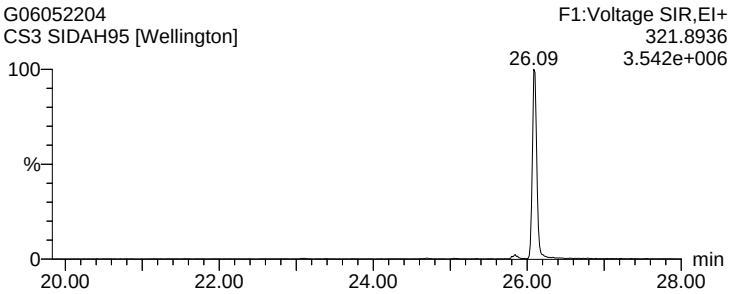
1236-TCDD





1237/1238-TCDD

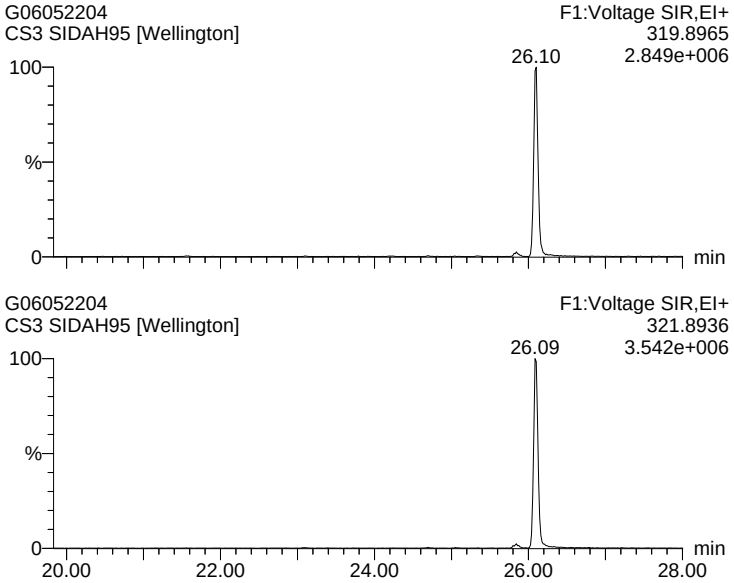




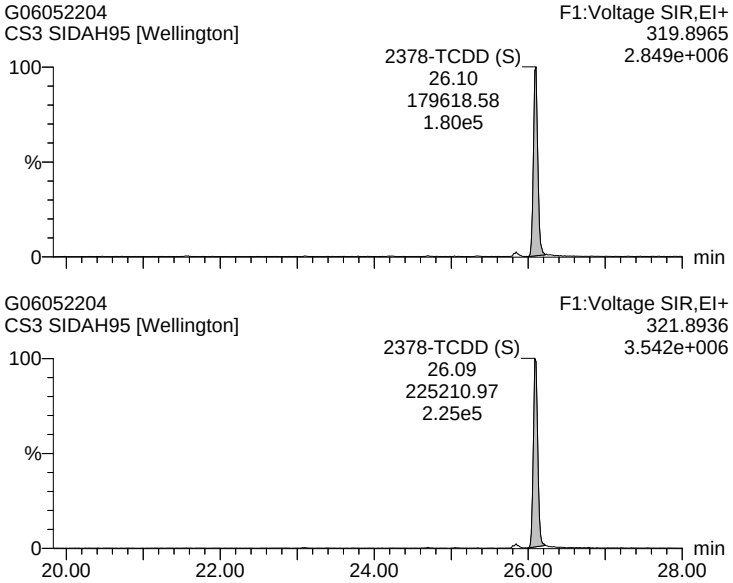
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

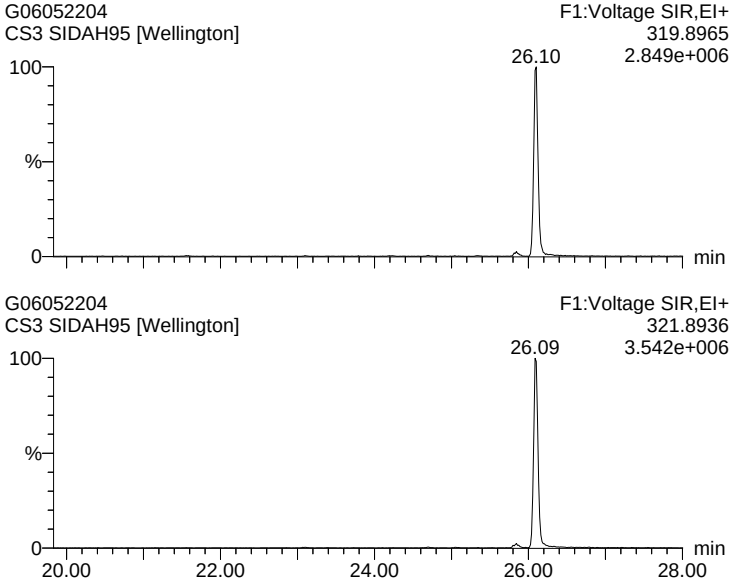
1239-TCDD [CE]



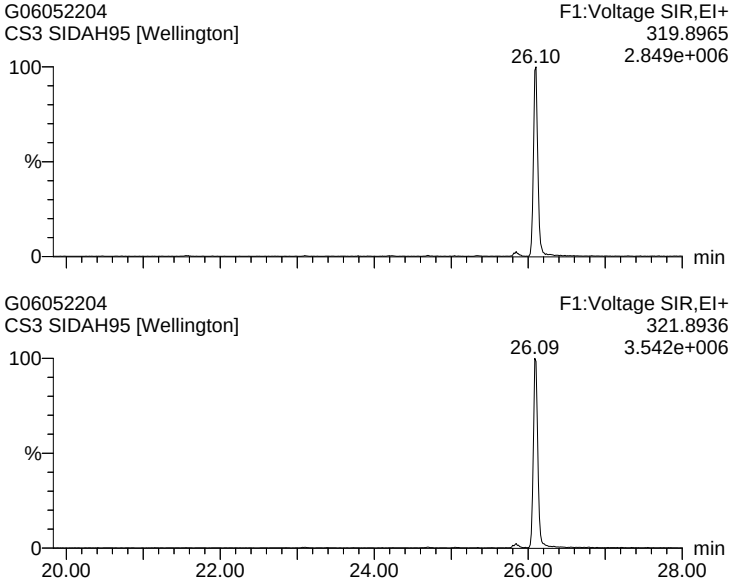
2378-TCDD (S)



1278-TCDD



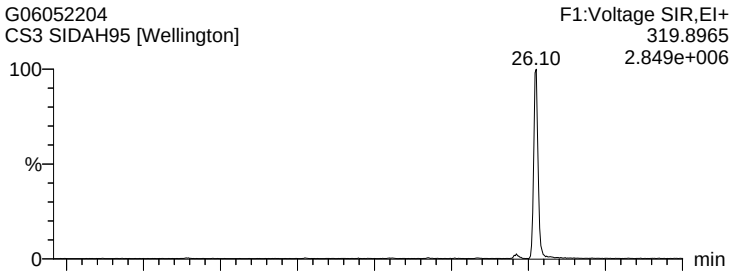
1267-TCDD

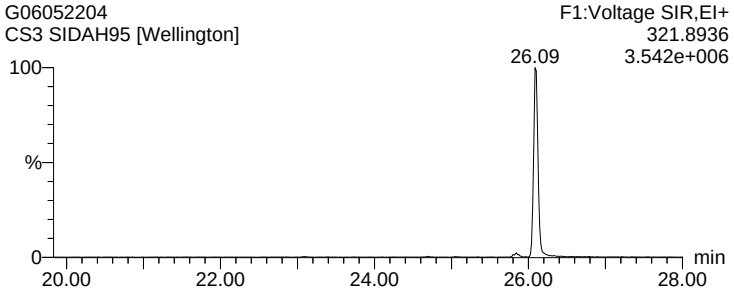


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

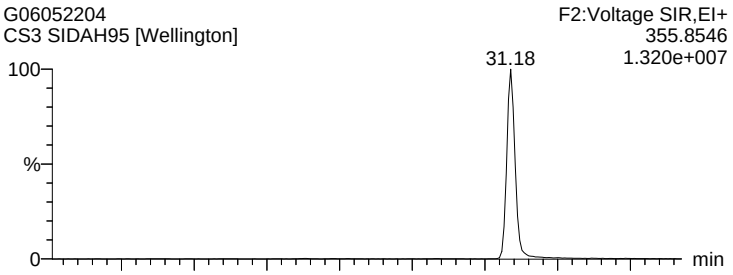
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

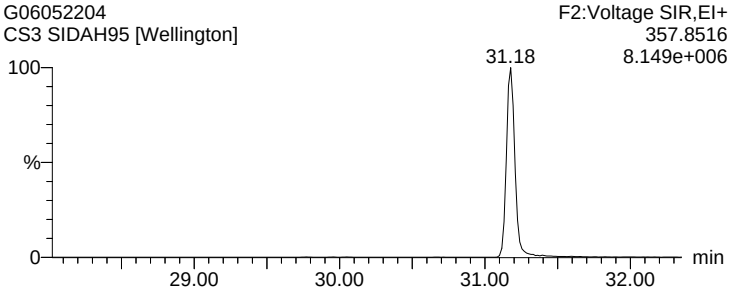
1289-TCDD



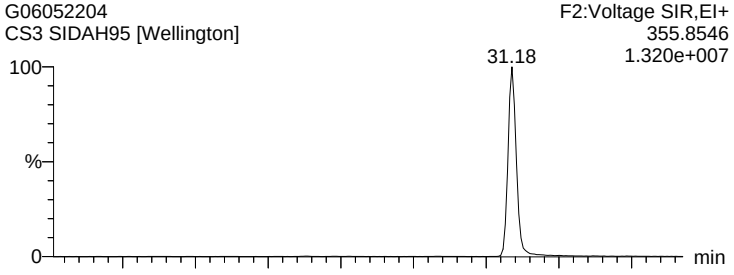


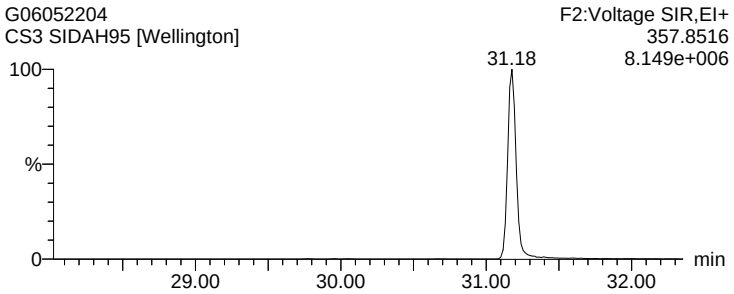
12479/12468-PeCDD



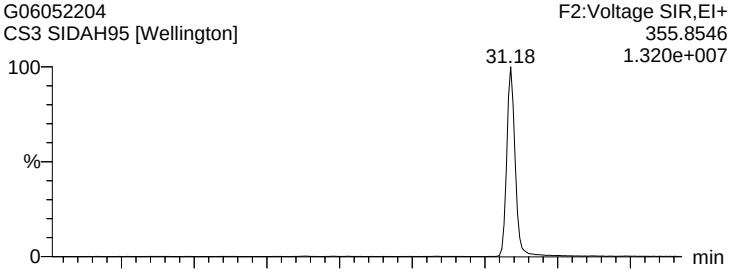


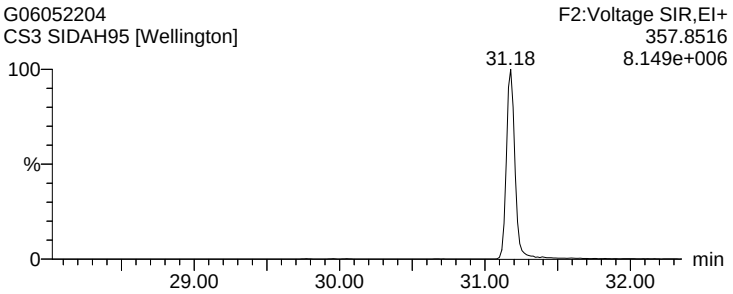
12469-PeCDD





12368-PeCDD

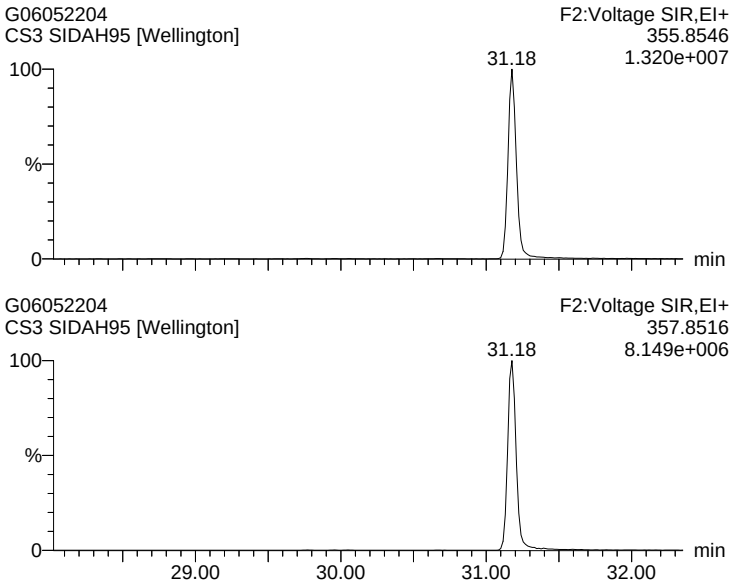




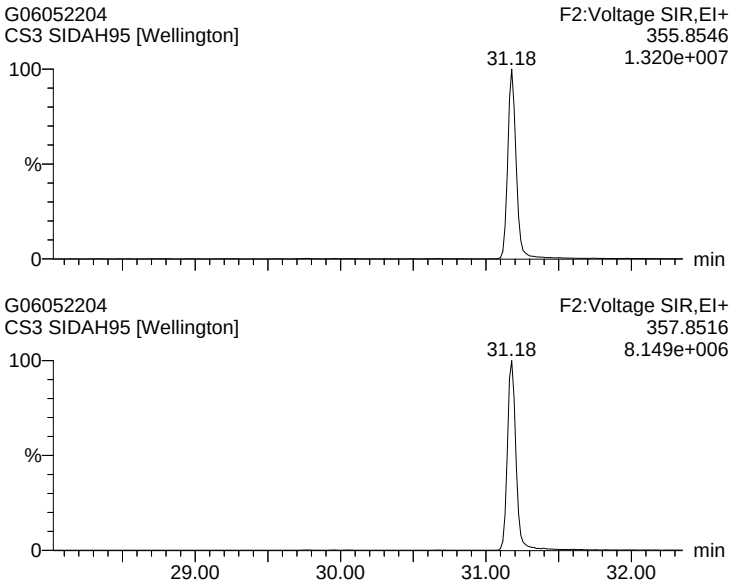
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

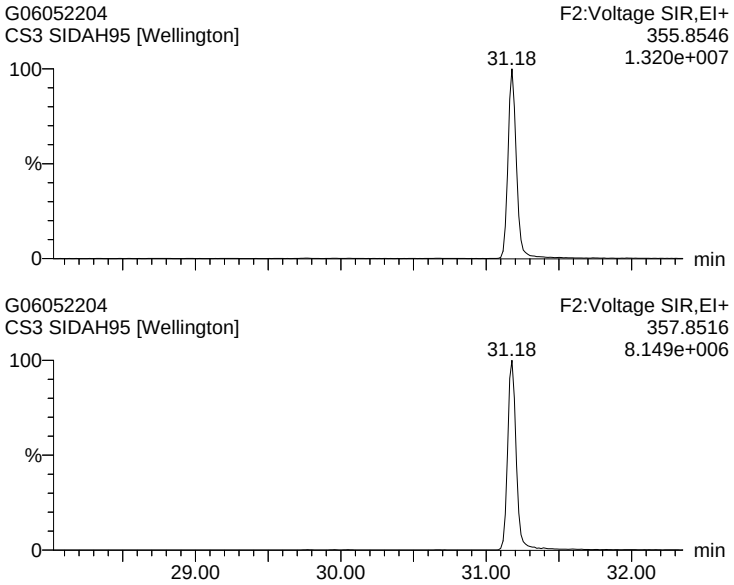
12478-PeCDD



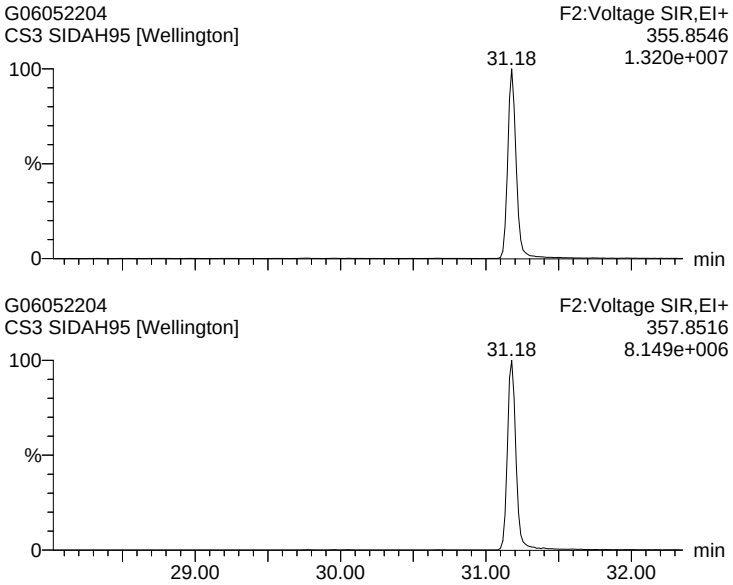
12379-PeCDD



12369/12467/12489-PeCDD



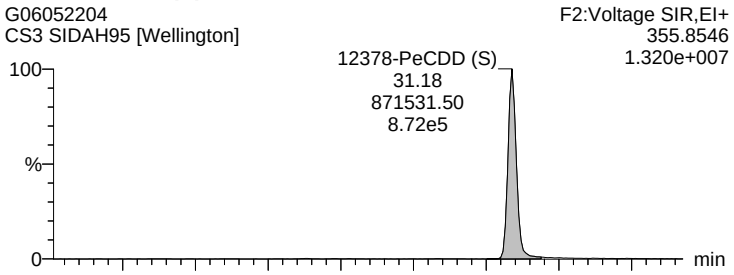
12346/12347-PeCDD

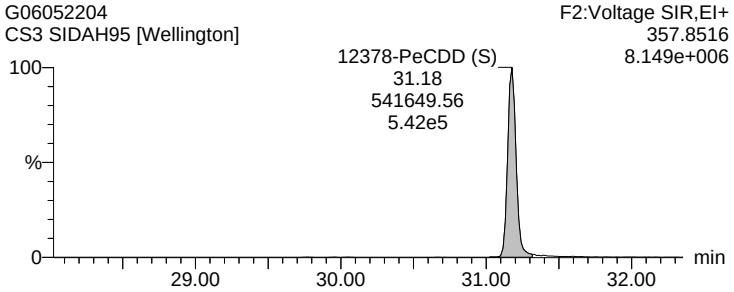


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

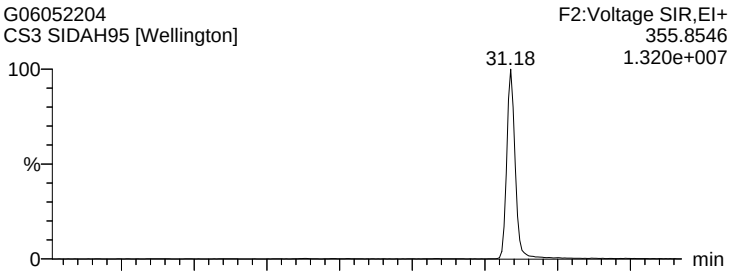
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

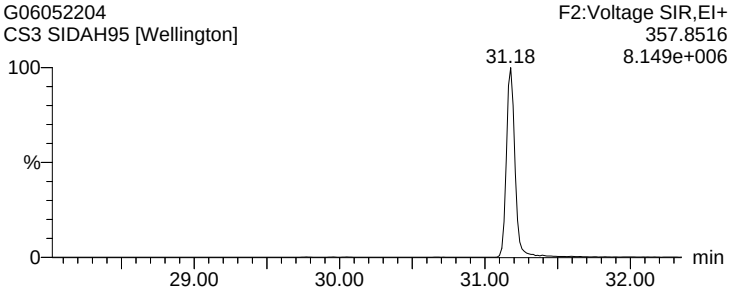
12378-PeCDD (S)



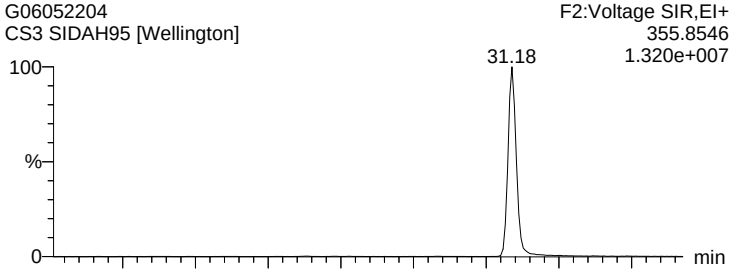


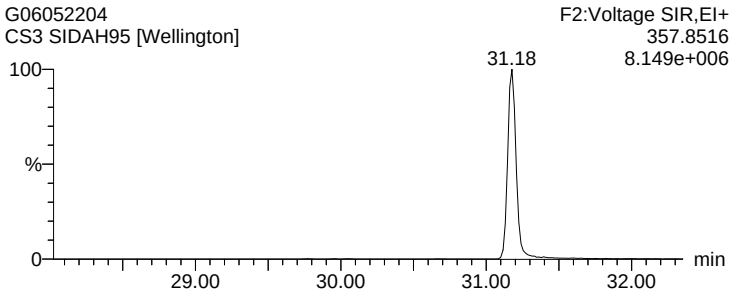
12367-PeCDD



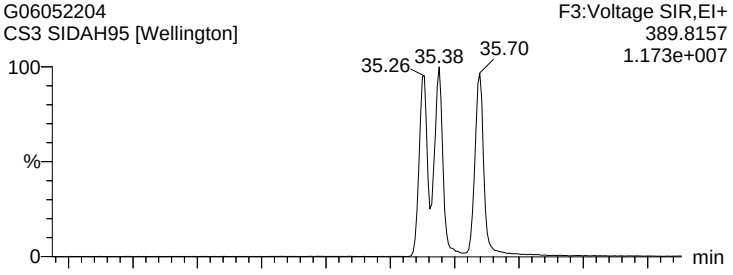


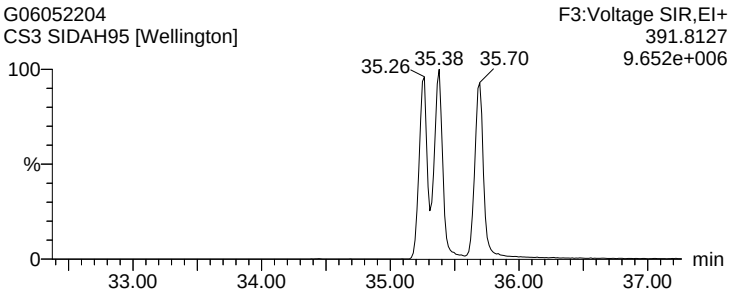
12389-PeCDD





124679/124689-HxCDD

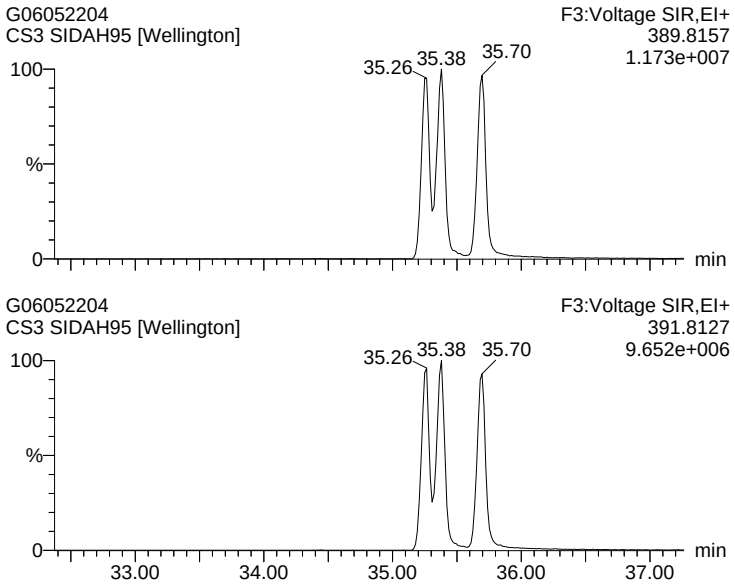




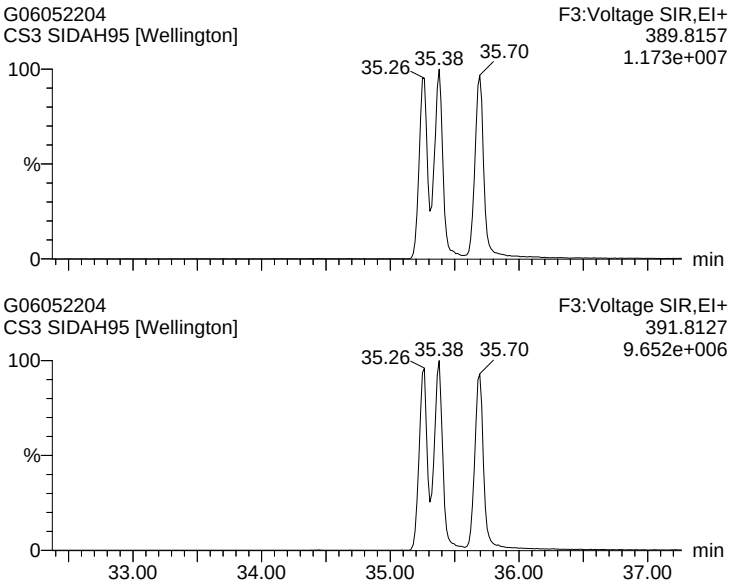
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

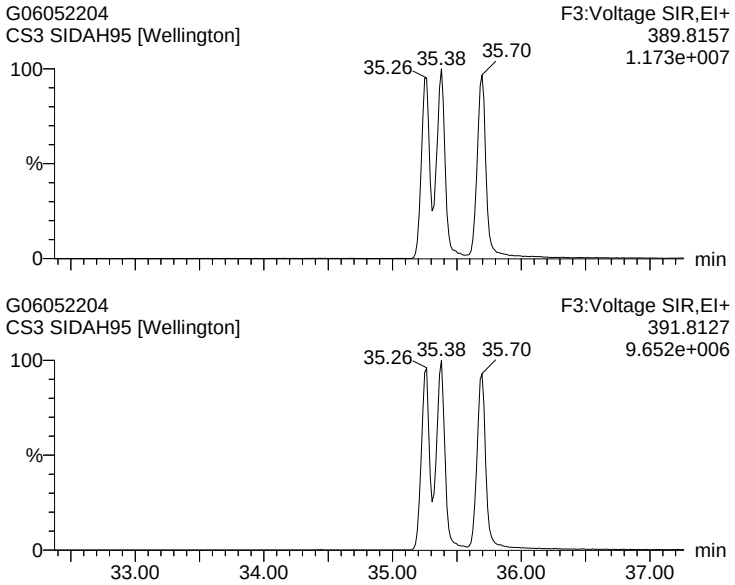
123468-HxCDD



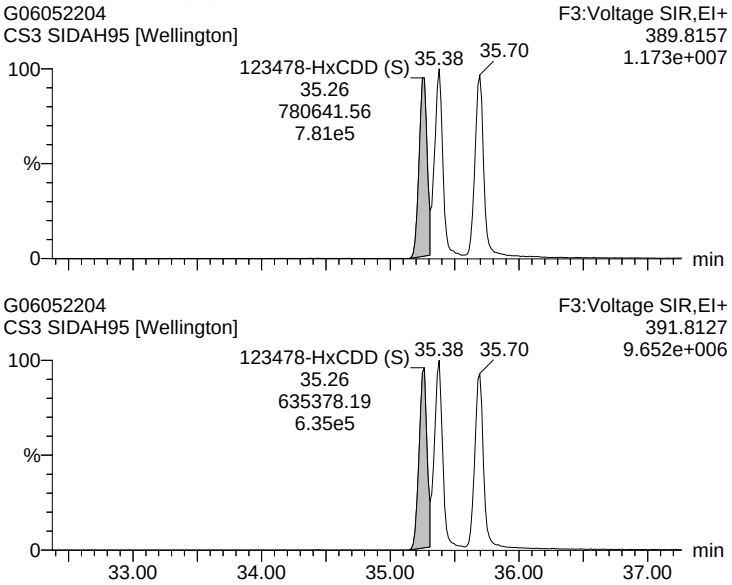
123679/123689-HxCDD



123469-HxCDD



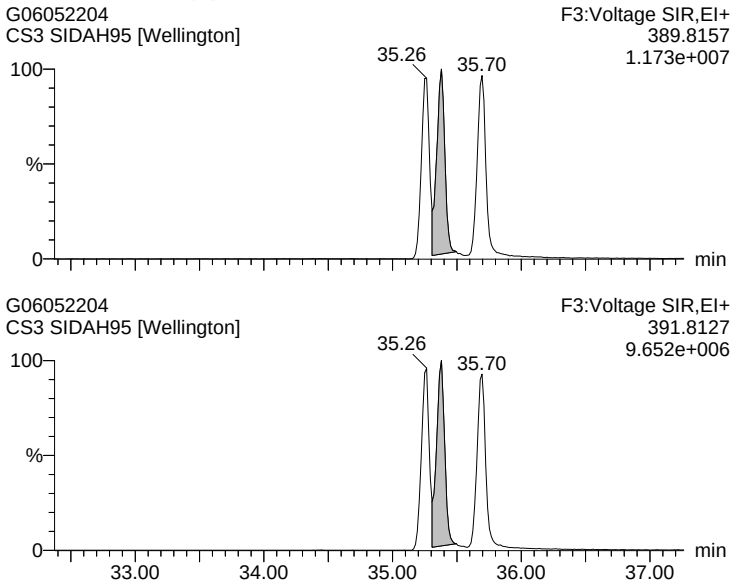
123478-HxCDD (S)



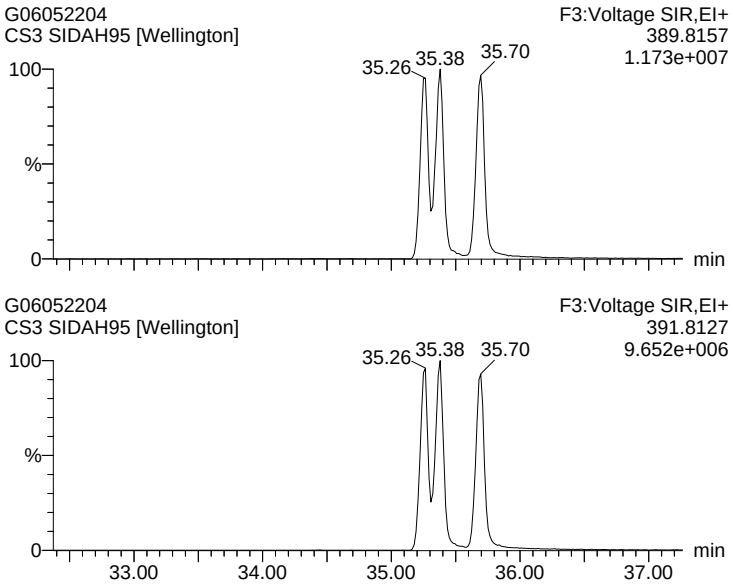
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

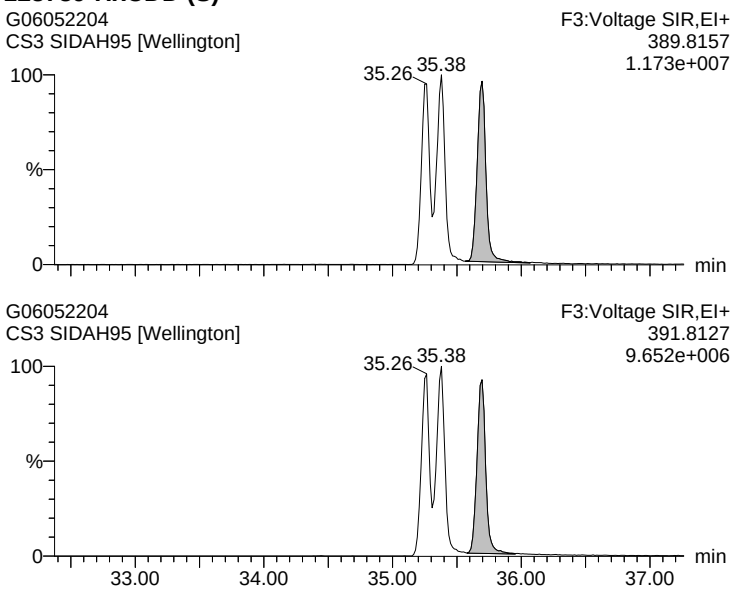
123678-HxCDD (S)



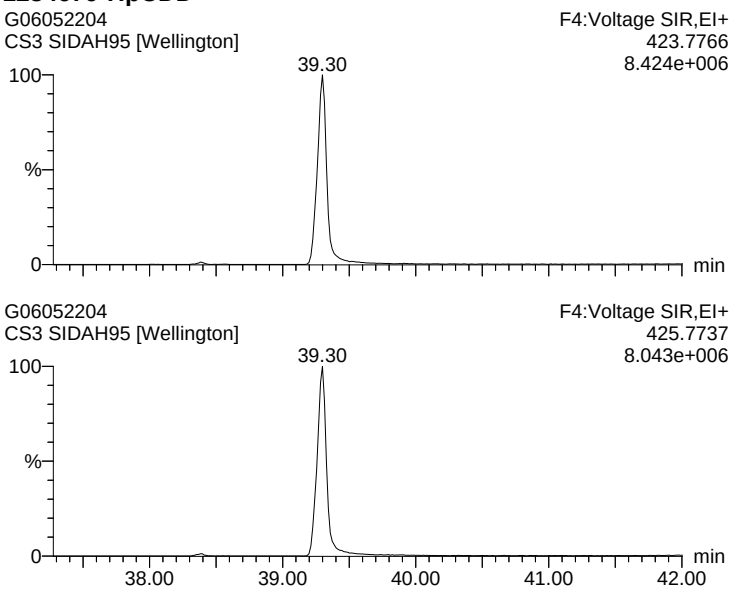
123467-HxCDD



123789-HxCDD (S)



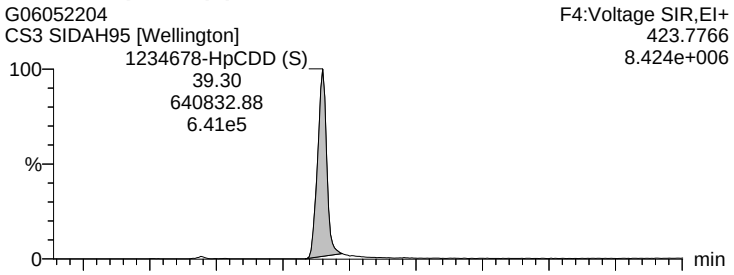
1234679-HpCDD

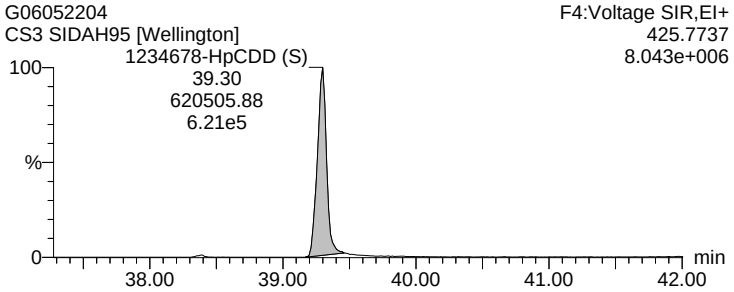


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

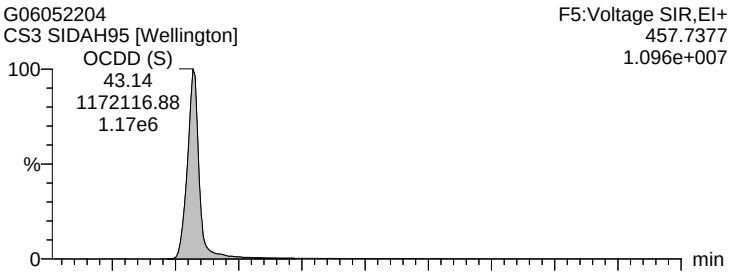
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

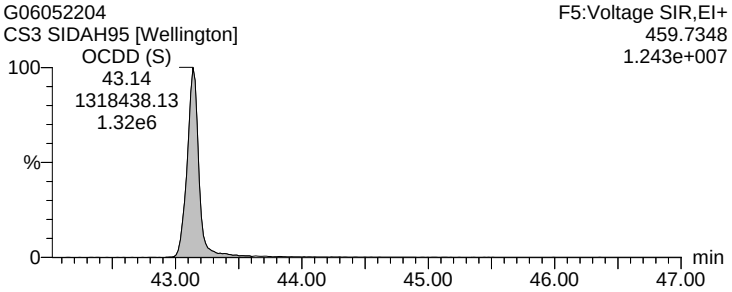
1234678-HpCDD (S)



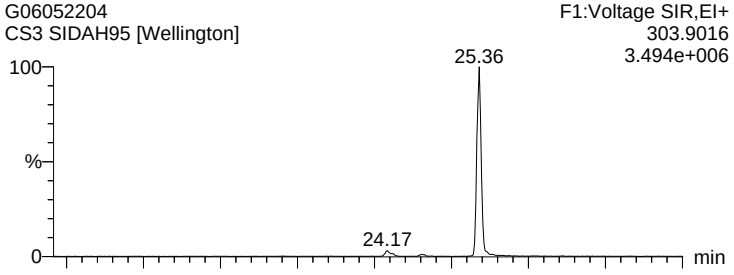


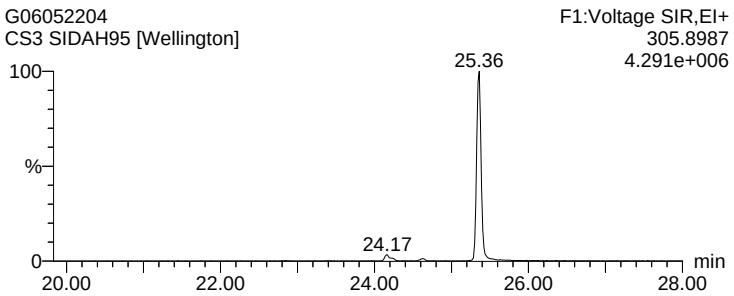
OCDD (S)



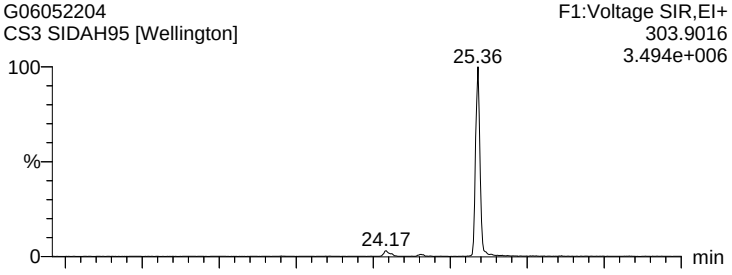


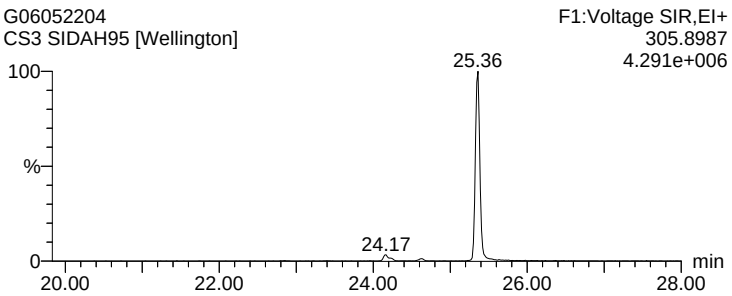
1368-TCDF





1468-TCDF

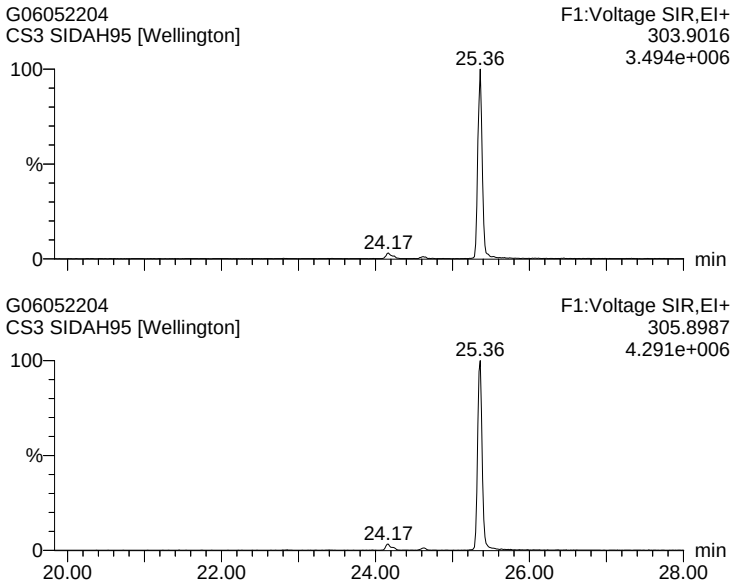




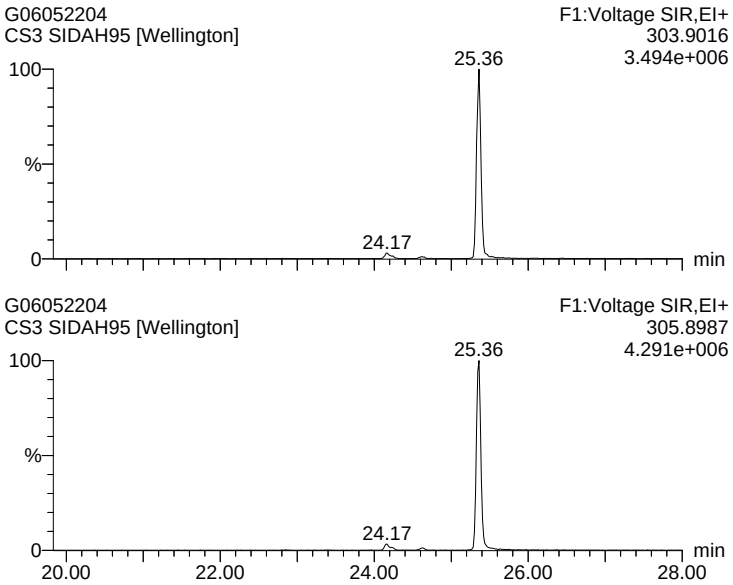
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

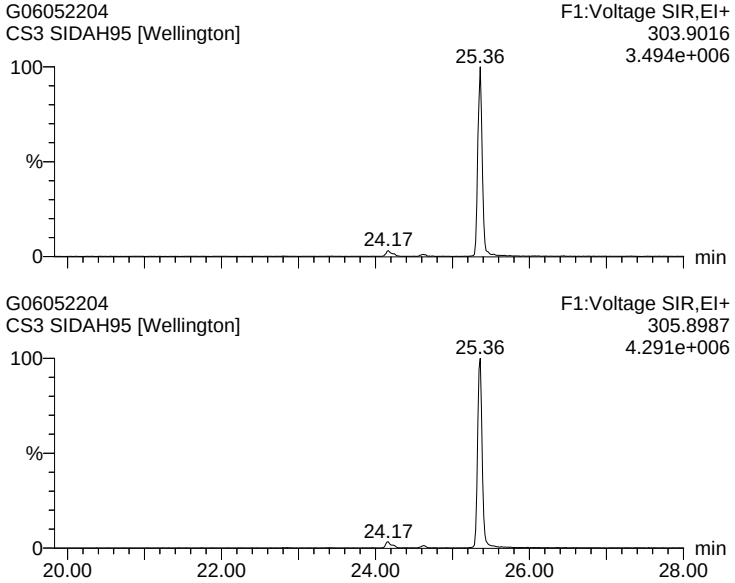
2468-TCDF



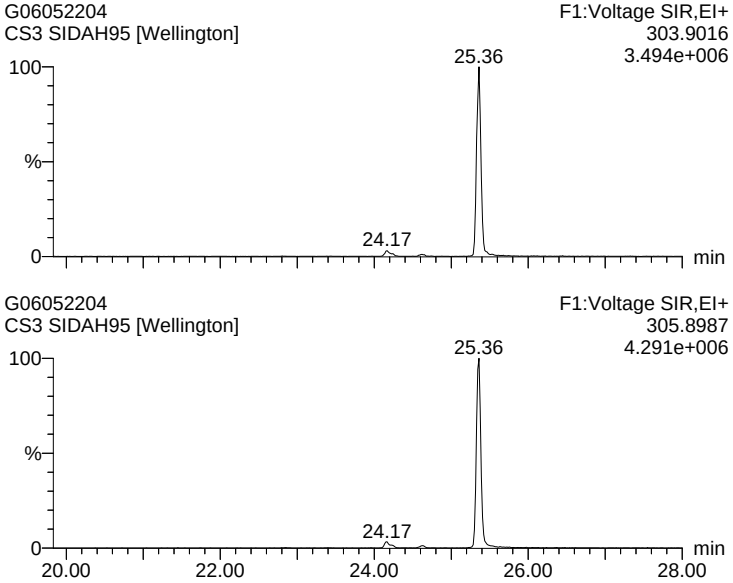
1346/1246-TCDF



1347/1378/1247-TCDF



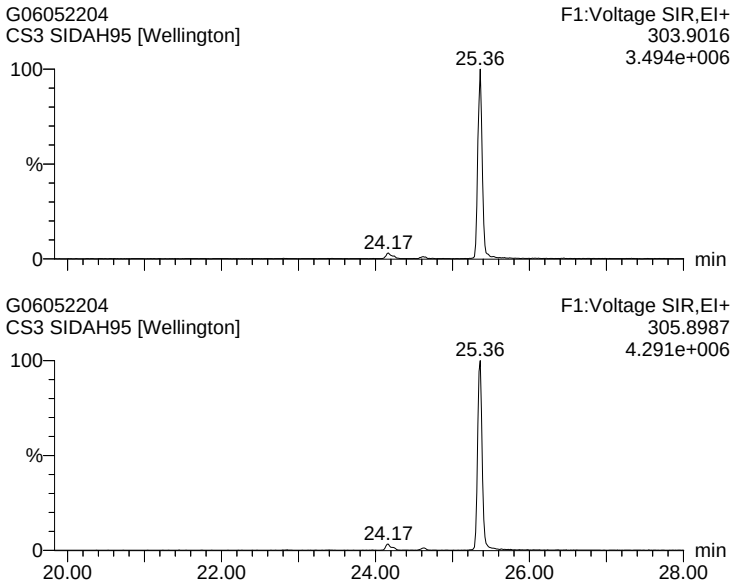
1348-TCDF



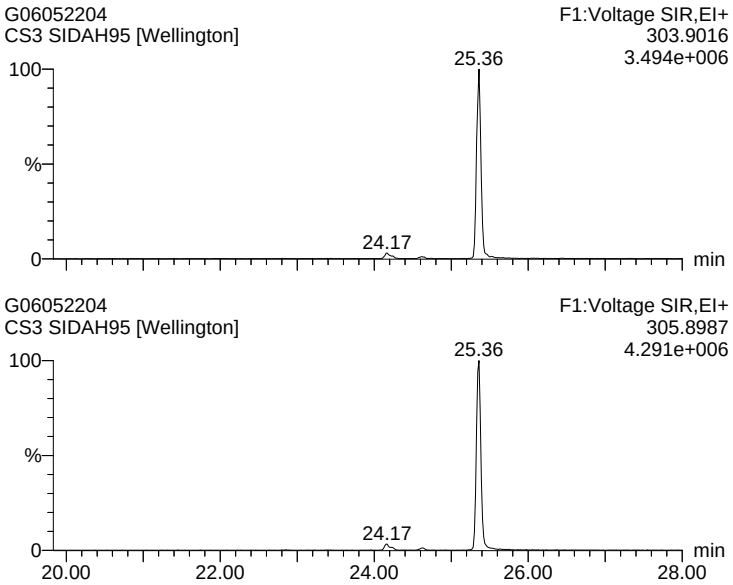
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

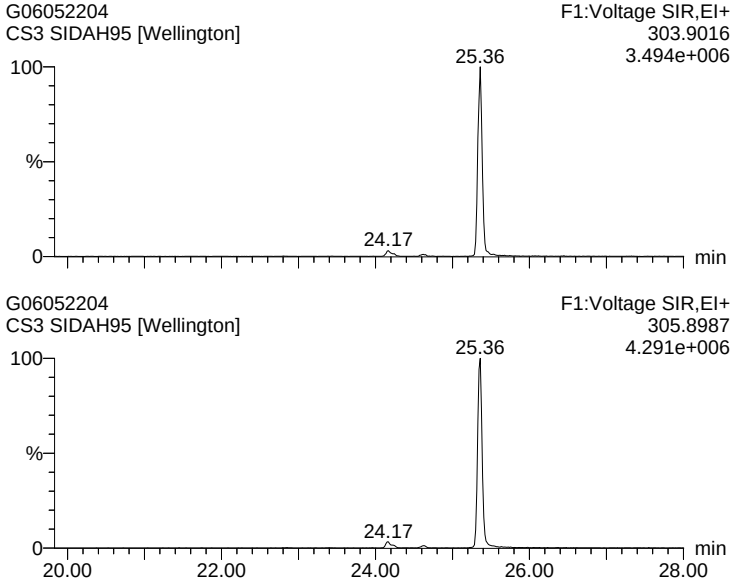
1248/1367/1379-TCDF



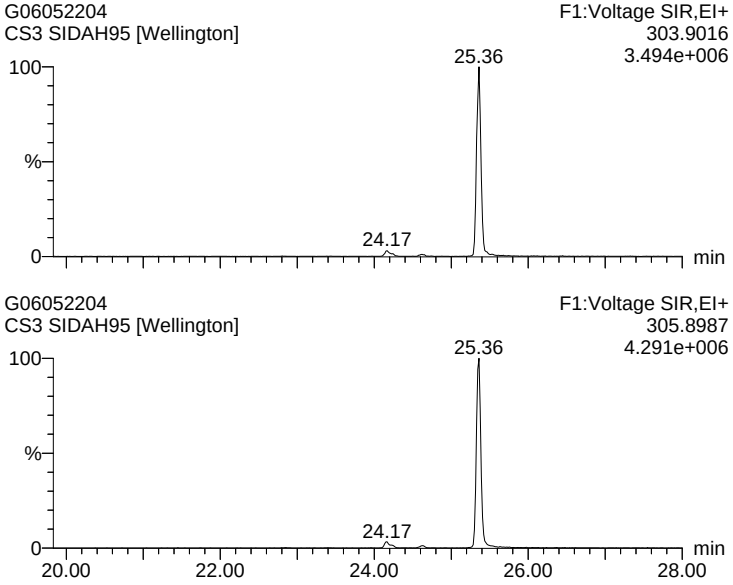
1268-TCDF



1467-TCDF



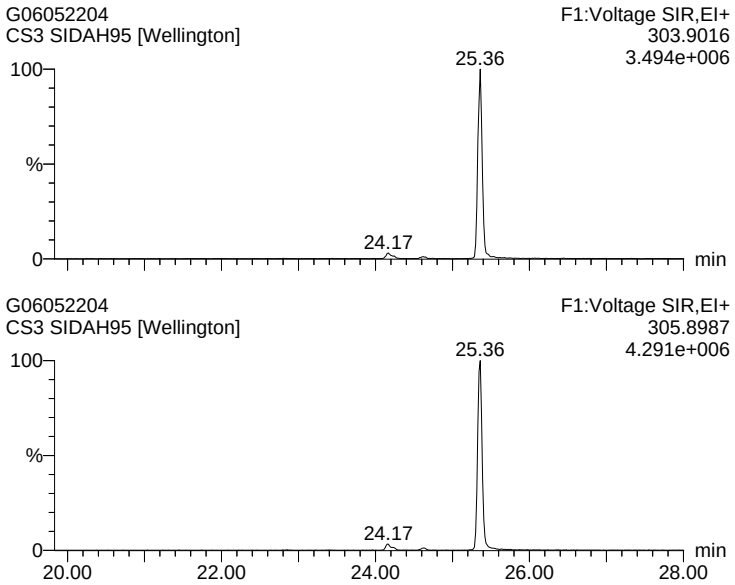
1478-TCDF



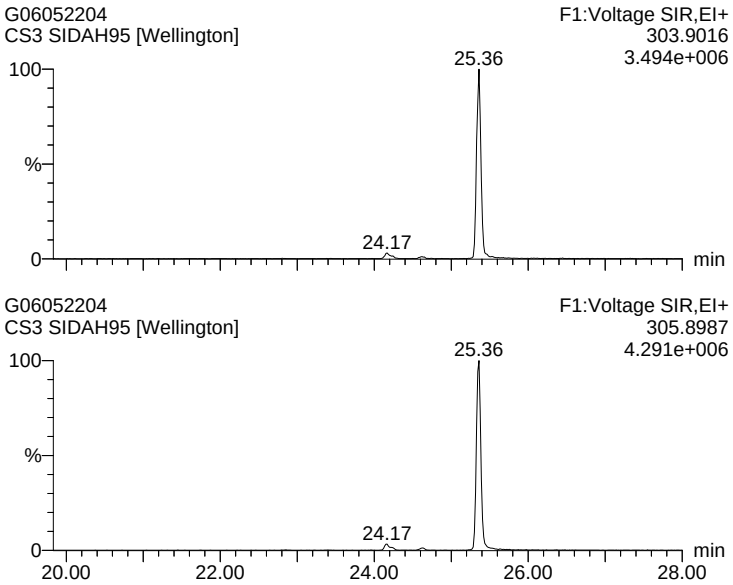
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

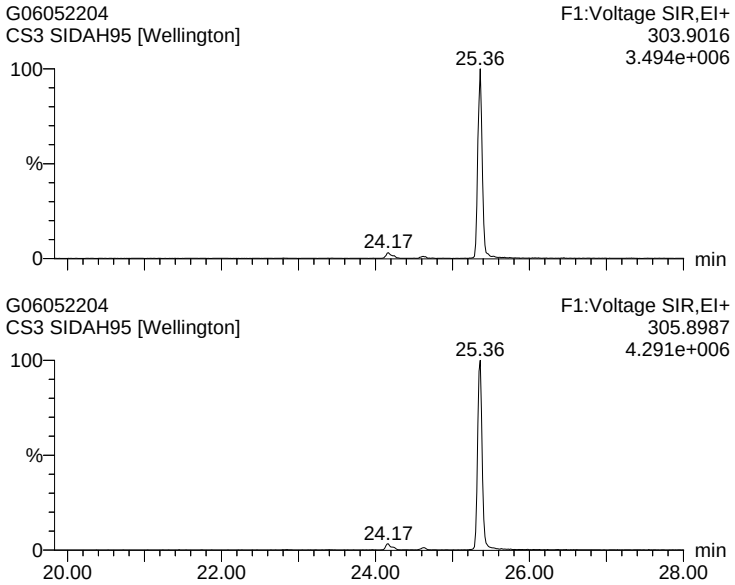
1369/1237-TCDF



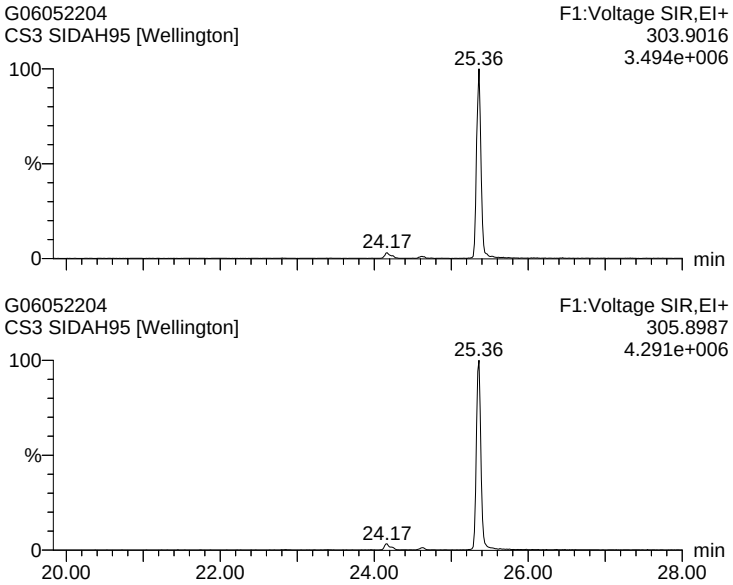
2467-TCDF



2368-TCDF



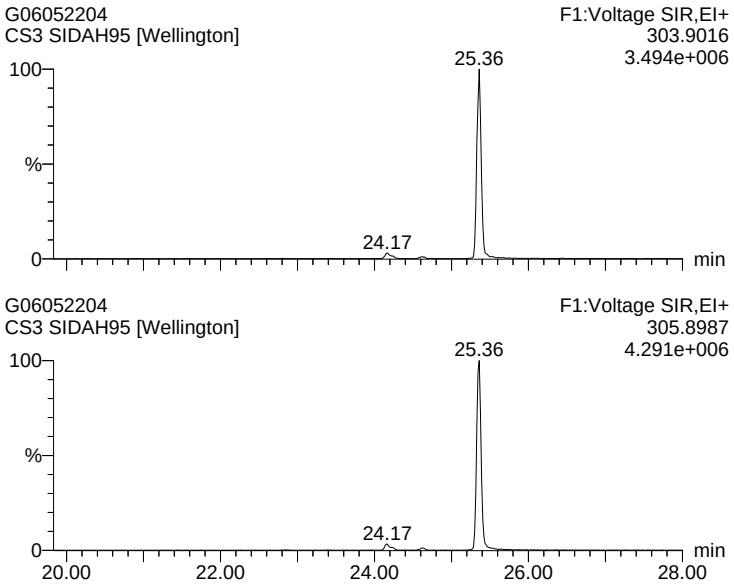
1238/1234/1678/1469/1236-TCDF



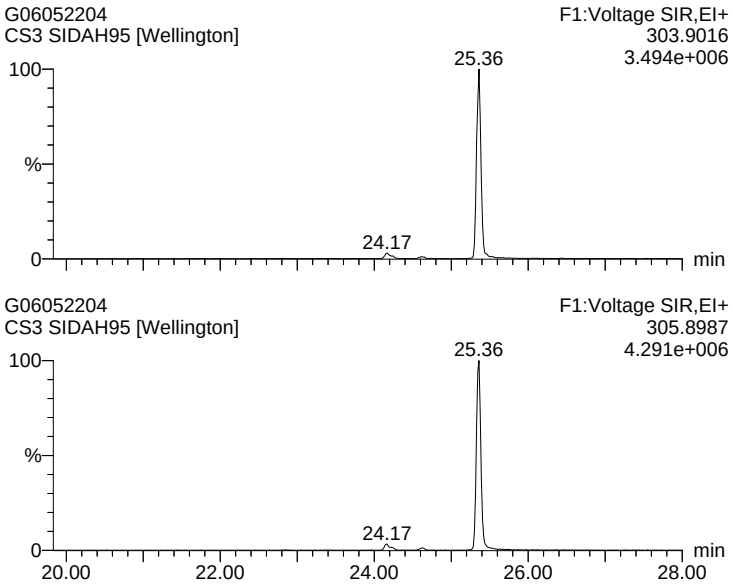
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

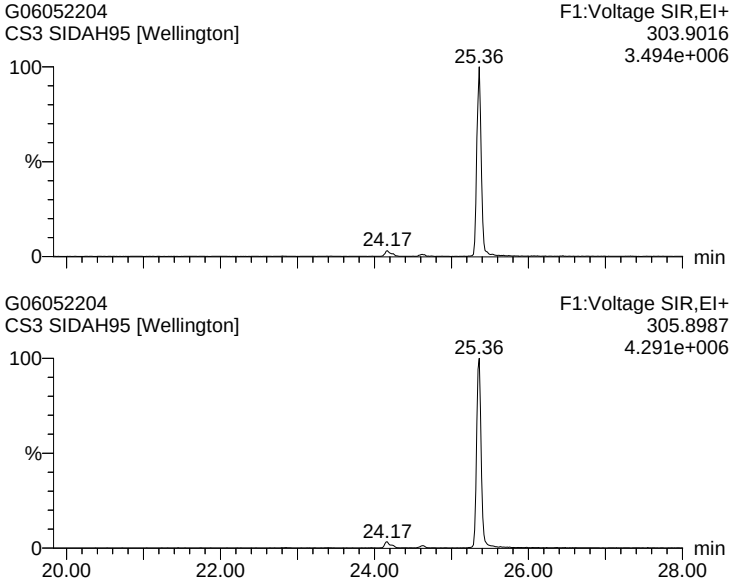
1278-TCDF



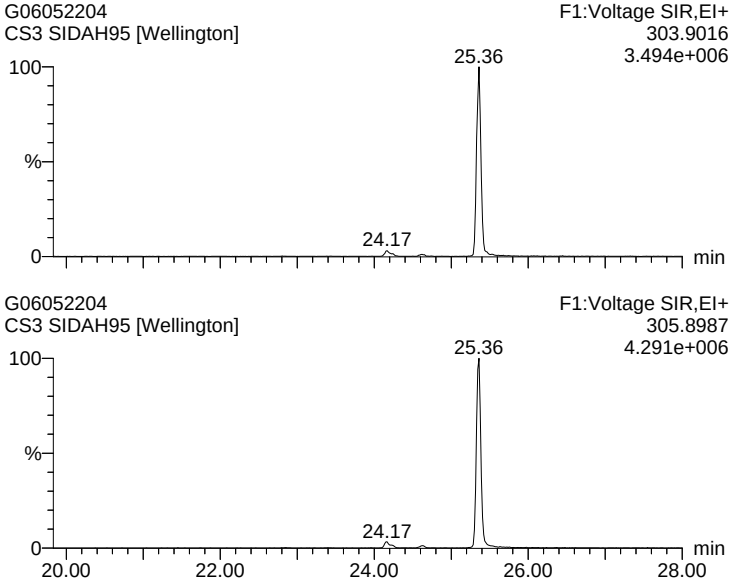
1349-TCDF



1267-TCDF



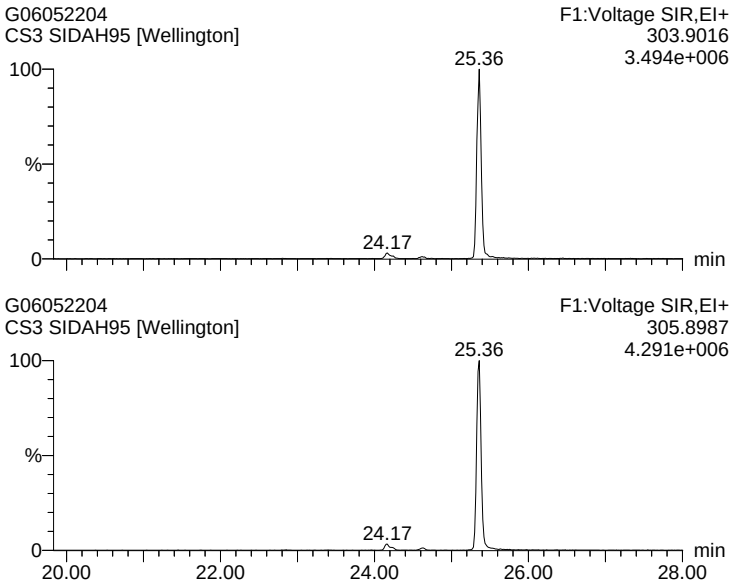
2346/1249-TCDF



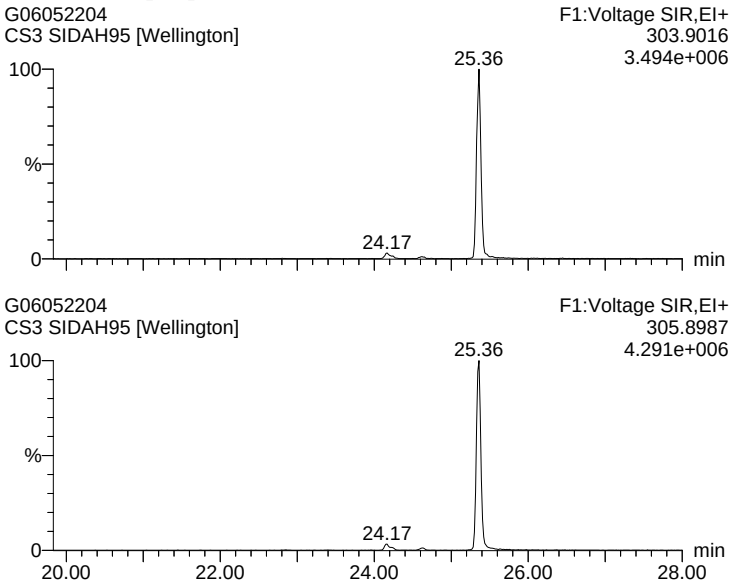
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

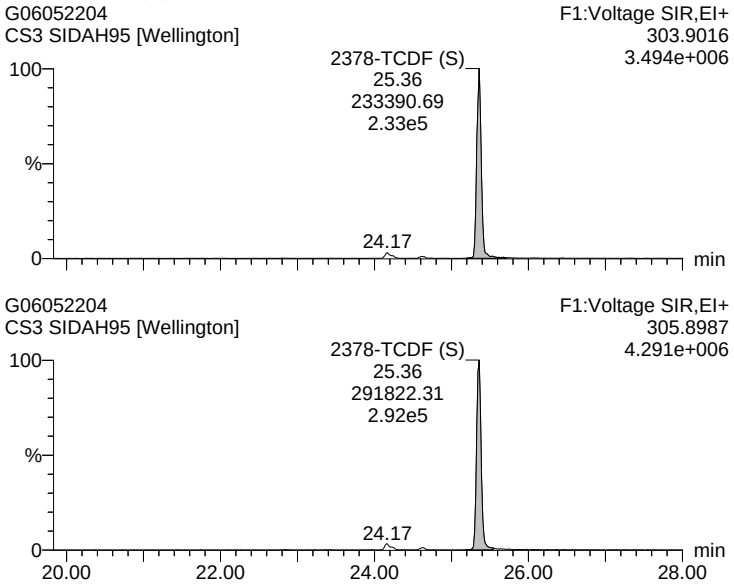
2347/1279-TCDF



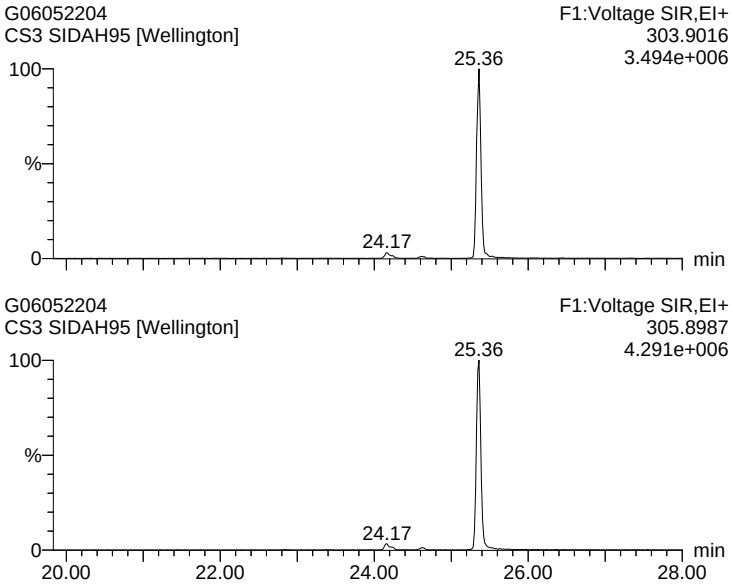
2348-TCDF [CE]



2378-TCDF (S)



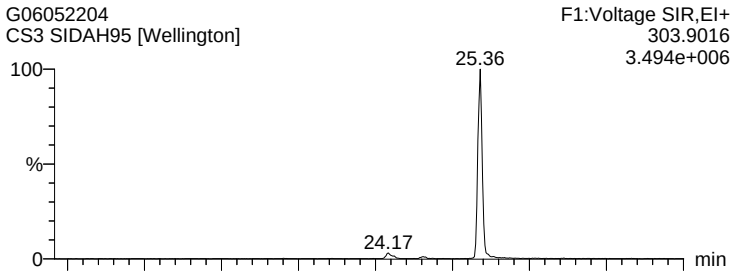
2367/3467-TCDF

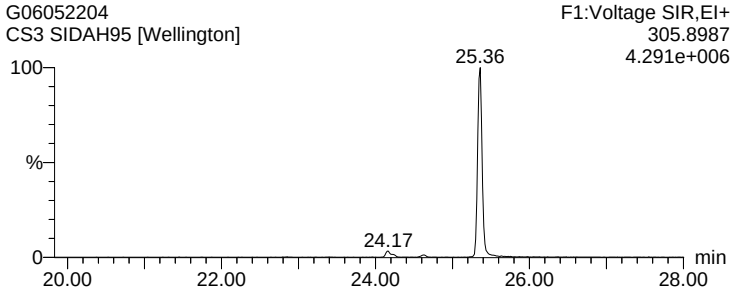


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

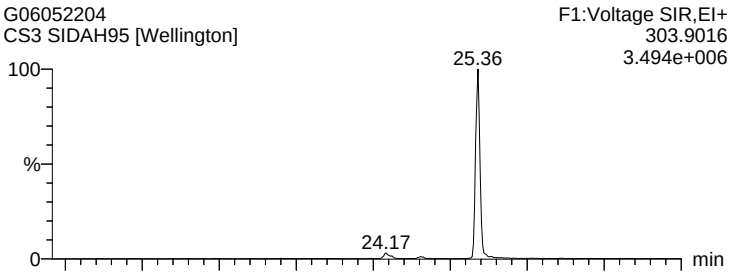
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

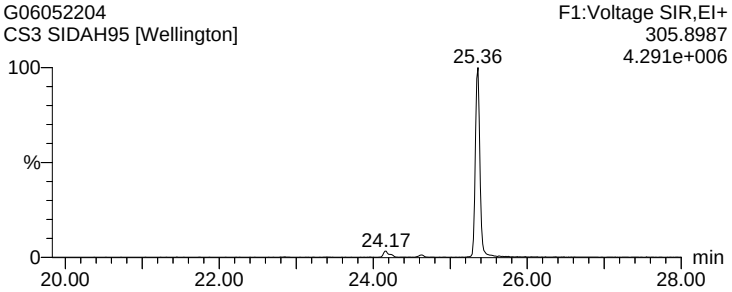
1269-TCDF



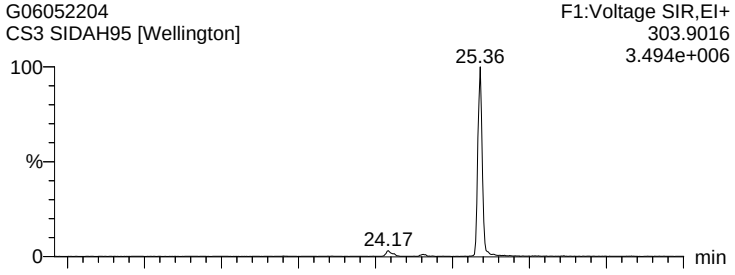


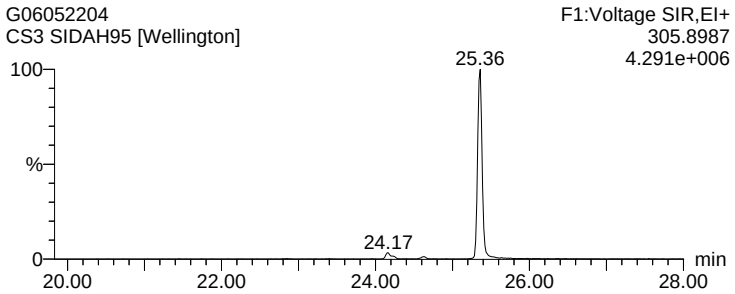
1239-TCDF



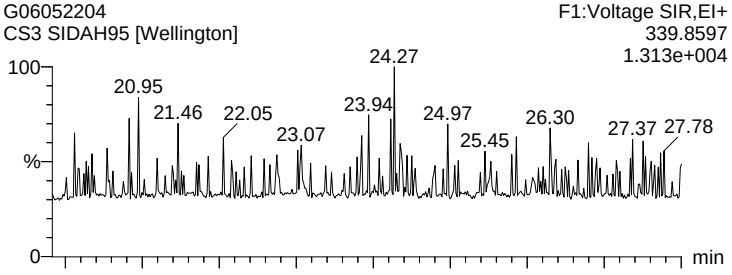


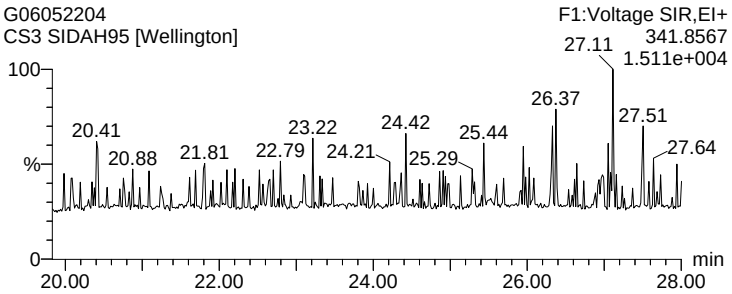
1289-TCDF





13468/12466-PeCDF

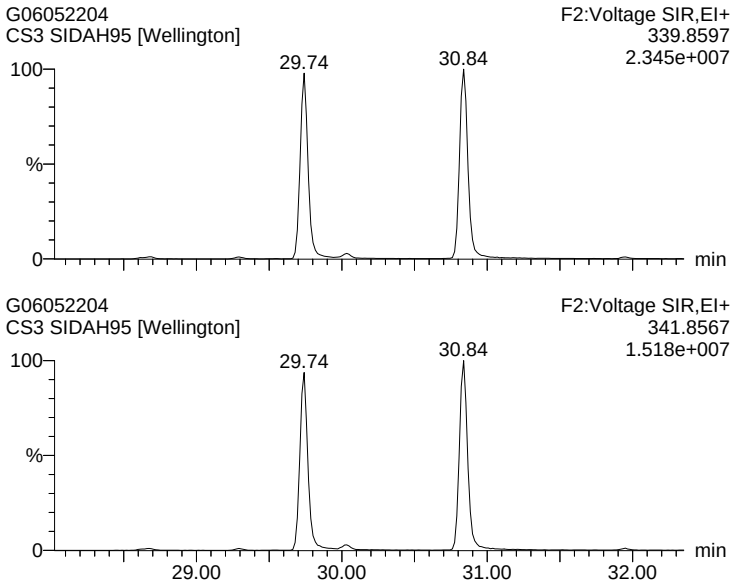




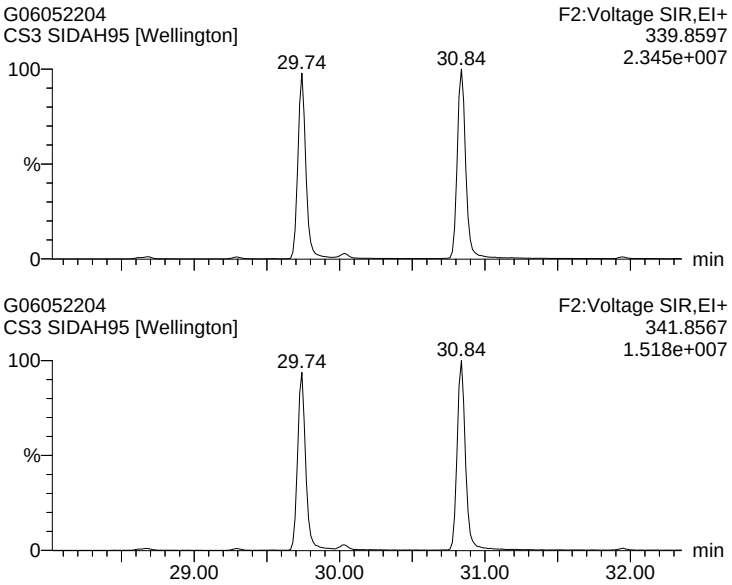
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

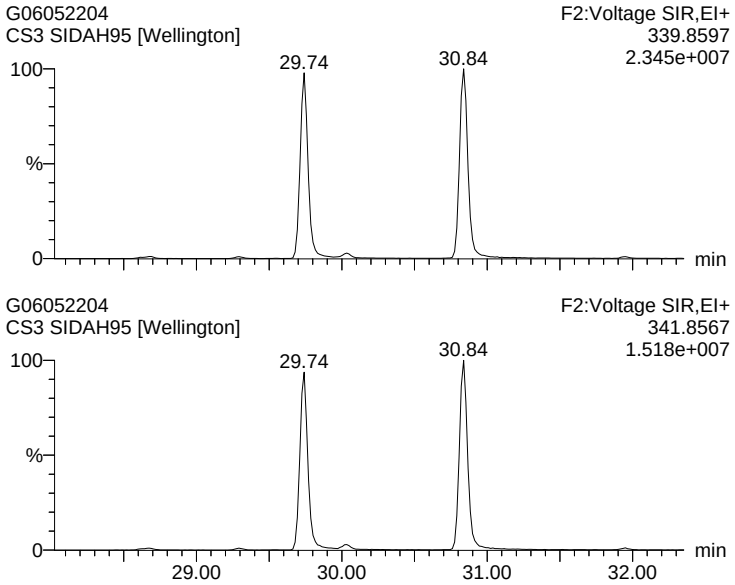
13678/13467/12467-PeCDF



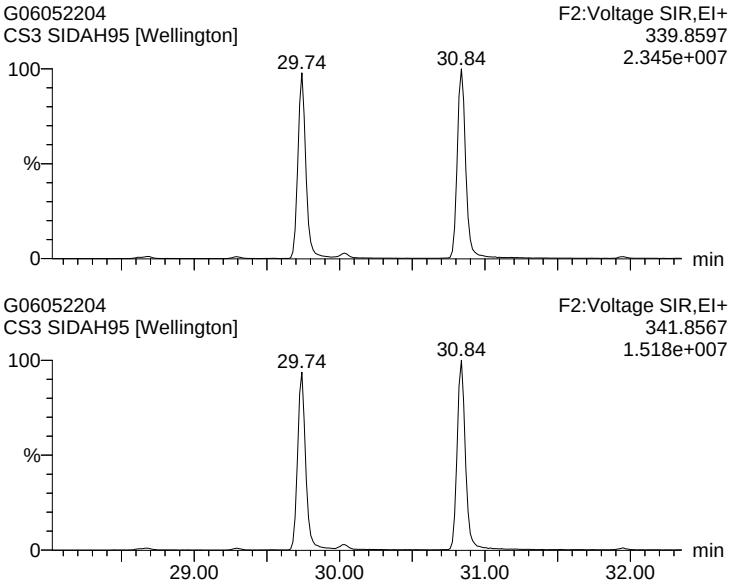
12368/13478/12478-PeCDF



14678-PeCDF



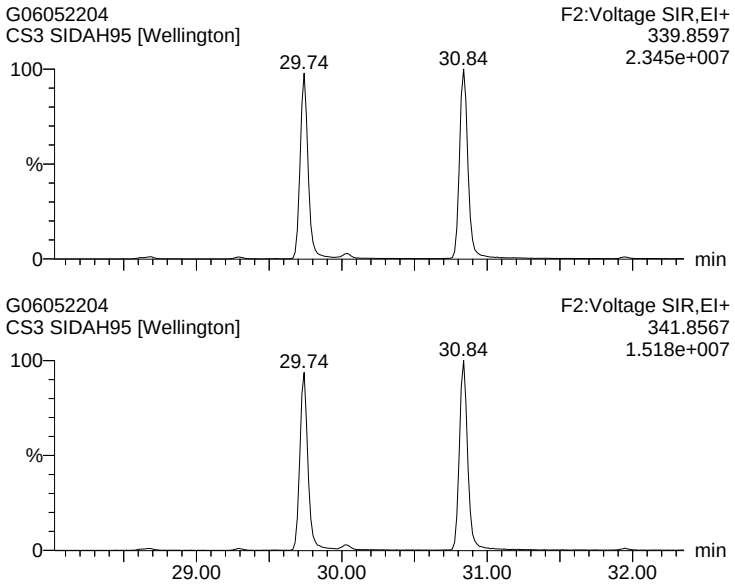
13479-PeCDF



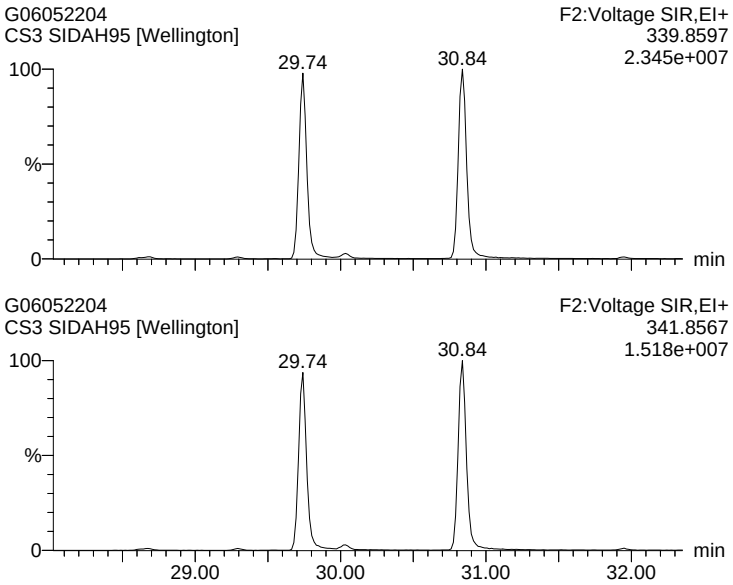
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

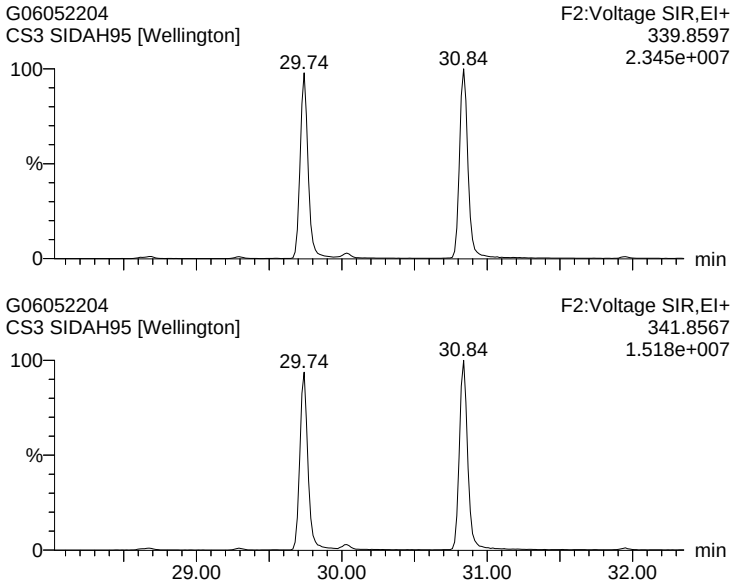
13469/12479-PeCDF



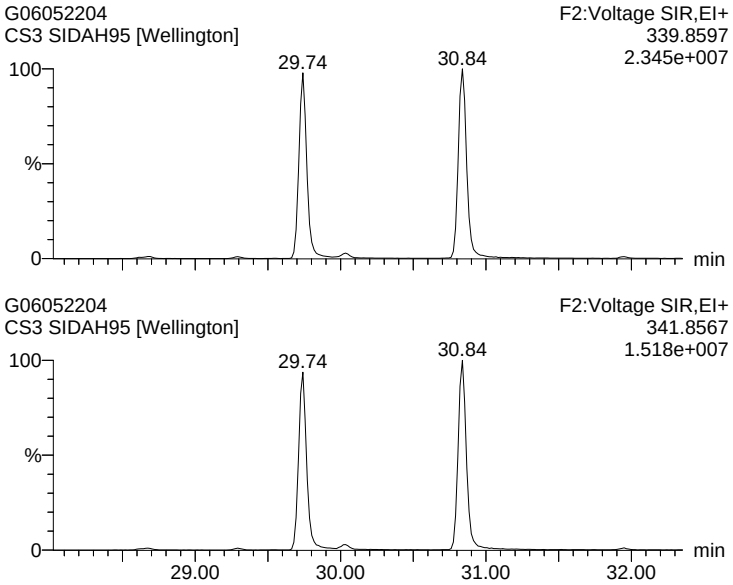
12346-PeCDF



23468/12469-PeCDF



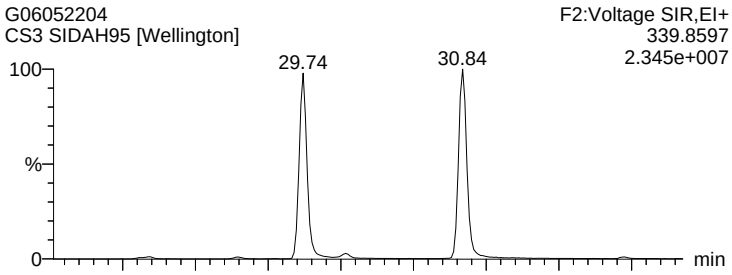
12347-PeCDF

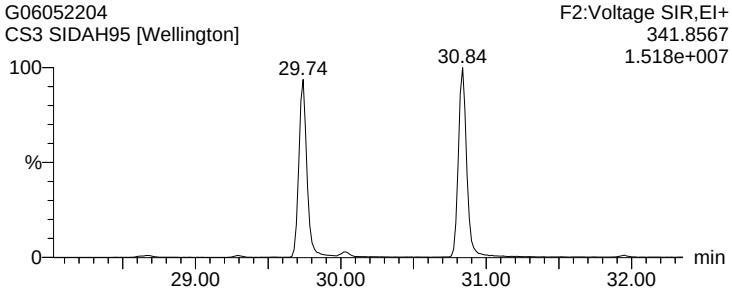


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

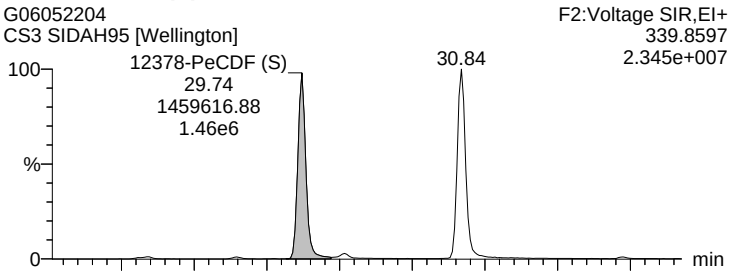
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

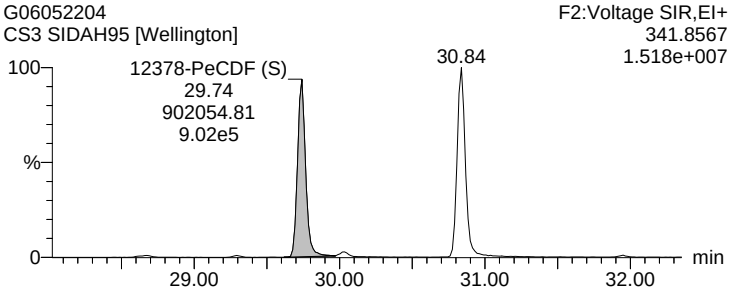
12348-PeCDF



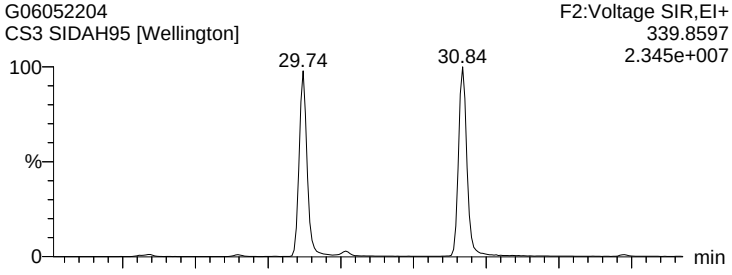


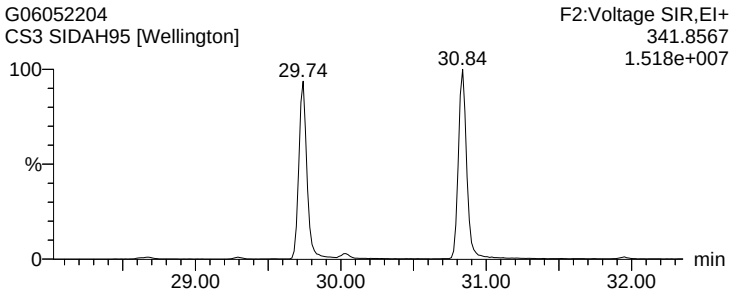
12378-PeCDF (S)



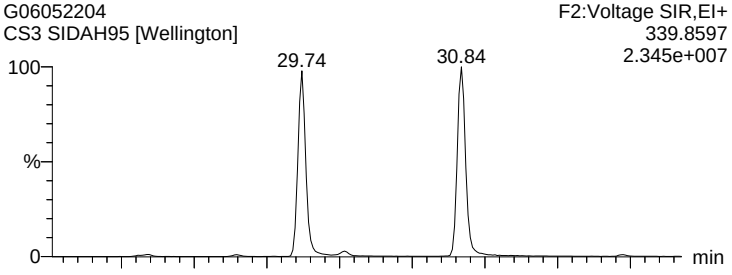


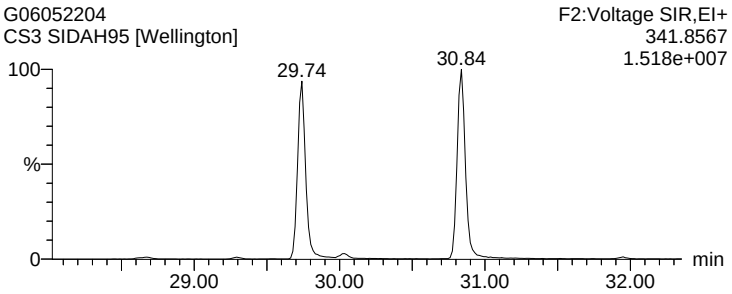
12678/12367-PeCDF





12379-PeCDF

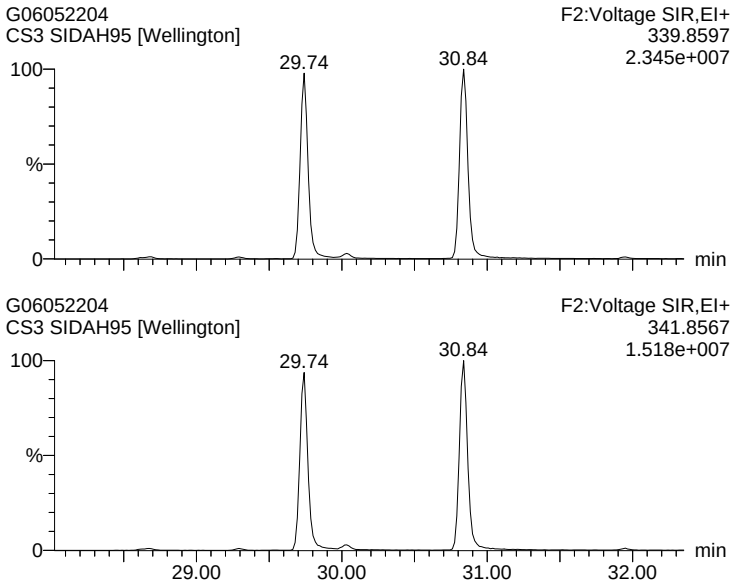




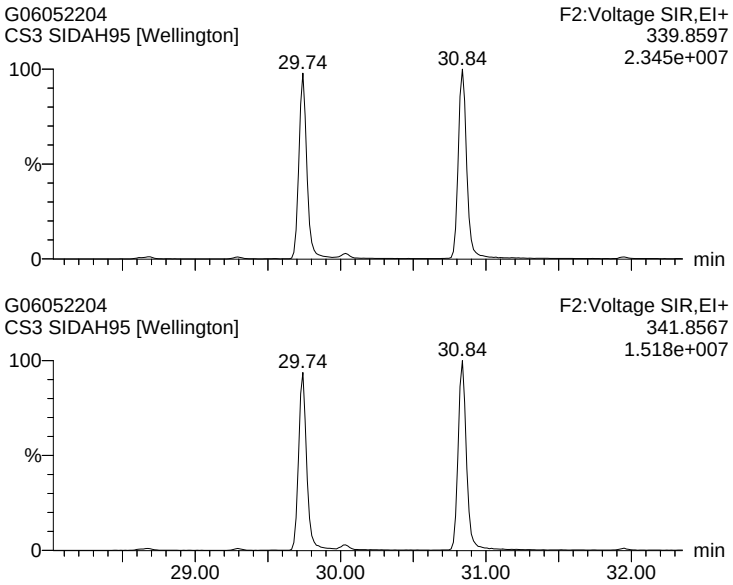
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

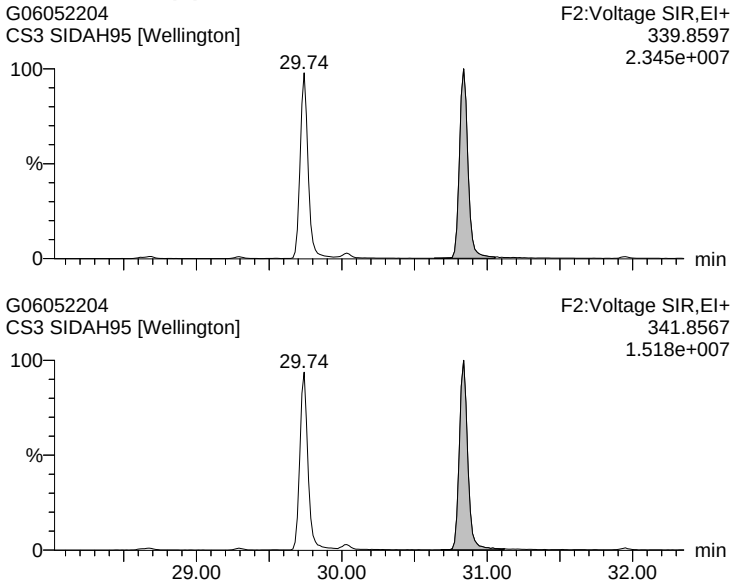
12679-PeCDF



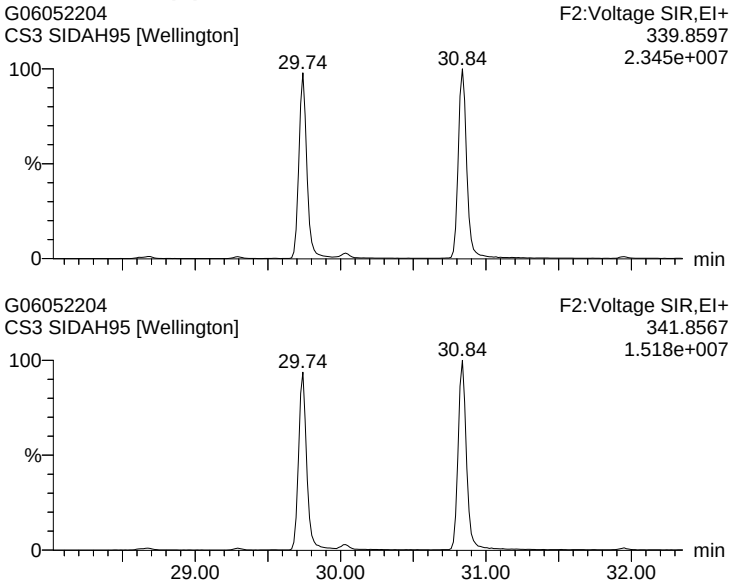
23467/12369-PeCDF



23478-PeCDF (S)



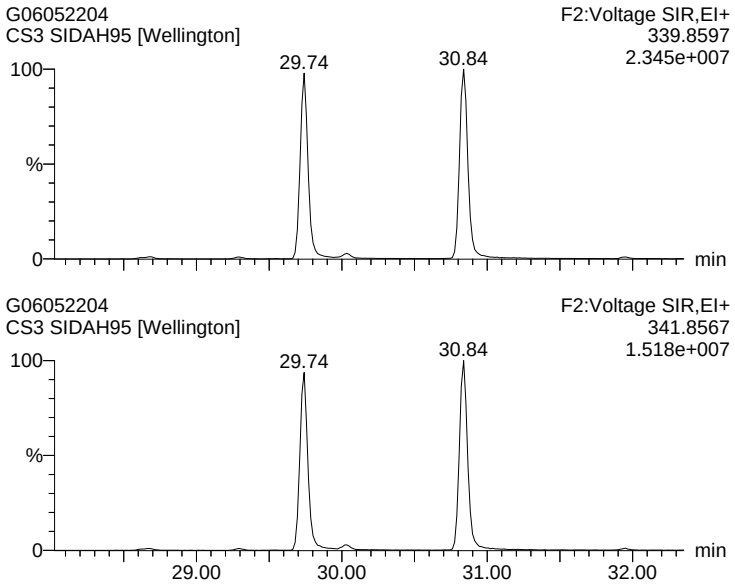
12489-PeCDF (R)



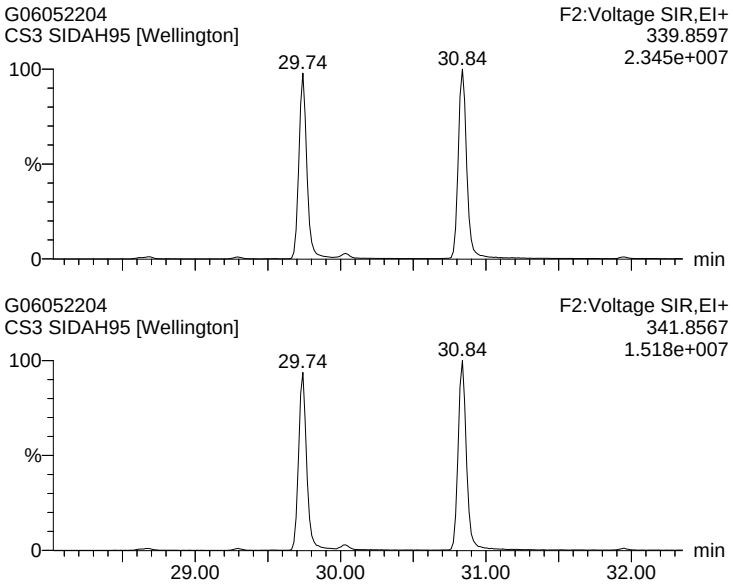
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

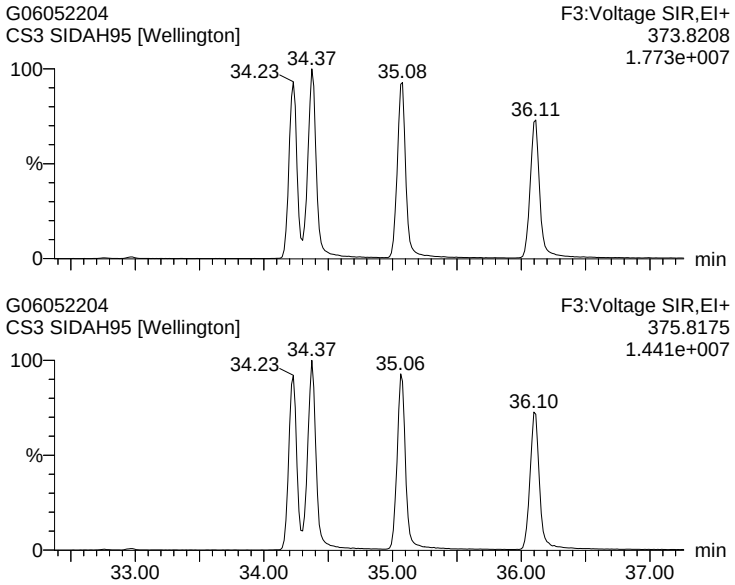
12349-PeCDF



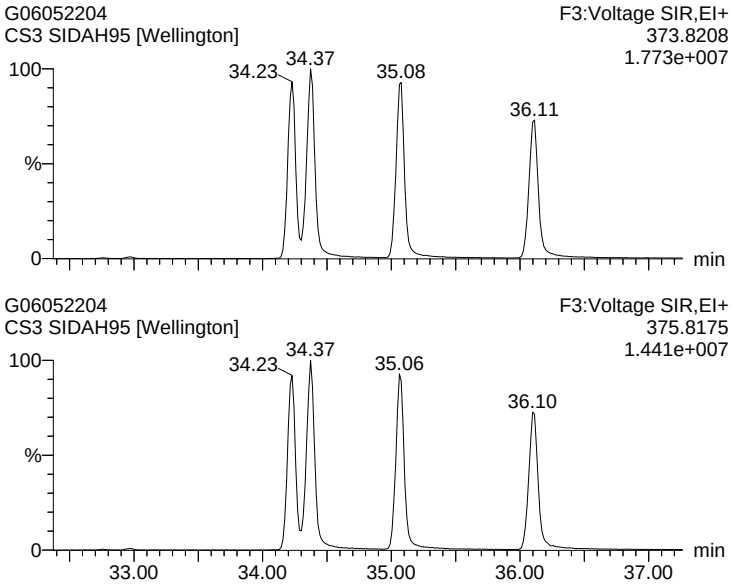
12389-PeCDF



123468-HxCDF



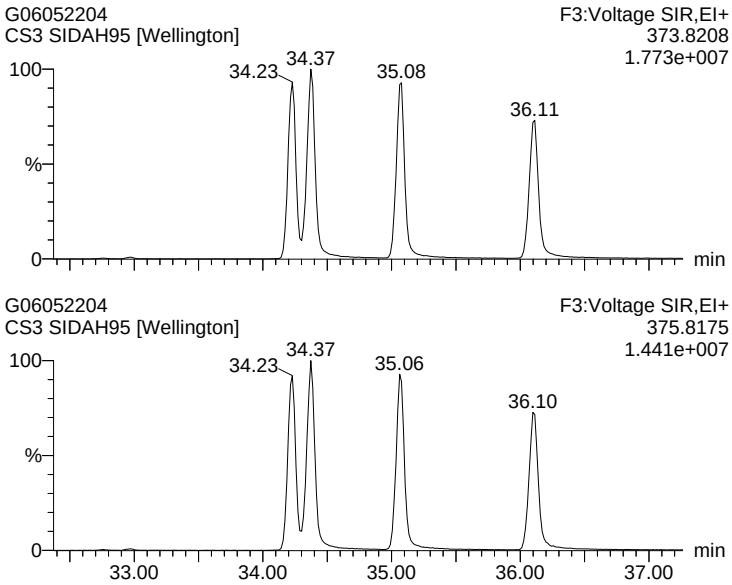
124678/134678-HxCDF



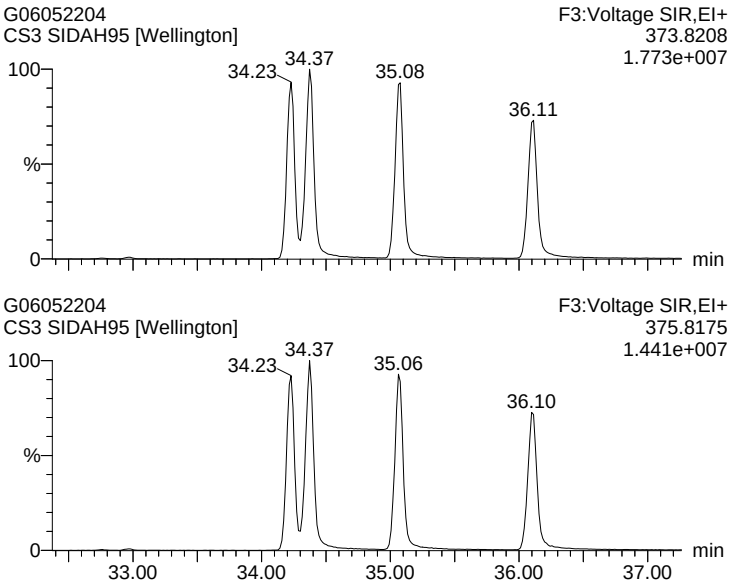
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

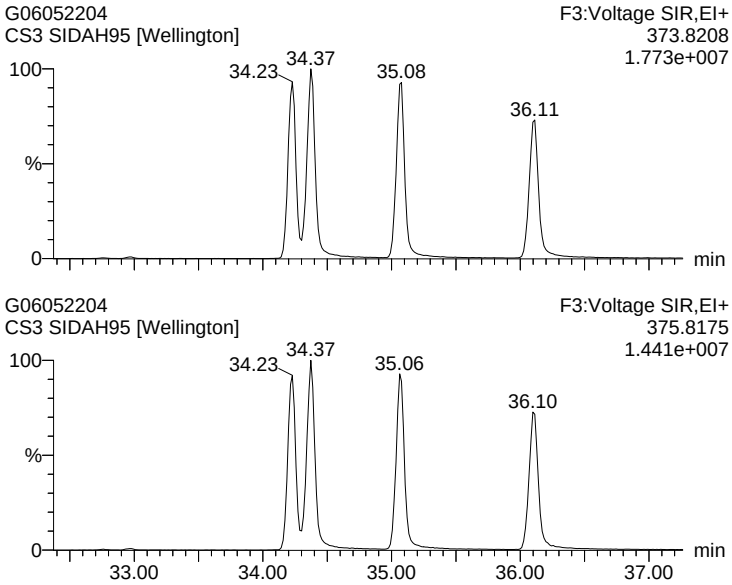
134679-HxCDF



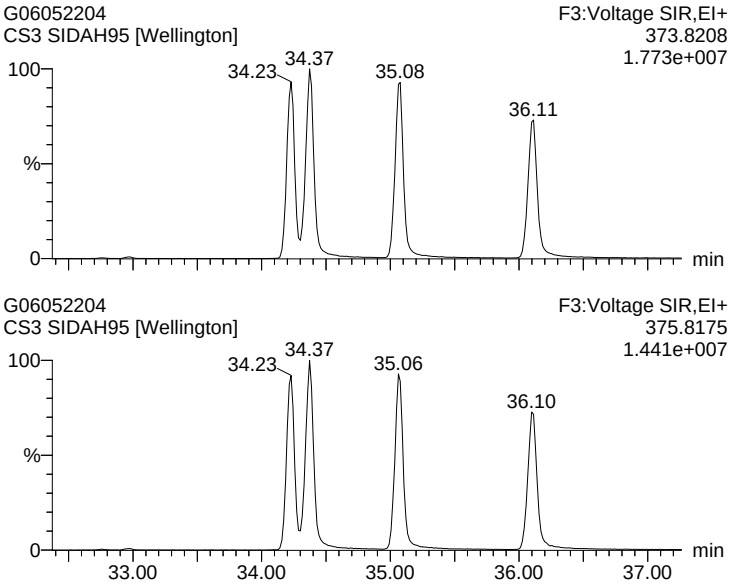
124679-HxCDF



124689-HxCDF



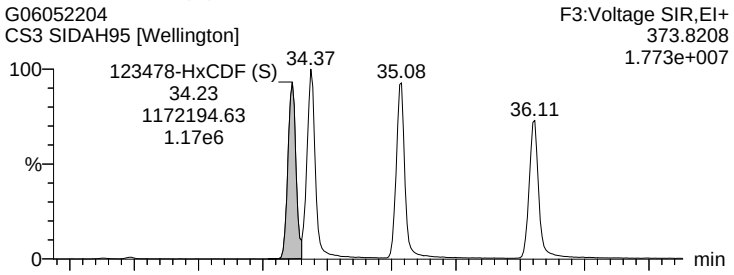
123467-HxCDF

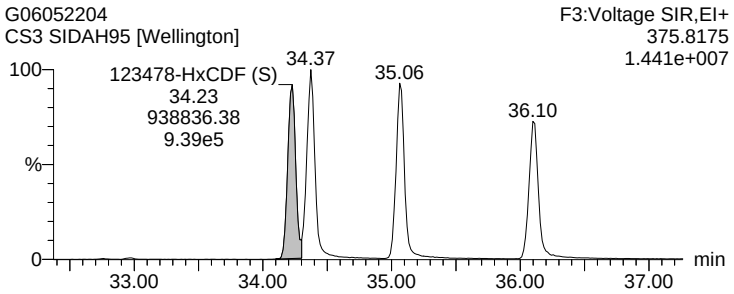


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

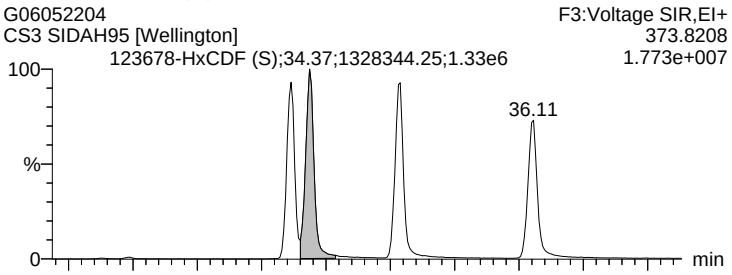
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

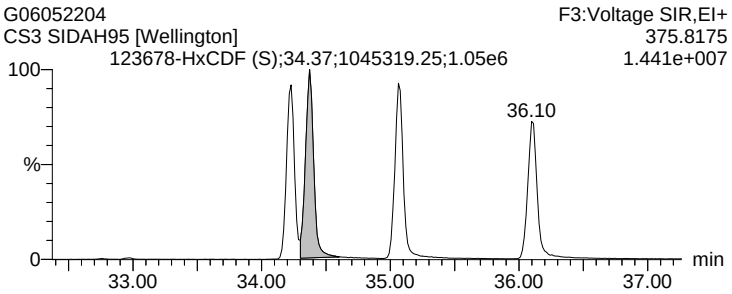
123478-HxCDF (S)



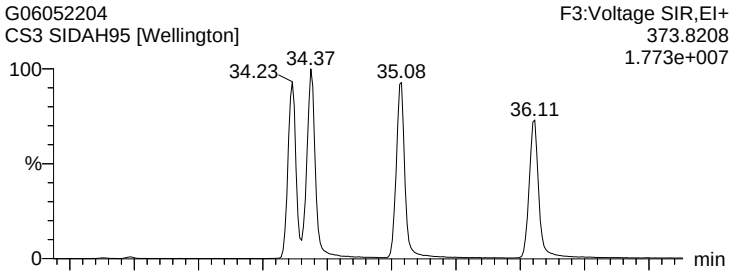


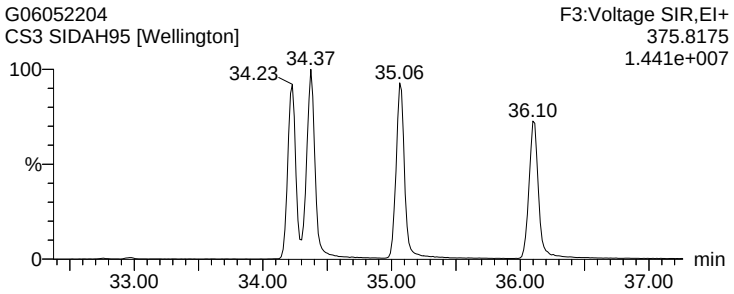
123678-HxCDF (S)



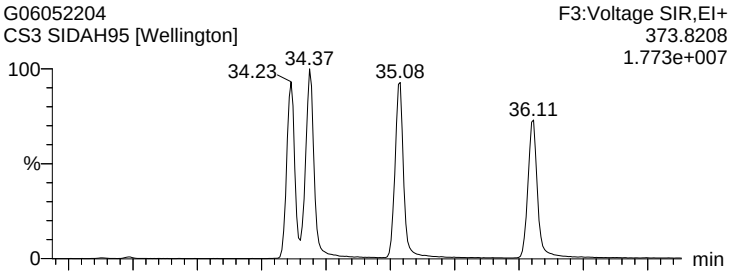


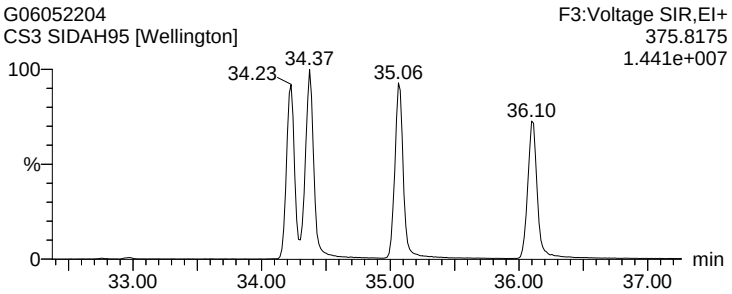
123479-HxCDF





123469-HxCDF

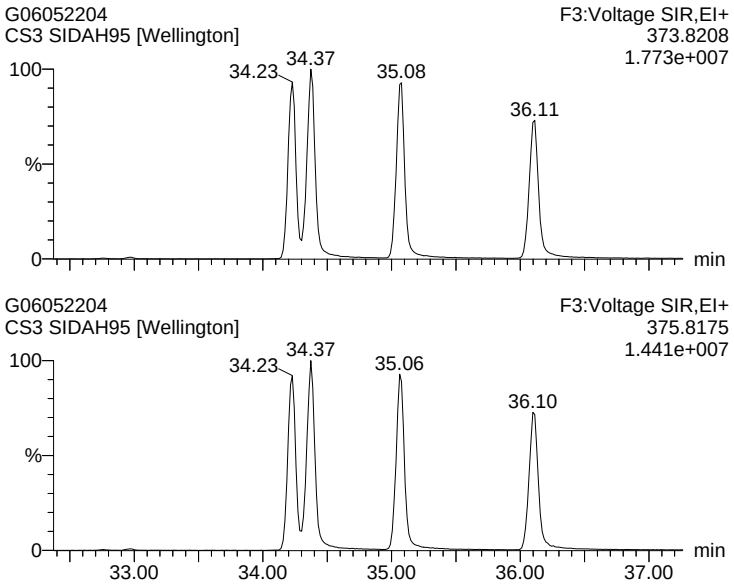




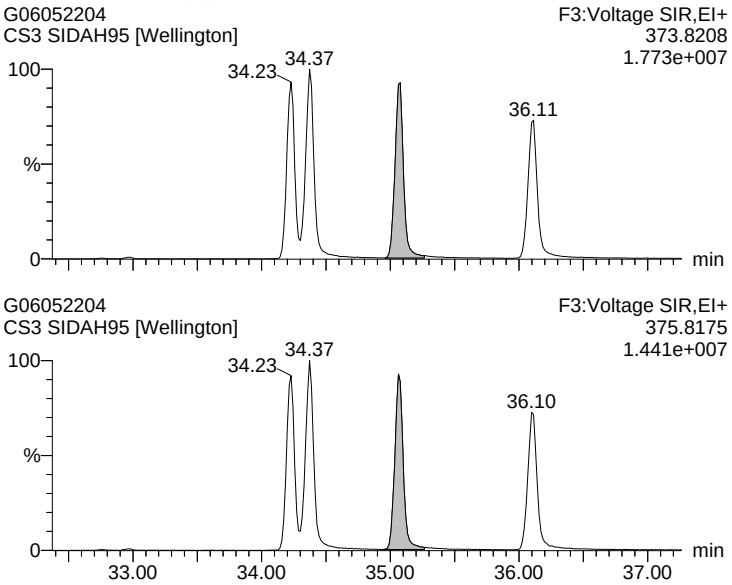
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

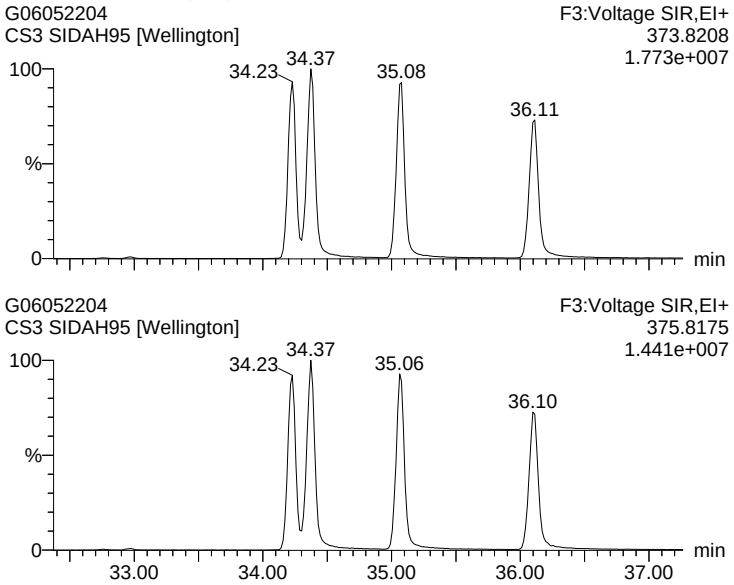
123679-HxCDF



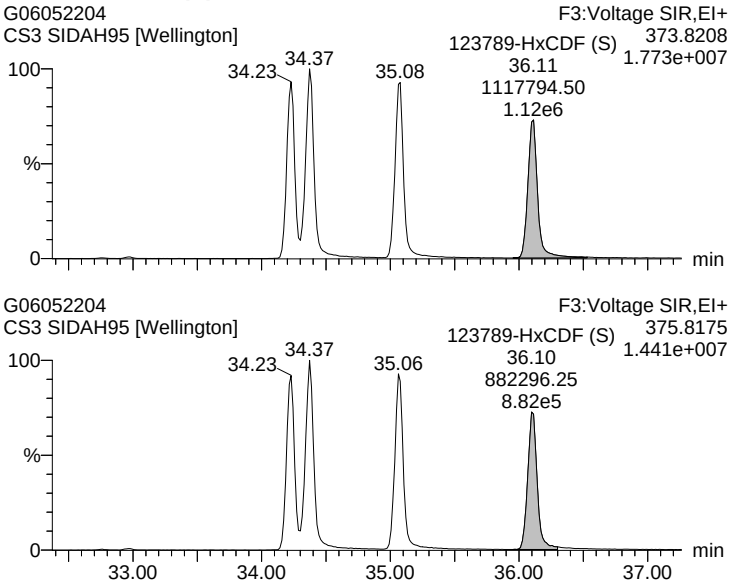
234678-HxCDF (S)



123689-HxCDF (NR)



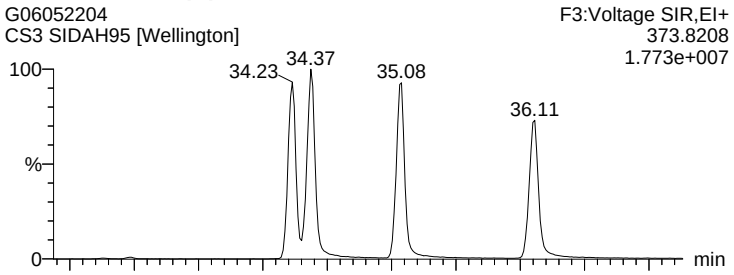
123789-HxCDF (S)

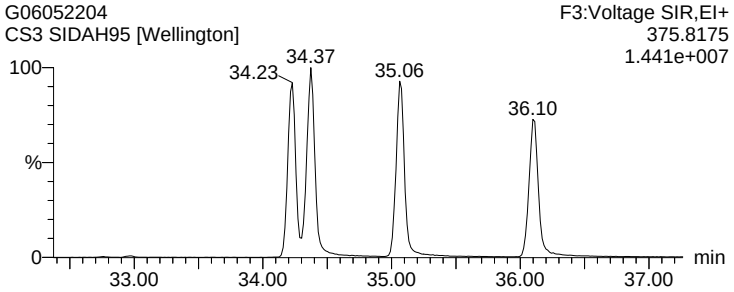


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

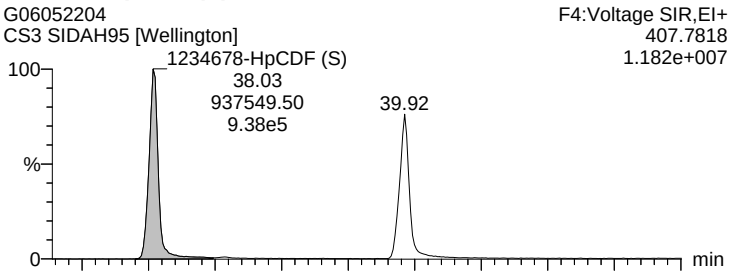
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

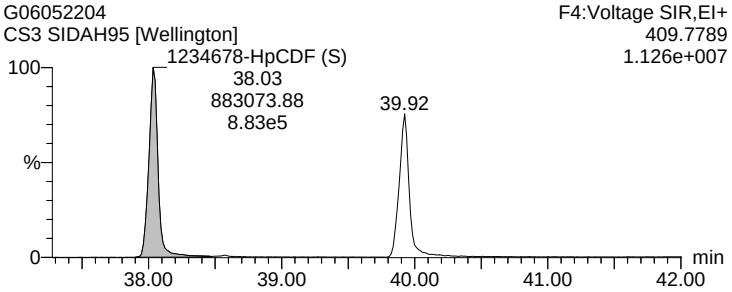
123489-HxCDF (R)



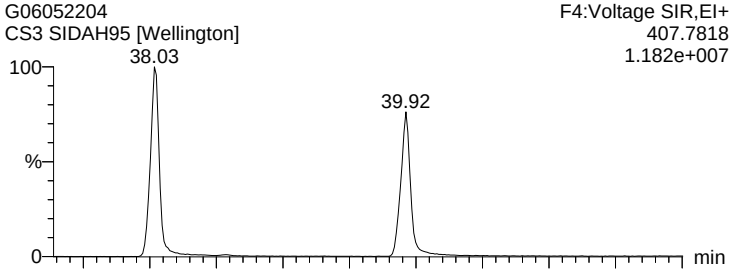


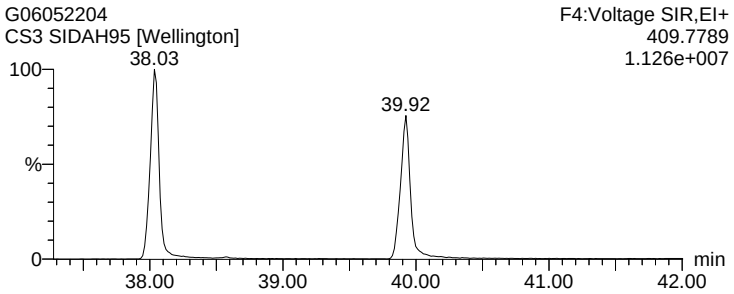
1234678-HpCDF (S)



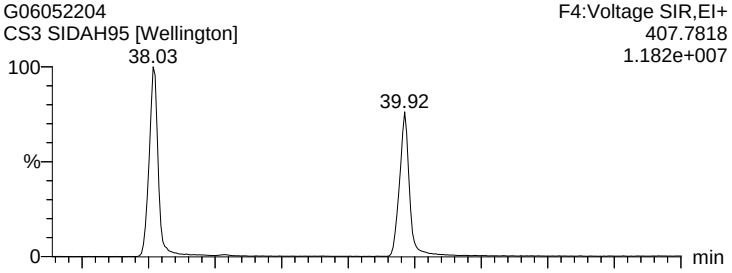


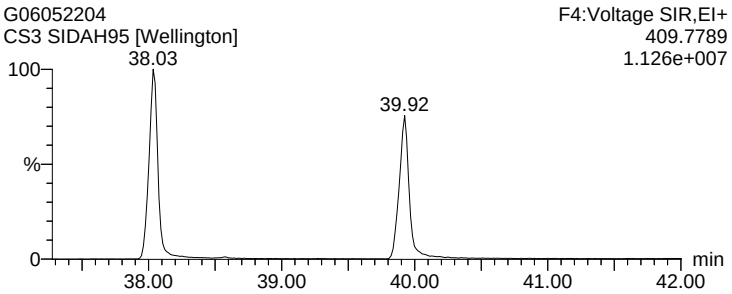
1234679-HpCDF





1234689-HpCDF

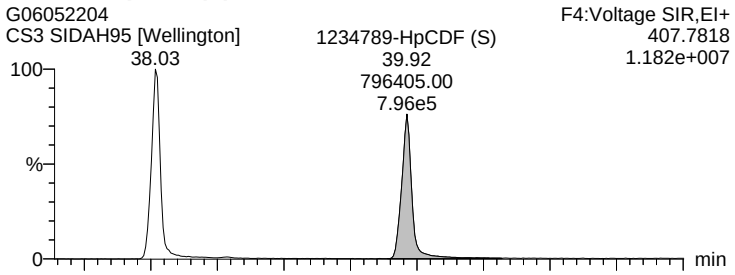


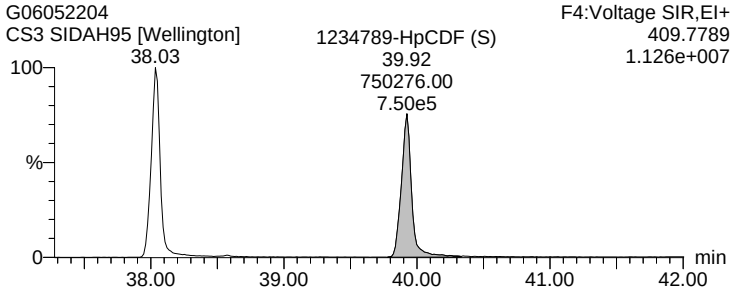


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

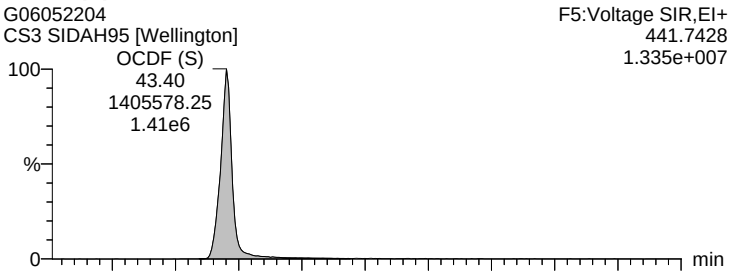
Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

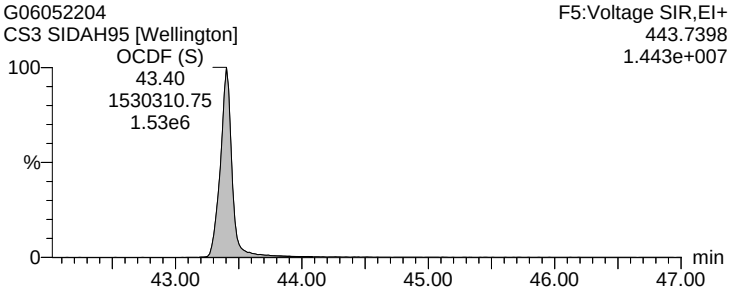
1234789-HpCDF (S)



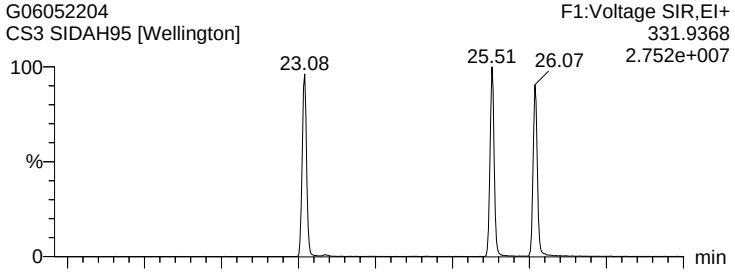


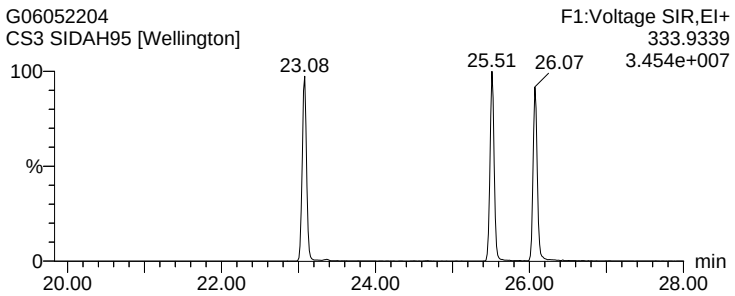
OCDF (S)



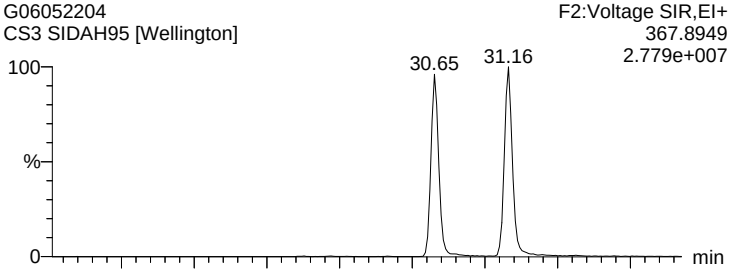


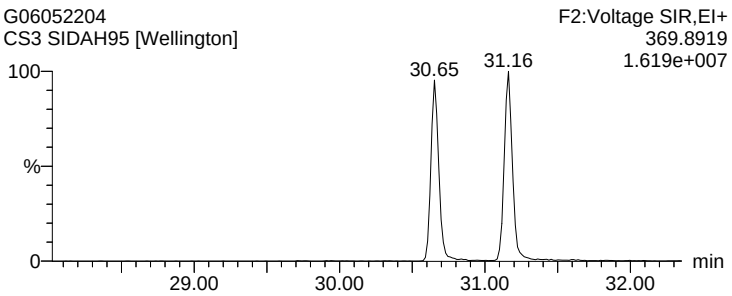
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

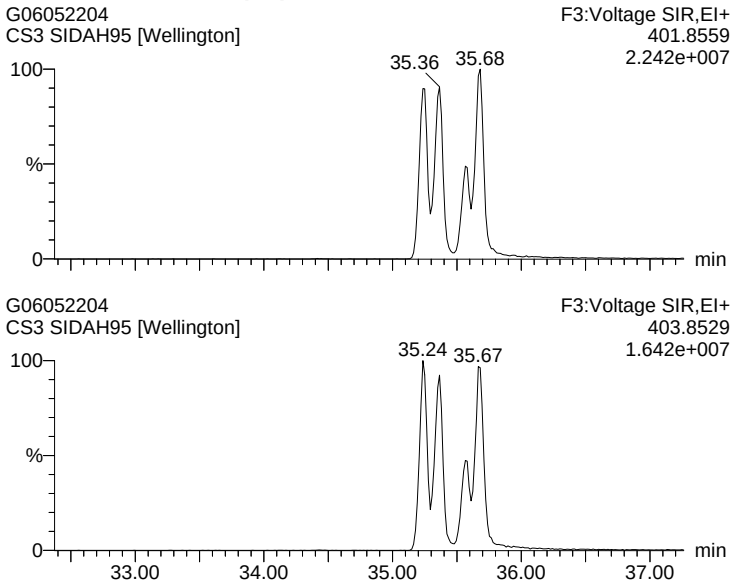




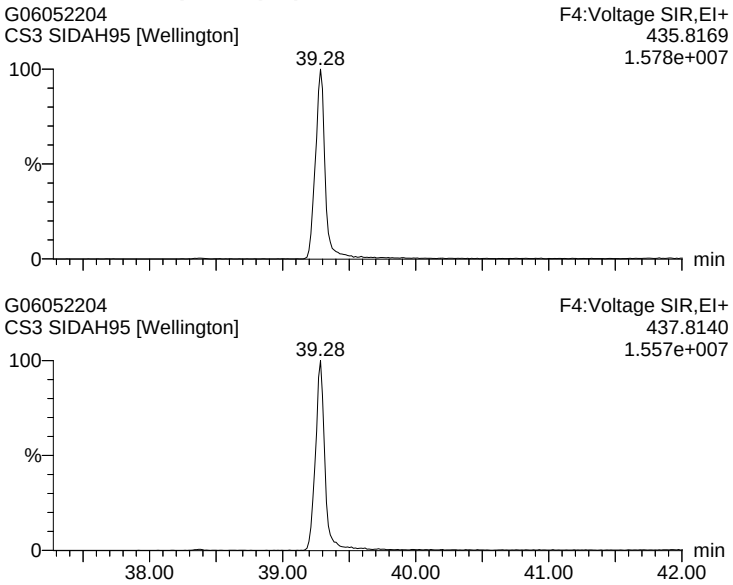
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

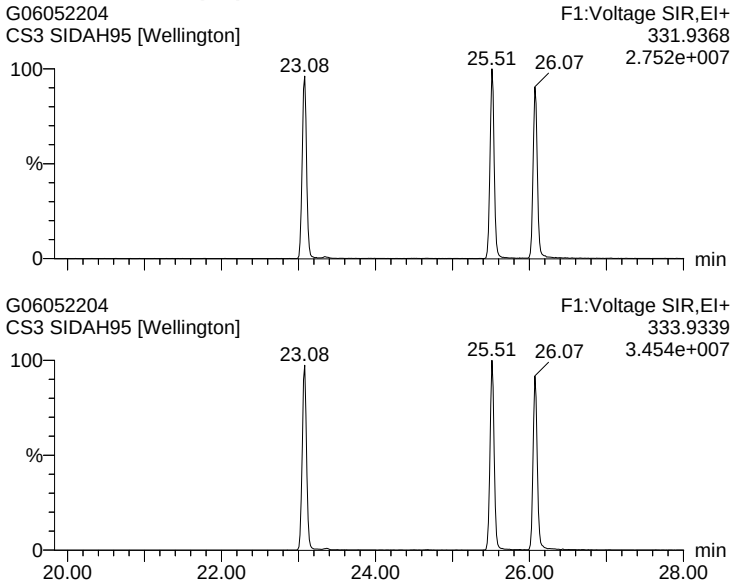
13C-123468-HxCDD (FS)



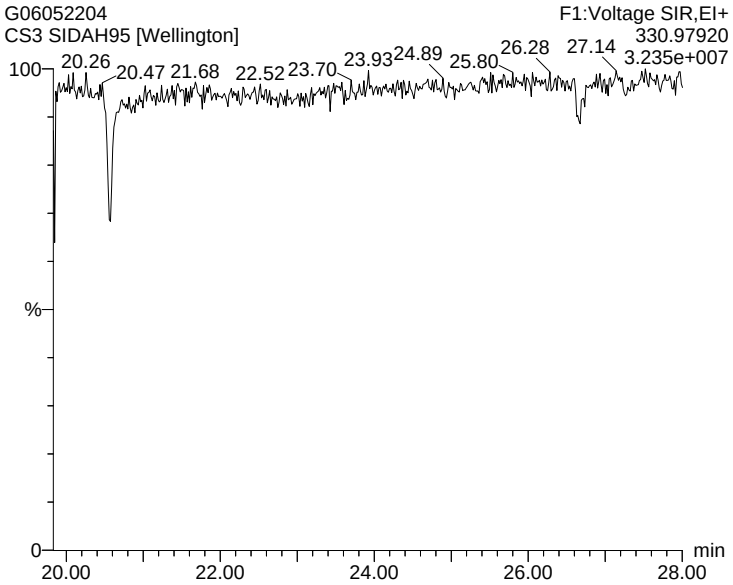
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



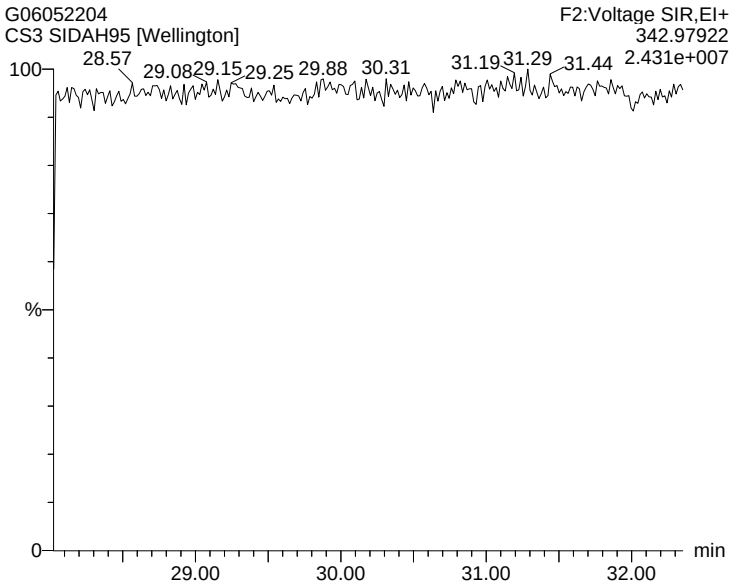
QC Check Ion Fn 1



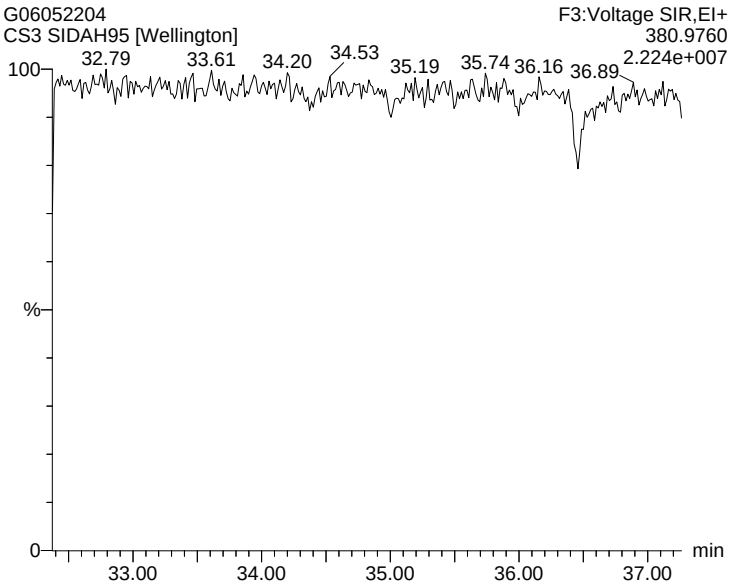
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

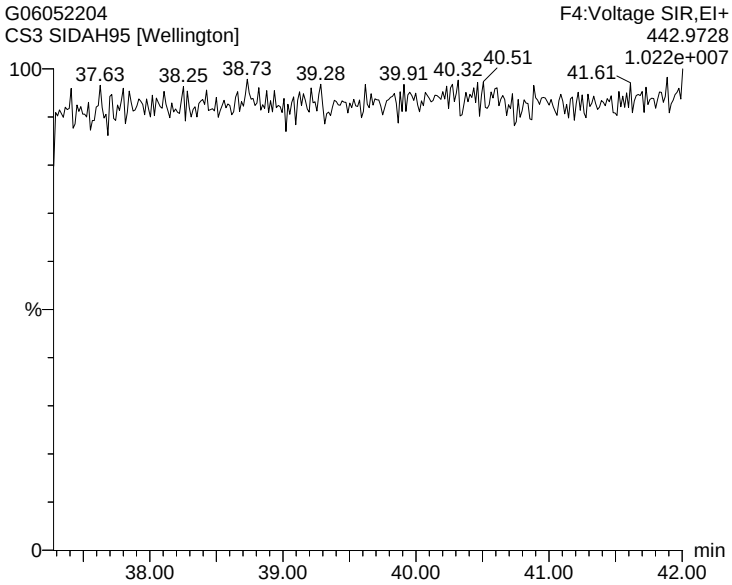
QC Check Ion Fn 2



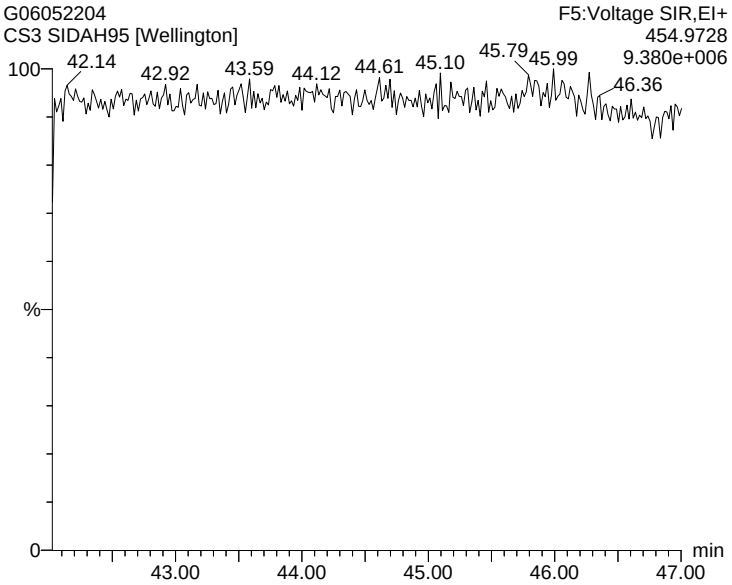
QC Check Ion Fn 3



QC Check Ion Fn 4



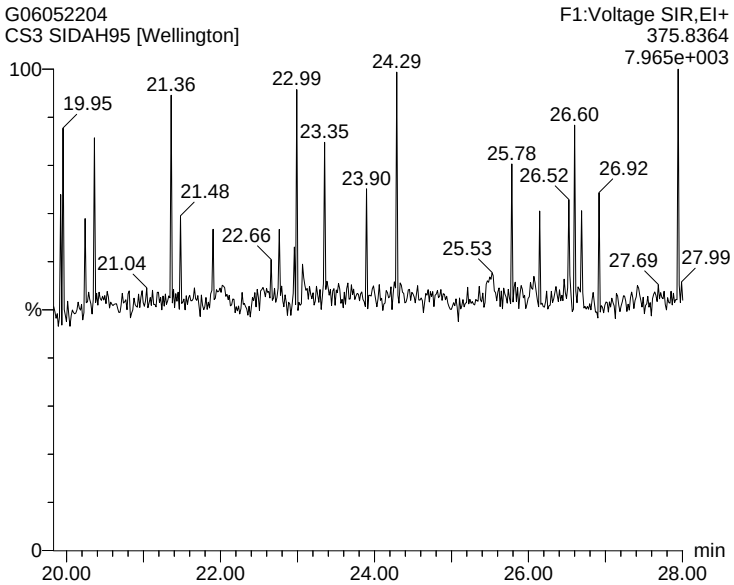
QC Check Ion Fn 5



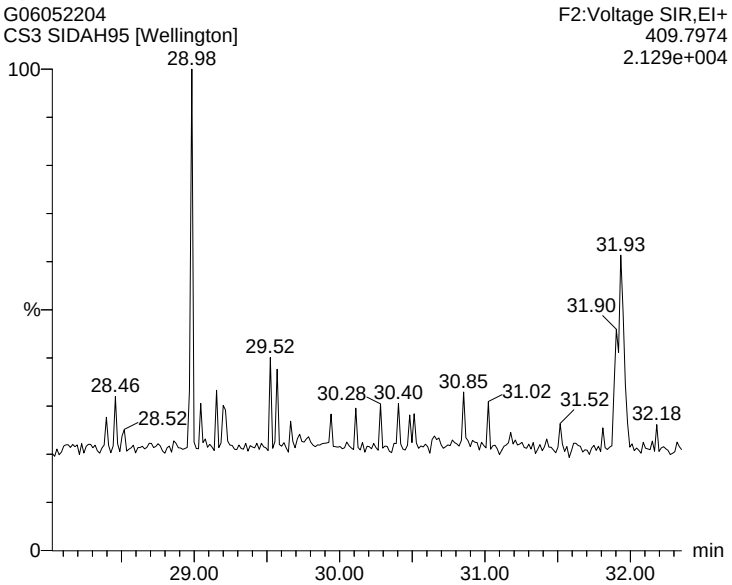
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

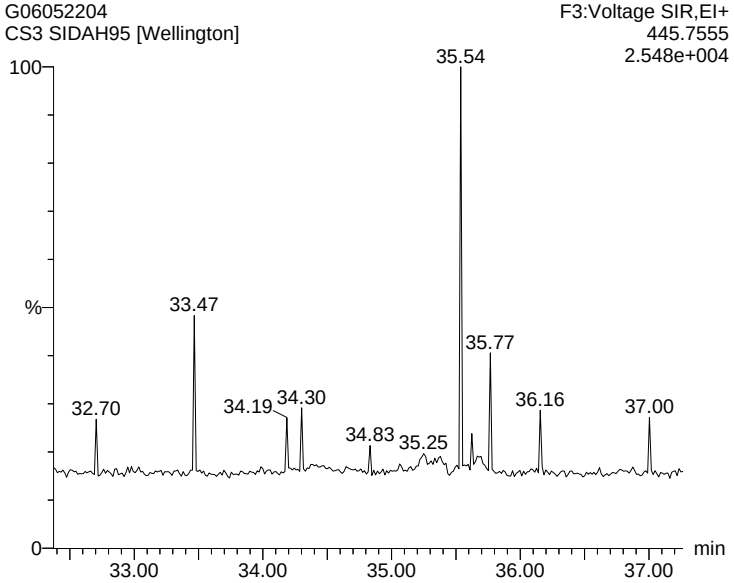
HxDPE



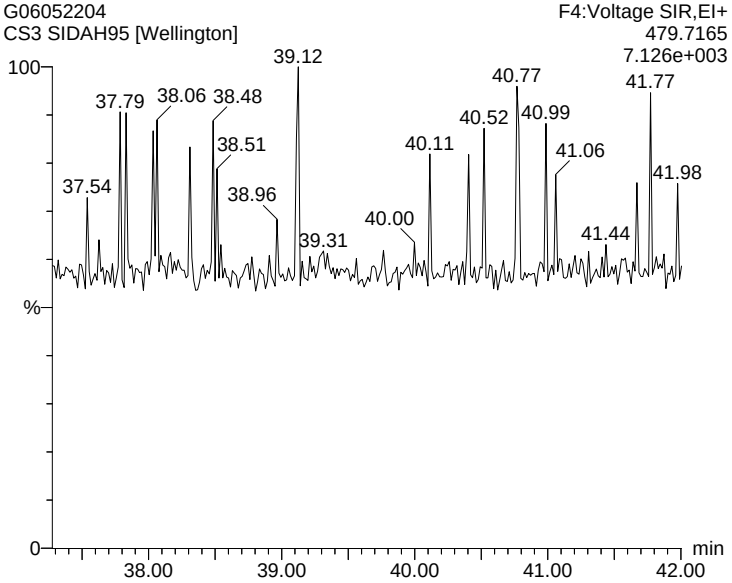
HpDPE



OcDPE



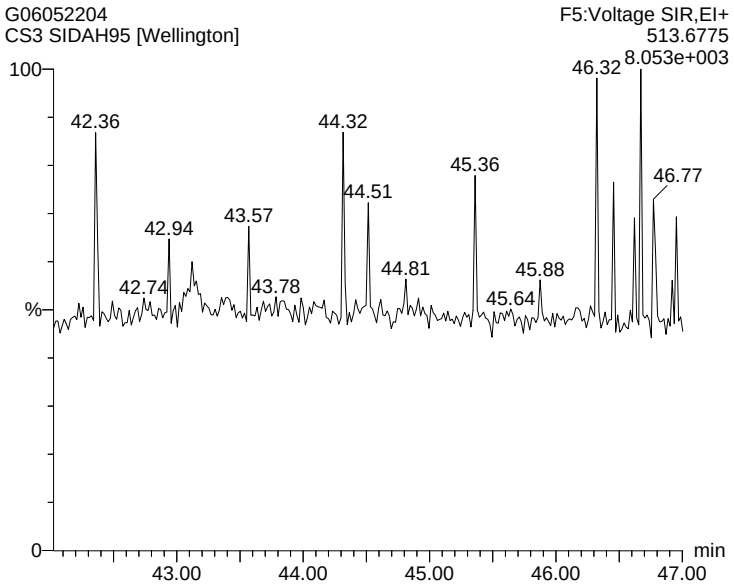
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.51	1664459.750		3766878.000	bb	119.2	19.2
2	2	13C-1234-TCDF (JS)	315.9419	24.23	2042691.875		4764056.125	bb	123.1	23.1
3	3	13C-123467-HxCDD (JS)	401.8559	35.57	700035.063		1209745.844	bd	64.4	28.8
4	4	13C-2378-TCDD (ES)	331.9368	26.07	1520539.875	1664459.750	91.202	bb	104.5	4.5
5	5	13C-12378-PeCDD (ES)	367.8949	31.16	1735445.750	1664459.750	73.259	bb	107.0	7.0
6	6	13C-123478-HxCDD (ES)	401.8559	35.24	1453409.375	700035.063	105.163	bd	98.5	-1.5
7	7	13C-123678-HxCDD (ES)	401.8559	35.37	1479134.750	700035.063	105.683	db	99.0	-1.0
8	8	13C-123789-HxCDD (ES)	401.8559	35.68	1603070.875	700035.063	114.049	db	96.1	-3.9
9	9	13C-1234678-HpCDD (ES)	435.8169	39.28	1223505.250	700035.063	98.438	bb	96.1	-3.9
10	10	13C-OCDD (ES)	469.7780	43.12	1890620.750	700035.063	78.141	bb	197.8	-1.1
11	11	13C-2378-TCDF (ES)	315.9419	25.33	2053596.375	2042691.875	96.739	bb	98.7	-1.3
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2683307.250	2042691.875	91.852	bb	99.9	-0.1
13	13	13C-23478-PeCDF (ES)	351.9000	30.82	2523371.500	2042691.875	87.889	bb	101.9	1.9
14	14	13C-123478-HxCDF (ES)	383.8639	34.20	1051785.250	700035.063	126.843	bd	93.9	-6.1
15	15	13C-123678-HxCDF (ES)	383.8639	34.36	1306057.375	700035.063	157.604	db	97.4	-2.6
16	16	13C-234678-HxCDF (ES)	383.8639	35.05	1205278.875	700035.063	144.305	bb	102.1	2.1
17	17	13C-123789-HxCDF (ES)	383.8639	36.08	1143297.875	700035.063	136.822	bb	100.2	0.2
18	18	13C-1234678-HpCDF (ES)	417.8253	38.02	737334.063	700035.063	95.454	bb	94.7	-5.3
19	19	13C-1234789-HpCDF (ES)	417.8253	39.91	625699.250	700035.063	83.858	bb	94.7	-5.3
20	20	13C-OCDF (ES)	453.7830	43.39	2306919.750	700035.063	95.347	bb	196.6	-1.7
21	21	37Cl-2378-TCDD (CS)	327.8847	26.10	1598489.750	1664459.750	42.435	bb	41.1	2.8
22	22	13C-12347-PeCDD (CS)	367.8949	30.65	1623724.125	1664459.750	68.174	bb	100.0	-0.0
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2683307.250	2042691.875	91.852	bb	99.9	-0.1
24	24	13C-123469-HxCDF (CS)	383.8639	34.69	1111350.875	700035.063	135.369	bb	94.4	-5.6
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	719998.938	700035.063	96.595	bb	95.5	-4.5
26	26	37Cl-2378-TCDD (SS)	327.8847	26.10	1598489.750	1520539.875	46.529	bb	39.3	-1.7
27	27	13C-12347-PeCDD (SS)	367.8949	30.65	1598711.500	1735445.750	91.094	bb	93.6	-6.4
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2683307.250	2683307.250	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.69	1104030.000	1306057.375	83.950	bb	97.0	-3.0
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	719998.938	737334.063	101.195	bb	100.9	0.9
31	31	13C-1368-TCDD (AS)	331.9368	23.08	1713757.750	1664459.750	102.491	bb	102.4	2.4
32	32	13C-1368-TCDF (AS)	315.9419	21.57	2330002.500	2042691.875	114.224	bb	101.0	1.0
33	33	1368-TCDD	319.8965			1520539.875				
34	34	1379-TCDD	319.8965			1520539.875				
35	35	1369-TCDD	319.8965			1520539.875				
36	36	1469-TCDD	319.8965			1520539.875				
37	37	1247/1246/1248/1249-TC...	319.8965			1520539.875				
38	38	1378-TCDD	319.8965			1520539.875				
39	39	1268-TCDD	319.8965			1520539.875				
40	40	1478-TCDD	319.8965			1520539.875				
41	41	1279-TCDD	319.8965			1520539.875				
42	42	1234/1269-TCDD	319.8965			1520539.875				
43	43	1236-TCDD	319.8965			1520539.875				
44	44	1237/1238-TCDD	319.8965			1520539.875				
45	45	1239-TCDD [CE]	319.8965			1520539.875				
46	46	2378-TCDD (S)	319.8965	26.10	179618.578	1520539.875	11.784	bb	10.2	2.4
47	47	1278-TCDD	319.8965			1520539.875				
48	48	1267-TCDD	319.8965			1520539.875				
49	49	1289-TCDD	319.8965			1520539.875				
50	50	12479/12468-PeCDD	355.8546			1735445.750				
51	51	12469-PeCDD	355.8546			1735445.750				
52	52	12368-PeCDD	355.8546			1735445.750				
53	53	12478-PeCDD	355.8546			1735445.750				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1735445.750				
55	55	12369/12467/12489-PeCDD	355.8546			1735445.750				
56	56	12346/12347-PeCDD	355.8546			1735445.750				
57	57	12378-PeCDD (S)	355.8546	31.18	871531.500	1735445.750	51.210	bs	45.6	-8.8
58	58	12367-PeCDD	355.8546			1735445.750				
59	59	12389-PeCDD	355.8546			1735445.750				
60	60	124679/124689-HxCDD	389.8157			1453409.375				
61	61	123468-HxCDD	389.8157			1453409.375				
62	62	123679/123689-HxCDD	389.8157			1453409.375				
63	63	123469-HxCDD	389.8157			1453409.375				
64	64	123478-HxCDD (S)	389.8157	35.26	780641.563	1453409.375	55.652	bd	48.6	-2.7
65	65	123678-HxCDD (S)	389.8157	35.38	831282.188	1479134.750	59.310	db	50.3	0.6
66	66	123467-HxCDD	389.8157			1603070.875				
67	67	123789-HxCDD (S)	389.8157	35.69	869429.313	1603070.875	56.316	bd	52.2	4.3
68	68	1234679-HpCDD	423.7766			1223505.250				
69	69	1234678-HpCDD (S)	423.7766	39.30	640832.875	1223505.250	52.960	bb	50.8	1.6
70	70	OCDD (S)	457.7377	43.14	1172116.875	1890620.750	123.993	bd	103.9	3.9
71	71	1368-TCDF	303.9016			2053596.375				
72	72	1468-TCDF	303.9016			2053596.375				
73	73	2468-TCDF	303.9016			2053596.375				
74	74	1346/1246-TCDF	303.9016			2053596.375				
75	75	1347/1378/1247-TCDF	303.9016			2053596.375				
76	76	1348-TCDF	303.9016			2053596.375				
77	77	1248/1367/1379-TCDF	303.9016			2053596.375				
78	78	1268-TCDF	303.9016			2053596.375				
79	79	1467-TCDF	303.9016			2053596.375				
80	80	1478-TCDF	303.9016			2053596.375				
81	81	1369/1237-TCDF	303.9016			2053596.375				
82	82	2467-TCDF	303.9016			2053596.375				
83	83	2368-TCDF	303.9016			2053596.375				
84	84	1238/1234/1678/1469/123...	303.9016			2053596.375				
85	85	1278-TCDF	303.9016			2053596.375				
86	86	1349-TCDF	303.9016			2053596.375				
87	87	1267-TCDF	303.9016			2053596.375				
88	88	2346/1249-TCDF	303.9016			2053596.375				
89	89	2347/1279-TCDF	303.9016			2053596.375				
90	90	2348-TCDF [CE]	303.9016			2053596.375				
91	91	2378-TCDF (S)	303.9016	25.36	233390.688	2053596.375	11.396	bd	10.2	1.5
92	92	2367/3467-TCDF	303.9016			2053596.375				
93	93	1269-TCDF	303.9016			2053596.375				
94	94	1239-TCDF	303.9016			2053596.375				
95	95	1289-TCDF	303.9016			2053596.375				
96	96	13468/12466-PeCDF	339.8597			2683307.250				
97	97	13678/13467/12467-PeCDF	339.8597			2683307.250				
98	98	12368/13478/12478-PeCDF	339.8597			2683307.250				
99	99	14678-PeCDF	339.8597			2683307.250				
100	1...	13479-PeCDF	339.8597			2683307.250				
101	1...	13469/12479-PeCDF	339.8597			2683307.250				
102	1...	12346-PeCDF	339.8597			2683307.250				
103	1...	23468/12469-PeCDF	339.8597			2683307.250				
104	1...	12347-PeCDF	339.8597			2683307.250				
105	1...	12348-PeCDF	339.8597			2683307.250				
106	1...	12378-PeCDF (S)	339.8597	29.74	1459616.875	2683307.250	53.970	bd	49.7	-0.6

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
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Name: G06052204, Date: 06-May-2022, Time: 11:06:22, ID: SIDAH95 [Wellington], Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2683307.250				
108	1...	12379-PeCDF	339.8597			2683307.250				
109	1...	12679-PeCDF	339.8597			2523371.500				
110	1...	23467/12369-PeCDF	339.8597			2523371.500				
111	1...	23478-PeCDF (S)	339.8597	30.84	1565595.375	2523371.500	61.264	bs	52.6	5.2
112	1...	12489-PeCDF (R)	339.8597			2523371.500				
113	1...	12349-PeCDF	339.8597			2523371.500				
114	1...	12389-PeCDF	339.8597			2523371.500				
115	1...	123468-HxCDF	373.8208			1051785.250				
116	1...	124678/134678-HxCDF	373.8208			1051785.250				
117	1...	134679-HxCDF	373.8208			1051785.250				
118	1...	124679-HxCDF	373.8208			1051785.250				
119	1...	124689-HxCDF	373.8208			1051785.250				
120	1...	123467-HxCDF	373.8208			1051785.250				
121	1...	123478-HxCDF (S)	373.8208	34.23	1172194.625	1051785.250	68.786	bd	51.3	2.6
122	1...	123678-HxCDF (S)	373.8208	34.37	1328344.250	1306057.375	62.248	ds	50.0	-0.1
123	1...	123479-HxCDF	373.8208			1306057.375				
124	1...	123469-HxCDF	373.8208			1205278.875				
125	1...	123679-HxCDF	373.8208			1205278.875				
126	1...	234678-HxCDF (S)	373.8208	35.08	1240830.000	1205278.875	64.112	bs	49.3	-1.4
127	1...	123689-HxCDF (NR)	373.8208			1205278.875				
128	1...	123789-HxCDF (S)	373.8208	36.11	1117794.500	1143297.875	60.418	bs	49.8	-0.5
129	1...	123489-HxCDF (R)	373.8208			1143297.875				
130	1...	1234678-HpCDF (S)	407.7818	38.03	937549.500	737334.063	78.832	bd	51.8	3.5
131	1...	1234679-HpCDF	407.7818			737334.063				
132	1...	1234689-HpCDF	407.7818			737334.063				
133	1...	1234789-HpCDF (S)	407.7818	39.92	796405.000	625699.250	76.231	bd	52.5	5.1
134	1...	OCDF (S)	441.7428	43.40	1405578.250	2306919.750	121.858	bd	101.4	1.4
135	1...	13C-1278-TCDD (FS)	331.9368			1520539.875				
136	1...	13C-12478-PeCDD (FS)	367.8949			1735445.750				
137	1...	13C-123468-HxCDD (FS)	401.8559			700035.063				
138	1...	13C-1234679-HpCDD (FS)	435.8169			1223505.250				
139	1...	13C-1378-TCDD (TS)	331.9368			1520539.875				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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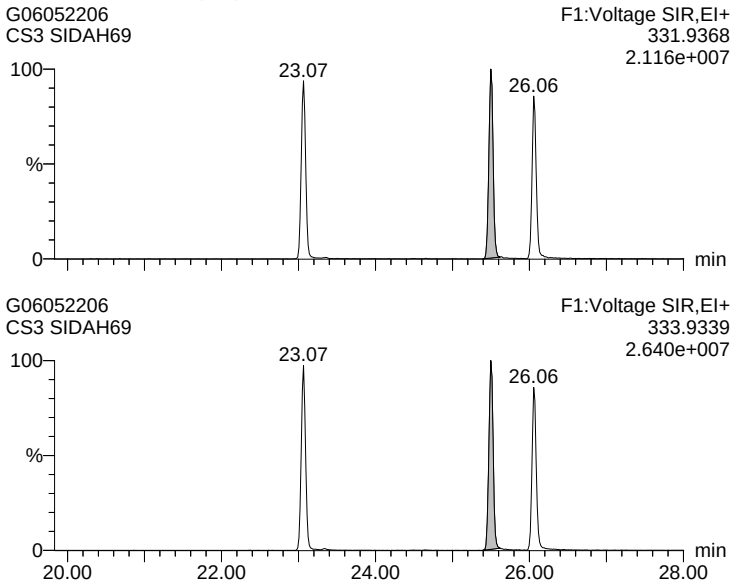
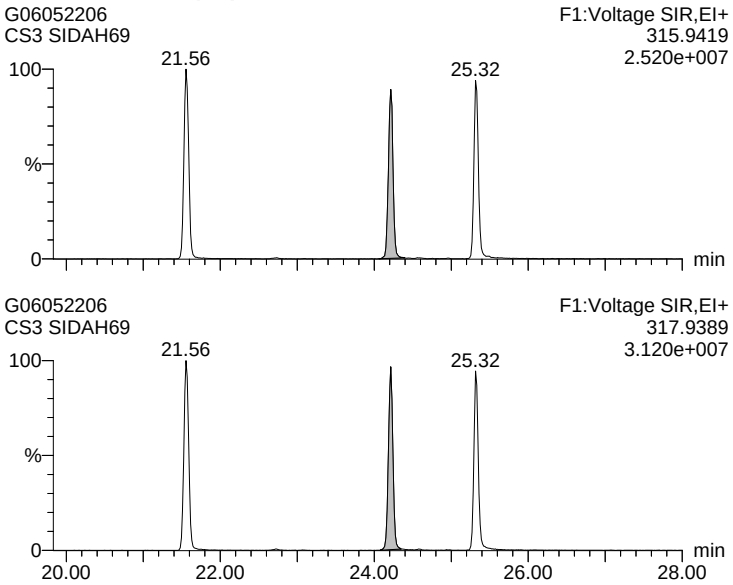
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

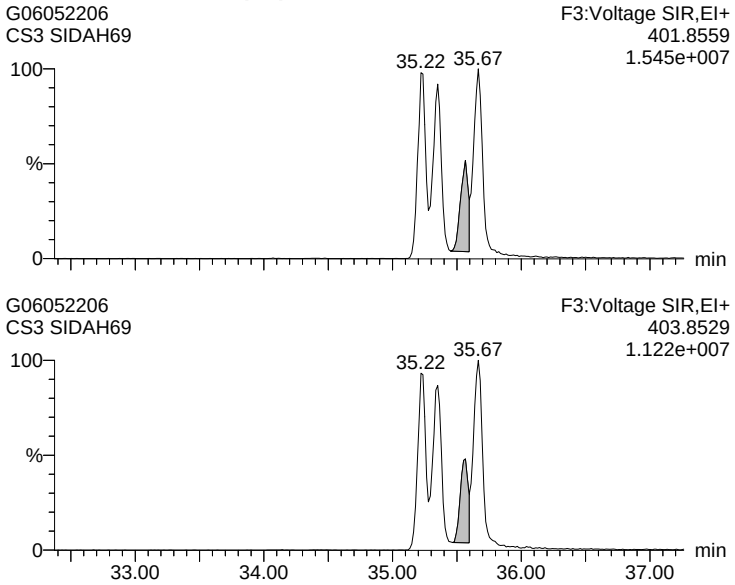
13C-1234-TCDD (JS)



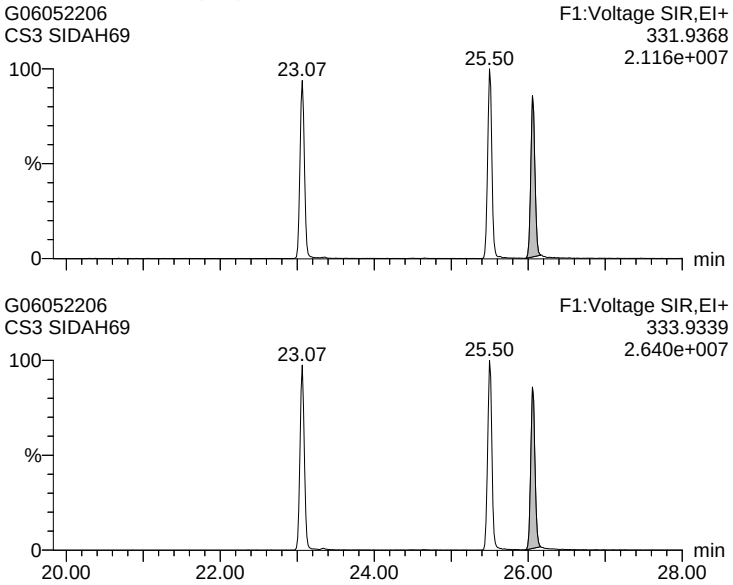
13C-1234-TCDF (JS)



13C-123467-HxCDD (JS)



13C-2378-TCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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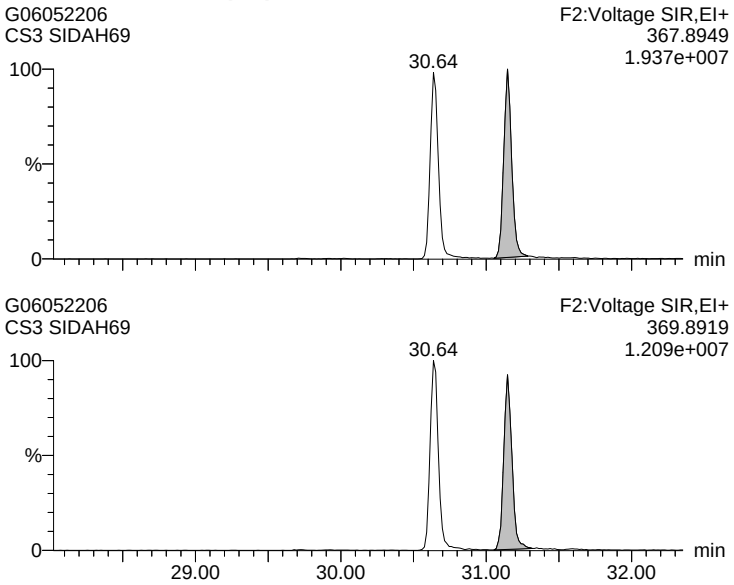
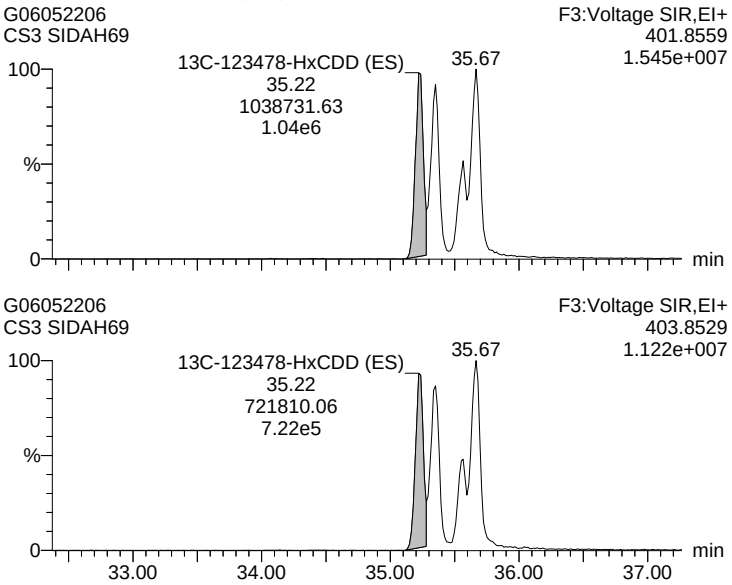
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

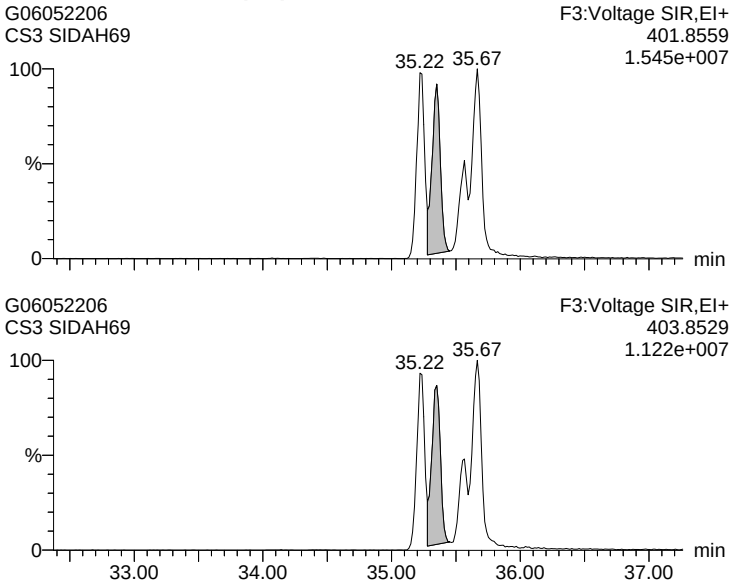
13C-12378-PeCDD (ES)



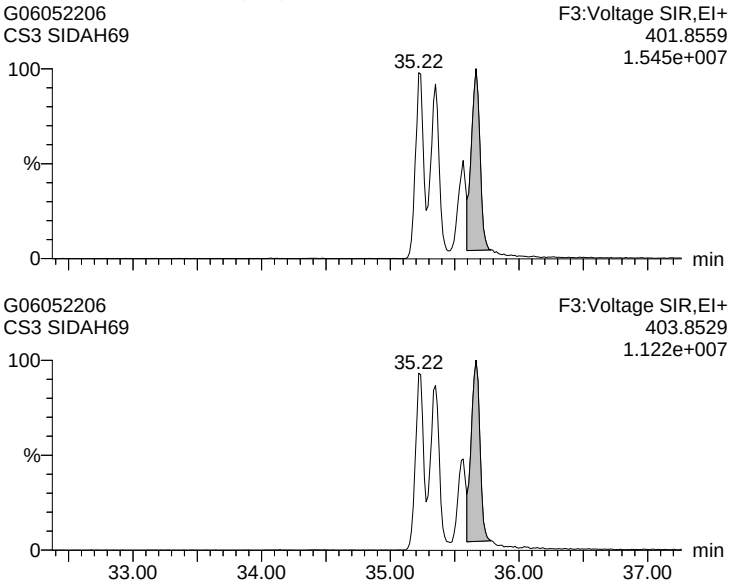
13C-123478-HxCDD (ES)



13C-123678-HxCDD (ES)



13C-123789-HxCDD (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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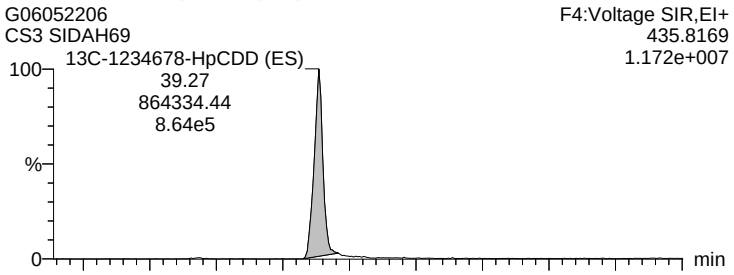
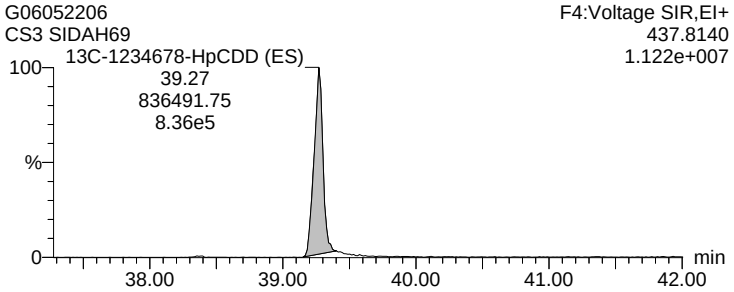
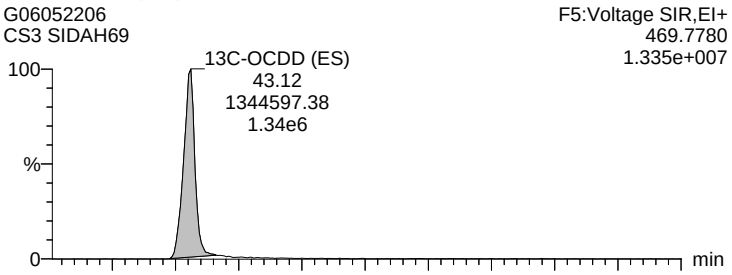
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

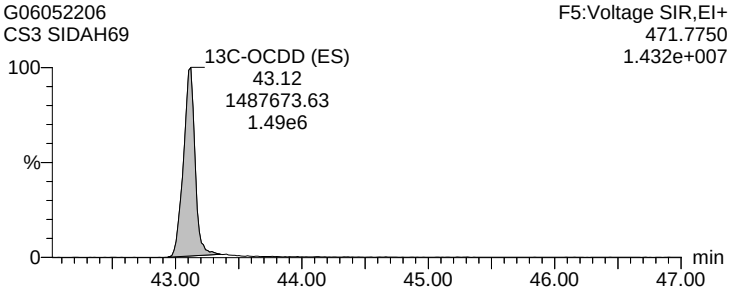
13C-1234678-HpCDD (ES)



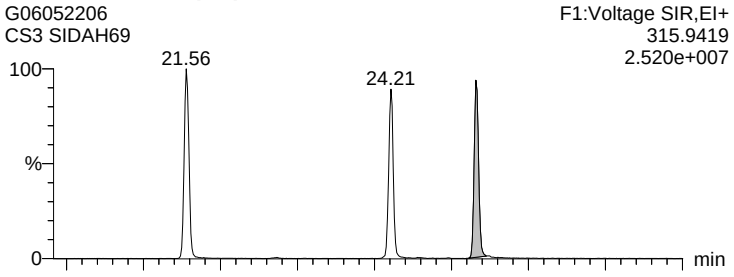


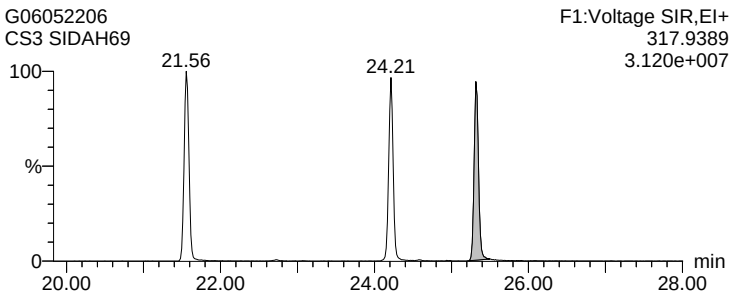
13C-OCDD (ES)



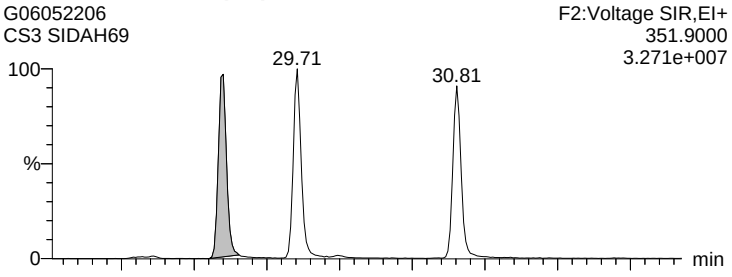


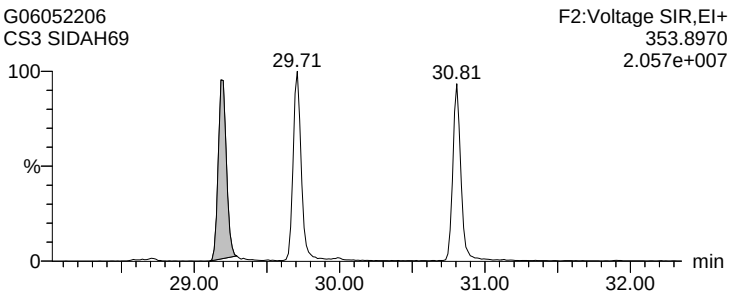
13C-2378-TCDF (ES)





13C-12378-PeCDF (ES)





Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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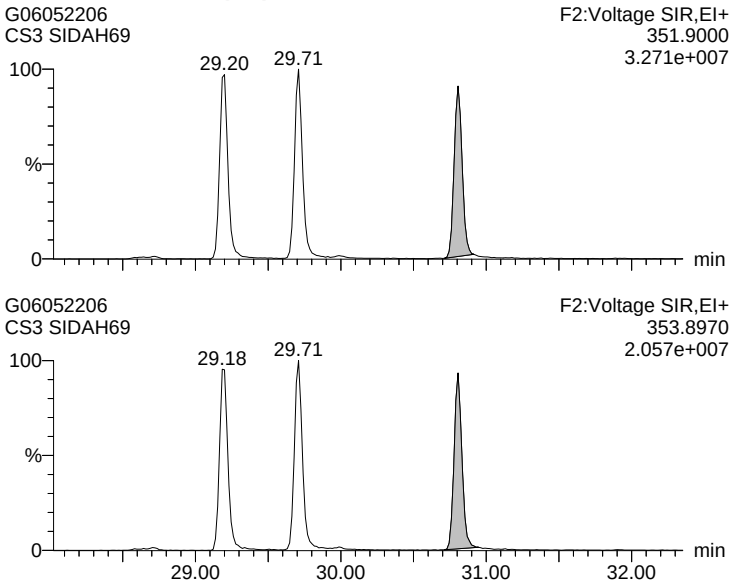
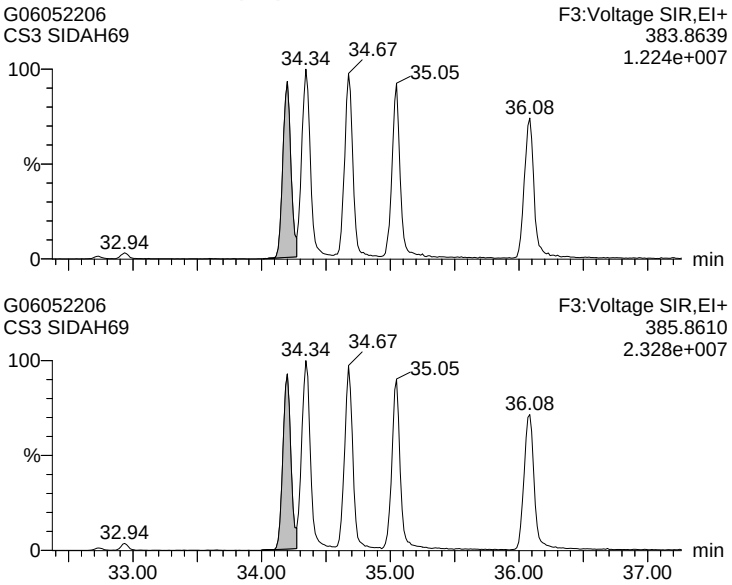
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

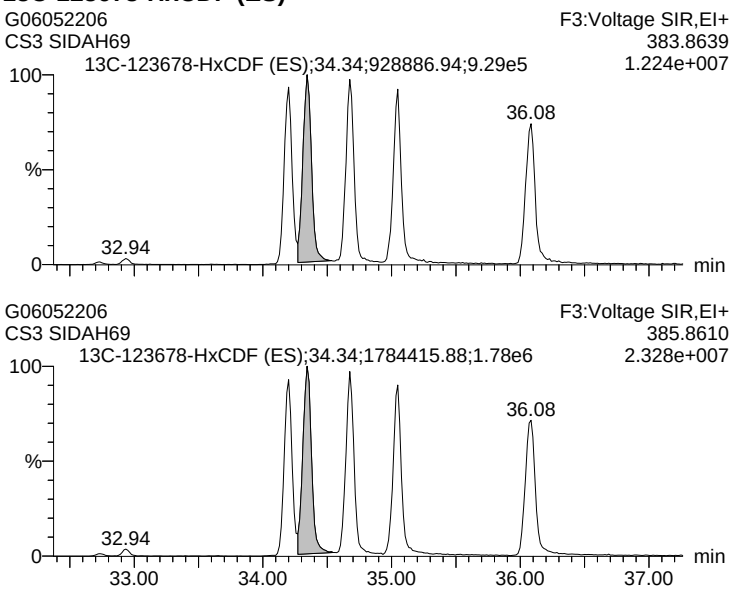
13C-23478-PeCDF (ES)



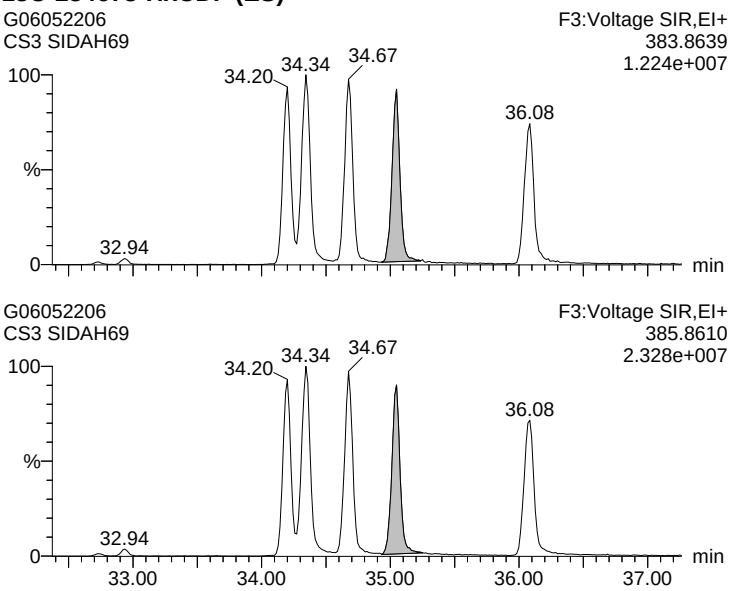
13C-123478-HxCDF (ES)



13C-123678-HxCDF (ES)



13C-234678-HxCDF (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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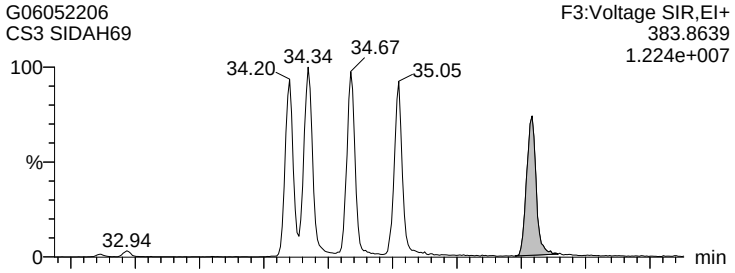
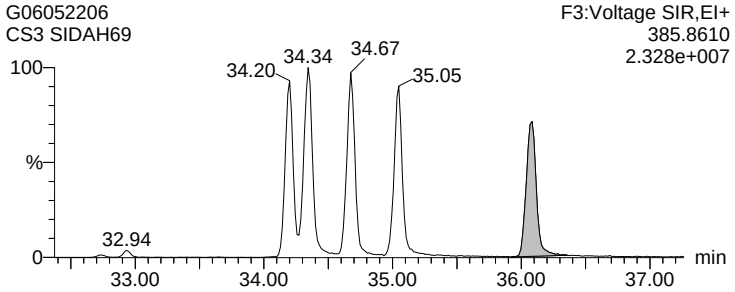
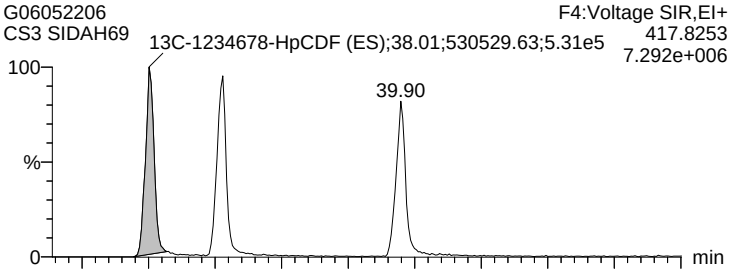
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

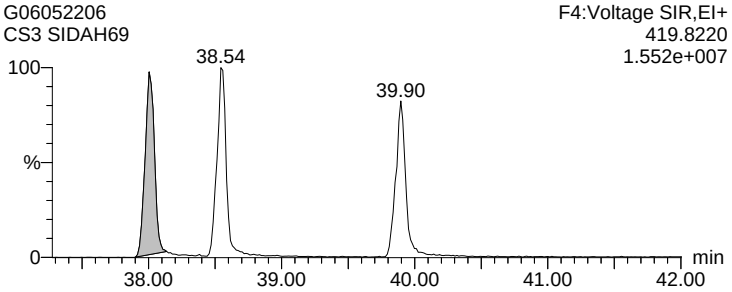
13C-123789-HxCDF (ES)



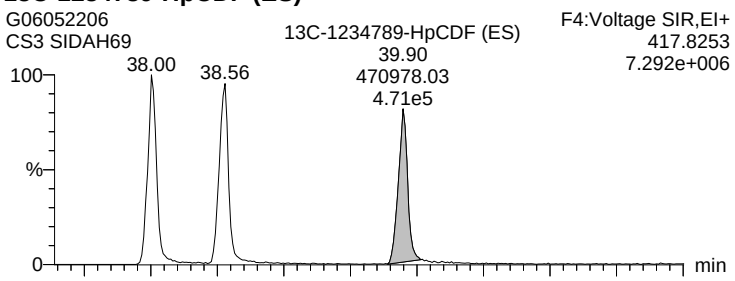


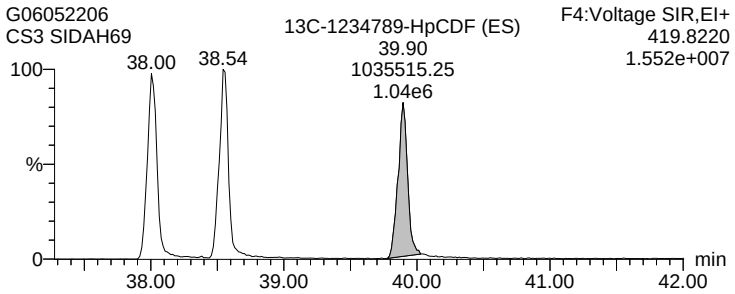
13C-1234678-HpCDF (ES)



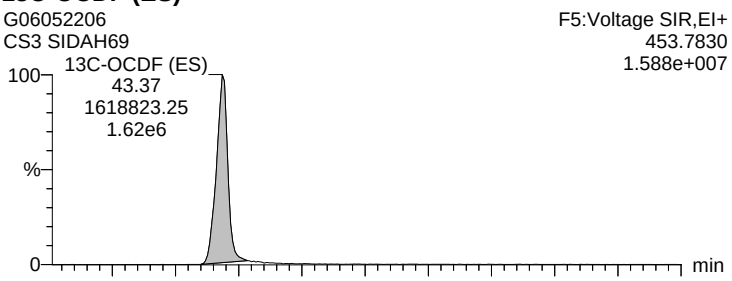


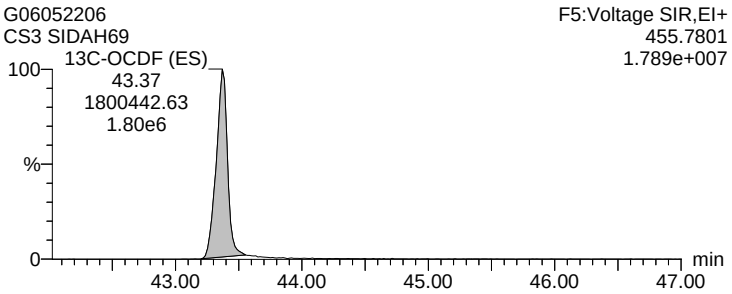
13C-1234789-HpCDF (ES)





13C-OCDF (ES)

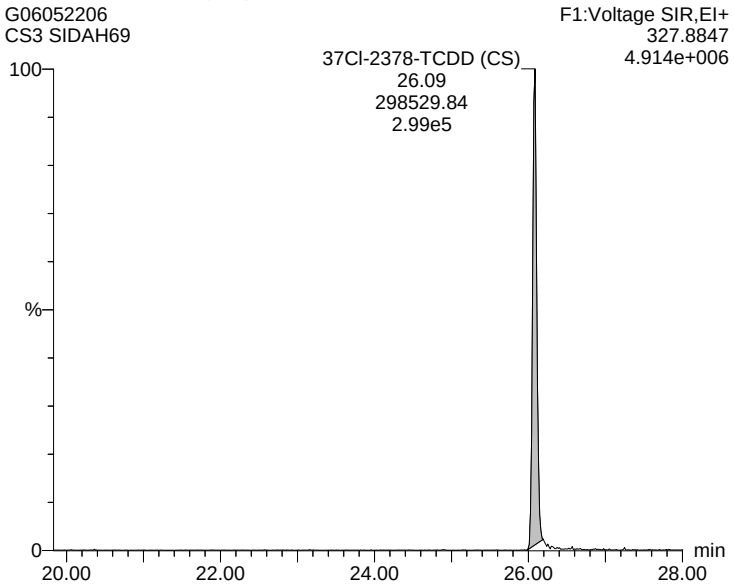




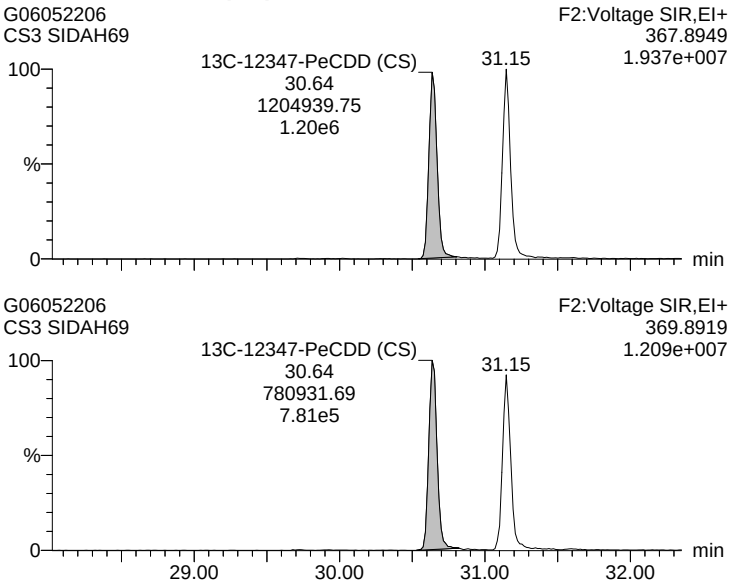
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

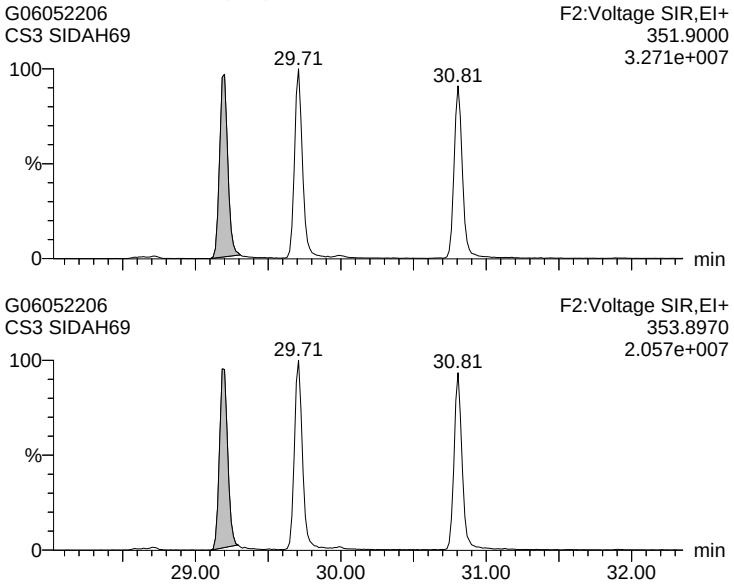
37Cl-2378-TCDD (CS)



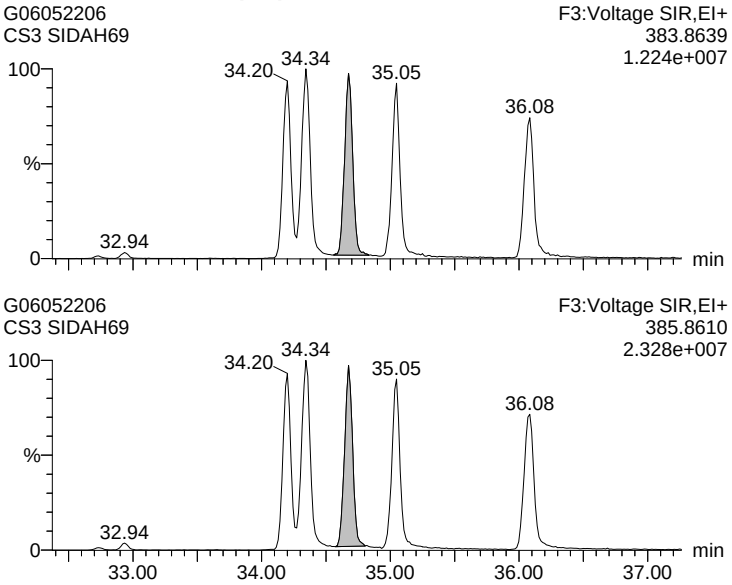
13C-12347-PeCDD (CS)



13C-12346-PeCDF (CS)



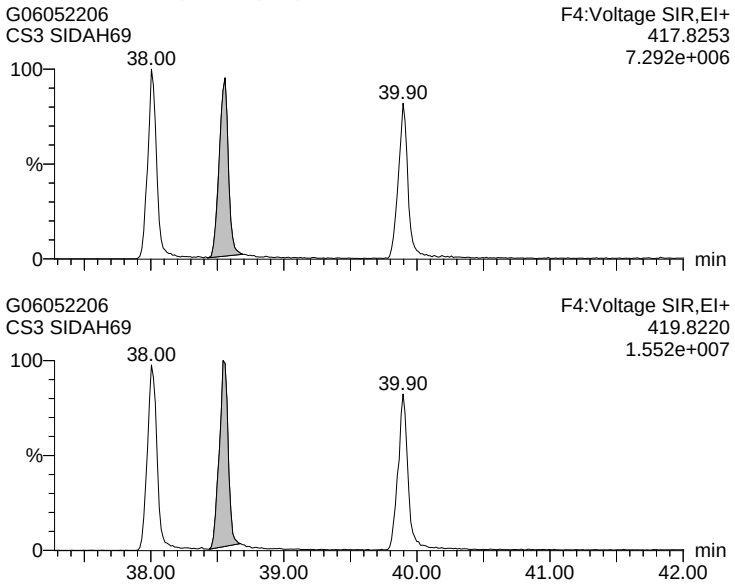
13C-123469-HxCDF (CS)



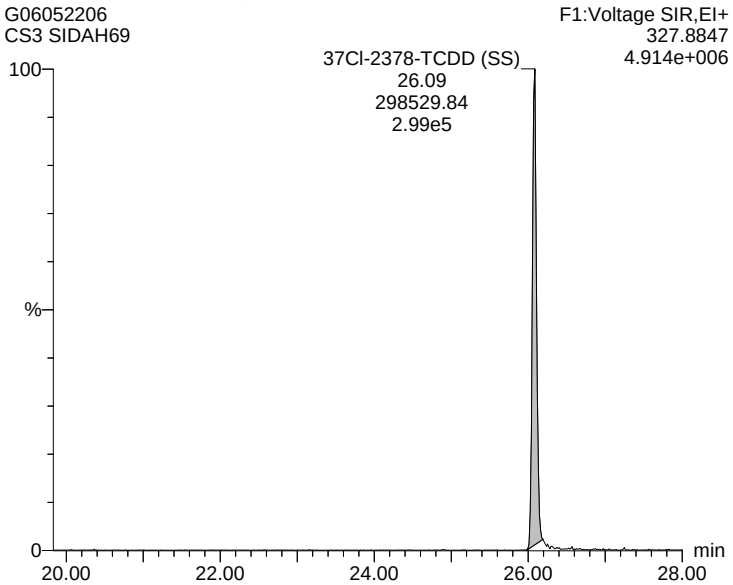
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

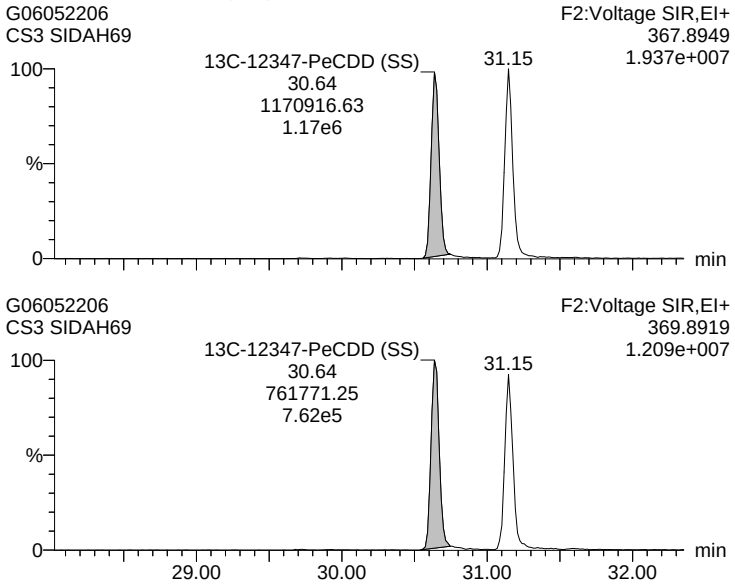
13C-1234689-HpCDF (CS)



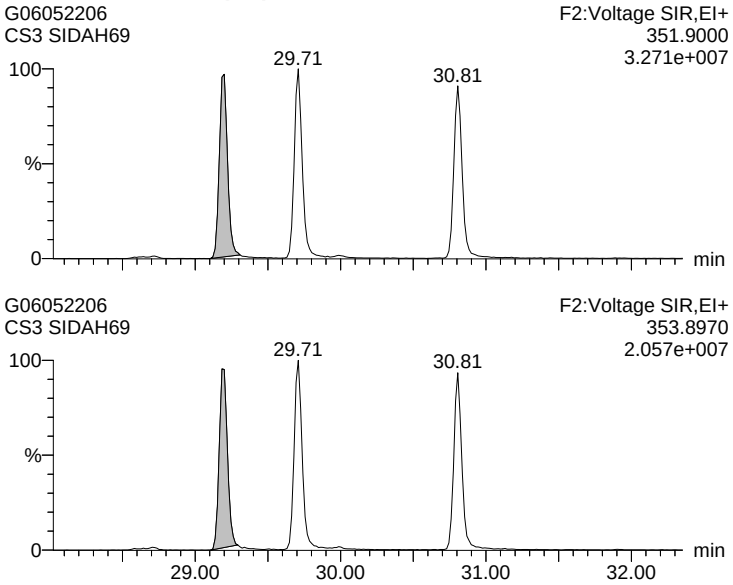
37Cl-2378-TCDD (SS)



13C-12347-PeCDD (SS)



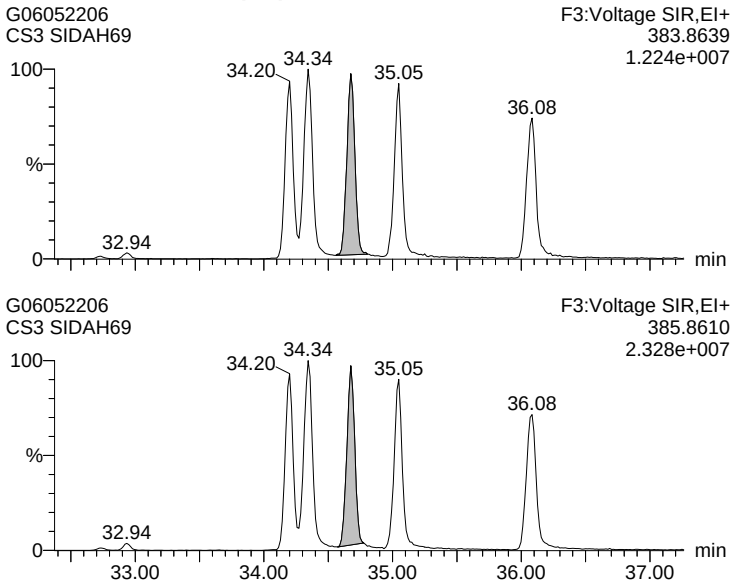
13C-12346-PeCDF (SS)



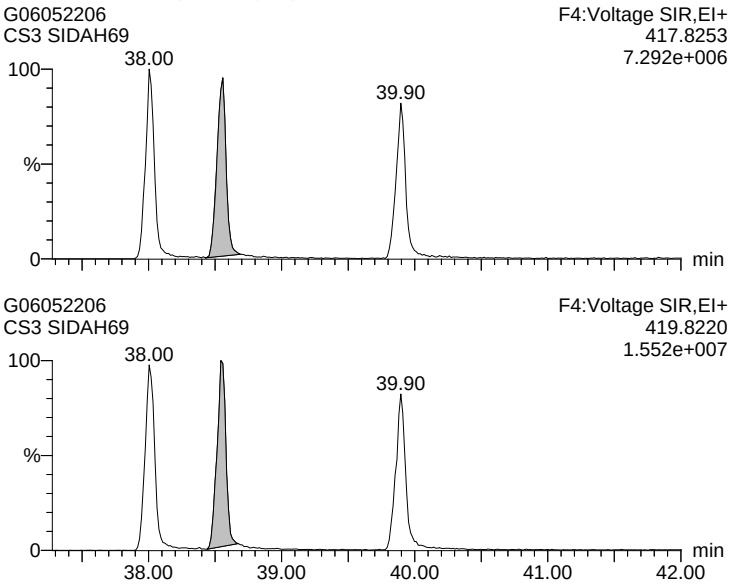
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

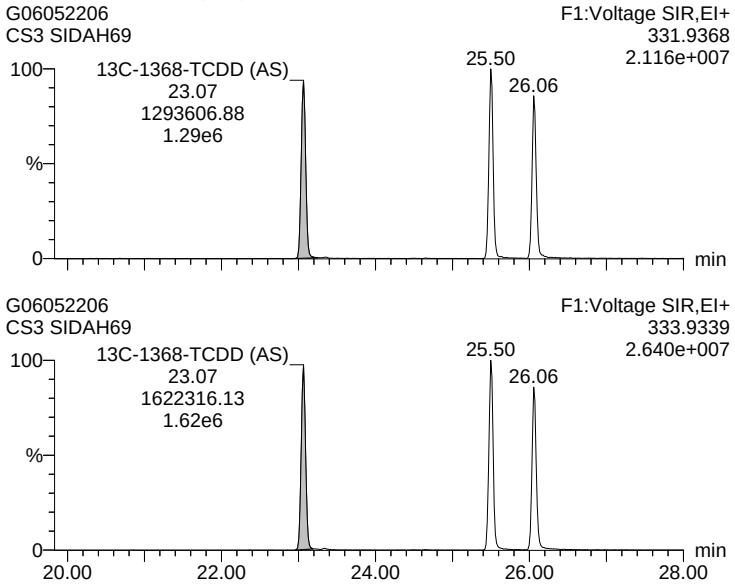
13C-123469-HxCDF (SS)



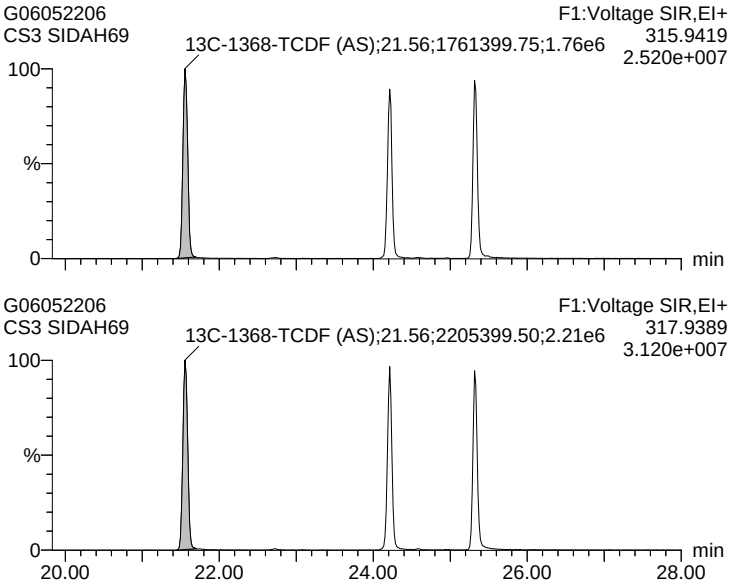
13C-1234689-HpCDF (SS)



13C-1368-TCDD (AS)



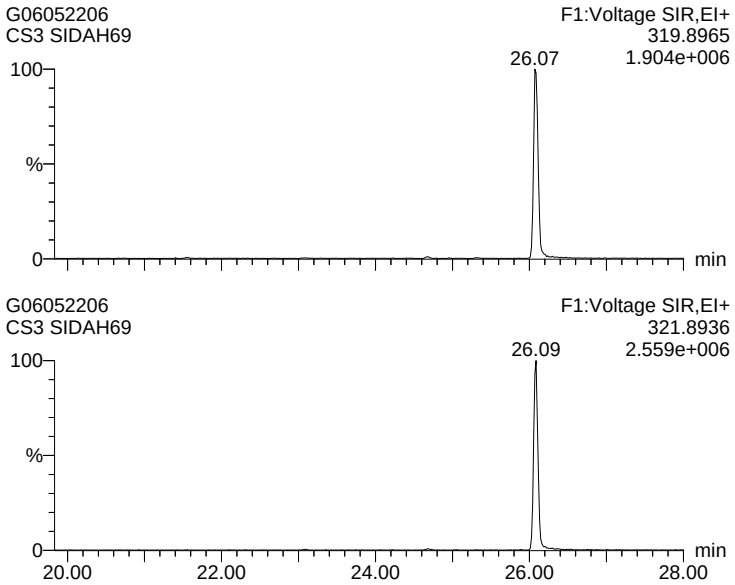
13C-1368-TCDF (AS)



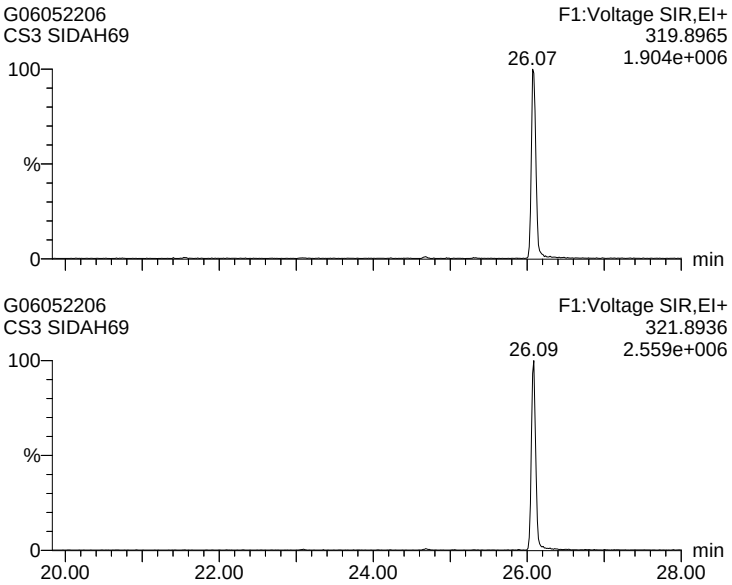
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

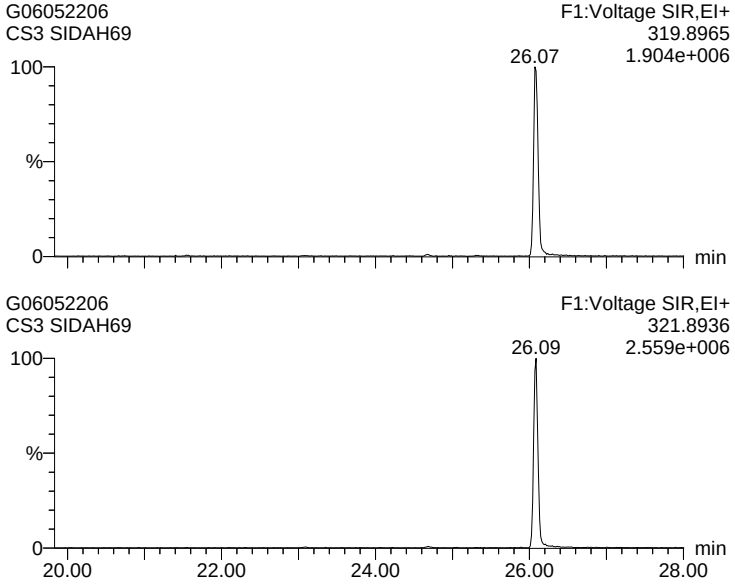
1368-TCDD



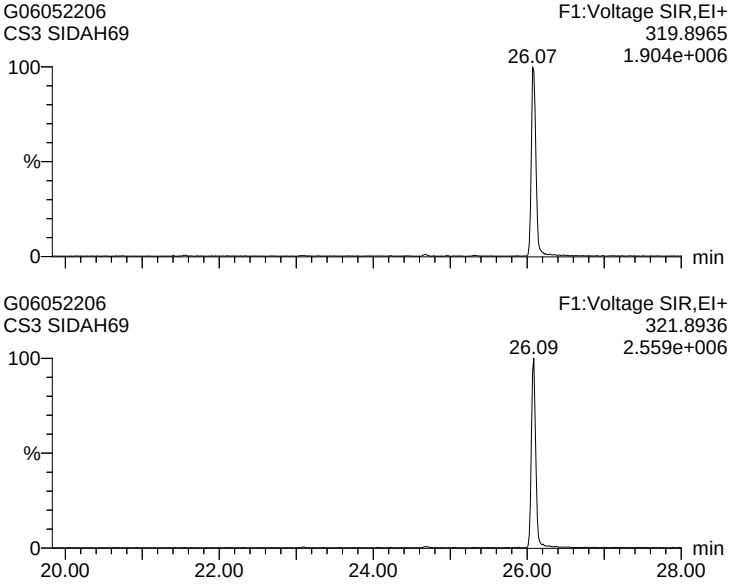
1379-TCDD



1369-TCDD



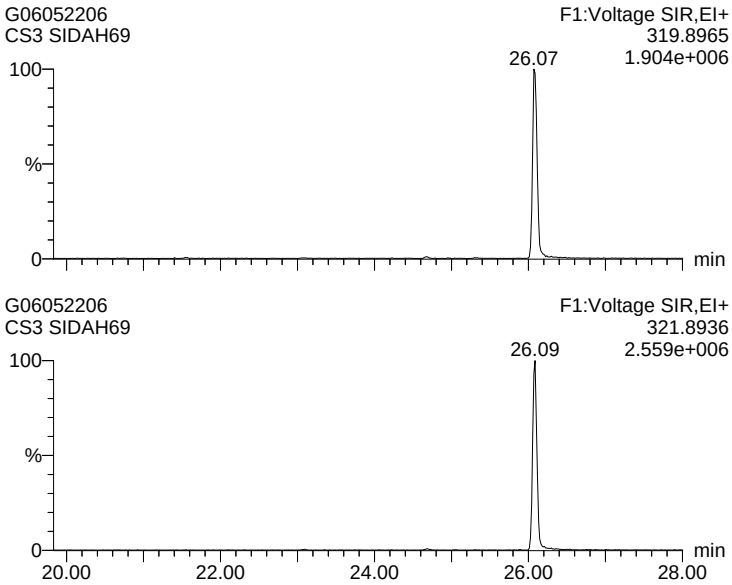
1469-TCDD



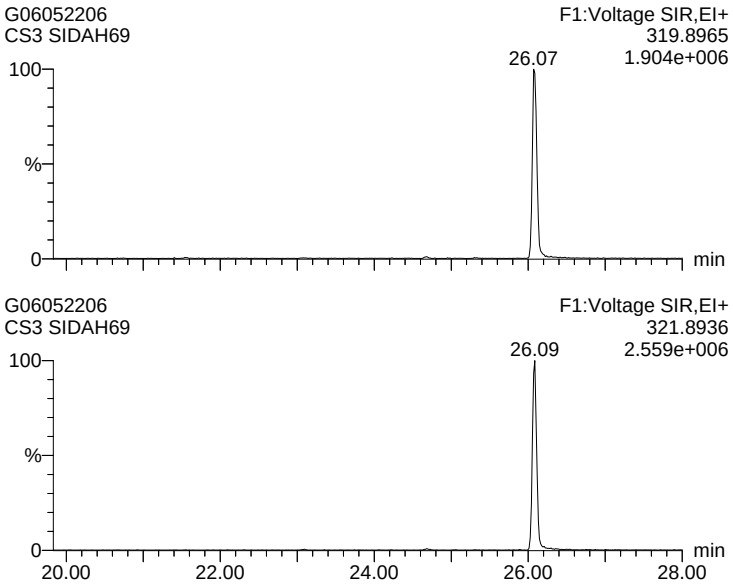
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

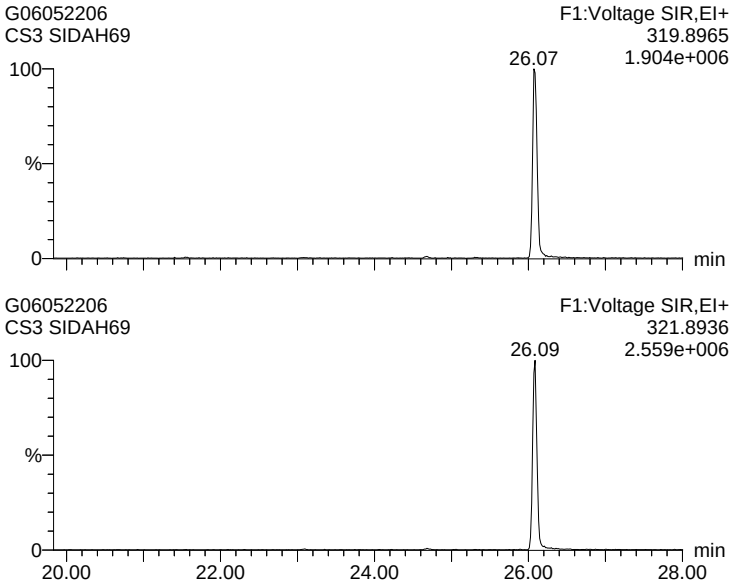
1247/1246/1248/1249-TCDD



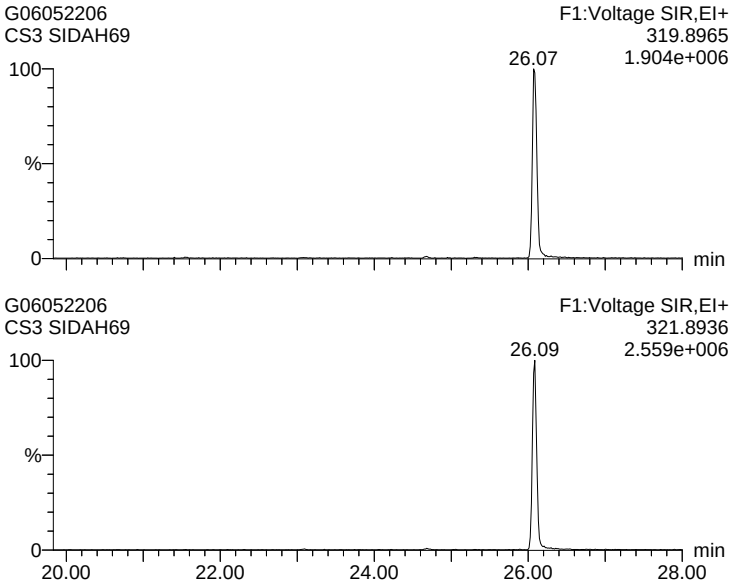
1378-TCDD



1268-TCDD



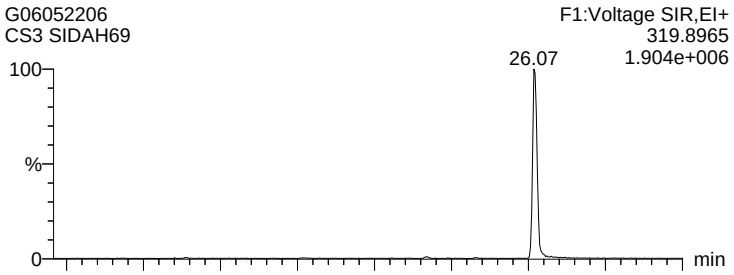
1478-TCDD

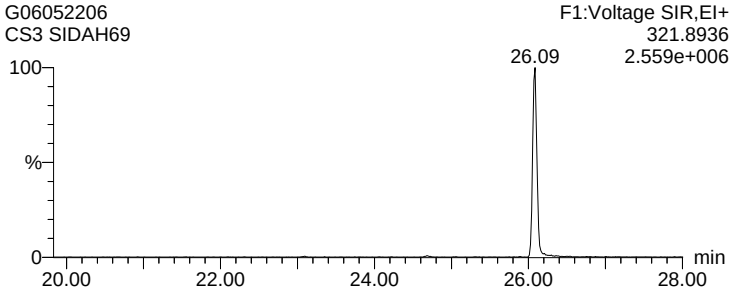


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

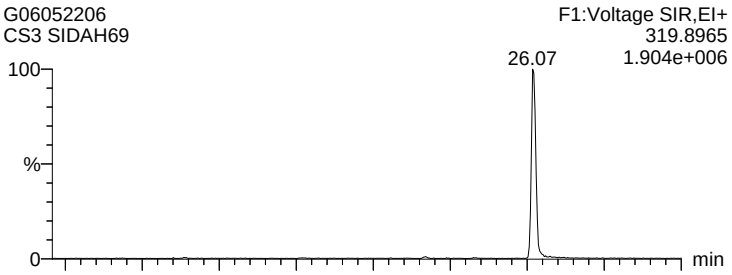
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

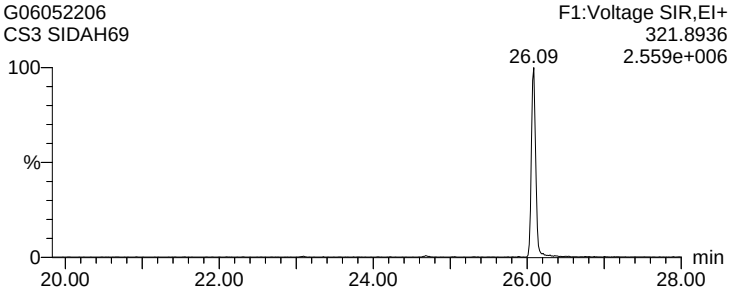
1279-TCDD



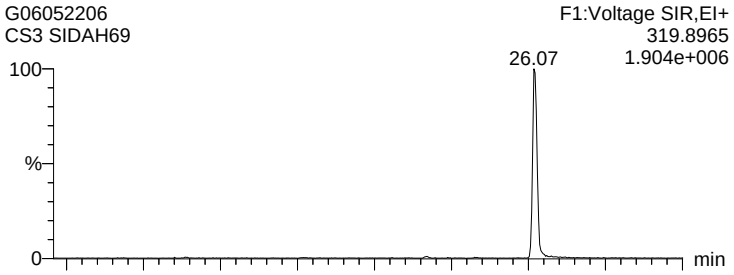


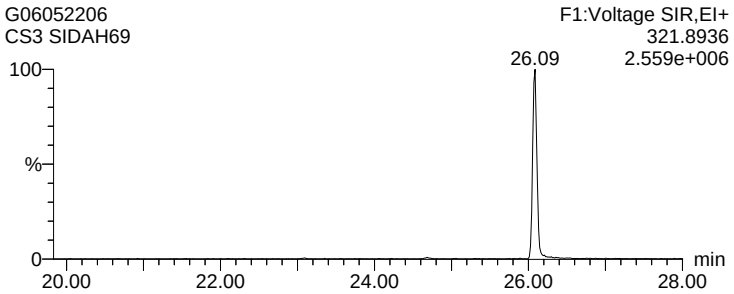
1234/1269-TCDD



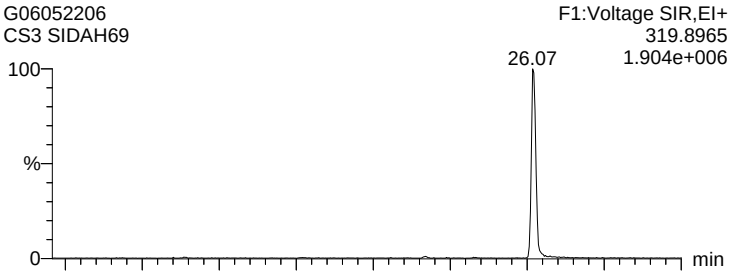


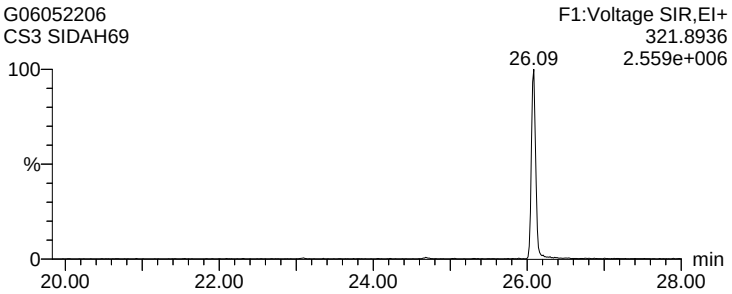
1236-TCDD





1237/1238-TCDD

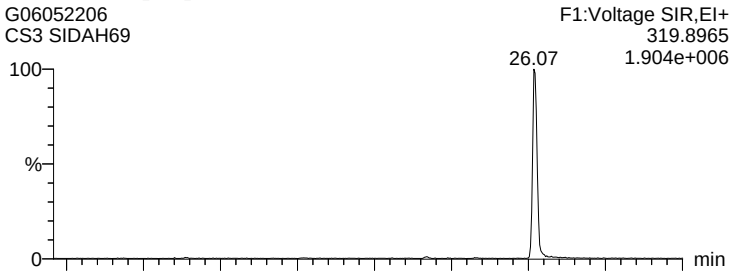


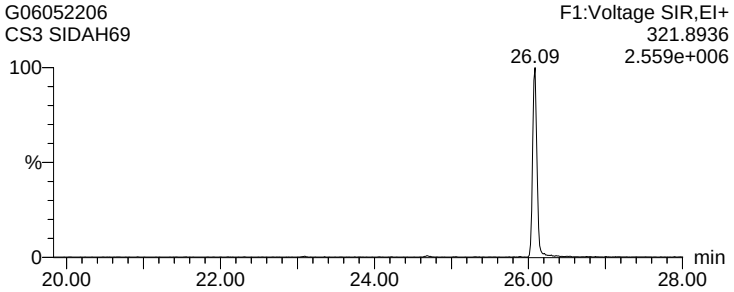


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

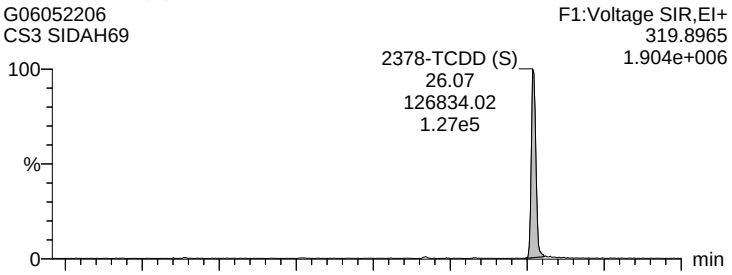
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

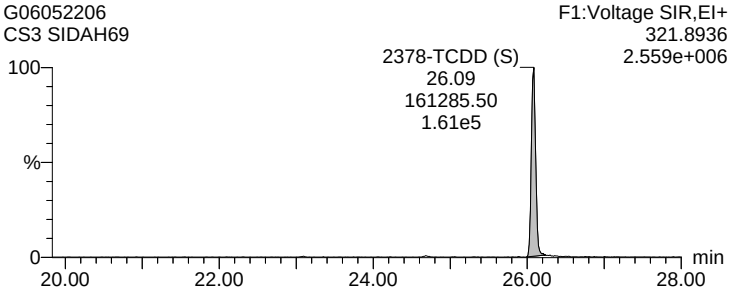
1239-TCDD [CE]



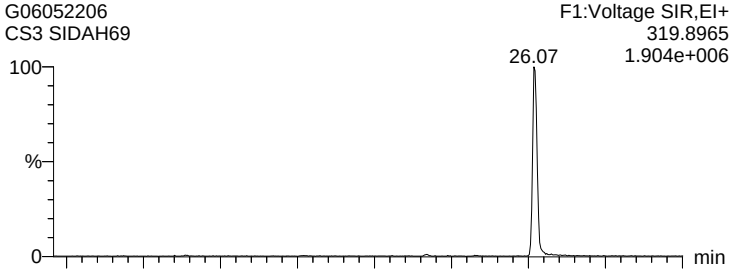


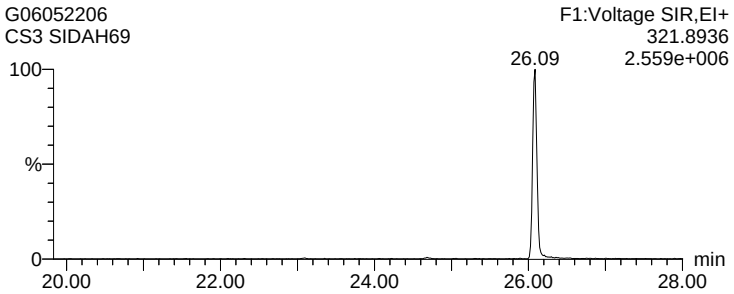
2378-TCDD (S)



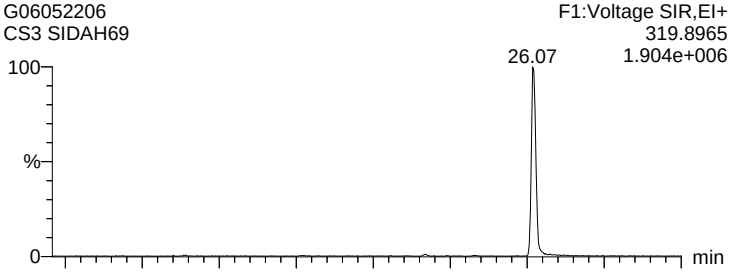


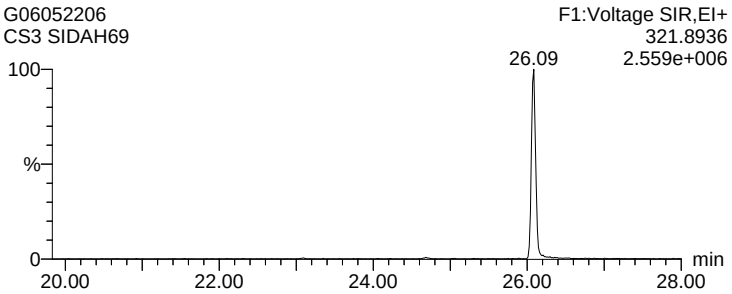
1278-TCDD





1267-TCDD

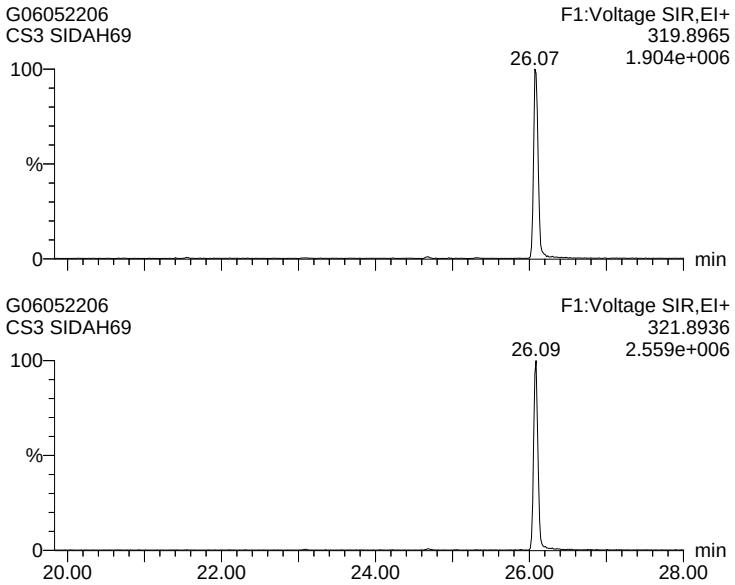




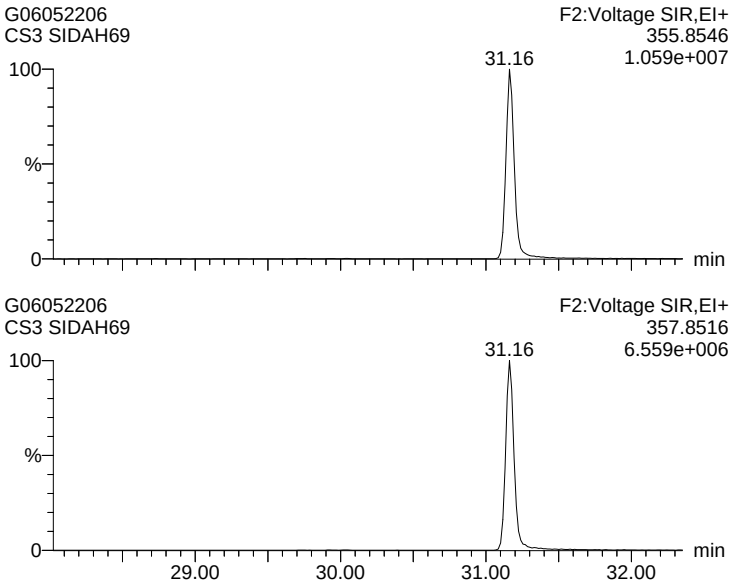
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

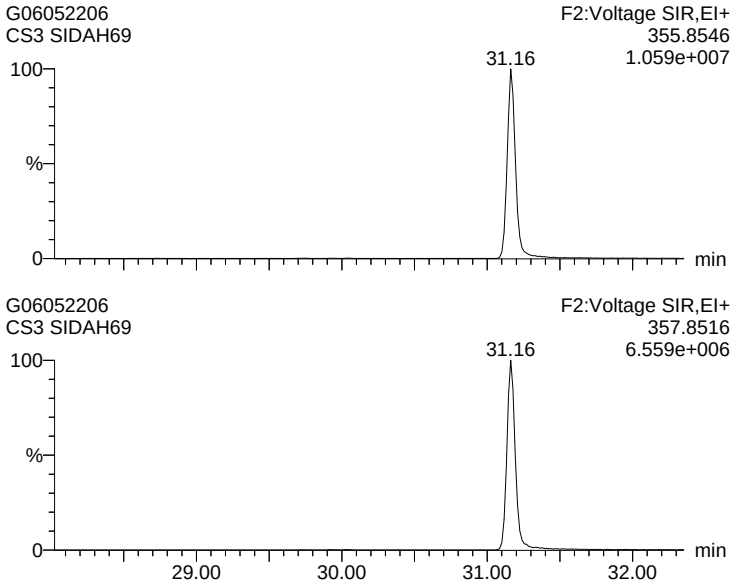
1289-TCDD



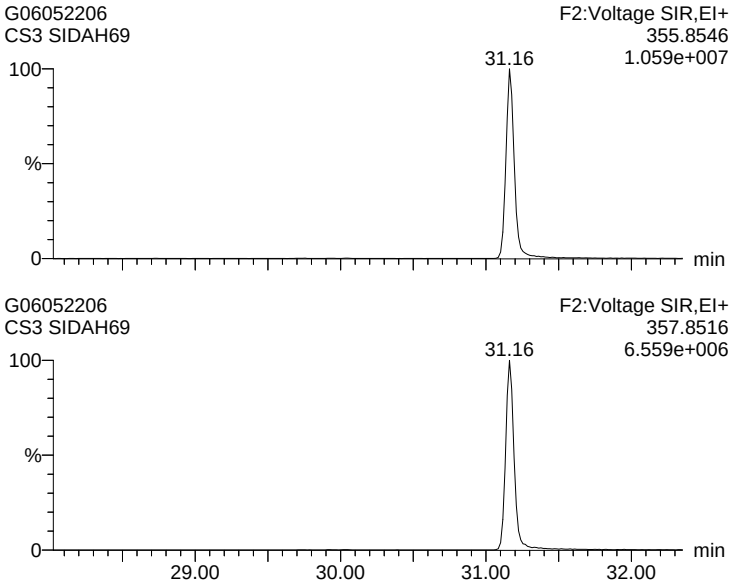
12479/12468-PeCDD



12469-PeCDD



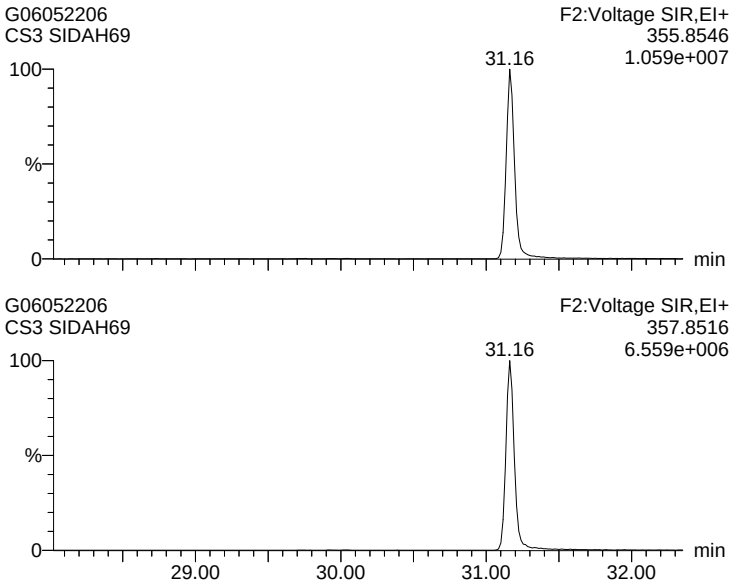
12368-PeCDD



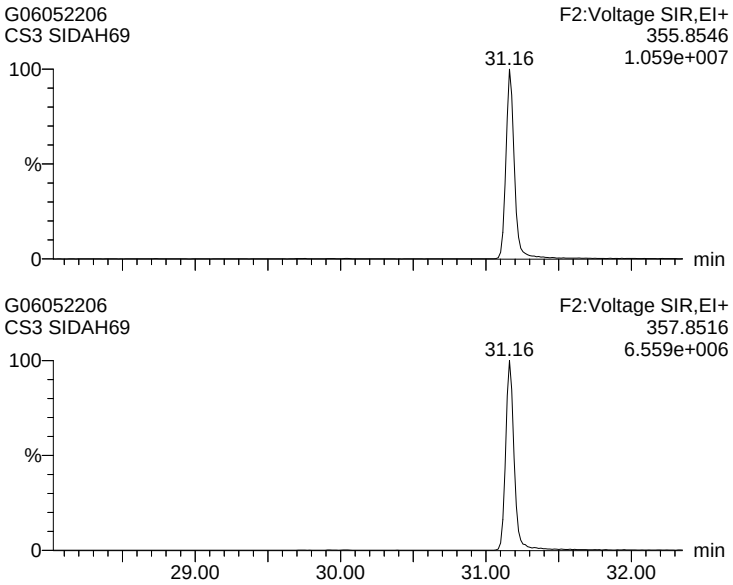
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

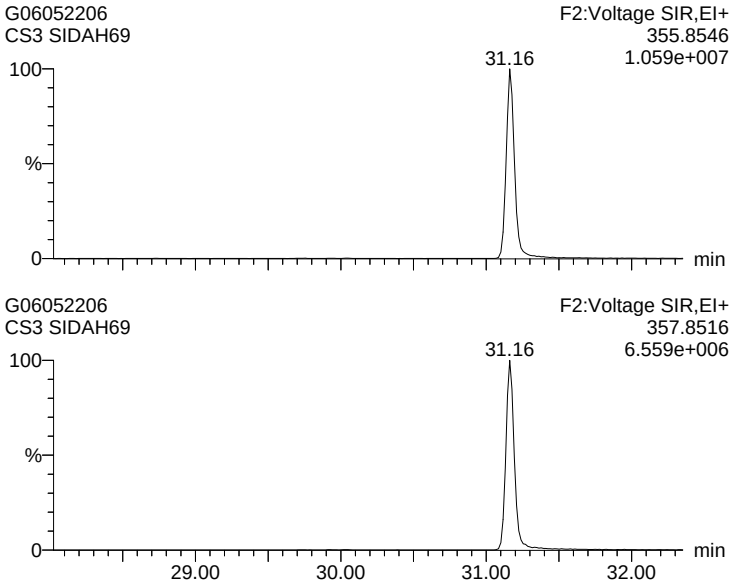
12478-PeCDD



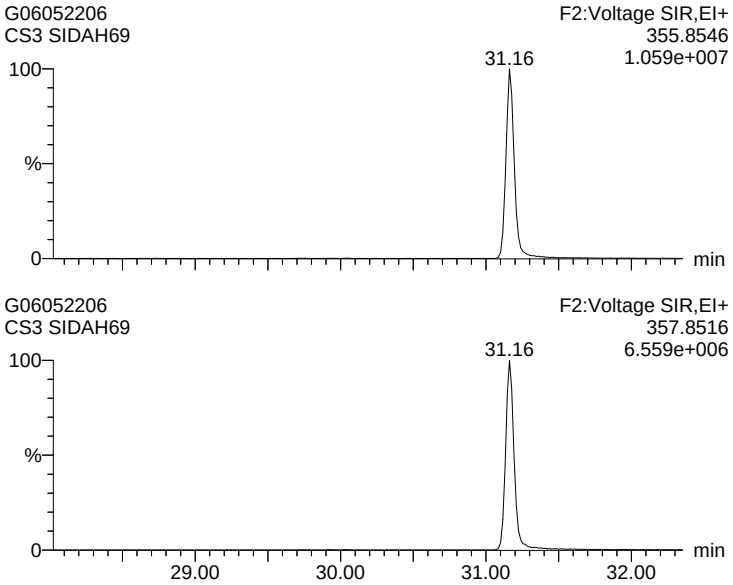
12379-PeCDD



12369/12467/12489-PeCDD



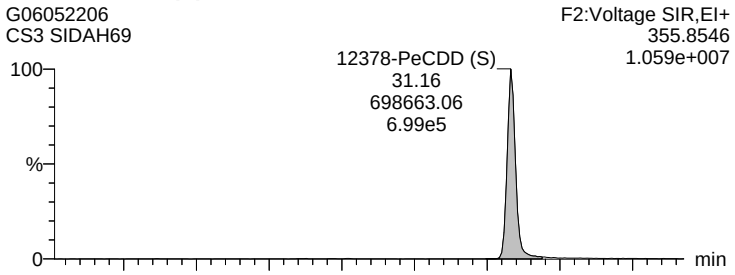
12346/12347-PeCDD

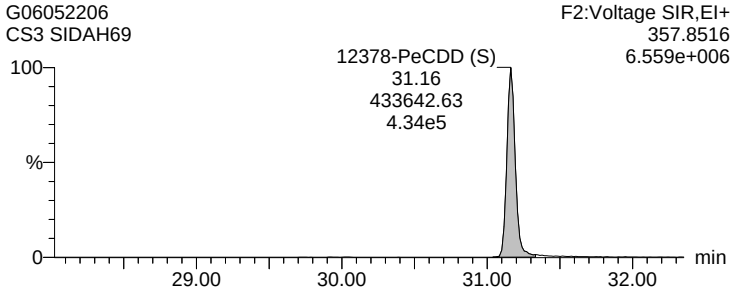


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

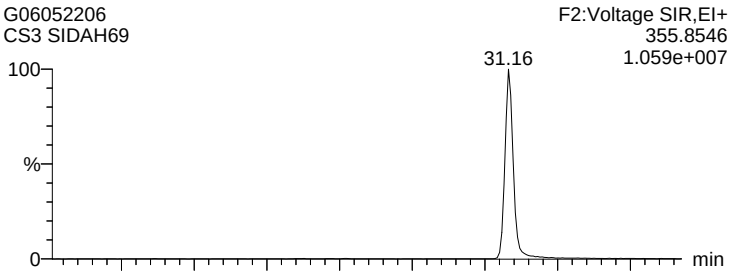
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

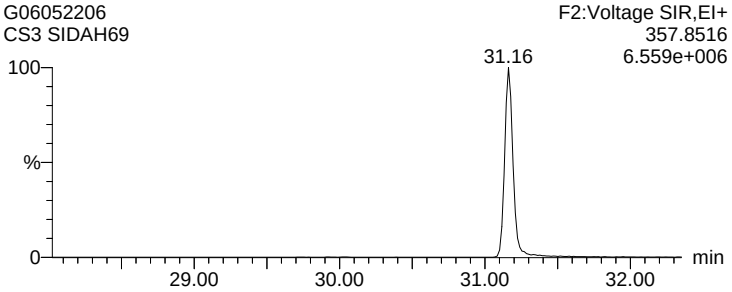
12378-PeCDD (S)



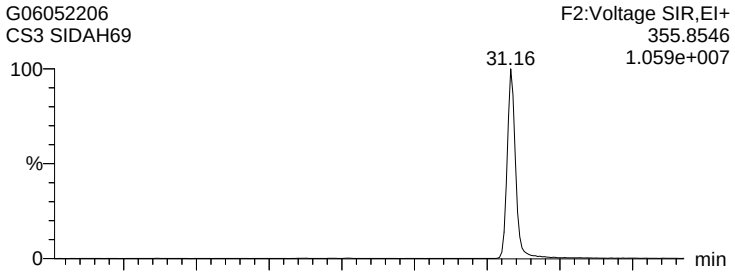


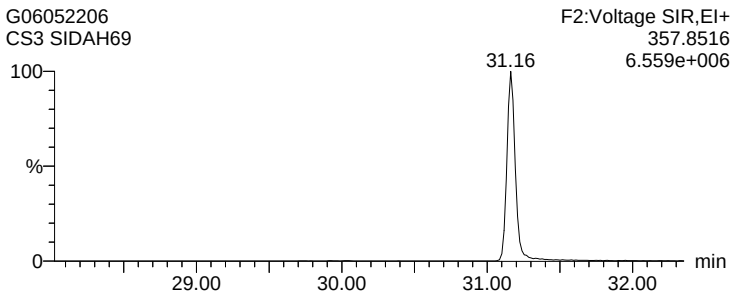
12367-PeCDD



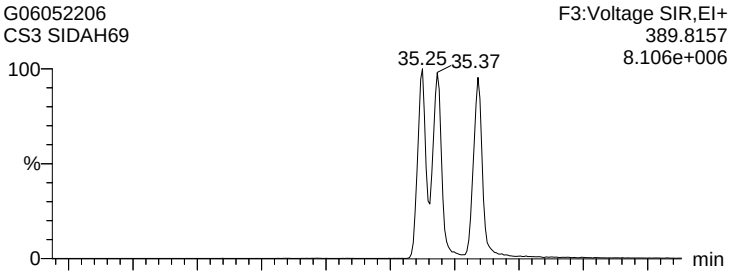


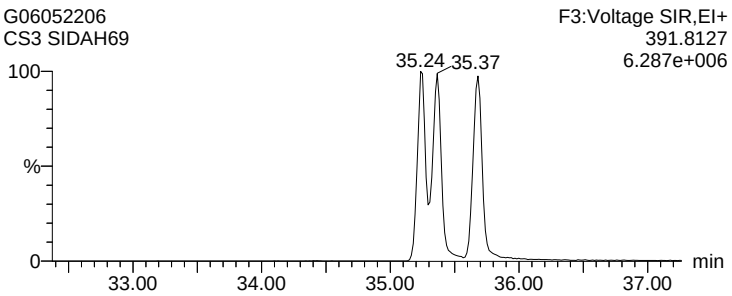
12389-PeCDD





124679/124689-HxCDD

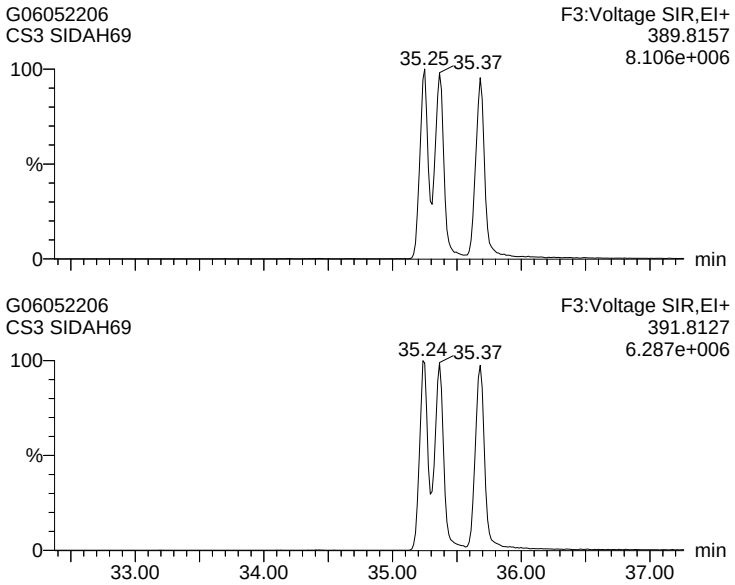




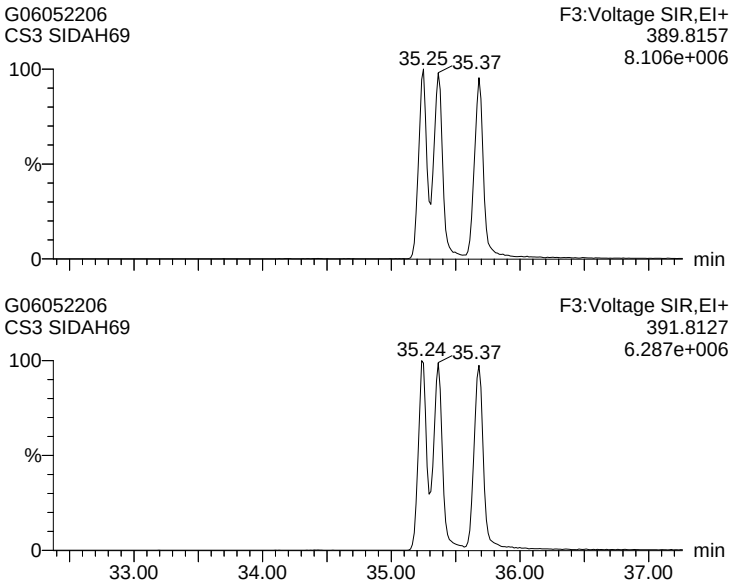
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

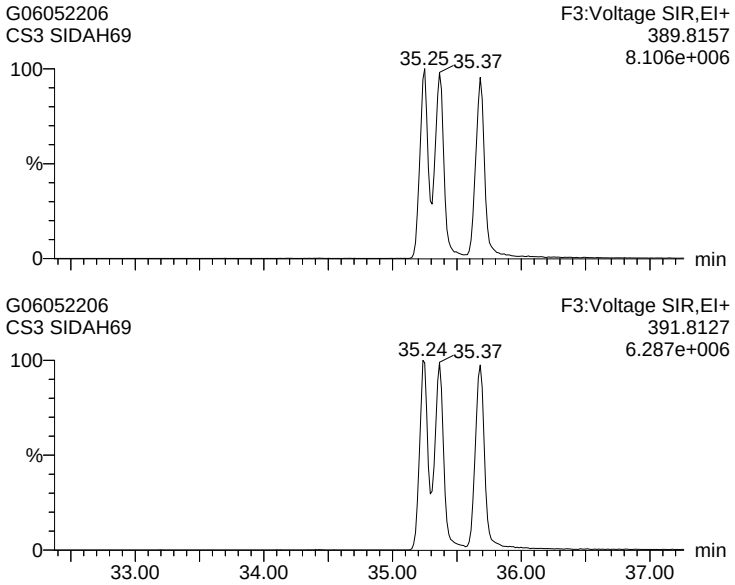
123468-HxCDD



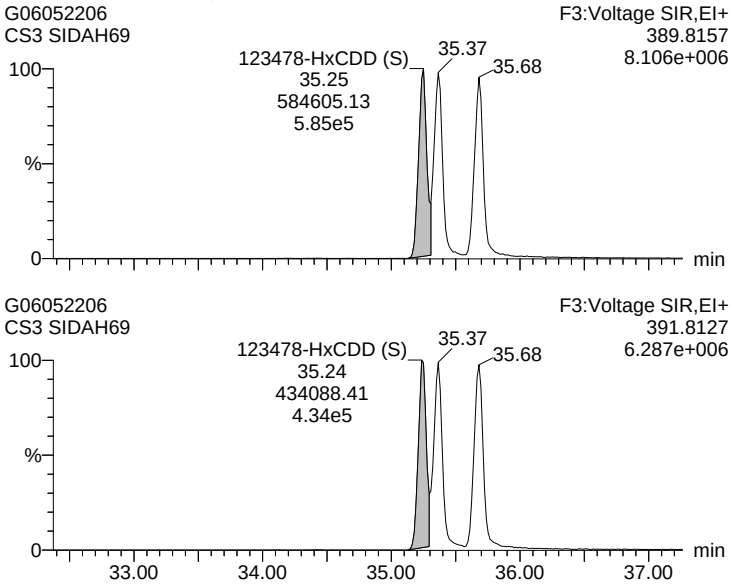
123679/123689-HxCDD



123469-HxCDD



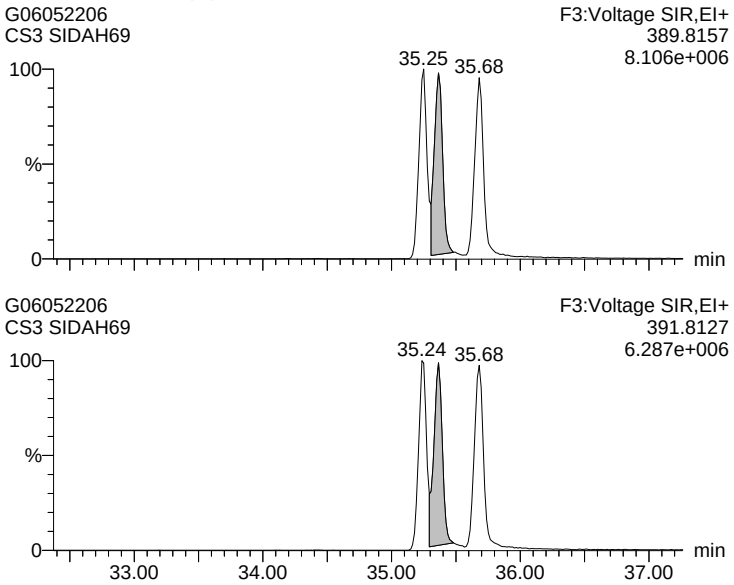
123478-HxCDD (S)



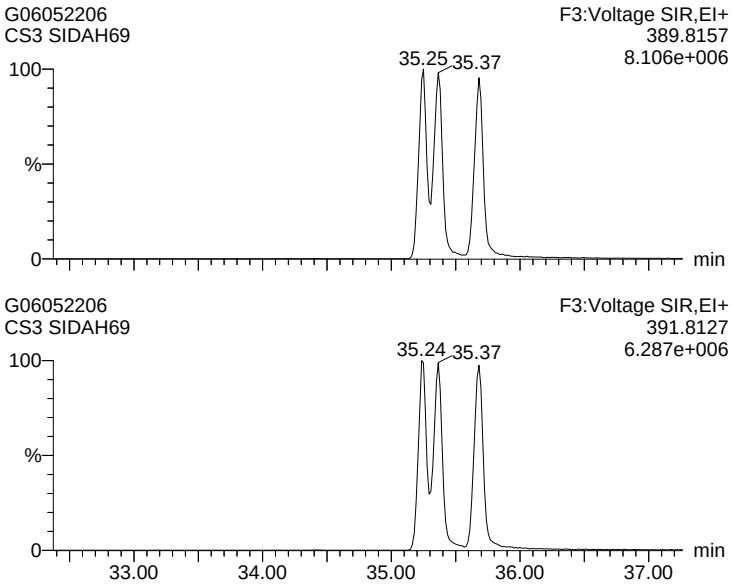
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

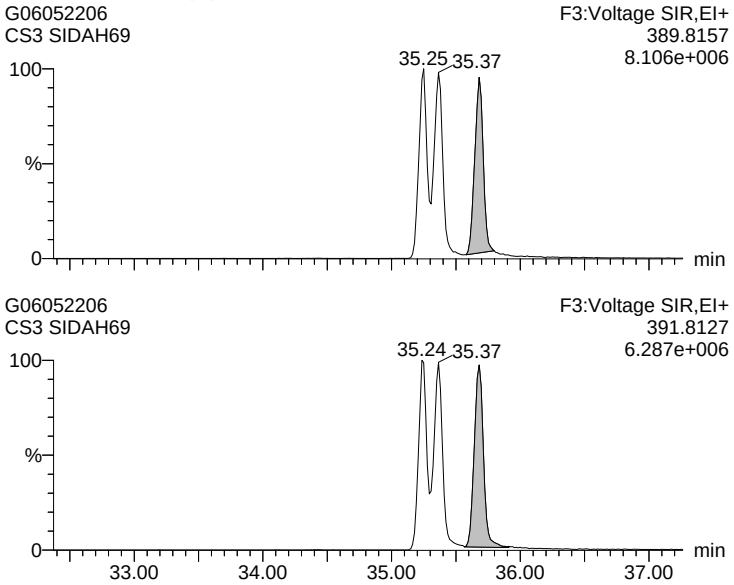
123678-HxCDD (S)



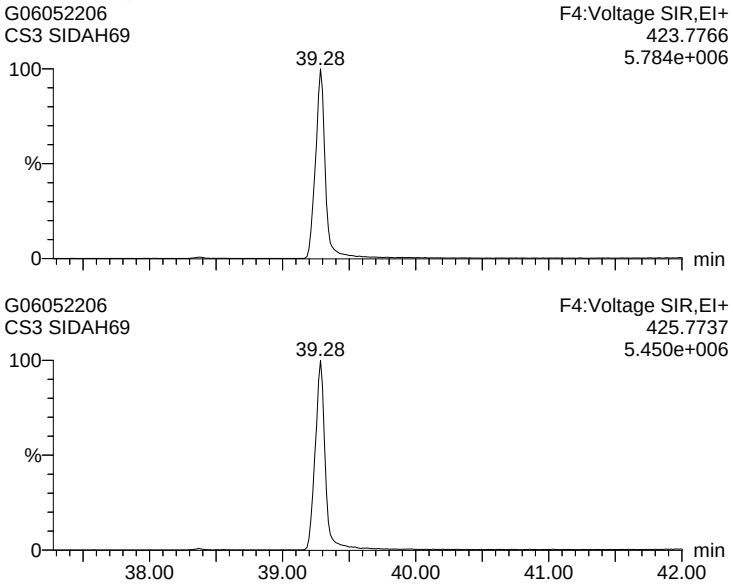
123467-HxCDD



123789-HxCDD (S)



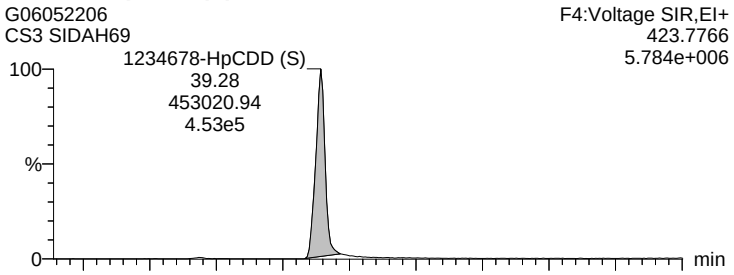
1234679-HpCDD

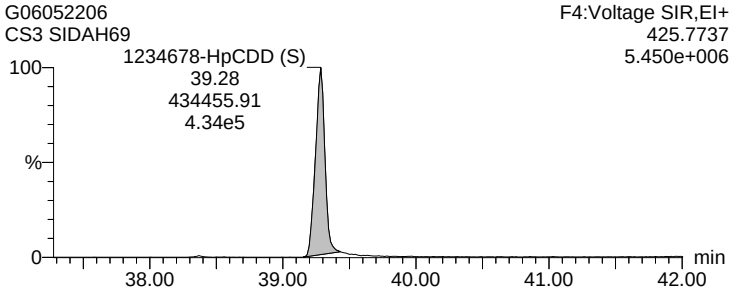


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

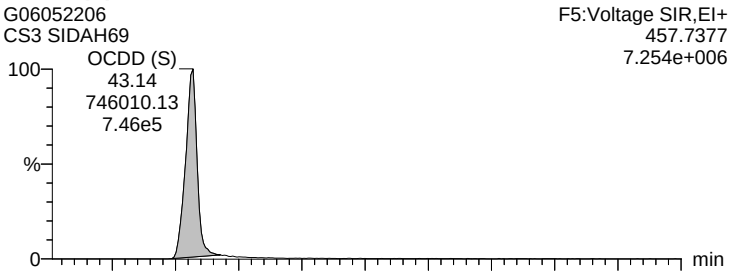
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

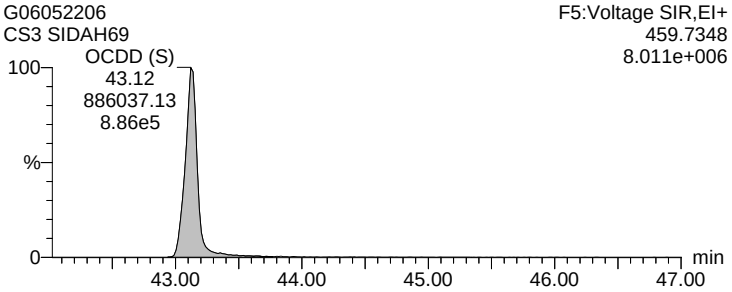
1234678-HpCDD (S)



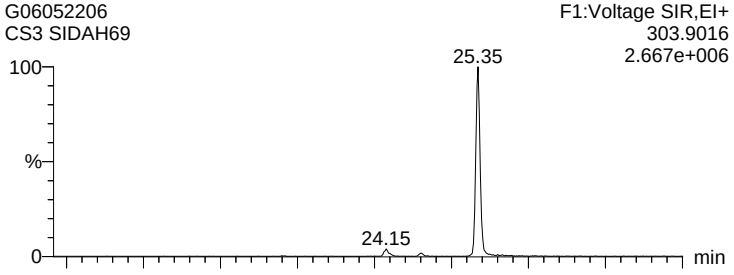


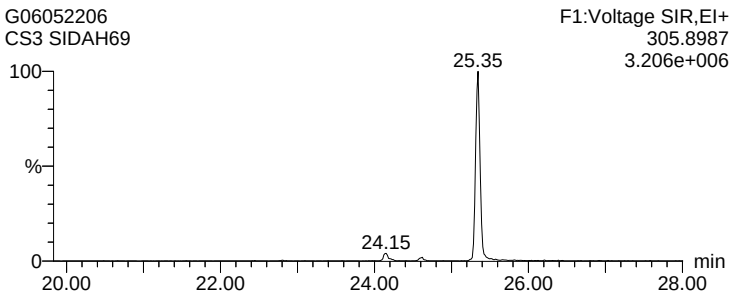
OCDD (S)



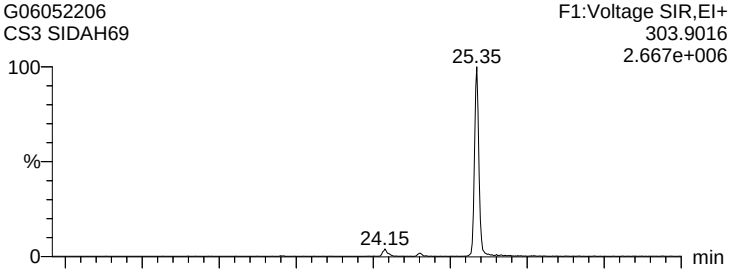


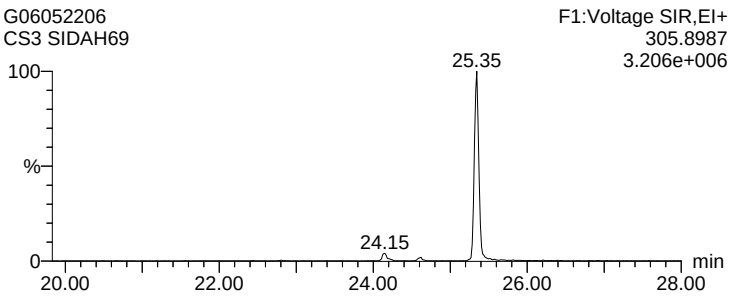
1368-TCDF





1468-TCDF

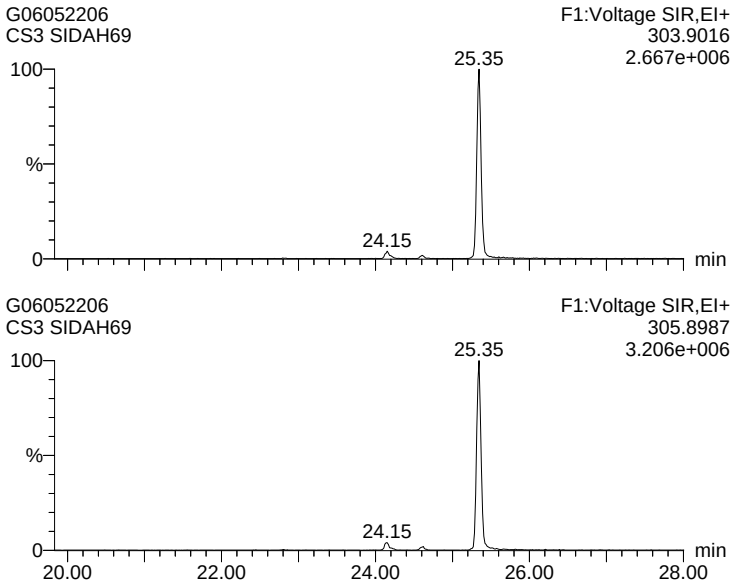




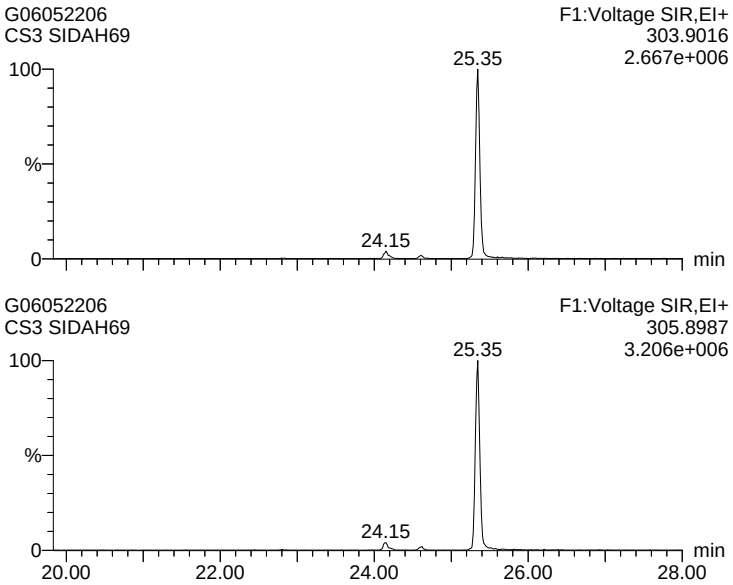
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

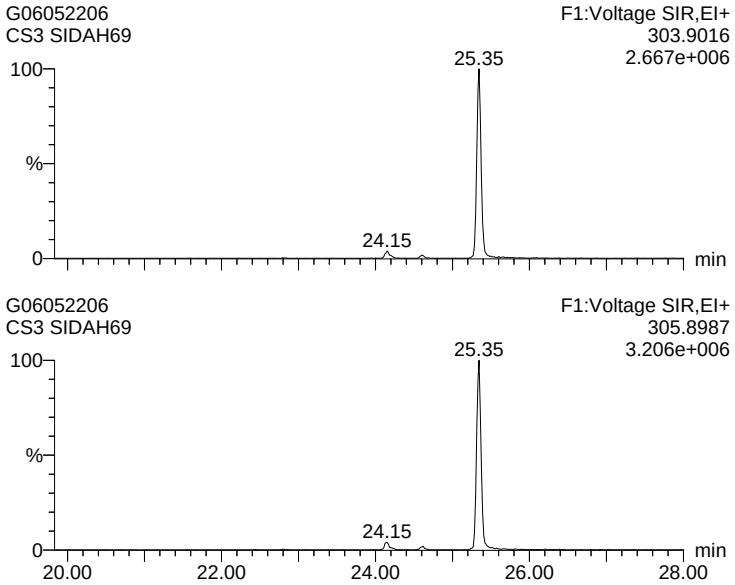
2468-TCDF



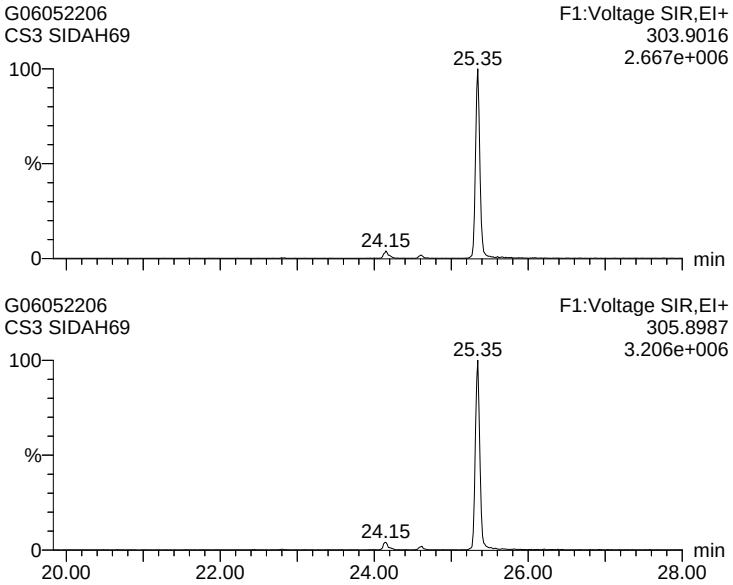
1346/1246-TCDF



1347/1378/1247-TCDF



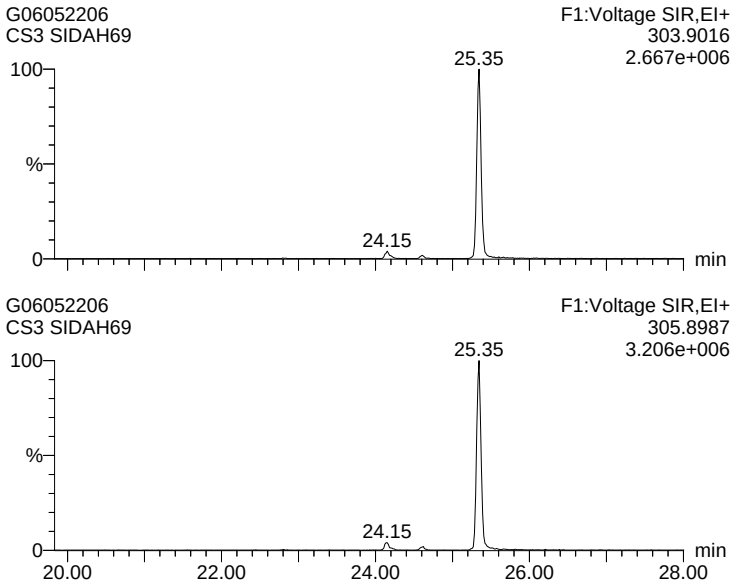
1348-TCDF



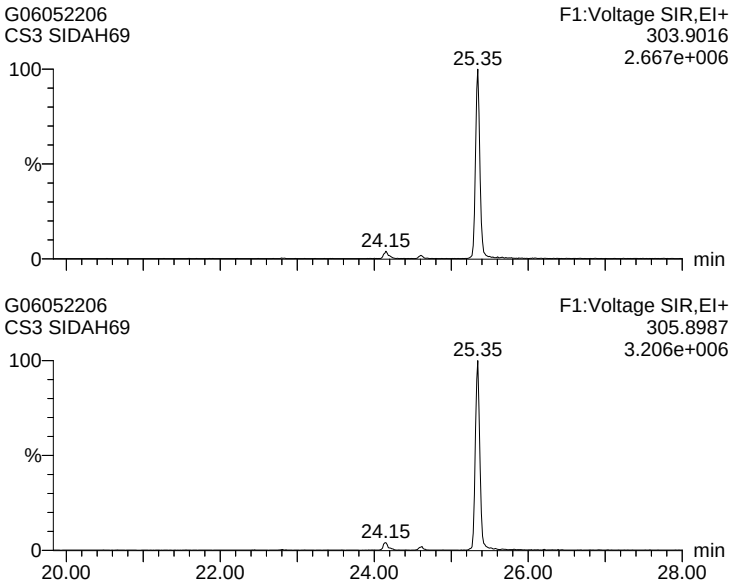
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

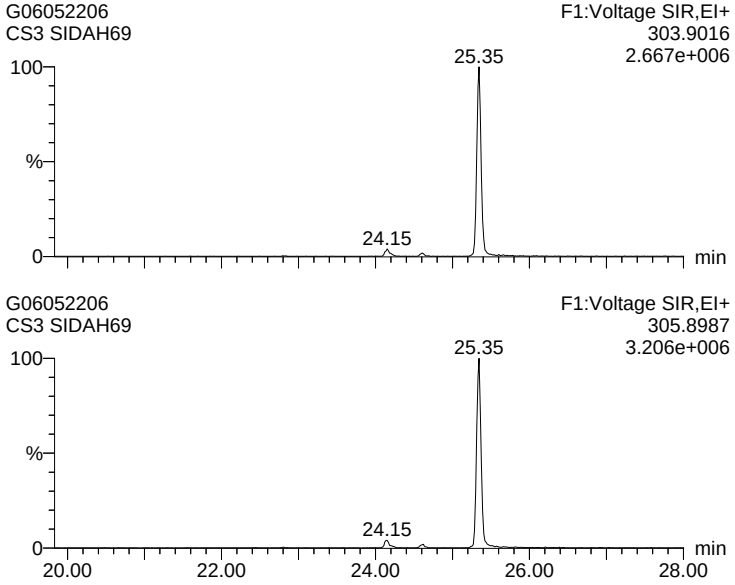
1248/1367/1379-TCDF



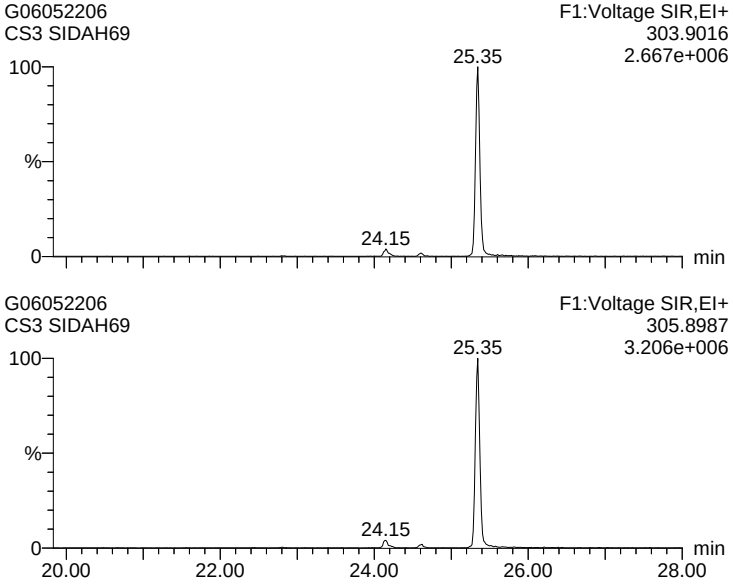
1268-TCDF



1467-TCDF



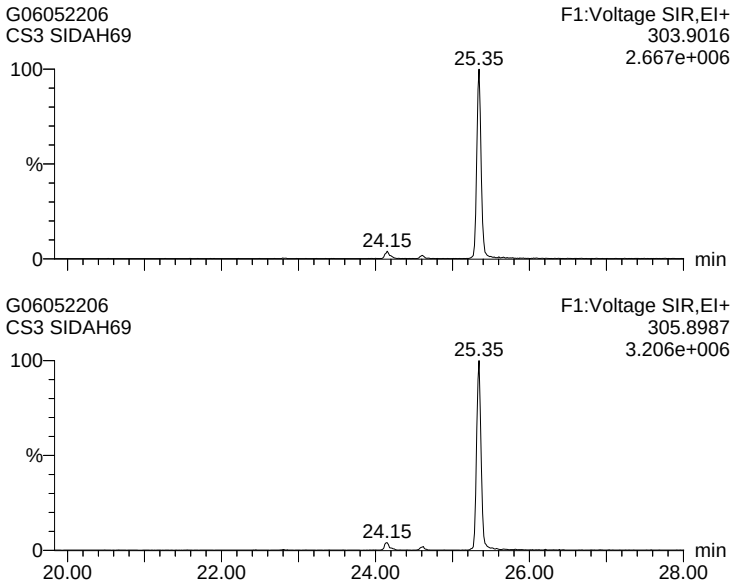
1478-TCDF



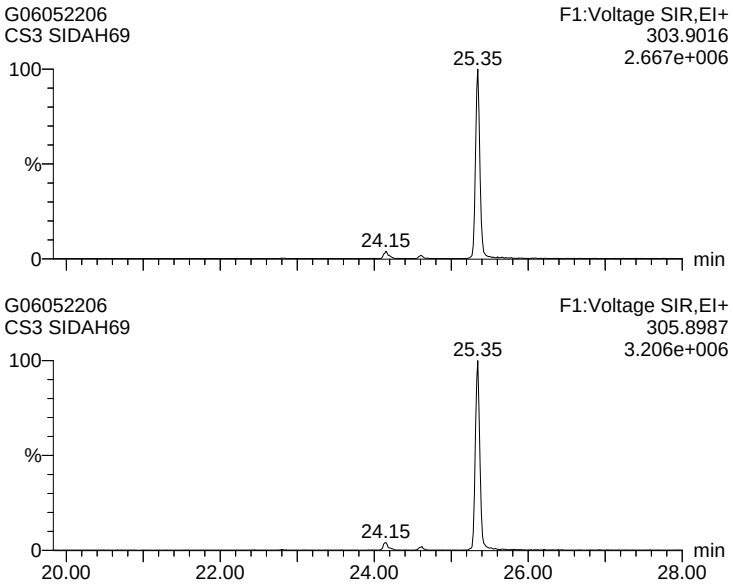
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

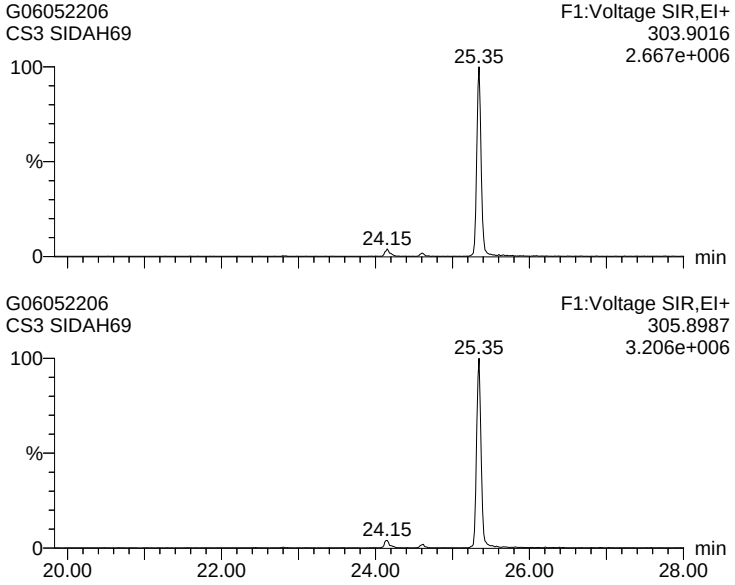
1369/1237-TCDF



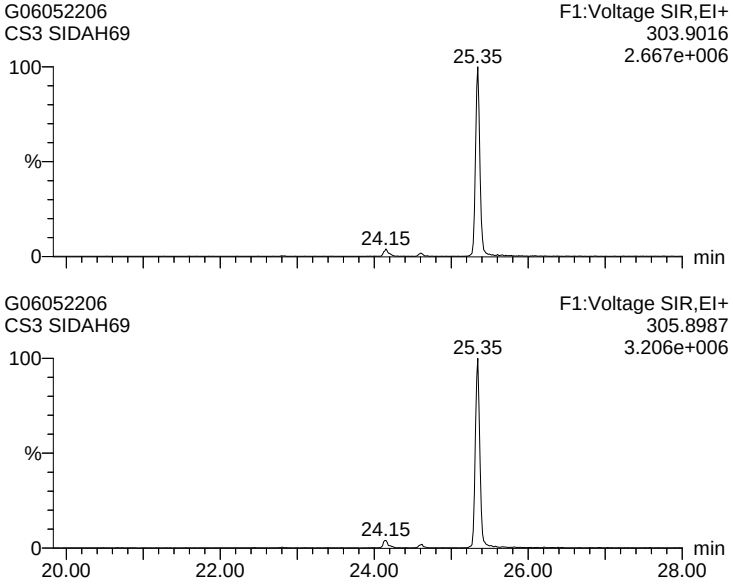
2467-TCDF



2368-TCDF



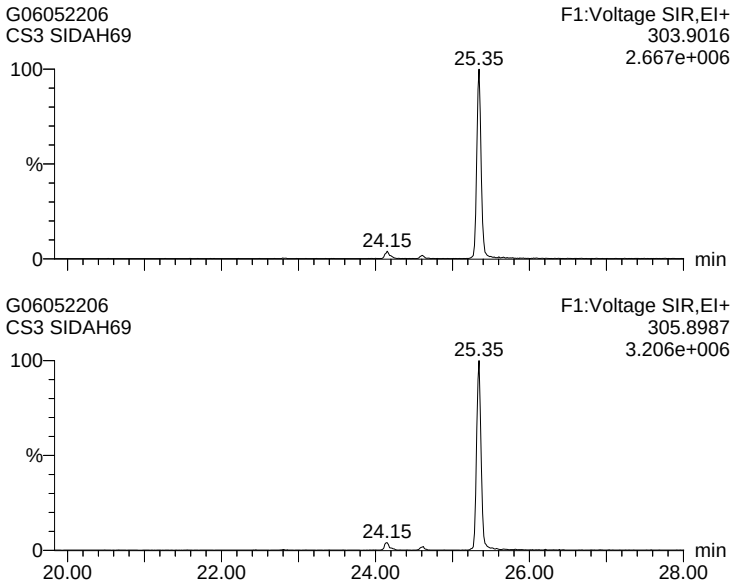
1238/1234/1678/1469/1236-TCDF



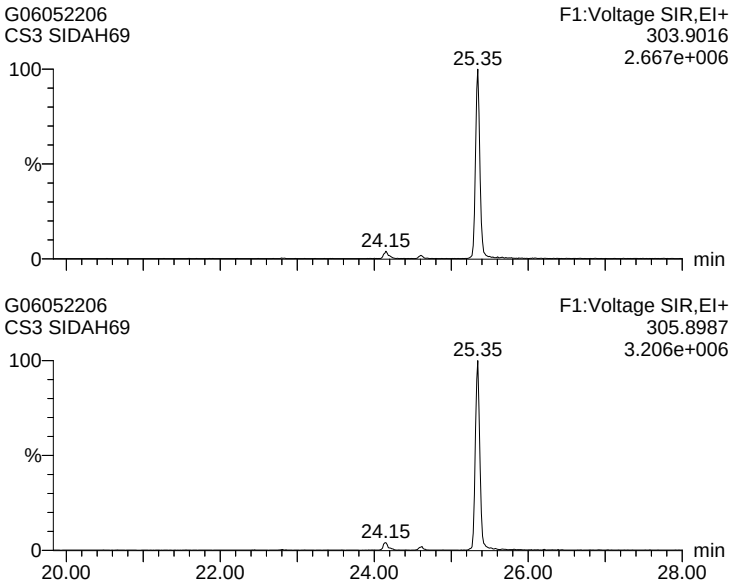
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

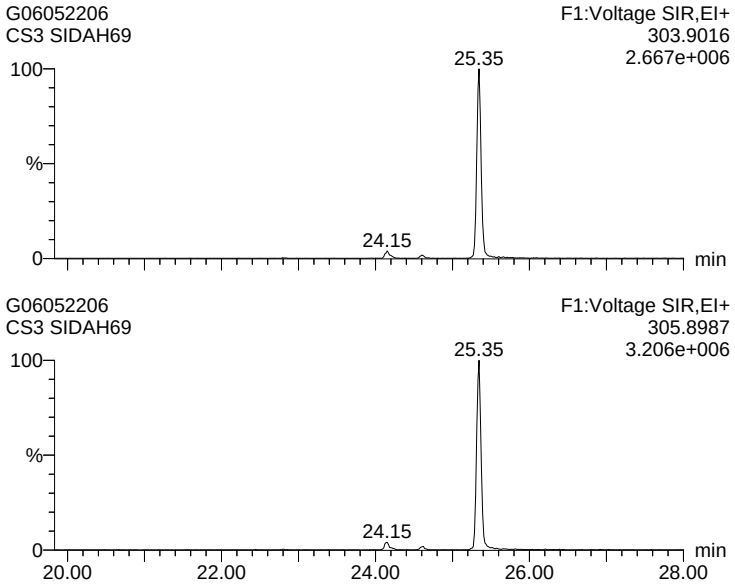
1278-TCDF



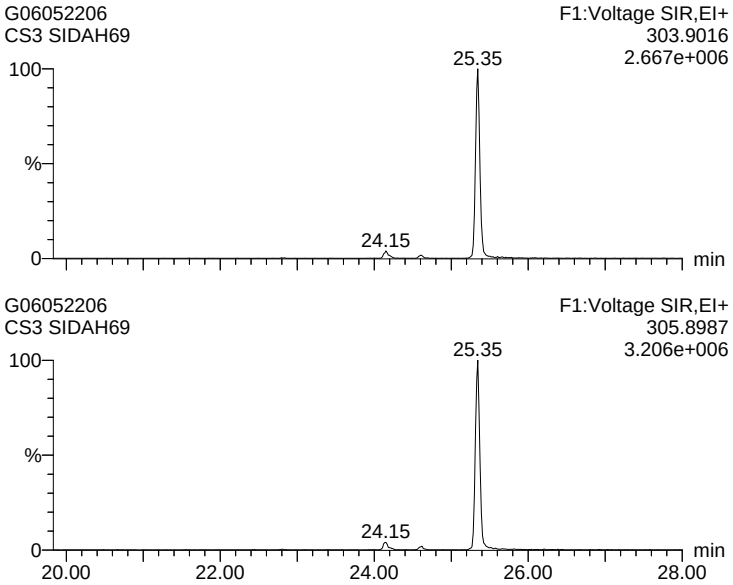
1349-TCDF



1267-TCDF



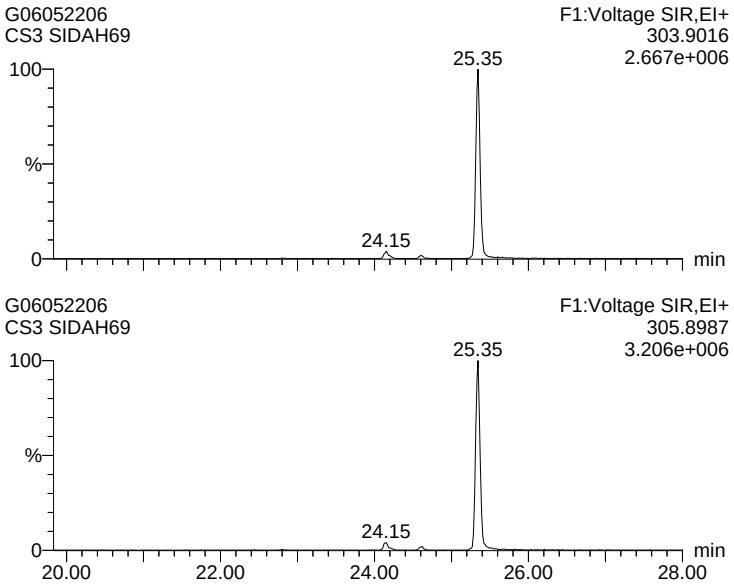
2346/1249-TCDF



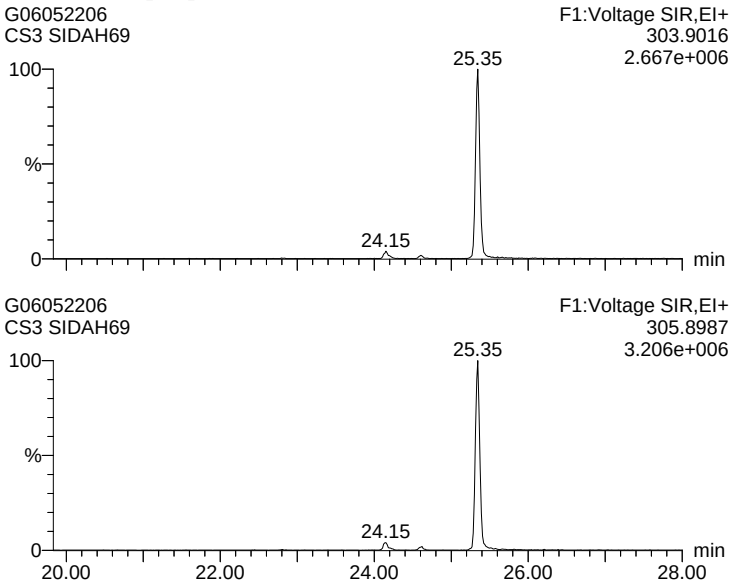
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

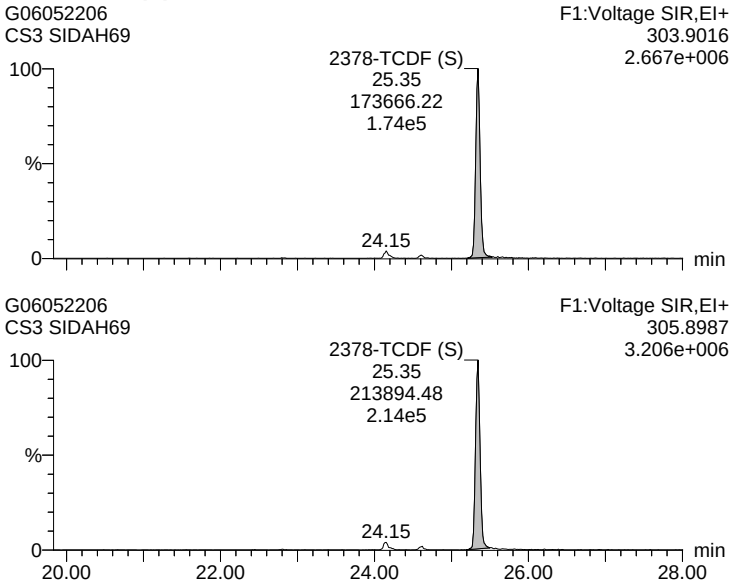
2347/1279-TCDF



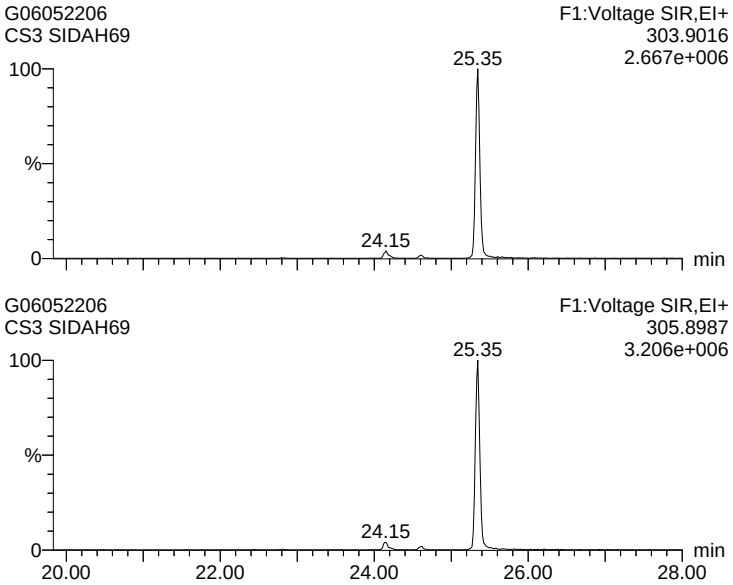
2348-TCDF [CE]



2378-TCDF (S)



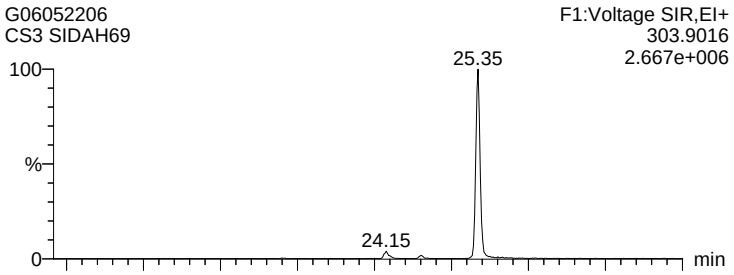
2367/3467-TCDF

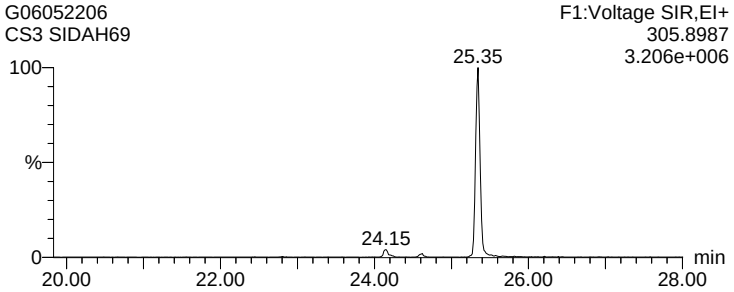


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

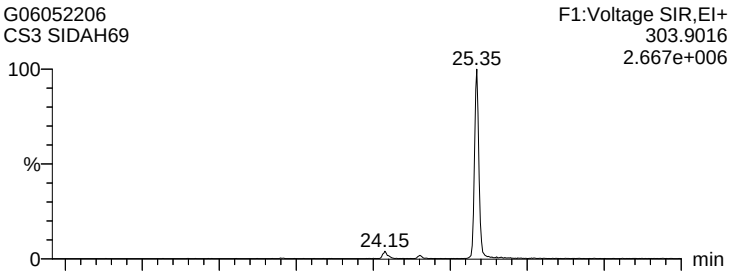
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

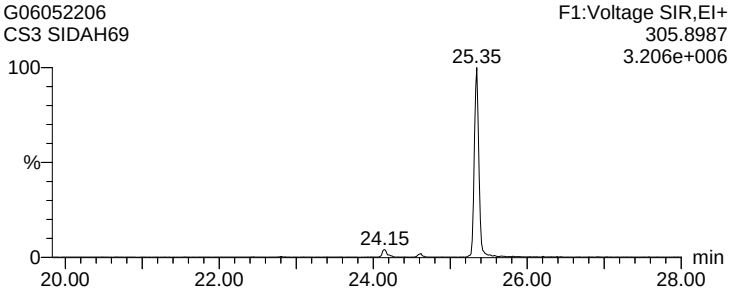
1269-TCDF



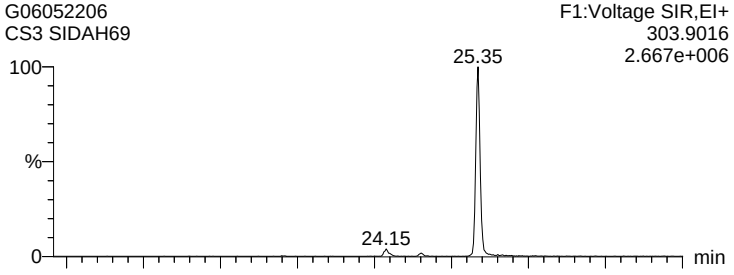


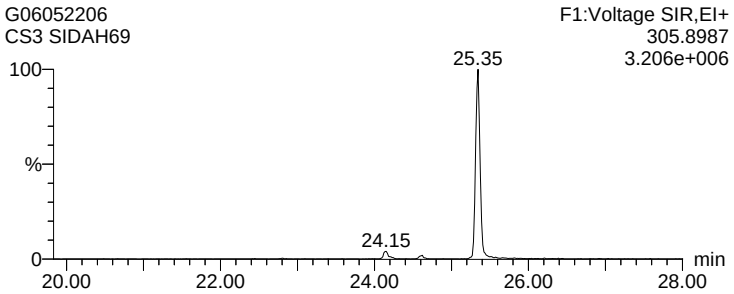
1239-TCDF



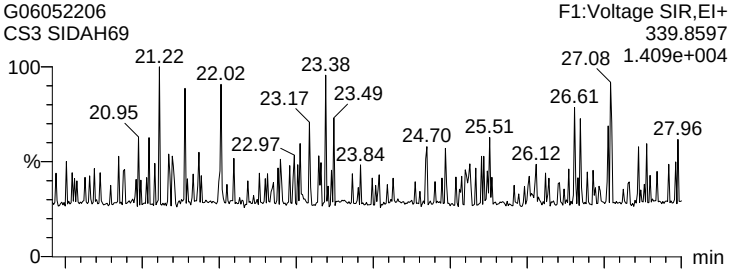


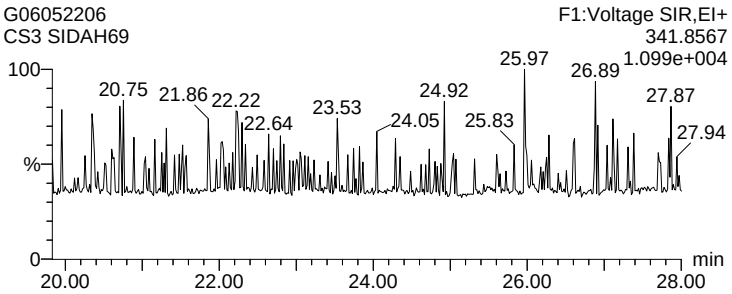
1289-TCDF





13468/12466-PeCDF

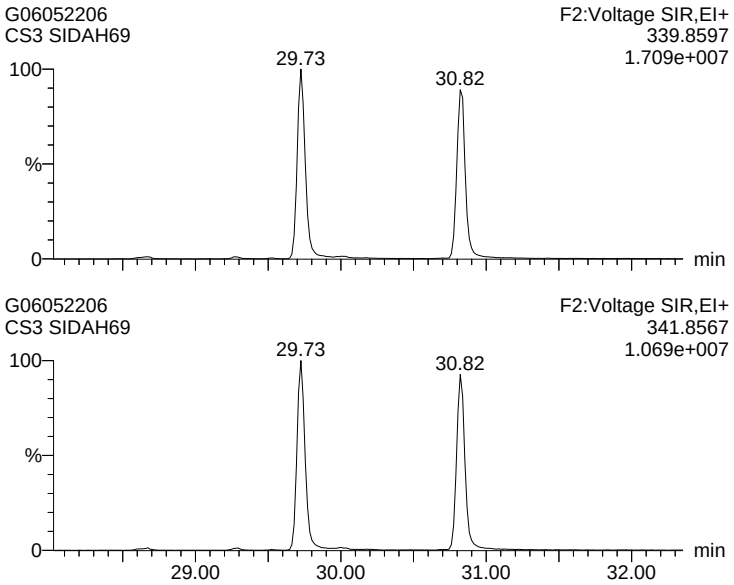




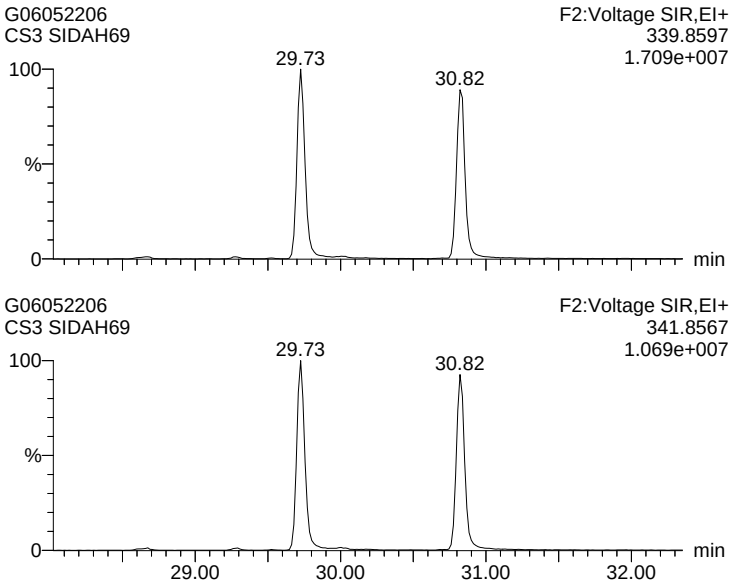
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

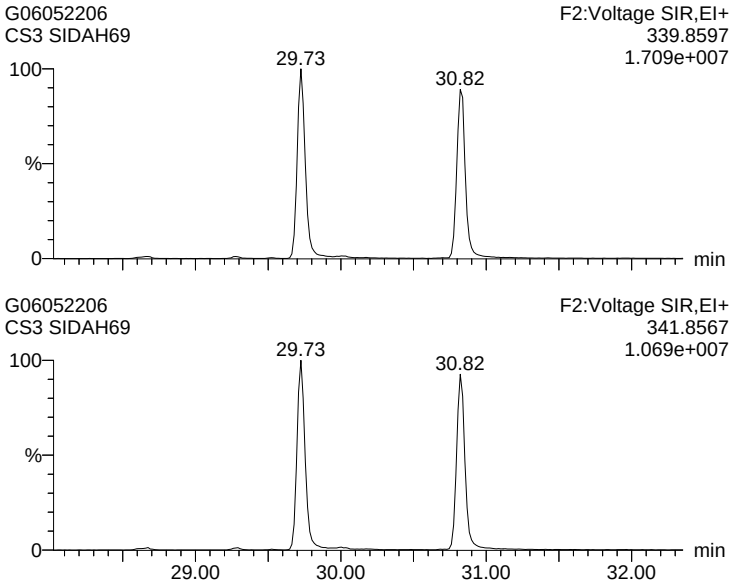
13678/13467/12467-PeCDF



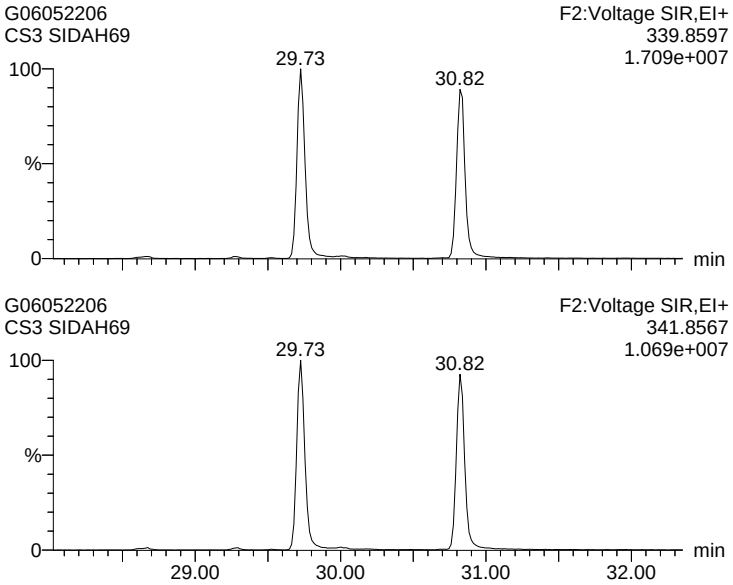
12368/13478/12478-PeCDF



14678-PeCDF



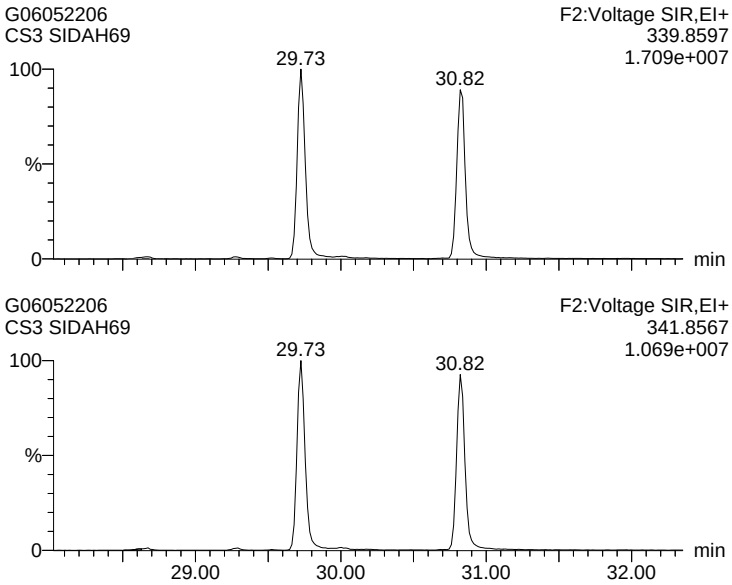
13479-PeCDF



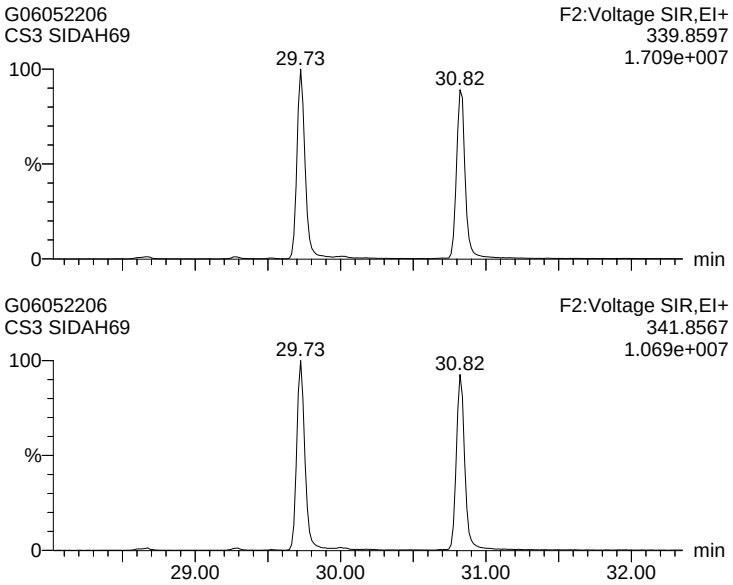
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

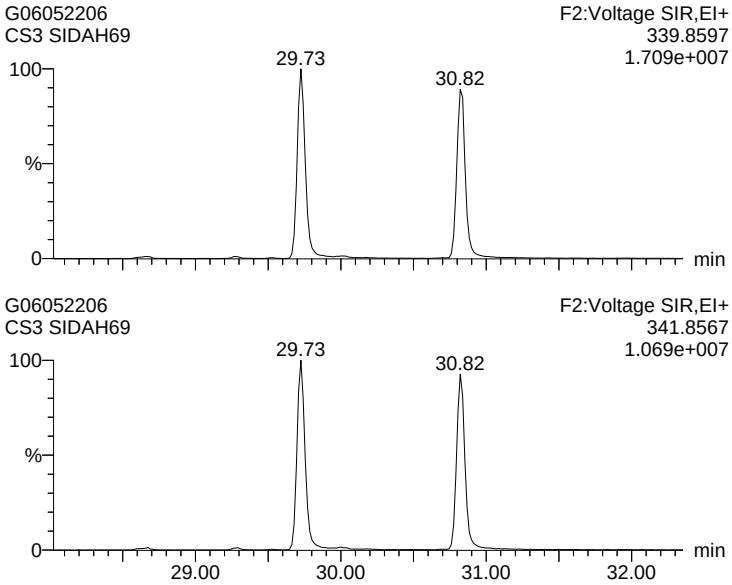
13469/12479-PeCDF



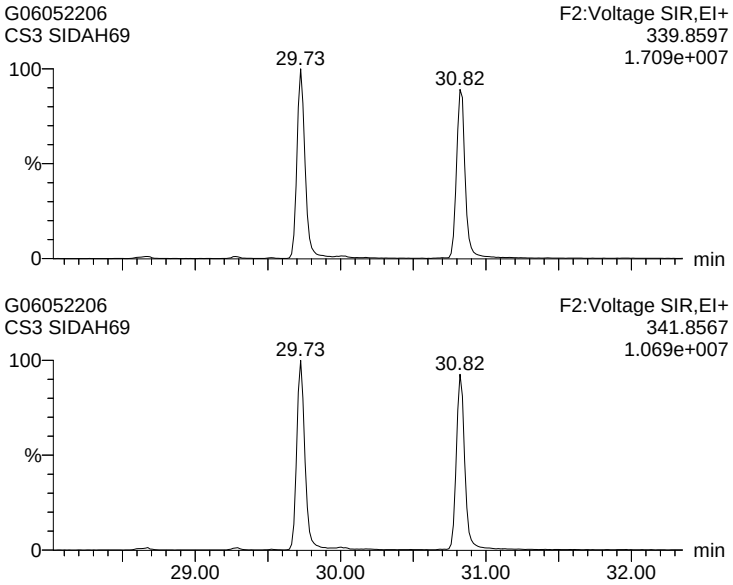
12346-PeCDF



23468/12469-PeCDF



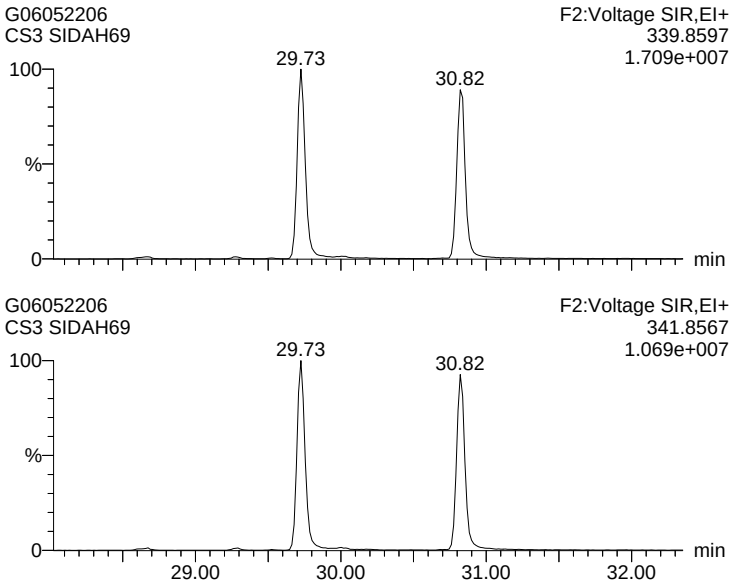
12347-PeCDF



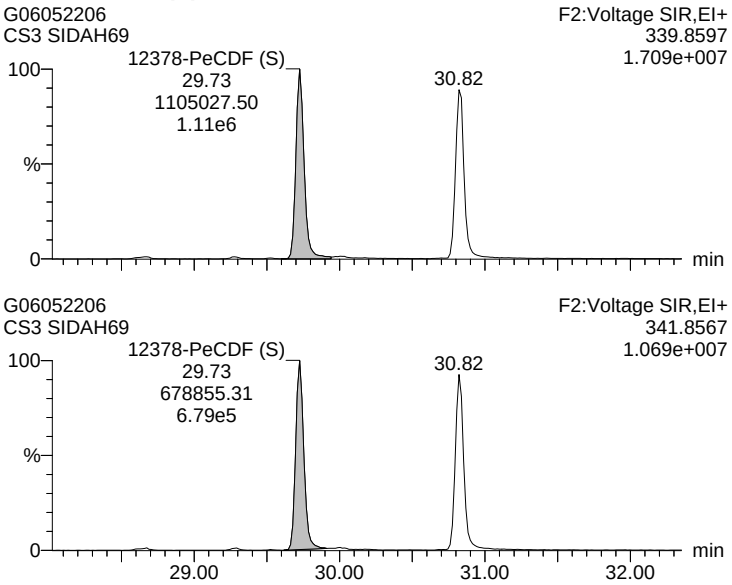
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

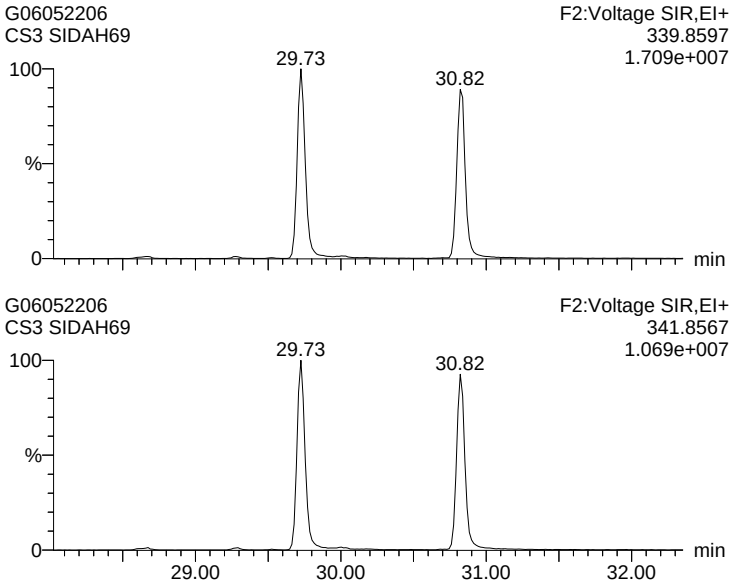
12348-PeCDF



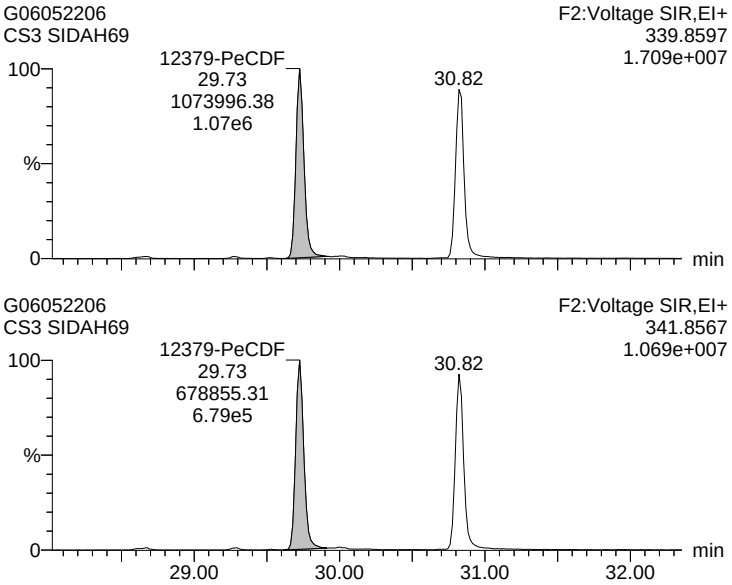
12378-PeCDF (S)



12678/12367-PeCDF



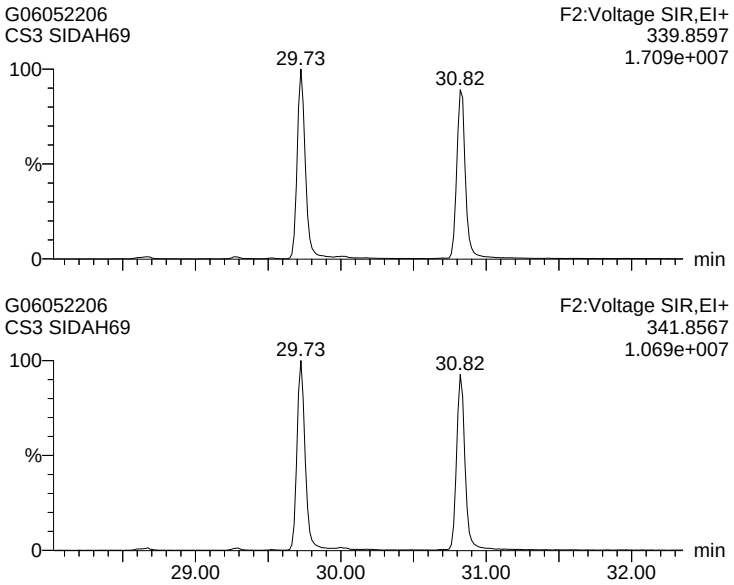
12379-PeCDF



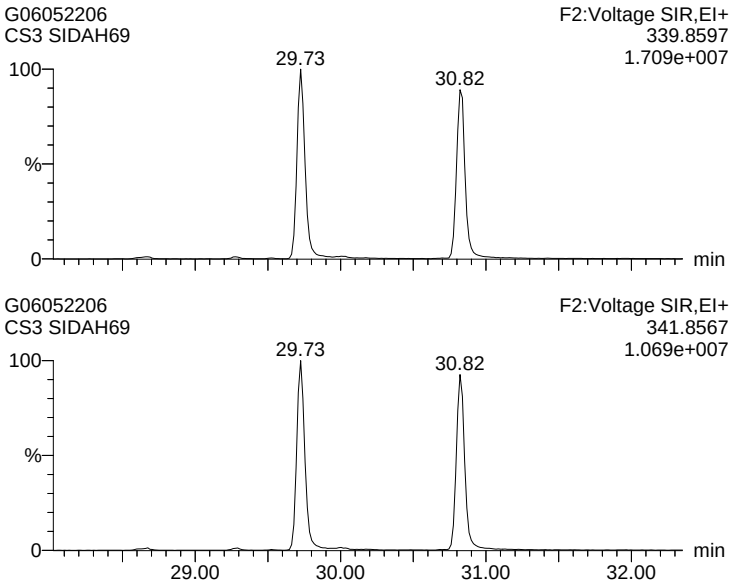
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

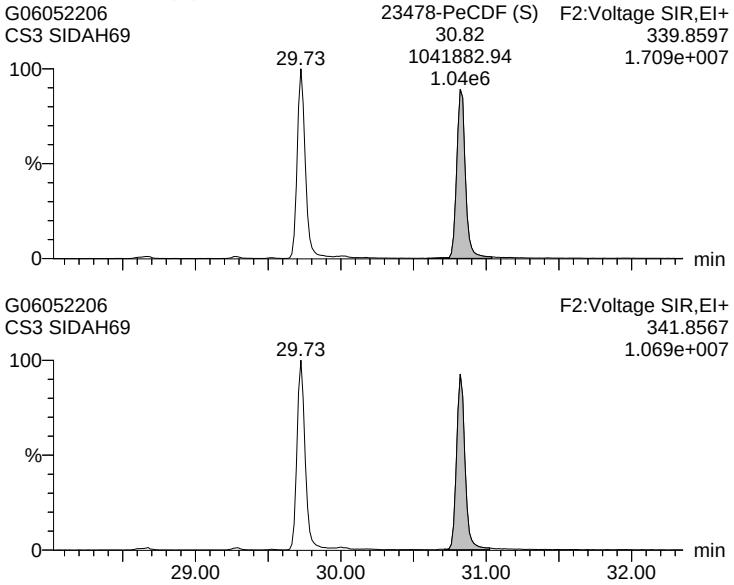
12679-PeCDF



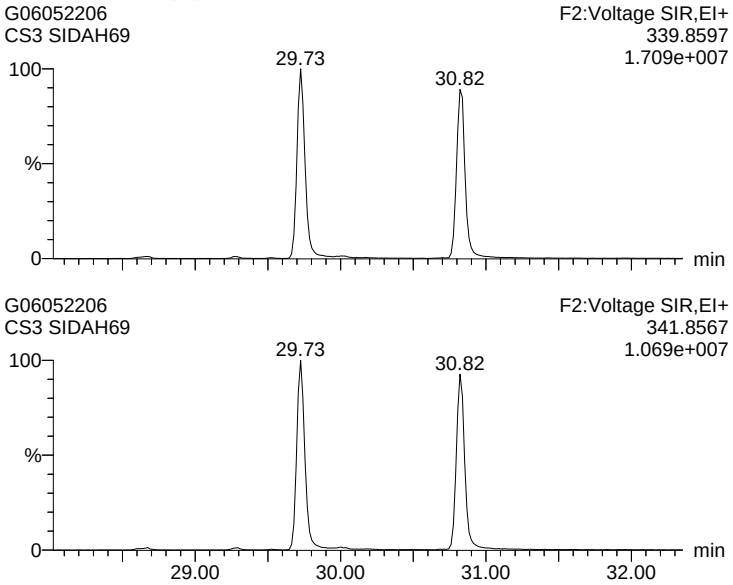
23467/12369-PeCDF



23478-PeCDF (S)



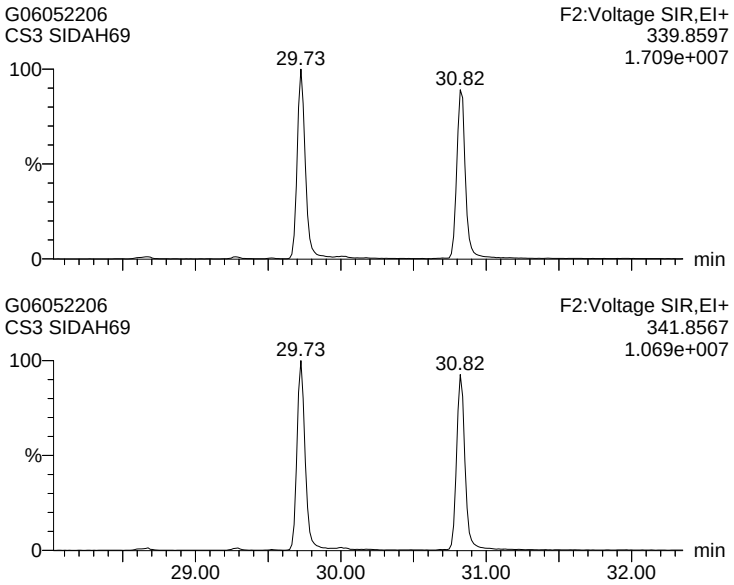
12489-PeCDF (R)



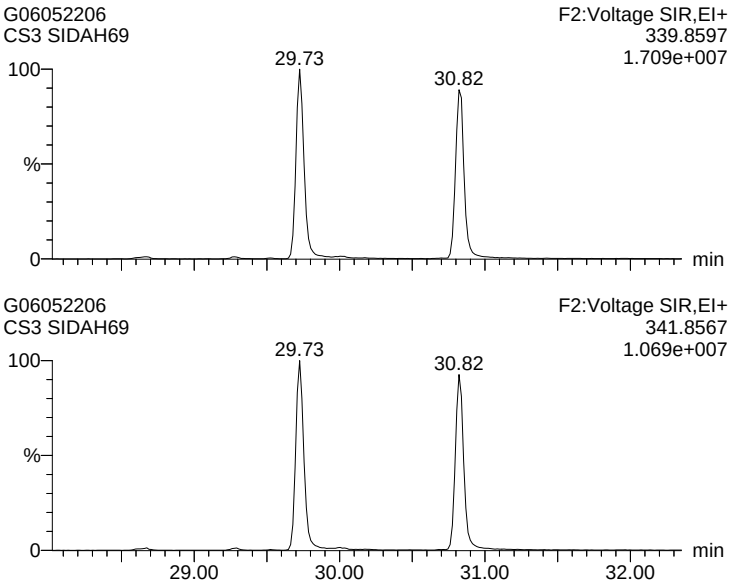
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

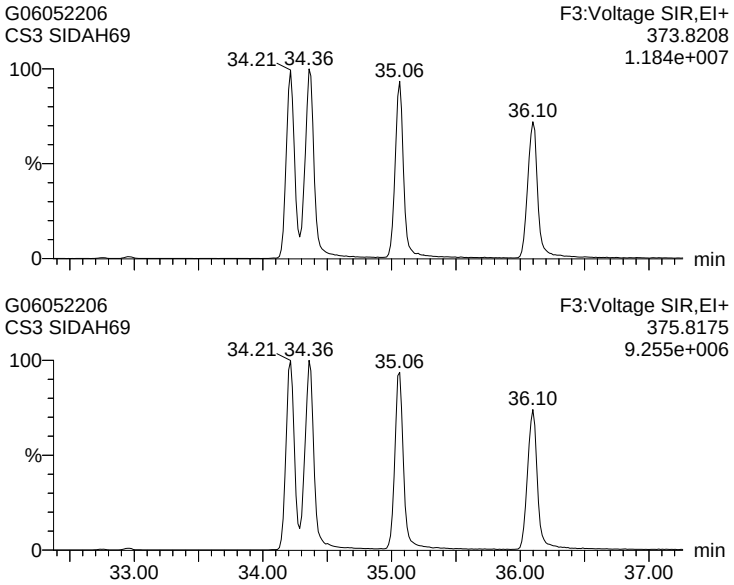
12349-PeCDF



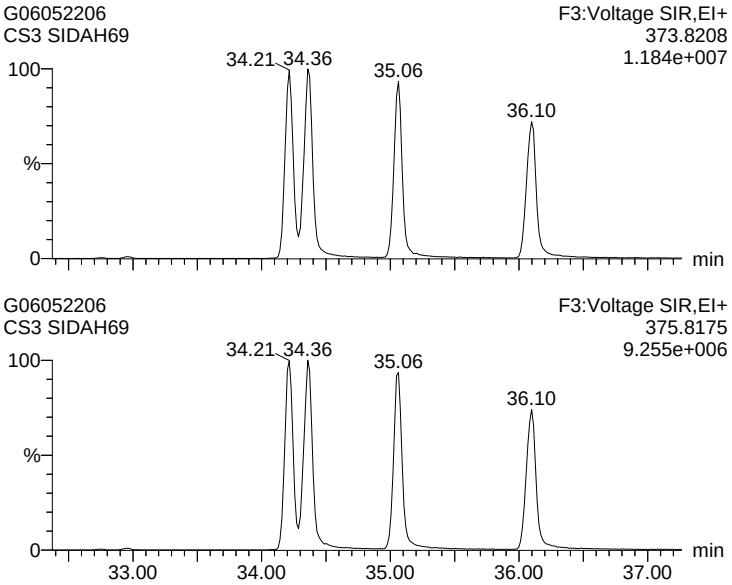
12389-PeCDF



123468-HxCDF



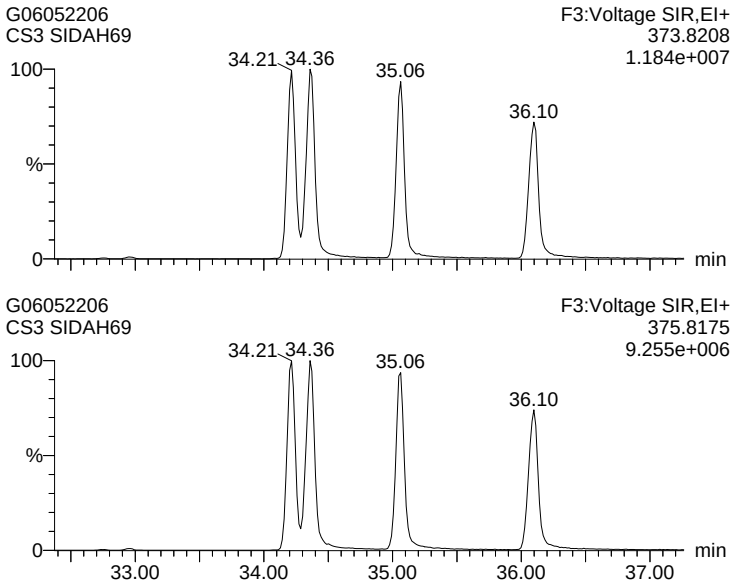
124678/134678-HxCDF



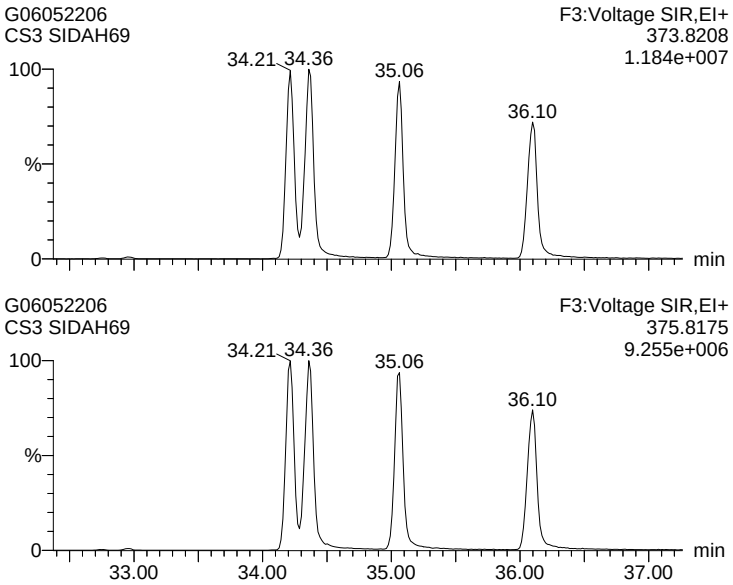
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

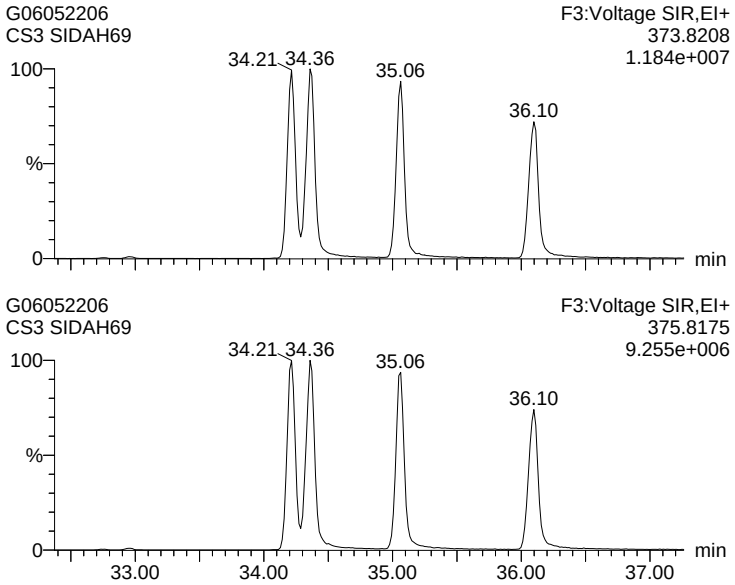
134679-HxCDF



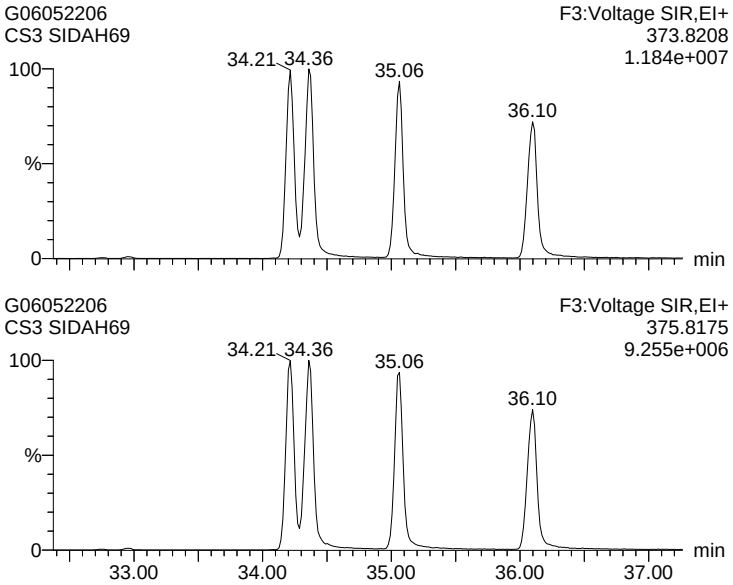
124679-HxCDF



124689-HxCDF



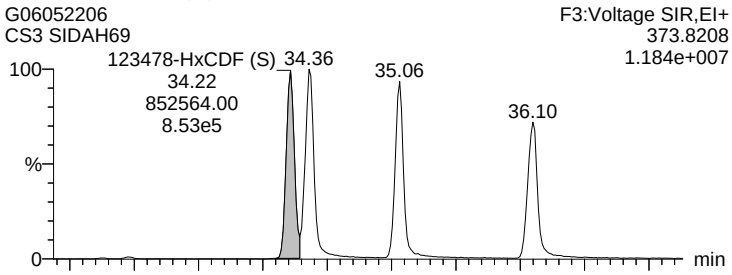
123467-HxCDF

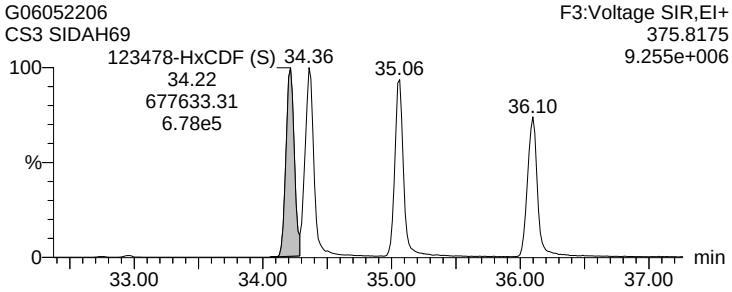


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

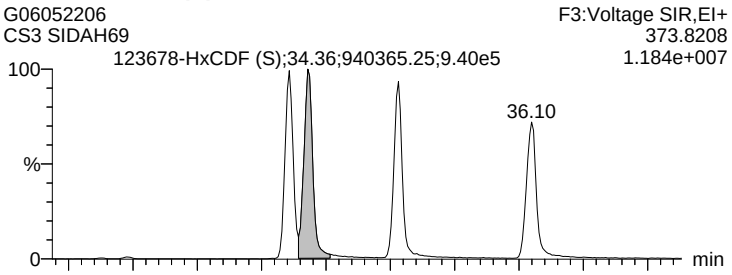
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

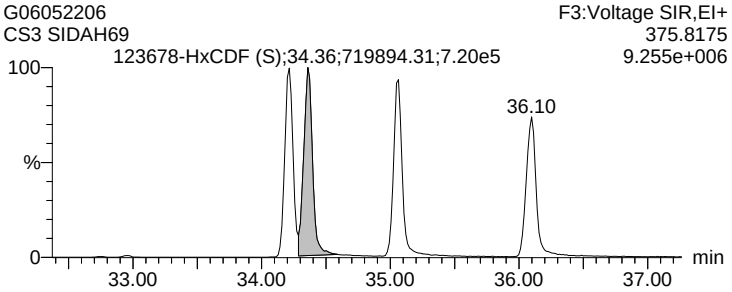
123478-HxCDF (S)



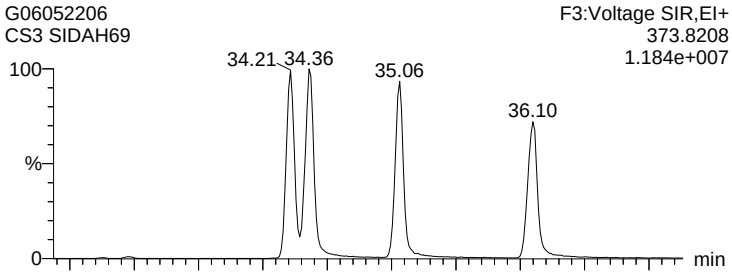


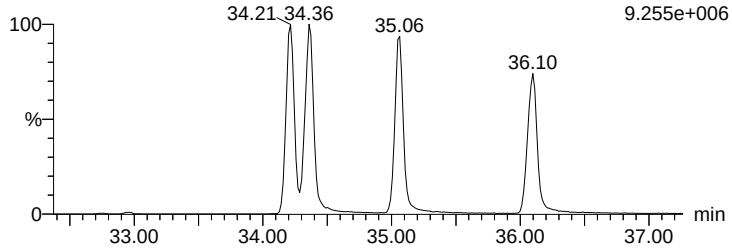
123678-HxCDF (S)



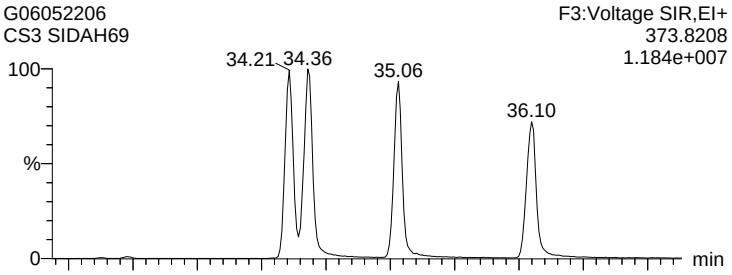


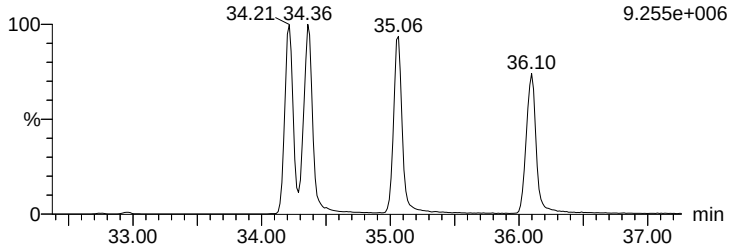
123479-HxCDF





123469-HxCDF

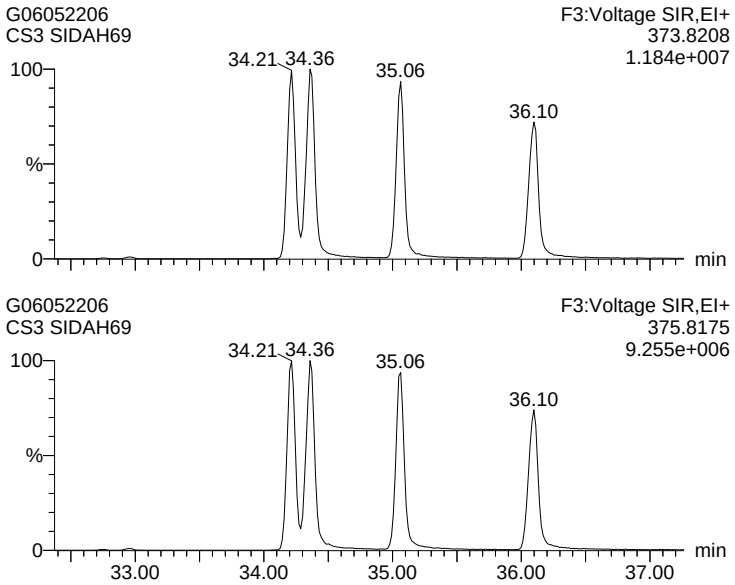




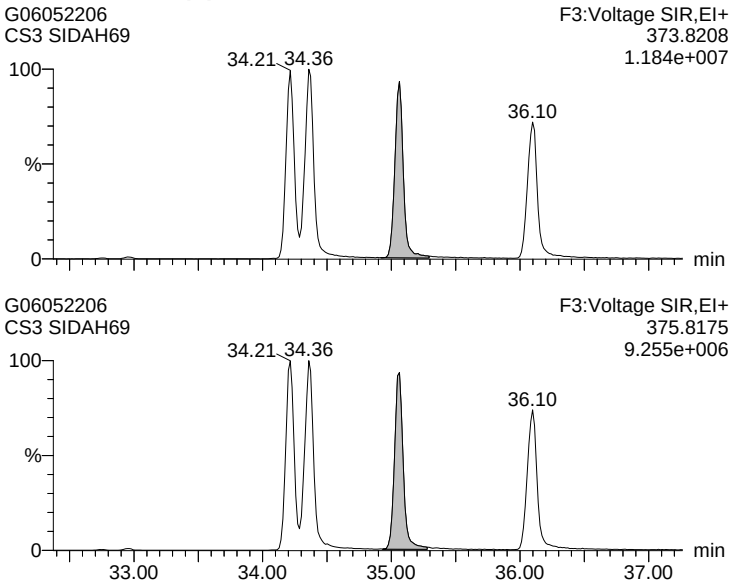
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

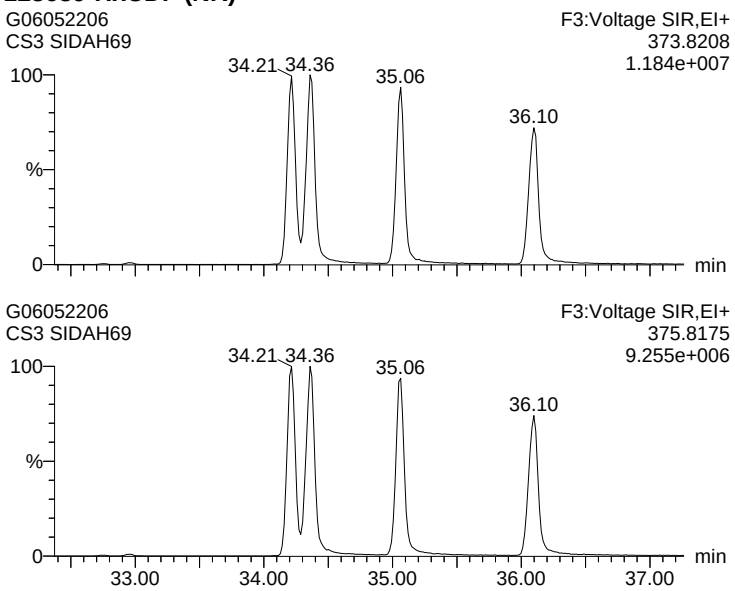
123679-HxCDF



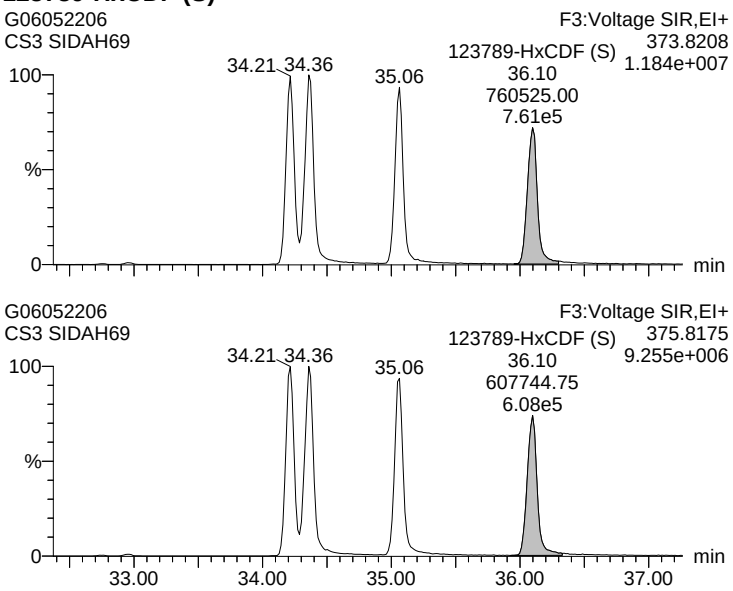
234678-HxCDF (S)



123689-HxCDF (NR)



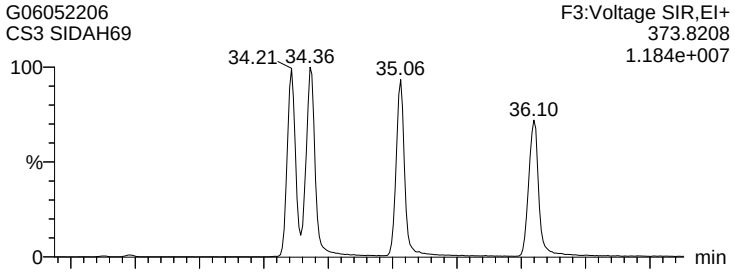
123789-HxCDF (S)

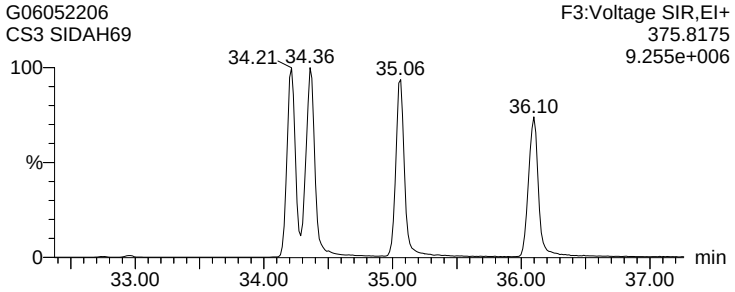


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

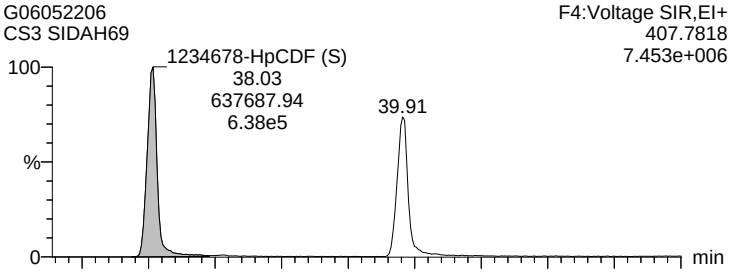
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

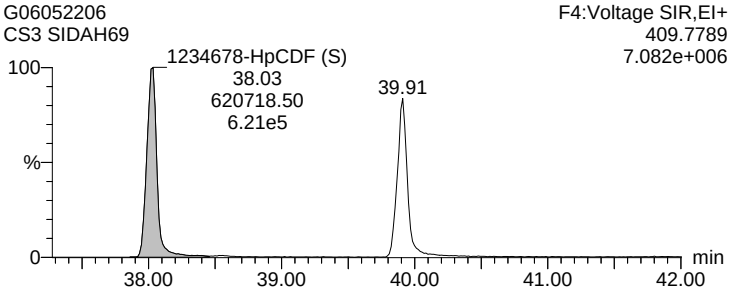
123489-HxCDF (R)



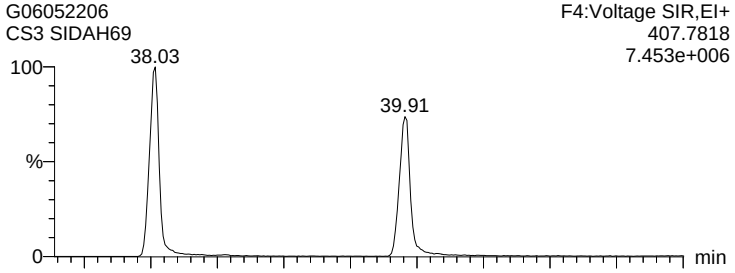


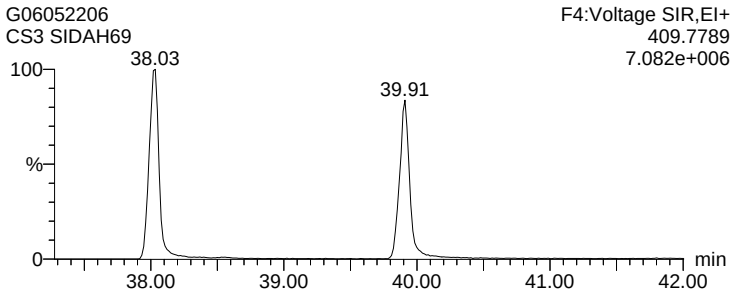
1234678-HpCDF (S)



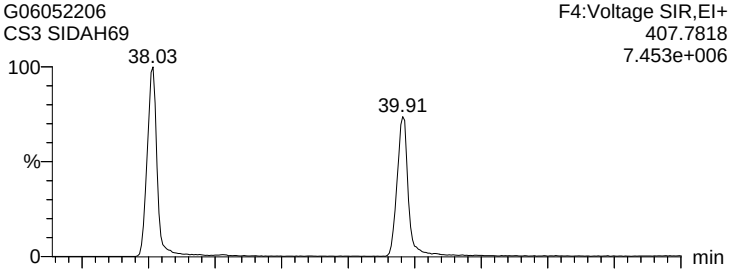


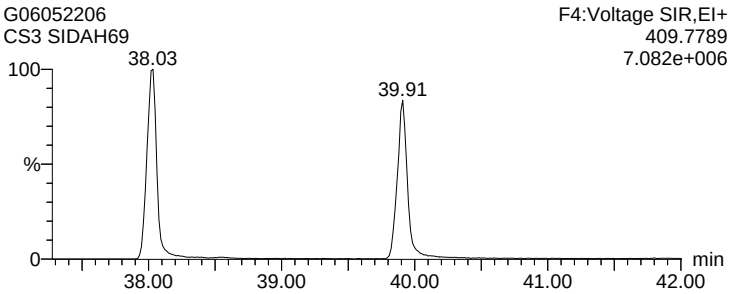
1234679-HpCDF





1234689-HpCDF

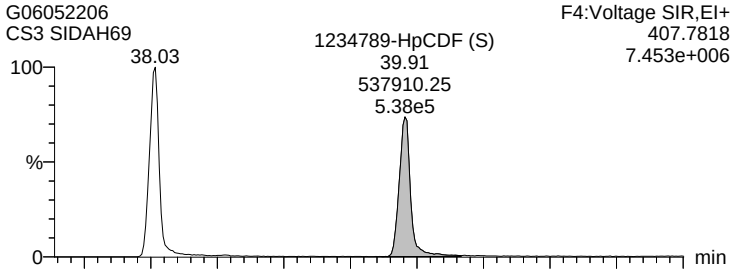


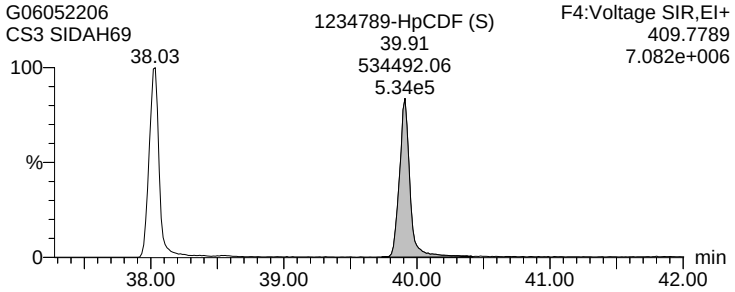


Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

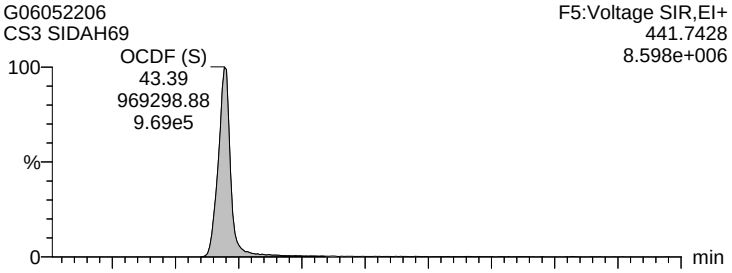
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

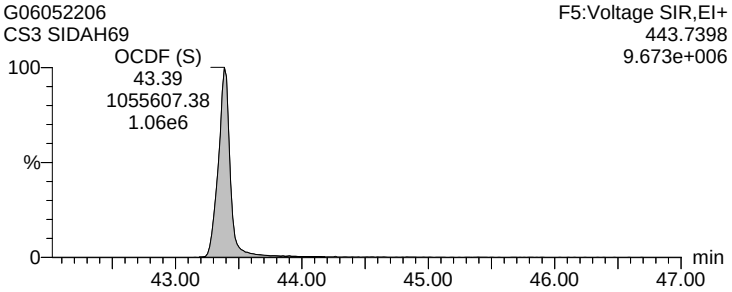
1234789-HpCDF (S)



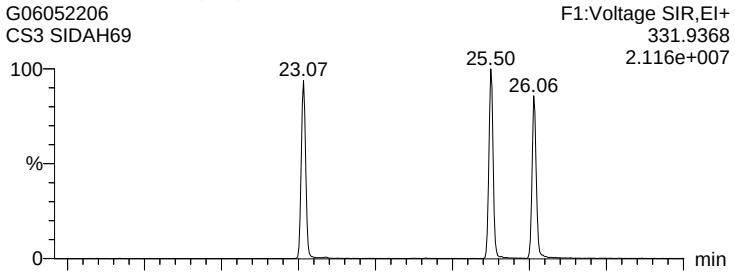


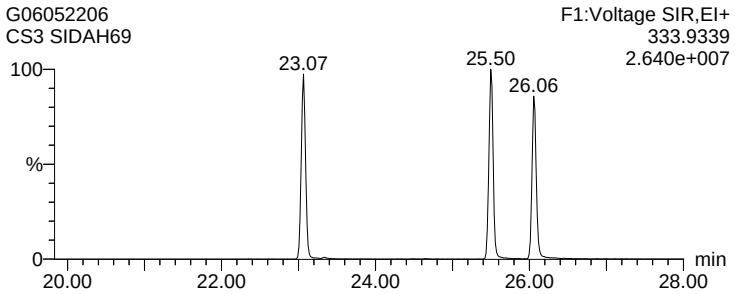
OCDF (S)



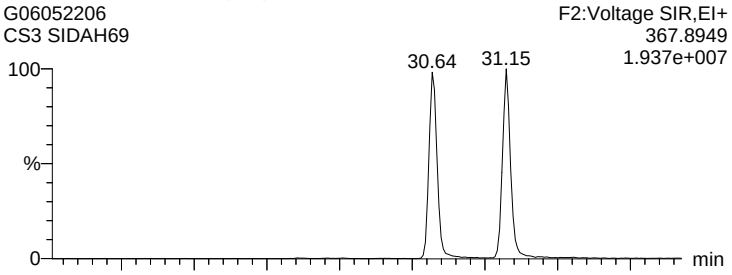


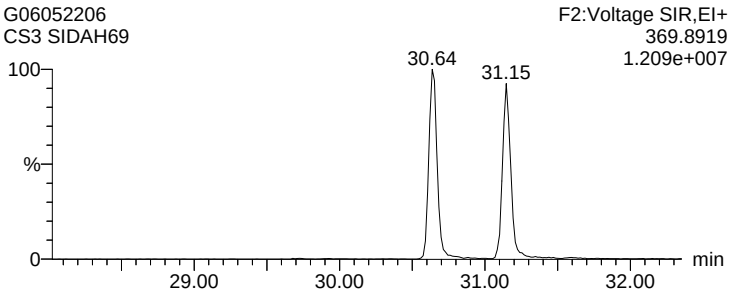
13C-1278-TCDD (FS)





13C-12478-PeCDD (FS)

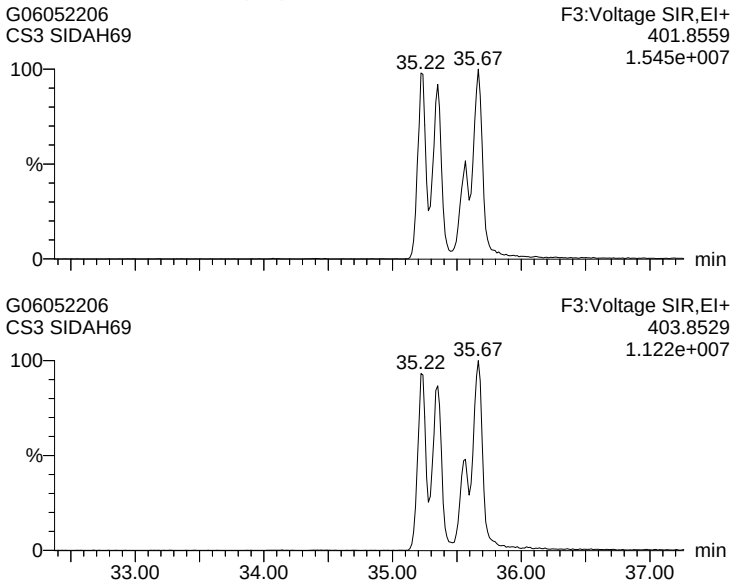




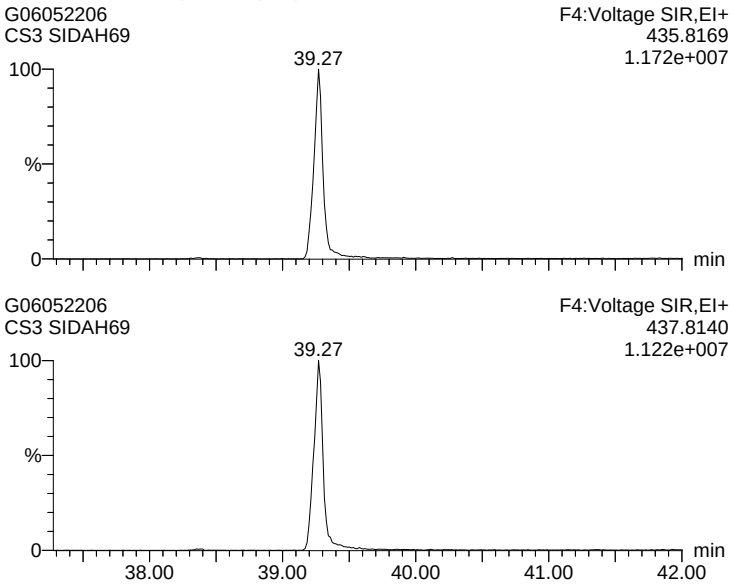
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

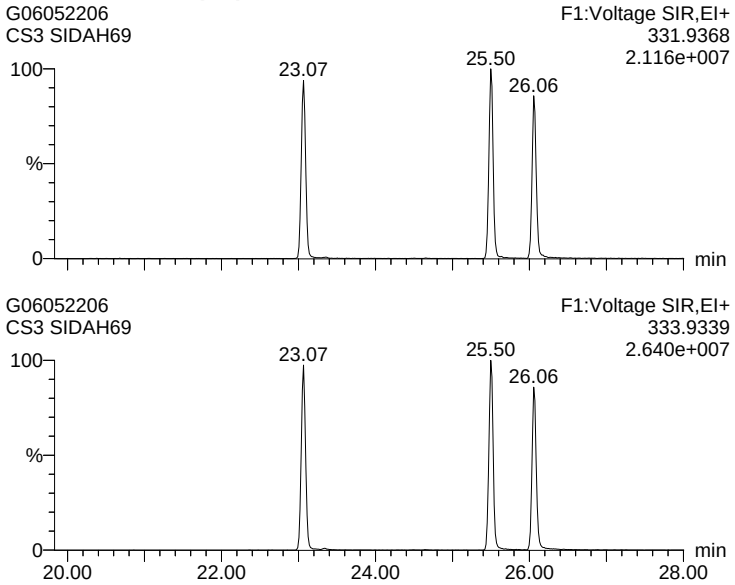
13C-123468-HxCDD (FS)



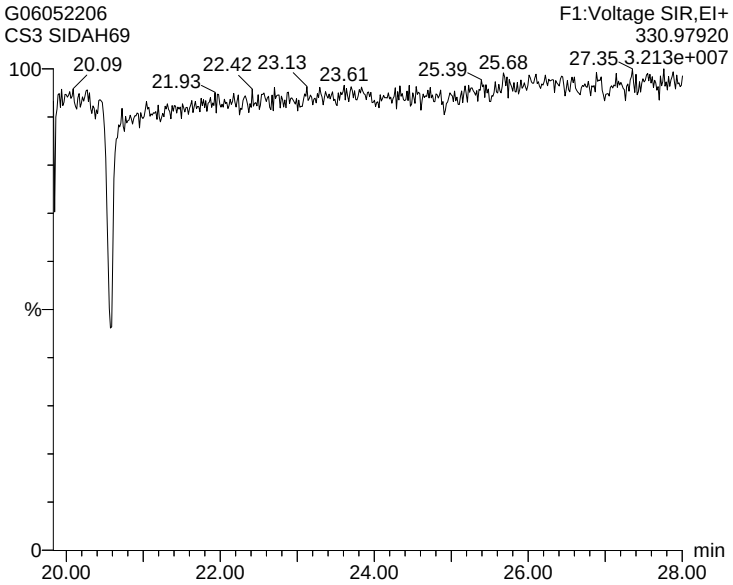
13C-1234679-HpCDD (FS)



13C-1378-TCDD (TS)



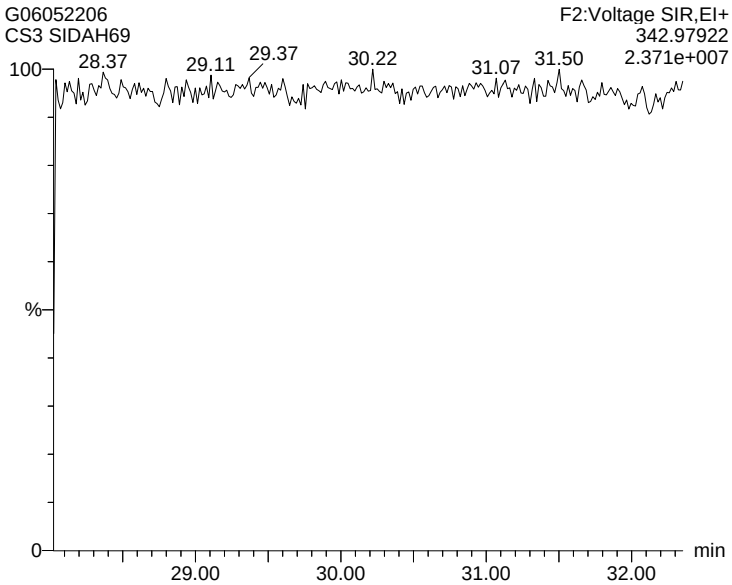
QC Check Ion Fn 1



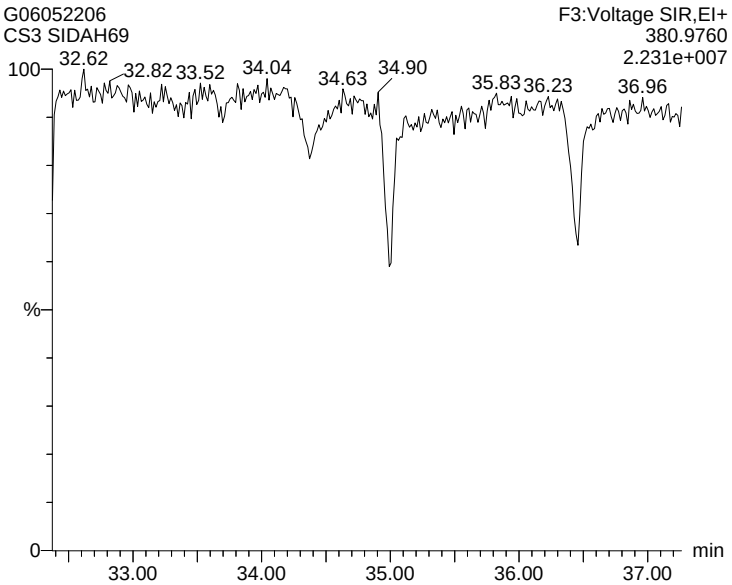
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

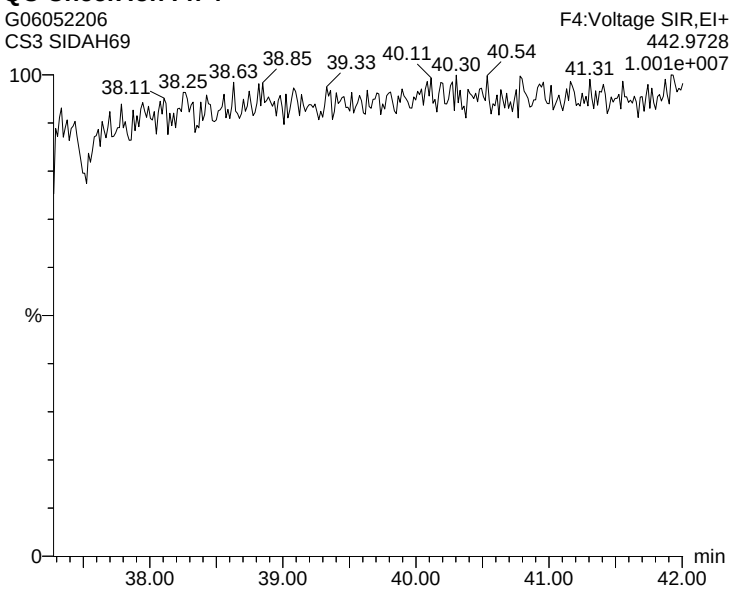
QC Check Ion Fn 2



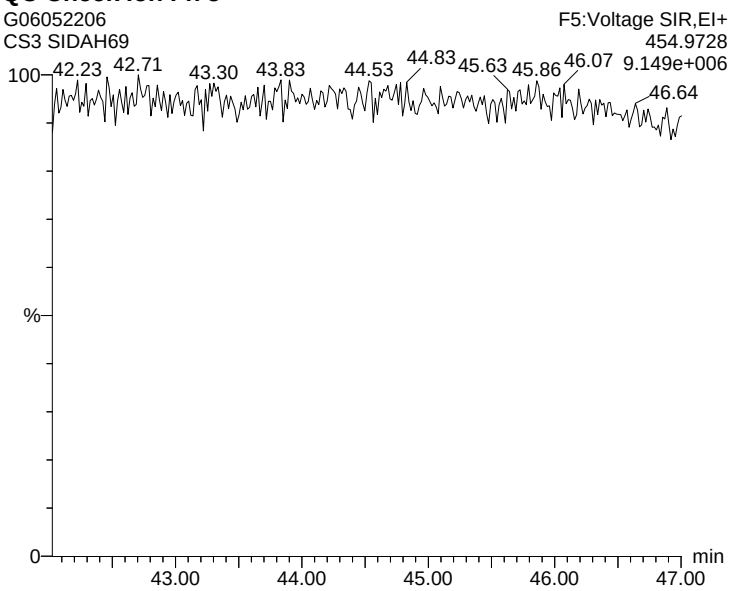
QC Check Ion Fn 3



QC Check Ion Fn 4



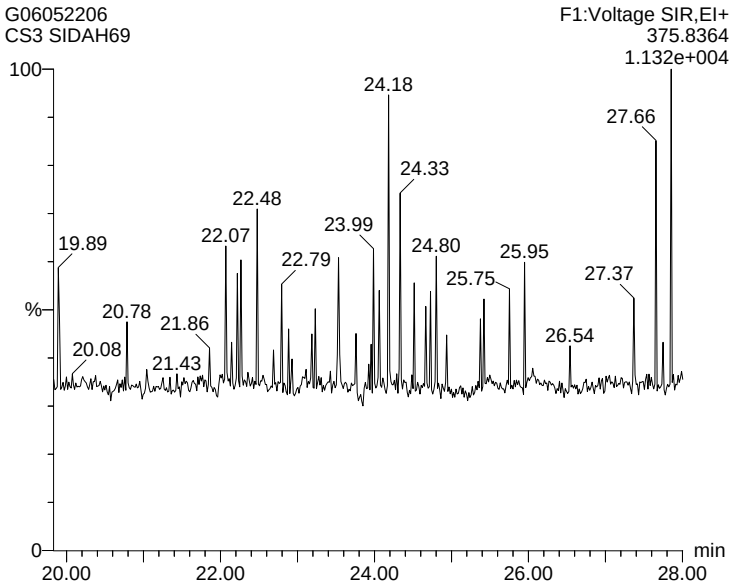
QC Check Ion Fn 5



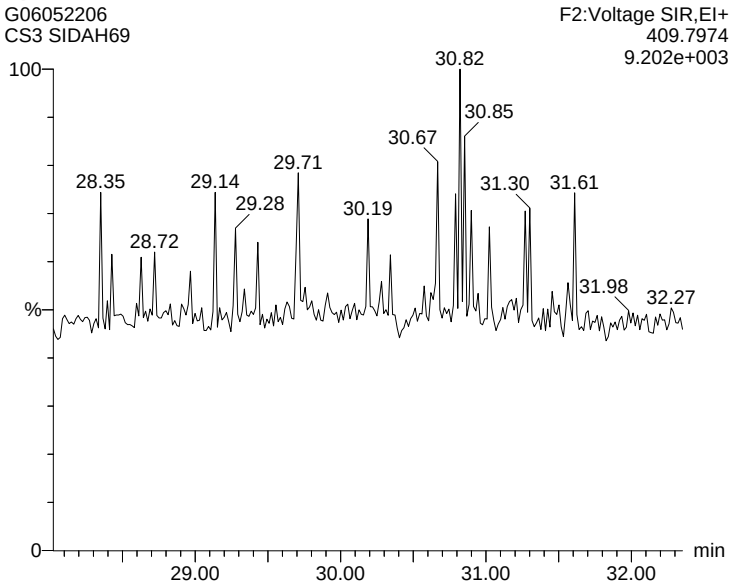
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

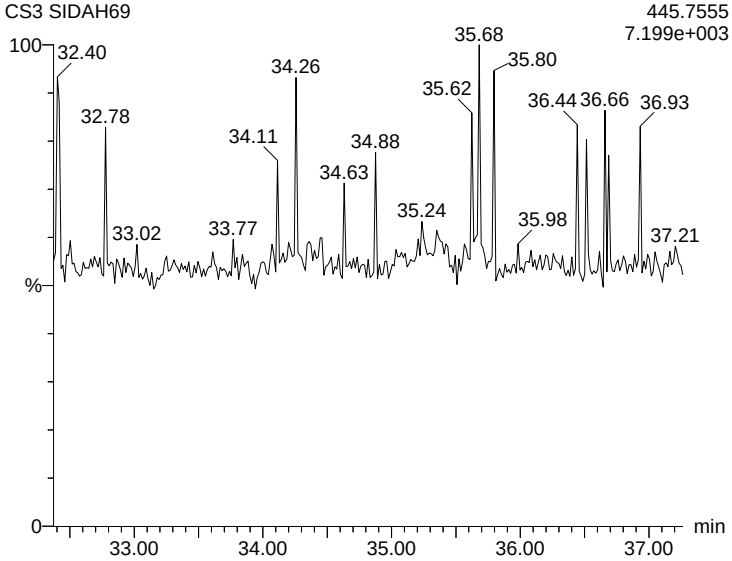
HxDPE



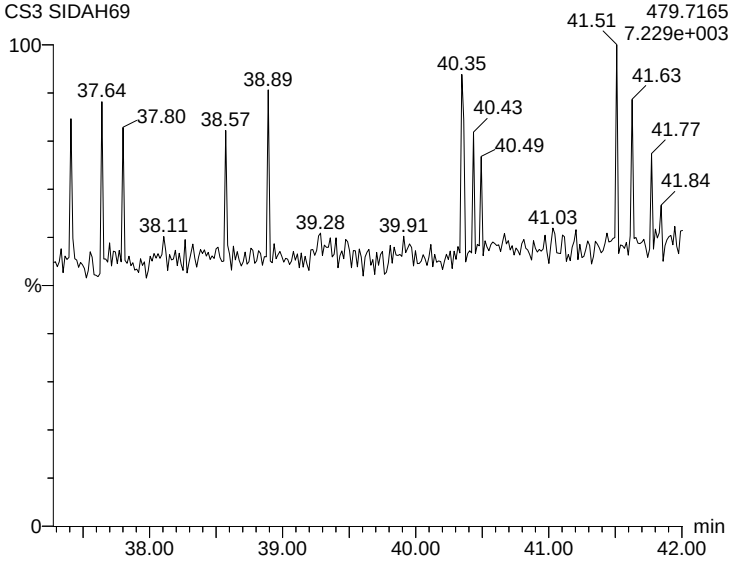
HpDPE



OcDPE



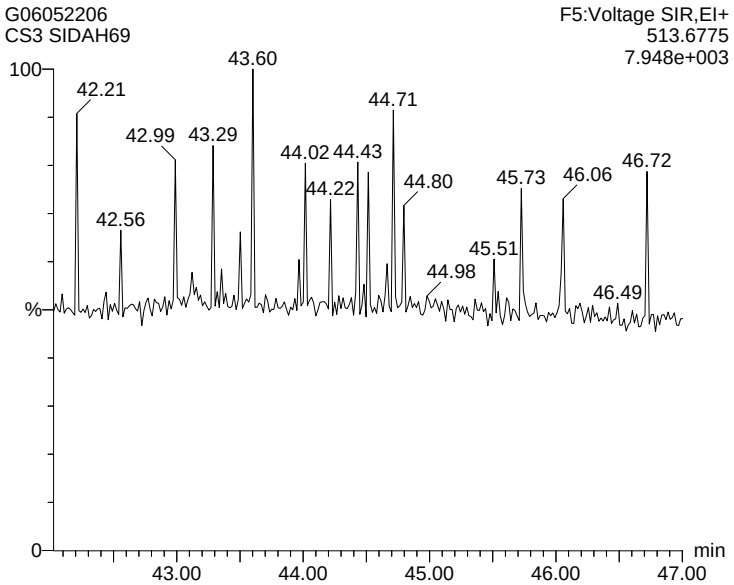
NoDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

DeDPE



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	13C-1234-TCDD (JS)	331.9368	25.50	1306324.000		2939898.375	bb	93.0	-7.0
2	2	13C-1234-TCDF (JS)	315.9419	24.21	1529835.875		3512820.000	bb	90.8	-9.2
3	3	13C-123467-HxCDD (JS)	401.8559	35.57	483736.750		819586.063	bd	43.6	-12.7
4	4	13C-2378-TCDD (ES)	331.9368	26.06	1101713.250	1306324.000	85.006	bb	97.4	-2.6
5	5	13C-12378-PeCDD (ES)	367.8949	31.15	1206222.125	1306324.000	65.548	bb	95.8	-4.2
6	6	13C-123478-HxCDD (ES)	401.8559	35.22	1038731.625	483736.750	107.404	bd	100.6	0.6
7	7	13C-123678-HxCDD (ES)	401.8559	35.35	1034350.313	483736.750	108.096	db	101.2	1.2
8	8	13C-123789-HxCDD (ES)	401.8559	35.67	1159592.875	483736.750	122.470	db	103.2	3.2
9	9	13C-1234678-HpCDD (ES)	435.8169	39.27	864334.438	483736.750	103.761	bb	101.3	1.3
10	10	13C-OCDD (ES)	469.7780	43.12	1344597.375	483736.750	82.029	bb	207.6	3.8
11	11	13C-2378-TCDF (ES)	315.9419	25.32	1552718.125	1529835.875	98.490	bb	100.5	0.5
12	12	13C-12378-PeCDF (ES)	351.9000	29.20	2014924.375	1529835.875	92.800	bb	100.9	0.9
13	13	13C-23478-PeCDF (ES)	351.9000	30.81	1853463.750	1529835.875	86.228	bb	100.0	-0.0
14	14	13C-123478-HxCDF (ES)	383.8639	34.20	811151.750	483736.750	142.464	bd	105.5	5.5
15	15	13C-123678-HxCDF (ES)	383.8639	34.34	928886.938	483736.750	165.529	db	102.3	2.3
16	16	13C-234678-HxCDF (ES)	383.8639	35.05	781755.125	483736.750	139.695	bb	98.9	-1.1
17	17	13C-123789-HxCDF (ES)	383.8639	36.08	762936.375	483736.750	137.679	bb	100.8	0.8
18	18	13C-1234678-HpCDF (ES)	417.8253	38.01	530529.625	483736.750	105.366	bb	104.5	4.5
19	19	13C-1234789-HpCDF (ES)	417.8253	39.90	470978.031	483736.750	91.906	bb	103.7	3.7
20	20	13C-OCDF (ES)	453.7830	43.37	1618823.250	483736.750	98.759	bb	203.6	1.8
21	21	37Cl-2378-TCDD (CS)	327.8847	26.09	298529.844	1306324.000	10.154	bb	9.8	-1.6
22	22	13C-12347-PeCDD (CS)	367.8949	30.64	1204939.750	1306324.000	67.549	bb	99.1	-0.9
23	23	13C-12346-PeCDF (CS)	351.9000	29.20	2014924.375	1529835.875	92.800	bb	100.9	0.9
24	24	13C-123469-HxCDF (CS)	383.8639	34.67	846827.500	483736.750	147.939	bb	103.1	3.1
25	25	13C-1234689-HpCDF (CS)	417.8253	38.56	540451.250	483736.750	104.283	bb	103.1	3.1
26	26	37Cl-2378-TCDD (SS)	327.8847	26.09	298529.844	1101713.250	11.946	bb	10.1	1.0
27	27	13C-12347-PeCDD (SS)	367.8949	30.64	1170916.625	1206222.125	100.292	bb	103.0	3.0
28	28	13C-12346-PeCDF (SS)	351.9000	29.20	2014924.375	2014924.375	100.000	bb	100.0	0.0
29	29	13C-123469-HxCDF (SS)	383.8639	34.67	834837.500	928886.938	87.225	bb	100.8	0.8
30	30	13C-1234689-HpCDF (SS)	417.8253	38.56	540451.250	530529.625	98.972	bb	98.6	-1.4
31	31	13C-1368-TCDD (AS)	331.9368	23.07	1293606.875	1306324.000	99.184	bb	99.1	-0.9
32	32	13C-1368-TCDF (AS)	315.9419	21.56	1761399.750	1529835.875	112.923	bb	99.9	-0.1
33	33	1368-TCDD	319.8965			1101713.250				
34	34	1379-TCDD	319.8965			1101713.250				
35	35	1369-TCDD	319.8965			1101713.250				
36	36	1469-TCDD	319.8965			1101713.250				
37	37	1247/1246/1248/1249-TC...	319.8965			1101713.250				
38	38	1378-TCDD	319.8965			1101713.250				
39	39	1268-TCDD	319.8965			1101713.250				
40	40	1478-TCDD	319.8965			1101713.250				
41	41	1279-TCDD	319.8965			1101713.250				
42	42	1234/1269-TCDD	319.8965			1101713.250				
43	43	1236-TCDD	319.8965			1101713.250				
44	44	1237/1238-TCDD	319.8965			1101713.250				
45	45	1239-TCDD [CE]	319.8965			1101713.250				
46	46	2378-TCDD (S)	319.8965	26.07	126834.016	1101713.250	11.529	bb	10.0	0.2
47	47	1278-TCDD	319.8965			1101713.250				
48	48	1267-TCDD	319.8965			1101713.250				
49	49	1289-TCDD	319.8965			1101713.250				
50	50	12479/12468-PeCDD	355.8546			1206222.125				
51	51	12469-PeCDD	355.8546			1206222.125				
52	52	12368-PeCDD	355.8546			1206222.125				
53	53	12478-PeCDD	355.8546			1206222.125				

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
54	54	12379-PeCDD	355.8546			1206222.125				
55	55	12369/12467/12489-PeCDD	355.8546			1206222.125				
56	56	12346/12347-PeCDD	355.8546			1206222.125				
57	57	12378-PeCDD (S)	355.8546	31.16	698663.063	1206222.125	58.758	bs	52.3	4.7
58	58	12367-PeCDD	355.8546			1206222.125				
59	59	12389-PeCDD	355.8546			1206222.125				
60	60	124679/124689-HxCDD	389.8157			1038731.625				
61	61	123468-HxCDD	389.8157			1038731.625				
62	62	123679/123689-HxCDD	389.8157			1038731.625				
63	63	123469-HxCDD	389.8157			1038731.625				
64	64	123478-HxCDD (S)	389.8157	35.25	584605.125	1038731.625	57.863	bd	50.6	1.1
65	65	123678-HxCDD (S)	389.8157	35.37	576961.000	1034350.313	58.750	db	49.8	-0.3
66	66	123467-HxCDD	389.8157			1159592.875				
67	67	123789-HxCDD (S)	389.8157	35.68	564000.000	1159592.875	52.741	bb	48.8	-2.3
68	68	1234679-HpCDD	423.7766			864334.438				
69	69	1234678-HpCDD (S)	423.7766	39.28	453020.938	864334.438	52.179	bb	50.0	0.1
70	70	OCDD (S)	457.7377	43.14	746010.125	1344597.375	110.964	bb	93.0	-7.0
71	71	1368-TCDF	303.9016			1552718.125				
72	72	1468-TCDF	303.9016			1552718.125				
73	73	2468-TCDF	303.9016			1552718.125				
74	74	1346/1246-TCDF	303.9016			1552718.125				
75	75	1347/1378/1247-TCDF	303.9016			1552718.125				
76	76	1348-TCDF	303.9016			1552718.125				
77	77	1248/1367/1379-TCDF	303.9016			1552718.125				
78	78	1268-TCDF	303.9016			1552718.125				
79	79	1467-TCDF	303.9016			1552718.125				
80	80	1478-TCDF	303.9016			1552718.125				
81	81	1369/1237-TCDF	303.9016			1552718.125				
82	82	2467-TCDF	303.9016			1552718.125				
83	83	2368-TCDF	303.9016			1552718.125				
84	84	1238/1234/1678/1469/123...	303.9016			1552718.125				
85	85	1278-TCDF	303.9016			1552718.125				
86	86	1349-TCDF	303.9016			1552718.125				
87	87	1267-TCDF	303.9016			1552718.125				
88	88	2346/1249-TCDF	303.9016			1552718.125				
89	89	2347/1279-TCDF	303.9016			1552718.125				
90	90	2348-TCDF [CE]	303.9016			1552718.125				
91	91	2378-TCDF (S)	303.9016	25.35	173666.219	1552718.125	11.202	bb	10.0	-0.2
92	92	2367/3467-TCDF	303.9016			1552718.125				
93	93	1269-TCDF	303.9016			1552718.125				
94	94	1239-TCDF	303.9016			1552718.125				
95	95	1289-TCDF	303.9016			1552718.125				
96	96	13468/12466-PeCDF	339.8597			2014924.375				
97	97	13678/13467/12467-PeCDF	339.8597			2014924.375				
98	98	12368/13478/12478-PeCDF	339.8597			2014924.375				
99	99	14678-PeCDF	339.8597			2014924.375				
100	1...	13479-PeCDF	339.8597			2014924.375				
101	1...	13469/12479-PeCDF	339.8597			2014924.375		MM-		
102	1...	12346-PeCDF	339.8597			2014924.375				
103	1...	23468/12469-PeCDF	339.8597			2014924.375				
104	1...	12347-PeCDF	339.8597			2014924.375				
105	1...	12348-PeCDF	339.8597			2014924.375				
106	1...	12378-PeCDF (S)	339.8597	29.73	1105027.500	2014924.375	54.722	bd	50.4	0.8

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\DF\G_DF_ICAL_05MAY22\05MAY22_ICV.qld
Last Altered: Friday, May 06, 2022 13:19:29 Eastern Daylight Time
Printed: Saturday, May 07, 2022 13:51:19 Eastern Daylight Time

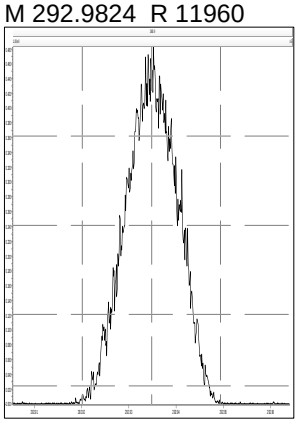
Name: G06052206, Date: 06-May-2022, Time: 11:56:47, ID: SIDAH69, Description: CS3, Instrument:

	#	Name	Trace	RT	Area	IS Area	Response	Primar...	Conc.	%Dev
107	1...	12678/12367-PeCDF	339.8597			2014924.375				
108	1...	12379-PeCDF	339.8597	29.73	1073996.375	2014924.375	53.770	MM	51.7	3.4
109	1...	12679-PeCDF	339.8597			1853463.750				
110	1...	23467/12369-PeCDF	339.8597			1853463.750				
111	1...	23478-PeCDF (S)	339.8597	30.82	1041882.938	1853463.750	56.139	bs	48.2	-3.6
112	1...	12489-PeCDF (R)	339.8597			1853463.750				
113	1...	12349-PeCDF	339.8597			1853463.750				
114	1...	12389-PeCDF	339.8597			1853463.750				
115	1...	123468-HxCDF	373.8208			811151.750				
116	1...	124678/134678-HxCDF	373.8208			811151.750				
117	1...	134679-HxCDF	373.8208			811151.750				
118	1...	124679-HxCDF	373.8208			811151.750				
119	1...	124689-HxCDF	373.8208			811151.750				
120	1...	123467-HxCDF	373.8208			811151.750				
121	1...	123478-HxCDF (S)	373.8208	34.22	852564.000	811151.750	65.526	bd	48.9	-2.3
122	1...	123678-HxCDF (S)	373.8208	34.36	940365.250	928886.938	61.190	ds	49.1	-1.8
123	1...	123479-HxCDF	373.8208			928886.938				
124	1...	123469-HxCDF	373.8208			781755.125				
125	1...	123679-HxCDF	373.8208			781755.125				
126	1...	234678-HxCDF (S)	373.8208	35.06	827823.875	781755.125	65.269	bs	50.2	0.3
127	1...	123689-HxCDF (NR)	373.8208			781755.125				
128	1...	123789-HxCDF (S)	373.8208	36.10	760525.000	762936.375	60.629	bs	49.9	-0.1
129	1...	123489-HxCDF (R)	373.8208			762936.375				
130	1...	1234678-HpCDF (S)	407.7818	38.03	637687.938	530529.625	72.861	bd	47.9	-4.3
131	1...	1234679-HpCDF	407.7818			530529.625				
132	1...	1234689-HpCDF	407.7818			530529.625				
133	1...	1234789-HpCDF (S)	407.7818	39.91	537910.250	470978.031	71.185	bd	49.1	-1.9
134	1...	OCDF (S)	441.7428	43.39	969298.875	1618823.250	119.754	bd	99.7	-0.3
135	1...	13C-1278-TCDD (FS)	331.9368			1101713.250				
136	1...	13C-12478-PeCDD (FS)	367.8949			1206222.125				
137	1...	13C-123468-HxCDD (FS)	401.8559			483736.750				
138	1...	13C-1234679-HpCDD (FS)	435.8169			864334.438				
139	1...	13C-1378-TCDD (TS)	331.9368			1101713.250				
140	1...	QC Check Ion Fn 1	330.97920							
141	1...	QC Check Ion Fn 2	342.97922							
142	1...	QC Check Ion Fn 3	380.9760							
143	1...	QC Check Ion Fn 4	442.9728							
144	1...	QC Check Ion Fn 5	454.9728							
145	1...	HxDPE	375.8364							
146	1...	HpDPE	409.7974							
147	1...	OcDPE	445.7555							
148	1...	NoDPE	479.7165							
149	1...	DeDPE	513.6775							

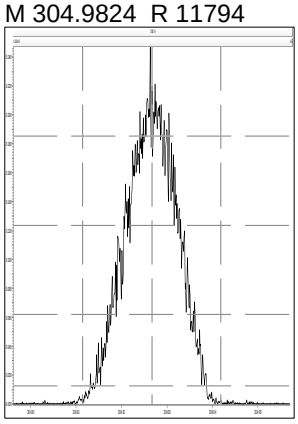
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 1 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:03:27 Eastern Daylight Time

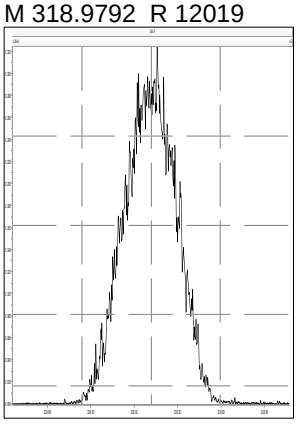
M 292.9824 R 11960



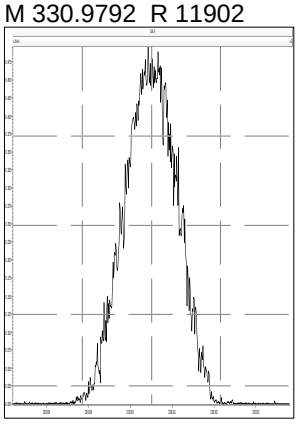
M 304.9824 R 11794



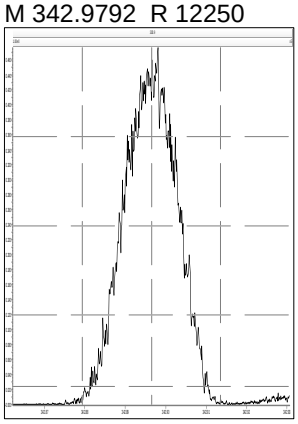
M 318.9792 R 12019



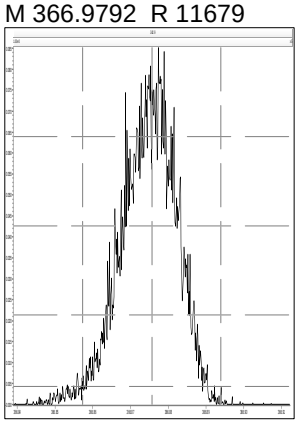
M 330.9792 R 11902



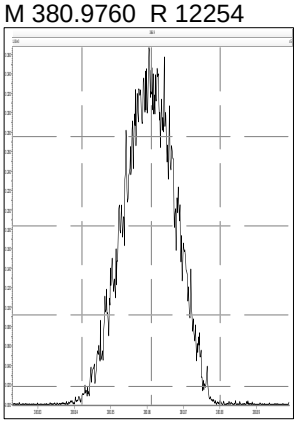
M 342.9792 R 12250



M 366.9792 R 11679



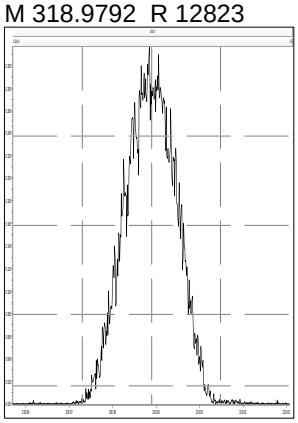
M 380.9760 R 12254



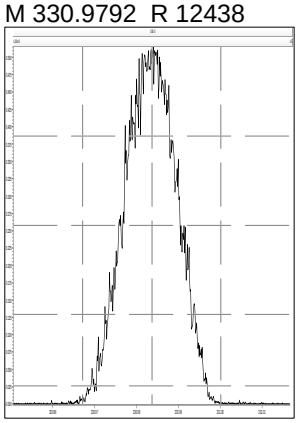
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 2 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:03:56 Eastern Daylight Time

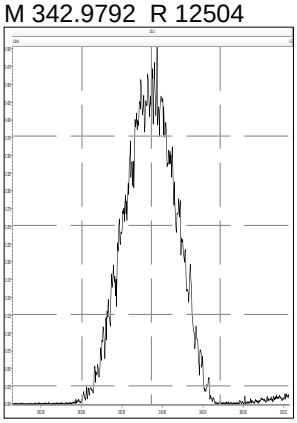
M 318.9792 R 12823



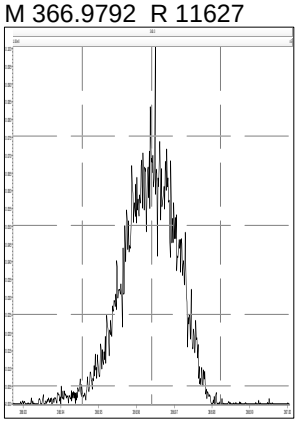
M 330.9792 R 12438



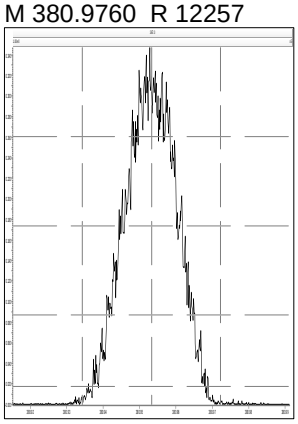
M 342.9792 R 12504



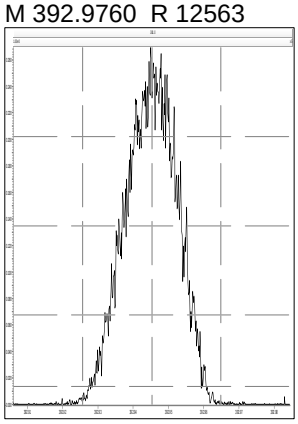
M 366.9792 R 11627



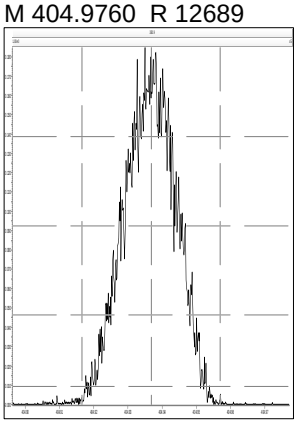
M 380.9760 R 12257



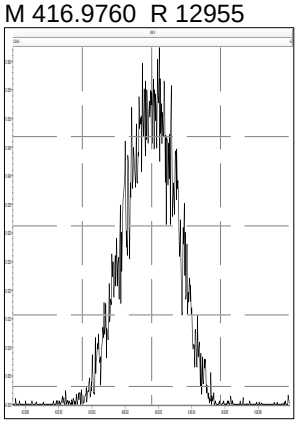
M 392.9760 R 12563



M 404.9760 R 12689



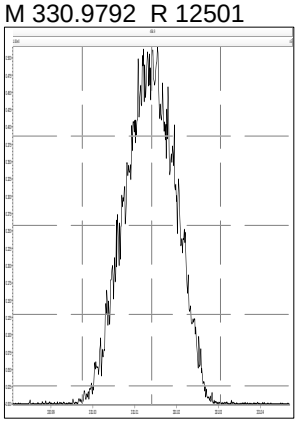
M 416.9760 R 12955



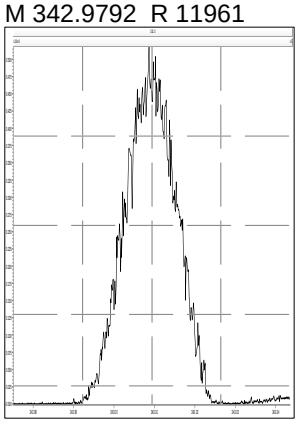
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 3 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:04:32 Eastern Daylight Time

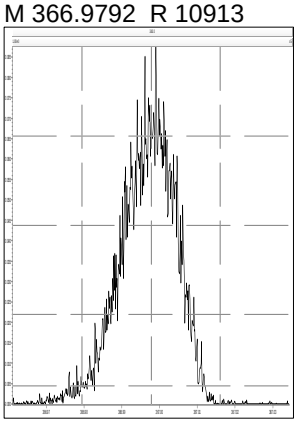
M 330.9792 R 12501



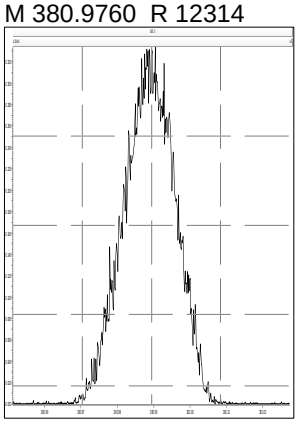
M 342.9792 R 11961



M 366.9792 R 10913



M 380.9760 R 12314



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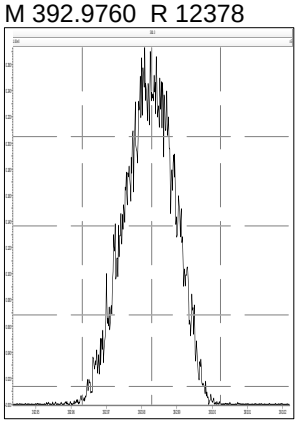
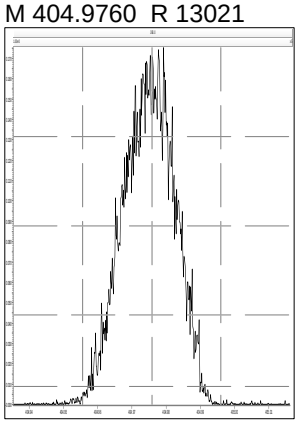
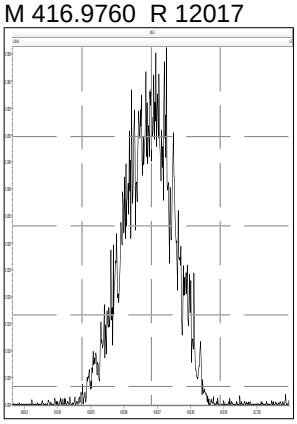


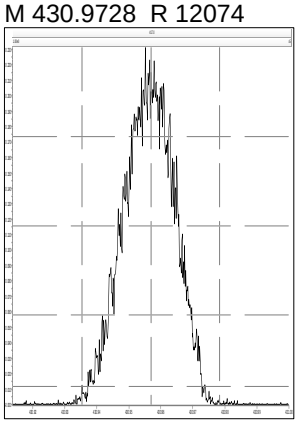
M 404.9760 R 13021



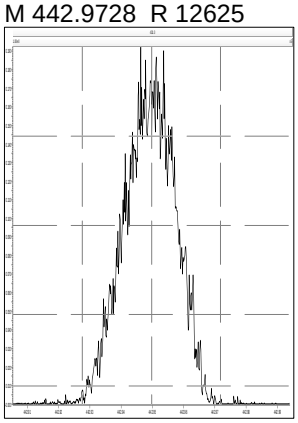
M 416.9760 R 12017



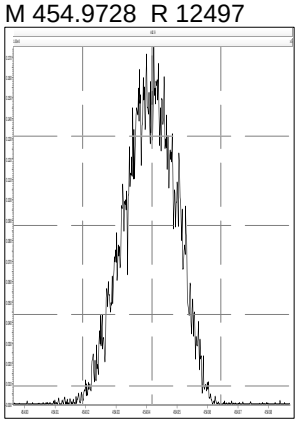
M 430.9728 R 12074



M 442.9728 R 12625



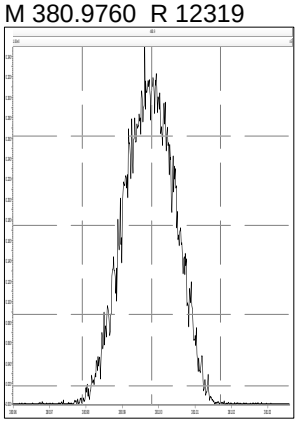
M 454.9728 R 12497



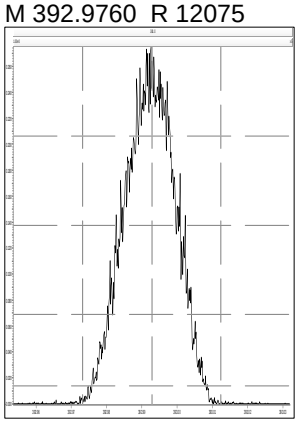
File: Experiment: EU_Dioxin_Def4.exp Reference: DF.ref Function: 4 @ 200 (ppm)

Printed: Thursday, May 05, 2022 13:05:05 Eastern Daylight Time

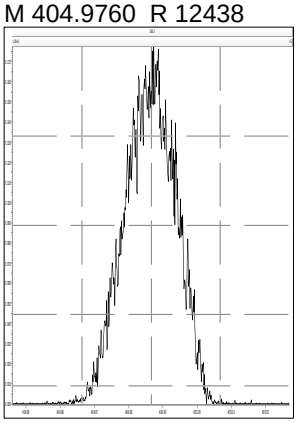
M 380.9760 R 12319



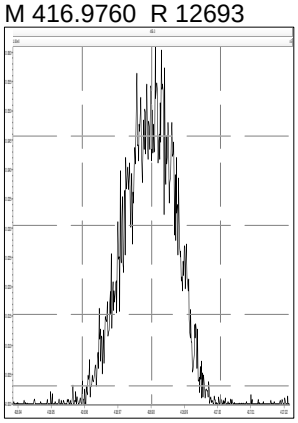
M 392.9760 R 12075



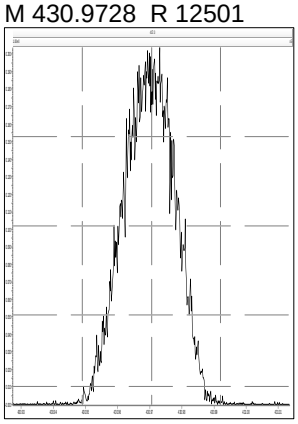
M 404.9760 R 12438



M 416.9760 R 12693



M 430.9728 R 12501



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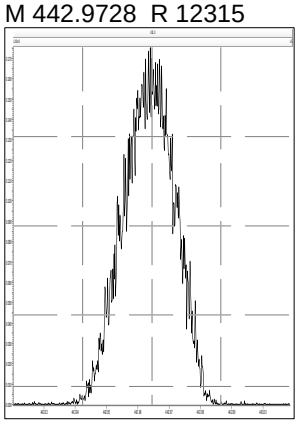

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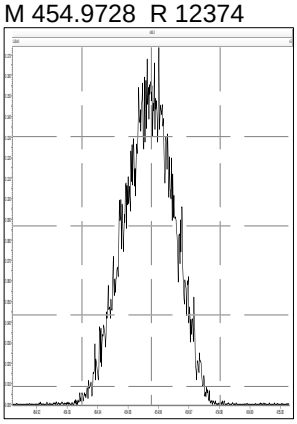

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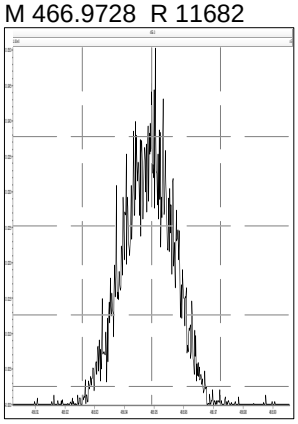

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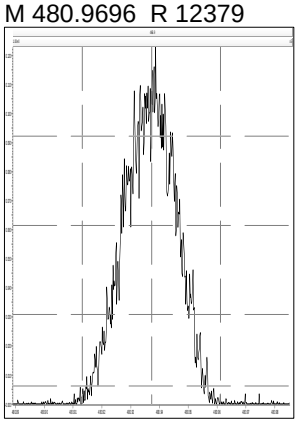

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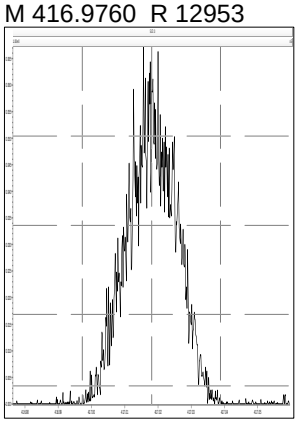

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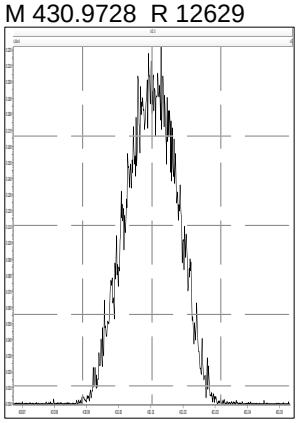

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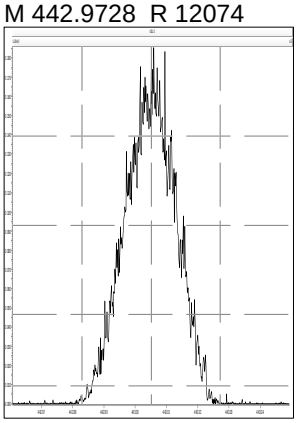

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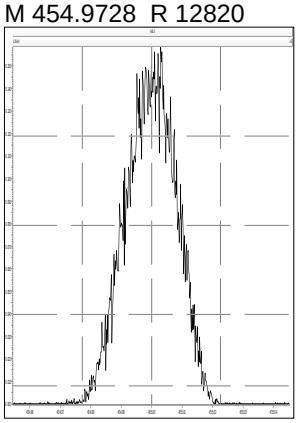

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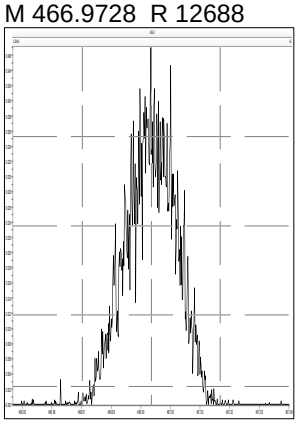

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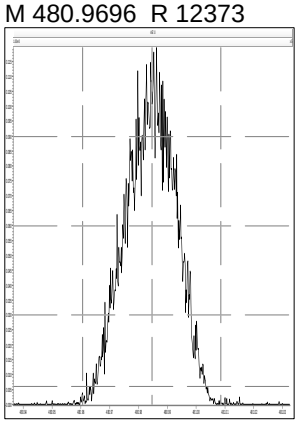
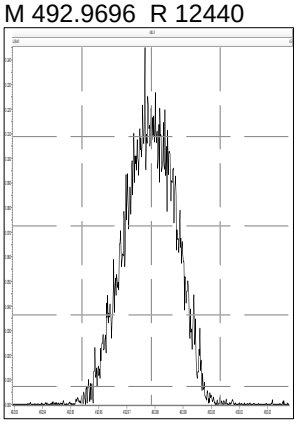


M 492.9696 R 12440



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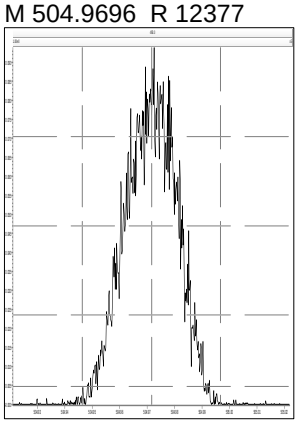

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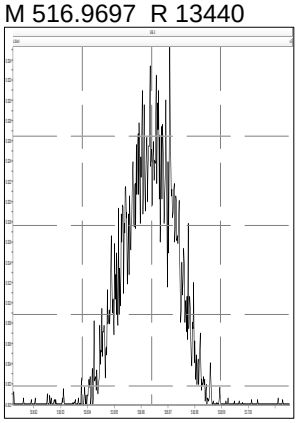

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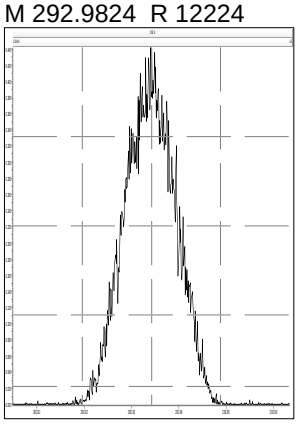

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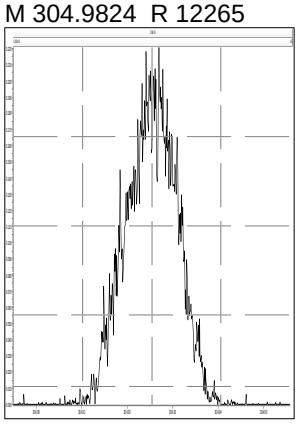

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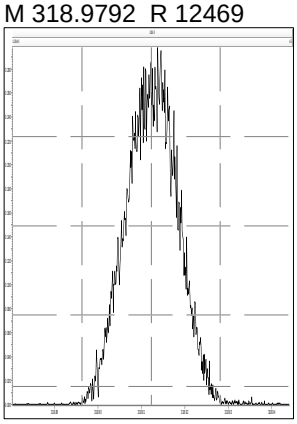

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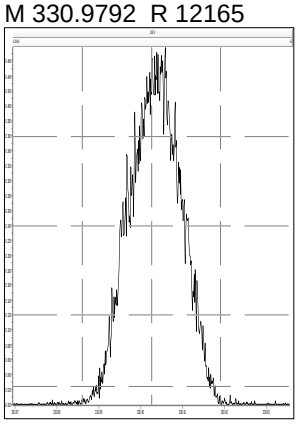

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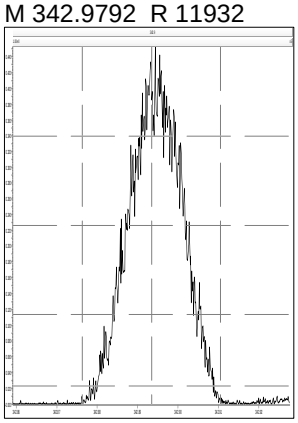

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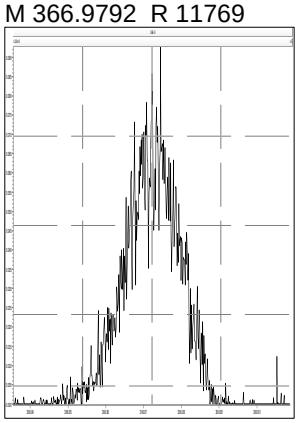
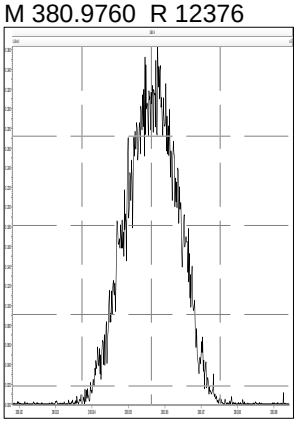


M 380.9760 R 12376



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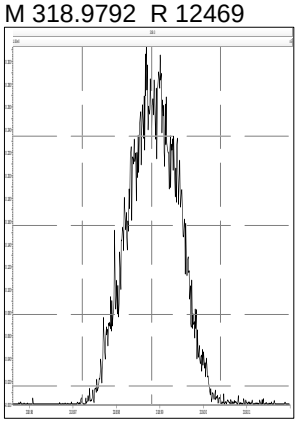

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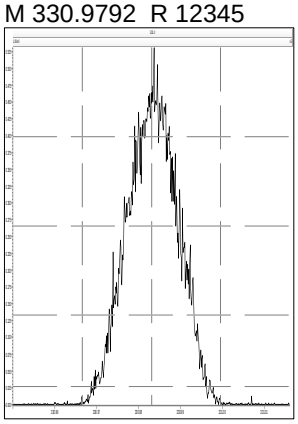

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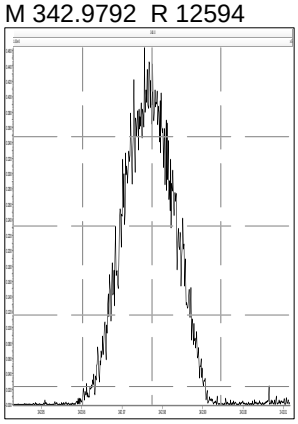

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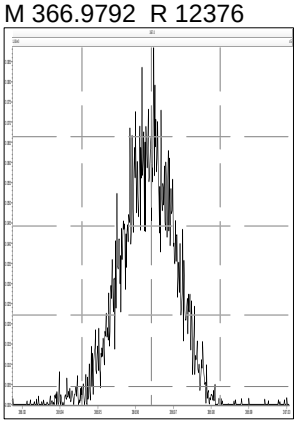

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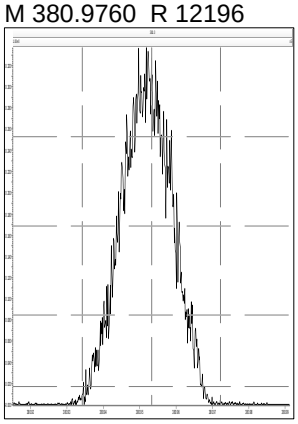

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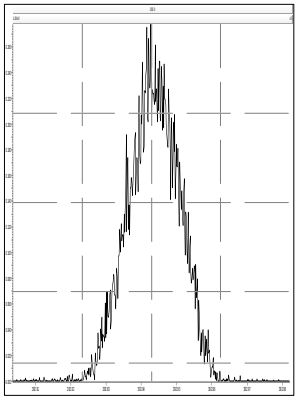

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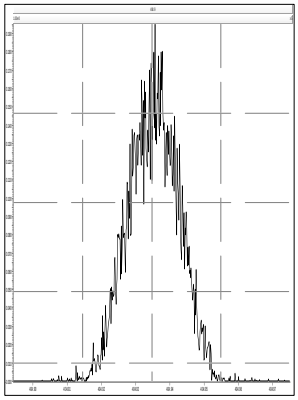

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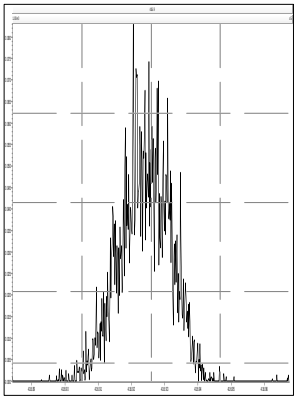

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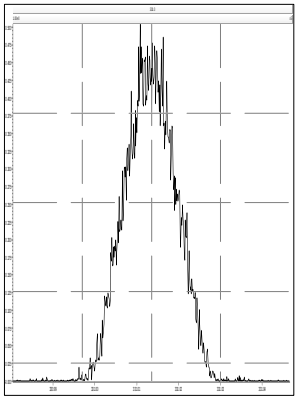

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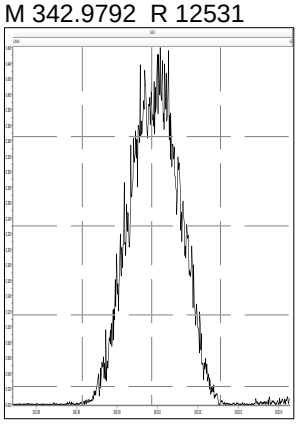

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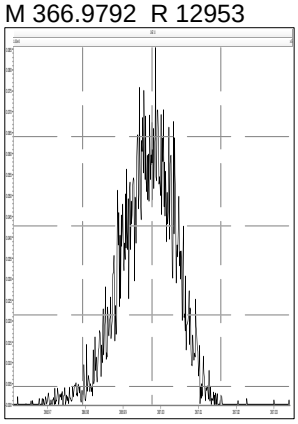

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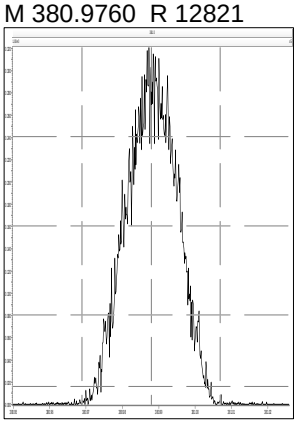

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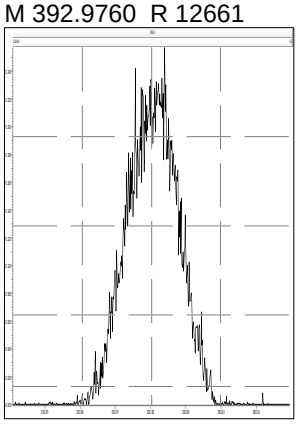

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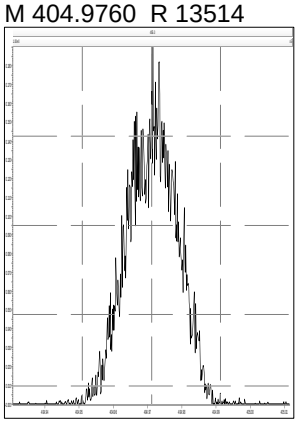

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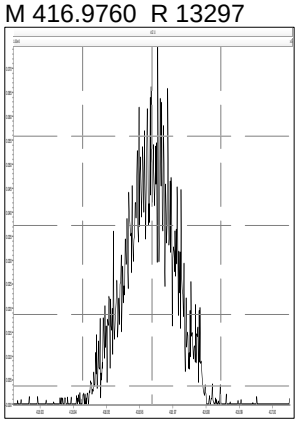

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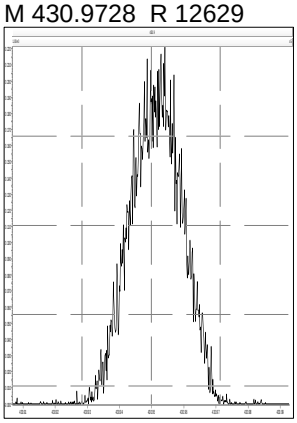

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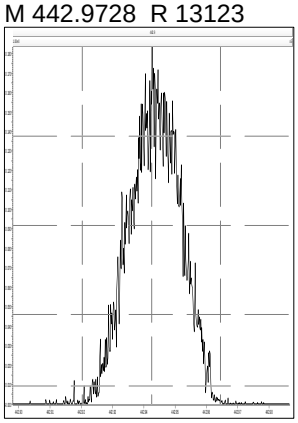

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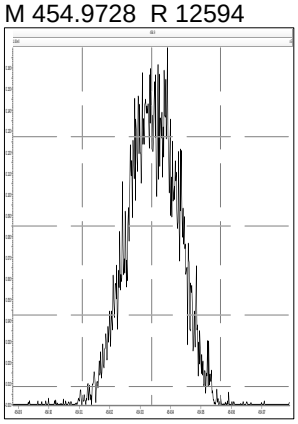

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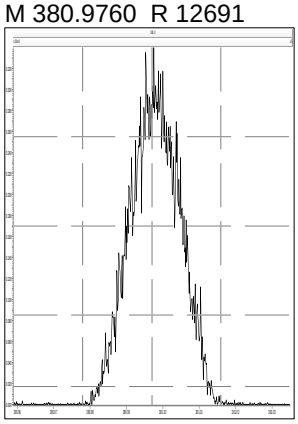

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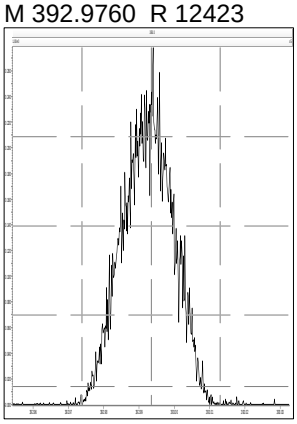

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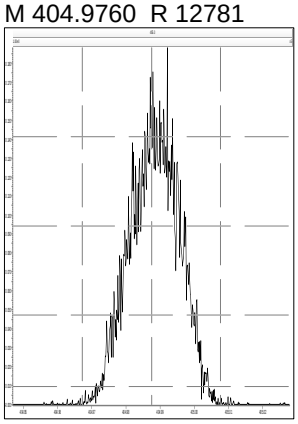
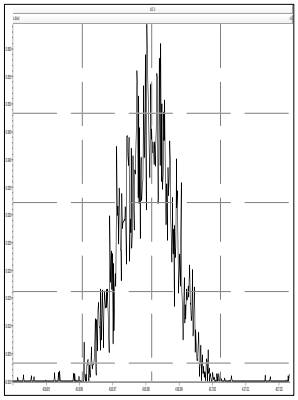


M 416.9760 R 13440



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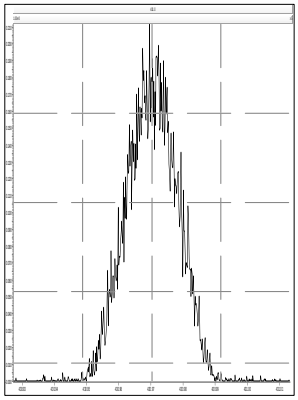

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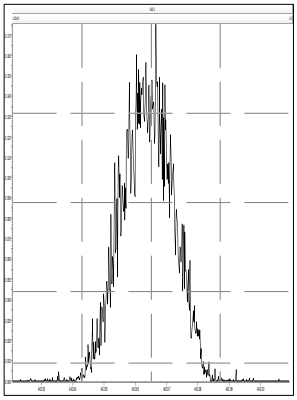
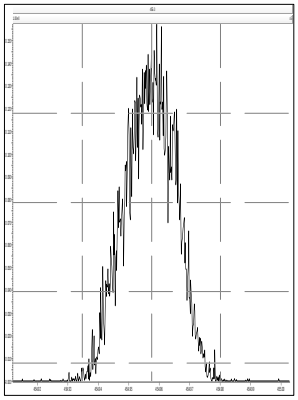


M 454.9728 R 12470



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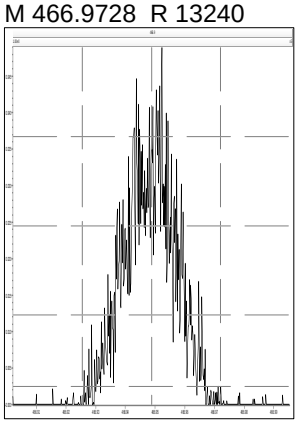

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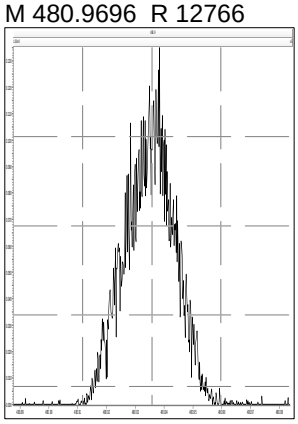

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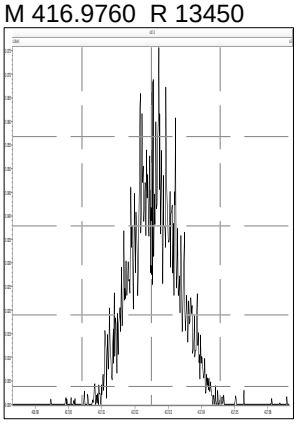

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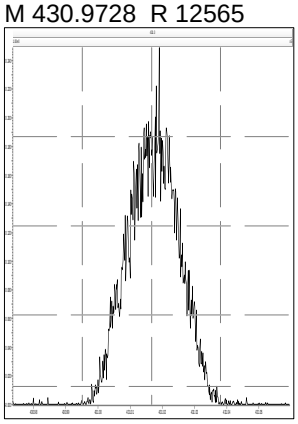

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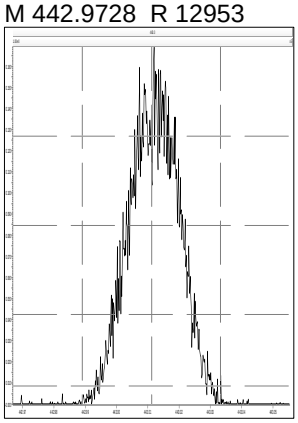

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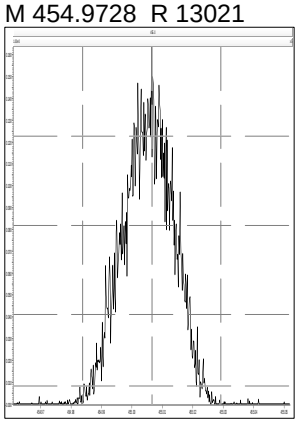

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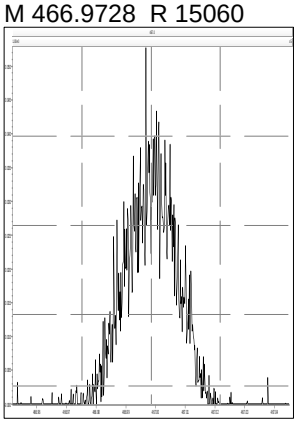

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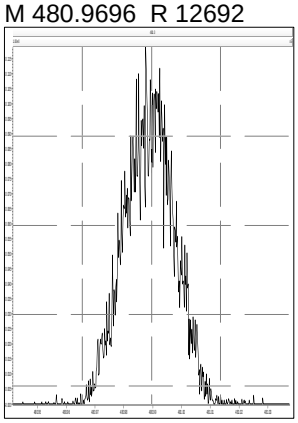

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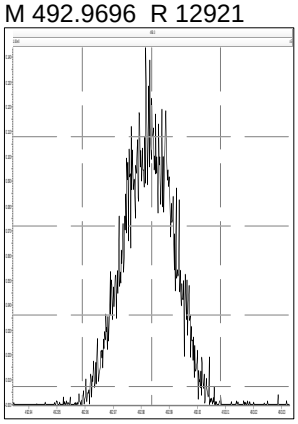
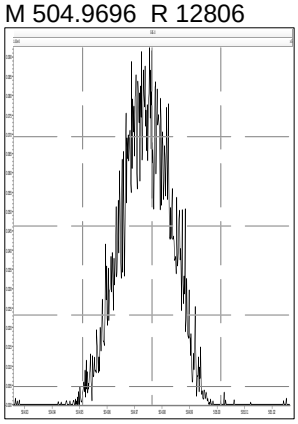
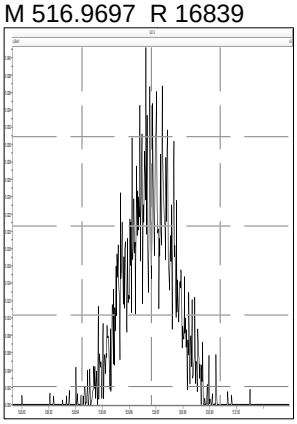


M 504.9696 R 12806



M 516.9697 R 16839



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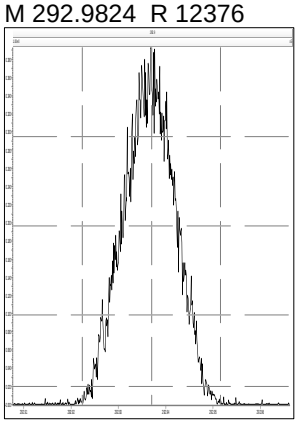
M 292.9824 R 12376



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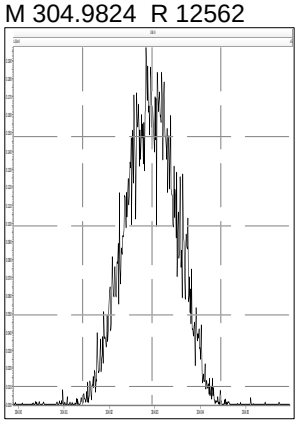
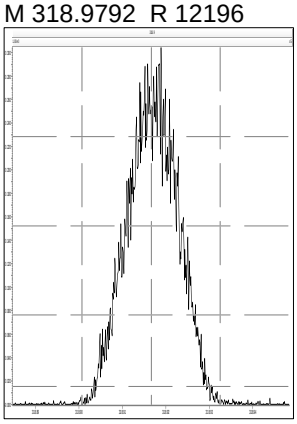


M 318.9792 R 12196



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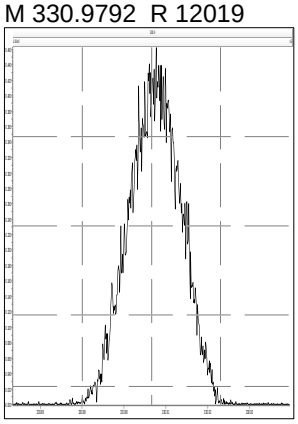

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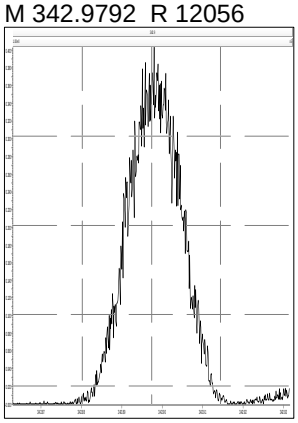

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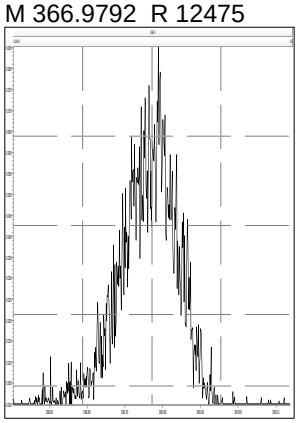
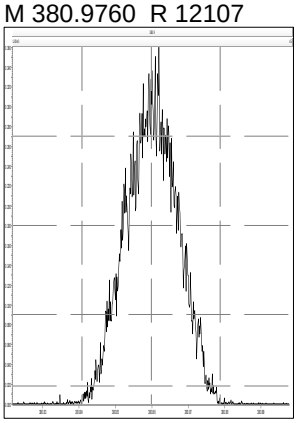


M 380.9760 R 12107



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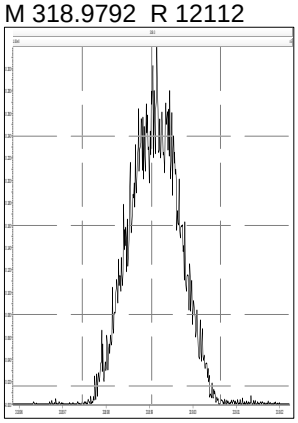
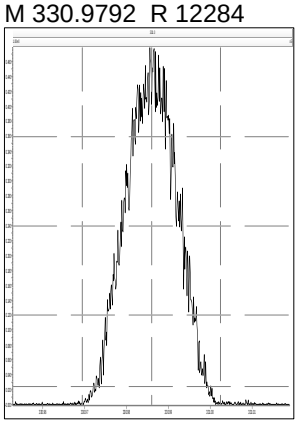


M 330.9792 R 12284



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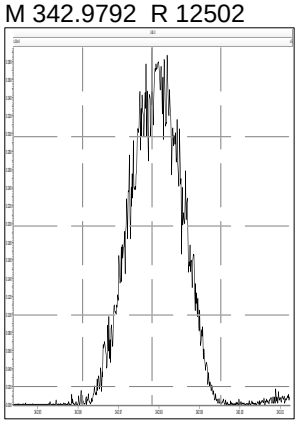

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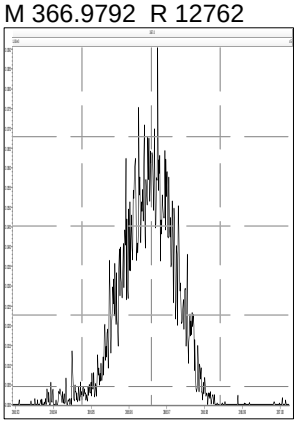
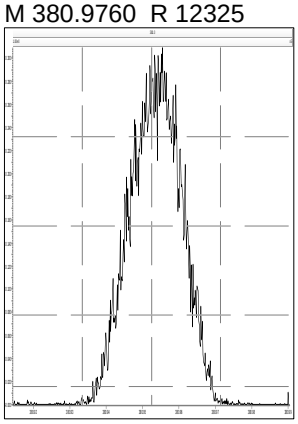


M 380.9760 R 12325



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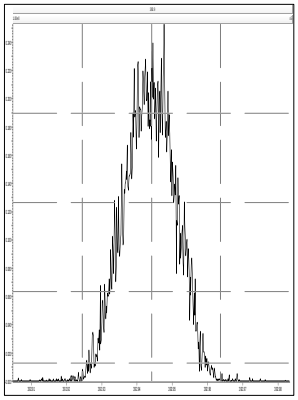
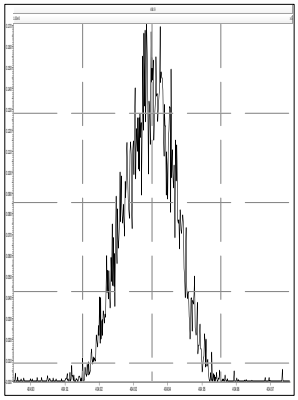


M 404.9760 R 12695



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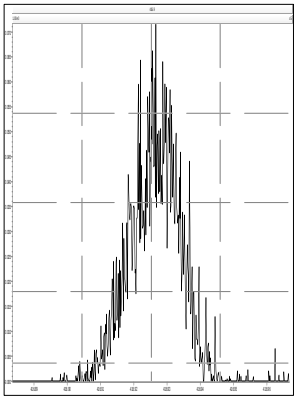

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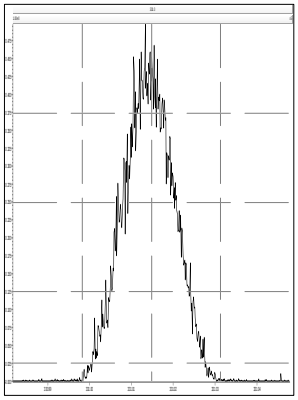

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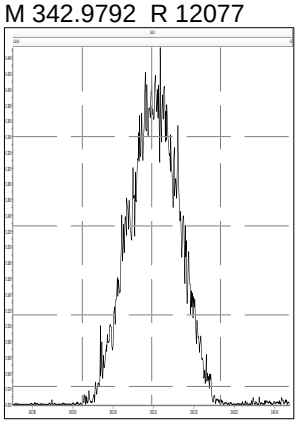
M 342.9792 R 12077



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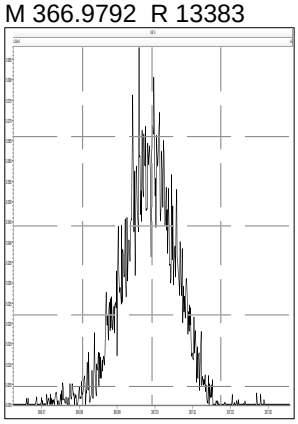
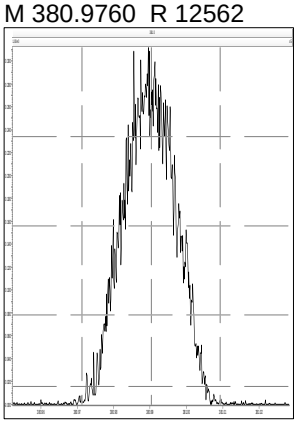


M 380.9760 R 12562



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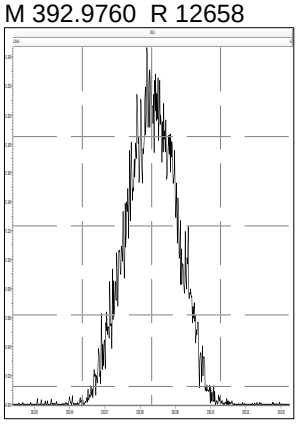
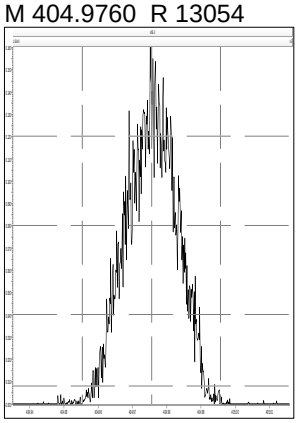
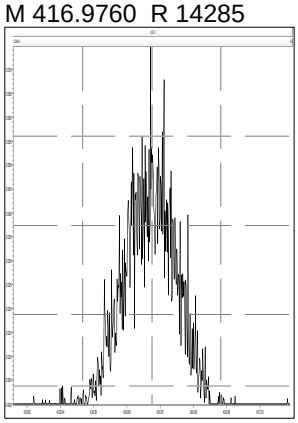


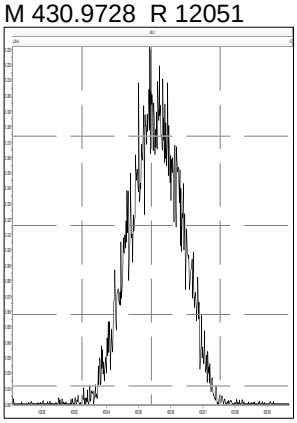
M 404.9760 R 13054



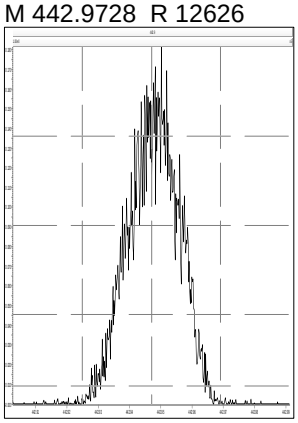
M 416.9760 R 14285



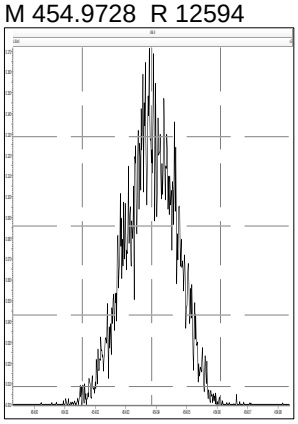
M 430.9728 R 12051



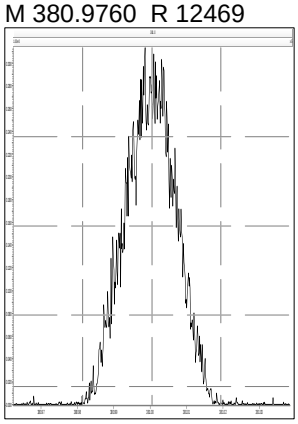
M 442.9728 R 12626



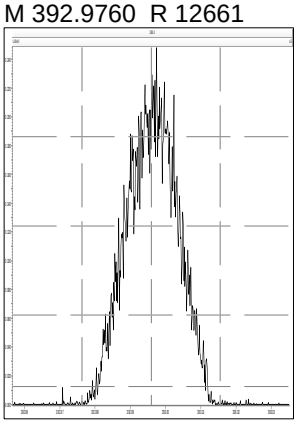
M 454.9728 R 12594



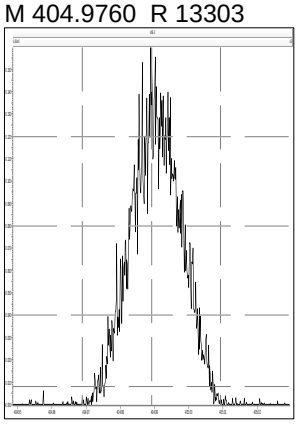
M 380.9760 R 12469



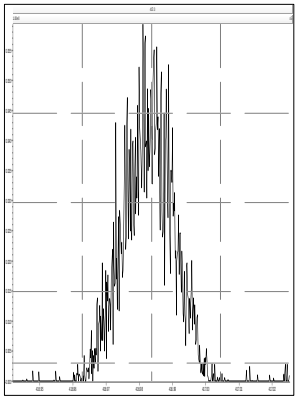
M 392.9760 R 12661



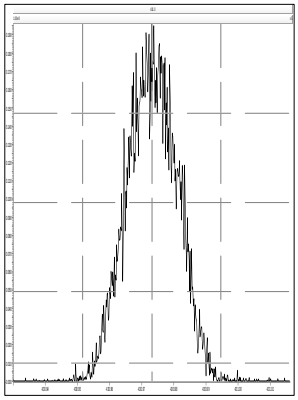
M 404.9760 R 13303



M 416.9760 R 13440



M 430.9728 R 12501



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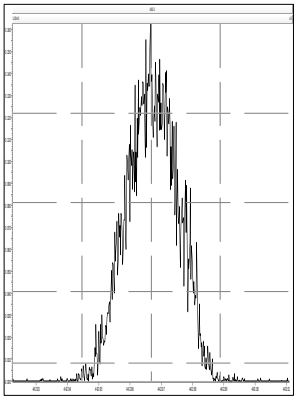
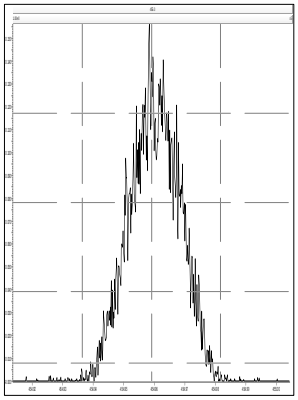


M 454.9728 R 12667



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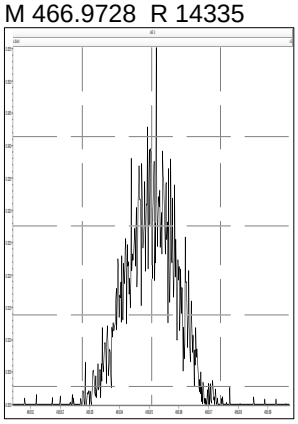
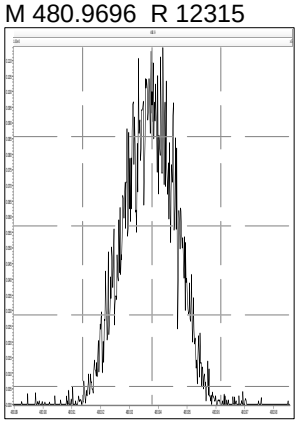
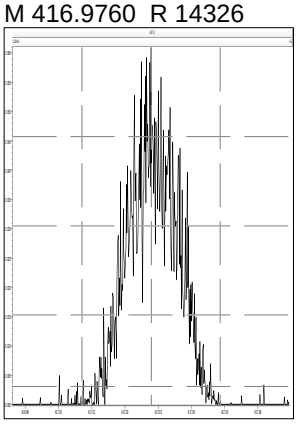


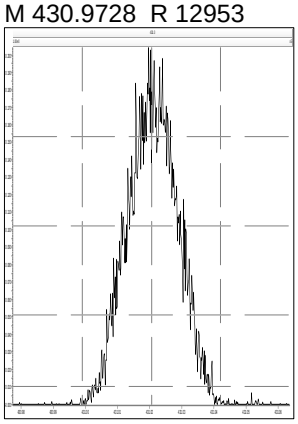
M 480.9696 R 12315



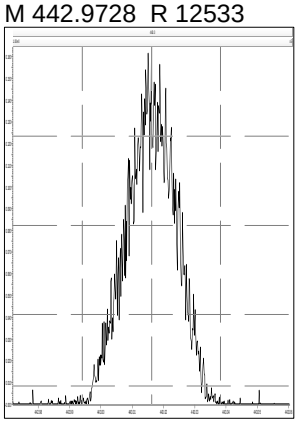
M 416.9760 R 14326



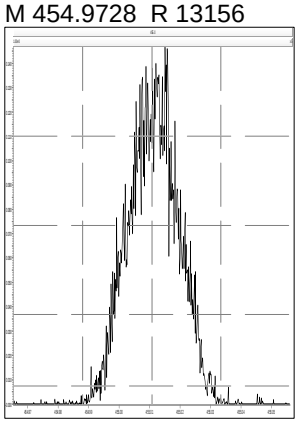
M 430.9728 R 12953



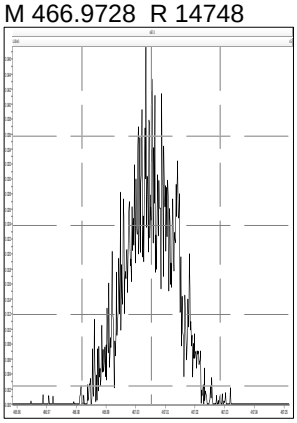
M 442.9728 R 12533



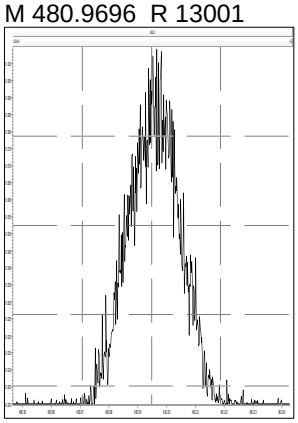
M 454.9728 R 13156



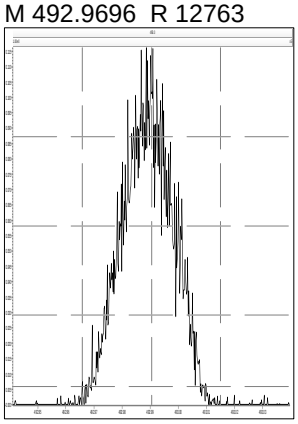
M 466.9728 R 14748



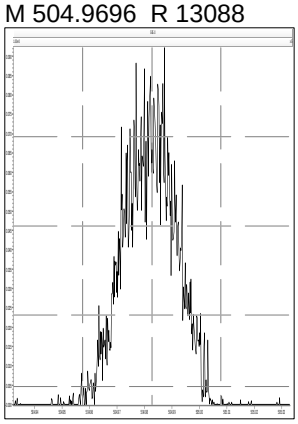
M 480.9696 R 13001



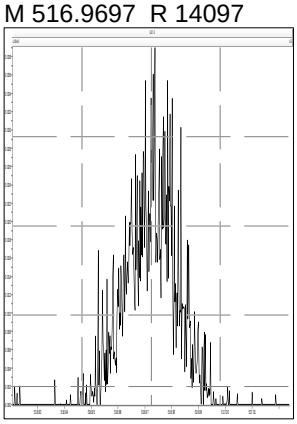
M 492.9696 R 12763



M 504.9696 R 13088



M 516.9697 R 14097



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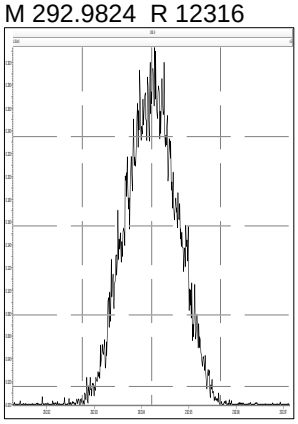
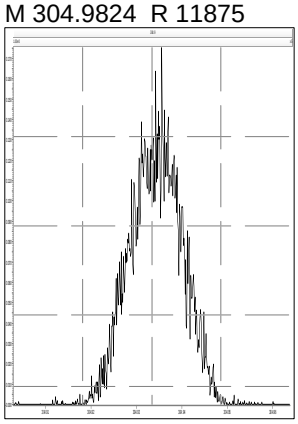
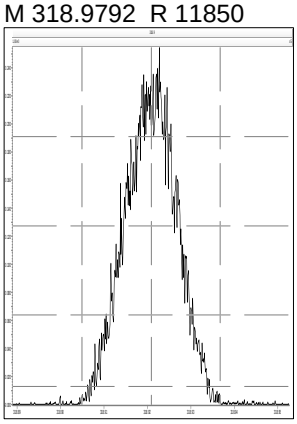
M 292.9824 R 12316



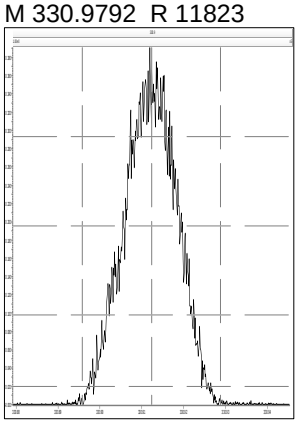
M 304.9824 R 11875



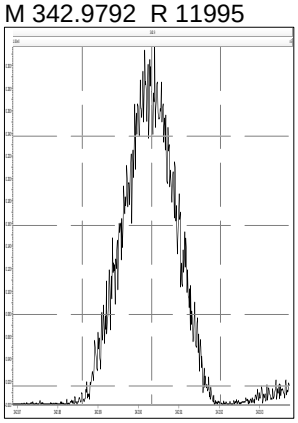
M 318.9792 R 11850



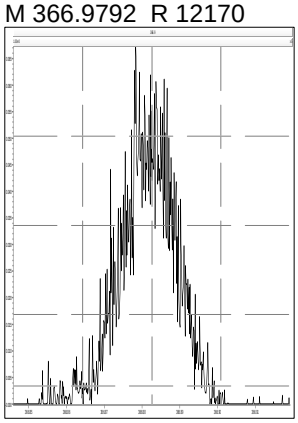
M 330.9792 R 11823



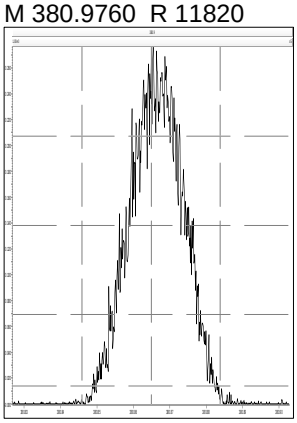
M 342.9792 R 11995



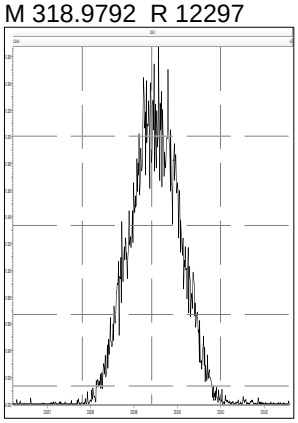
M 366.9792 R 12170



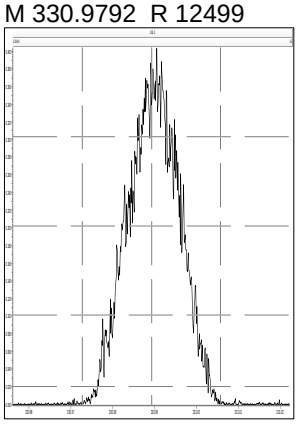
M 380.9760 R 11820



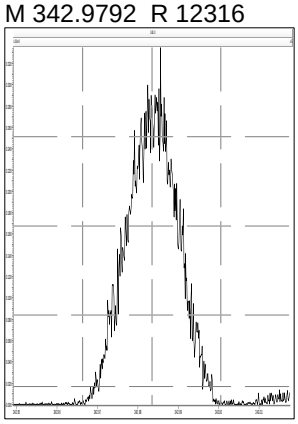
M 318.9792 R 12297



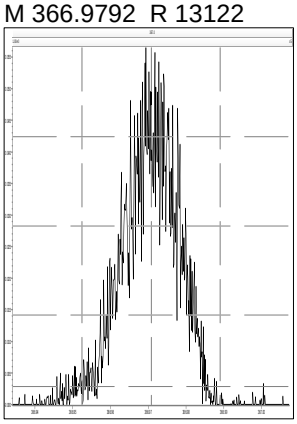
M 330.9792 R 12499



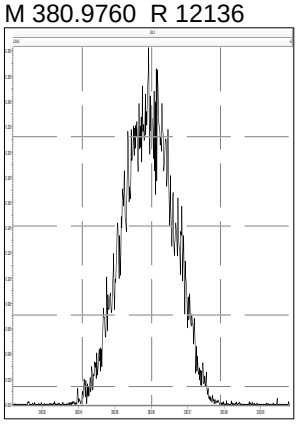
M 342.9792 R 12316



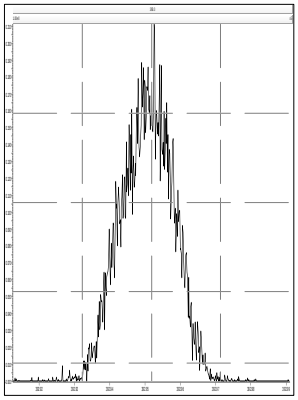
M 366.9792 R 13122



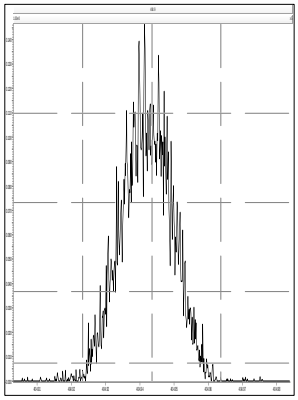
M 380.9760 R 12136



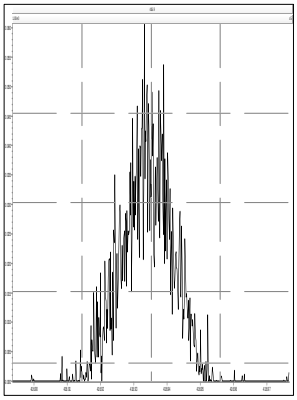
M 392.9760 R 12286



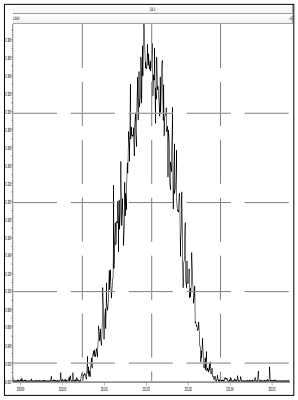
M 404.9760 R 12284



M 416.9760 R 14882



M 330.9792 R 12407



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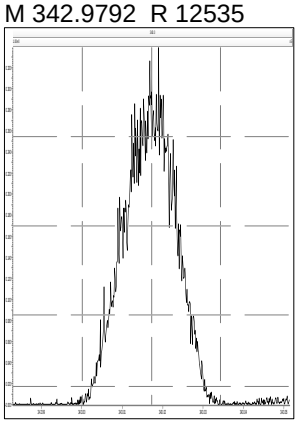
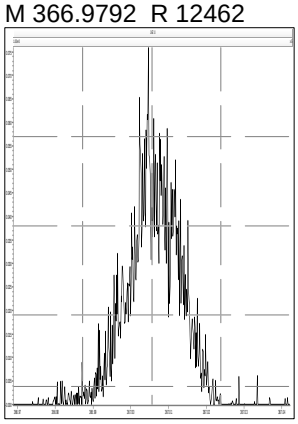
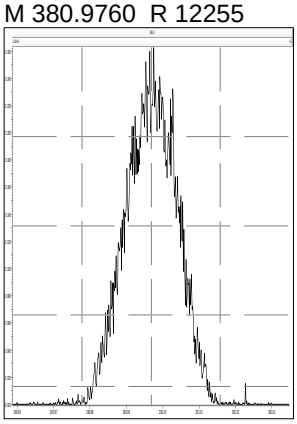
M 342.9792 R 12535



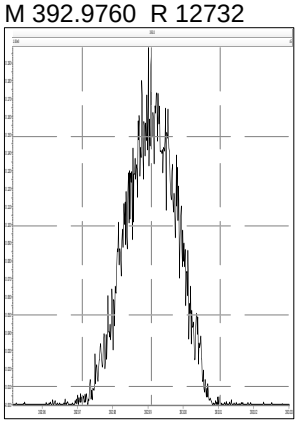
M 366.9792 R 12462



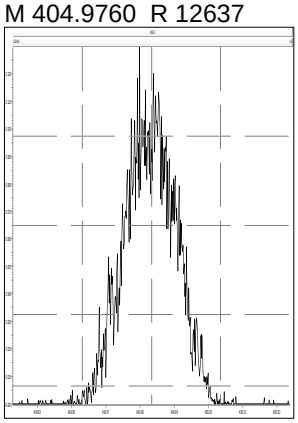
M 380.9760 R 12255



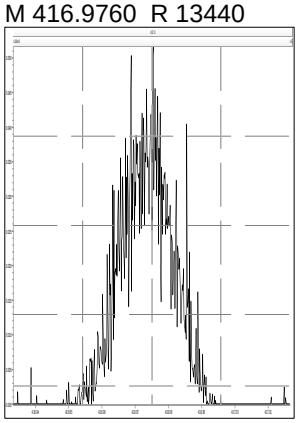
M 392.9760 R 12732



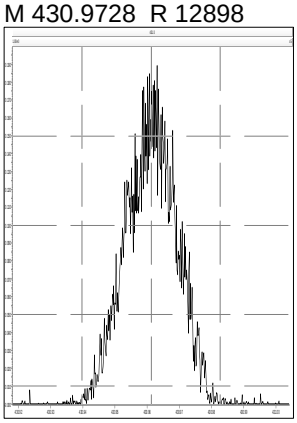
M 404.9760 R 12637



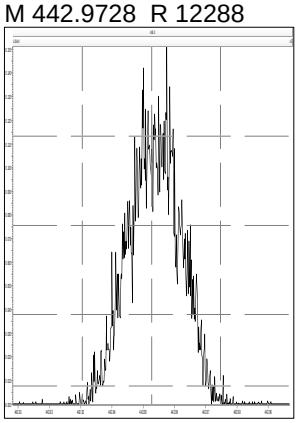
M 416.9760 R 13440



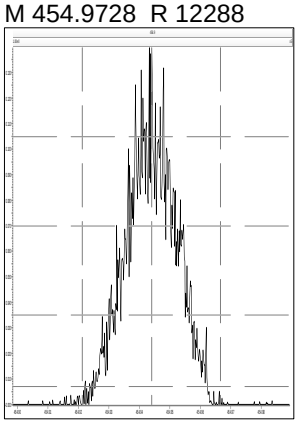
M 430.9728 R 12898



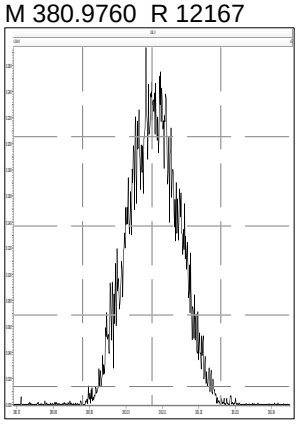
M 442.9728 R 12288



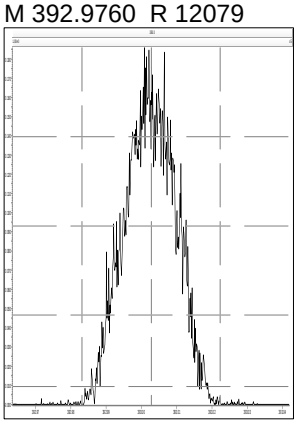
M 454.9728 R 12288



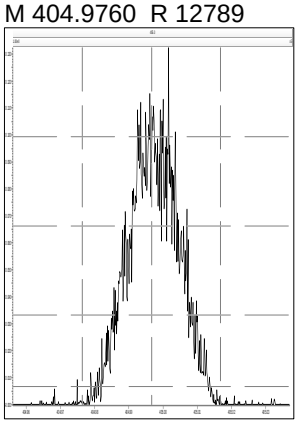
M 380.9760 R 12167



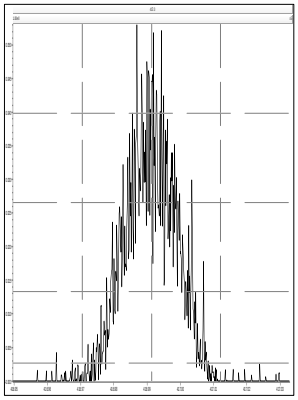
M 392.9760 R 12079



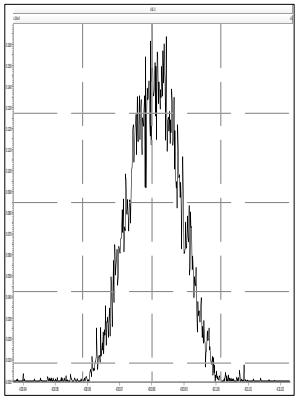
M 404.9760 R 12789



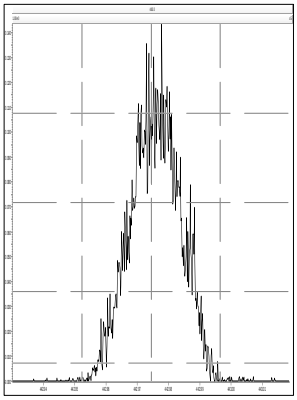
M 416.9760 R 13368



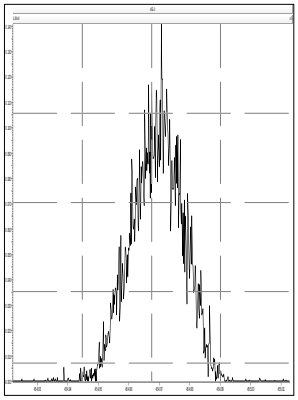
M 430.9728 R 12570



M 442.9728 R 13194



M 454.9728 R 12499



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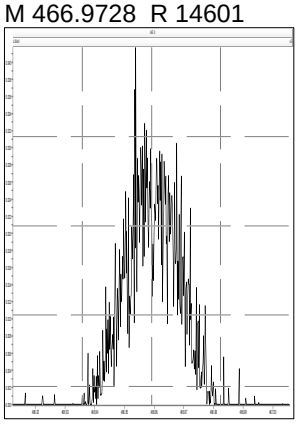
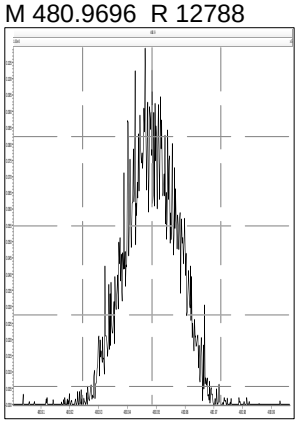
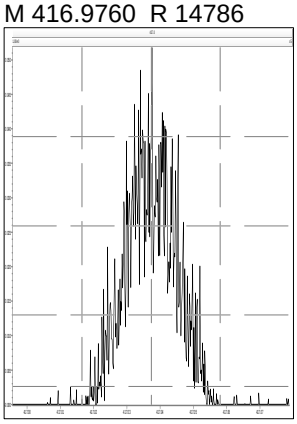
M 466.9728 R 14601



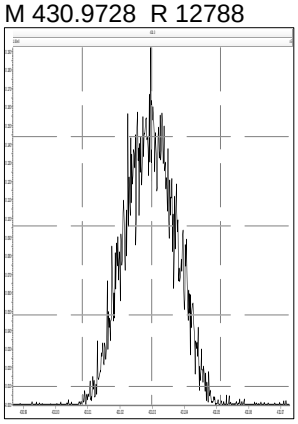
M 480.9696 R 12788



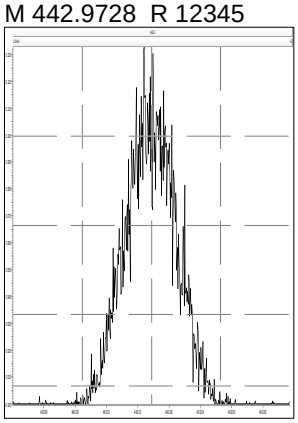
M 416.9760 R 14786



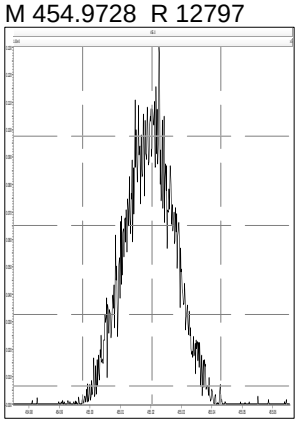
M 430.9728 R 12788



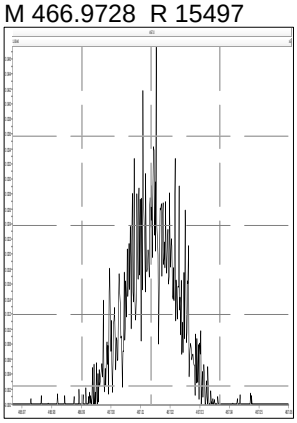
M 442.9728 R 12345



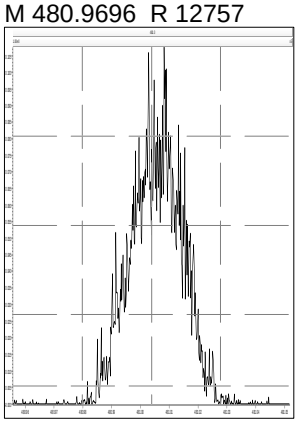
M 454.9728 R 12797



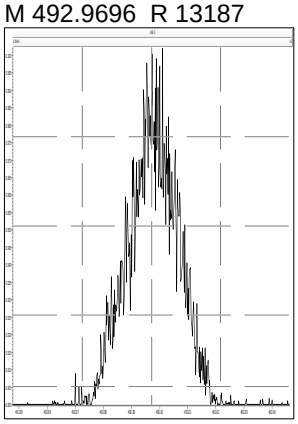
M 466.9728 R 15497



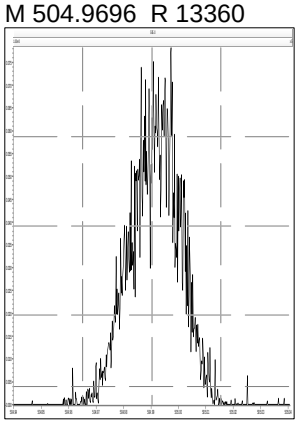
M 480.9696 R 12757



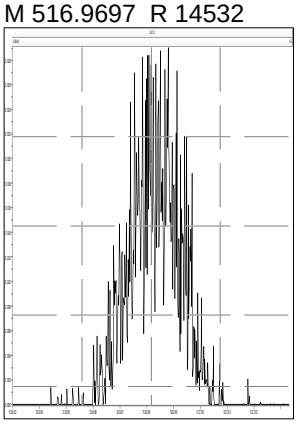
M 492.9696 R 13187



M 504.9696 R 13360



M 516.9697 R 14532



Initial Calibration — Gandalf PAH ICAL 22Apr22 — PAHs

	CS1	CS2	CS3	CS4	CS5		
Concentration (pg/µL)	10	50	100	500	1000		
Standard ID	SIDAF38	SIDAF39	SIDAL72	SIDAF41	SIDAF42		
Acquisition Date	22-Apr-22	22-Apr-22	22-Apr-22	22-Apr-22	22-Apr-22		
Acquisition Time	12:42:51	13:24:49	14:06:51	14:48:48	15:30:45		
Analyte	**RRF**	**RRF**	**RRF**	**RRF**	**RRF**	**Average**	**RSD**
Naphthalene	1.33	1.09	1.04	1.07	1.05	1.12	10.8%
2-Methyl-naphthalene	1.23	1.01	1.00	0.96	0.95	1.03	11.1%
Acenaphthylene	0.87	0.85	0.98	1.02	1.06	0.96	9.6%
Acenaphthene	0.95	0.97	1.03	1.04	1.06	1.01	4.7%
Fluorene	1.00	0.97	1.05	1.07	1.06	1.03	4.2%
Phenanthrene	1.11	1.01	0.97	1.00	0.95	1.01	6.1%
Anthracene	0.97	0.96	1.08	1.07	1.03	1.02	5.4%
Fluoranthene	0.99	0.95	0.99	0.99	1.02	0.99	2.5%
Pyrene	0.99	0.93	0.93	0.94	0.95	0.95	2.6%
Benzo(a)Anthracene	0.96	0.94	0.96	0.98	0.99	0.97	2.0%
Chrysene	1.00	0.99	0.99	1.01	1.00	1.00	0.8%
Benzo(b)Fluoranthene	1.06	1.02	0.99	1.02	1.03	1.02	2.5%
Benzo(k)Fluoranthene	0.98	0.93	0.93	0.97	1.02	0.97	3.9%
Benzo(e)Pyrene	0.99	1.01	1.01	1.03	1.06	1.02	2.6%
Benzo(a)Pyrene	0.83	0.92	0.86	0.97	1.02	0.92	8.5%
Perylene	1.03	1.10	1.21	1.18	1.58	1.22	17.5%
Indeno(123-cd)Pyrene	1.00	0.86	0.93	0.91	0.97	0.93	5.8%
Benzo(ghi)Perylene	1.02	0.98	0.94	1.00	0.96	0.98	3.2%
Dibenzo(a,h)Anthracene	0.88	0.91	0.90	0.90	0.98	0.91	4.2%
ES Naphthalene	1.32	1.28	1.35	1.26	1.15	1.27	6.0%
ES 2-Methyl-naphthalene	0.94	0.89	0.91	0.92	0.90	0.91	2.1%
ES Acenaphthylene	1.37	1.36	1.22	1.39	1.46	1.36	6.4%
ES Acenaphthene	1.02	1.00	1.00	1.06	1.07	1.03	3.2%
ES Fluorene	1.20	1.18	1.16	1.24	1.27	1.21	3.7%
ES Phenanthrene	2.05	2.00	2.04	2.16	2.24	2.10	4.7%
ES Anthracene	1.66	1.60	1.51	1.71	1.82	1.66	7.0%
ES Fluoranthene	1.26	1.23	1.22	1.31	1.34	1.27	4.1%
ES Pyrene	1.37	1.35	1.32	1.42	1.47	1.39	4.3%
ES Benzo(a)Anthracene	1.16	1.12	1.12	1.22	1.27	1.18	5.6%
ES Chrysene	1.31	1.30	1.27	1.39	1.42	1.34	4.8%
ES Benzo(b)Fluoranthene	1.58	1.60	1.67	1.64	1.66	1.63	2.4%
ES Benzo(k)Fluoranthene	1.77	1.86	1.97	1.92	1.91	1.89	4.0%
ES Benzo(e)Pyrene	1.76	1.76	1.80	1.74	1.78	1.77	1.3%
ES Benzo(a)Pyrene	1.55	1.50	1.68	1.54	1.65	1.58	4.9%
ES Perylene	0.83	0.78	0.75	0.92	0.78	0.81	8.3%
ES Indeno(123-cd)Pyrene	1.22	1.29	1.29	1.35	1.37	1.30	4.5%
ES Benzo(ghi)Perylene	1.59	1.61	1.68	1.59	1.65	1.62	2.5%
ES Dibenz(123-cd)Pyrene	1.35	1.32	1.48	1.50	1.42	1.41	5.6%

Initial Calibration — Gandalf PAH ICAL 22Apr22 — PAHs

	CS1	CS2	CS3	CS4	CS5		
Concentration (pg/µL)	**10**	**50**	**100**	**500**	**1000**		
Standard ID	**SIDAF38**	**SIDAF39**	**SIDAL72**	**SIDAF41**	**SIDAF42**		
Acquisition Date	**22-Apr-22**	**22-Apr-22**	**22-Apr-22**	**22-Apr-22**	**22-Apr-22**		
Acquisition Time	**12:42:51**	**13:24:49**	**14:06:51**	**14:48:48**	**15:30:45**		
Analyte	**RRF**	**RRF**	**RRF**	**RRF**	**RRF**	**Average**	**RSD**
CS Fluorene	1.32	1.29	1.23	1.30	1.26	1.28	2.8%
CS Terphenyl	1.03	1.01	0.96	1.03	0.99	1.00	3.0%
SS Fluorene	1.11	1.09	1.06	1.06	1.00	1.06	3.9%
SS Terphenyl	0.75	0.75	0.73	0.73	0.67	0.73	4.5%
AS Anthracene	1.39	1.33	1.21	1.33	1.34	1.32	5.0%
Analyte	Area	Area	Area	Area	Area		
JS 2-Methylnaphthalene	1731445	1882600	1761487	1933913	2127593		
JS Acenaphthene	1183796	1290562	1190881	1346466	1549747		
JS Pyrene	1700024	1863814	1713872	1959767	2325524		
JS Benzo(a)Pyrene	1127669	1191745	1041590	1311355	1579295		

BCS ICV AJ100 PAHs

	BCS
Concentration (pg/µL)	0.2
Acquisition Date	25-Apr-22
Acquisition Time	17:29:52

Analyte	RRF	Avg. CS3 RRF	PD (BCS vs. CS3) (%)	Limit (%)	In Limit?	Concentration (pg/uL)
Naphthalene	1.05	1.03	2.4	20.0	Y	0.205
2-Methyl-naphthalene	0.93	0.97	-4.1	20.0	Y	0.192
Acenaphthylene	0.93	1.02	-8.8	20.0	Y	0.182
Acenaphthene	0.95	1.03	-7.3	20.0	Y	0.185
Fluorene	0.95	1.02	-6.9	20.0	Y	0.186
Phenanthrene	1.00	1.00	0.5	20.0	Y	0.201
Anthracene	0.96	1.11	-13.1	20.0	Y	0.174
Fluoranthene	1.00	0.98	2.6	20.0	Y	0.205
Pyrene	0.95	0.94	1.6	20.0	Y	0.203
Benzo(a)Anthracene	1.01	0.97	4.1	20.0	Y	0.208
Chrysene	1.02	1.01	1.0	20.0	Y	0.202
Benzo(b)Fluoranthene	1.01	1.02	-1.0	20.0	Y	0.198
Benzo(k)Fluoranthene	0.97	0.92	6.0	20.0	Y	0.212
Benzo(e)Pyrene	1.05	1.02	3.4	20.0	Y	0.207
Benzo(a)Pyrene	1.00	1.01	-1.0	20.0	Y	0.198
Perylene	1.12	1.25	-10.0	20.0	Y	0.180
Indeno(123-cd)Pyrene	0.93	0.94	-1.1	20.0	Y	0.198
Benzo(ghi)Perylene	0.98	0.94	4.3	20.0	Y	0.209
Dibenzo(a,h)Anthracene	0.93	0.91	2.8	20.0	Y	0.206
ES Naphthalene	0.92	1.25	-26.4	50.0	Y	73.6
ES 2-Methyl-naphthalene	0.73	0.91	-19.8	50.0	Y	80.2
ES Acenaphthylene	0.93	1.20	-22.2	50.0	Y	77.8
ES Acenaphthene	0.71	0.98	-27.6	50.0	Y	72.4
ES Fluorene	0.87	1.19	-26.9	50.0	Y	73.1
ES Phenanthrene	1.54	2.05	-24.7	50.0	Y	75.3
ES Anthracene	1.18	1.49	-20.8	50.0	Y	79.2
ES Fluoranthene	0.85	1.21	-29.8	50.0	Y	70.2
ES Pyrene	0.93	1.35	-31.1	50.0	Y	68.9
ES Benzo(a)Anthracene	0.77	1.12	-30.9	50.0	Y	69.1
ES Chrysene	0.87	1.26	-31.0	50.0	Y	69
ES Benzo(b)Fluoranthene	1.13	1.67	-32.3	50.0	Y	67.7
ES Benzo(k)Fluoranthene	1.24	1.95	-36.2	50.0	Y	63.8
ES Benzo(e)Pyrene	1.18	1.80	-34.3	50.0	Y	65.7
ES Benzo(a)Pyrene	0.92	1.45	-36.3	50.0	Y	63.7
ES Perylene	0.83	0.75	10.7	50.0	Y	111
ES Indeno(123-cd)Pyrene	0.94	1.35	-30.4	50.0	Y	69.6
ES Benzo(ghi)Perylene	1.13	1.69	-33.1	50.0	Y	66.9
ES Dibenzo(a,h)Anthracene	1.02	1.51	-32.5	50.0	Y	67.5

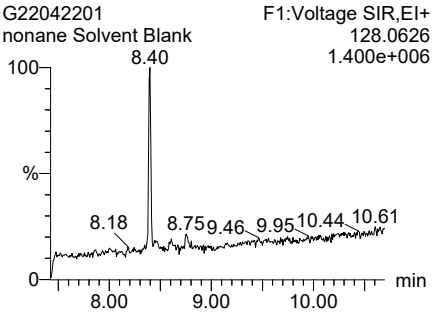
Analyte	RRF	Avg. CS3 RRF	PD (BCS vs. CS3) (%)	Limit (%)	In Limit?	Concentration (pg/uL)
CS Fluorene	0.95	1.26	-24.6	30.0	Y	75.4
CS Terphenyl	0.68	0.97	-29.9	30.0	Y	70.1
SS Fluorene	1.09	1.06	2.8	30.0	Y	103
SS Terphenyl	0.73	0.72	2.1	30.0	Y	102
AS Anthracene	0.96	1.18	-18.3	50.0	Y	81.7

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

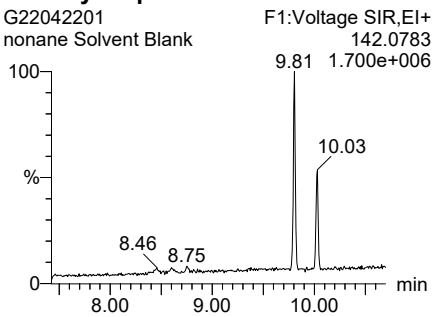
Method: C:\MassLynx\DEFAULT.PRO\MethDB\EAU_PAHs-TLX.mdb 08 Apr 2022 10:40:54
Calibration: 25 Apr 2022 07:44:15

Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

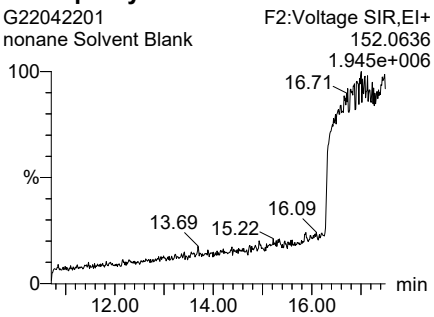
Naphthalene



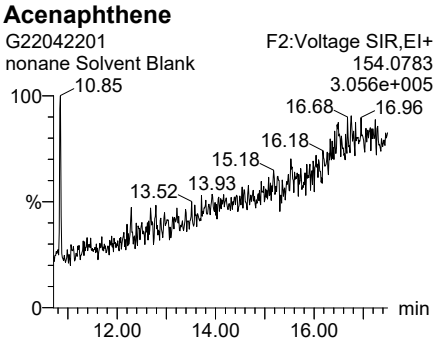
2-Methyl-naphthalene



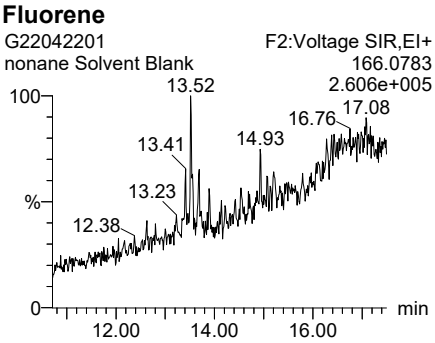
Acenaphthylene



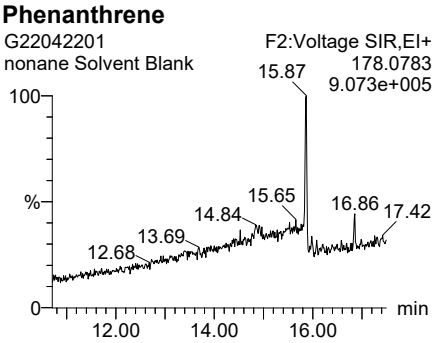
Acenaphthene



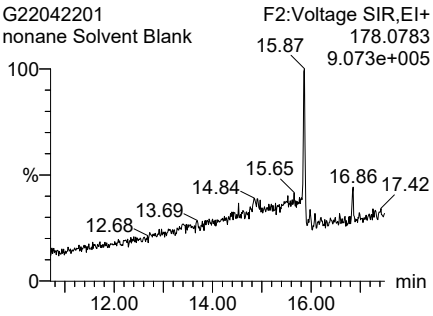
Fluorene



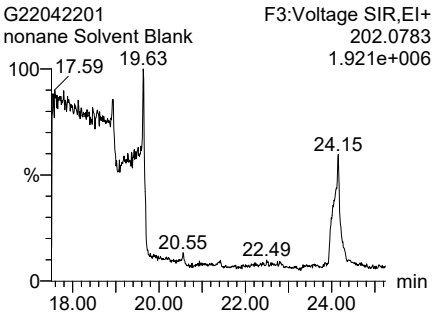
Phenanthrene



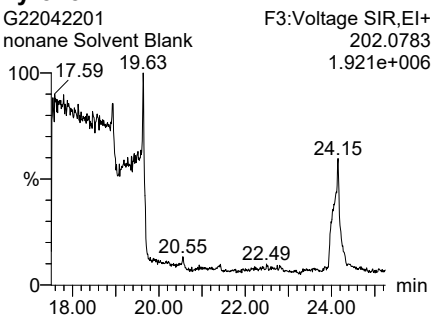
Anthracene



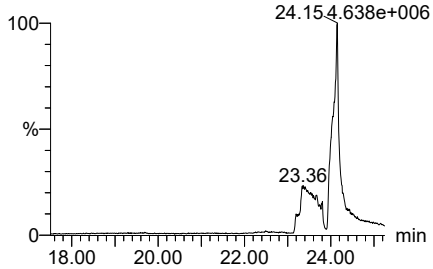
Fluoranthene



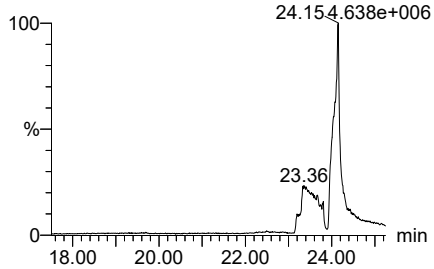
Pyrene



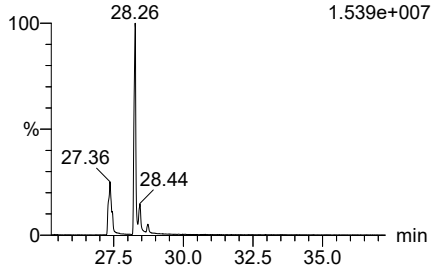
Benzo(a)Anthracene



Chrysene



Benzo(b)Fluoranthene



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
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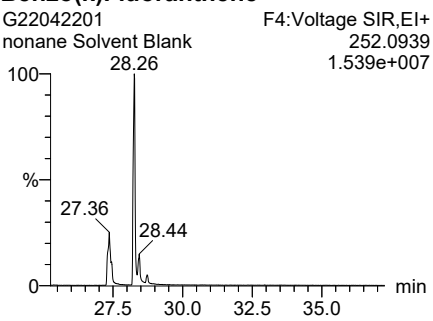
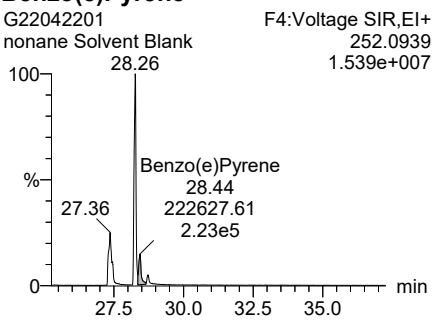
Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

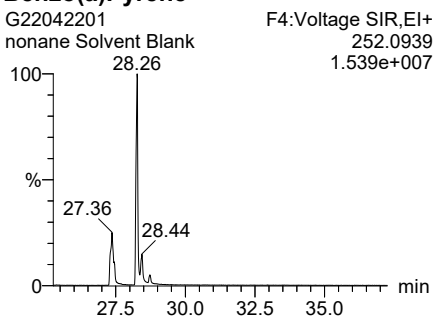
Benzo(k)Fluoranthene



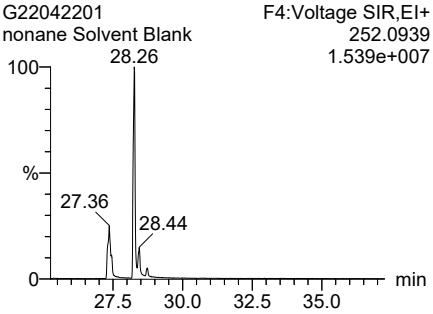
Benzo(e)Pyrene



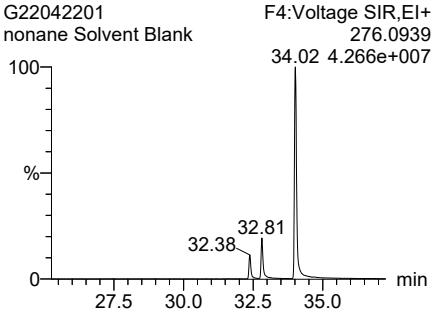
Benzo(a)Pyrene



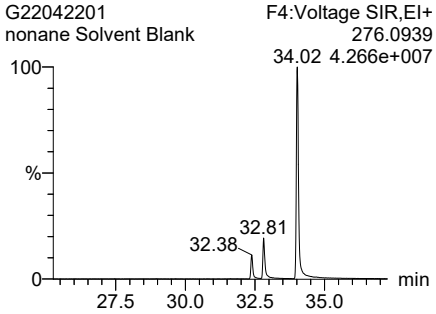
Perylene



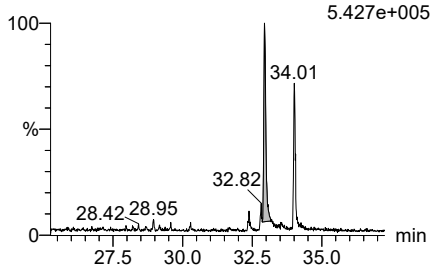
Indeno(123-cd)Pyrene



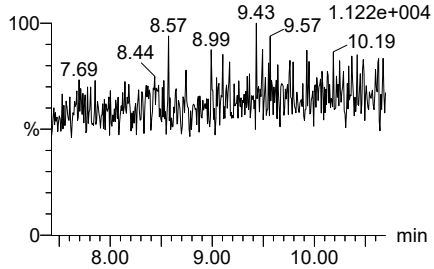
Benzo(ghi)Perylene



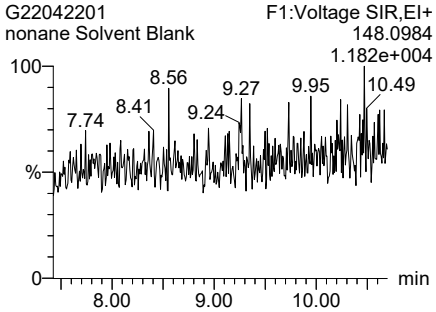
Dibenzo(a,h)Anthracene



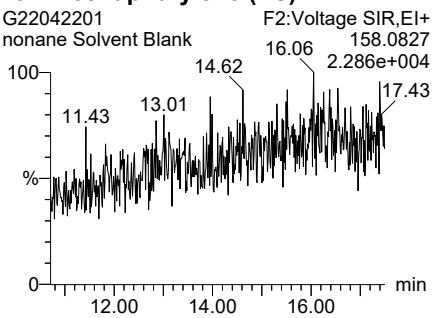
13C-Naphthalene (ES)



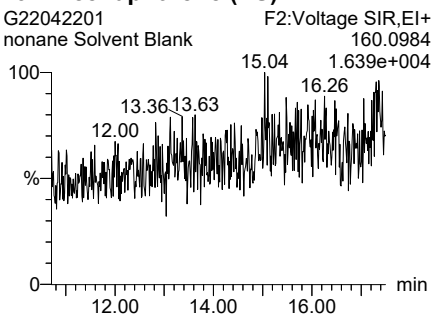
13C-2-Methylnaphthalene (ES)



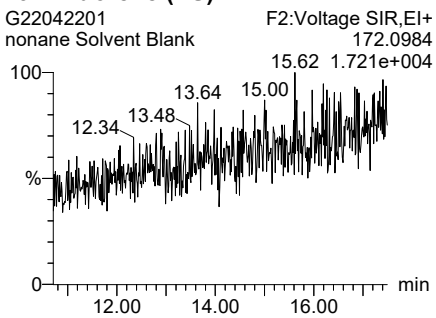
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



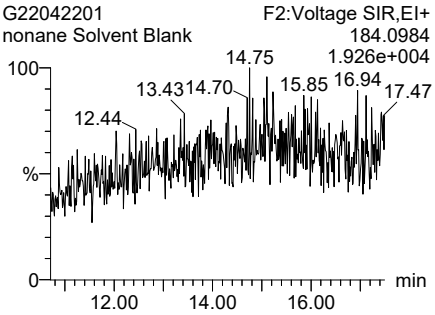
13C-Fluorene (ES)



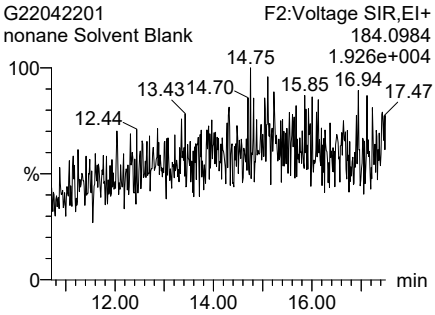
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

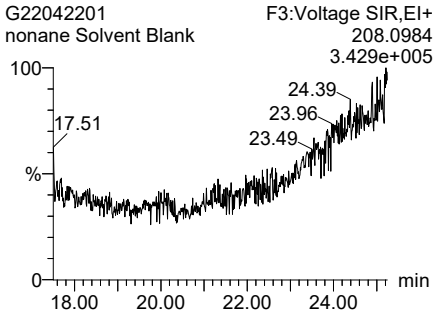
13C-Phenanthrene (ES)



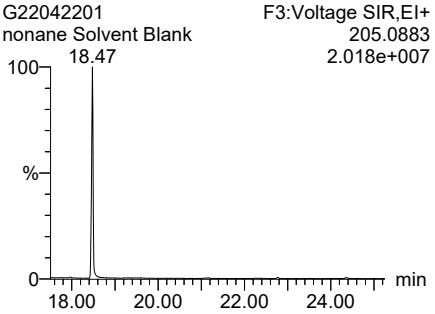
13C-Anthracene (ES)



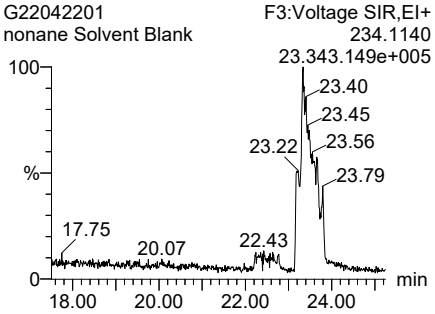
13C-Fluoranthene (ES)



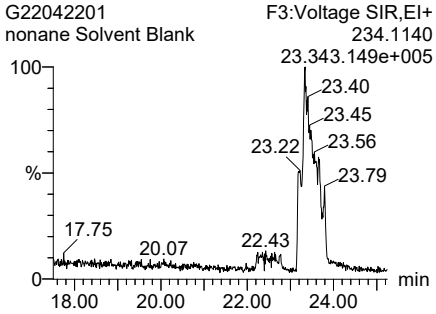
13C-Pyrene (ES)



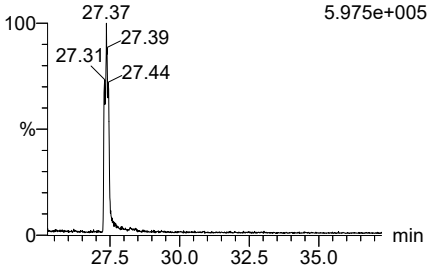
13C-Benzo(a)Anthracene (ES)



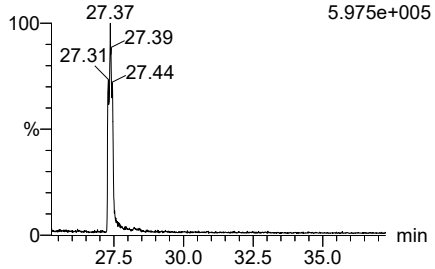
13C-Chrysene (ES)



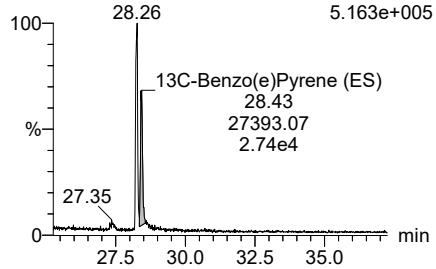
13C-Benzo(b)Fluoranthene (ES)



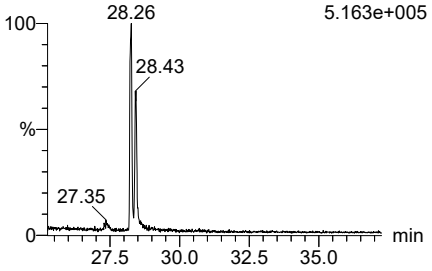
13C-Benzo(k)Fluoranthene (ES)



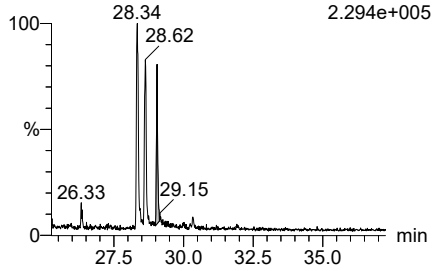
13C-Benzo(e)Pyrene (ES)



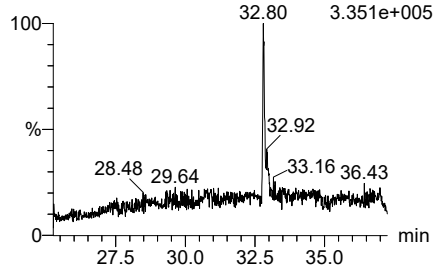
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



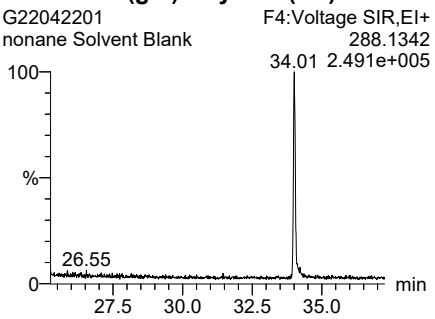
13C-Indeno(123-cd)Pyrene (ES)



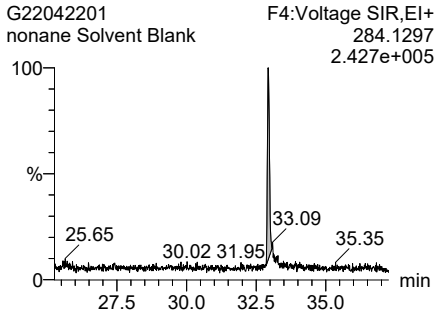
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

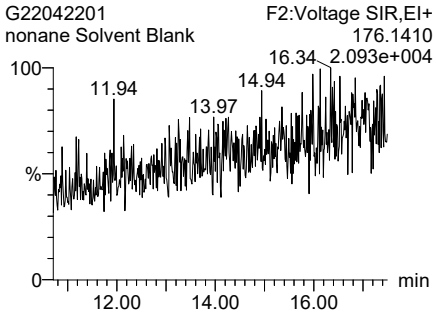
13C-Benzo(ghi)Perylene (ES)



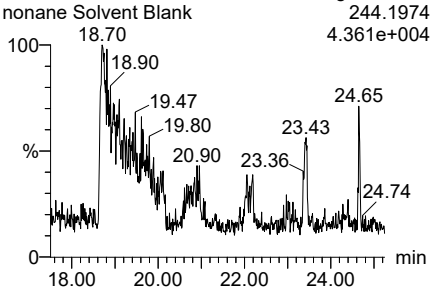
13C-Dibenz(a,h)Anthracene (ES)



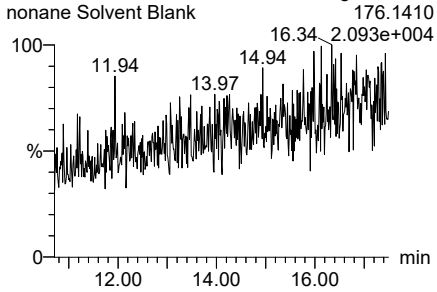
d10-Fluorene (CS)



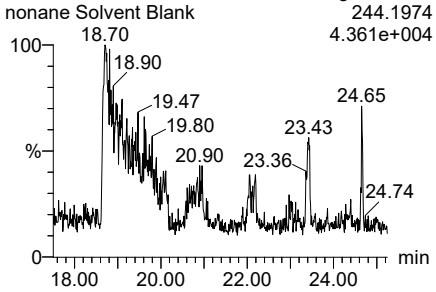
d14-Terphenyl (CS)



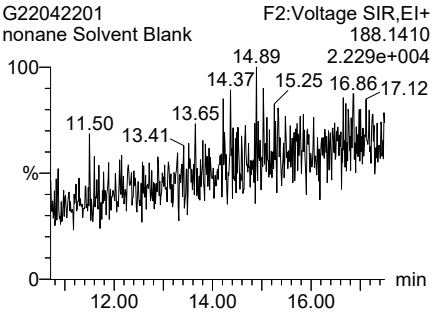
d10-Fluorene (SS)



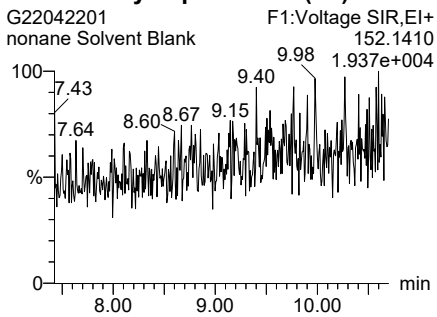
d14-Terphenyl (SS)



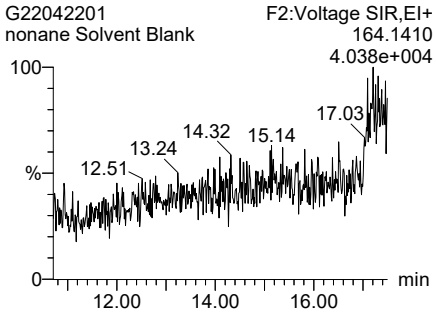
d10-Anthracene (AS)



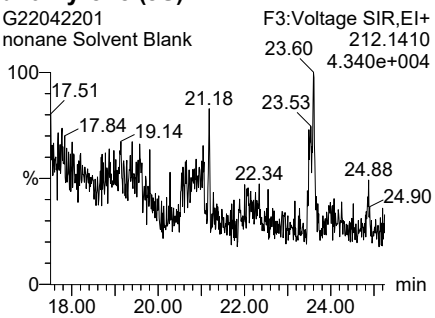
d10-2-Methylnaphthalene (JS)



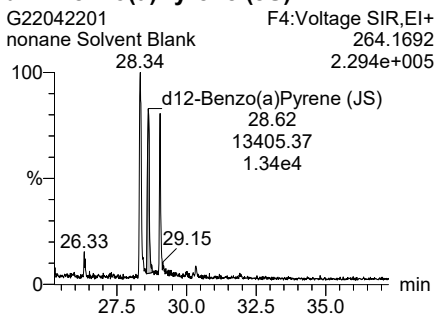
d10-Acenaphthene (JS)



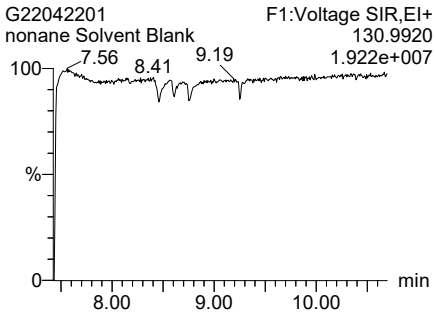
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



QC Check Ion Fn1



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
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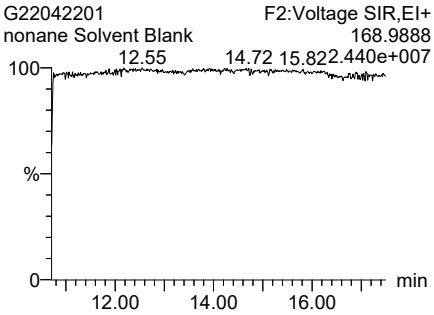
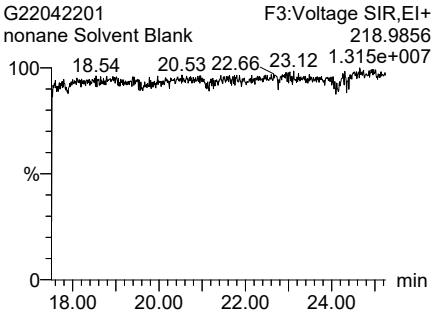
Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

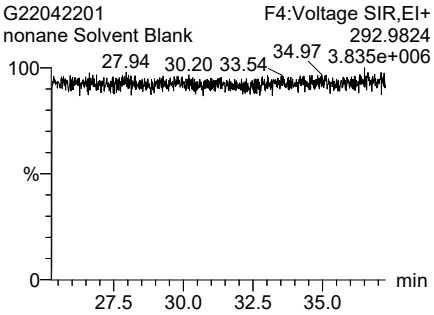
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Name: G22042201, Date: 22-Apr-2022, Time: 12:02:38, ID: Solvent Blank, Description: nonane

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626								
2	2	2-Methyl-naphthalene	142.0783								
3	3	Acenaphthylene	152.0636								
4	4	Acenaphthene	154.0783								
5	5	Fluorene	166.0783								
6	6	Phenanthrene	178.0783								
7	7	Anthracene	178.0783								
8	8	Fluoranthene	202.0783								
9	9	Pyrene	202.0783								
10	10	Benzo(a)Anthracene	228.0939								
11	11	Chrysene	228.0939								
12	12	Benzo(b)Fluoranthene	252.0939								
13	13	Benzo(k)Fluoranthene	252.0939								
14	14	Benzo(e)Pyrene	252.0939	28.44	222627.609		27393.072		dd		
15	15	Benzo(a)Pyrene	252.0939								
16	16	Perylene	252.0939				8327.601				
17	17	Indeno(123-cd)Pyrene	276.0939								
18	18	Benzo(ghi)Perylene	276.0939								
19	19	Dibenzo(a,h)Anthracene	278.1096	32.94	43409.641		17367.859		bb		
20	20	13C-Naphthalene (ES)	134.0827								
21	21	13C-2-Methylnaphthalene ...	148.0984								
22	22	13C-Acenaphthylene (ES)	158.0827								
23	23	13C-Acenaphthene (ES)	160.0984								
24	24	13C-Fluorene (ES)	172.0984								
25	25	13C-Phenanthrene (ES)	184.0984								
26	26	13C-Anthracene (ES)	184.0984								
27	27	13C-Fluoranthene (ES)	208.0984								
28	28	13C-Pyrene (ES)	205.0883								
29	29	13C-Benzo(a)Anthracene ...	234.1140								
30	30	13C-Chrysene (ES)	234.1140								
31	31	13C-Benzo(b)Fluoranthen...	258.1140				13405.371				
32	32	13C-Benzo(k)Fluoranthen...	258.1140				13405.371				
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.43	27393.072		13405.371		db		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073				13405.371				
35	35	d12-Perylene (ES)	264.1692	29.05	8327.601		13405.371		bb		
36	36	13C-Indeno(123-cd)Pyren...	282.1140				13405.371				
37	37	13C-Benzo(ghi)Perylene (...	288.1342				13405.371				
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	32.93	17367.859		13405.371		bb		
39	39	d10-Fluorene (CS)	176.1410								
40	40	d14-Terphenyl (CS)	244.1974								
41	41	d10-Fluorene (SS)	176.1410								
42	42	d14-Terphenyl (SS)	244.1974								
43	43	d10-Anthracene (AS)	188.1410								
44	44	d10-2-Methylnaphthalene (...	152.1410								
45	45	d10-Acenaphthene (JS)	164.1410								
46	46	d10-Pyrene (JS)	212.1410								
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.62	13405.371			13405.371	bb		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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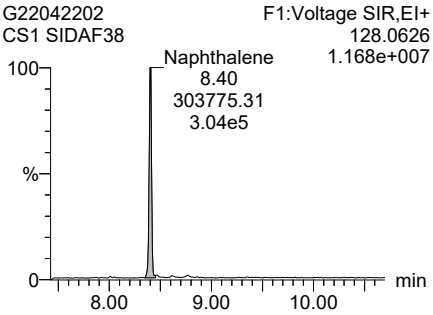
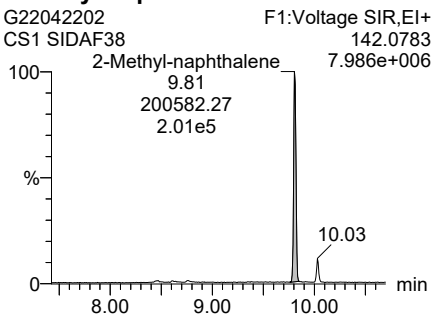
Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

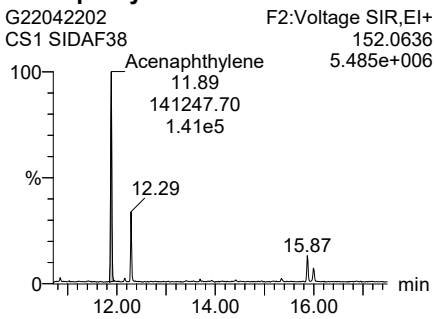
Naphthalene



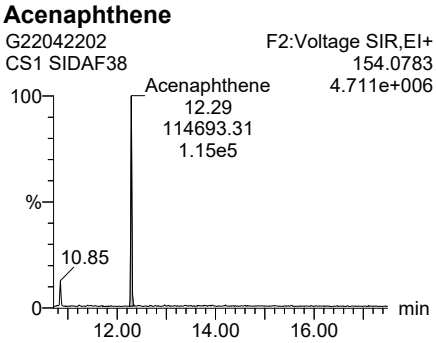
2-Methyl-naphthalene



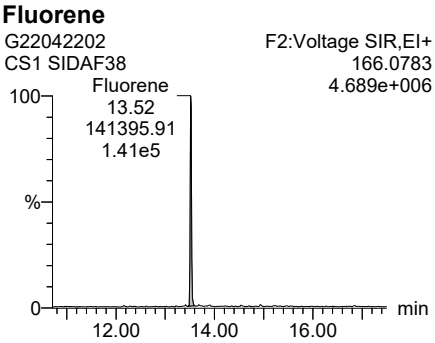
Acenaphthylene



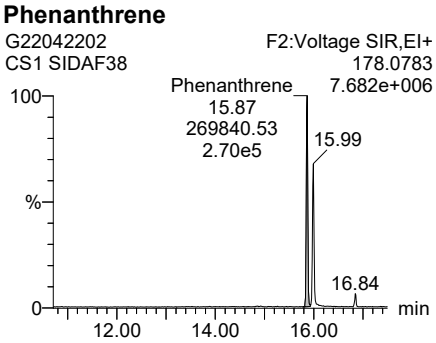
Acenaphthene



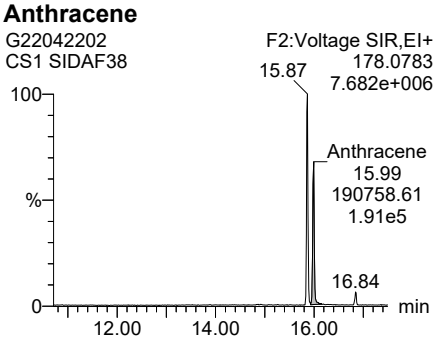
Fluorene



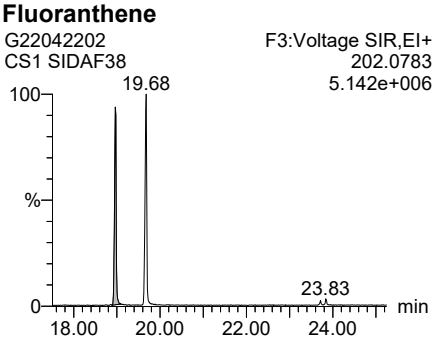
Phenanthrene



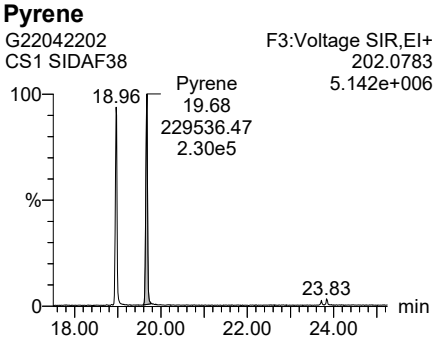
Anthracene



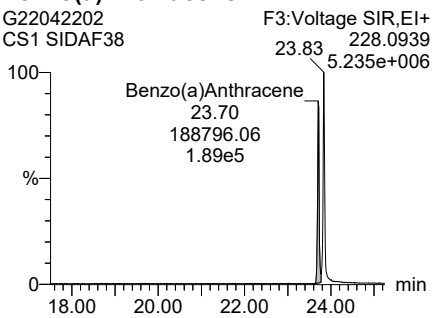
Fluoranthene



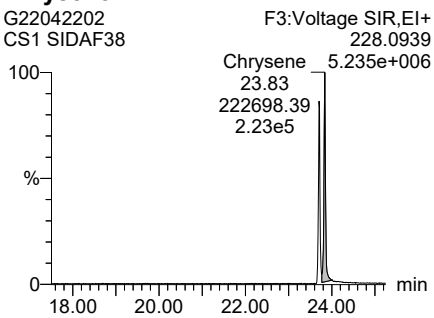
Pyrene



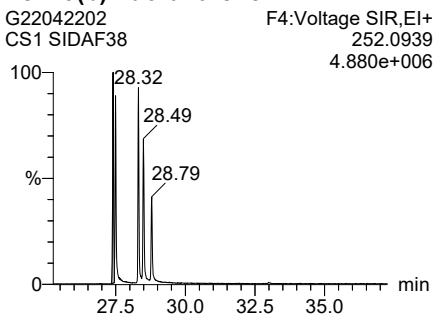
Benzo(a)Anthracene



Chrysene



Benzo(b)Fluoranthene



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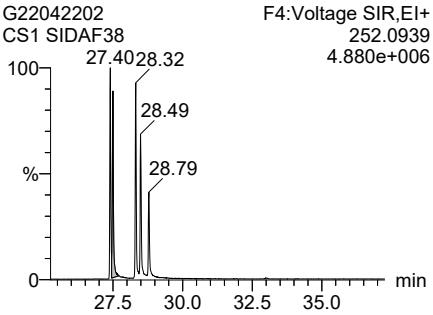
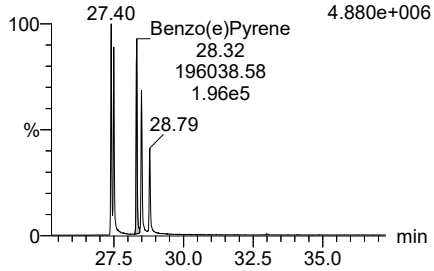
Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

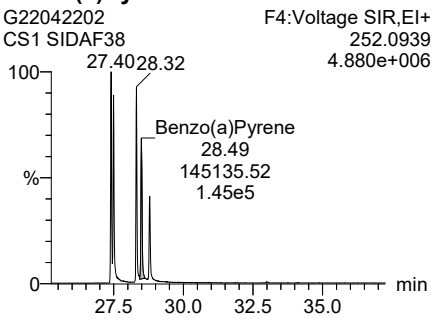
Benzo(k)Fluoranthene



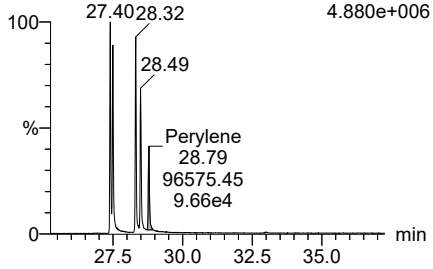
Benzo(e)Pyrene



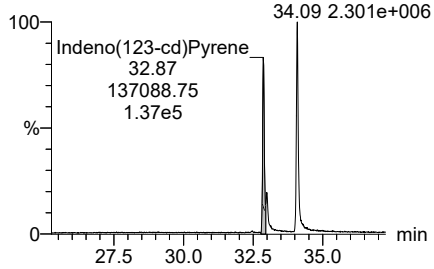
Benzo(a)Pyrene



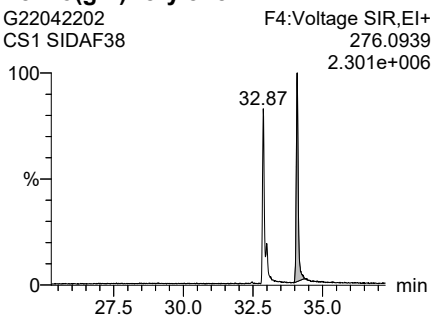
Perylene



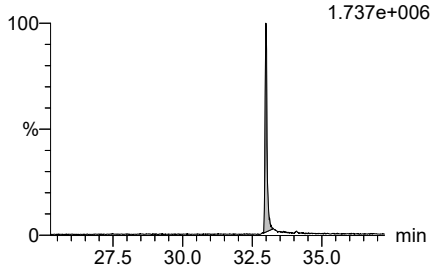
Indeno(123-cd)Pyrene



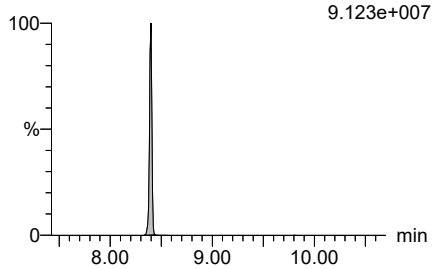
Benzo(ghi)Perylene



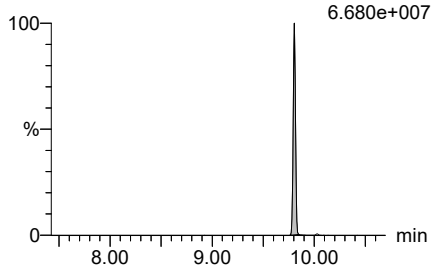
Dibenzo(a,h)Anthracene



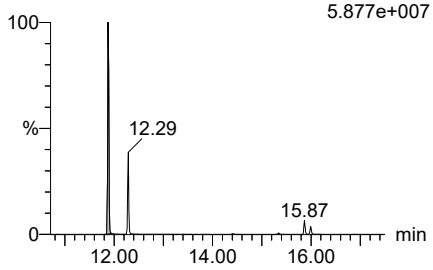
13C-Naphthalene (ES)



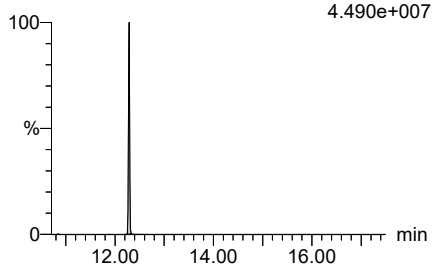
13C-2-Methylnaphthalene (ES)



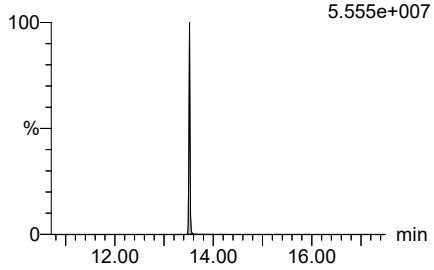
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



13C-Fluorene (ES)



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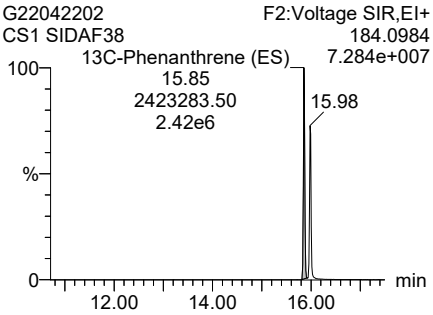
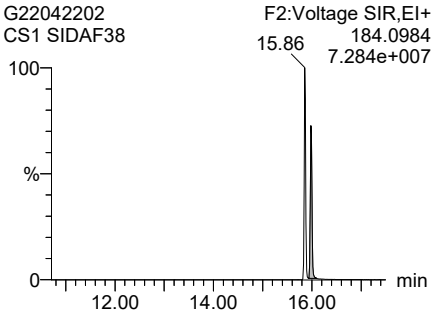
Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

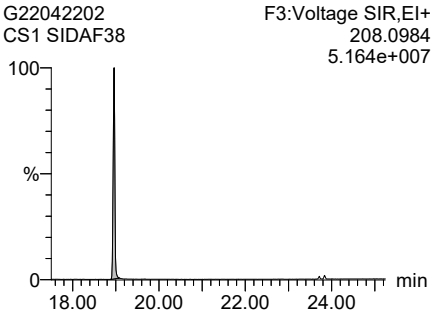
13C-Phenanthrene (ES)



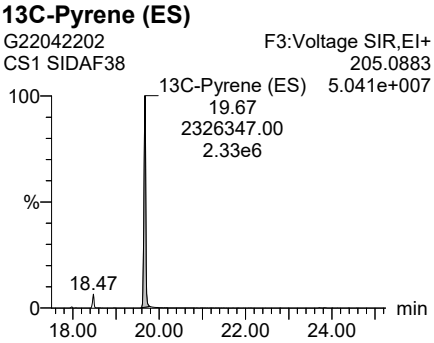
13C-Anthracene (ES)



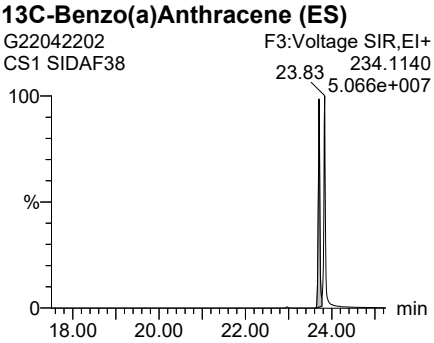
13C-Fluoranthene (ES)



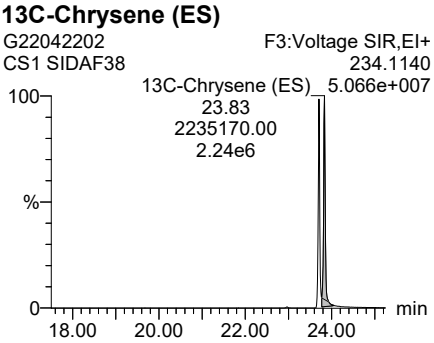
13C-Pyrene (ES)



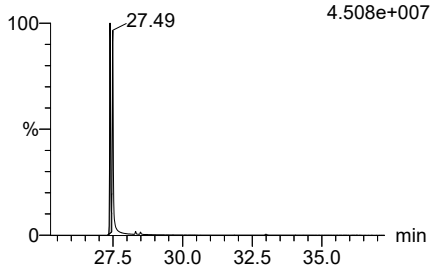
13C-Benzo(a)Anthracene (ES)



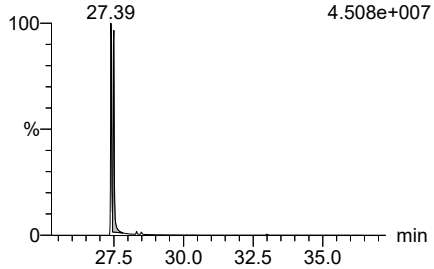
13C-Chrysene (ES)



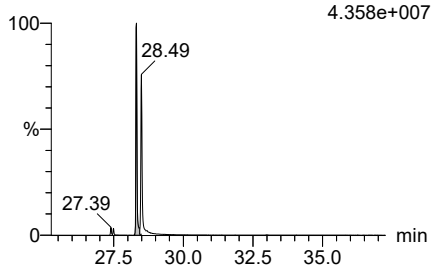
13C-Benzo(b)Fluoranthene (ES)



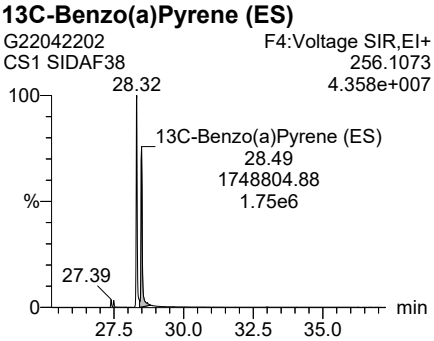
13C-Benzo(k)Fluoranthene (ES)



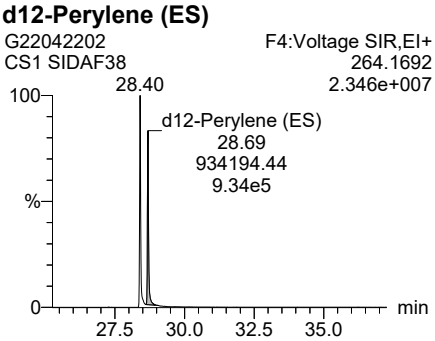
13C-Benzo(e)Pyrene (ES)



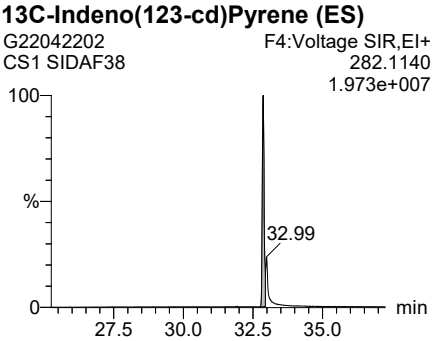
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



13C-Indeno(123-cd)Pyrene (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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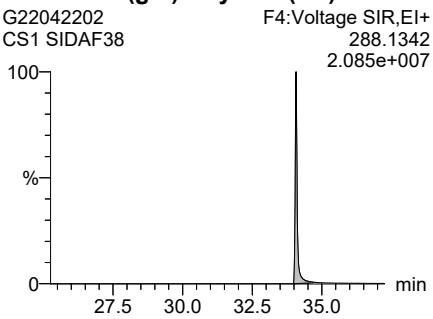
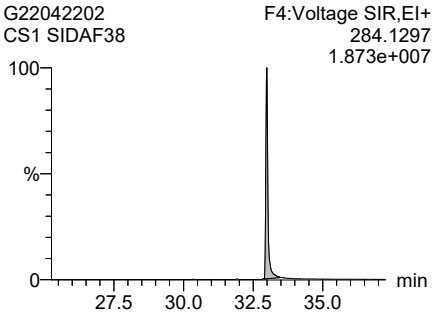
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

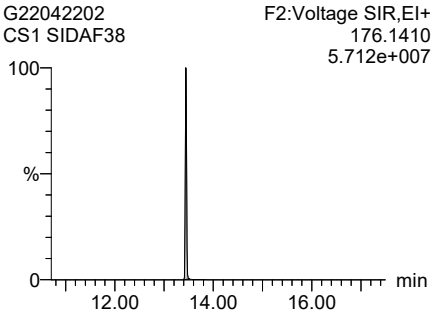
13C-Benzo(ghi)Perylene (ES)



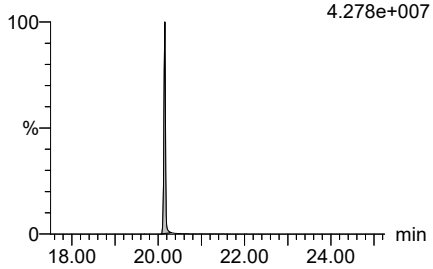
13C-Dibenz(a,h)Anthracene (ES)



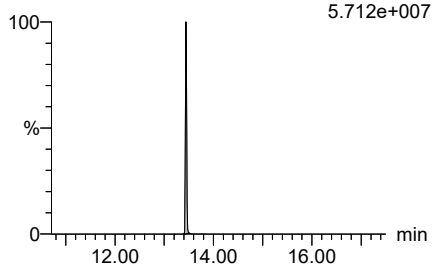
d10-Fluorene (CS)



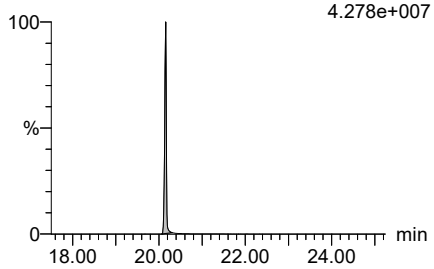
d14-Terphenyl (CS)



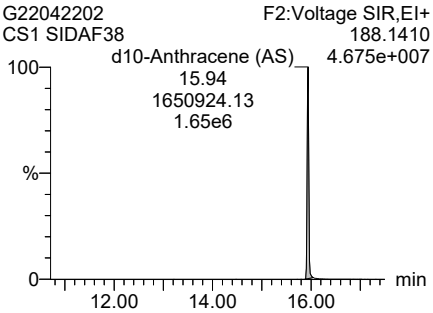
d10-Fluorene (SS)



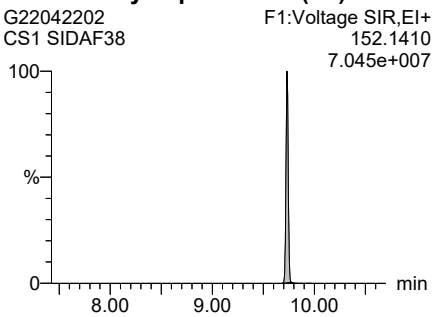
d14-Terphenyl (SS)



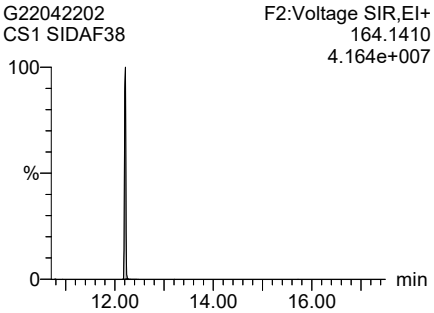
d10-Anthracene (AS)



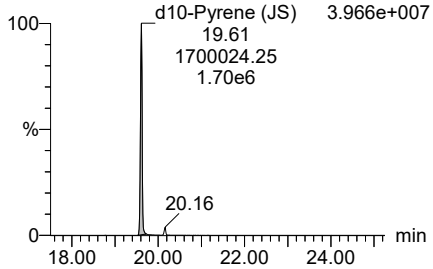
d10-2-Methylnaphthalene (JS)



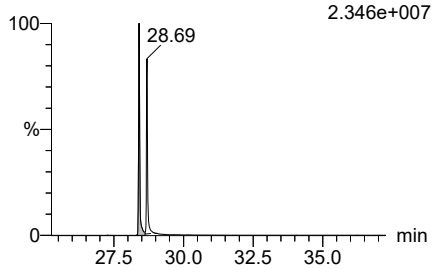
d10-Acenaphthene (JS)



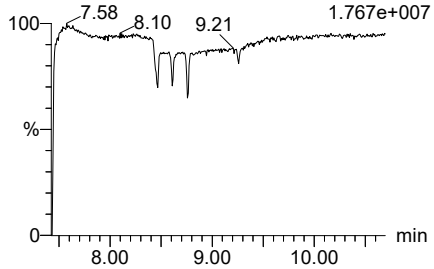
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



QC Check Ion Fn1



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
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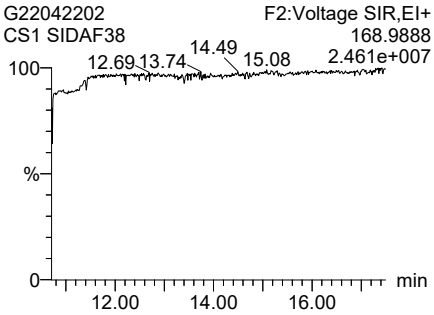
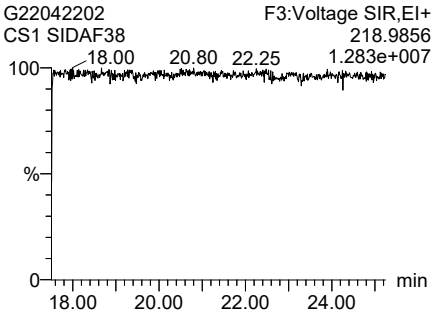
Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

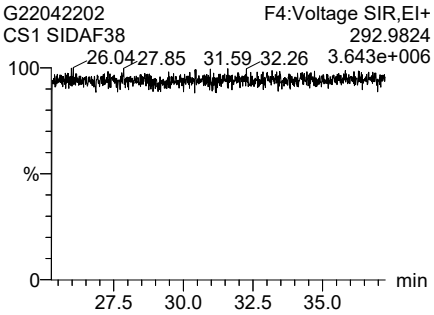
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042202, Date: 22-Apr-2022, Time: 12:42:51, ID: SIDAF38, Description: CS1

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626	8.40	303775.313		2287230.250	13.281	bd	11.9	19.2
2	2	2-Methyl-naphthalene	142.0783	9.81	200582.266		1632979.875	12.283	bb	11.9	19.4
3	3	Acenaphthylene	152.0636	11.89	141247.703		1621388.500	8.712	bb	9.1	-9.1
4	4	Acenaphthene	154.0783	12.29	114693.313		1205882.500	9.511	bb	9.4	-6.0
5	5	Fluorene	166.0783	13.52	141395.906		1415193.125	9.991	bb	9.7	-3.0
6	6	Phenanthrene	178.0783	15.87	269840.531		2423283.500	11.135	bd	11.1	10.6
7	7	Anthracene	178.0783	15.99	190758.609		1963143.375	9.717	db	9.5	-4.8
8	8	Fluoranthene	202.0783	18.96	211400.234		2135858.750	9.898	bb	10.0	0.2
9	9	Pyrene	202.0783	19.68	229536.469		2326347.000	9.867	bb	10.4	3.9
10	10	Benzo(a)Anthracene	228.0939	23.70	188796.063		1968336.250	9.592	bd	9.9	-0.7
11	11	Chrysene	228.0939	23.83	222698.391		2235170.000	9.963	db	10.0	-0.1
12	12	Benzo(b)Fluoranthene	252.0939	27.40	189233.313		1777183.875	10.648	bd	10.4	4.0
13	13	Benzo(k)Fluoranthene	252.0939	27.49	196532.875		1998209.500	9.835	db	10.2	1.7
14	14	Benzo(e)Pyrene	252.0939	28.32	196038.578		1980475.750	9.899	bd	9.7	-3.1
15	15	Benzo(a)Pyrene	252.0939	28.49	145135.516		1748804.875	8.299	db	9.0	-9.9
16	16	Perylene	252.0939	28.79	96575.453		934194.438	10.338	bb	8.5	-15.3
17	17	Indeno(123-cd)Pyrene	276.0939	32.87	137088.750		1377258.875	9.954	MM	10.7	6.6
18	18	Benzo(ghi)Perylene	276.0939	34.09	183459.719		1794184.500	10.225	bb	10.4	4.1
19	19	Dibenzo(a,h)Anthracene	278.1096	32.99	133506.344		1518897.750	8.790	bb	9.6	-4.0
20	20	13C-Naphthalene (ES)	134.0827	8.40	2287230.250		1731445.250		bb		
21	21	13C-2-Methylnaphthalene ...	148.0984	9.81	1632979.875		1731445.250		bb		
22	22	13C-Acenaphthylene (ES)	158.0827	11.88	1621388.500		1183796.375		bb		
23	23	13C-Acenaphthene (ES)	160.0984	12.29	1205882.500		1183796.375		bb		
24	24	13C-Fluorene (ES)	172.0984	13.52	1415193.125		1183796.375		bb		
25	25	13C-Phenanthrene (ES)	184.0984	15.85	2423283.500		1183796.375		bb		
26	26	13C-Anthracene (ES)	184.0984	15.98	1963143.375		1183796.375		bb		
27	27	13C-Fluoranthene (ES)	208.0984	18.96	2135858.750		1700024.250		bb		
28	28	13C-Pyrene (ES)	205.0883	19.67	2326347.000		1700024.250		bb		
29	29	13C-Benzo(a)Anthracene ...	234.1140	23.70	1968336.250		1700024.250		bd		
30	30	13C-Chrysene (ES)	234.1140	23.83	2235170.000		1700024.250		MM		
31	31	13C-Benzo(b)Fluoranthen...	258.1140	27.39	1777183.875		1127668.625		MM		
32	32	13C-Benzo(k)Fluoranthen...	258.1140	27.49	1998209.500		1127668.625		MM		
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.32	1980475.750		1127668.625		MM		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073	28.49	1748804.875		1127668.625		MM		
35	35	d12-Perylene (ES)	264.1692	28.69	934194.438		1127668.625		MM		
36	36	13C-Indeno(123-cd)Pyren...	282.1140	32.87	1377258.875		1127668.625		MM		
37	37	13C-Benzo(ghi)Perylene (...	288.1342	34.08	1794184.500		1127668.625		MM		
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	32.99	1518897.750		1127668.625		MM		
39	39	d10-Fluorene (CS)	176.1410	13.44	1566719.125		1183796.375		bb		
40	40	d14-Terphenyl (CS)	244.1974	20.15	1754191.750		1700024.250		bb		
41	41	d10-Fluorene (SS)	176.1410	13.44	1566719.125		1415193.125	110.707	bb	104.2	4.2
42	42	d14-Terphenyl (SS)	244.1974	20.15	1754191.750		2326347.000	75.405	bb	103.8	3.8
43	43	d10-Anthracene (AS)	188.1410	15.94	1650924.125		1183796.375		bb		
44	44	d10-2-Methylnaphthalene (...	152.1410	9.73	1731445.250			1731445.250	bb		
45	45	d10-Acenaphthene (JS)	164.1410	12.21	1183796.375			1183796.375	bb		
46	46	d10-Pyrene (JS)	212.1410	19.61	1700024.250			1700024.250	bb		
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.40	1127668.625			1127668.625	MM		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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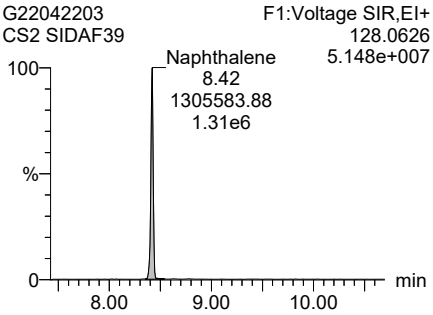
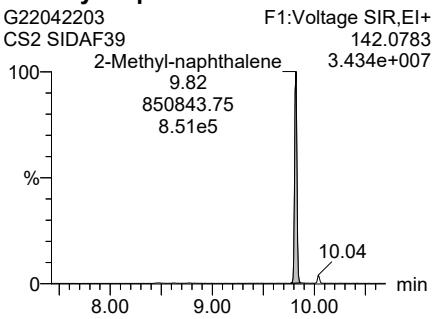
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042203, Date: 22-Apr-2022, Time: 13:24:49, ID: SIDAF39, Description: CS2

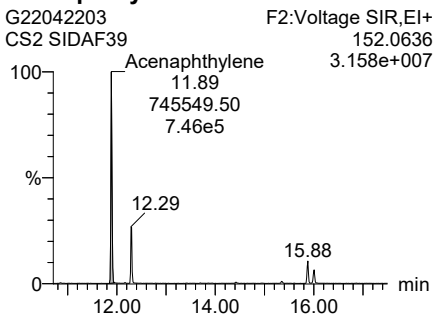
Naphthalene



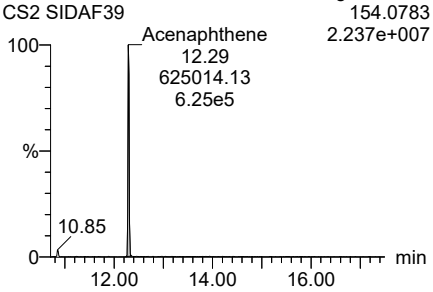
2-Methyl-naphthalene



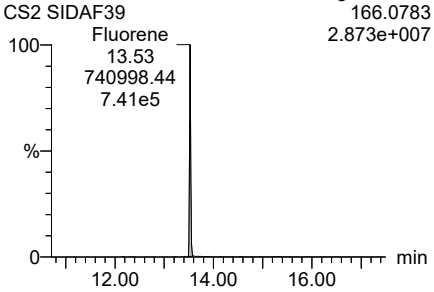
Acenaphthylene



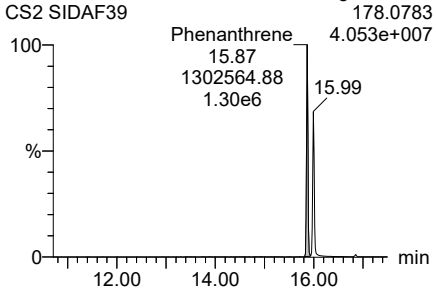
Acenaphthene



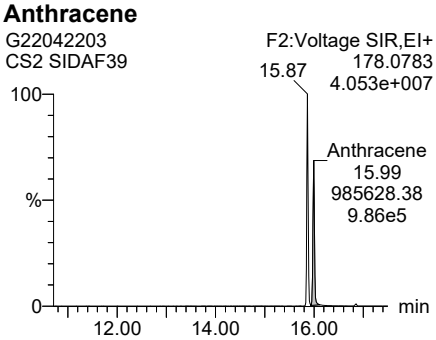
Fluorene



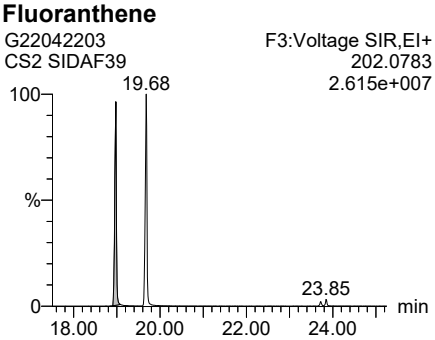
Phenanthrene



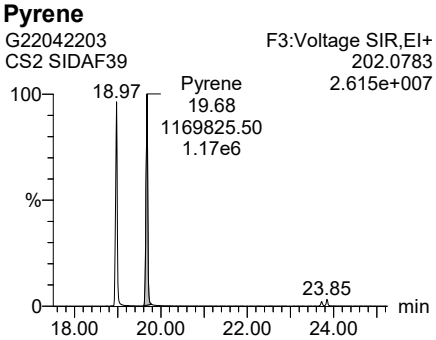
Anthracene



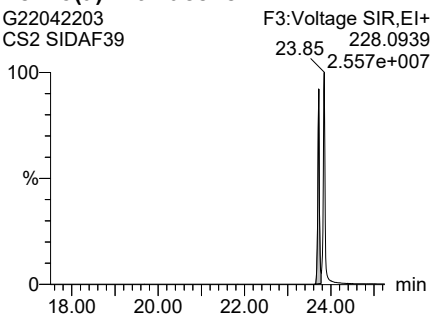
Fluoranthene



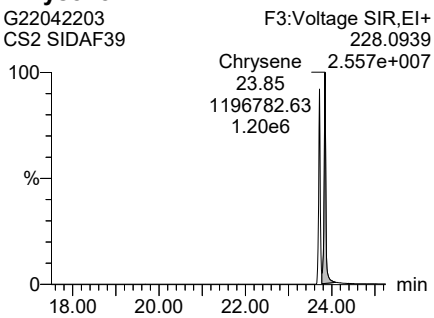
Pyrene



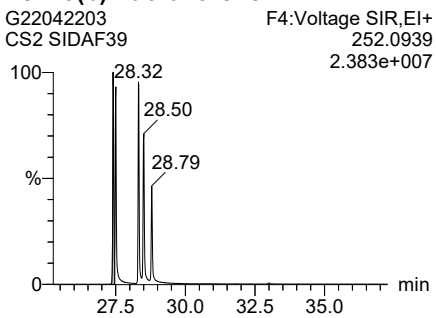
Benzo(a)Anthracene



Chrysene



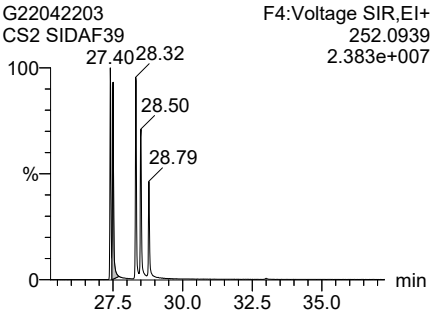
Benzo(b)Fluoranthene



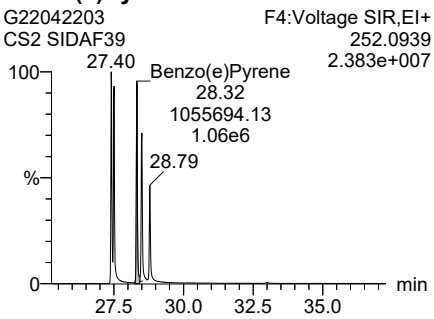
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042203, Date: 22-Apr-2022, Time: 13:24:49, ID: SIDAF39, Description: CS2

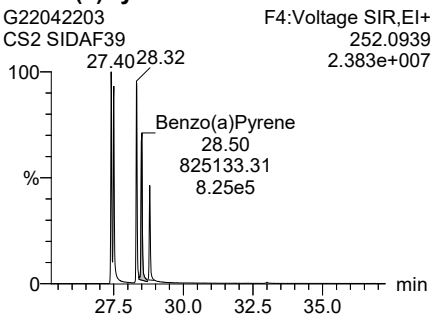
Benzo(k)Fluoranthene



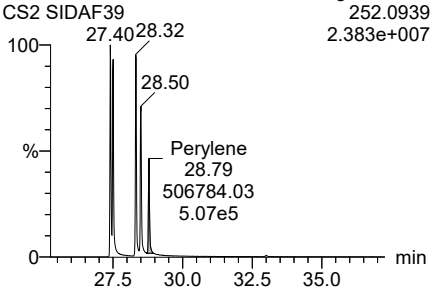
Benzo(e)Pyrene



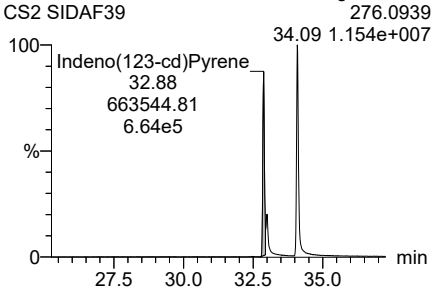
Benzo(a)Pyrene



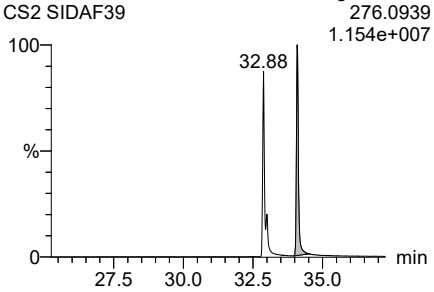
Perylene



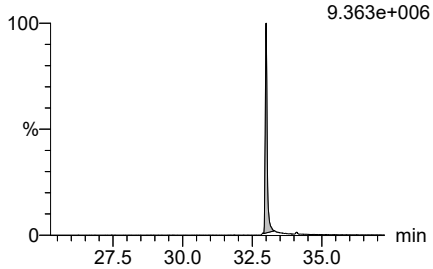
Indeno(123-cd)Pyrene



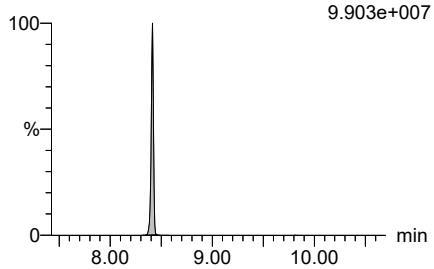
Benzo(ghi)Perylene



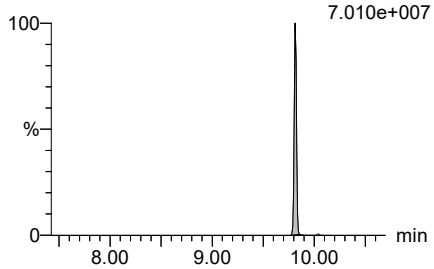
Dibenzo(a,h)Anthracene



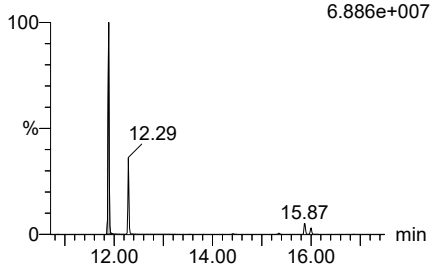
13C-Naphthalene (ES)



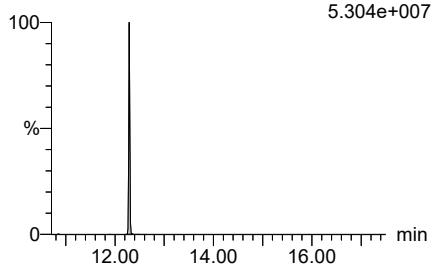
13C-2-Methylnaphthalene (ES)



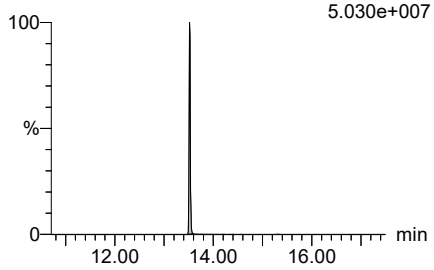
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



13C-Fluorene (ES)



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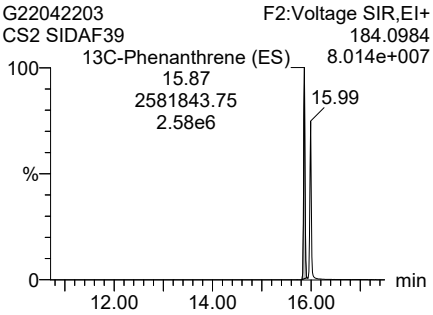
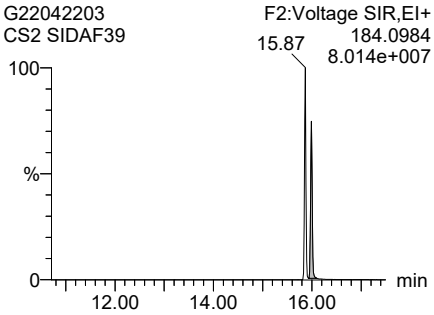
Name: G22042203, Date: 22-Apr-2022, Time: 13:24:49, ID: SIDAF39, Description: CS2

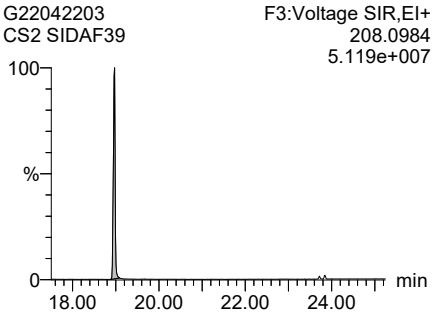
13C-Phenanthrene (ES)



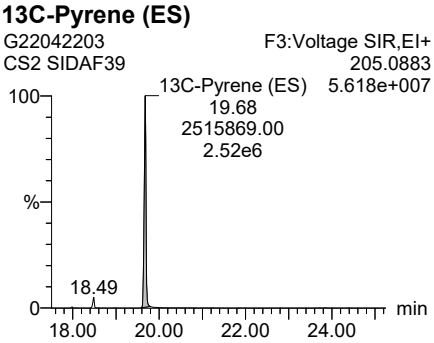
13C-Anthracene (ES)



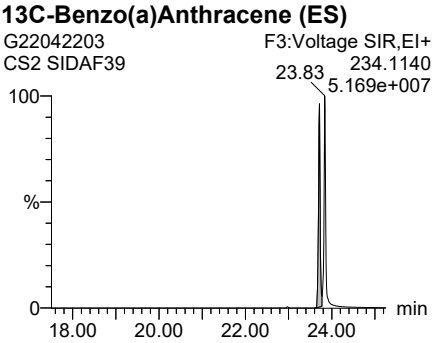
13C-Fluoranthene (ES)



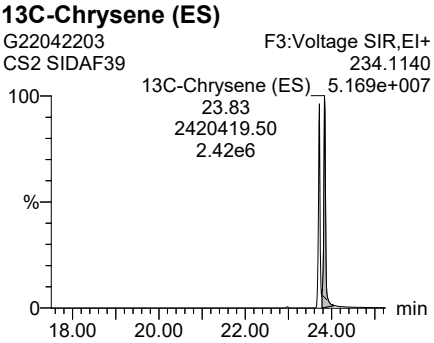
13C-Pyrene (ES)



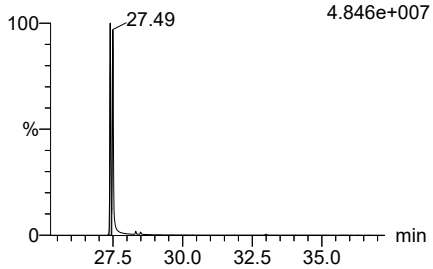
13C-Benzo(a)Anthracene (ES)



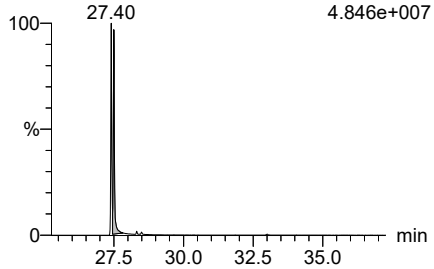
13C-Chrysene (ES)



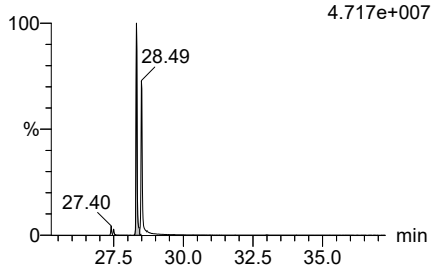
13C-Benzo(b)Fluoranthene (ES)



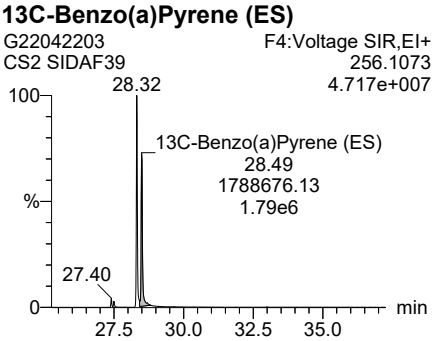
13C-Benzo(k)Fluoranthene (ES)



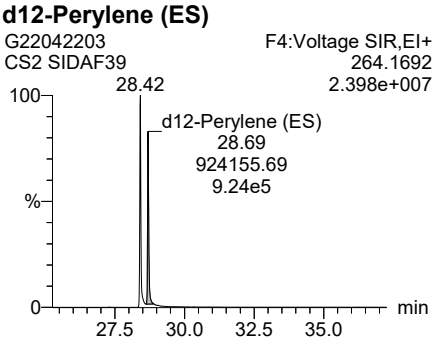
13C-Benzo(e)Pyrene (ES)



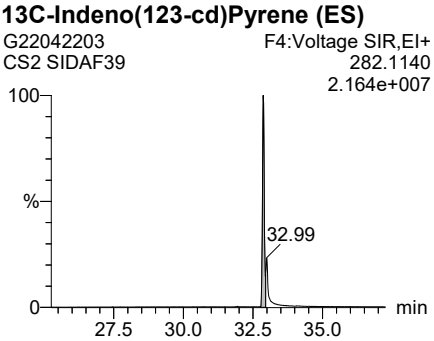
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



13C-Indeno(123-cd)Pyrene (ES)



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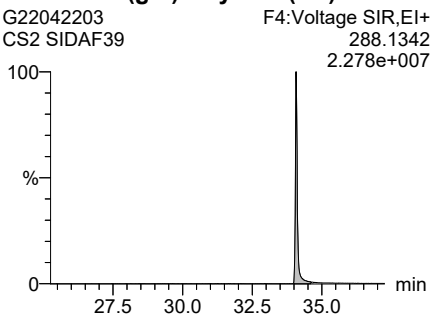
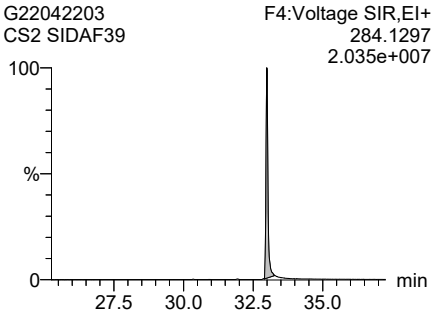
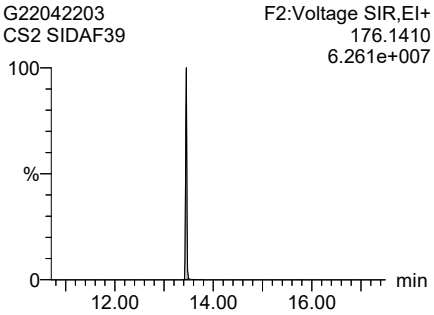
13C-Benzo(ghi)Perylene (ES)



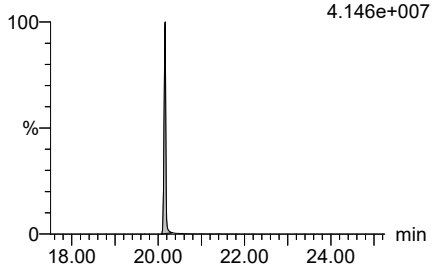
13C-Dibenz(a,h)Anthracene (ES)



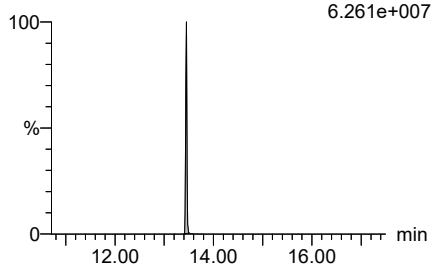
d10-Fluorene (CS)



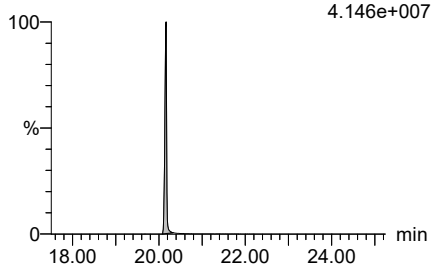
d14-Terphenyl (CS)



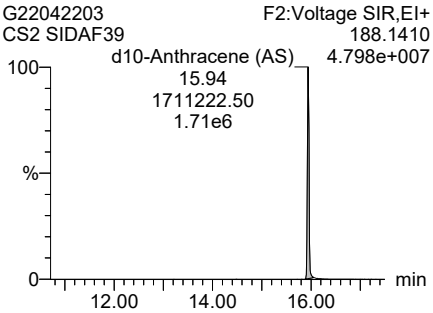
d10-Fluorene (SS)



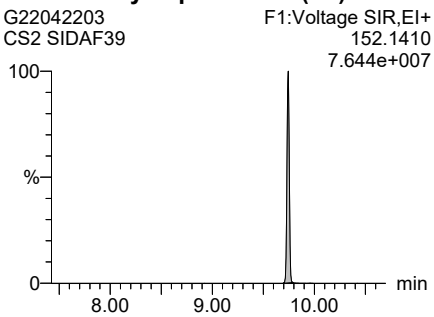
d14-Terphenyl (SS)



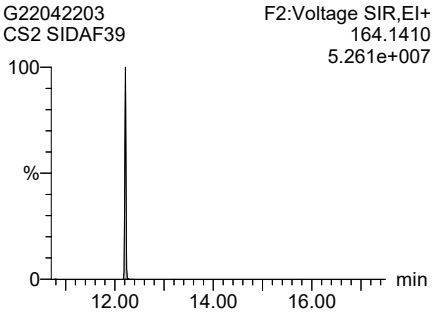
d10-Anthracene (AS)



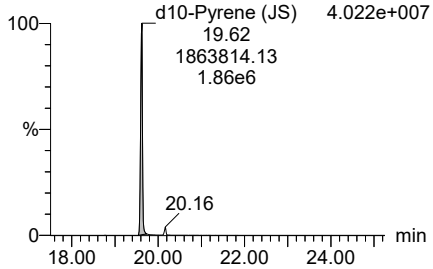
d10-2-Methylnaphthalene (JS)



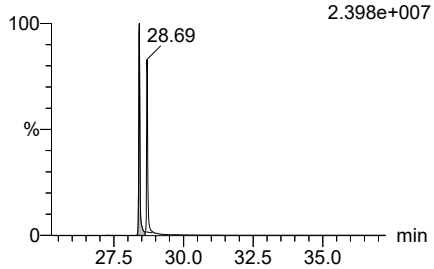
d10-Acenaphthene (JS)



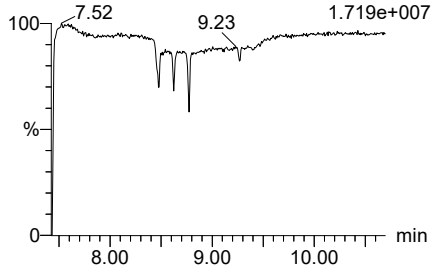
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



QC Check Ion Fn1



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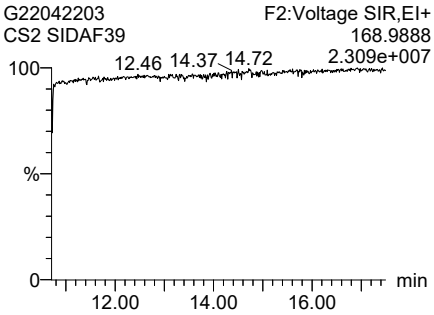
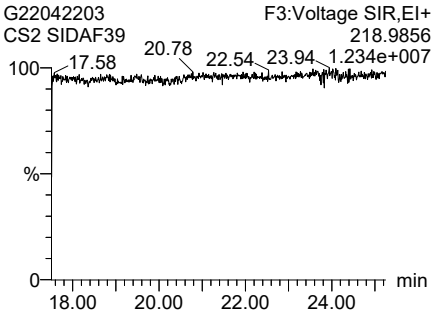
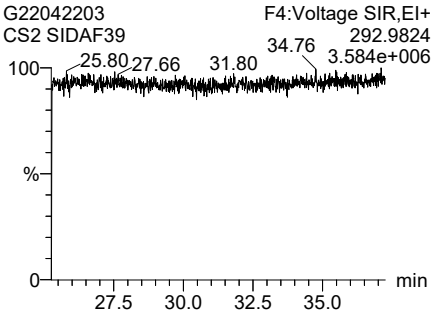
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626	8.42	1305583.875		2406100.500	54.261	db	48.7	-2.6
2	2	2-Methyl-naphthalene	142.0783	9.82	850843.750		1683235.875	50.548	bb	49.1	-1.7
3	3	Acenaphthylene	152.0636	11.89	745549.500		1750688.375	42.586	bb	44.5	-11.1
4	4	Acenaphthene	154.0783	12.29	625014.125		1288770.125	48.497	bb	47.9	-4.1
5	5	Fluorene	166.0783	13.53	740998.438		1527296.000	48.517	bb	47.1	-5.8
6	6	Phenanthrene	178.0783	15.87	1302564.875		2581843.750	50.451	bd	50.1	0.3
7	7	Anthracene	178.0783	15.99	985628.375		2060470.500	47.835	db	46.8	-6.3
8	8	Fluoranthene	202.0783	18.97	1093589.500		2296319.750	47.624	bb	48.2	-3.6
9	9	Pyrene	202.0783	19.68	1169825.500		2515869.000	46.498	bb	48.9	-2.1
10	10	Benzo(a)Anthracene	228.0939	23.72	987795.563		2091171.000	47.236	bd	48.9	-2.2
11	11	Chrysene	228.0939	23.85	1196782.625		2420419.500	49.445	db	49.6	-0.9
12	12	Benzo(b)Fluoranthene	252.0939	27.40	970810.563		1910098.000	50.825	MM	49.6	-0.7
13	13	Benzo(k)Fluoranthene	252.0939	27.50	1034545.938		2215791.000	46.690	MM	48.3	-3.5
14	14	Benzo(e)Pyrene	252.0939	28.32	1055694.125		2092173.500	50.459	MM	49.4	-1.2
15	15	Benzo(a)Pyrene	252.0939	28.50	825133.313		1788676.125	46.131	MM	50.1	0.2
16	16	Perylene	252.0939	28.79	506784.031		924155.688	54.838	MM	45.0	-10.1
17	17	Indeno(123-cd)Pyrene	276.0939	32.88	663544.813		1534431.750	43.244	MM	46.3	-7.4
18	18	Benzo(ghi)Perylene	276.0939	34.09	943164.500		1921295.375	49.090	MM	50.0	-0.1
19	19	Dibenzo(a,h)Anthracene	278.1096	33.00	718078.688		1571084.750	45.706	MM	49.9	-0.2
20	20	13C-Naphthalene (ES)	134.0827	8.41	2406100.500		1882600.375		db		
21	21	13C-2-Methylnaphthalene ...	148.0984	9.81	1683235.875		1882600.375		bb		
22	22	13C-Acenaphthylene (ES)	158.0827	11.89	1750688.375		1290562.000		bb		
23	23	13C-Acenaphthene (ES)	160.0984	12.29	1288770.125		1290562.000		bb		
24	24	13C-Fluorene (ES)	172.0984	13.52	1527296.000		1290562.000		bb		
25	25	13C-Phenanthrene (ES)	184.0984	15.87	2581843.750		1290562.000		bb		
26	26	13C-Anthracene (ES)	184.0984	15.99	2060470.500		1290562.000		bb		
27	27	13C-Fluoranthene (ES)	208.0984	18.97	2296319.750		1863814.125		bb		
28	28	13C-Pyrene (ES)	205.0883	19.68	2515869.000		1863814.125		bb		
29	29	13C-Benzo(a)Anthracene ...	234.1140	23.72	2091171.000		1863814.125		bd		
30	30	13C-Chrysene (ES)	234.1140	23.83	2420419.500		1863814.125		MM		
31	31	13C-Benzo(b)Fluoranthen...	258.1140	27.40	1910098.000		1191745.250		MM		
32	32	13C-Benzo(k)Fluoranthen...	258.1140	27.49	2215791.000		1191745.250		MM		
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.32	2092173.500		1191745.250		MM		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073	28.49	1788676.125		1191745.250		MM		
35	35	d12-Perylene (ES)	264.1692	28.69	924155.688		1191745.250		MM		
36	36	13C-Indeno(123-cd)Pyren...	282.1140	32.87	1534431.750		1191745.250		MM		
37	37	13C-Benzo(ghi)Perylene (...	288.1342	34.08	1921295.375		1191745.250		MM		
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	32.99	1571084.750		1191745.250		MM		
39	39	d10-Fluorene (CS)	176.1410	13.45	1665707.250		1290562.000		bb		
40	40	d14-Terphenyl (CS)	244.1974	20.16	1891676.625		1863814.125		bb		
41	41	d10-Fluorene (SS)	176.1410	13.45	1665707.250		1527296.000	109.063	bb	102.7	2.7
42	42	d14-Terphenyl (SS)	244.1974	20.16	1891676.625		2515869.000	75.190	bb	103.5	3.5
43	43	d10-Anthracene (AS)	188.1410	15.94	1711222.500		1290562.000		bb		
44	44	d10-2-Methylnaphthalene (...	152.1410	9.75	1882600.375			1882600.375	bb		
45	45	d10-Acenaphthene (JS)	164.1410	12.21	1290562.000			1290562.000	bb		
46	46	d10-Pyrene (JS)	212.1410	19.62	1863814.125			1863814.125	bb		
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.42	1191745.250			1191745.250	MM		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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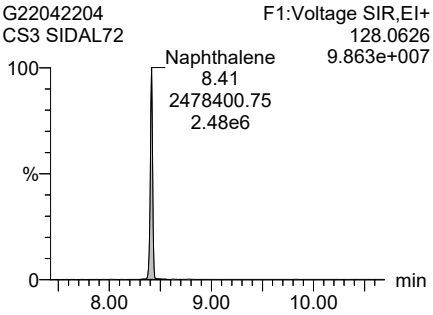
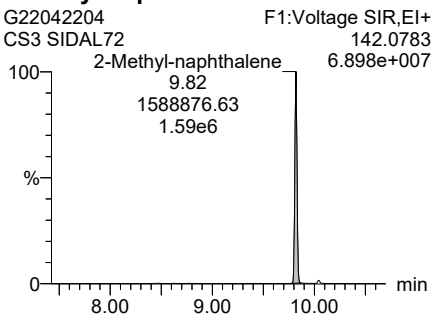
Name: G22042204, Date: 22-Apr-2022, Time: 14:06:51, ID: SIDAL72, Description: CS3

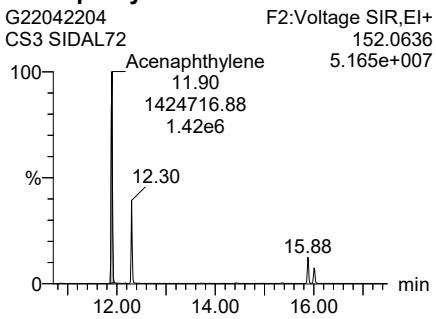
Naphthalene



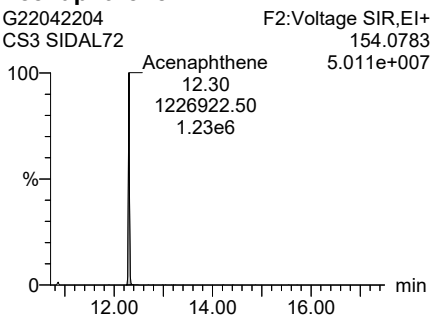
2-Methyl-naphthalene



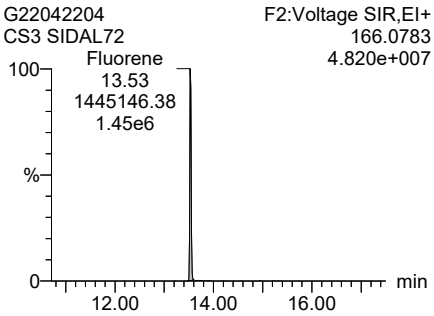
Acenaphthylene



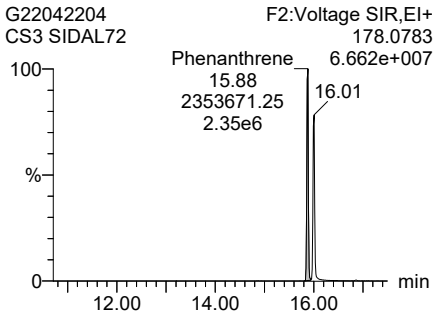
Acenaphthene



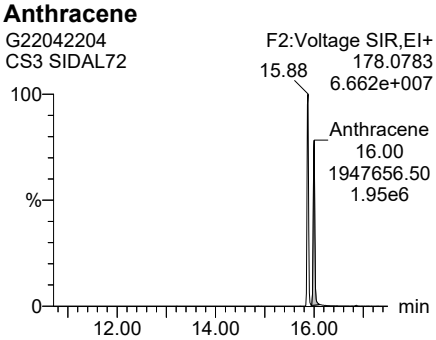
Fluorene



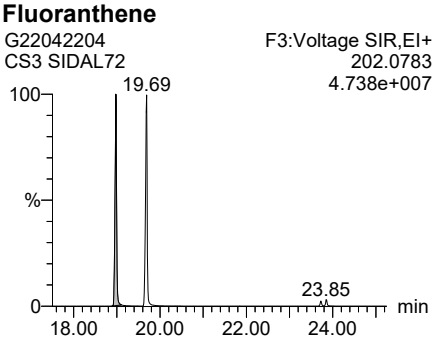
Phenanthrene



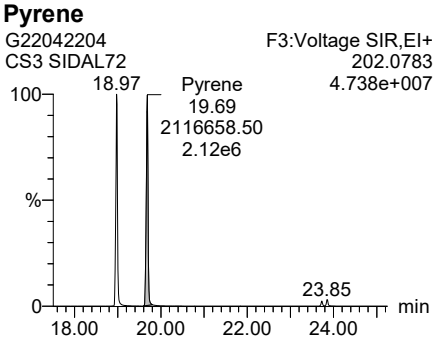
Anthracene



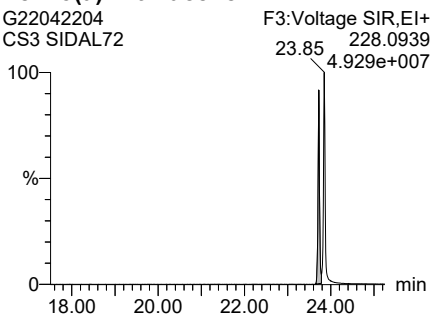
Fluoranthene



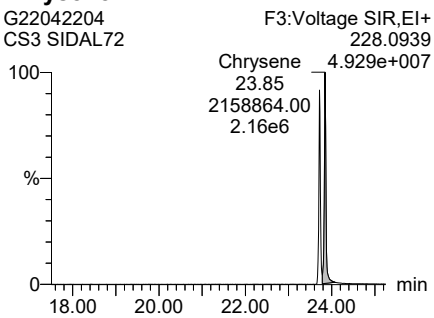
Pyrene



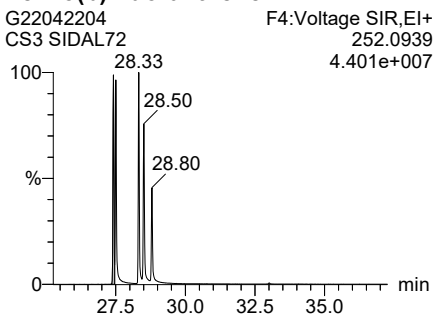
Benzo(a)Anthracene



Chrysene



Benzo(b)Fluoranthene



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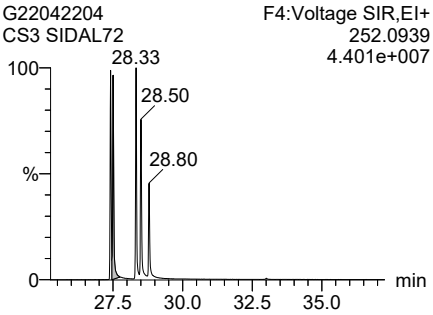
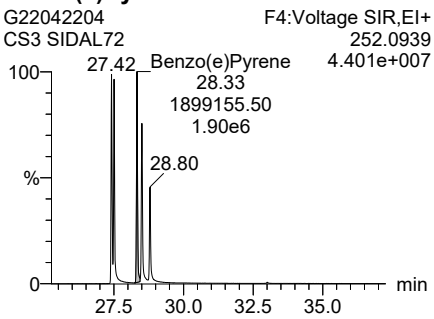
Name: G22042204, Date: 22-Apr-2022, Time: 14:06:51, ID: SIDAL72, Description: CS3

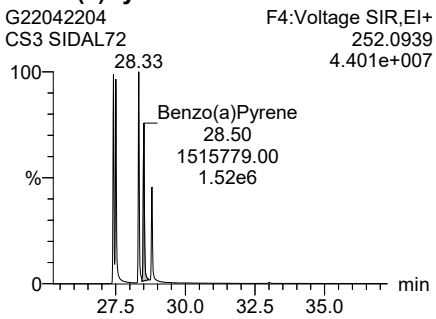
Benzo(k)Fluoranthene



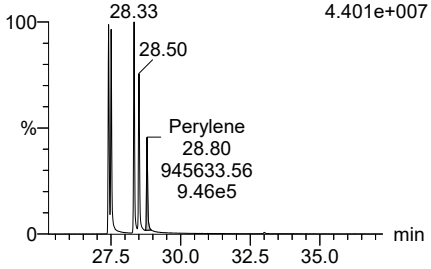
Benzo(e)Pyrene



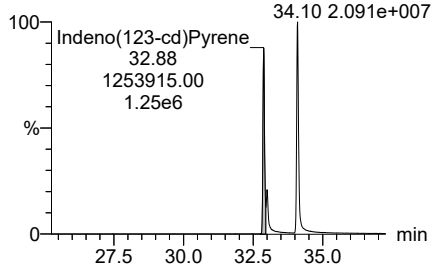
Benzo(a)Pyrene



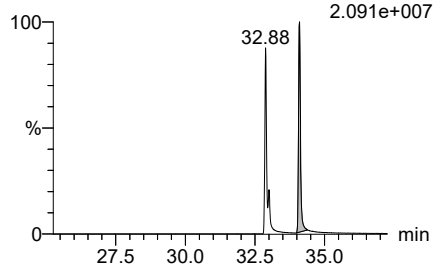
Perylene



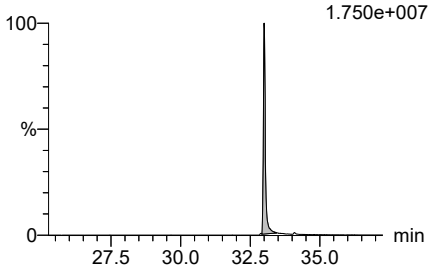
Indeno(123-cd)Pyrene



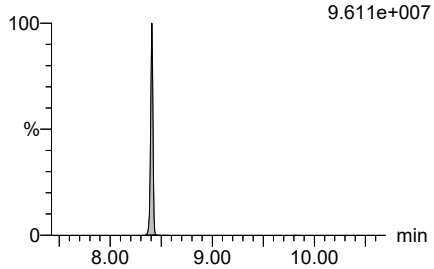
Benzo(ghi)Perylene



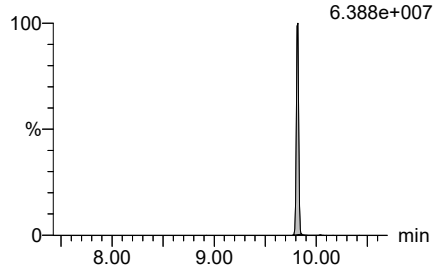
Dibenzo(a,h)Anthracene



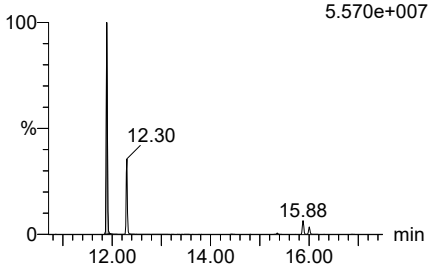
13C-Naphthalene (ES)



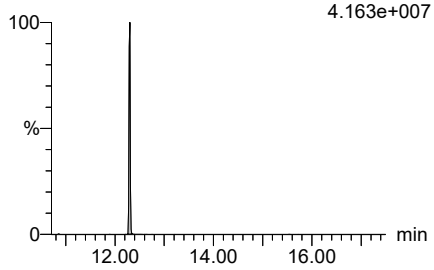
13C-2-Methylnaphthalene (ES)



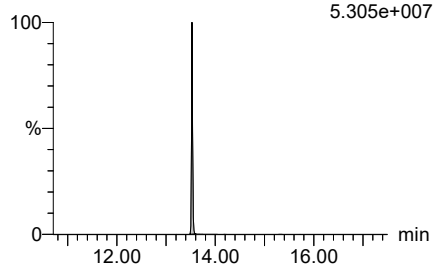
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



13C-Fluorene (ES)



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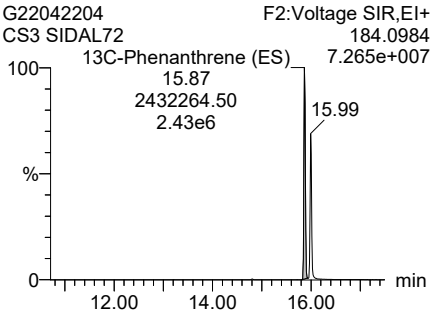
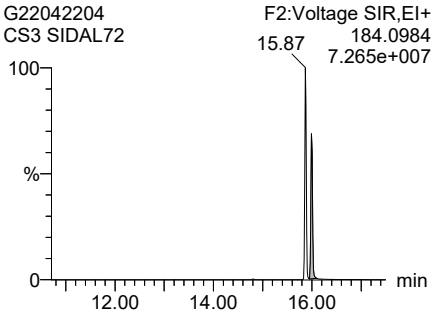
Name: G22042204, Date: 22-Apr-2022, Time: 14:06:51, ID: SIDAL72, Description: CS3

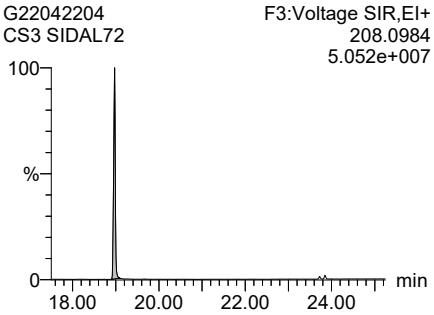
13C-Phenanthrene (ES)



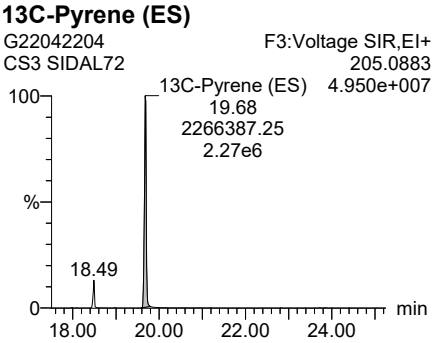
13C-Anthracene (ES)



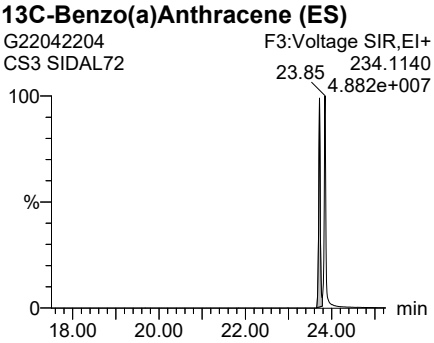
13C-Fluoranthene (ES)



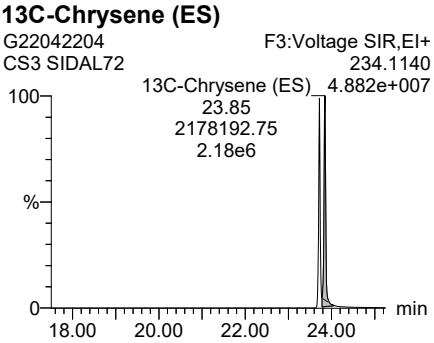
13C-Pyrene (ES)



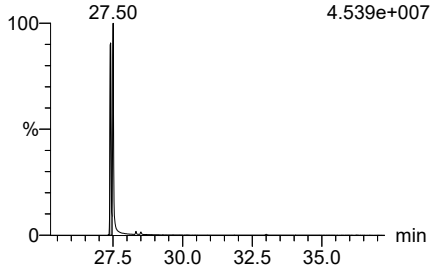
13C-Benzo(a)Anthracene (ES)



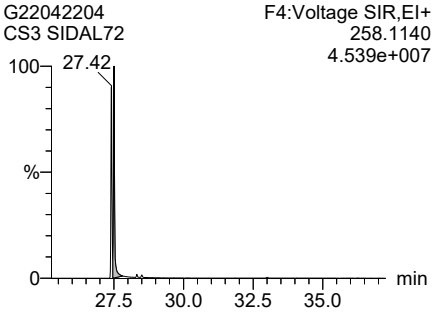
13C-Chrysene (ES)



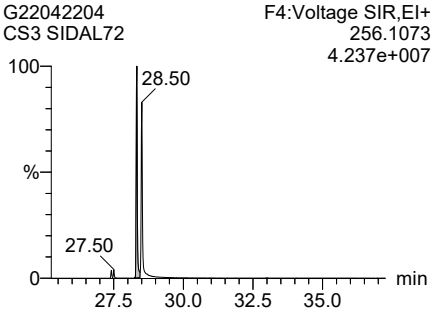
13C-Benzo(b)Fluoranthene (ES)



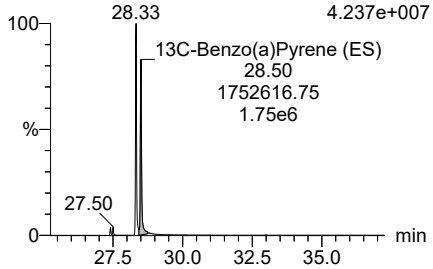
13C-Benzo(k)Fluoranthene (ES)



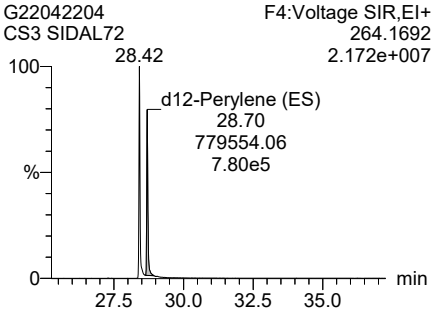
13C-Benzo(e)Pyrene (ES)



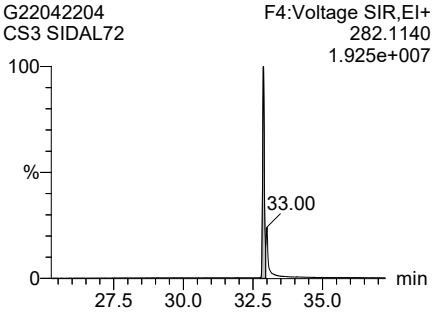
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



13C-Indeno(123-cd)Pyrene (ES)



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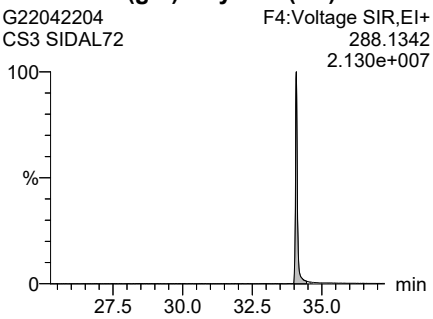
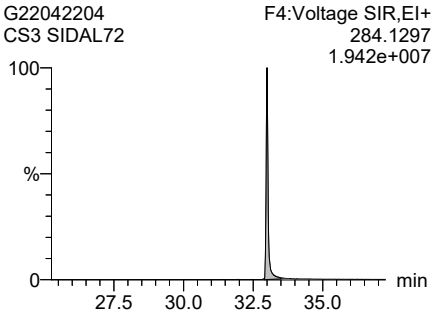
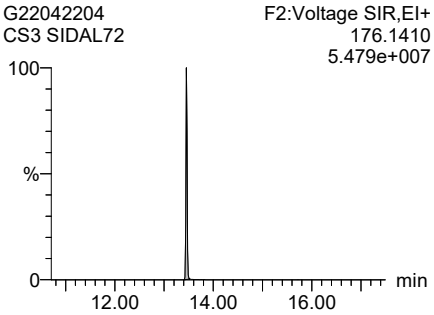
13C-Benzo(ghi)Perylene (ES)



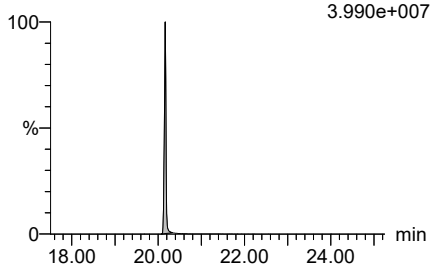
13C-Dibenz(a,h)Anthracene (ES)



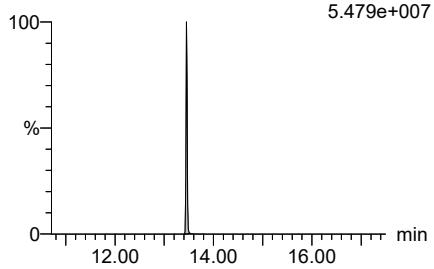
d10-Fluorene (CS)



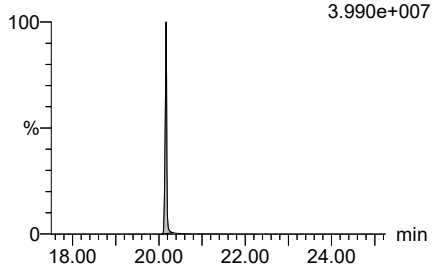
d14-Terphenyl (CS)



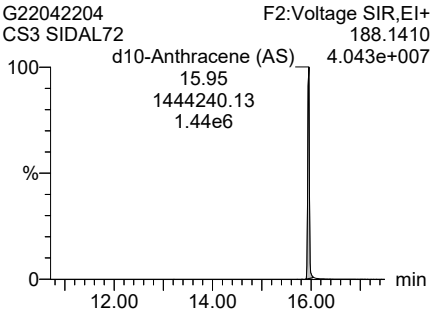
d10-Fluorene (SS)



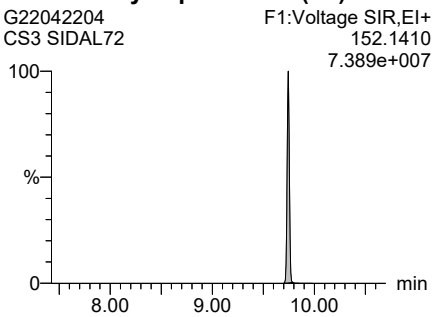
d14-Terphenyl (SS)



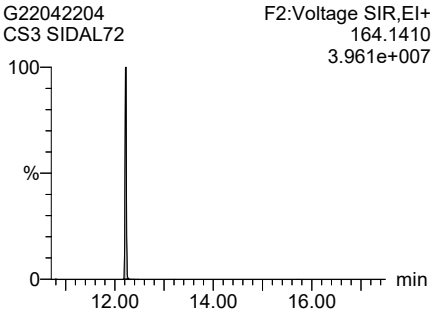
d10-Anthracene (AS)



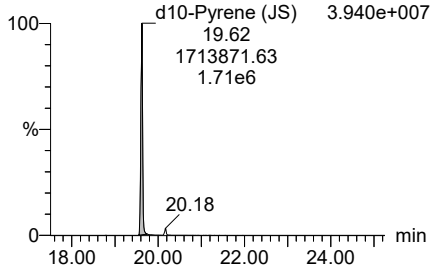
d10-2-Methylnaphthalene (JS)



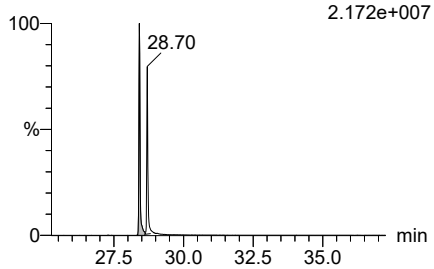
d10-Acenaphthene (JS)



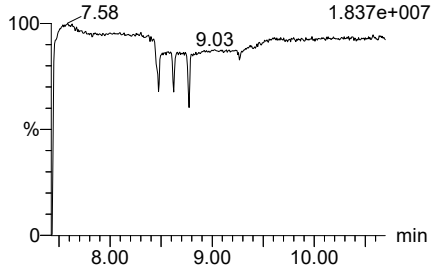
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



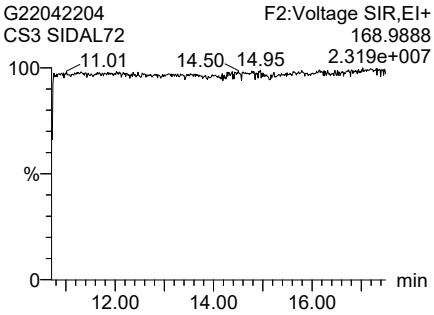
QC Check Ion Fn1



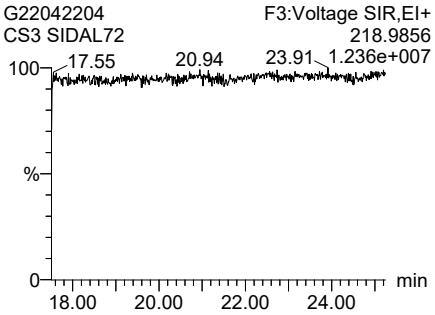
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042204, Date: 22-Apr-2022, Time: 14:06:51, ID: SIDAL72, Description: CS3

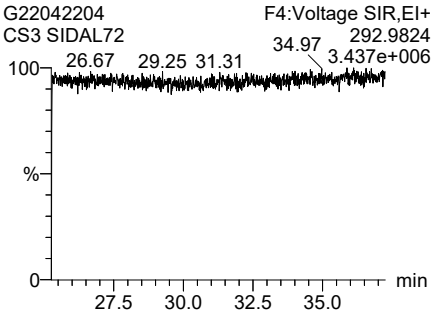
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
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Name: G22042204, Date: 22-Apr-2022, Time: 14:06:51, ID: SIDAL72, Description: CS3

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626	8.41	2478400.750		2384162.500	103.953	bd	93.3	-6.7
2	2	2-Methyl-naphthalene	142.0783	9.82	1588876.625		1594368.375	99.656	bb	96.9	-3.1
3	3	Acenaphthylene	152.0636	11.90	1424716.875		1447130.500	98.451	bb	102.8	2.8
4	4	Acenaphthene	154.0783	12.30	1226922.500		1185562.750	103.489	bb	102.3	2.3
5	5	Fluorene	166.0783	13.53	1445146.375		1379621.500	104.749	bb	101.7	1.7
6	6	Phenanthrene	178.0783	15.88	2353671.250		2432264.500	96.769	bd	96.2	-3.8
7	7	Anthracene	178.0783	16.00	1947656.500		1799287.500	108.246	db	106.0	6.0
8	8	Fluoranthene	202.0783	18.97	2061976.625		2091497.125	98.589	bb	99.8	-0.2
9	9	Pyrene	202.0783	19.69	2116658.500		2266387.250	93.394	bb	98.3	-1.7
10	10	Benzo(a)Anthracene	228.0939	23.72	1852773.000		1923688.875	96.314	bd	99.7	-0.3
11	11	Chrysene	228.0939	23.85	2158864.000		2178192.750	99.113	db	99.3	-0.7
12	12	Benzo(b)Fluoranthene	252.0939	27.42	1734220.125		1743486.375	99.469	MM	97.1	-2.9
13	13	Benzo(k)Fluoranthene	252.0939	27.50	1912749.625		2056060.125	93.030	MM	96.2	-3.8
14	14	Benzo(e)Pyrene	252.0939	28.33	1899155.500		1876569.750	101.204	bd	99.1	-0.9
15	15	Benzo(a)Pyrene	252.0939	28.50	1515779.000		1752616.750	86.487	db	93.9	-6.1
16	16	Perylene	252.0939	28.80	945633.563		779554.063	121.304	MM	99.4	-0.6
17	17	Indeno(123-cd)Pyrene	276.0939	32.88	1253915.000		1344244.875	93.280	MM	99.9	-0.1
18	18	Benzo(ghi)Perylene	276.0939	34.10	1654112.500		1752529.625	94.384	bb	96.1	-3.9
19	19	Dibenzo(a,h)Anthracene	278.1096	33.00	1385206.125		1537911.625	90.071	MM	98.3	-1.7
20	20	13C-Naphthalene (ES)	134.0827	8.41	2384162.500		1761487.000		bb		
21	21	13C-2-Methylnaphthalene ...	148.0984	9.82	1594368.375		1761487.000		bb		
22	22	13C-Acenaphthylene (ES)	158.0827	11.89	1447130.500		1190881.000		bb		
23	23	13C-Acenaphthene (ES)	160.0984	12.30	1185562.750		1190881.000		bb		
24	24	13C-Fluorene (ES)	172.0984	13.53	1379621.500		1190881.000		bb		
25	25	13C-Phenanthrene (ES)	184.0984	15.87	2432264.500		1190881.000		bb		
26	26	13C-Anthracene (ES)	184.0984	15.99	1799287.500		1190881.000		db		
27	27	13C-Fluoranthene (ES)	208.0984	18.97	2091497.125		1713871.625		bb		
28	28	13C-Pyrene (ES)	205.0883	19.68	2266387.250		1713871.625		bb		
29	29	13C-Benzo(a)Anthracene ...	234.1140	23.72	1923688.875		1713871.625		bd		
30	30	13C-Chrysene (ES)	234.1140	23.85	2178192.750		1713871.625		MM		
31	31	13C-Benzo(b)Fluoranthen...	258.1140	27.42	1743486.375		1041589.750		MM		
32	32	13C-Benzo(k)Fluoranthen...	258.1140	27.50	2056060.125		1041589.750		MM		
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.33	1876569.750		1041589.750		bd		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073	28.50	1752616.750		1041589.750		MM		
35	35	d12-Perylene (ES)	264.1692	28.70	779554.063		1041589.750		MM		
36	36	13C-Indeno(123-cd)Pyren...	282.1140	32.88	1344244.875		1041589.750		MM		
37	37	13C-Benzo(ghi)Perylene (...	288.1342	34.09	1752529.625		1041589.750		MM		
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	33.00	1537911.625		1041589.750		MM		
39	39	d10-Fluorene (CS)	176.1410	13.45	1465428.375		1190881.000		bb		
40	40	d14-Terphenyl (CS)	244.1974	20.17	1653793.375		1713871.625		bb		
41	41	d10-Fluorene (SS)	176.1410	13.45	1465428.375		1379621.500	106.220	bb	100.0	0.0
42	42	d14-Terphenyl (SS)	244.1974	20.17	1653793.375		2266387.250	72.970	bb	100.4	0.4
43	43	d10-Anthracene (AS)	188.1410	15.95	1444240.125		1190881.000		bb		
44	44	d10-2-Methylnaphthalene (...	152.1410	9.75	1761487.000			1761487.000	bb		
45	45	d10-Acenaphthene (JS)	164.1410	12.23	1190881.000			1190881.000	bb		
46	46	d10-Pyrene (JS)	212.1410	19.62	1713871.625			1713871.625	bb		
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.42	1041589.750			1041589.750	MM		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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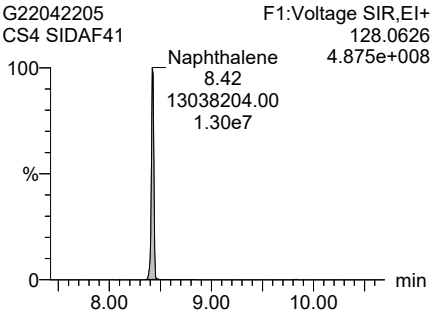
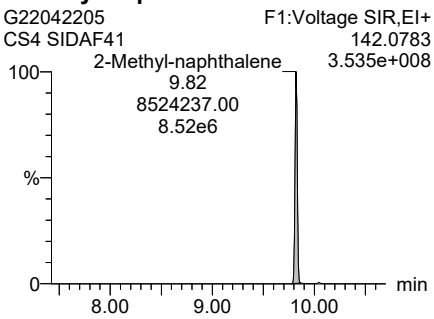
Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

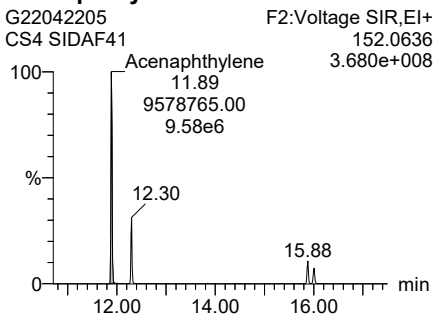
Naphthalene



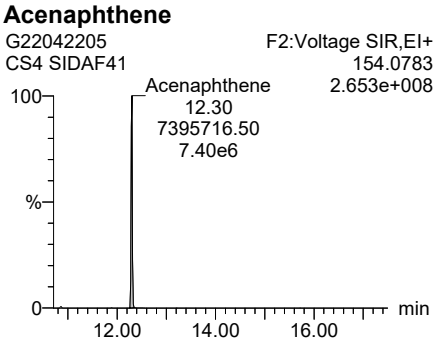
2-Methyl-naphthalene



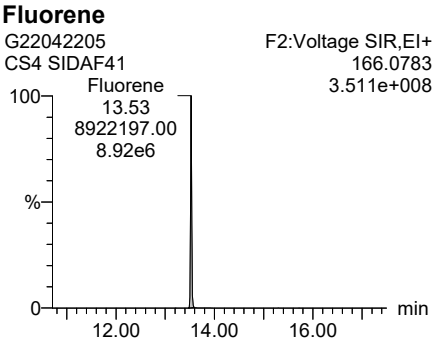
Acenaphthylene



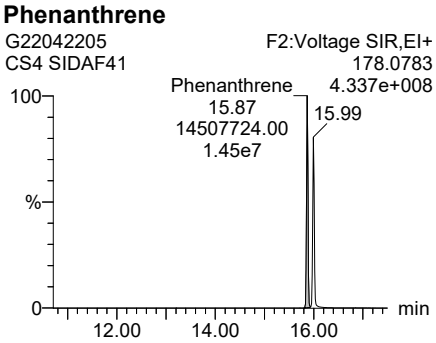
Acenaphthene



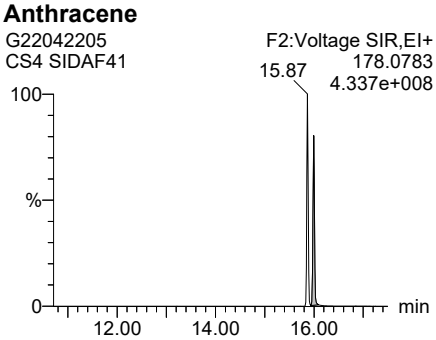
Fluorene



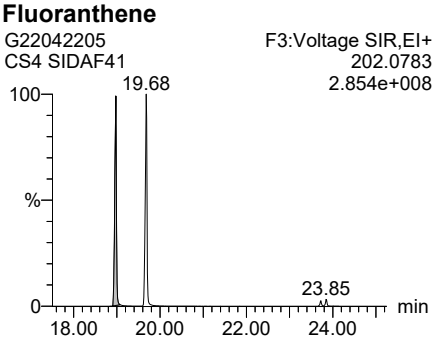
Phenanthrene



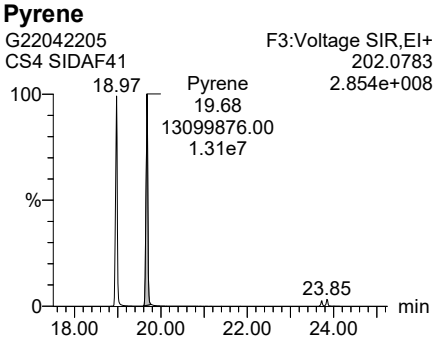
Anthracene



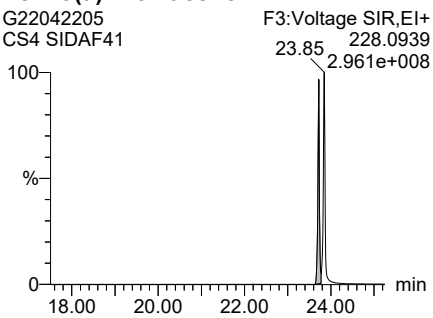
Fluoranthene



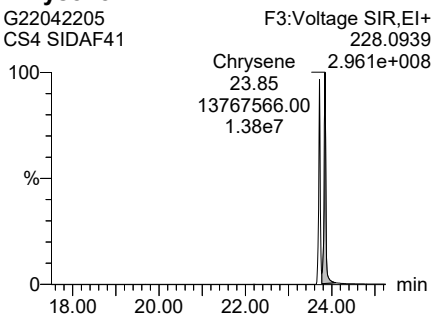
Pyrene



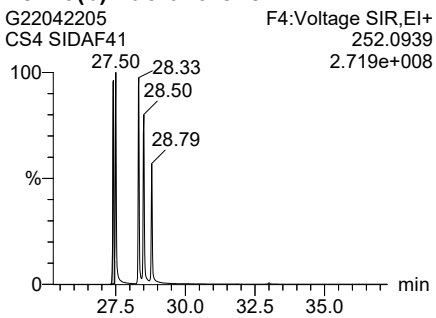
Benzo(a)Anthracene



Chrysene



Benzo(b)Fluoranthene



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
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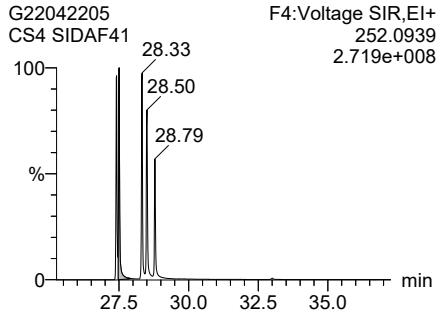
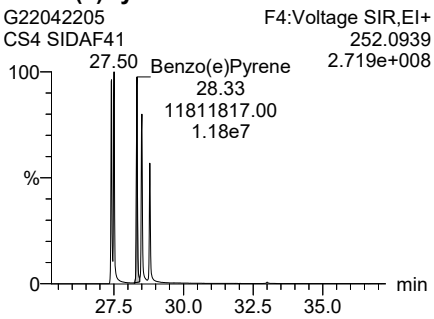
Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

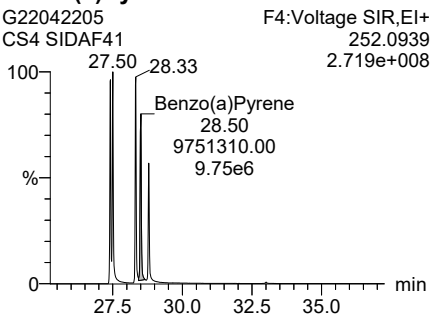
Benzo(k)Fluoranthene



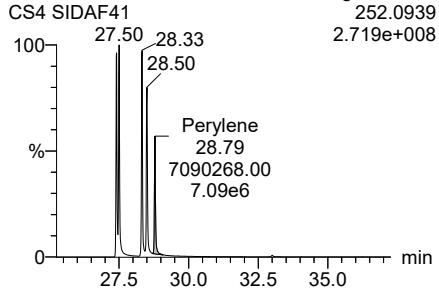
Benzo(e)Pyrene



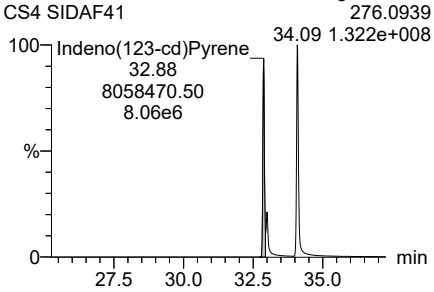
Benzo(a)Pyrene



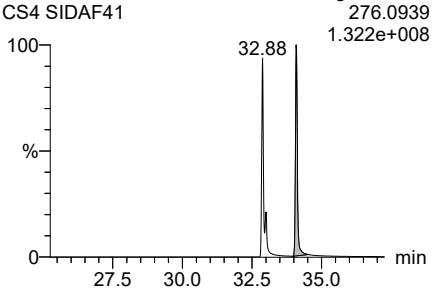
Perylene



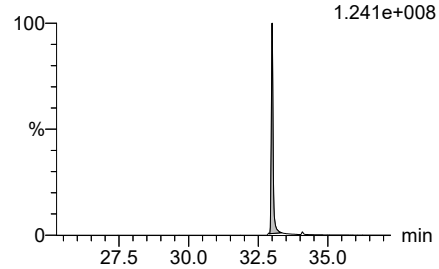
Indeno(123-cd)Pyrene



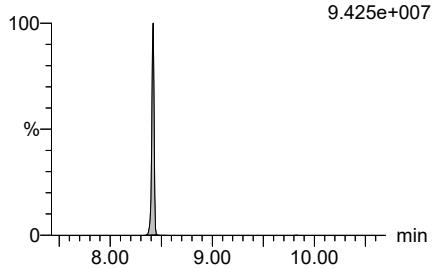
Benzo(ghi)Perylene



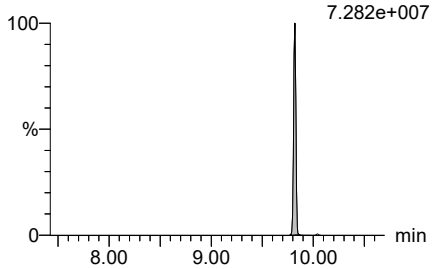
Dibenzo(a,h)Anthracene



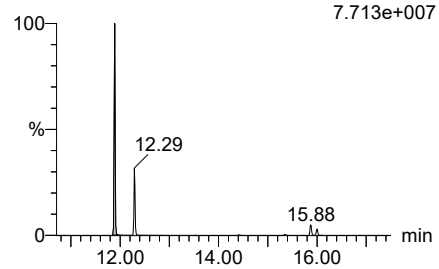
13C-Naphthalene (ES)



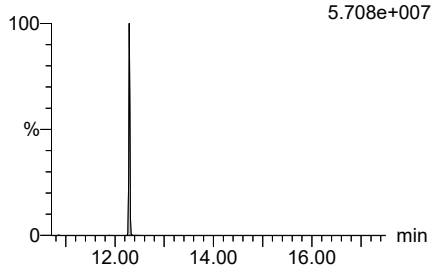
13C-2-Methylnaphthalene (ES)



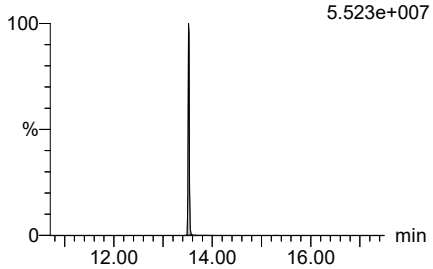
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



13C-Fluorene (ES)



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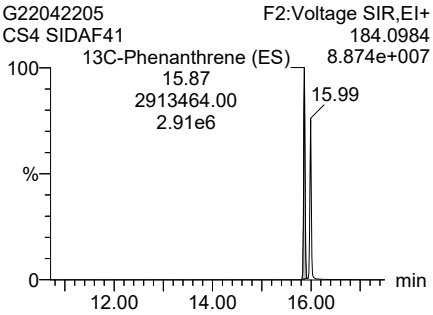
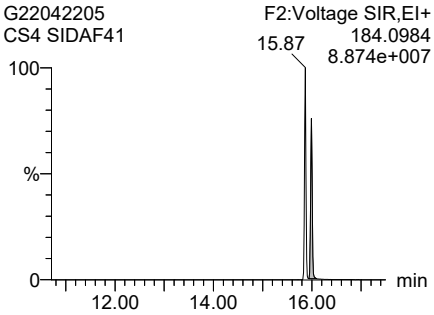
Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

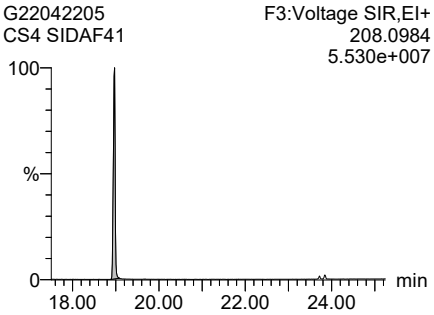
13C-Phenanthrene (ES)



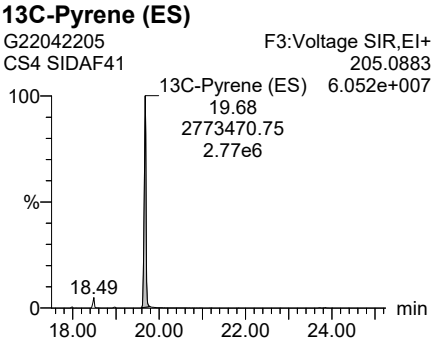
13C-Anthracene (ES)



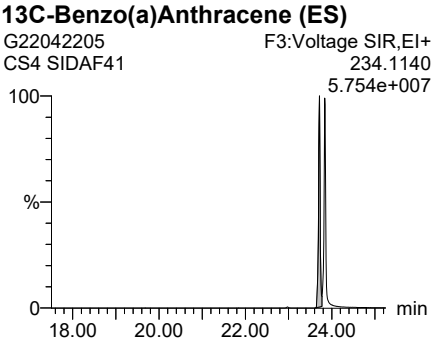
13C-Fluoranthene (ES)



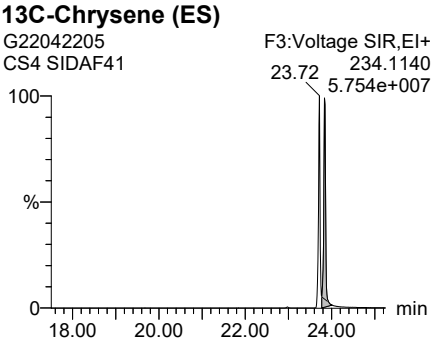
13C-Pyrene (ES)



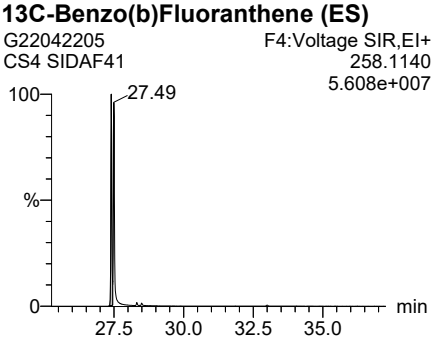
13C-Benzo(a)Anthracene (ES)



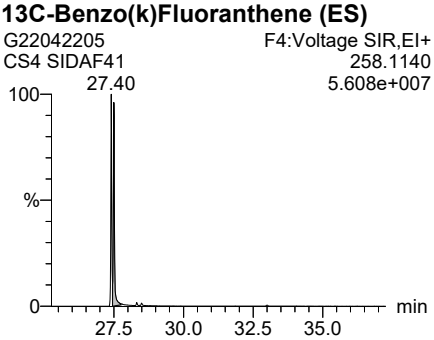
13C-Chrysene (ES)



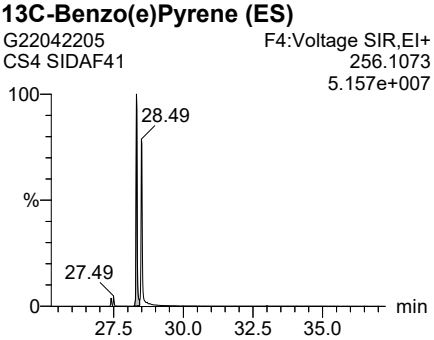
13C-Benzo(b)Fluoranthene (ES)



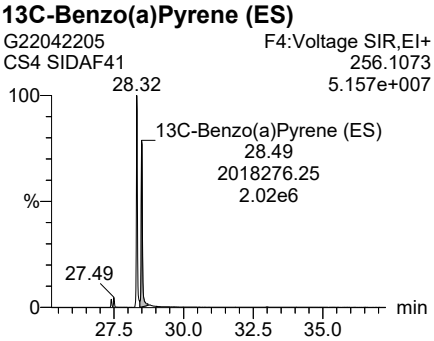
13C-Benzo(k)Fluoranthene (ES)



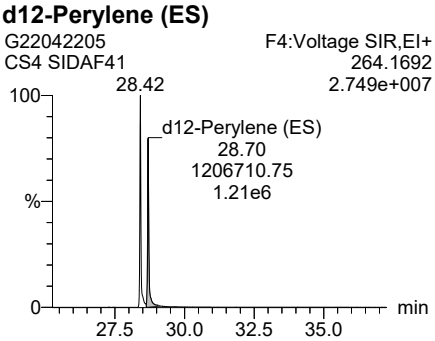
13C-Benzo(e)Pyrene (ES)



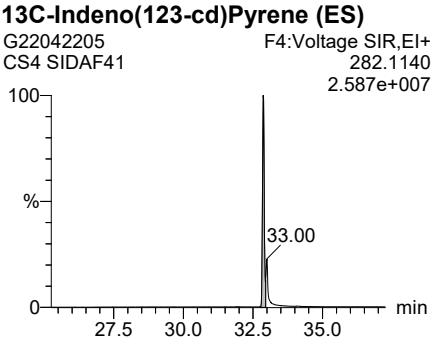
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



13C-Indeno(123-cd)Pyrene (ES)



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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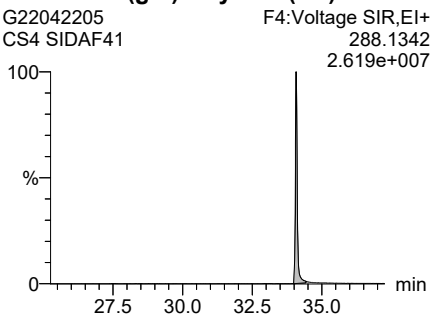
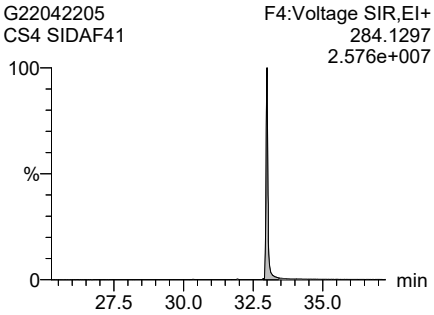
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

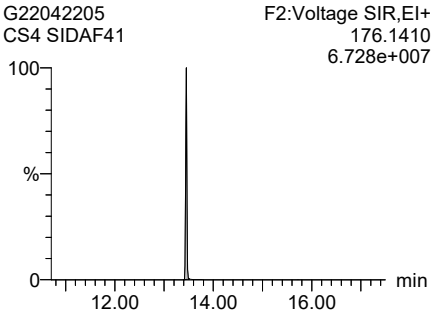
13C-Benzo(ghi)Perylene (ES)



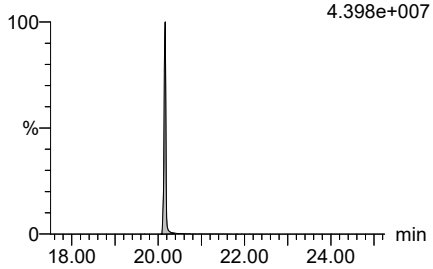
13C-Dibenz(a,h)Anthracene (ES)



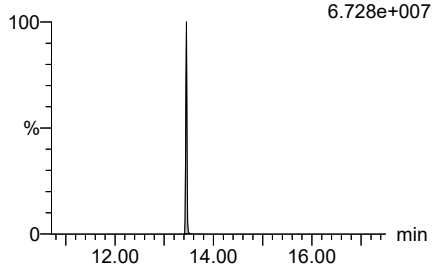
d10-Fluorene (CS)



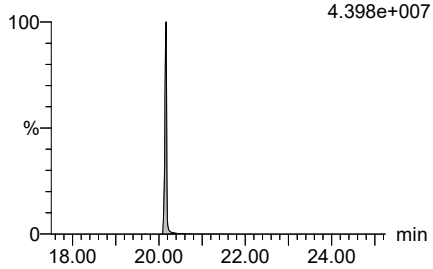
d14-Terphenyl (CS)



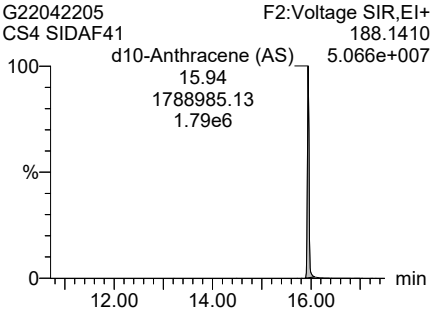
d10-Fluorene (SS)



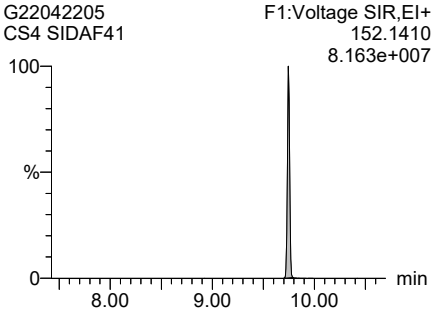
d14-Terphenyl (SS)



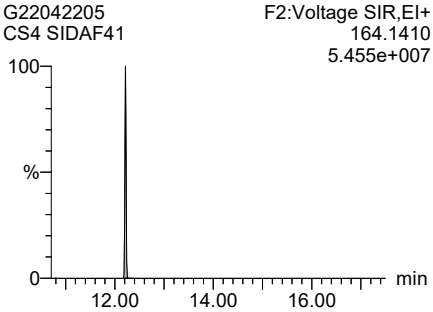
d10-Anthracene (AS)



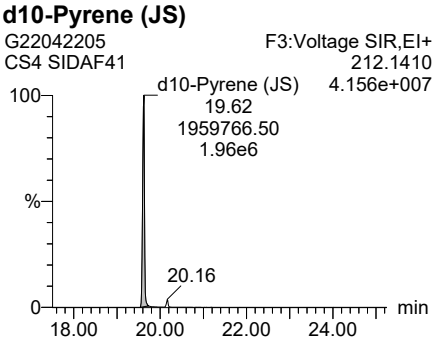
d10-2-Methylnaphthalene (JS)



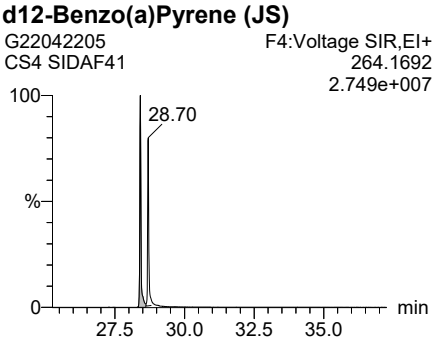
d10-Acenaphthene (JS)



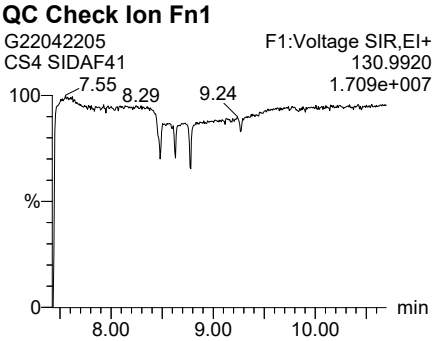
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



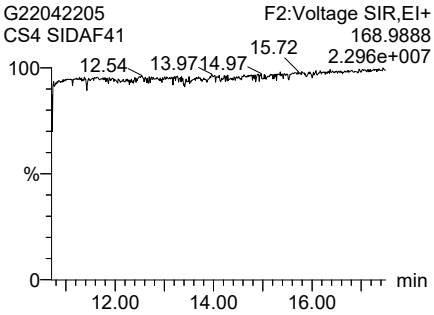
QC Check Ion Fn1



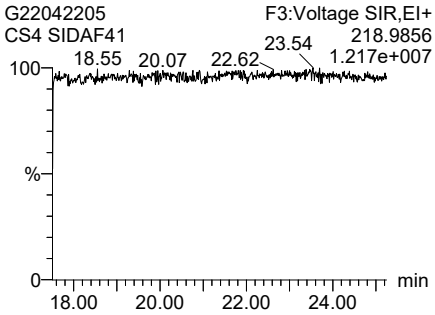
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

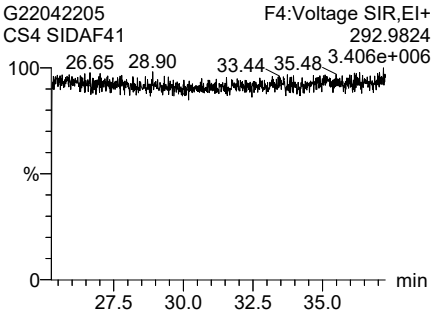
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

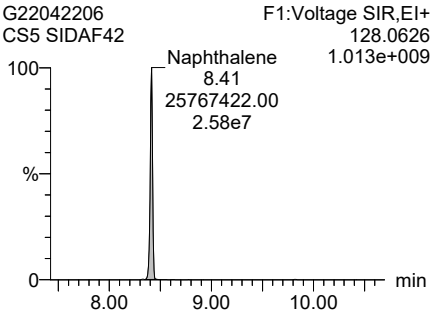
Name: G22042205, Date: 22-Apr-2022, Time: 14:48:48, ID: SIDAF41, Description: CS4

	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626	8.42	13038204.0...		2442953.500	533.707	db	479.0	-4.2
2	2	2-Methyl-naphthalene	142.0783	9.82	8524237.000		1772992.750	480.782	bb	467.3	-6.5
3	3	Acenaphthylene	152.0636	11.89	9578765.000		1873685.125	511.226	bb	533.6	6.7
4	4	Acenaphthene	154.0783	12.30	7395716.500		1423009.000	519.724	bb	513.6	2.7
5	5	Fluorene	166.0783	13.53	8922197.000		1665076.125	535.843	bb	520.4	4.1
6	6	Phenanthrene	178.0783	15.87	14507724.0...		2913464.000	497.954	bd	494.8	-1.0
7	7	Anthracene	178.0783	15.99	12263424.0...		2298927.250	533.441	db	522.4	4.5
8	8	Fluoranthene	202.0783	18.97	12707136.0...		2561393.250	496.103	bb	502.1	0.4
9	9	Pyrene	202.0783	19.68	13099876.0...		2773470.750	472.328	bb	497.2	-0.6
10	10	Benzo(a)Anthracene	228.0939	23.72	11703125.0...		2397695.500	488.099	bd	505.3	1.1
11	11	Chrysene	228.0939	23.85	13767566.0...		2717737.500	506.582	db	507.8	1.6
12	12	Benzo(b)Fluoranthene	252.0939	27.42	10922095.0...		2147703.750	508.548	MM	496.6	-0.7
13	13	Benzo(k)Fluoranthene	252.0939	27.50	12215687.0...		2514196.500	485.868	MM	502.3	0.5
14	14	Benzo(e)Pyrene	252.0939	28.33	11811817.0...		2286987.750	516.479	bd	505.5	1.1
15	15	Benzo(a)Pyrene	252.0939	28.50	9751310.000		2018276.250	483.150	db	524.6	4.9
16	16	Perylene	252.0939	28.79	7090268.000		1206710.750	587.570	MM	481.7	-3.7
17	17	Indeno(123-cd)Pyrene	276.0939	32.88	8058470.500		1768811.000	455.587	MM	487.7	-2.5
18	18	Benzo(ghi)Perylene	276.0939	34.09	10450474.0...		2086907.000	500.764	MM	509.6	1.9
19	19	Dibenzo(a,h)Anthracene	278.1096	33.00	8877997.000		1967815.125	451.160	MM	492.5	-1.5
20	20	13C-Naphthalene (ES)	134.0827	8.42	2442953.500		1933913.000		bb		
21	21	13C-2-Methylnaphthalene ...	148.0984	9.82	1772992.750		1933913.000		bb		
22	22	13C-Acenaphthylene (ES)	158.0827	11.89	1873685.125		1346466.375		bb		
23	23	13C-Acenaphthene (ES)	160.0984	12.29	1423009.000		1346466.375		bb		
24	24	13C-Fluorene (ES)	172.0984	13.52	1665076.125		1346466.375		bb		
25	25	13C-Phenanthrene (ES)	184.0984	15.87	2913464.000		1346466.375		bb		
26	26	13C-Anthracene (ES)	184.0984	15.99	2298927.250		1346466.375		bb		
27	27	13C-Fluoranthene (ES)	208.0984	18.97	2561393.250		1959766.500		bb		
28	28	13C-Pyrene (ES)	205.0883	19.68	2773470.750		1959766.500		bb		
29	29	13C-Benzo(a)Anthracene ...	234.1140	23.72	2397695.500		1959766.500		bd		
30	30	13C-Chrysene (ES)	234.1140	23.83	2717737.500		1959766.500		MM		
31	31	13C-Benzo(b)Fluoranthen...	258.1140	27.40	2147703.750		1311355.375		MM		
32	32	13C-Benzo(k)Fluoranthen...	258.1140	27.49	2514196.500		1311355.375		MM		
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.32	2286987.750		1311355.375		bd		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073	28.49	2018276.250		1311355.375		MM		
35	35	d12-Perylene (ES)	264.1692	28.70	1206710.750		1311355.375		MM		
36	36	13C-Indeno(123-cd)Pyren...	282.1140	32.87	1768811.000		1311355.375		MM		
37	37	13C-Benzo(ghi)Perylene (...	288.1342	34.08	2086907.000		1311355.375		MM		
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	33.00	1967815.125		1311355.375		MM		
39	39	d10-Fluorene (CS)	176.1410	13.45	1756729.000		1346466.375		bb		
40	40	d14-Terphenyl (CS)	244.1974	20.16	2011155.250		1959766.500		bd		
41	41	d10-Fluorene (SS)	176.1410	13.45	1756729.000		1665076.125	105.504	bb	99.3	-0.7
42	42	d14-Terphenyl (SS)	244.1974	20.16	2011155.250		2773470.750	72.514	bd	99.8	-0.2
43	43	d10-Anthracene (AS)	188.1410	15.94	1788985.125		1346466.375		bb		
44	44	d10-2-Methylnaphthalene (...	152.1410	9.74	1933913.000			1933913.000	bb		
45	45	d10-Acenaphthene (JS)	164.1410	12.21	1346466.375			1346466.375	bb		
46	46	d10-Pyrene (JS)	212.1410	19.62	1959766.500			1959766.500	bb		
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.42	1311355.375			1311355.375	MM		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

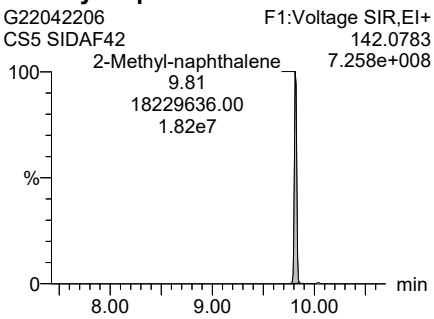
Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
Dataset: J:\Instrument Data\ICALs\Gandalf\PAH\G-22APR22_PAH_ICAL\GAND-APRIL 2022_PAH ICAL v2.qld
Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
Printed: Tuesday, April 26, 2022 09:40:33 Eastern Daylight Time

Name: G22042206, Date: 22-Apr-2022, Time: 15:30:45, ID: SIDAF42, Description: CS5

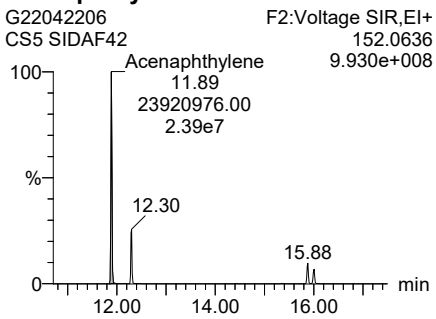
Naphthalene



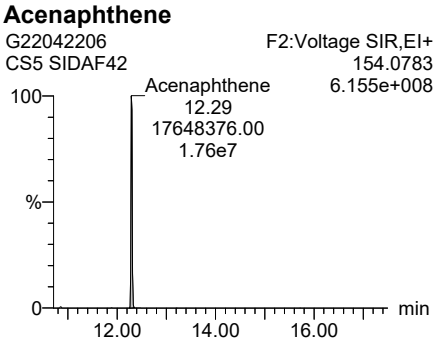
2-Methyl-naphthalene



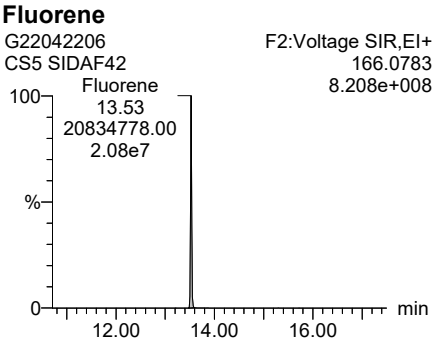
Acenaphthylene



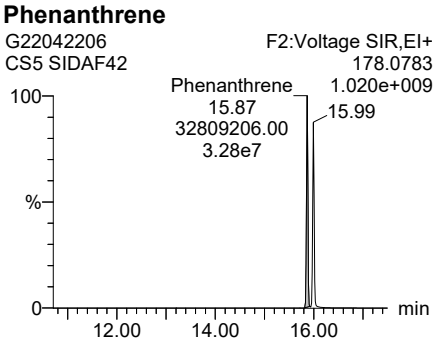
Acenaphthene



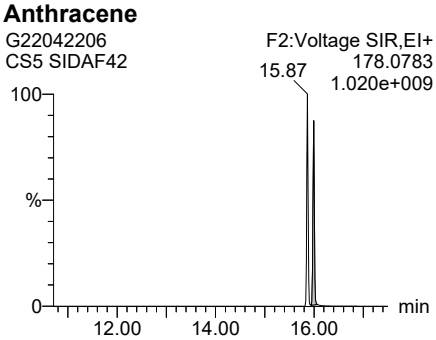
Fluorene



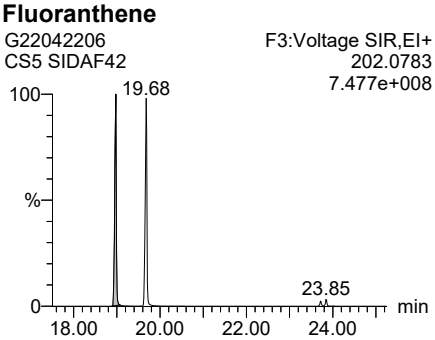
Phenanthrene



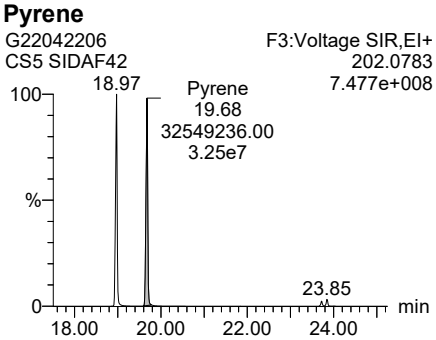
Anthracene



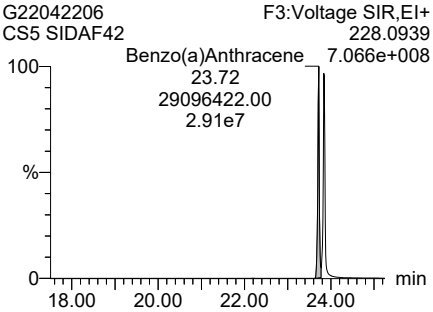
Fluoranthene



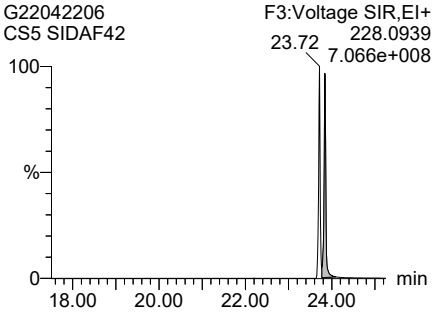
Pyrene



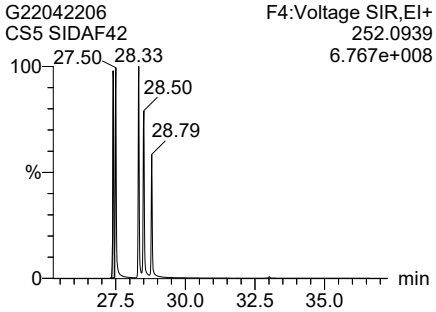
Benzo(a)Anthracene



Chrysene



Benzo(b)Fluoranthene



Quantify Sample Report **MassLynx 4.1 SCN 714 Desktop**
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Last Altered: Monday, April 25, 2022 07:58:45 Eastern Daylight Time
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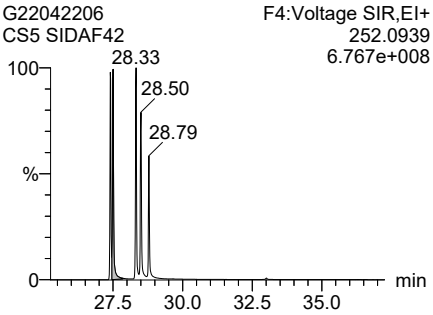
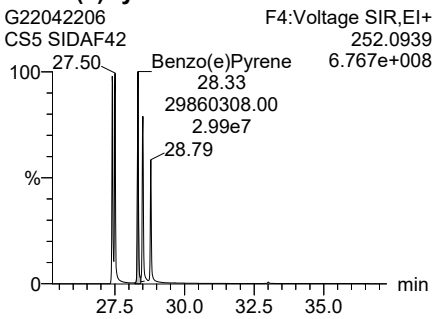
Name: G22042206, Date: 22-Apr-2022, Time: 15:30:45, ID: SIDAF42, Description: CS5

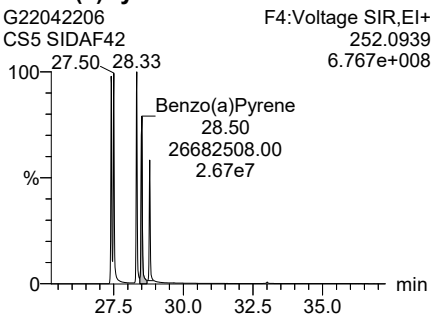
Benzo(k)Fluoranthene



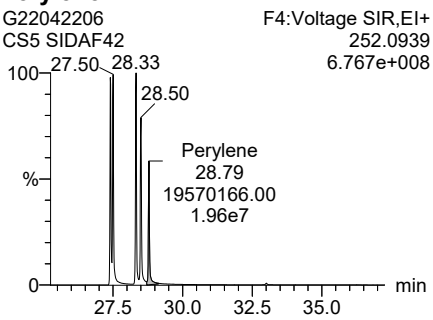
Benzo(e)Pyrene



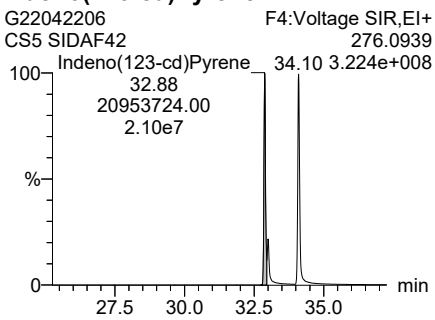
Benzo(a)Pyrene



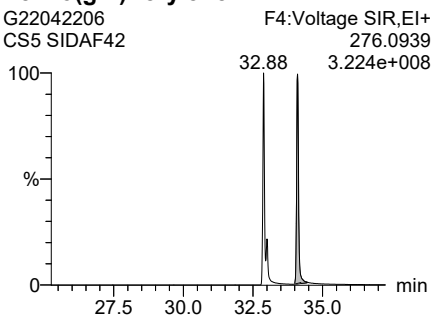
Perylene



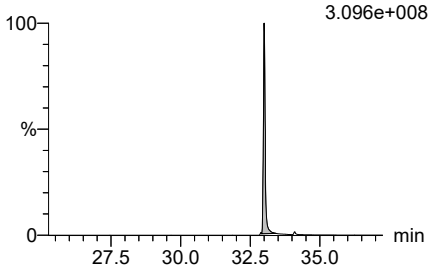
Indeno(123-cd)Pyrene



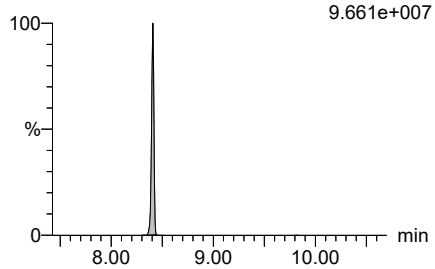
Benzo(ghi)Perylene



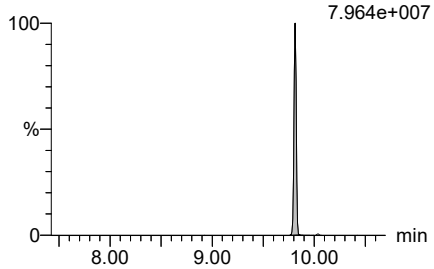
Dibenzo(a,h)Anthracene



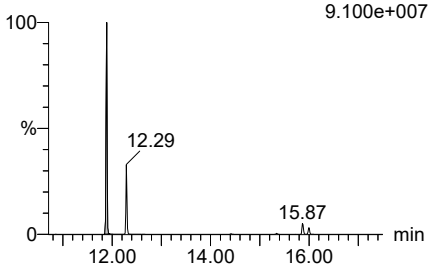
13C-Naphthalene (ES)



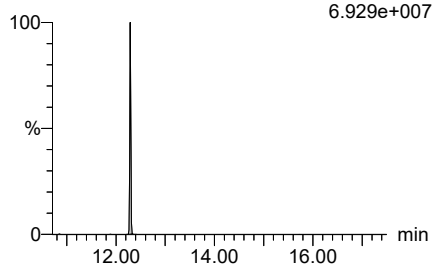
13C-2-Methylnaphthalene (ES)



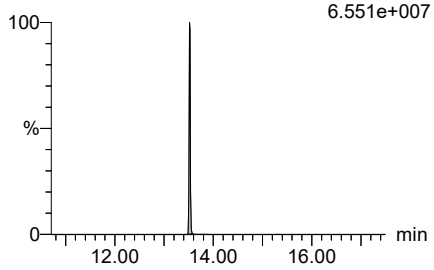
13C-Acenaphthylene (ES)



13C-Acenaphthene (ES)



13C-Fluorene (ES)



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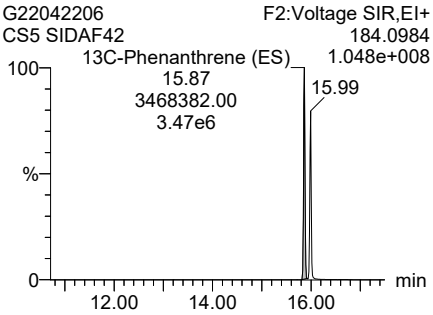
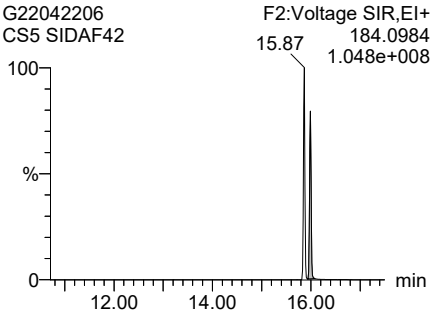
Name: G22042206, Date: 22-Apr-2022, Time: 15:30:45, ID: SIDAF42, Description: CS5

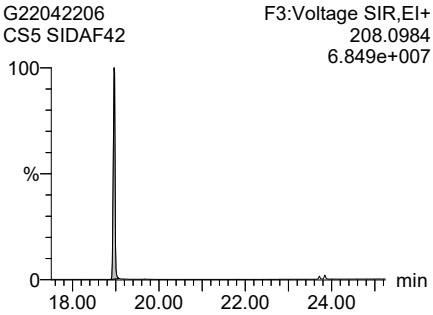
13C-Phenanthrene (ES)



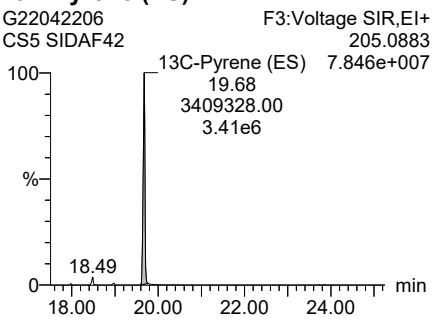
13C-Anthracene (ES)



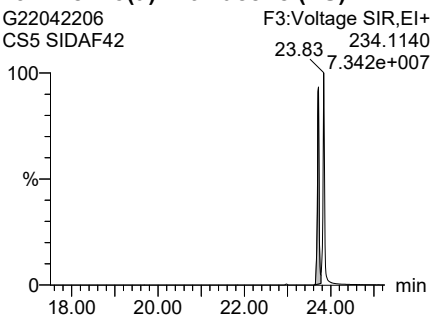
13C-Fluoranthene (ES)



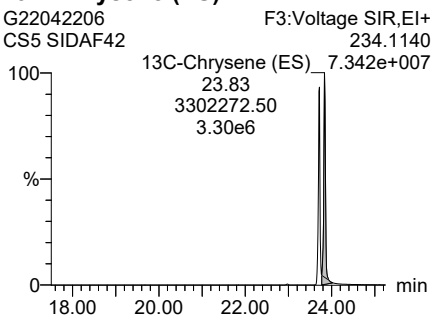
13C-Pyrene (ES)



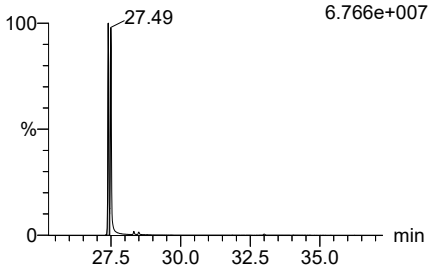
13C-Benzo(a)Anthracene (ES)



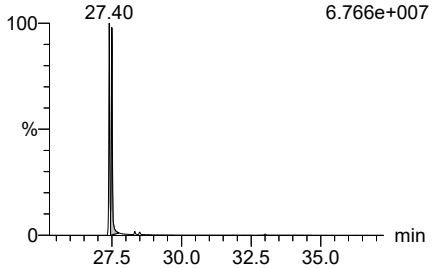
13C-Chrysene (ES)



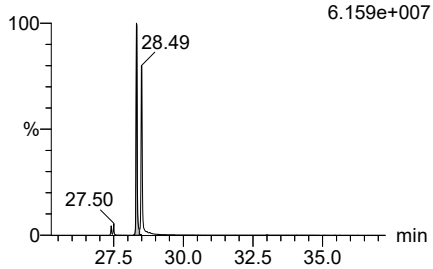
13C-Benzo(b)Fluoranthene (ES)



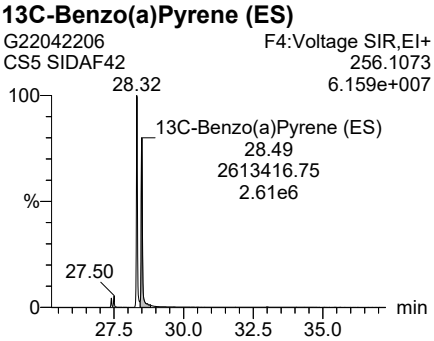
13C-Benzo(k)Fluoranthene (ES)



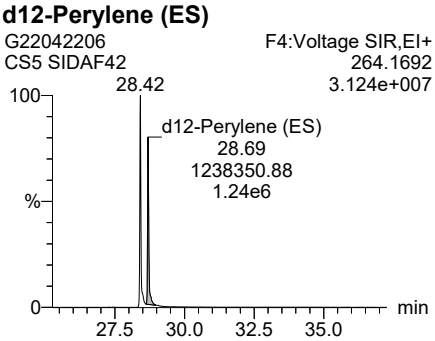
13C-Benzo(e)Pyrene (ES)



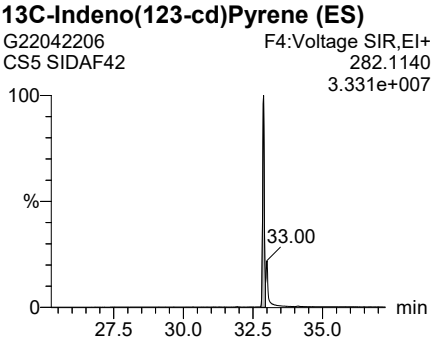
13C-Benzo(a)Pyrene (ES)



d12-Perylene (ES)



13C-Indeno(123-cd)Pyrene (ES)



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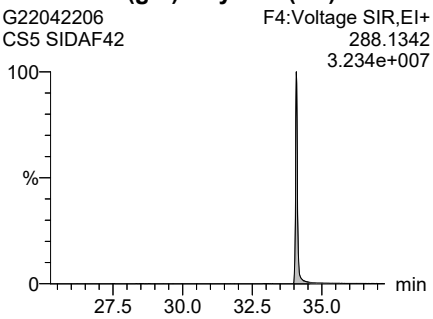
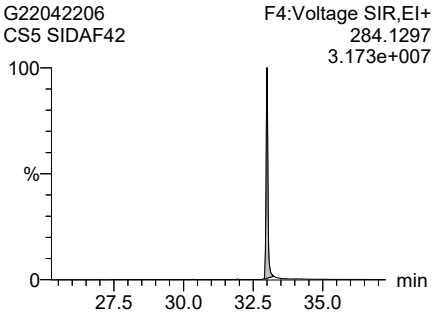
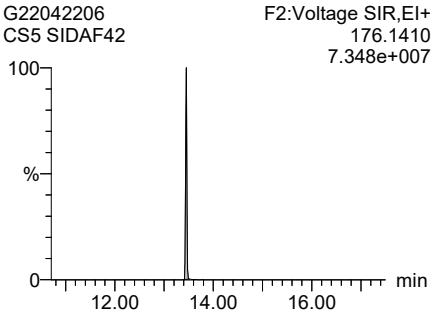
13C-Benzo(ghi)Perylene (ES)



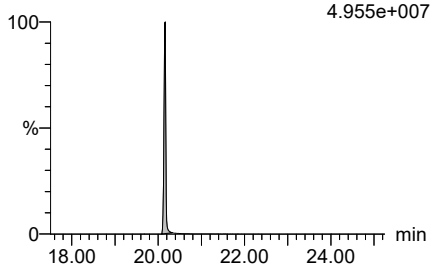
13C-Dibenz(a,h)Anthracene (ES)



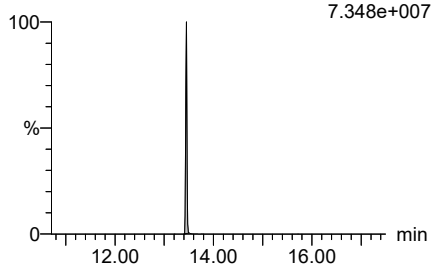
d10-Fluorene (CS)



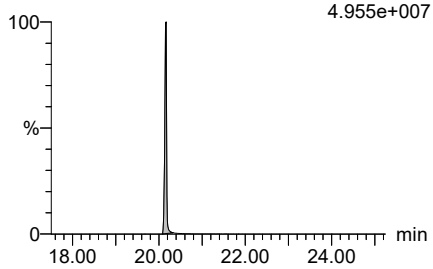
d14-Terphenyl (CS)



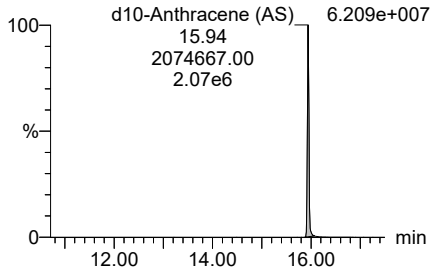
d10-Fluorene (SS)



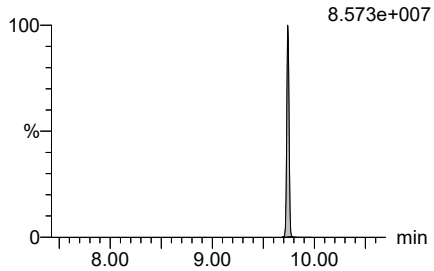
d14-Terphenyl (SS)



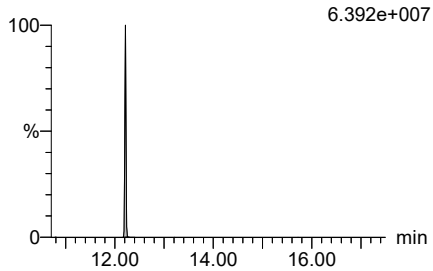
d10-Anthracene (AS)



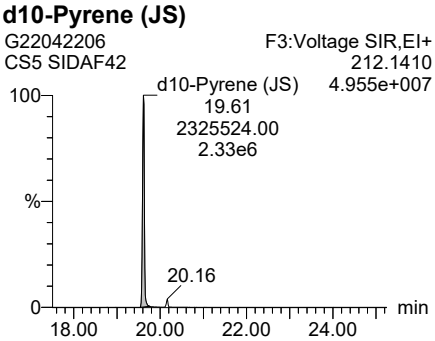
d10-2-Methylnaphthalene (JS)



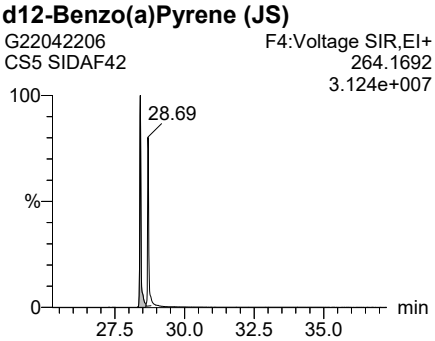
d10-Acenaphthene (JS)



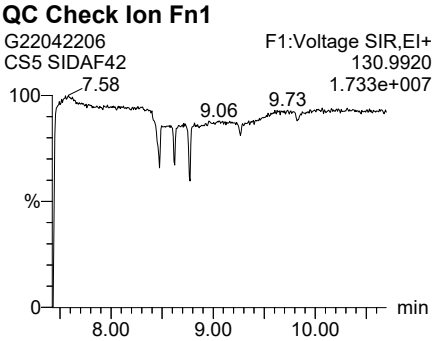
d10-Pyrene (JS)



d12-Benzo(a)Pyrene (JS)



QC Check Ion Fn1



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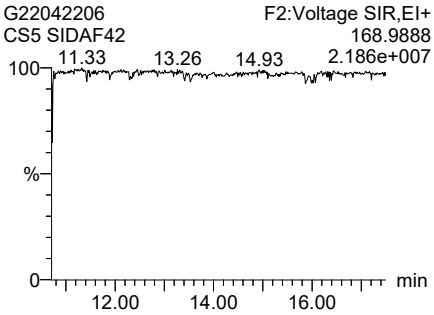
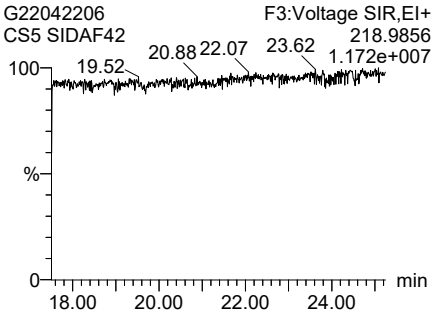
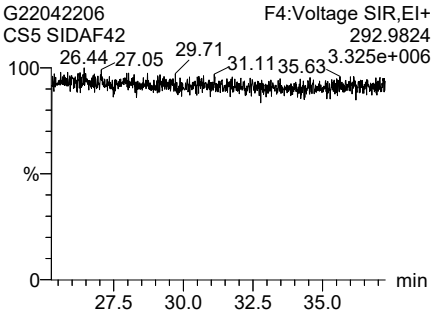
QC Check Ion Fn2



QC Check Ion Fn3



QC Check Ion Fn4



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	#	Name	Trace	RT	Area	1º Area	IS Area	Response	Primar...	Conc.	%Dev
1	1	Naphthalene	128.0626	8.41	25767422.0...		2452924.000	1050.478	db	942.8	-5.7
2	2	2-Methyl-naphthalene	142.0783	9.81	18229636.0...		1925127.625	946.931	bb	920.4	-8.0
3	3	Acenaphthylene	152.0636	11.89	23920976.0...		2255793.500	1060.424	bb	1106.9	10.7
4	4	Acenaphthene	154.0783	12.29	17648376.0...		1658473.125	1064.134	bb	1051.6	5.2
5	5	Fluorene	166.0783	13.53	20834778.0...		1966686.750	1059.385	bb	1028.9	2.9
6	6	Phenanthrene	178.0783	15.87	32809206.0...		3468382.000	945.951	bb	939.9	-6.0
7	7	Anthracene	178.0783	15.99	28994330.0...		2819970.250	1028.179	bb	1006.8	0.7
8	8	Fluoranthene	202.0783	18.97	31794764.0...		3117984.250	1019.722	bb	1032.1	3.2
9	9	Pyrene	202.0783	19.68	32549236.0...		3409328.000	954.711	bb	1005.0	0.5
10	10	Benzo(a)Anthracene	228.0939	23.72	29096422.0...		2948425.750	986.846	bd	1021.6	2.2
11	11	Chrysene	228.0939	23.83	32980422.0...		3302272.500	998.719	db	1001.1	0.1
12	12	Benzo(b)Fluoranthene	252.0939	27.40	26963450.0...		2624932.750	1027.205	MM	1003.1	0.3
13	13	Benzo(k)Fluoranthene	252.0939	27.50	30753444.0...		3022509.000	1017.481	MM	1051.8	5.2
14	14	Benzo(e)Pyrene	252.0939	28.33	29860308.0...		2805921.750	1064.189	MM	1041.6	4.2
15	15	Benzo(a)Pyrene	252.0939	28.50	26682508.0...		2613416.750	1020.982	MM	1108.6	10.9
16	16	Perylene	252.0939	28.79	19570166.0...		1238350.875	1580.341	MM	1295.6	29.6
17	17	Indeno(123-cd)Pyrene	276.0939	32.88	20953724.0...		2168810.750	966.139	MM	1034.3	3.4
18	18	Benzo(ghi)Perylene	276.0939	34.10	25184026.0...		2613649.500	963.558	MM	980.6	-1.9
19	19	Dibenzo(a,h)Anthracene	278.1096	33.00	22112894.0...		2247077.250	984.074	MM	1074.3	7.4
20	20	13C-Naphthalene (ES)	134.0827	8.41	2452924.000		2127593.250		bb		
21	21	13C-2-Methylnaphthalene ...	148.0984	9.81	1925127.625		2127593.250		bb		
22	22	13C-Acenaphthylene (ES)	158.0827	11.89	2255793.500		1549746.875		bb		
23	23	13C-Acenaphthene (ES)	160.0984	12.29	1658473.125		1549746.875		bb		
24	24	13C-Fluorene (ES)	172.0984	13.52	1966686.750		1549746.875		bb		
25	25	13C-Phenanthrene (ES)	184.0984	15.87	3468382.000		1549746.875		bb		
26	26	13C-Anthracene (ES)	184.0984	15.99	2819970.250		1549746.875		bb		
27	27	13C-Fluoranthene (ES)	208.0984	18.96	3117984.250		2325524.000		bb		
28	28	13C-Pyrene (ES)	205.0883	19.68	3409328.000		2325524.000		bb		
29	29	13C-Benzo(a)Anthracene ...	234.1140	23.72	2948425.750		2325524.000		bd		
30	30	13C-Chrysene (ES)	234.1140	23.83	3302272.500		2325524.000		MM		
31	31	13C-Benzo(b)Fluoranthen...	258.1140	27.40	2624932.750		1579295.250		MM		
32	32	13C-Benzo(k)Fluoranthen...	258.1140	27.49	3022509.000		1579295.250		MM		
33	33	13C-Benzo(e)Pyrene (ES)	256.1073	28.32	2805921.750		1579295.250		MM		
34	34	13C-Benzo(a)Pyrene (ES)	256.1073	28.49	2613416.750		1579295.250		MM		
35	35	d12-Perylene (ES)	264.1692	28.69	1238350.875		1579295.250		MM		
36	36	13C-Indeno(123-cd)Pyren...	282.1140	32.88	2168810.750		1579295.250		MM		
37	37	13C-Benzo(ghi)Perylene (...	288.1342	34.09	2613649.500		1579295.250		MM		
38	38	13C-Dibenz(a,h)Anthracen...	284.1297	33.00	2247077.250		1579295.250		MM		
39	39	d10-Fluorene (CS)	176.1410	13.45	1957006.125		1549746.875		bb		
40	40	d14-Terphenyl (CS)	244.1974	20.16	2292876.250		2325524.000		bb		
41	41	d10-Fluorene (SS)	176.1410	13.45	1957006.125		1966686.750	99.508	bb	93.7	-6.3
42	42	d14-Terphenyl (SS)	244.1974	20.16	2292876.250		3409328.000	67.253	bb	92.6	-7.4
43	43	d10-Anthracene (AS)	188.1410	15.94	2074667.000		1549746.875		bb		
44	44	d10-2-Methylnaphthalene (...	152.1410	9.74	2127593.250			2127593.250	bb		
45	45	d10-Acenaphthene (JS)	164.1410	12.21	1549746.875			1549746.875	bb		
46	46	d10-Pyrene (JS)	212.1410	19.61	2325524.000			2325524.000	bb		
47	47	d12-Benzo(a)Pyrene (JS)	264.1692	28.42	1579295.250			1579295.250	MM		
48	48	QC Check Ion Fn1	130.9920								
49	49	QC Check Ion Fn2	168.9888								
50	50	QC Check Ion Fn3	218.9856								
51	51	QC Check Ion Fn4	292.9824								

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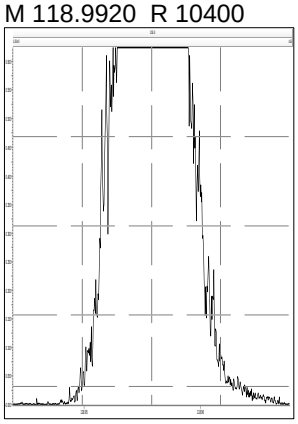

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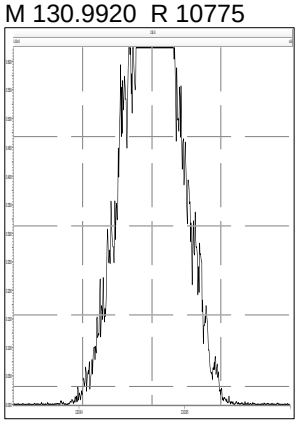

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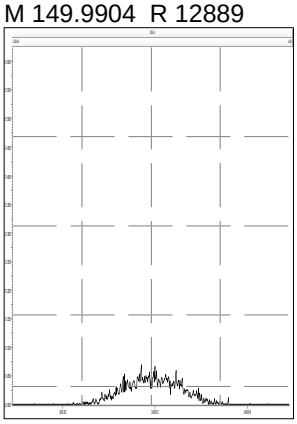

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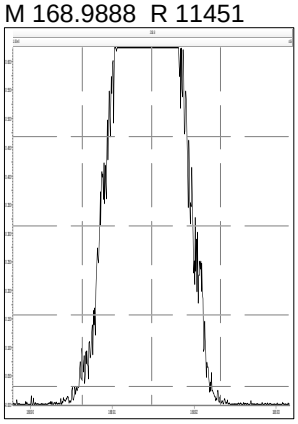

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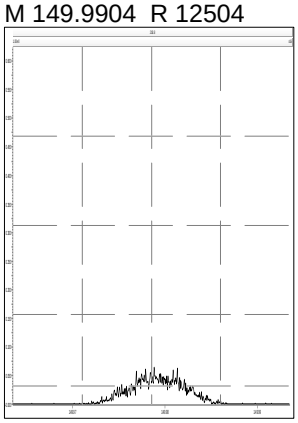

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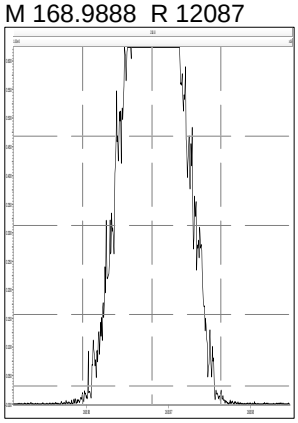

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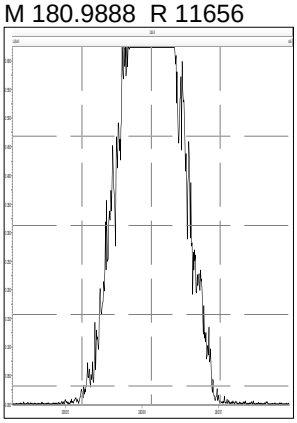

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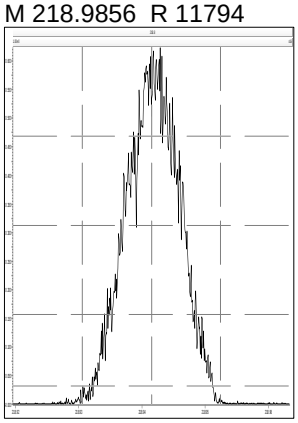

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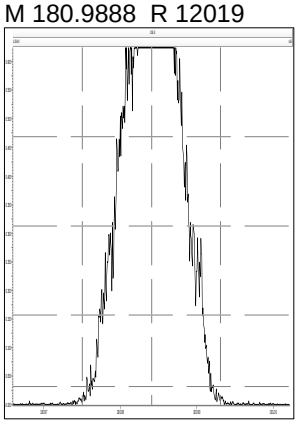

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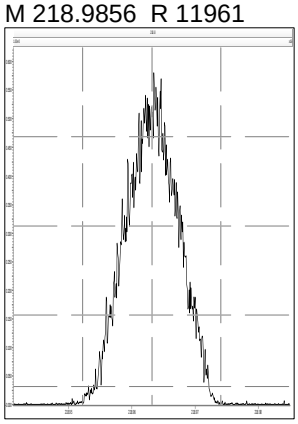
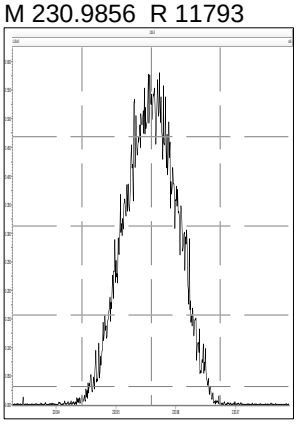


M 230.9856 R 11793



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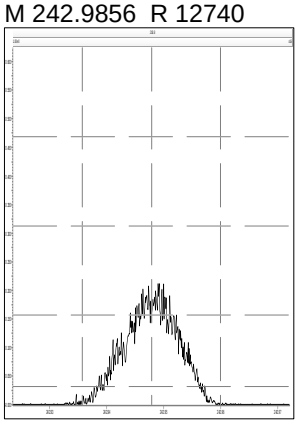

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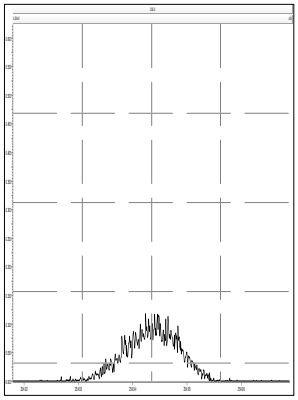

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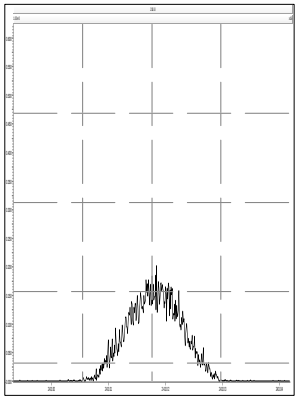
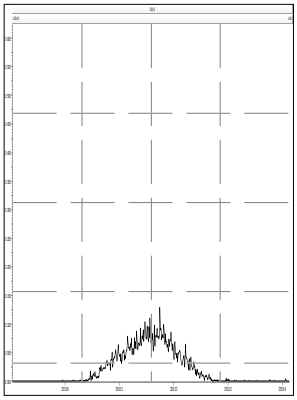
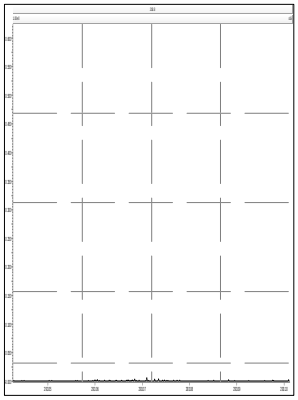


M 254.9856 R 12628



M 292.9824 R 1041675



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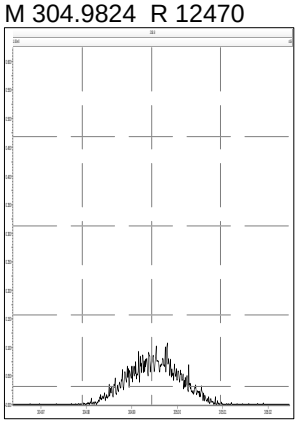
M 304.9824 R 12470



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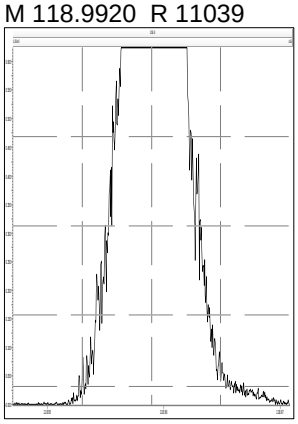
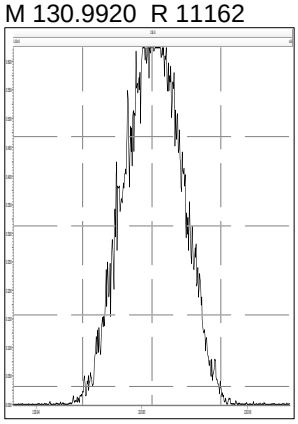
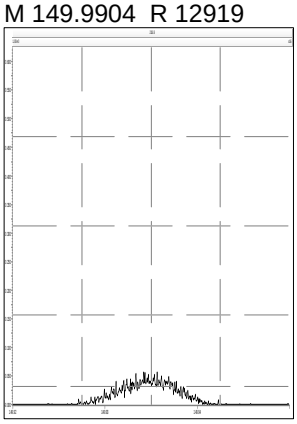


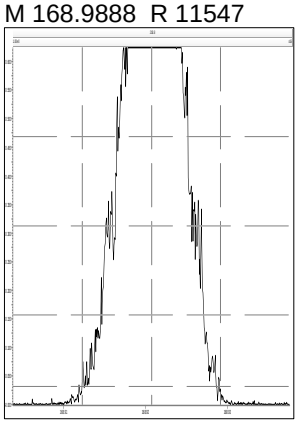
M 130.9920 R 11162



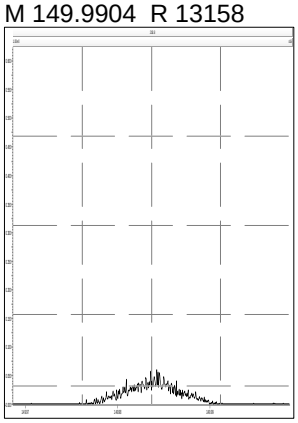
M 149.9904 R 12919



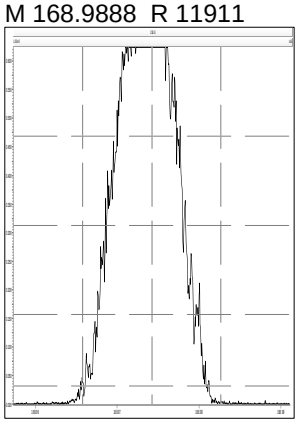
M 168.9888 R 11547



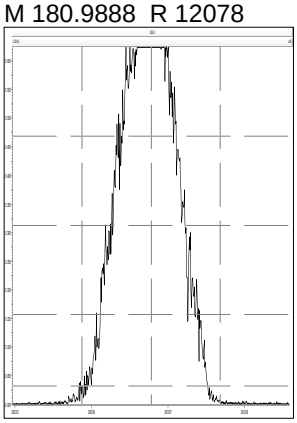
M 149.9904 R 13158



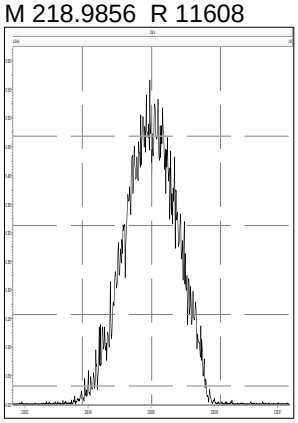
M 168.9888 R 11911



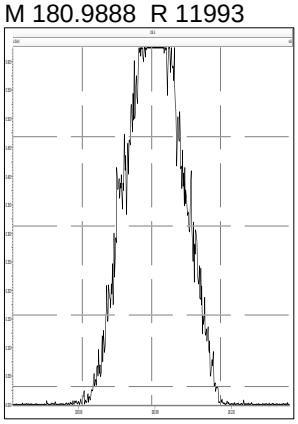
M 180.9888 R 12078



M 218.9856 R 11608



M 180.9888 R 11993



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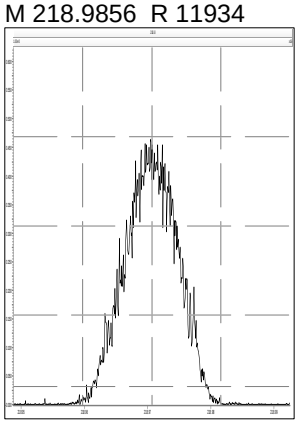

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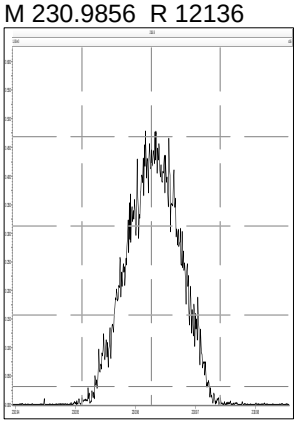

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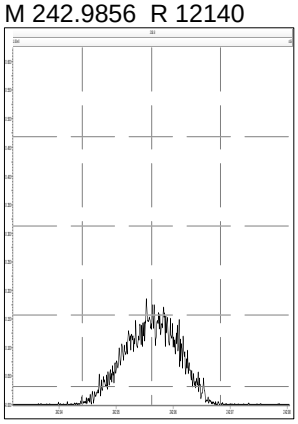

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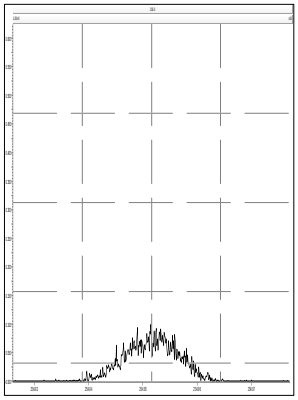

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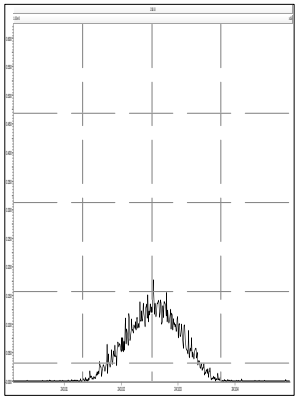

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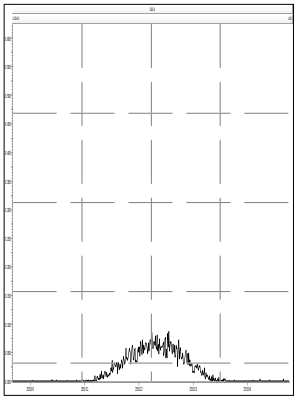

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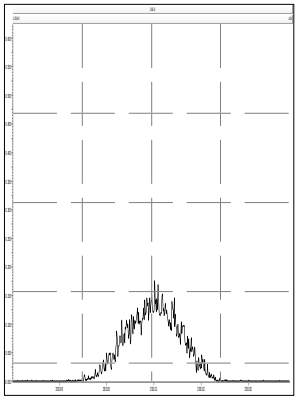

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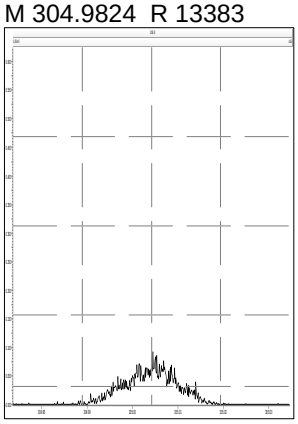

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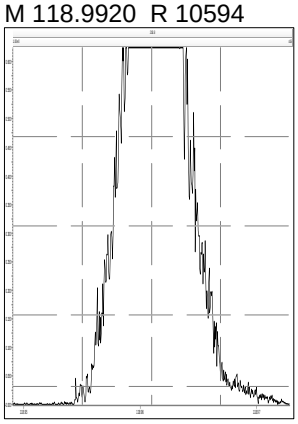
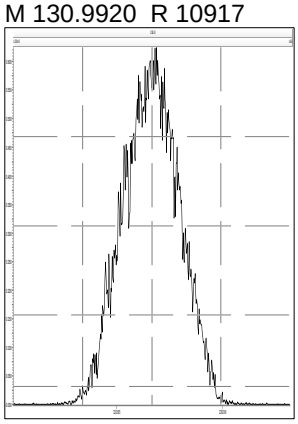


M 130.9920 R 10917



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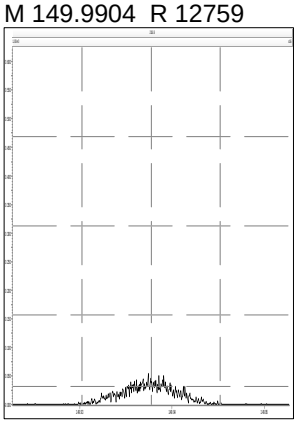
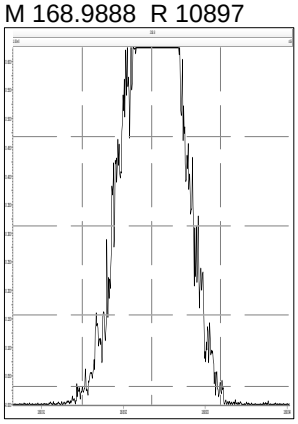


M 168.9888 R 10897



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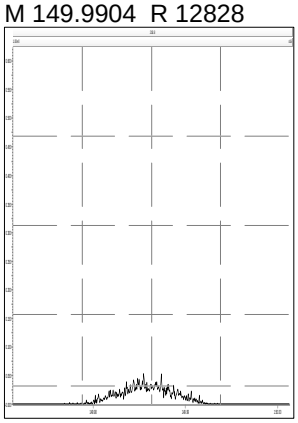

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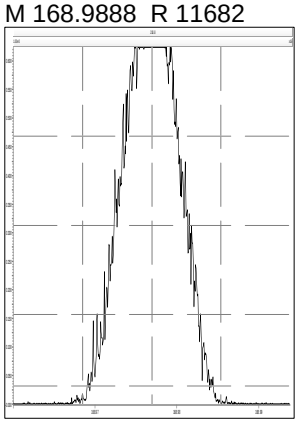

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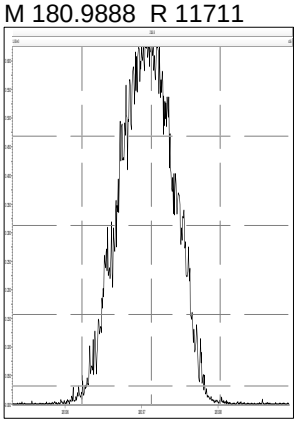

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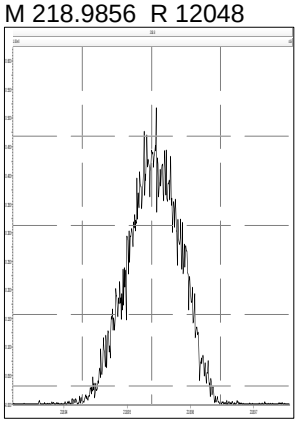
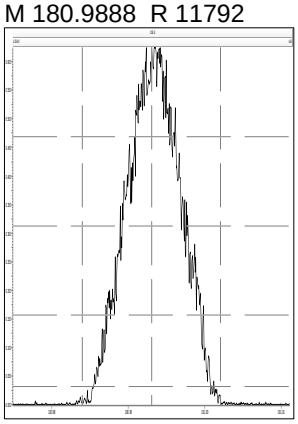
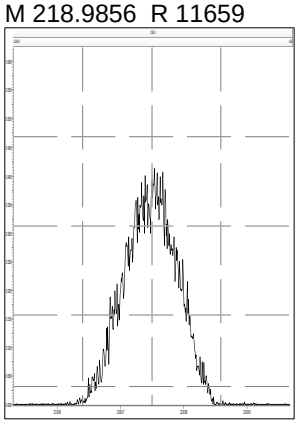


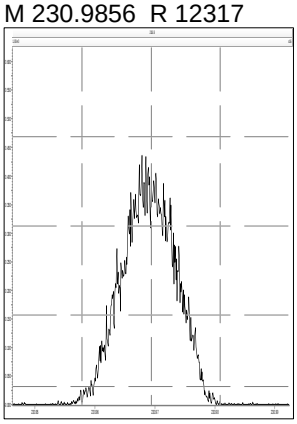
M 180.9888 R 11792



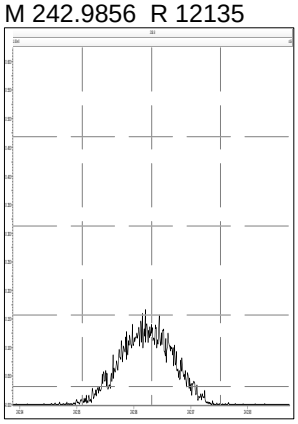
M 218.9856 R 11659



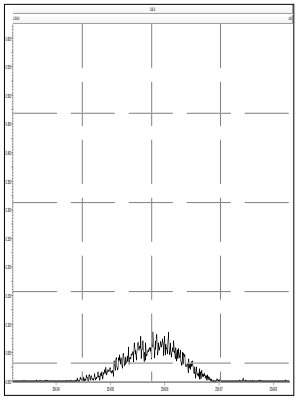
M 230.9856 R 12317



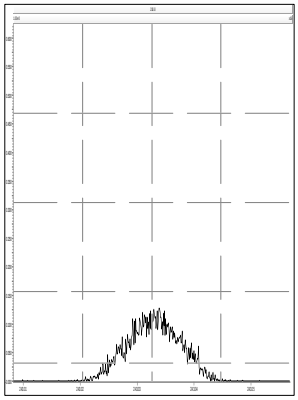
M 242.9856 R 12135



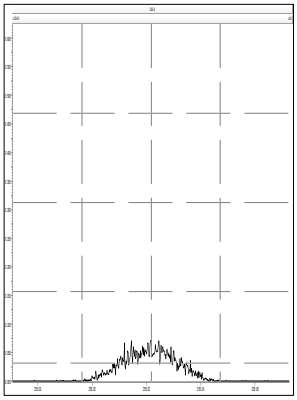
M 254.9856 R 13125



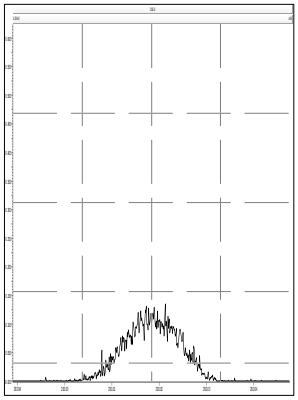
M 242.9856 R 12218



M 254.9856 R 12855



M 292.9824 R 12412



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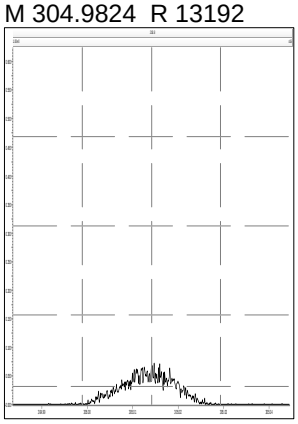
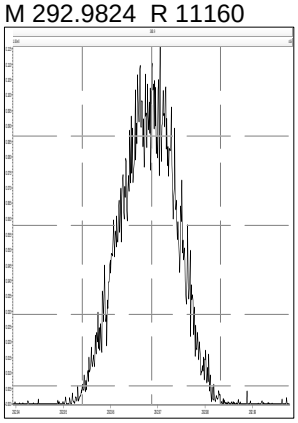
M 304.9824 R 13192



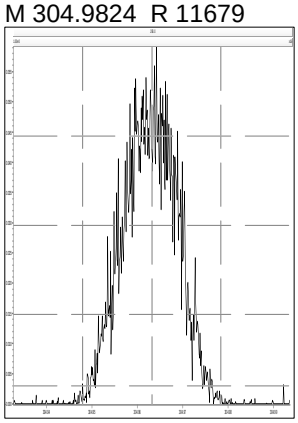
File: Experiment: EU_Dioxin_Def2.exp Reference: DF.ref Function: 1 @ 200 (ppm)

Printed: Friday, April 22, 2022 11:25:47 Eastern Daylight Time

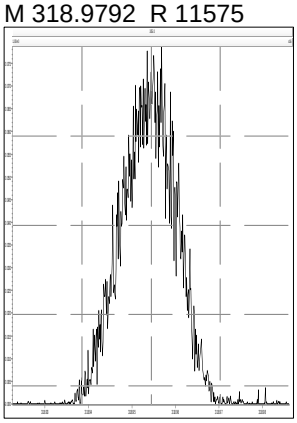
M 292.9824 R 11160



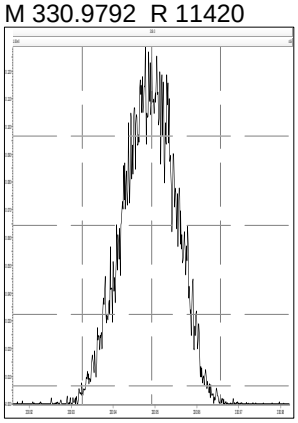
M 304.9824 R 11679



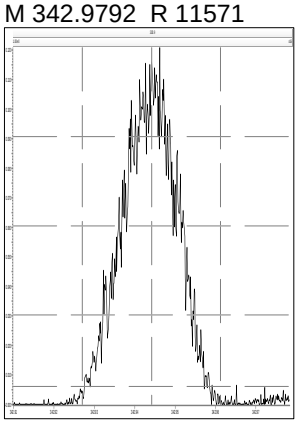
M 318.9792 R 11575



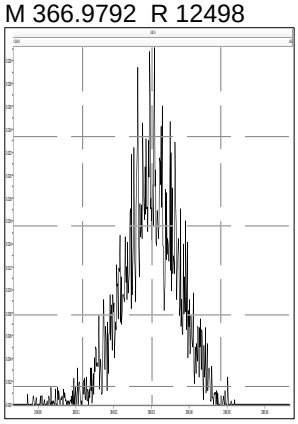
M 330.9792 R 11420



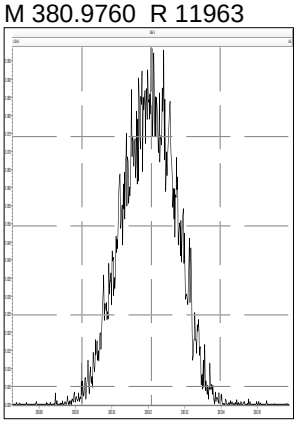
M 342.9792 R 11571



M 366.9792 R 12498



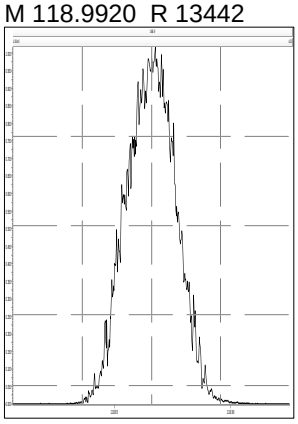
M 380.9760 R 11963



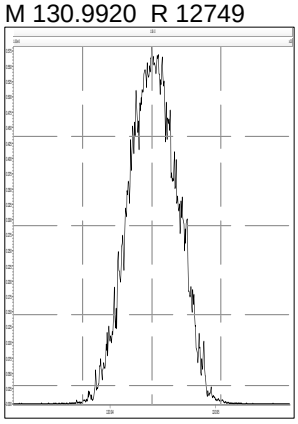
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 1 @ 200 (ppm)

Printed: Monday, April 25, 2022 13:59:14 Eastern Daylight Time

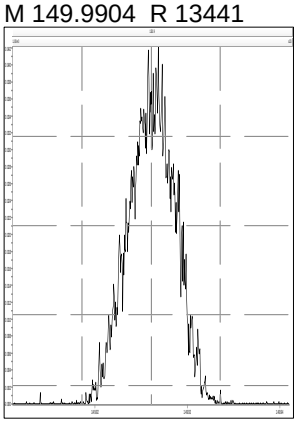
M 118.9920 R 13442



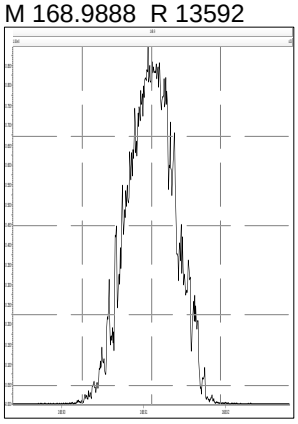
M 130.9920 R 12749



M 149.9904 R 13441



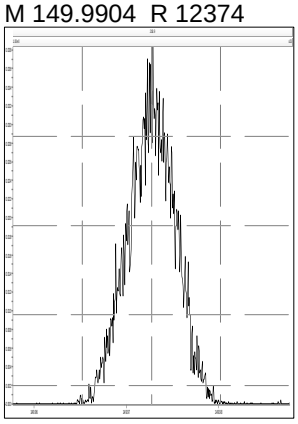
M 168.9888 R 13592



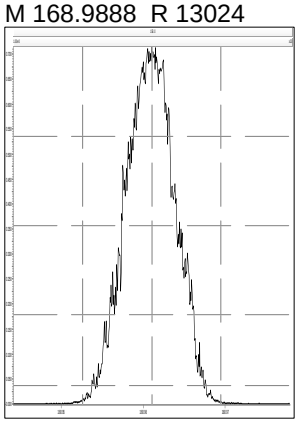
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 2 @ 200 (ppm)

Printed: Monday, April 25, 2022 13:59:37 Eastern Daylight Time

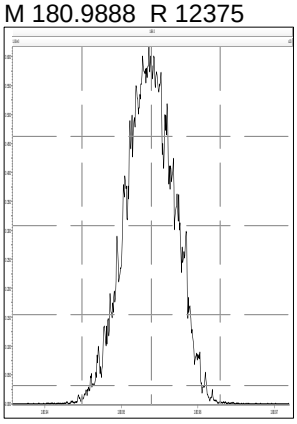
M 149.9904 R 12374



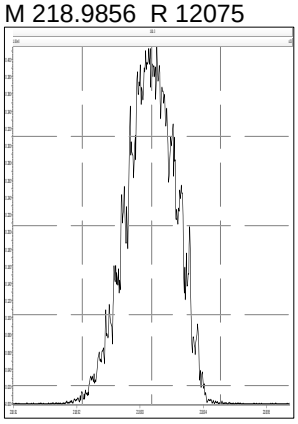
M 168.9888 R 13024



M 180.9888 R 12375



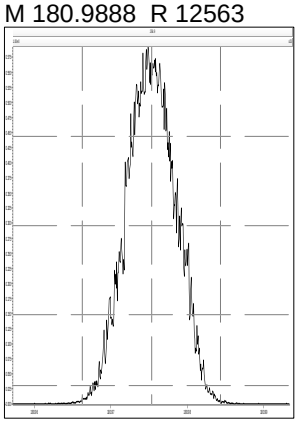
M 218.9856 R 12075



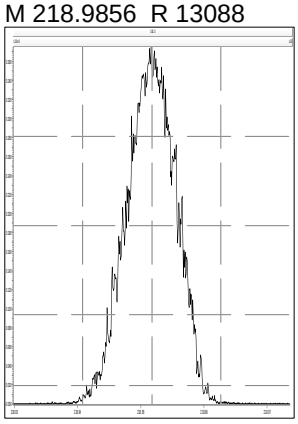
File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 3 @ 200 (ppm)

Printed: Monday, April 25, 2022 14:00:05 Eastern Daylight Time

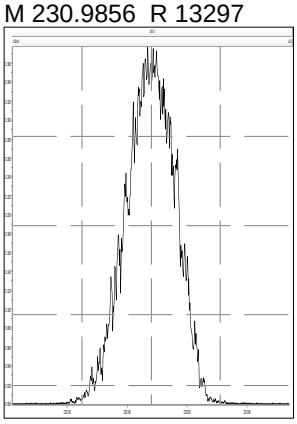
M 180.9888 R 12563



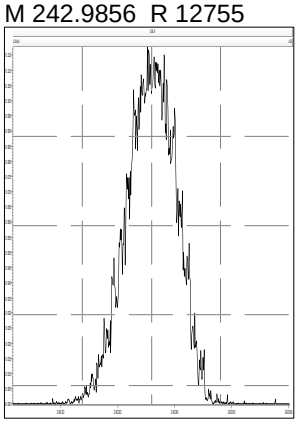
M 218.9856 R 13088



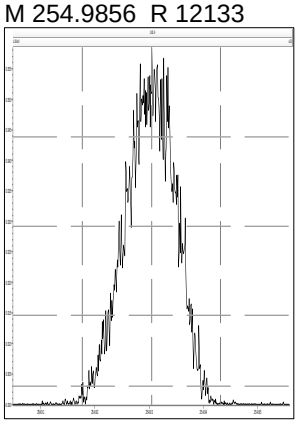
M 230.9856 R 13297



M 242.9856 R 12755



M 254.9856 R 12133



File: Experiment: EU_PAH_Def.exp Reference: PAH.ref Function: 4 @ 200 (ppm)

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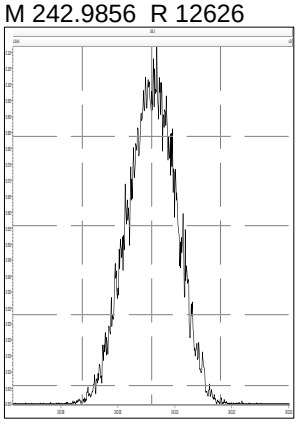
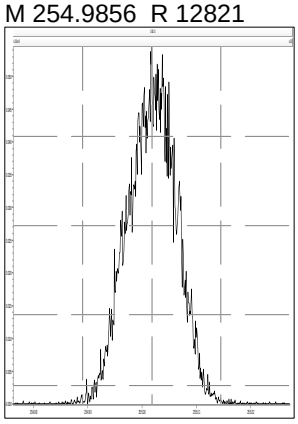
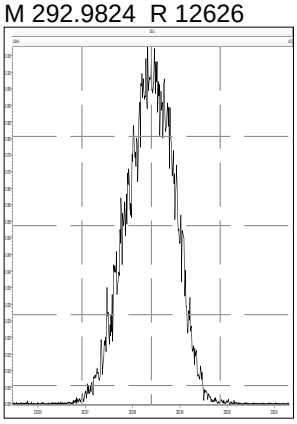
M 242.9856 R 12626



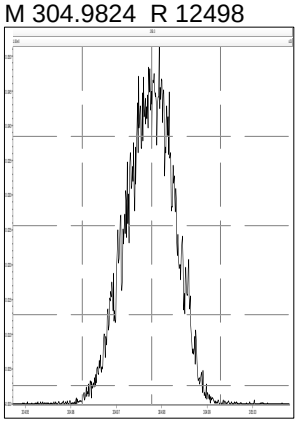
M 254.9856 R 12821



M 292.9824 R 12626



M 304.9824 R 12498



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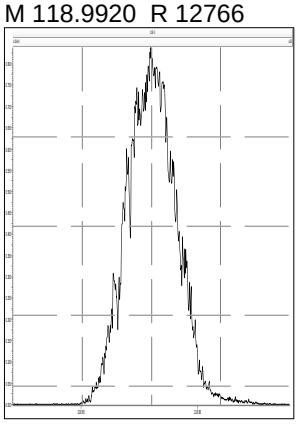
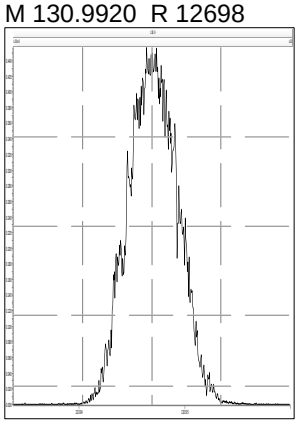
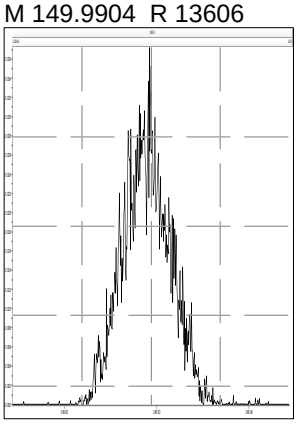
M 118.9920 R 12766



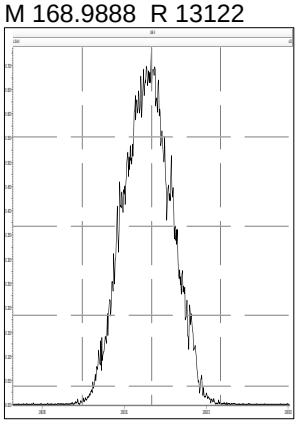
M 130.9920 R 12698



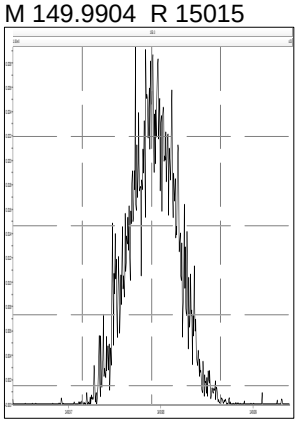
M 149.9904 R 13606



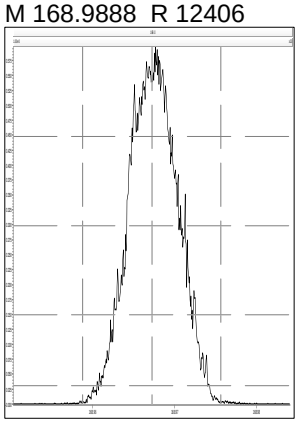
M 168.9888 R 13122



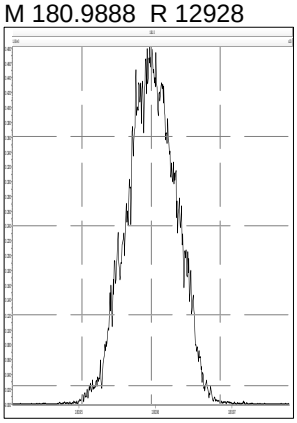
M 149.9904 R 15015



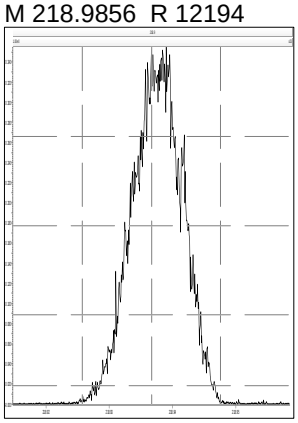
M 168.9888 R 12406



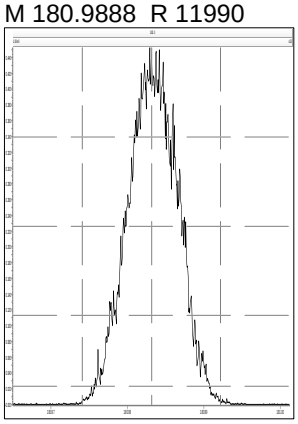
M 180.9888 R 12928



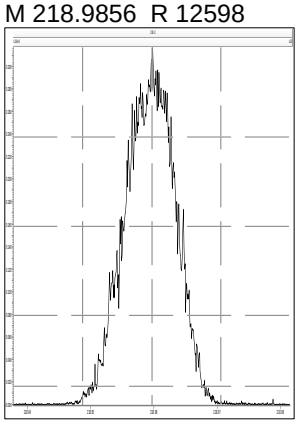
M 218.9856 R 12194



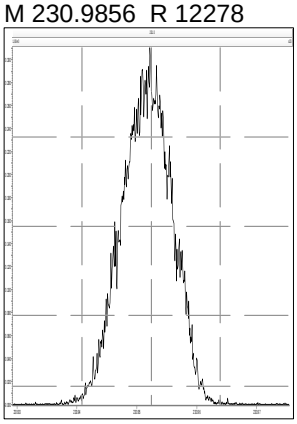
M 180.9888 R 11990



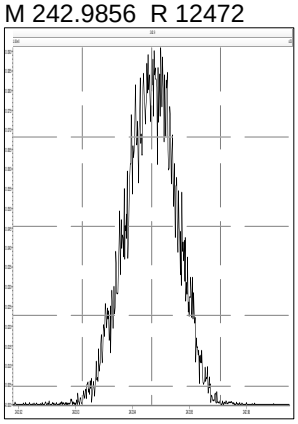
M 218.9856 R 12598



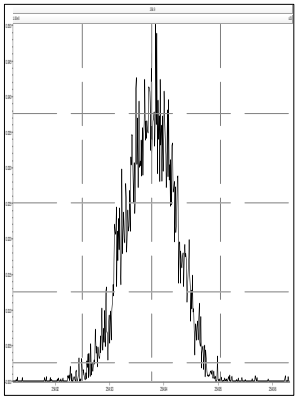
M 230.9856 R 12278



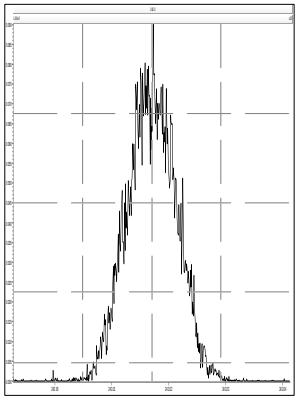
M 242.9856 R 12472



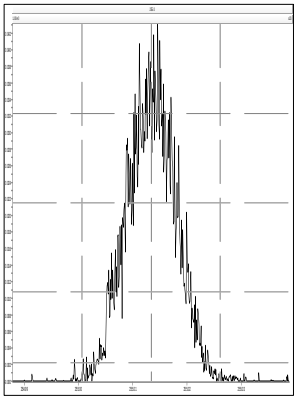
M 254.9856 R 12698



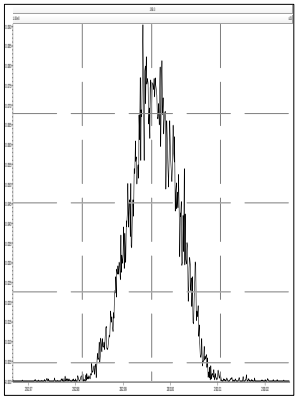
M 242.9856 R 12828



M 254.9856 R 12755



M 292.9824 R 13074



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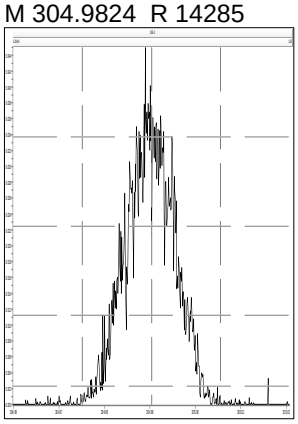
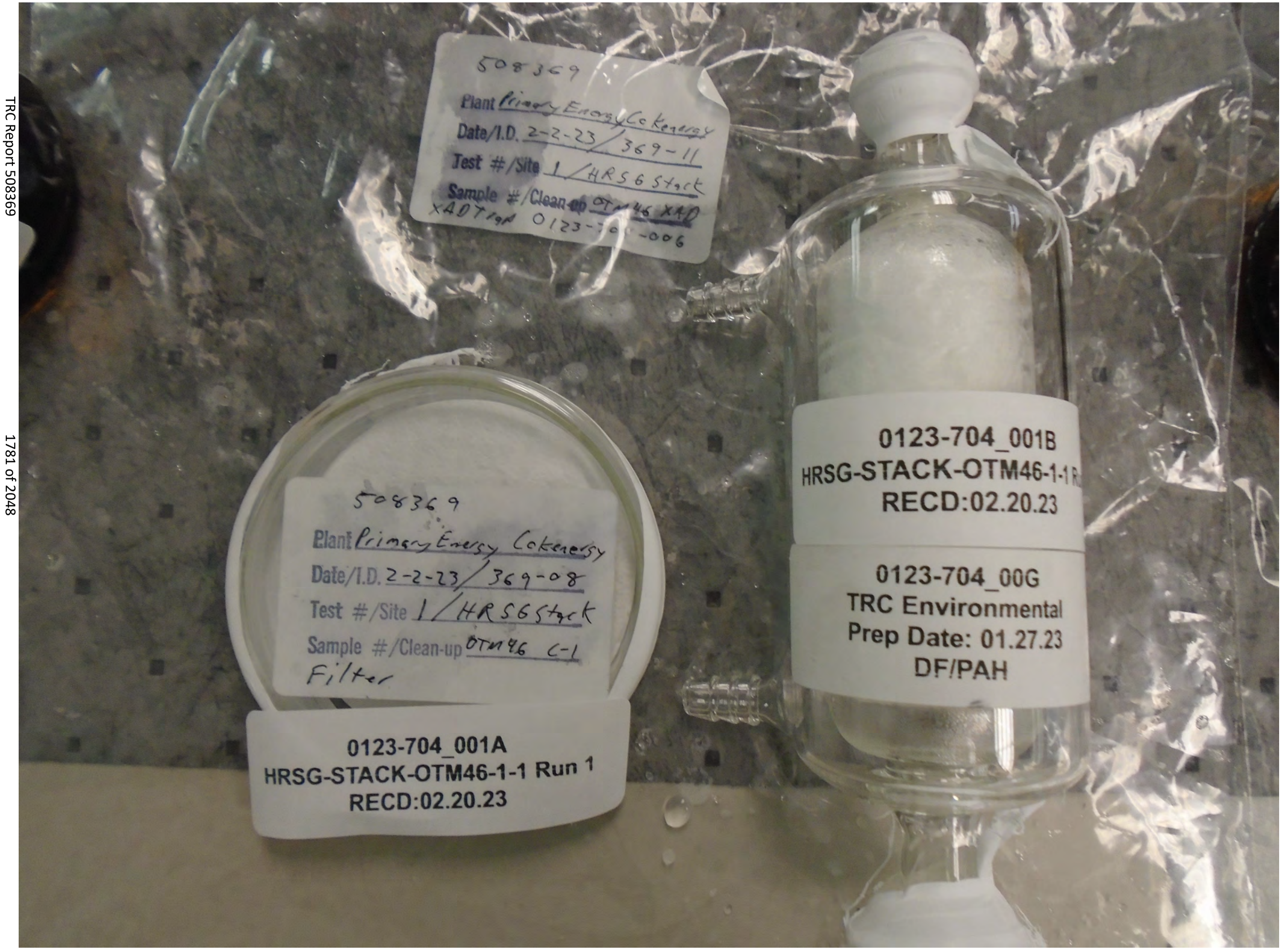
M 304.9824 R 14285



Pictures


508369
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Date/I.D. 2-2-23 / 369-11
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Sample #/Clean-up OTM46 XAD
XAD Trap 0123-704-006
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Date/I.D. 2-2-23 / 369-08
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Sample #/Clean-up OTM46 C-1
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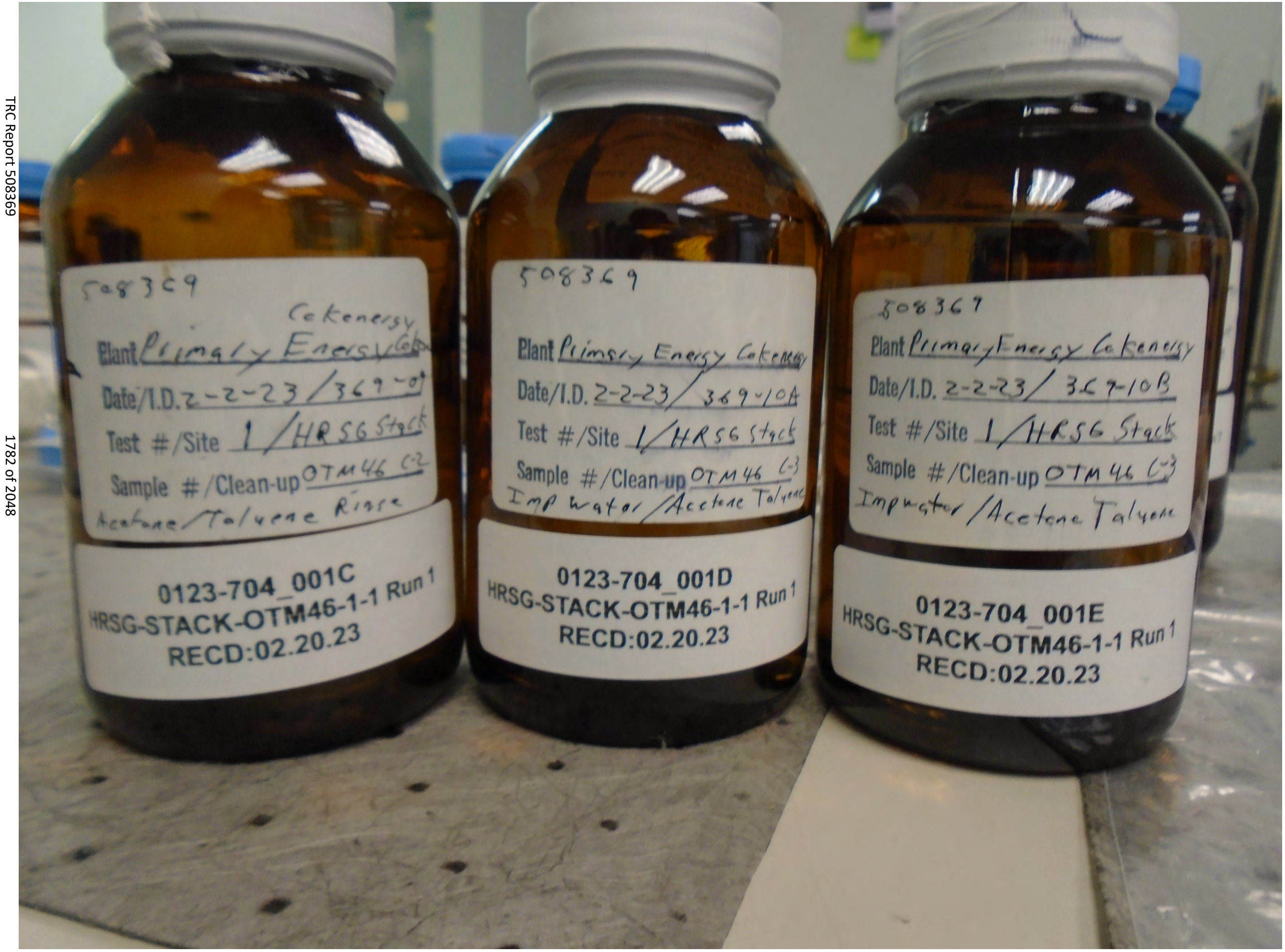
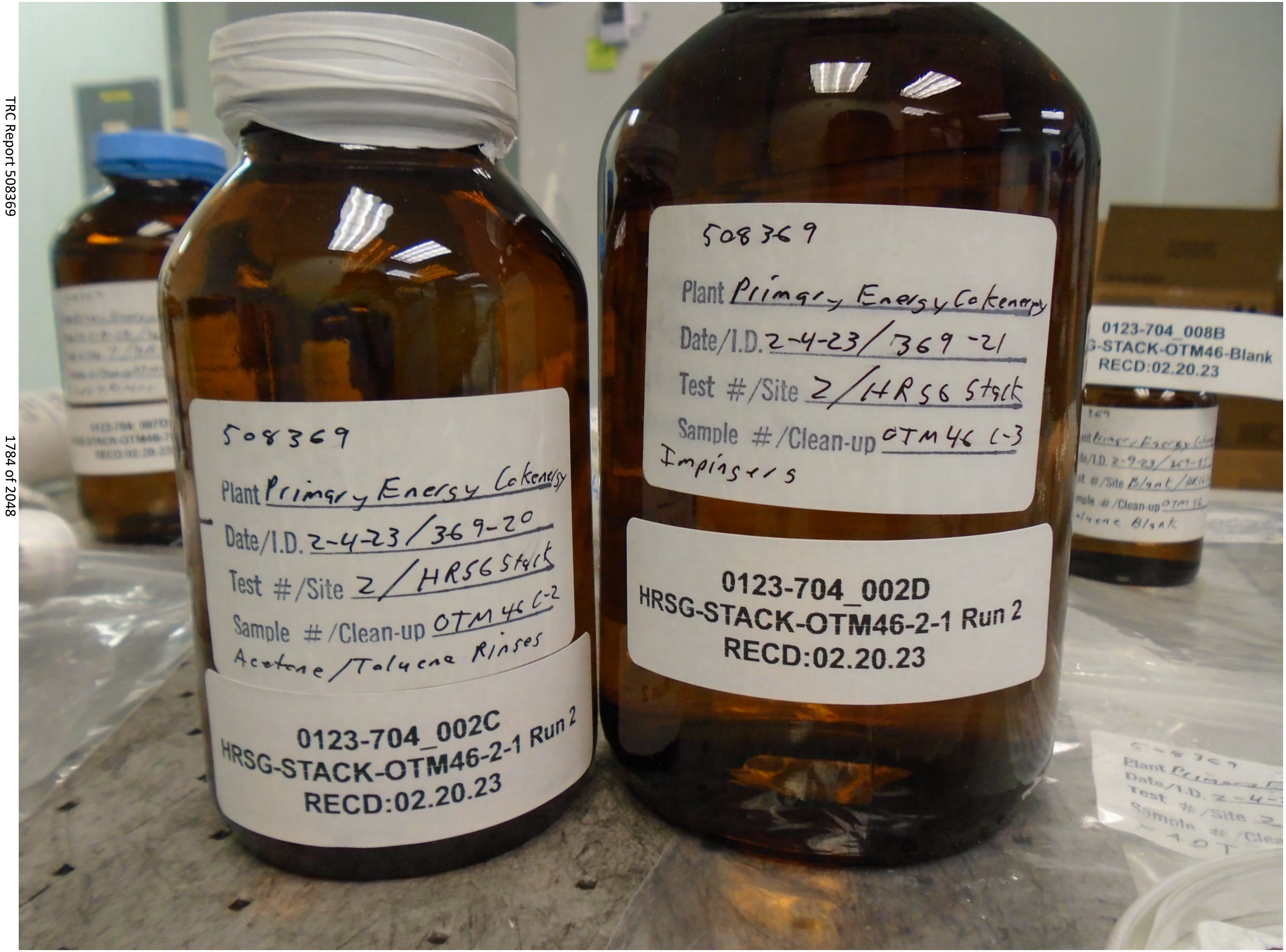
RECD:02.20.23
0123-704_00G
TRC Environmental
Prep Date: 01.27.23
DF/PAH


508369
Cokenergy
Plant Primary Energy Cok
Date/I.D. 2-2-23 / 369-0
Test #/Site 1 / HRSG Stack
Sample #/Clean-up OTM46 C-2
Acetone/Toluene Rinse
0123-704_001C
HRSG-STACK-OTM46-1-1 Run 1
RECD:02.20.23
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-2-23 / 369-10A
Test #/Site 1 / HRSG Stack
Sample #/Clean-up OTM46 C-3
Imp water / Acetone Toluene
0123-704_001D
HRSG-STACK-OTM46-1-1 Run 1
RECD:02.20.23
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-2-23 / 369-10B
Test #/Site 1 / HRSG Stack
Sample #/Clean-up OTM46 C-3
Imp water / Acetone Toluene
0123-704_001E
HRSG-STACK-OTM46-1-1 Run 1
RECD:02.20.23

508369
Plant Primary Energy Cokenergy
Date/I.D. 2-4-23 / 369-22
Test #/Site 2 / HRSG Stack
Sample #/Clean-up OTM46
0123-704_002B
HRSG-STACK-OTM46-2-1 Run
RECD:02.20.23
0123-704_00H
TRC Environmental
Prep Date: 01.27.23
DF/PAH
OTM46
R2
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-4-23 / 369-19
Test #/Site 2 / HRSG Stack
Sample #/Clean-up OTM46 C-1
Filter
0123-704_002A
HRSG-STACK-OTM46-2-1 Run 2
RECD:02.20.23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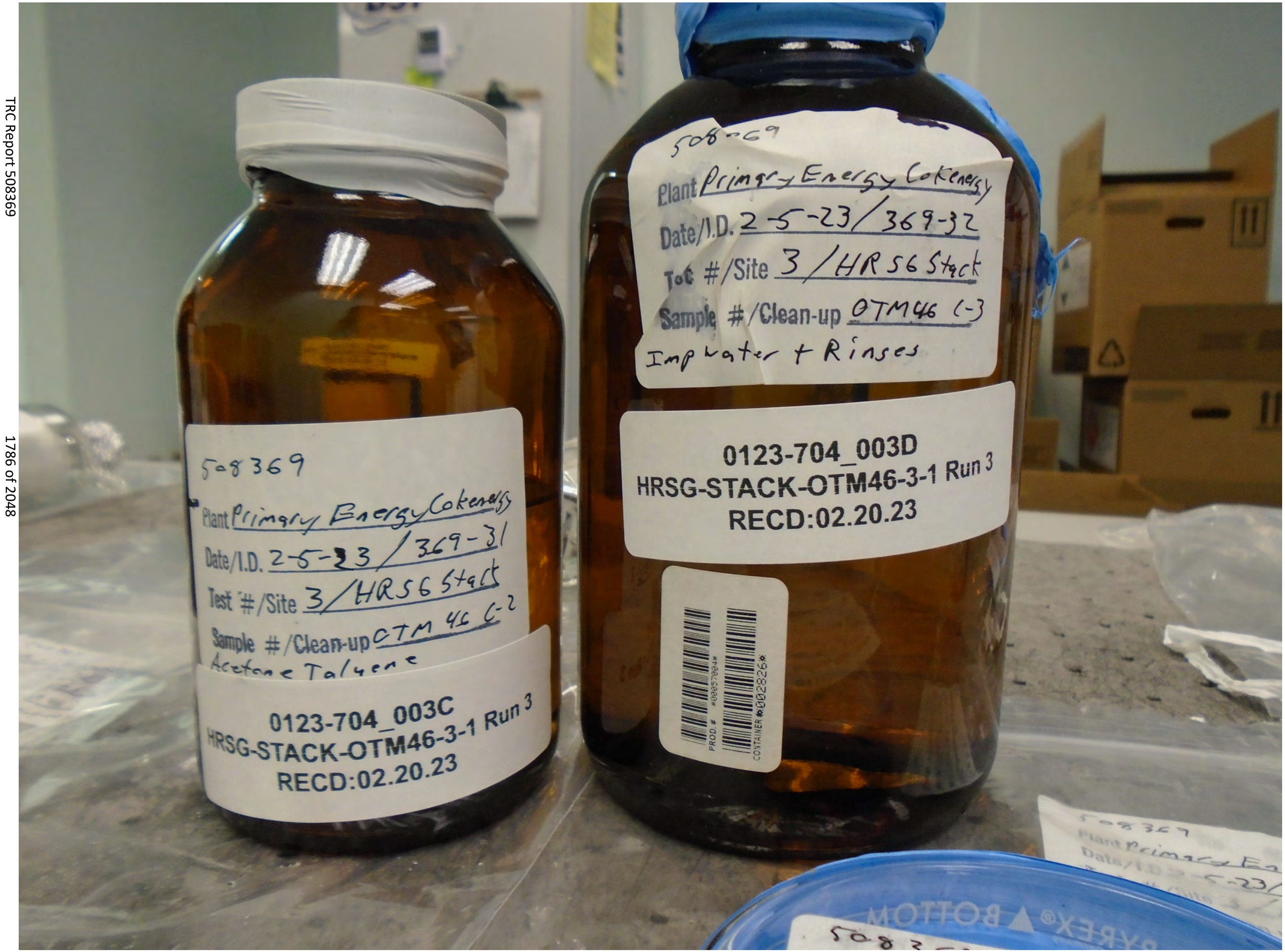
Plant Primary Energy Cokenergy
Date/I.D. 2-4-23/369-20
Test #/Site 2/HRSG Stack
Sample #/Clean-up OTM 46 C-2
Acetone/Toluene Rinses
0123-704_002C
HRSG-STACK-OTM46-2-1 Run 2
RECD:02.20.23
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-4-23/369-21
Test #/Site 2/HRSG Stack
Sample #/Clean-up OTM 46 C-3
Impingers
0123-704_002D
HRSG-STACK-OTM46-2-1 Run 2
RECD:02.20.23
0123-704_008B
G-STACK-OTM46-Blank
RECD:02.20.23

04_003D
-OTM46-3-1 Run
CD:02.20.23
508369
Plant Primary Energy Lakenergy
Date/I.D. 2-5-23 / 369-33
Test #/Site 3 / HRSG Stack
Sample #/Clean-up OTM 46 XAD
XAD Trap 0123-704-00A
HRSG
0123-704_003B
HRSG-STACK-OTM46-3-1 Run
RECD:02.20.23
508369
Plant Primary Energy Lakenergy
Date/I.D. 2-5-23 / 369-30
Test #/Site 3 / HRSG Stack
Sample #/Clean-up OTM 46 C-1
Filter
0123-704_003A
HRSG-STACK-OTM46-3-1 Run 3
RECD:02.20.23
0123-704_00A
TRC Environmental
Prep Date: 01.27.23
DF/PAH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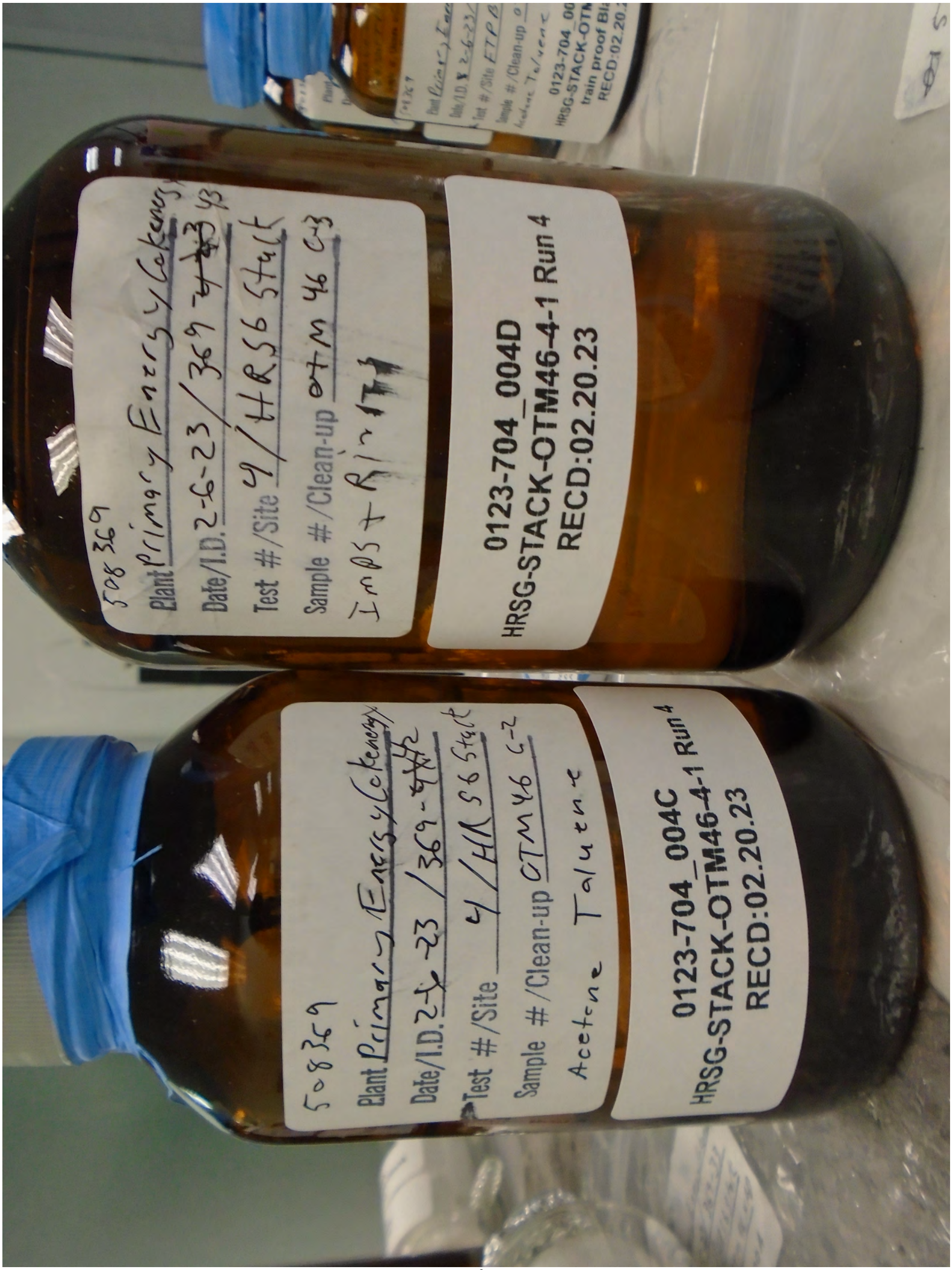
Plant Primary Energy Cokenergy
Date/I.D. 2-5-23 / 369-31
Test #/Site 3 / HRSG Stack
Sample #/Clean-up OTM 46 C-2
Acetone Toluene
0123-704_003C
HRSG-STACK-OTM46-3-1 Run 3
RECD:02.20.23
508-69
Plant Primary Energy Cokenergy
Date/I.D. 2-5-23 / 369-32
Test #/Site 3 / HRSG Stack
Sample #/Clean-up OTM46 C-3
Imp water + Rinses
0123-704_003D
HRSG-STACK-OTM46-3-1 Run 3
RECD:02.20.23
PROD # *000570004*
CONTAINER *0002826*

508369
Plant Primary Energy Cokenergy
Date/I.D. 2-6-23 / 369-44
Test #/Site 4 / HRSG Stack
Sample #/Clean-up OTM 46 XAD
XAD 0123-704_00C
OTM 46
Run 4
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-6-23 / 369-41
Test #/Site 4 / HRSG Stack
Sample #/Clean-up OTM 46 C-1
Filter
0123-704_004A
HRSG-STACK-OTM46-4-1 Run 4
RECD:02.20.23
0123-704_004B
HRSG-STACK-OTM46-4-1 Run
RECD:02.20.23
0123-704_00C
TRC Environmental
Prep Date: 01.27.23
DF/PAH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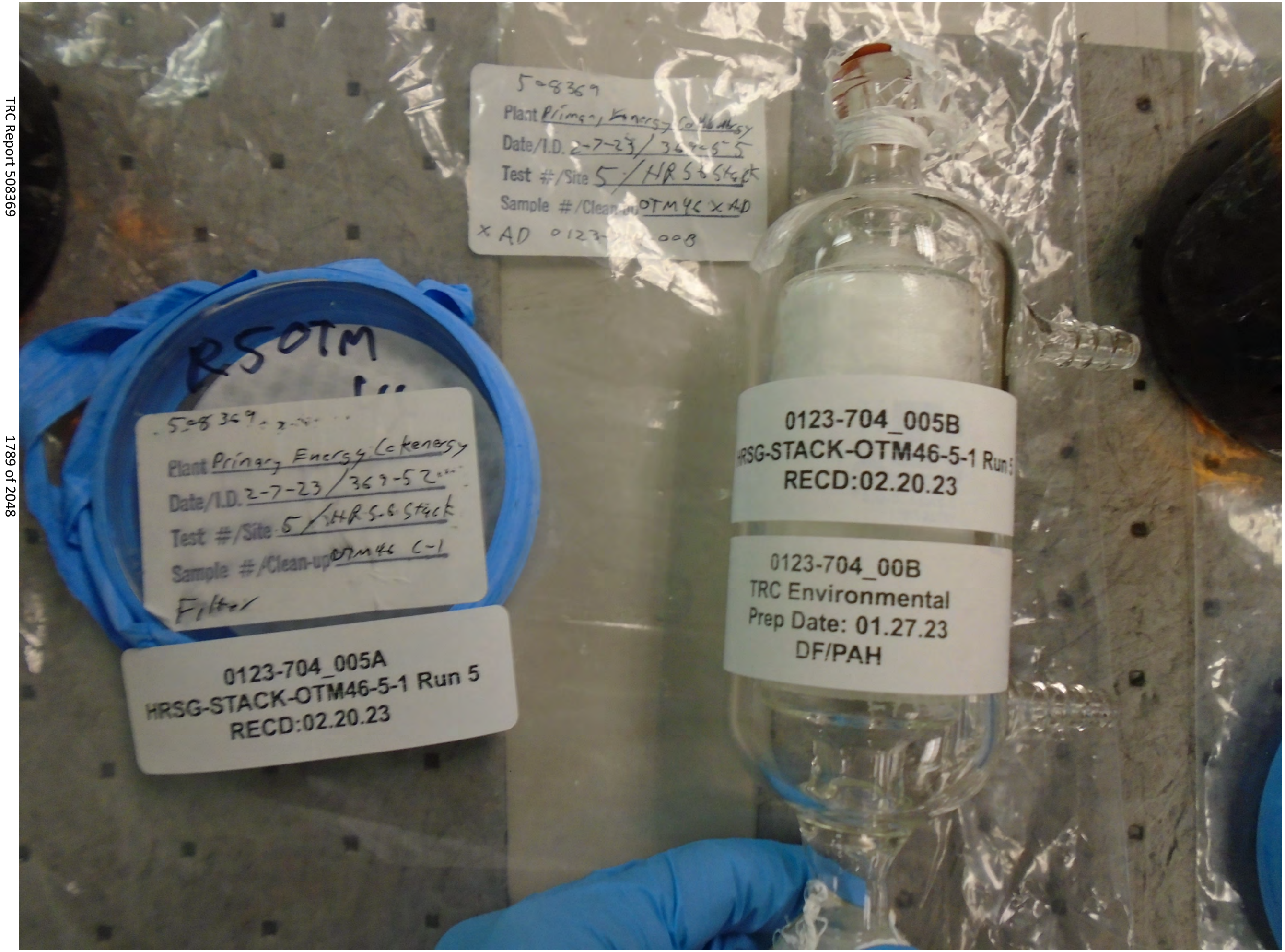
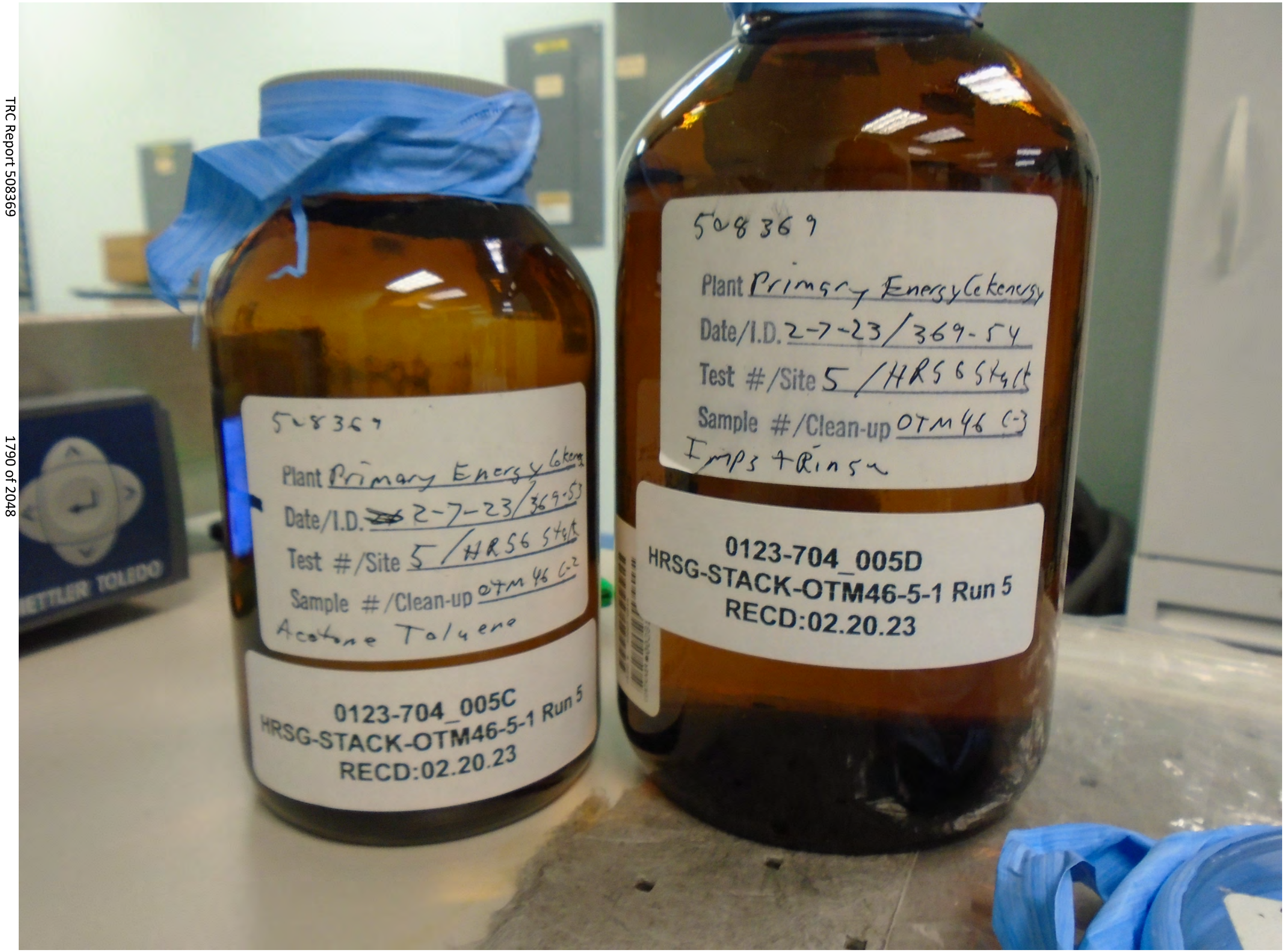
Plant Primary Energy Cokeneryx
Date/I.D. 2-6-23/369-43
Test #/Site 4/HRSG Stack
Sample #/Clean-up OTM 46 C-3
Imps + Rin 171
0123-704_004D
HRSG-STACK-OTM46-4-1 Run 4
RECD:02.20.23
508369
Plant Primary Energy Cokeneryx
Date/I.D. 2-6-23/369-42
Test #/Site 4/HRSG Stack
Sample #/Clean-up OTM46 C-2
Acetone Toluene
0123-704_004C
HRSG-STACK-OTM46-4-1 Run 4
RECD:02.20.23


508369
Plant Primary Energy Cogeneration
Date/I.D. 2-7-23 / 369-5-5
Test #/Site 5 / HRSG Stack
Sample #/Clean-up OTM46 X AD
X AD 0123-704_008
RSOTM
508369
Plant Primary Energy Cogeneration
Date/I.D. 2-7-23 / 369-5-2
Test #/Site 5 / HRSG Stack
Sample #/Clean-up OTM46 C-1
Filter
0123-704_005A
HRSG-STACK-OTM46-5-1 Run 5
RECD:02.20.23
0123-704_005B
HRSG-STACK-OTM46-5-1 Run 5
RECD:02.20.23
0123-704_00B
TRC Environmental
Prep Date: 01.27.23
DF/PAH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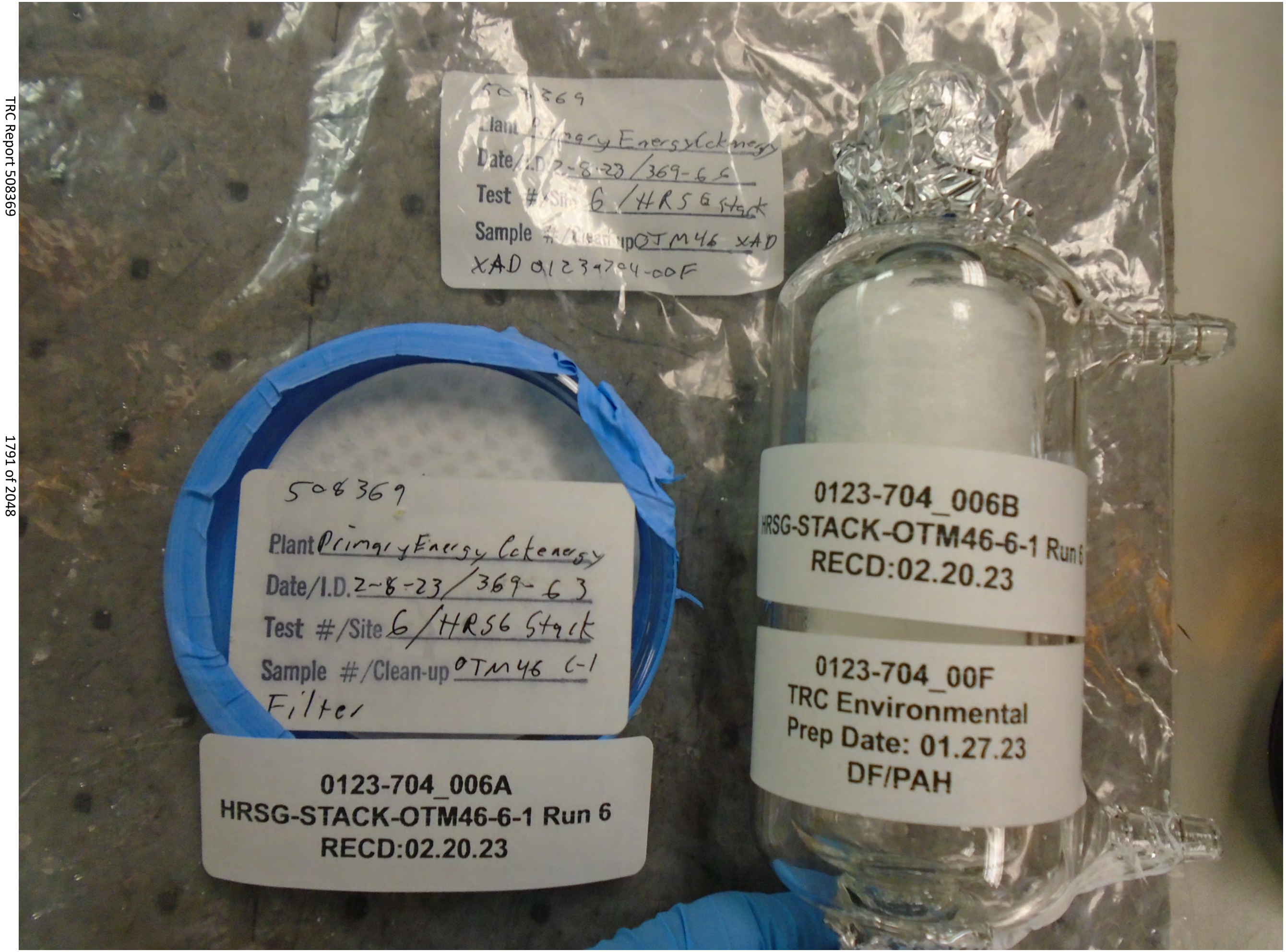
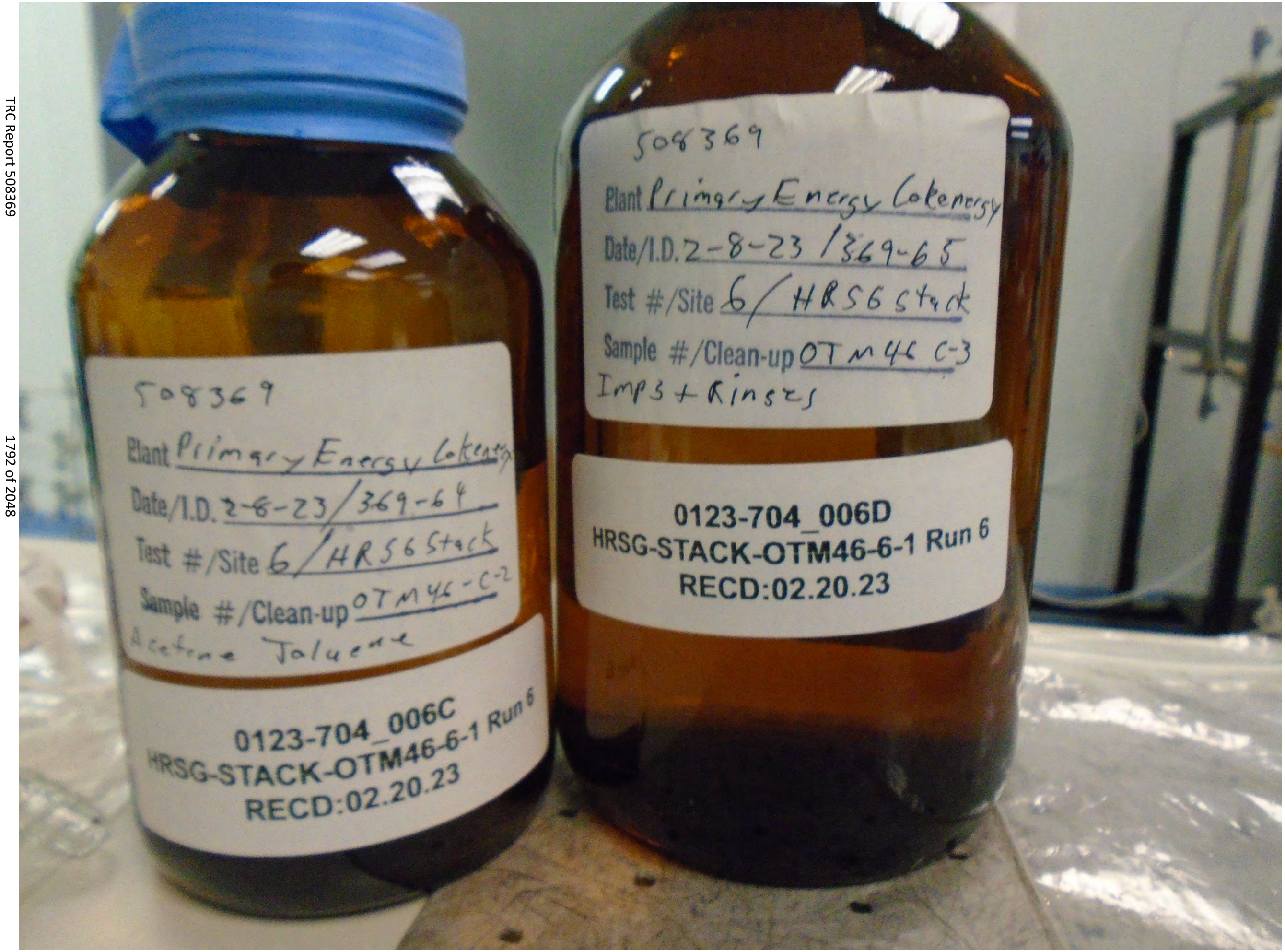
Plant Primary Energy Cokeney
Date/I.D. 2-7-23/369-53
Test #/Site 5 / HRSG Stack
Sample #/Clean-up OTM 46 C-2
Acetone Toluene
0123-704_005C
HRSG-STACK-OTM46-5-1 Run 5
RECD:02.20.23
508369
Plant Primary Energy Cokeney
Date/I.D. 2-7-23/369-54
Test #/Site 5 / HRSG Stack
Sample #/Clean-up OTM 46 C-3
Imps + Rinse
0123-704_005D
HRSG-STACK-OTM46-5-1 Run 5
RECD:02.20.23


508369
Plant Primary Energy Cokenergy
Date/I.D. 2-8-23/369-6 6
Test #/Site 6/HRSG Stack
Sample #/Clean-up OTM46 XAD
XAD 0123-704-00F
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-8-23/369-6 3
Test #/Site 6/HRSG Stack
Sample #/Clean-up OTM46 C-1
Filter
0123-704_006A
HRSG-STACK-OTM46-6-1 Run 6
RECD:02.20.23
0123-704_006B
HRSG-STACK-OTM46-6-1 Run 6
RECD:02.20.23
0123-704_00F
TRC Environmental
Prep Date: 01.27.23
DF/PAH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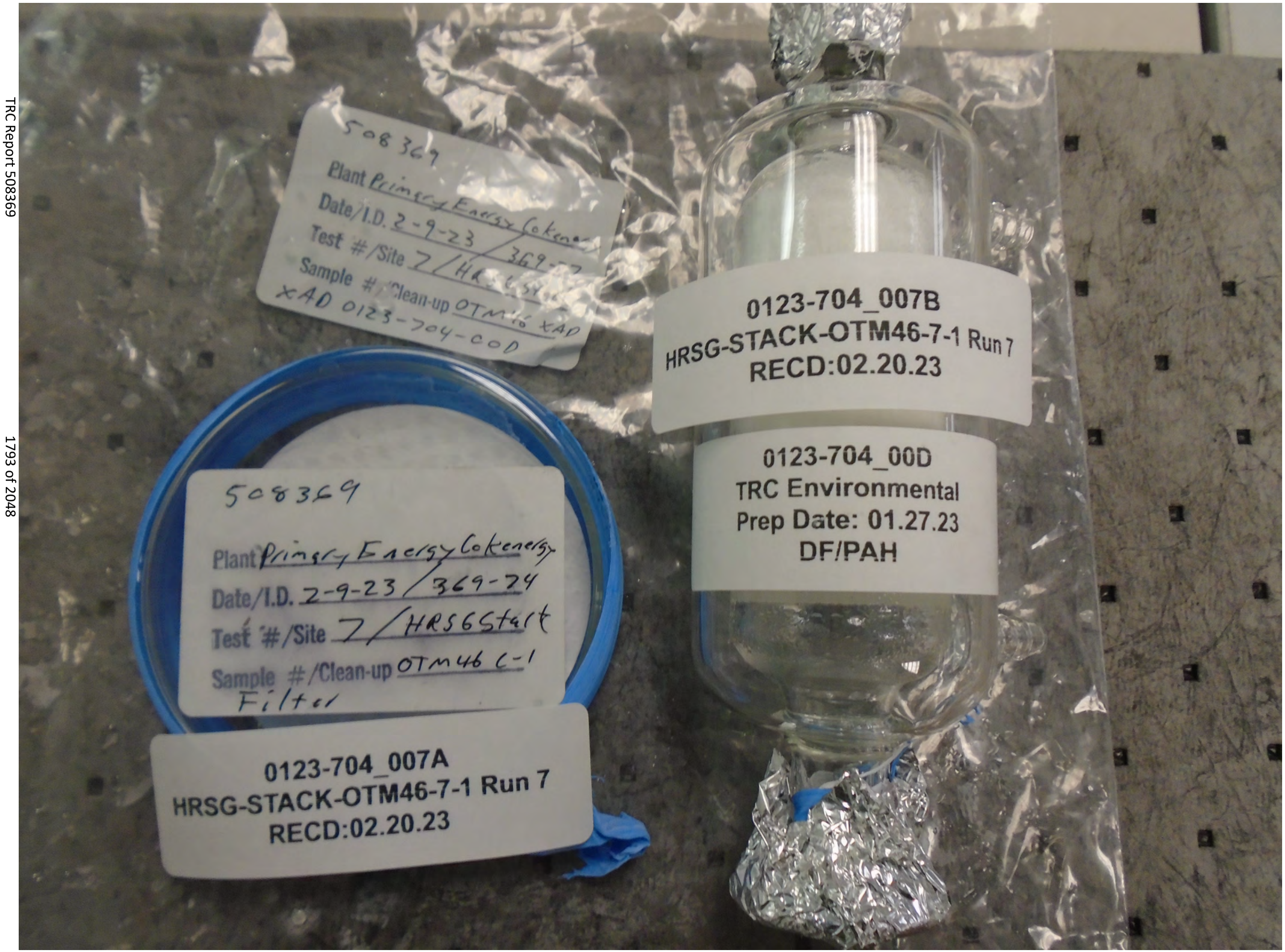
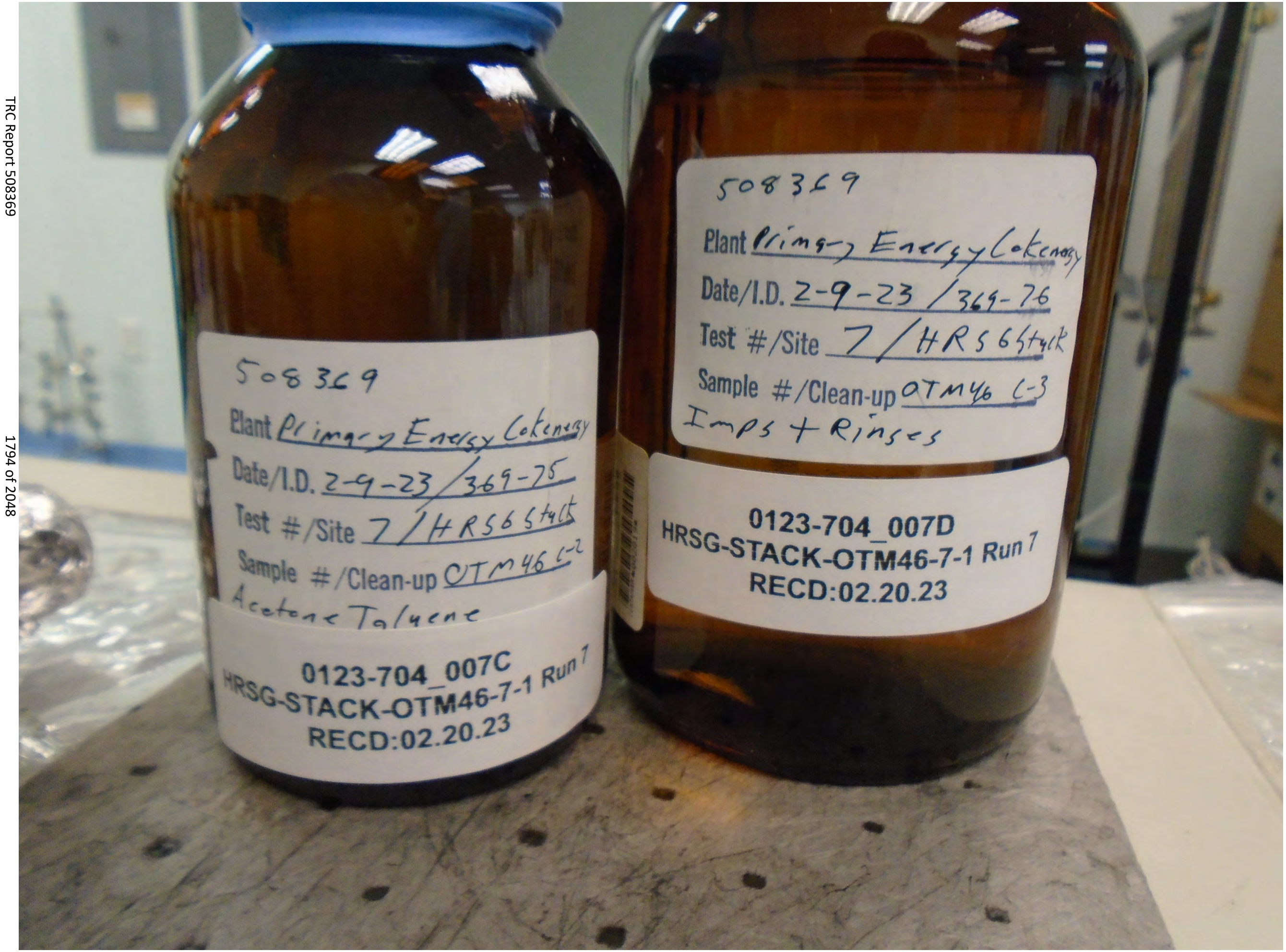
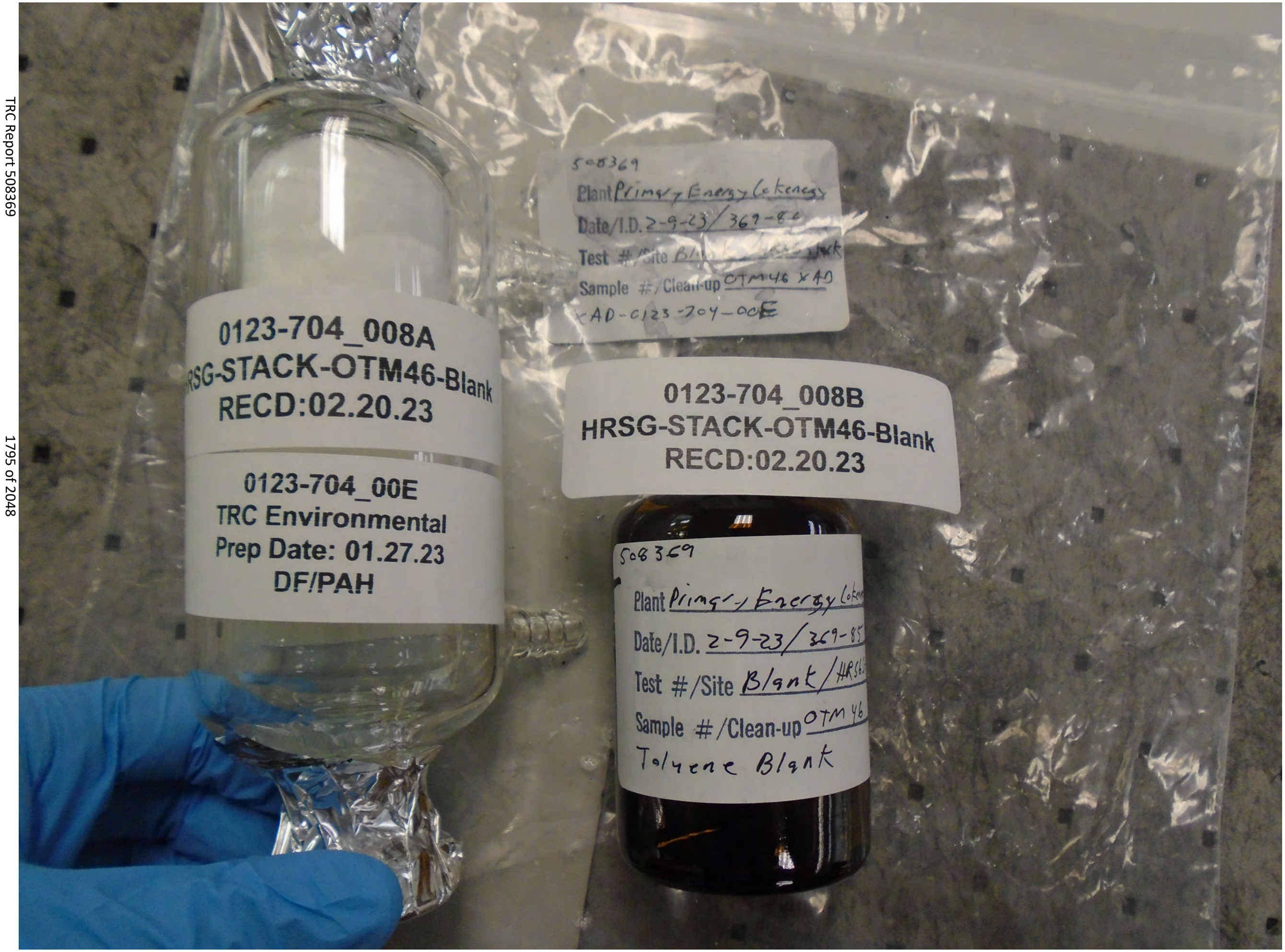
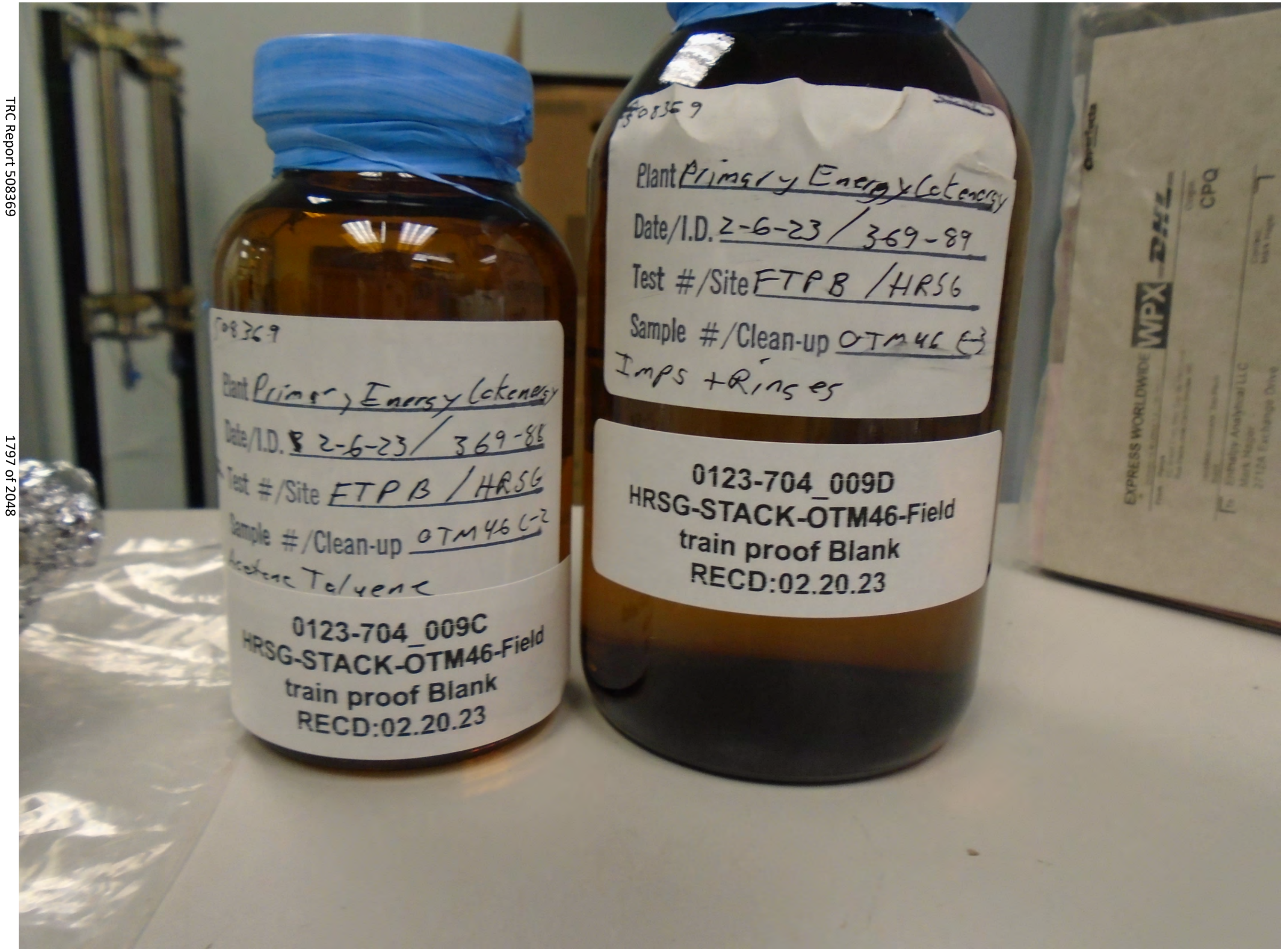
Plant Primary Energy Cokenergy
Date/I.D. 2-8-23 / 369-65
Test #/Site 6 / HRSG Stack
Sample #/Clean-up OTM46 C-3
Imps + Rinses
0123-704_006D
HRSG-STACK-OTM46-6-1 Run 6
RECD:02.20.23
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-8-23 / 369-64
Test #/Site 6 / HRSG Stack
Sample #/Clean-up OTM46-C-2
Acetone Toluene
0123-704_006C
HRSG-STACK-OTM46-6-1 Run 6
RECD:02.20.23


508369
Plant Primary Energy Cokenergy
Date/I.D. 2-9-23 / 369-23
Test #/Site 7 / HRSG Start
Sample #/Clean-up OTM46 XAD
XAD 0123-704-00D
0123-704_007B
HRSG-STACK-OTM46-7-1 Run 7
RECD:02.20.23
0123-704_00D
TRC Environmental
Prep Date: 01.27.23
DF/PAH
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-9-23 / 369-24
Test #/Site 7 / HRSG Start
Sample #/Clean-up OTM46 C-1
Filter
0123-704_007A
HRSG-STACK-OTM46-7-1 Run 7
RECD:02.20.23


508369
Plant Primary Energy Cokenergy
Date/I.D. 2-9-23 / 369-75
Test #/Site 7 / HRSG Stack
Sample #/Clean-up OTM46 C-2
Acetone Toluene
0123-704_007C
HRSG-STACK-OTM46-7-1 Run 7
RECD:02.20.23
508369
Plant Primary Energy Cokenergy
Date/I.D. 2-9-23 / 369-76
Test #/Site 7 / HRSG Stack
Sample #/Clean-up OTM46 C-3
Imps + Rinses
0123-704_007D
HRSG-STACK-OTM46-7-1 Run 7
RECD:02.20.23


0123-704_008A
HRSG-STACK-OTM46-Blank
RECD:02.20.23
0123-704_00E
TRC Environmental
Prep Date: 01.27.23
DF/PAH
508369
Plant Primary Energy Cokeneg
Date/I.D. 2-9-23/ 369-8
Test #/Site Bla
Sample #/Clean-up OTM46 XAD
XAD-0123-704-00E
0123-704_008B
HRSG-STACK-OTM46-Blank
RECD:02.20.23
508369
Plant Primary Energy Coke
Date/I.D. 2-9-23/ 369-85
Test #/Site Blank/HRSG
Sample #/Clean-up OTM 46
Toluene Blank

508369
Plant Primary Energy Cokenergy
Date/I.D. 26-23/369-87
Test #/Site FTPB/HRSG
Sample #/Clean-up OTM46 CX
Filter
0123-704_009A
HRSG-STACK-OTM46-Field
train proof Blank
RECD:02.20.23
0123-704_009B
HRSG-STACK-OTM46-Field
train proof Blank
RECD:02.20.23
0123-704_00J
TRC Environmental
Prep Date: 01.27.23
DF/PAH


508369
Plant Primary Energy Cogeneration
Date/I.D. 2-6-23 / 369-89
Test #/Site FTPB / HRSG
Sample #/Clean-up OTM46 C-3
Imps + Rinses
0123-704_009D
HRSG-STACK-OTM46-Field
train proof Blank
RECD:02.20.23
508369
Plant Primary Energy Cogeneration
Date/I.D. 2-6-23 / 369-88
Test #/Site FTPB / HRSG
Sample #/Clean-up OTM46 C-2
Acetone Solvent
0123-704_009C
HRSG-STACK-OTM46-Field
train proof Blank
RECD:02.20.23
EXPRESS WORLDWIDE
WPX
DHL
CPO

This Is The Last Page Of This Report.

ENTHALPY
ANALYTICAL

Prepared for:

Gavin Lewis
Phone: (219) 613-0163
Email: glewis@trccompanies.com

TRC Environmental Corp.
7521 Brush Hill Rd.
Burr Ridge, IL 60527

P.O. # **Pending**

Received Date: **February 15, 2023**

Disclaimer:

Neither GTI nor any person acting on behalf of GTI assumes any liability with respect to the use of, or for damages resulting from the use of, any information presented in this report.

The results within this report relate only to the items tested as received.

Technical Contact: Russell J. Bora, (847) 768-0693, rbora@gti.energy
Lab Manager: Karen Crippen, (847) 768-0604, kcrippen@gti.energy
Environmental and Chemical Research Services

BTEX Analysis in Gas by EPA TO-14 (GC-PID)

Client: TRC Environmental Corporation
Date Analyzed: 02/16-17/2023
Analyst: RJB

Sample #	232106-001	232106-002	232106-003
Description	HRSG-Inlet-R1 02/08/23	HRSG-Inlet-R2 02/08/23	HRSG-Inlet-R3 02/08/23
Benzene	0.16 ppmv	*< 0.10* ppmv	0.27 ppmv
Toluene	0.12 ppmv	*< 0.10* ppmv	0.83 ppmv
Ethylbenzene	*< 0.10* ppmv	*< 0.10* ppmv	*< 0.10* ppmv
m,p-Xylene	*< 0.10* ppmv	*< 0.10* ppmv	0.12 ppmv
o-Xylene	*< 0.10* ppmv	*< 0.10* ppmv	*< 0.10* ppmv

This test does not fall under the lab's ISO 17025 accreditation.

Gas Technology Institute | 1700 S. Mount Prospect Rd. | Des Plaines, IL 60018 | T: 847 768 0500 | F: 847 768 0970 | www.gti.energy/gtilabs

Chain of Custody Record

TRC Report 508369

1801 of 2048

Project Name: Primary Energy

Site Name: Cokenergy

Project No.: 508369

TRC Contact: Gavin Lewis T: 312 533 2024

Email: glewis@trccompanies.com

Sampling System Prepared by: Gavin Lewis

Samples Recovered by: Gavin Lewis

General Instructions: This form documents all changes in custody. The name and dated signature for each person associated with the release or receipt of the listed samples must be recorded.

Sub Lab ID	Sample ID Number	Sample Description* (Unit-Location-Method-Run-Container Number)	Date Sampled	Run Time (Optional)	**No. of Containers	Analyses Required: Mercury ASTM 5954-98	BTEX GPA STD 2286				Comments:
	508369-01	HRSG-INLET MERCURY-R1 TUBES	2/7/2023	240 min	2	X					Tubes are marked
	508369-02	HRSG-INLET MERCURY-R1 Water rinse	2/7/2023	240 min	1	X					
	508369-03	HRSG-INLET MERCURY-R2 TUBES	2/8/2023	240 min	2	X					Tubes are marked
	508369-04	HRSG-INLET MERCURY-R2 Water rinse	2/8/2023	240 min	1	X					
	508369-05	HRSG-INLET MERCURY-R3 TUBES	2/8/2023	240 min	2	X					Tubes are marked
	508369-06	HRSG-INLET MERCURY-R3 Water rinse	2/8/2023	240 min	1	X					
	508369-07	HRSG-INLET-BTEX R1	2/8/2023	~5MINUTES	1		X				
	508369-08	HRSG-INLET-BTEX R2	2/8/2023	~5MINUTES	1		X				
	508369-09	HRSG-INLET-BTEX R3	2/8/2023	~5MINUTES	1		X				

TAT: Standard Need By Date:

Shipped by: Shipped On:

Ship To Attn:

Lab: GTI (Gas Technology Institute)

Address: 1700 S. Mount Prospect Rd. Des Plaines, IL 60018

Phone: 847-768-0693

Project Remarks:

Relinquished by: (Sign & Print)	Date/Time	Received by: (Sign & Print)	Date/Time
[signature]	2-13-23 1340	[signature]	2.13.23 1340
Gavin Lewis		Dave Ryan	
Dave Ryan [signature]	2.14.23 1630	[signature] Bel Tucci	
		[signature]	2/14/23 16:55

Special Instructions:

SUBCONTRACTOR LABORATORY MUST CONTACT THE CITED TRC CONTACT TO ENSURE A PO IS IN PLACE.

TRC Environmental Corporation

Received in lab: 7:16 2/15/23

GTI ENERGY
solutions that transform

Sample COC Report

COC #: 232106
Customer: TRC Environmental Corporation
Contact: Gavin Lewis

Todays' Date: 02/15/2023
Date Received: 02/15/2023
Date Due: 02/23/2023

Lab #	Received	Sample ID	Cyl #	Note
232106-001	02/15/23	HRSG-Inlet-R1 02/08/23	508369-7	
	BTEX			
	Evac			
232106-002	02/15/23	HRSG-Inlet-R2 02/08/23	508369-8	
	BTEX			
	Evac			
232106-003	02/15/23	HRSG-Inlet-R3 02/08/23	508369-9	
	BTEX			
	Evac			
232106-004	02/15/23	Hg-Inlet-R1 A/B 02/07/23		
	Hg Gas			
232106-005	02/15/23	Hg-Inlet-R1-Water Rinse 02/07/23		
	Hg liquid			
232106-006	02/15/23	Hg-Inlet-R2 A/B 02/08/23		
	Hg Gas			
232106-007	02/15/23	Hg-Inlet-R2-Water Rinse 02/08/23		
	Hg liquid			
232106-008	02/15/23	Hg-Inlet-R3 A/B 02/08/23		
	Hg Gas			
232106-009	02/15/23	Hg-Inlet-R3-Water Rinse 02/08/23		
	Hg liquid			

Company:	Primary Energy	**Run:**	1
Plant:	Cokenergy Facility	**Test Date:**	2/2/2023
Unit:	HRSG		
Test Location:	Main Stack		
Method:	Method 5		

X-Factor Isokinetic Sampling Coefficient (based on pre-test data)

$$\textbf{X-Factor} = 846.72 \times (D_n)^4 \times \Delta H_{@I} \times C_p^2 \times (1-B_{ws})^2 \times \frac{(M_d \times T_m \times P_s)}{(M_s \times T_s \times (P_{bar} + (\Delta H_{@I}/13.6)))} \times Ts/Tm$$

Where:

T_s = Temperature of effluent gas (°R)
T_m = Average dry test meter temperature (°R)
D_n = Nozzle Diameter (in.)
$\Delta H_{@I}$ = Orifice pressure drop corresponding to 0.75 cfm meter flow rate (in. H_20)
C_p = Pitot Tube Coefficient (dimensionless)
B_{ws} = Effluent gas fractional moisture content (dimensionless)
M_d = Dry molecular weight of exhaust (lb/lb-mole)
M_s = Molecular weight of exhaust, wet basis (lb/lb-mole)
P_s = Absolute flue gas pressure ("Hg)
P_{bar} = Ambient barometric pressure at sample elevation ("Hg)

D_n =	0.201	in.	P_s =	29.25	in. Hg abs.
$\Delta H_{@I}$ =	1.74	in. H_20	M_s =	27.86	lb/lb-mole
C_p =	0.84	(dimensionless)	T_s =	733	°R
M_d =	29.44	lb/lb-mole	P_{bar} =	29.35	in. Hg
T_m =	520	°R	B_{ws} =	0.138	(dimensionless)

X-Factor = 1.318

Dry Molecular Weight

$$M_d = 0.44 \times (\%CO_2) + 0.32 \times (\%O_2) + 0.28 \times \%N_2$$

Where:

M_d = Effluent gas molecular weight (lb/lb-mole, dry basis)
$\%CO_2$ = Effluent gas Carbon Dioxide Content (% volume, dry basis)
$\%O_2$ = Effluent gas Oxygen Content (% volume, dry basis)
$\%N_2$ = Effluent gas Nitrogen Dioxide Content (% volume, dry basis)

$\%CO_2$ =	6.52	%vol dry	$\%N_2$ =	81.76	%vol dry
$\%O_2$ =	11.72	%vol dry			

M_d = 29.51 lb/lb-mole

Wet Molecular Weight

$$M_s = M_d \times (1-B_{ws}) + (18.015 \times B_{ws})$$

Where:

M_s = Effluent gas molecular weight (lb/lb-mole, wet basis)
B_{ws} = Effluent gas fractional moisture content (dimensionless)

M_d =	29.51	lb/lb-mole	*Bws* =	0.143

M_s = 27.86 lb/lb-mole

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Company:	Primary Energy	**Run:**	1
Plant:	Cokenergy Facility	**Test Date:**	2/2/2023
Unit:	HRSG		
Test Location:	Main Stack		
Method:	Method 5		

Effluent Gas Pressure

$$P_s = P_{bar} + (P_g/13.6)$$

Where:

P_s = flue gas pressure ("Hg)

P_{bar} = Ambient barometric pressure at sample elevation ("Hg)

P_g = Flue gas gauge pressure ("H_2O)

P_{bar} = 29.25 "Hg P_g = -1.40 "H_2O

P_s = 29.15 "Hg

Average Meter Temperature

$$T_m = \frac{\sum_{I=1}^{n} (T_{mini} + T_{mouti})/2}{n}$$

Where:

T_m = Average dry test meter temperature (°R)

T_{min} = Temperature of gas entering dry test meter (°R)

T_{mout} = Temperature of gas leaving dry test meter (°R)

Avg T_{min} = 517.4 °R Avg T_{mout} = 510.0 °R

T_m = 513.7 °R

ΔH at Sample Point - Example Point 1-1

$$\Delta H_i = \text{X-Factor} \times \Delta Pi \times Tmi/Tsi$$

Where:

ΔH_i = Pressure differential across calibrated orifice at point *i* ("H_2O)

ΔP_i = Velocity head across pitot at point *i* ("H_2O)

Ts = Temperature of effluent gas (°R)

X-Factor = 1.288 ΔPi = 1.70 "H_2O

Tmi = 509.2 °R Tsi = 734.7 °R

ΔH_i = 1.52 "H_2O

Sample Volume at Standard Conditions

$$V_{m(std)} = (T_{std}/29.92) \times Y \times V_m \times (P_{bar} + \Delta H/13.6)/T_m$$

Where:

$V_{m(std)}$ = Sample volume collected corrected to 29.92 inHg and 527.67°R (ft³, dry basis)

Y = Dry test meter calibration coefficient (dimensionless)

V_m = Sample volume collected at actual conditions (ft^3, dry basis)

T_{std} = Standard Temperature 527.67(°R)

ΔH = Average pressure differential across calibrated orifice ("H_20)

Y = 1.012 V_m = 161.717 cf

P_{bar} = 29.25 "Hg ΔH = 1.47 "H_2O

T_m = 513.7 °R T_{std} = 527.67 °R

$V_{m(std)}$ = 164.961 dscf

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Company:	Primary Energy	**Run:**	1
Plant:	Cokenergy Facility	**Test Date:**	2/2/2023
Unit:	HRSG		
Test Location:	Main Stack		
Method:	Method 5		

Volume of Water Vapor Condensed

$V_{wc(std)}$ = 0.04716 x (Tstd / 527.67) x MH2O

Where:

Vwc(std) = Volume of water vapor collected at 29.92 inHg and 527.67oR (ft3)

M_{H2O} = Net weight gain of impingers (grams)

M_{H2O} = 586.0 grams

$V_{wc(std)}$ = 27.636 wscf

Moisture Content

$$B_{ws} = \frac{V_{wc(std)}}{V_{wc(std)} + V_{m(std)}}$$

$V_{wc(std)}$ = 27.636 wscf $V_{m(std)}$ = 164.961 dscf

B_{ws} = 0.143

Average Duct Velocity

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

Where:

V_s = Average velocity of effluent gas (ft/sec)

C_p = Pitot calibration coefficient (dimensionless)

Sqrt ΔP (avg) = Average of the square roots of DP's at all traverse points

C_p = 0.840 Sqrt ΔP (avg) = 1.237

T_s = 733.1 °R P_s = 29.15 "Hg

M_s = 27.86 lb/lb-mole

V_s = 84.42 ft/sec

Method 2 Volumetric Flow Rate (Actual Basis)

$Q = V_s \times A \times 60$

Where:

Q = Effluent gas volumetric flow rate at actual conditions (ft^3/min)

A = Cross-sectional area of duct at sample location (ft^2)

V_s = 84.42 ft/sec A = 254.469 ft^2

Q = 1,288,884 cfm

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Company:	Primary Energy	**Run:**	1
Plant:	Cokenergy Facility	**Test Date:**	2/2/2023
Unit:	HRSG		
Test Location:	Main Stack		
Method:	Method 5		

Method 2 Volumetric Flow Rate (Standard Basis)

$$Q_{std} = \frac{T_{std} \times Q \times P_s}{T_s \times 29.92}$$

Where:

Q_{std} = Effluent gas volumetric flow rate corrected to 29.92 inHg and 527.67°R (ft³/min)

Q = 1,288,884 cfm P_s = 29.15 "Hg

T_s = 733.1 °R

Q_{std} = 903,762 scfm

Method 2 Volumetric Flow Rate (Standard Dry Basis)

$$Q_{std(dry)} = Q_{std} \times (1 - B_{ws})$$

Where:

$Q_{std(dry)}$ = Effluent gas volumetric flow rate corrected to 29.92 inHg and 527.67°R (ft³/min, dry basis)

Q_{std} = 903,762 scfm *Bws* = 0.143

$Q_{std(dry)}$ = 774,081 dscfm

Isokinetic Variation:

$$I = \frac{0.0945 \times Ts \times Vm(std) \times 527.67}{V_s \times \theta \times A_n \times P_s \times (1\text{-}Bws) \times T_{std}}$$

Where:

I = Percent of isokinetic sampling (dimensionless)

θ = Total sample collection time (min)

A_n = Cross-sectional area of nozzle (ft²)

T_s = 733.1 °R $V_{m(std)}$ = 164.961 dscf

V_s = 84.417 ft/sec θ = 240.0 min

P_s = 29.15 "Hg A_n = 0.000220 ft² B_{ws} = 0.143

I = 102.5 %

PM Concentration - example for filterable only:

$$C_s = \frac{m_n \times 0.01543}{V_{m(std)}}$$

Where:

C_s = Particulate matter concentration (grains/dry standard ft³)

m_n = Net mass of particulate matter collected (mg)

m_n = 6.91 mg $V_{m(std)}$ = 164.961 dscf

C_s = 0.00065 gr/dscf

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Company:	Primary Energy	**Run:**	1
Plant:	Cokenergy Facility	**Test Date:**	2/2/2023
Unit:	HRSG		
Test Location:	Main Stack		
Method:	Method 5		

Sample Volume at Standard Conditions (Metric)

$$V_{m(std)(metric)} = (T_{std}/29.92) \times Y \times V_m \times (P_{bar} + \Delta H/13.6)/T_m$$

Where:

$V_{m(std)(metric)}$ = Sample volume collected corrected to 29.92 inHg (760 mmHg) and 293.15°K (m^3, dry basis)

Y = Dry test meter calibration coefficient (dimensionless)

V_m = Sample volume collected at actual conditions (m^3, dry basis)

T_{std} = Standard Temperature 293.15°K

Y =	1.012		V_m =	4.579	m^3
P_{bar} =	29.25	"Hg	ΔH =	1.47	"H_2O
T_m =	285.4	°K	T_{std} =	293.15	°K

$V_{m(std)(metric)}$ = 4.671 std. m^3

PM Emission Rate Based on Method 2 Volumetric Flow Rate - example for filterable only:

$$ER_{M2} = \frac{C_s \times Q_{std(dry)} \times 60}{7000}$$

Where:

ER_{M2} = Particulate matter emission rate calculated using Method 2 volumetric flow rate (lb/hr)

7000 = grains per pound

C_s = 0.0006 gr/dscf $Q_{std(dry)}$ = 774,081 dscf/min

ER_{M2} = 4.29 lb/hr

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Example Calculations - Selected Metal Emission Rate

Project Number:	508369	Test Date:	February 2, 2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Run #:	1
Sample Location:	Main Stack	Selected Metal:	Cadmium:

Cadmium: Concentration (µg/dscm)

$$C_s = \frac{M}{V_{m(std)}}$$

Where:

C_s = Concentration of selected metal, µg/dscm
M = Mass collected, microgram, µg
$V_{m(std)}$ = Volume of sample gas in dry standard cubic meters

M = 0.468 µg $V_{m(std)}$ = 4.671 dry std. m^3

C_s = 1.002E-01 µg/dscm

Cadmium: Concentration (lb/dscf):

$$C_d = \frac{\left(\frac{M}{(10^6 \times 453.6)}\right)}{V_{m(std)}}$$

Where:

C_d = Concentration of selected metal, lb/dscf
M = Mass collected, microgram, µg
453.6 = conversion, 453.6 grams to lbs
$V_{m(std)}$ = Volume of sample gas in dry standard cubic feet

$V_{m(std)}$ = 1.650E+02 dscf

C_d = 6.254E-12 lb/dscf

Cadmium: Emission Rate (lb/hr):

$$ER = C_d \times 60 \times Q_{STD(dry)}$$

Where:

ER = Emission Rate of Selected Metal, lb/hr
C_d = Concentration of selected metal, lb/dscf
60 = conversion, 60 minutes/hr
$Q_{std(dry)}$ = Stack gas volumetric flow rate, dry standard cubic feet per minute

C_d = 6.254E-12 lb/dscf $Q_{std(dry)}$ = 774,081 ft^3/min

ER = 2.905E-04 lb/hr

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Method 18 Example Calculations - Selected Organic Compound

Project Number:	508369	Test Date:	2/2/2023
Company Name:	Primary Energy	Test Condition:	Normal
Plant Name:	Cokenergy Facility	Run #:	1
Unit/Location:	HRSG Main Stack	Selected Compound:	Benzene

Meter Volume at Standard Conditions (Unspiked Train)

$$V_{m(std)} = \frac{528}{29.92} \times Vm \times Y \times \frac{P_{bar} + (\Delta H/13.6)}{(460+T_m)}$$

where:

V_m = Meter volume, actual, Liters

$V_{m(std)}$ = Meter volume at standard conditions (Liters)

528/29.92 = Conversion Factor to standard conditions 68°F (528°R), 1 atmosphere (29.92 inches Hg)

Y = Dry gas meter calibration factor

P_{bar} = Barometric pressure (inches Hg)

ΔH = Average meter pressure (inches H_2O)

T_m = Meter temperature (°F)

13.6 = Specific Gravity of Mercury (gr/ml)

460 = Conversion to degrees Rankin

Y =	1.012	unitless	V_m =	30.00	Liters
ΔH =	0.40	inches H_2O	T_m =	50.8	°F
P_{bar} =	29.25	inches Hg			

Vm(std) = 30.708 Liters, standard conditions

Standard cubic meters = Standard Liters x 0.001

Vm(std) = 0.0307 M^3, standard conditions

Standard Ft^3= Standard Liters x 0.035315

Vm(std) = 1.0845 Ft^3, standard conditions

Benzene — Concentration (lb/dscf and µg/dscm):

$$Co = \frac{M}{V_{m(std)}}$$

Where:

$V_{m(std)}$ = Volume of total sample gas in dry standard cubic meters (dscm), or dry standard cubic feet (dscf)

M = Mass collected, Total, micrograms, (µg) or pounds, (lb)

C_o = Concentration of selected compound, ng/dscm, or lb/dscf

µg = 2.204623E-09 lb

Liter = 0.035315 ft^3

Liter = 0.001 m^3

M, Total	< 1.94	µg	$V_{m(std)}$ =	30.71	Liters
			$V_{m(std)}$ =	1.0845	ft^3
M, Total	4.277E-09	lb	$V_{m(std)}$ =	0.03071	m^3

C_o = 3.944E-09 lb/dscf

C_o = < 63.17 µg/dscm

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Method 18 Example Calculations - Selected Organic Compound

Project Number:	508369	Test Date:	2/2/2023
Company Name:	Primary Energy	Test Condition:	Normal
Plant Name:	Cokenergy Facility	Run #:	1
Unit/Location:	HRSG Main Stack	Selected Compound:	Benzene

Benzene **Concentration (ppmvd, ppbvd):**

$$C_{ppmvd} = C_O \times \frac{385.32 \times 10^6}{MW} \qquad C_{ppbvd} = C_O \times \frac{385.32 \times 10^9}{MW}$$

Where:

C_{ppmvd} = Concentration of selected compound, parts per million by volume, dry

C_o = Concentration of selected compound, lb/dscf

MW = Molecular Weight of Benzene

385.32×10^6 = SCF/lb-mole x 1×10^6 ppm (20°C, 1 atmosphere)

C_o = 3.944E-09 lb/dscf MW= 78.11 lb/lb-mole

C_{ppmvd} = < 1.946E-02 ppmvd

Benzene **Emission Rate (lb/hr):**

$$ER = Co \times Qstd_{(dry)} \times 60$$

Where:

ER = Emission Rate of Selected Compound, lb/hr

C_o = Concentration of Selected Compound, lb/dscf

$Q_{std(dry)}$ = Stack gas volumetric flow rate, dry standard cubic feet per minute (dscfm)

60 minutes = 1 hour

C_o = 3.944E-09 lb/dscf $Q_{std(dry)}$ = 774,081 dscfm

ER = < 1.832E-01 lb/hr

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Example Calculations - OTM-46

Project Number:	508369	Test Date:	February 2, 2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Run #:	1
Sample Location:	Main Stack	Selected Analyte:	1,2,3,4,6,7,8-HpCDD

1,2,3,4,6,7,8-HpCDD Concentration (ug/dscm)

$$C_o = \frac{M}{Vm(std) x\ 105}$$

Where:

C_o = Concentration of selected analyte
M = Mass collected, picogram, pg
Vm(std) = Volume of sample gas in dry standard cubic meters

M = 42.10 pg Vm(std) = 4.477 dscm

C_o = 9.403E-06 ug/dscm

1,2,3,4,6,7,8-HpCDD Emission Rate (lb/dscf):

$$C_o = \frac{\left(\frac{M}{(10^{11} \times 453.6)}\right)}{V_{m(std)}}$$

Where:

C_o = Concentration of selected analyte, lb/dscf
M = Mass collected, picogram, pg
453.6 = conversion, 453.6 grams to lbs
Vm(std) = Volume of sample gas in dry standard cubic feet

Vm(std) = 158.111 dscf

C_o = 5.870E-16 lb/dscf

1,2,3,4,6,7,8-HpCDD Emission Rate (lb/hr):

$$ER = C_o \times 60 \times Q_{STD\ (dry)}$$

Where:

ER = Emission Rate of selected analyte, lb/hr
C_o = Concentration of selected analyte, lb/dscf
60 = conversion, 60 minutes/hr
Qstd(dry) = Stack gas volumetric flow rate, dry standard cubic feet per minute

C_o = 5.870E-16 lb/dscf Qstd(dry) = 784,926 ft^3/min

ER = 2.765E-08 lb/hr

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Example Calculations - Effluent Gas Concentration Determination

Project Number:	508369	Test Date:	February 2, 2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Run #:	1
Sample Location:	Main Stack		

$$C_{gas} = (C - C_0) \times \frac{C_{ma}}{C_m - C_0}$$

Where:

C_{gas} = Effluent gas concentration (ppm or %vol)

C = Average gas concentration indicated by analyzer (ppm or %vol)

C_0 = Average of pre- and post-test system bias checks using low range gas (ppm or % vol)

C_m = Average of pre- and post-test system bias checks using upscale gas (ppm or % vol)

C_{ma} = Actual concentration of upscale gas (ppm or % vol)

NO_X	C =	35.91 ppm	C_0 =	0.00 ppm
	C_m =	45.30 ppm	C_{ma} =	45.91 ppm
	C_{NOX} =	**36.39 ppm**		
CO	C =	1.61 ppm	C_0 =	0.06 ppm
	C_m =	43.94 ppm	C_{ma} =	44.91 ppm
	C_{CO} =	**1.59 ppm**		
CO_2	C =	6.27 %vol	C_0 =	0.03 %vol
	C_m =	8.98 %vol	C_{ma} =	9.076 %vol
	C_{CO2} =	**6.33 %vol**		
O_2	C =	11.58 %vol	C_0 =	0.04 %vol
	C_m =	9.93 %vol	C_{ma} =	10.03 %vol
	C_{O2} =	**11.70 %vol**		

Note: Interim results are not rounded.

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Example Calculations - Pollutant Emission Rate, Volumetric Flow Rate-Based

Project Number:	508369	Test Date:	February 2, 2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Run #:	1

ER = Cgas x C_f x Flow x 60

Where:

ER = Pollutant emission rate (lb/hr)

C_{gas} = Pollutant concentration (ppm, wet or dry basis, but the same as flow)

MW = Pollutant molecular weight (gr/gr-mole)

Flow = Volumetric flow rate (cubic feet per minute wet or dry, but the same as C_{gas})

C_f = Conversion factor (ppm to lb/scf)

1.194E-07 = Conversion constant for NOx. From Table 19-1 of Method 19, 40CFR, Appendix A

1.660E-07 = Conversion constant for SO2. From Table 19-1 of Method 19, 40CFR, Appendix A

7.269E-08 = Conversion constant for CO. Derived based on Table 19-1 of Method 19, 40CFR60, App. A

For NOx

ER = C_{gas} x 1.194E-07 x Flow x 60

C_{gas} = 36.39 ppmvd

Flow = 774,081 DSCFM

ER_{NOX} = 201.82 lb/hr

SO2 CEMS

ER = C_{gas} x 1.660E-07 x Flow x 60

C_{gas} = 200.3 ppmvd

Flow = 774,081 DSCFM

ER_{SO2} = 1544.3 lb/hr

For CO

ER = C_{gas} x 7.269E-08 x Flow x 60

C_{gas} = 1.59 ppmvd

Flow = 774,081 DSCFM

ER_{CO} = 5.36 lb/hr

Note: Interim results are not rounded.

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Concentration and Emission Rate Example Calculations

Company	Primary Energy
Plant	Cokenergy Facility
Unit	HRSG
Sample Location	Main Stack
Project #	508369
Data Source	Emission Table
Test Date	2/6/2023
Test Run Number	1

Conversion to Dry Basis

Hydrogen Chloride HCl	ppmvw	17.35
Water H2O	Moisture Fraction	0.145

Equation $$Concentration\ (ppmvd) = Concentration\ (ppmvw) \times \frac{1}{(1 - \%\ H_2O)}$$

Hydrogen Chloride HCl	**ppmvd**	**20.29**

lb/hr Emission Rate

Hydrogen Chloride HCl	ppmvd	20.29
Molecular Weight	lb/lb-mole MW	36.46
Stack Flow Method 29	Dry Standard Cubic Feet per Minute	761,506

Equation $$Emission\ Rate\ \left(\frac{lb}{hr}\right) = Concentration(ppmvd) \times Molecular\ Weight\left(\frac{g}{mole}\right) \times Flow\ Rate\ (dscfm) \times 60\ min/hr \times \frac{1}{3.853x10^8}$$

Hydrogen Chloride HCl	**lb/hr**	**87.75**

Correction to Oxygen Basis

Hydrogen Chloride HCl	ppmvd	20.29
O2 Method 3A	Percent, Dry Basis	12.36
O2 Basis for Correction	Percent, Dry Basis	7.00

Equation $$ppmvd\ @\ X\ \%\ O_2 = ppmvd \times \frac{(20.9 - Standard\ O_2\ (\%, Dry)}{(20.9 - Measured\ O_2\ (\%, Dry)}$$

Hydrogen Chloride HCl	ppmvd @ 7% O2	**33.0**

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	1
Location:	Main Stack	Test Date(s):	2/2/2023

Console Operator:	G. Rock		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.25	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.15	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	687.5	850.8
2	.1N HNO3/H2O2	794.1	981.2
3	.1N HNO3/H2O2	730.6	860.0
4	Empty	668.3	711.4
5	KMnO4	787.3	809.8
6	KMnO4	760.0	767.4
7	Silica	746.1	779.3
		Net grams (M_{H20}):	586.0

Leak Checks		
Pre-Test Train Leak Check:	0.003	CFM @ 11 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.003	CFM @ 8 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	559	
Tare Weight:	0.3768	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.52	%vol dry
% O_2 :	11.72	%vol dry
% Nitrogen + % CO :	81.76	%vol dry
M_d - dry basis :	29.512	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/2/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.288
Unit:	HRSG	**Run #:**	1	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	9:45:00	213.363	1.70	275	47	45	1.60	4.0
1-1	9:55:00	220.550	1.70	275	54	45	1.60	4.0
1-2	10:05:00	227.520	1.70	275	56	46	1.60	4.0
1-2	10:15:00	234.510	1.70	275	56	47	1.60	4.0
1-3	10:25:00	241.670	1.50	274	56	47	1.40	4.0
1-3	10:35:00	248.300	1.40	274	58	48	1.30	4.0
	10:45:00	254.724						
2-1	10:50:00	254.961	1.70	274	55	49	1.60	4.0
2-1	11:00:00	261.770	1.70	275	59	50	1.60	4.0
	11:10:00	268.595						
2-2	11:40:00	268.595	1.70	274	53	49	1.60	4.0
2-2	11:50:00	275.560	1.60	274	57	49	1.50	4.0
2-3	12:00:00	282.300	1.60	274	59	50	1.50	4.0
2-3	12:10:00	288.970	1.60	274	60	51	1.50	4.0
	12:20:00	295.743						
3-1	13:00:00	296.078	1.50	274	52	51	1.50	4.0
3-1	13:10:00	302.850	1.40	273	59	51	1.40	4.0
3-2	13:20:00	309.540	1.50	273	61	52	1.40	4.0
3-2	13:30:00	316.140	1.50	272	62	53	1.40	4.0
3-3	13:40:00	322.760	1.40	272	61	53	1.40	4.0
3-3	13:50:00	329.300	1.40	272	62	53	1.40	4.0
	14:00:00	335.973						
4-1	14:25:00	336.156	1.40	272	54	53	1.40	4.0
4-1	14:35:00	342.700	1.40	272	60	53	1.40	4.0
4-2	14:45:00	349.300	1.50	272	61	53	1.40	4.0
4-2	14:55:00	355.850	1.40	272	61	53	1.40	4.0
4-3	15:05:00	362.360	1.40	272	61	53	1.40	4.0
4-3	15:15:00	369.140	1.40	273	61	53	1.40	4.0
	15:25:00	375.835						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	9:45	161.717	1.53	273.4	57.7	50.3	1.471	4
End	15:25		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.24	733.1	513.7			
Comments/Notes:								

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Revised 11/22/21

Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	2
Location:	Main Stack	Test Date(s):	2/4/2023

Console Operator:	G. Rock		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	688.4	840.2
2	.1N HNO3/H2O2	800.0	988.9
3	.1N HNO3/H2O2	727.5	832.6
4	Empty	671.1	723.2
5	KMnO4	788.1	813.9
6	KMnO4	764.0	778.0
7	Silica	752.7	785.3
		Net grams (M_{H20}):	570.3

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 8 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.001	CFM @ 7 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	560	
Tare Weight:	0.3747	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.16	%vol dry
% O_2 :	11.88	%vol dry
% Nitrogen + % CO :	81.96	%vol dry
M_d - dry basis :	29.461	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/4/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.305
Unit:	HRSG	**Run #:**	2	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:40:00	376.346	1.30	273	43	41	1.20	3.0
1-1	8:50:00	382.420	1.40	275	51	42	1.40	3.0
1-2	9:00:00	388.880	1.40	274	54	43	1.40	3.0
1-2	9:10:00	395.300	1.40	275	56	45	1.40	3.0
1-3	9:20:00	401.625	1.40	274	56	46	1.40	3.0
1-3	9:30:00	408.140	1.30	274	56	47	1.30	3.0
	9:40:00	414.396						
2-1	9:47:00	414.567	1.40	274	53	48	1.40	3.0
2-1	9:57:00	420.840	1.40	274	57	48	1.40	3.0
2-2	10:07:00	427.115	1.40	274	58	49	1.40	3.0
2-2	10:17:00	433.590	1.40	274	59	50	1.40	3.0
2-3	10:27:00	440.100	1.40	274	60	50	1.40	3.0
2-3	10:37:00	446.600	1.30	274	60	51	1.20	3.0
	10:47:00	452.843						
3-1	10:54:00	453.011	1.60	274	55	51	1.50	3.0
3-1	11:04:00	459.720	1.50	274	58	52	1.40	3.0
3-2	11:14:00	466.310	1.40	274	58	51	1.30	3.0
3-2	11:24:00	472.700	1.60	274	58	51	1.50	3.0
3-3	11:34:00	479.360	1.40	274	58	51	1.30	3.0
3-3	11:44:00	485.675	1.50	274	58	51	1.40	3.0
	11:54:00	492.225						
4-1	11:57:00	492.225	1.50	274	56	51	1.40	3.0
4-1	12:07:00	498.750	1.60	274	58	51	1.40	3.0
4-2	12:17:00	505.220	1.50	274	58	51	1.40	3.0
4-2	12:27:00	511.650	1.50	274	58	51	1.40	3.0
4-3	12:37:00	517.360	1.50	274	58	51	1.40	3.0
4-3	12:47:00	523.685	1.40	274	58	51	1.40	3.0
	12:57:00	530.616						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:40	153.931	1.44	274.0	56.4	48.9	1.379	3
End	12:57		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.20	733.7	512.3			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	3
Location:	Main Stack	Test Date(s):	2/5/2023

Console Operator:	A. Sakellariou		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	689.6	852.9
2	.1N HNO3/H2O2	799.7	945.0
3	.1N HNO3/H2O2	726.9	838.6
4	Empty	670.2	714.6
5	KMnO4	786.9	815.9
6	KMnO4	763.0	775.2
7	Silica	746.3	777.7
		Net grams (M_{H20}):	537.3

Leak Checks		
Pre-Test Train Leak Check:	0.000	CFM @ 10 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.000	CFM @ 8 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	622	
Tare Weight:	0.3463	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	5.79	%vol dry
% O_2 :	12.47	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.425	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/5/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.305
Unit:	HRSG	**Run #:**	3	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:10:00	32.046	1.40	272	58	56	1.20	3.0
1-1	8:20:00	38.800	1.40	274	60	56	1.20	3.0
1-2	8:30:00	45.420	1.40	273	61	55	1.20	3.0
1-2	8:40:00	51.890	1.40	273	61	55	1.20	3.0
1-3	8:50:00	58.350	1.30	273	61	55	1.20	3.0
1-3	9:00:00	64.480	1.30	273	61	55	1.20	3.0
	9:10:00	70.593						
2-1	9:20:00	70.593	1.50	273	58	54	1.30	3.0
2-1	9:30:00	76.960	1.50	273	60	55	1.30	3.0
2-2	9:40:00	83.170	1.50	273	62	55	1.30	3.0
2-2	9:50:00	89.270	1.50	273	62	55	1.30	3.0
2-3	10:00:00	95.530	1.40	273	62	56	1.20	3.0
2-3	10:10:00	101.520	1.40	273	63	56	1.20	3.0
	10:20:00	107.480						
3-1	10:30:00	107.480	1.60	273	58	56	1.50	4.0
3-1	10:40:00	114.130	1.60	272	62	56	1.50	4.0
3-2	10:50:00	121.310	1.60	273	63	56	1.50	4.0
3-2	11:00:00	128.750	1.60	272	64	57	1.50	4.0
3-3	11:10:00	135.270	1.50	272	65	57	1.40	4.0
3-3	11:20:00	142.050	1.50	272	65	58	1.40	4.0
	11:30:00	148.839						
4-1	11:40:00	148.839	1.50	272	62	58	1.40	4.0
4-1	11:50:00	155.550	1.50	272	65	58	1.40	4.0
4-2	12:00:00	162.180	1.50	272	66	59	1.40	4.0
4-2	12:10:00	169.950	1.50	272	67	60	1.40	4.0
4-3	12:20:00	175.480	1.40	272	68	60	1.30	4.0
4-3	12:30:00	181.950	1.40	272	68	60	1.30	4.0
	12:40:00	188.479						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:10	156.433	1.47	272.6	62.6	56.6	1.325	4
End	12:40		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.21	732.3	519.3			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	4
Location:	Main Stack	Test Date(s):	2/6/2023

Console Operator:	A. Sakellariou		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	688.8	861.9
2	.1N HNO3/H2O2	794.8	982.3
3	.1N HNO3/H2O2	731.2	847.5
4	Empty	669.5	707.0
5	KMnO4	789.0	806.6
6	KMnO4	765.0	772.8
7	Silica	748.2	775.2
		Net grams (M_{H20}):	566.8

Leak Checks			
Pre-Test Train Leak Check:	0.000	CFM @ 8	"Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)	
Post-Test Train Leak Rate:	0.000	CFM @ 6	"Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)	
Pump/Orifice Leak Check:	Pass	(Pass or Fail)	
Filter/Thimble ID:	615		
Tare Weight:	0.3464	grams	

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	5.90	%vol dry
% O_2 :	12.36	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.438	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/6/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.318
Unit:	HRSG	**Run #:**	4	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:50:00	690.558	1.40	274	45	44	1.30	3.0
1-1	9:00:00	697.080	1.40	274	56	46	1.30	3.0
1-2	9:10:00	703.490	1.40	274	58	47	1.30	3.0
1-2	9:20:00	709.810	1.40	274	56	48	1.30	3.0
1-3	9:30:00	716.350	1.30	274	56	48	1.20	3.0
1-3	9:40:00	722.480	1.30	273	56	49	1.20	3.0
	9:50:00	728.548						
2-1	10:00:00	728.548	1.50	272	53	49	1.40	4.0
2-1	10:10:00	735.180	1.50	272	57	50	1.40	4.0
2-2	10:20:00	741.910	1.50	272	58	51	1.40	4.0
2-2	10:30:00	748.870	1.50	272	60	51	1.40	4.0
2-3	10:40:00	755.890	1.40	272	61	52	1.30	4.0
2-3	10:50:00	762.550	1.40	272	61	53	1.30	4.0
	11:00:00	769.057						
3-1	11:10:00	769.057	1.60	272	60	54	1.50	4.0
3-1	11:20:00	775.820	1.60	272	63	55	1.50	4.0
3-2	11:30:00	782.810	1.60	272	64	56	1.50	4.0
3-2	11:40:00	789.800	1.60	272	64	56	1.50	4.0
3-3	11:50:00	796.730	1.50	271	65	57	1.40	4.0
3-3	12:00:00	803.420	1.50	271	65	57	1.40	4.0
	12:10:00	809.836						
4-1	12:20:00	809.836	1.50	272	63	58	1.40	4.0
4-1	12:30:00	816.430	1.50	272	65	58	1.40	4.0
4-2	12:40:00	823.050	1.50	273	66	58	1.40	4.0
4-2	12:50:00	829.680	1.50	273	67	59	1.40	4.0
4-3	13:00:00	836.470	1.40	271	68	60	1.30	4.0
4-3	13:10:00	843.250	1.40	271	69	60	1.30	4.0
	13:20:00	849.919						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:50	159.361	1.47	272.4	60.7	53.2	1.367	4
End	13:20		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.21	732.0	516.6			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	5
Location:	Main Stack	Test Date(s):	2/7/2023

Console Operator:	A. Sakellariou		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	28.95	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	28.85	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	688.8	895.8
2	.1N HNO3/H2O2	793.3	985.2
3	.1N HNO3/H2O2	732.1	819.4
4	Empty	670.1	709.9
5	KMnO4	787.5	805.8
6	KMnO4	767.6	775.1
7	Silica	764.1	790.3
		Net grams (M_{H20}):	578.0

Leak Checks

Pre-Test Train Leak Check:	0.000	CFM @ 10	"Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)	
Post-Test Train Leak Rate:	0.000	CFM @ 6	"Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)	
Pump/Orifice Leak Check:	Pass	(Pass or Fail)	
Filter/Thimble ID:	616		
Tare Weight:	0.3436	grams	

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.12	%vol dry
% O_2 :	11.82	%vol dry
% Nitrogen + % CO :	82.06	%vol dry
M_d - dry basis :	29.452	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/7/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.318
Unit:	HRSG	**Run #:**	5	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:05:00	852.244	1.50	276	69	67	1.40	3.0
1-1	8:15:00	859.050	1.50	276	75	68	1.40	3.0
1-2	8:25:00	865.590	1.40	276	77	69	1.30	3.0
1-2	8:35:00	872.050	1.40	276	78	70	1.30	3.0
1-3	8:45:00	878.460	1.30	274	79	71	1.30	3.0
1-3	8:55:00	884.820	1.30	274	79	72	1.30	3.0
	9:05:00	890.928						
2-1	9:15:00	890.928	1.50	276	74	72	1.40	3.0
2-1	9:25:00	897.550	1.50	276	76	72	1.40	3.0
2-2	9:35:00	904.180	1.50	276	78	72	1.40	3.0
2-2	9:45:00	910.950	1.50	276	79	72	1.40	3.0
2-3	9:55:00	917.550	1.40	275	80	72	1.40	3.0
2-3	10:05:00	924.300	1.40	275	80	73	1.40	3.0
	10:15:00	930.675						
3-1	10:25:00	930.675	1.60	275	76	73	1.50	3.0
3-1	10:35:00	937.720	1.60	275	80	74	1.50	3.0
3-2	10:45:00	944.560	1.50	275	81	74	1.50	3.0
3-2	10:55:00	951.180	1.50	275	80	74	1.50	3.0
3-3	11:05:00	957.900	1.40	274	79	74	1.40	3.0
3-3	11:15:00	964.470	1.40	274	79	74	1.40	3.0
	11:25:00	971.092						
4-1	11:35:00	971.092	1.60	275	73	72	1.50	3.0
4-1	11:45:00	977.950	1.60	275	76	71	1.50	3.0
4-2	11:55:00	984.820	1.50	274	77	71	1.40	3.0
4-2	12:05:00	991.490	1.50	274	77	71	1.40	3.0
4-3	12:15:00	998.100	1.40	273	76	71	1.30	3.0
4-3	12:25:00	1004.490	1.40	273	76	71	1.30	3.0
	12:35:00	1010.913						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:05	158.669	1.47	274.9	77.3	71.7	1.400	3
End	12:35		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.21	734.6	534.1			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	6
Location:	Main Stack	Test Date(s):	2/8/2023

Console Operator:	A. Sakellariou		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	689.3	932.8
2	.1N HNO3/H2O2	798.5	971.7
3	.1N HNO3/H2O2	727.7	832.4
4	Empty	669.7	698.1
5	KMnO4	785.7	802.9
6	KMnO4	763.5	770.7
7	Silica	753.8	793.0
		Net grams (M_{H20}):	613.4

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 10 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.001	CFM @ 8 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	617	
Tare Weight:	0.3441	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.09	%vol dry
% O_2 :	11.95	%vol dry
% Nitrogen + % CO :	81.96	%vol dry
M_d - dry basis :	29.452	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/8/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.300
Unit:	HRSG	**Run #:**	6	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:10:00	11.243	1.60	275	54	52	1.50	4.0
1-1	8:20:00	18.190	1.60	275	59	53	1.50	4.0
1-2	8:30:00	24.820	1.50	275	61	54	1.40	4.0
1-2	8:40:00	31.450	1.50	276	60	54	1.40	4.0
1-3	8:50:00	38.190	1.40	275	59	54	1.30	3.0
1-3	9:00:00	44.350	1.40	275	59	54	1.30	3.0
	9:10:00	50.547						
2-1	9:20:00	50.547	1.60	274	55	53	1.50	4.0
2-1	9:30:00	57.050	1.60	274	57	53	1.50	4.0
2-2	9:40:00	64.020	1.60	274	58	52	1.50	4.0
2-2	9:50:00	70.100	1.60	274	58	53	1.50	4.0
2-3	10:00:00	77.100	1.50	273	58	52	1.40	4.0
2-3	10:10:00	83.580	1.50	273	58	52	1.40	4.0
	10:20:00	90.020						
3-1	10:30:00	90.020	1.70	273	58	52	1.60	4.0
3-1	10:40:00	97.020	1.70	273	60	52	1.60	4.0
3-2	10:50:00	103.800	1.70	273	63	53	1.60	4.0
3-2	11:00:00	110.590	1.70	273	65	54	1.60	4.0
3-3	11:10:00	117.430	1.50	272	67	56	1.40	4.0
3-3	11:20:00	124.050	1.50	272	68	58	1.40	4.0
	11:30:00	130.784						
4-1	11:40:00	130.784	1.70	273	64	60	1.60	4.0
4-1	11:50:00	137.600	1.70	273	69	60	1.60	4.0
4-2	12:00:00	144.420	1.60	273	70	61	1.50	4.0
4-2	12:10:00	151.950	1.60	273	70	62	1.50	4.0
4-3	12:20:00	157.410	1.50	272	70	63	1.40	4.0
4-3	12:30:00	163.880	1.50	272	70	63	1.40	4.0
	12:40:00	170.277						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:10	159.034	1.58	273.5	62.1	55.4	1.475	4
End	12:40		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.25	733.2	518.4			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	Method 5/29
Unit ID:	HRSG	Test Run #:	7
Location:	Main Stack	Test Date(s):	2/9/2023

Console Operator:	A. Sakellariou		Unit Operating Mode:	Normal	
Console ID:	E31		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.012		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735		F_c Factor:		scf/MMBtu
Pitot Tube ID:	797		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.201	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	28.65	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	28.55	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	690.8	998.0
2	.1N HNO3/H2O2	794.1	1015.7
3	.1N HNO3/H2O2	730.1	794.0
4	Empty	670.3	677.6
5	KMnO4	787.0	792.6
6	KMnO4	763.0	765.8
7	Silica	756.9	787.0
		Net grams (M_{H20}):	638.5

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.003	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	618	
Tare Weight:	0.3432	grams

Gas Molecular Weight Method:

Method 3A, Instrumental		
	% CO_2 :	6.28 %vol dry
	% O_2 :	11.55 %vol dry
	% Nitrogen + % CO :	82.17 %vol dry
	M_d - dry basis :	29.467 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company:	Primary Energy	**Project #:**	508369	**Test Date:**	2/9/2023
Plant:	Cokenergy Facility	**Method(s):**	Method 5/29	**X-Factor:**	1.300
Unit:	HRSG	**Run #:**	7	**Minutes/pt:**	10
Location:	Main Stack				

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)
1-1	8:25:00	170.718	1.70	277	57	55	1.60	4.0
1-1	8:35:00	178.120	1.60	276	61	55	1.50	4.0
1-2	8:45:00	184.680	1.50	276	66	56	1.40	4.0
1-2	8:55:00	191.280	1.50	276	67	58	1.40	4.0
1-3	9:05:00	197.830	1.40	275	67	59	1.30	4.0
1-3	9:15:00	204.300	1.40	275	65	59	1.30	4.0
	9:25:00	210.533						
2-1	9:35:00	210.533	1.60	276	58	57	1.50	4.0
2-1	9:45:00	217.110	1.60	276	61	56	1.50	4.0
2-2	9:55:00	223.380	1.60	275	62	56	1.50	4.0
2-2	10:05:00	230.350	1.60	275	63	56	1.50	4.0
2-3	10:15:00	237.080	1.50	274	66	57	1.40	4.0
2-3	10:25:00	243.580	1.50	274	68	58	1.40	4.0
	10:35:00	250.209						
3-1	10:45:00	250.209	1.70	275	68	61	1.60	4.0
3-1	10:55:00	256.850	1.70	275	72	62	1.60	4.0
3-2	11:05:00	263.750	1.60	274	74	64	1.50	4.0
3-2	11:15:00	270.700	1.60	274	76	66	1.50	4.0
3-3	11:25:00	277.620	1.50	274	76	66	1.40	4.0
3-3	11:35:00	284.430	1.50	274	76	68	1.40	4.0
	11:45:00	291.079						
4-1	11:55:00	291.079	1.60	274	72	68	1.50	4.0
4-1	12:05:00	298.030	1.60	274	75	69	1.50	4.0
4-2	12:15:00	304.960	1.60	274	76	69	1.50	4.0
4-2	12:25:00	311.780	1.60	274	77	69	1.50	4.0
4-3	12:35:00	318.650	1.50	273	77	70	1.40	4.0
4-3	12:45:00	324.800	1.50	273	77	70	1.40	4.0
	12:55:00	331.409						
Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:25	160.691	1.56	274.7	69.0	61.8	1.463	4
End	12:55		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.25	734.4	525.1			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	1
Location:	Main Stack	Test Date(s):	2/2/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.25	in Hg
Stack Static Pressure (P_g):	-1.10	in H2O
Stack Pressure (P_s):	29.17	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	395.9	900.8
2	H2O	720.6	722.7
3	H2O	719.4	722.7
4	Empty	642.8	646.1
5	Silica	750.4	781.0
6			
7	XAD trap	283.8	298.7
		Net grams (M_{H20}):	559.1

Leak Checks		
Pre-Test Train Leak Check:	0.010	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.010	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.52	%vol dry
% O_2 :	11.72	%vol dry
% Nitrogen + % CO :	81.76	%vol dry
M_d - dry basis :	29.512	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 1

Test Date: 2/2/2023
K-Factor: 0.900
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	9:45:00	570.301	1.60	272	45	45	1.45	5.0	255	260	45	45
A-1	9:55:00	576.300	1.60	273	44	44	1.45	5.0	255	261	44	42
A-2	10:05:00	582.200	1.60	273	44	43	1.45	6.0	255	260	44	41
A-2	10:15:00	588.900	1.60	272	44	43	1.45	6.0	256	262	44	40
A-3	10:25:00	595.700	1.50	272	48	43	1.35	6.0	258	261	45	40
A-3	10:35:00	602.200	1.50	272	50	44	1.35	6.0	256	262	45	40
	10:45:00	608.530										
B-1	10:52:00	608.700	1.70	272	49	48	1.50	6.0	249	261	48	48
B-1	11:02:00	615.300	1.70	272	50	48	1.50	6.0	255	263	45	44
	11:12:00	622.008										
B-2	11:40:00	622.008	1.60	272	48	48	1.45	6.0	254	265	48	45
B-2	11:50:00	628.600	1.60	272	50	48	1.45	6.0	256	264	45	42
B-3	12:00:00	635.400	1.50	271	50	48	1.35	6.0	255	264	45	41
B-3	12:10:00	641.700	1.50	271	50	47	1.35	6.0	250	264	50	41
	12:20:00	648.058										
C-1	13:00:00	648.200	1.60	271	52	48	1.45	6.0	257	263	52	48
C-1	13:10:00	654.600	1.60	271	52	48	1.45	6.0	256	264	52	45
C-2	13:20:00	661.100	1.60	270	50	48	1.45	6.0	256	258	51	42
C-2	13:30:00	667.500	1.60	270	53	49	1.45	6.0	258	256	53	41
C-3	13:40:00	674.100	1.50	270	53	50	1.35	6.0	258	253	52	42
C-3	13:50:00	680.600	1.50	269	53	50	1.35	6.0	257	254	52	41
	14:00:00	687.125										
D-1	14:25:00	687.300	1.60	270	51	51	1.45	6.0	256	254	48	45
D-1	14:35:00	693.800	1.60	270	51	49	1.45	6.0	255	256	47	44
D-2	14:45:00	700.500	1.60	270	51	49	1.45	6.0	251	258	47	43
D-2	14:55:00	707.000	1.60	269	52	50	1.45	6.0	252	256	48	41
D-3	15:05:00	713.600	1.40	269	52	50	1.25	5.0	254	255	50	41
D-3	15:15:00	719.800	1.40	269	52	50	1.25	5.0	255	257	50	40
	15:25:00	725.882										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	9:45	155.094	1.57	270.9	49.8	47.5	1.413	6
End	15:25		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.25	730.6	508.3			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	2
Location:	Main Stack	Test Date(s):	2/4/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.00	in H2O
Stack Pressure (P_s):	29.28	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	396.7	905.1
2	H2O	725.3	727.7
3	H2O	719.0	718.6
4	Empty	644.0	645.1
5	Silica	746.4	776.7
6			
7	XAD trap	280.3	296.2
		Net grams (M_{H20}):	557.7

Leak Checks		
Pre-Test Train Leak Check:	0.010	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental		
	% CO_2 :	6.16 %vol dry
	% O_2 :	11.88 %vol dry
	% Nitrogen + % CO :	81.96 %vol dry
	M_d - dry basis :	29.461 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 2

Test Date: 2/4/2023
K-Factor: 0.900
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:40:00	726.100	1.65	272	40	40	1.50	5.0	251	253	40	40
A-1	8:50:00	732.700	1.65	272	40	40	1.50	6.0	252	255	40	42
A-2	9:00:00	739.200	1.60	272	45	42	1.45	6.0	255	257	43	43
A-2	9:10:00	745.700	1.60	272	48	43	1.45	6.0	258	255	43	43
A-3	9:20:00	752.150	1.50	272	48	43	1.35	6.0	259	255	43	44
A-3	9:30:00	758.600	1.50	272	49	44	1.35	6.0	258	255	44	45
	9:40:00	764.957										
B-1	9:47:00	764.957	1.50	272	46	45	1.35	6.0	256	255	41	41
B-1	9:57:00	771.100	1.50	272	49	46	1.35	6.0	258	255	41	43
B-2	10:07:00	777.500	1.50	272	51	46	1.35	7.0	258	255	42	44
B-2	10:17:00	783.800	1.50	272	52	47	1.35	7.0	257	256	42	45
B-3	10:27:00	790.200	1.40	271	53	48	1.25	7.0	256	255	44	46
B-3	10:37:00	796.500	1.40	271	54	48	1.25	7.0	257	255	44	46
	10:47:00	802.723										
C-1	10:54:00	802.723	1.30	271	50	49	1.20	6.0	257	256	44	45
C-1	11:04:00	808.750	1.40	272	48	49	1.25	6.0	257	255	44	45
C-2	11:14:00	814.900	1.40	271	49	47	1.25	6.0	258	256	47	45
C-2	11:24:00	821.000	1.40	271	51	47	1.25	6.0	258	255	45	46
C-3	11:34:00	827.200	1.40	271	50	47	1.25	6.0	258	255	45	47
C-3	11:44:00	833.350	1.40	271	50	48	1.25	6.0	259	255	45	47
	11:54:00	839.507										
D-1	11:57:00	839.507	1.50	272	48	49	1.35	7.0	258	255	47	50
D-1	12:07:00	845.800	1.50	271	50	48	1.35	7.0	258	256	47	51
D-2	12:17:00	852.200	1.50	271	51	48	1.35	7.0	258	255	47	51
D-2	12:27:00	858.400	1.50	271	52	49	1.35	7.0	257	255	48	51
D-3	12:37:00	864.500	1.40	271	51	49	1.25	6.0	258	255	48	52
D-3	12:47:00	870.550	1.40	271	52	49	1.25	6.0	258	255	48	52
	12:57:00	876.595										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:40	150.495	1.48	271.5	49.0	46.3	1.327	7
End	12:57		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.21	731.2	507.3			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	3
Location:	Main Stack	Test Date(s):	2/5/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	28.95	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	28.85	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	396.6	852.0
2	H2O	721.9	722.6
3	H2O	722.3	721.1
4	Empty	644.7	645.3
5	Silica	746.1	779.4
6			
7	XAD trap	281.2	296.8
		Net grams (M_{H20}):	504.4

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	5.79	%vol dry
% O_2 :	12.47	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.425	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 3

Test Date: 2/5/2023
K-Factor: 0.925
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:10:00	877.003	1.50	271	57	57	1.40	5.0	253	256	56	56
A-1	8:20:00	883.500	1.50	271	57	57	1.40	5.0	257	255	54	50
A-2	8:30:00	889.900	1.50	271	54	53	1.40	6.0	258	256	52	49
A-2	8:40:00	896.100	1.50	271	52	52	1.40	6.0	259	255	52	48
A-3	8:50:00	902.400	1.40	271	53	52	1.30	6.0	260	254	53	48
A-3	9:00:00	909.000	1.40	271	53	52	1.30	6.0	260	255	55	48
	9:10:00	914.727										
B-1	9:20:00	914.727	1.60	270	53	52	1.50	7.0	258	255	53	53
B-1	9:30:00	921.300	1.60	270	53	52	1.50	7.0	258	255	53	50
B-2	9:40:00	928.100	1.60	270	54	52	1.50	7.0	259	255	54	50
B-2	9:50:00	934.700	1.50	270	57	53	1.40	6.0	258	256	56	49
B-3	10:00:00	941.100	1.50	270	56	53	1.40	6.0	259	255	58	51
B-3	10:10:00	948.000	1.50	270	58	54	1.40	6.0	259	255	57	51
	10:20:00	955.335										
C-1	10:30:00	955.335	1.40	270	54	53	1.30	6.0	258	255	54	50
C-1	10:40:00	961.400	1.40	270	54	54	1.30	6.0	258	255	51	48
C-2	10:50:00	967.500	1.40	270	56	54	1.30	6.0	259	256	50	46
C-2	11:00:00	973.550	1.40	270	56	54	1.30	6.0	259	255	50	47
C-3	11:10:00	979.600	1.30	269	58	55	1.20	6.0	259	255	53	49
C-3	11:20:00	985.500	1.30	269	59	56	1.20	6.0	258	256	53	49
	11:30:00	991.399										
D-1	11:40:00	991.399	1.50	270	56	56	1.40	7.0	259	256	53	50
D-1	11:50:00	998.100	1.50	270	57	56	1.40	7.0	258	256	53	48
D-2	12:00:00	1004.500	1.50	270	59	56	1.40	7.0	258	256	54	49
D-2	12:10:00	1010.600	1.50	270	60	58	1.40	7.0	259	255	54	51
D-3	12:20:00	1016.700	1.40	269	60	58	1.30	7.0	259	255	56	52
D-3	12:30:00	1022.800	1.40	269	60	58	1.30	7.0	260	254	58	53
	12:40:00	1028.896										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:10	151.893	1.46	270.1	56.1	54.5	1.363	7
End	12:40		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.21	729.8	514.9			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	4
Location:	Main Stack	Test Date(s):	2/6/2023

Console Operator:	D. Wells	Unit Operating Mode:	Normal
Console ID:	E-24	Duct Shape/Area:	Round / 254.47 ft^2
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	Glass	Process/fuel flow rate:	
Nozzle Material:	Glass	Soot blown?	Fuel Type:
Nozzle Diameter (D_n):	0.198 in	Duration:	min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	397.3	871.8
2	H2O	724.1	733.6
3	H2O	722.0	723.6
4	Empty	645.2	646.9
5	Silica	757.0	789.0
6			
7	XAD trap	280.4	295.7
		Net grams (M_{H20}):	534.6

Leak Checks		
Pre-Test Train Leak Check:	0.010	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	5.90	%vol dry
% O_2 :	12.36	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.438	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 4

Test Date: 2/6/2023
K-Factor: 0.920
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:50:00	29.200	1.50	271	41	43	1.40	5.0	256	255	50	50
A-1	9:00:00	35.800	1.50	271	45	44	1.40	6.0	257	256	50	43
A-2	9:10:00	42.000	1.50	271	46	44	1.40	7.0	257	260	52	41
A-2	9:20:00	48.200	1.50	270	47	45	1.40	7.0	258	254	52	41
A-3	9:30:00	54.600	1.40	270	47	45	1.30	7.0	256	255	52	41
A-3	9:40:00	60.800	1.40	270	47	45	1.30	7.0	257	255	52	40
	9:50:00	67.575										
B-1	10:00:00	67.575	1.60	270	46	47	1.45	7.0	256	255	50	45
B-1	10:10:00	73.900	1.60	270	49	48	1.45	7.0	253	254	50	43
B-2	10:20:00	80.300	1.50	270	50	48	1.40	7.0	253	255	51	43
B-2	10:30:00	86.700	1.50	270	52	49	1.40	7.0	254	255	52	44
B-3	10:40:00	93.000	1.40	270	54	50	1.30	7.0	254	254	53	43
B-3	10:50:00	99.100	1.40	270	53	51	1.30	7.0	255	255	53	43
	11:00:00	105.243										
C-1	11:10:00	105.243	1.40	270	51	53	1.30	7.0	253	254	56	48
C-1	11:20:00	111.500	1.40	270	53	52	1.30	7.0	253	254	51	44
C-2	11:30:00	117.600	1.40	270	54	52	1.30	7.0	253	255	50	43
C-2	11:40:00	123.700	1.40	270	56	53	1.30	7.0	254	255	50	43
C-3	11:50:00	129.900	1.30	270	55	53	1.20	6.5	255	255	50	43
C-3	12:00:00	136.100	1.30	270	57	54	1.20	6.5	253	255	50	43
	12:10:00	142.058										
D-1	12:20:00	142.058	1.50	270	54	55	1.40	7.0	253	254	55	49
D-1	12:30:00	148.500	1.50	270	55	55	1.40	7.0	253	254	53	45
D-2	12:40:00	155.000	1.50	270	57	55	1.40	7.0	253	255	51	45
D-2	12:50:00	161.500	1.50	270	59	57	1.40	7.0	256	255	51	44
D-3	13:00:00	167.900	1.40	270	60	58	1.30	7.0	253	254	51	43
D-3	13:10:00	174.100	1.40	270	61	58	1.30	7.0	253	255	51	43
	13:20:00	180.361										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:50	151.161	1.45	270.1	52.0	50.6	1.346	7
End	13:20		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.20	729.8	511.0			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	5
Location:	Main Stack	Test Date(s):	2/7/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	28.95	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	28.85	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	396.9	911.9
2	H2O	721.5	723.6
3	H2O	724.0	724.5
4	Empty	644.5	645.7
5	Silica	760.1	792.6
6			
7	XAD trap	325.7	343.4
		Net grams (M_{H20}):	569.0

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.12	%vol dry
% O_2 :	11.82	%vol dry
% Nitrogen + % CO :	82.06	%vol dry
M_d - dry basis :	29.452	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 5

Test Date: 2/7/2023
K-Factor: 0.950
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:05:00	181.200	1.50	274	68	68	1.45	6.0	253	256	60	60
A-1	8:15:00	187.800	1.50	274	69	68	1.45	6.0	255	261	50	50
A-2	8:25:00	194.200	1.50	273	70	68	1.45	6.0	255	260	50	48
A-2	8:35:00	200.800	1.50	274	73	69	1.45	6.0	256	262	51	47
A-3	8:45:00	207.300	1.40	275	74	70	1.35	6.0	258	261	52	47
A-3	8:55:00	213.800	1.40	274	74	70	1.35	6.0	256	262	52	47
	9:05:00	220.342										
B-1	9:15:00	220.342	1.60	274	71	71	1.50	6.0	253	261	56	52
B-1	9:25:00	226.850	1.60	274	70	69	1.50	6.0	255	263	53	47
B-2	9:35:00	233.500	1.50	274	71	69	1.45	6.0	254	262	54	47
B-2	9:45:00	240.100	1.50	274	73	70	1.45	6.0	254	266	54	46
B-3	9:55:00	246.700	1.40	274	74	71	1.35	6.0	256	264	55	47
B-3	10:05:00	253.200	1.40	274	74	71	1.35	6.0	255	264	55	48
	10:15:00	259.657										
C-1	10:25:00	259.657	1.40	273	72	72	1.35	6.0	257	263	61	52
C-1	10:35:00	266.100	1.40	273	72	71	1.35	6.0	256	264	60	50
C-2	10:45:00	272.300	1.40	273	74	71	1.35	6.0	256	258	59	49
C-2	10:55:00	278.500	1.40	273	74	71	1.35	6.0	258	256	59	49
C-3	11:05:00	284.950	1.30	273	72	71	1.25	5.0	258	253	59	50
C-3	11:15:00	291.200	1.30	273	72	70	1.25	5.0	257	254	59	50
	11:25:00	297.488										
D-1	11:35:00	297.488	1.50	272	69	69	1.45	6.0	254	254	59	55
D-1	11:45:00	304.200	1.50	272	68	68	1.45	6.0	255	256	56	52
D-2	11:55:00	310.400	1.50	272	70	68	1.45	6.0	251	258	55	50
D-2	12:05:00	317.500	1.50	272	72	68	1.45	6.0	252	256	55	49
D-3	12:15:00	324.200	1.40	272	73	68	1.35	6.0	254	255	56	49
D-3	12:25:00	330.600	1.30	271	73	69	1.25	5.0	255	257	56	49
	12:35:00	336.655										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:05	155.455	1.45	273.2	71.8	69.6	1.392	6
End	12:35		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.20	732.9	530.3			
Comments/Notes:								

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Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	6
Location:	Main Stack	Test Date(s):	2/8/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	29.35	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	29.25	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	396.9	931.8
2	H2O	724.1	724.1
3	H2O	721.0	721.4
4	Empty	644.4	646.5
5	Silica	748.6	778.4
6			
7	XAD trap	277.0	293.9
		Net grams (M_{H20}):	584.1

Leak Checks		
Pre-Test Train Leak Check:	0.005	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental		
	% CO_2 :	6.09 %vol dry
	% O_2 :	11.95 %vol dry
	% Nitrogen + % CO :	81.96 %vol dry
	M_d - dry basis :	29.452 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 6

Test Date: 2/8/2023
K-Factor: 0.930
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:10:00	337.000	1.65	272	52	52	1.55	5.0	251	253	51	50
A-1	8:20:00	343.400	1.65	273	50	52	1.55	6.0	252	255	50	46
A-2	8:30:00	350.000	1.60	272	53	52	1.50	6.0	255	255	51	44
A-2	8:40:00	356.600	1.60	273	50	51	1.50	6.0	255	255	53	44
A-3	8:50:00	363.100	1.50	272	50	50	1.40	6.0	255	255	54	45
A-3	9:00:00	369.500	1.50	272	49	49	1.40	6.0	253	255	55	45
	9:10:00	375.900										
B-1	9:20:00	375.900	1.60	272	48	48	1.50	6.0	253	255	55	50
B-1	9:30:00	382.400	1.60	272	48	48	1.50	6.0	254	255	55	47
B-2	9:40:00	388.900	1.60	272	49	48	1.50	6.0	254	255	56	44
B-2	9:50:00	395.400	1.60	272	49	48	1.50	6.0	253	256	56	44
B-3	10:00:00	402.050	1.50	271	49	48	1.40	6.0	253	255	57	45
B-3	10:10:00	408.400	1.50	271	49	47	1.40	6.0	254	255	58	46
	10:20:00	414.767										
C-1	10:30:00	414.767	1.50	271	45	45	1.40	6.0	253	254	54	50
C-1	10:40:00	421.200	1.50	272	52	48	1.40	6.0	254	255	52	47
C-2	10:50:00	427.600	1.50	272	54	49	1.40	6.0	255	256	52	45
C-2	11:00:00	434.000	1.50	272	55	50	1.40	6.0	254	255	51	45
C-3	11:10:00	440.500	1.40	272	59	54	1.30	6.0	254	254	49	45
C-3	11:20:00	446.700	1.40	271	60	55	1.30	6.0	253	255	50	44
	11:30:00	452.891										
D-1	11:40:00	452.891	1.50	272	56	57	1.40	6.0	253	254	56	52
D-1	11:50:00	459.300	1.50	272	58	57	1.40	6.0	253	254	55	49
D-2	12:00:00	465.600	1.50	272	60	58	1.40	6.0	254	255	55	46
D-2	12:10:00	472.000	1.50	272	61	58	1.40	6.0	255	255	54	45
D-3	12:20:00	478.300	1.40	271	60	59	1.30	6.0	253	255	54	45
D-3	12:30:00	484.600	1.40	271	60	59	1.30	6.0	254	254	55	45
	12:40:00	490.983										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:10	153.983	1.52	271.8	53.2	51.8	1.421	6
End	12:40		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.23	731.5	512.1			
Comments/Notes:								

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AM-EMT-15 Rev. 48
Revised 1/17/23

Isokinetic Test Support Data

Company:	Primary Energy	Project#:	508369
Plant:	Cokenergy Facility	Test Method(s):	OTM-46
Unit ID:	HRSG	Test Run #:	7
Location:	Main Stack	Test Date(s):	2/9/2023

Console Operator:	D. Wells		Unit Operating Mode:	Normal	
Console ID:	E-24		Duct Shape/Area:	Round / 254.47	ft^2
Meter Y:	1.001		F_d Factor:		dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826		F_c Factor:		scf/MMBtu
Pitot Tube ID:	916		F_w Factor:		wscf/MMBtu
Cal. coefficient (C_p):	0.84		Fuel heat content:		Btu /
Probe Liner Material:	Glass		Process/fuel flow rate:		
Nozzle Material:	Glass		Soot blown?		Fuel Type:
Nozzle Diameter (D_n):	0.198	in	Duration:		min

Sample collection time		
Total # of points:	12	
Target Sample time/point:	20.0	min
Target run duration:	240.0	min
Barometric Pressure (P_{bar}):	28.65	in Hg
Stack Static Pressure (P_g):	-1.40	in H2O
Stack Pressure (P_s):	28.55	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Knock Out	396.9	964.8
2	H2O	728.4	729.3
3	H2O	719.5	717.4
4	Empty	644.9	647.4
5	Silica	756.3	787.4
6			
7	XAD trap	275.0	291.1
		Net grams (M_{H20}):	616.4

Leak Checks		
Pre-Test Train Leak Check:	0.010	CFM @ 15 "Hg
Pre-Test Pitot Leak Check:	Pass	(Pass or Fail)
Post-Test Train Leak Rate:	0.005	CFM @ 10 "Hg
Post-Test Pitot Leak Check:	Pass	(Pass or Fail)
Pump/Orifice Leak Check:	Pass	(Pass or Fail)
Filter/Thimble ID:	--	
Tare Weight:	--	grams

Gas Molecular Weight Method:

Method 3A, Instrumental

% CO_2 :	6.28	%vol dry
% O_2 :	11.55	%vol dry
% Nitrogen + % CO :	82.17	%vol dry
M_d - dry basis :	29.467	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Isokinetic Test - Processed Traverse Data

Company: Primary Energy
Plant: Cokenergy Facility
Unit: HRSG
Location: Main Stack

Project #: 508369
Method(s): OTM-46
Run #: 7

Test Date: 2/9/2023
K-Factor: 0.930
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume (V_m) ft^3	ΔP ("H_2O)	Stack (Ts) °F	Dry Gas Meter Inlet (T_{min}) °F	Dry Gas Meter Outlet (T_{mout}) °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train XAD Coil °F
A-1	8:25:00	491.302	1.65	275	55	55	1.55	5.0	253	255	55	50
A-1	8:35:00	498.100	1.65	275	55	54	1.55	6.0	254	256	52	47
A-2	8:45:00	504.900	1.60	275	58	56	1.50	6.0	255	256	52	46
A-2	8:55:00	511.700	1.60	275	62	59	1.50	6.0	253	255	52	46
A-3	9:05:00	518.400	1.50	275	59	58	1.40	6.0	256	253	53	46
A-3	9:15:00	525.000	1.50	275	60	58	1.40	6.0	255	252	53	46
	9:25:00	531.494										
B-1	9:35:00	531.494	1.60	274	56	54	1.50	6.0	255	254	57	51
B-1	9:45:00	538.000	1.60	274	54	54	1.50	6.0	253	255	55	49
B-2	9:55:00	544.600	1.60	274	57	54	1.50	6.0	254	255	54	48
B-2	10:05:00	551.250	1.60	274	59	56	1.50	6.0	254	255	54	48
B-3	10:15:00	557.900	1.50	274	63	57	1.40	6.0	255	254	54	48
B-3	10:25:00	564.300	1.50	274	65	58	1.40	6.0	255	254	54	47
	10:35:00	570.985										
C-1	10:45:00	570.985	1.50	274	63	62	1.40	6.0	255	254	58	52
C-1	10:55:00	577.400	1.50	274	65	63	1.40	6.0	255	254	57	48
C-2	11:05:00	584.000	1.50	274	67	63	1.40	6.0	253	255	56	48
C-2	11:15:00	590.400	1.50	274	67	64	1.40	6.0	256	254	55	47
C-3	11:25:00	596.900	1.50	274	68	64	1.40	6.0	255	252	54	46
C-3	11:35:00	603.550	1.40	274	70	64	1.30	6.0	255	253	55	46
	11:45:00	609.834										
D-1	11:55:00	609.834	1.60	273	69	68	1.50	6.0	255	255	58	52
D-1	12:05:00	616.500	1.60	274	69	69	1.50	6.0	256	255	56	48
D-2	12:15:00	623.200	1.50	274	70	68	1.40	6.0	256	253	55	47
D-2	12:25:00	629.850	1.50	274	72	68	1.40	6.0	255	254	55	47
D-3	12:35:00	636.500	1.40	273	72	68	1.30	6.0	255	254	53	46
D-3	12:45:00	643.100	1.40	273	73	69	1.30	6.0	252	251	53	46
	12:55:00	649.413										

Run Times:		V_m, ft^3	Ave. ΔP	T_s, °F	T_m, °F		ΔH	Max. Vac.
Start	8:25	158.111	1.53	274.1	63.7	61.0	1.433	6
End	12:55		Ave. √ΔP	T_s, °R	Ave. T_m, °R			
			1.24	733.8	522.0			
Comments/Notes:								

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AM-EMT-15 Rev. 48
Revised 1/17/23

METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 1A — Unspiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
9:45	0.000	0.4	43	
9:50	2.458	0.4	44	
9:55	5.043	0.4	46	
10:00	7.516	0.4	47	
10:05	10.021	0.4	49	
10:10	12.548	0.4	51	
10:15	15.019	0.4	53	
10:20	17.584	0.4	54	
10:25	20.098	0.4	55	
10:30	22.564	0.4	56	
10:35	25.054	0.4	56	
10:40	27.518	0.4	56	
10:45	30.000			
Average		0.4	50.8	
Total (V_m):	30.000	$V_{m(std)}$ (liters):	30.708	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 1B — Spiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
9:45	0.000	1.2	43	
9:50	2.436	1.2	43	
9:55	5.051	1.2	45	
10:00	7.498	1.2	45	
10:05	10.016	1.2	47	
10:10	12.578	1.2	49	
10:15	15.063	1.2	51	
10:20	17.591	1.2	53	
10:25	20.132	1.2	54	
10:30	22.583	1.2	54	
10:35	25.032	1.2	54	
10:40	27.545	1.2	54	
10:45	30.005			
Average		1.2	49.3	
Total (V_m):	30.005	$V_{m(std)}$ (liters):	30.286	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.94	1.94	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.70	3.70	106.16
o-Xylene	-	< 2.35	2.35	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 2A — Unspiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
11:40	0.000	0.4	53	
11:45	2.569	0.4	53	
11:50	5.109	0.4	54	
11:55	7.518	0.4	55	
12:00	10.009	0.4	57	
12:05	12.513	0.4	59	
12:10	15.036	0.4	60	
12:15	17.518	0.4	62	
12:20	20.005	0.4	63	
12:25	22.518	0.4	63	
12:30	25.035	0.4	63	
12:35	27.533	0.4	64	
12:40	30.003			
Average		0.4	58.8	
Total (V_m):	30.003	$V_{m(std)}$ (liters):	30.238	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 2B — Spiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
11:40	0.000	1.2	52	
11:45	2.641	1.2	52	
11:50	5.035	1.2	53	
11:55	7.523	1.2	54	
12:00	10.039	1.2	55	
12:05	12.521	1.2	57	
12:10	15.033	1.2	58	
12:15	17.564	1.2	59	
12:20	20.063	1.2	60	
12:25	22.505	1.2	60	
12:30	25.091	1.2	61	
12:35	27.551	1.2	62	
12:40	30.005			
Average		1.2	56.9	
Total (V_m):	30.005	$V_{m(std)}$ (liters):	29.842	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.94	1.94	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.70	3.70	106.16
o-Xylene	-	< 2.35	2.35	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 3A — Unspiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
13:00	0.000	0.4	61	
13:05	2.518	0.4	61	
13:10	5.053	0.4	61	
13:15	7.498	0.4	62	
13:20	9.995	0.4	63	
13:25	12.505	0.4	64	
13:30	15.125	0.4	65	
13:35	17.549	0.4	65	
13:40	19.993	0.4	66	
13:45	22.486	0.4	67	
13:50	25.033	0.4	67	
13:55	27.504	0.4	67	
14:00	30.003			
Average		0.4	64.1	
Total (V_m):	30.003	$V_{m(std)}$ (liters):	29.935	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 3B — Spiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
13:00	0.000	1.2	59	
13:05	2.504	1.2	59	
13:10	5.135	1.2	59	
13:15	7.515	1.2	60	
13:20	9.986	1.2	61	
13:25	12.523	1.2	62	
13:30	15.063	1.2	63	
13:35	17.491	1.2	63	
13:40	20.035	1.2	64	
13:45	22.515	1.2	65	
13:50	25.022	1.2	65	
13:55	27.518	1.2	65	
14:00	30.006			
Average		1.2	62.1	
Total (V_m):	30.006	$V_{m(std)}$ (liters):	29.548	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.94	1.94	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.70	3.70	106.16
o-Xylene	-	< 2.35	2.35	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 4A — Unspiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
14:40	0.000	0.4	65	
14:45	2.466	0.4	65	
14:50	4.995	0.4	65	
14:55	7.454	0.4	66	
15:00	10.006	0.4	66	
15:05	12.518	0.4	67	
15:10	15.032	0.4	67	
15:15	17.264	0.4	67	
15:20	20.058	0.4	67	
15:25	22.515	0.4	68	
15:30	25.022	0.4	68	
15:35	27.514	0.4	68	
15:40	30.005			
Average		0.4	66.6	
Total (V_m):	30.005	$V_{m(std)}$ (liters):	29.795	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 4B — Spiked

Date: 2/2/2023

Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
14:40	0.000	1.2	62	
14:45	2.625	1.2	61	
14:50	5.213	1.2	61	
14:55	7.636	1.2	62	
15:00	10.118	1.2	63	
15:05	12.623	1.2	64	
15:10	15.158	1.2	64	
15:15	17.294	1.2	64	
15:20	20.019	1.2	65	
15:25	22.523	1.2	65	
15:30	25.002	1.2	65	
15:35	27.514	1.2	66	
15:40	30.040			
Average		1.2	63.5	
Total (V_m):	30.040	$V_{m(std)}$ (liters):	29.501	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.94	1.94	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.70	3.70	106.16
o-Xylene	-	< 2.35	2.35	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 5A — Unspiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
8:40	0.000	0.4	33	
8:45	2.489	0.4	34	
8:50	5.005	0.4	36	
8:55	7.502	0.4	37	
9:00	10.067	0.4	40	
9:05	12.783	0.4	42	
9:10	15.036	0.4	45	
9:15	17.503	0.4	46	
9:20	20.055	0.4	47	
9:25	22.569	0.4	48	
9:30	25.033	0.4	49	
9:35	27.519	0.4	51	
9:40	30.001			
Average		0.4	42.3	
Total (V_m):	30.001	$V_{m(std)}$ (liters):	31.336	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 5B — Spiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
8:40	0.000	1.2	33	
8:45	2.499	1.2	34	
8:50	5.080	1.2	35	
8:55	7.518	1.2	36	
9:00	10.057	1.2	38	
9:05	12.667	1.2	40	
9:10	15.098	1.2	43	
9:15	17.519	1.2	44	
9:20	20.050	1.2	46	
9:25	22.583	1.2	47	
9:30	25.005	1.2	48	
9:35	27.408	1.2	49	
9:40	30.008			
Average		1.2	41.1	
Total (V_m):	30.008	$V_{m(std)}$ (liters):	30.893	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.98	1.98	78.11
Ethylbenzene	-	< 2.49	2.49	106.17
m/p Xylene	-	< 3.79	3.79	106.16
o-Xylene	-	< 2.40	2.40	106.16
Toluene	-	< 2.32	2.32	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 6A — Unspiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
10:20	0.000	0.4	52	
10:25	2.504	0.4	53	
10:30	5.032	0.4	53	
10:35	7.518	0.4	55	
10:40	10.046	0.4	56	
10:45	12.530	0.4	57	
10:50	15.083	0.4	58	
10:55	17.516	0.4	59	
11:00	20.034	0.4	60	
11:05	22.518	0.4	60	
11:10	25.024	0.4	61	
11:15	27.482	0.4	61	
11:20	30.001			
Average		0.4	57.1	
Total (V_m):	30.001	$V_{m(std)}$ (liters):	30.442	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 6B — Spiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
10:20	0.000	1.2	51	
10:25	2.513	1.2	52	
10:30	5.005	1.2	53	
10:35	7.632	1.2	54	
10:40	9.998	1.2	55	
10:45	12.586	1.2	56	
10:50	15.154	1.2	57	
10:55	17.506	1.2	58	
11:00	20.015	1.2	59	
11:05	22.504	1.2	59	
11:10	25.135	1.2	59	
11:15	27.495	1.2	60	
11:20	30.006			
Average		1.2	56.1	
Total (V_m):	30.006	$V_{m(std)}$ (liters):	29.993	

Leak Check

Pre	0.009	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.95	1.95	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.73	3.73	106.16
o-Xylene	-	< 2.37	2.37	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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METHOD 18

Project Number:	508369	**Unit/Location:**	HRSG Main Stack
Company Name:	Primary Energy	**Test Condition:**	Normal
Plant Name:	Cokenergy Facility	**Recorded By:**	Anthony Sakellariou
Dry Gas Meter ID:	LF-03 Y = 1.012	**Dry Gas Meter ID:**	LF-05 Y = 0.993

Test Run Number: 7A — Unspiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
11:45	0.000	0.4	57	
11:50	2.533	0.4	58	
11:55	5.035	0.4	58	
12:00	7.544	0.4	59	
12:05	10.028	0.4	59	
12:10	12.495	0.4	60	
12:15	15.018	0.4	61	
12:20	17.505	0.4	61	
12:25	19.995	0.4	62	
12:30	22.505	0.4	62	
12:35	25.036	0.4	63	
12:40	27.518	0.4	63	
12:45	30.001			
Average		0.4	60.3	
Total (V_m):	30.001	$V_{m(std)}$ (liters):	30.257	

Leak Check

Pre	0.000	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 7B — Spiked

Date: 2/4/2023

Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Meter Pressure P_m ("H_2O)	Meter Temperature Inlet (°F)	Meter Temperature Outlet (°F)
11:45	0.000	1.2	56	
11:50	2.571	1.2	56	
11:55	5.084	1.2	57	
12:00	7.595	1.2	57	
12:05	10.007	1.2	58	
12:10	12.511	1.2	58	
12:15	15.003	1.2	59	
12:20	17.426	1.2	59	
12:25	20.032	1.2	60	
12:30	22.518	1.2	61	
12:35	25.022	1.2	61	
12:40	27.523	1.2	61	
12:45	30.005			
Average		1.2	58.6	
Total (V_m):	30.005	$V_{m(std)}$ (liters):	29.848	

Leak Check

Pre	0.002	LPM @	5	"H_g

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

* If "<" preceeds a value below, subsequent calculations were conducted using: the detection limit

Method 18 Lab Results

Compound	Tube Mass (µg)	Condensate Mass (µg)	Total Mass (µg)	Molecular Weight lb/lb-mole
Benzene	-	< 1.95	1.95	78.11
Ethylbenzene	-	< 2.45	2.45	106.17
m/p Xylene	-	< 3.73	3.73	106.16
o-Xylene	-	< 2.37	2.37	106.16
Toluene	-	< 2.29	2.29	92.14

Comments:

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Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/2/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	Thermo	42C	42CHL-64403-343
SO_2	-	-	-
CO	Thermo	48C	509110853
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	0	10/29/27	CC313930	0.00	0.00	0.00	Pass
	Mid	45.91	10/09/24	XC030244B	45.55	0.36	0.39	Pass
	High	91.49	06/28/30	EB0064066	91.55	0.06	0.07	Pass
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	0	10/29/27	CC313930	-0.02	0.02	0.02	Pass
	Mid	44.91	10/09/24	XC030244B	44.00	0.91	1.04	Pass
	High	87.82	06/28/30	EB0064066	88.18	0.36	0.41	Pass
CO_2	Low	0	10/29/27	CC313930	-0.01	0.01	0.06	Pass
	Mid	9.076	08/31/29	SG9167200BAL	8.97	0.11	0.61	Pass
	High	17.52	08/28/27	CC487388	17.59	0.07	0.40	Pass
O_2	Low	0	10/29/27	CC313930	0.03	0.03	0.14	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.03	0.00	0.00	Pass
	High	22.02	08/28/27	CC487388	22.06	0.04	0.18	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Start Date:	2/2/2023
Customer:	Primary Energy	End Date:	2/2/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
Load Level/Condition:	Normal	Fc Factor:	-
		Fd Factor:	-

Test Parameter				NO_X	SO_2	CO	CO_2	O_2	Volumetric Flow Rate	Moisture Fraction
Calibration Span, CS (Day 1)				91.49	-	87.82	17.52	22.02		
Calibration Span, CS (Day 2)				-	-	-	-	-		
Run No.	Start Date	First Minute	Last Minute	Run Average Raw Analyzer Responses					DSCFM	Bws
1	2/2/23	9:45	10:44	-	-	-	6.51	11.62	-	-
2	2/2/23	11:40	12:39	35.91	-	1.61	6.27	11.58	774,081	-
3	2/2/23	13:00	13:59	36.02	-	1.50	6.07	11.87	774,081	-
4	2/2/23	14:25	15:24	37.17	-	2.60	6.09	11.94	774,081	-

Actual Concentration of the Upscale Calibration Gas, C_{MA}					
	NO_X	SO_2	CO	CO_2	O_2
C_{MA} (Day 1)	45.91	-	44.91	9.076	10.03
C_{MA} (Day 2)	-	-	-	-	-

System Responses to Zero Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	0.03	0.03	0.08	0.05
2	0.00	0.00	-	-	-0.02	0.14	0.03	0.03	0.05	0.03
3	0.00	0.00	-	-	0.14	0.16	0.03	0.03	0.03	0.05
4	0.00	0.00	-	-	0.16	0.14	0.03	0.03	0.05	0.05

System Responses to Upscale Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	9.04	9.06	9.98	9.93
2	45.05	45.55	-	-	43.81	44.07	9.06	8.89	9.93	9.93
3	45.55	44.72	-	-	44.07	43.93	8.89	8.94	9.93	9.93
4	44.72	45.05	-	-	43.93	44.07	8.94	8.95	9.93	9.95

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Instrumental Reference Method Calibration Data

Project Number:	508369	Start Date:	2/2/2023
Customer:	Primary Energy	End Date:	2/2/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis

NO_X System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (ppm)	Direct Cal Response (ppm)	System Response (ppm)	System Bias (% of span)	System Response (ppm)	System Bias (% of span)	(% of span)
2	Low Level Gas	91.49	0	0.00	0.0	0.00	0.0	0.0
	Upscale Gas	91.49	45.55	45.05	-0.5	45.55	0.0	0.5
3	Low Level Gas	91.49	0	0.00	0.0	0.00	0.0	0.0
	Upscale Gas	91.49	45.55	45.55	0.0	44.72	-0.9	0.9
4	Low Level Gas	91.49	0	0.00	0.0	0.00	0.0	0.0
	Upscale Gas	91.49	45.55	44.72	-0.9	45.05	-0.5	0.4

CO System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (ppm)	Direct Cal Response (ppm)	System Response (ppm)	System Bias (% of span)	System Response (ppm)	System Bias (% of span)	(% of span)
2	Low Level Gas	87.82	-0.02	-0.02	0.0	0.14	0.2	0.2
	Upscale Gas	87.82	44	43.81	-0.2	44.07	0.1	0.3
3	Low Level Gas	87.82	-0.02	0.14	0.2	0.16	0.2	0.0
	Upscale Gas	87.82	44	44.07	0.1	43.93	-0.1	0.2
4	Low Level Gas	87.82	-0.02	0.16	0.2	0.14	0.2	0.0
	Upscale Gas	87.82	44	43.93	-0.1	44.07	0.1	0.2

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Instrumental Reference Method Calibration Data

Project Number:	508369	Start Date:	2/2/2023
Customer:	Primary Energy	End Date:	2/2/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis

CO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (%vol)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	17.52	-0.01	0.03	0.2	0.03	0.2	0.0
	Upscale Gas	17.52	8.97	9.04	0.4	9.06	0.5	0.1
2	Low Level Gas	17.52	-0.01	0.03	0.2	0.03	0.2	0.0
	Upscale Gas	17.52	8.97	9.06	0.5	8.89	-0.5	1.0
3	Low Level Gas	17.52	-0.01	0.03	0.2	0.03	0.2	0.0
	Upscale Gas	17.52	8.97	8.89	-0.5	8.94	-0.2	0.3
4	Low Level Gas	17.52	-0.01	0.03	0.2	0.03	0.2	0.0
	Upscale Gas	17.52	8.97	8.94	-0.2	8.95	-0.1	0.1

O_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (ppm)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	22.02	0.03	0.08	0.2	0.05	0.1	0.1
	Upscale Gas	22.02	10.03	9.98	-0.2	9.93	-0.5	0.2
2	Low Level Gas	22.02	0.03	0.05	0.1	0.03	0.0	0.1
	Upscale Gas	22.02	10.03	9.93	-0.5	9.93	-0.5	0.0
3	Low Level Gas	22.02	0.03	0.03	0.0	0.05	0.1	0.1
	Upscale Gas	22.02	10.03	9.93	-0.5	9.93	-0.5	0.0
4	Low Level Gas	22.02	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	22.02	10.03	9.93	-0.5	9.95	-0.4	0.1

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Primary Energy
Cokenergy
HRSG Main Stack

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry	
2/2/2023 8:06	0.05	-0.02	-0.01	0.03	
2/2/2023 8:07	0.00	-0.02	-0.01	0.03	
2/2/2023 8:08	0.00	-0.07	-0.01	0.03	
2/2/2023 8:09	0.00	-0.08	-0.01	0.03	
2/2/2023 8:10	0.00	-0.01	-0.01	0.03	
2/2/2023 8:11	0.00	-0.02	-0.01	0.03	Initial Linearity
2/2/2023 8:12	0.00	-0.02	-0.01	0.03	
2/2/2023 8:13	0.58	17.88	3.79	0.06	
2/2/2023 8:14	76.13	88.45	9.42	0.00	
2/2/2023 8:15	96.25	90.14	9.24	0.00	
2/2/2023 8:16	94.30	90.13	9.18	0.00	
2/2/2023 8:17	93.55	90.08	9.16	0.00	
2/2/2023 8:18	93.47	90.18	9.16	0.00	
2/2/2023 8:19	93.05	90.11	9.17	0.00	
2/2/2023 8:20	91.47	90.11	9.18	0.00	
2/2/2023 8:21	91.09	90.10	9.19	0.00	
2/2/2023 8:22	91.55	90.16	9.18	0.00	
2/2/2023 8:23	91.55	90.07	9.20	0.00	
2/2/2023 8:24	91.55	90.07	9.19	0.00	
2/2/2023 8:25	91.55	90.13	9.19	0.00	
2/2/2023 8:26	78.05	60.83	14.60	14.11	
2/2/2023 8:27	2.75	0.73	17.99	21.90	
2/2/2023 8:28	0.00	-0.43	17.59	22.03	
2/2/2023 8:29	0.00	-0.44	17.63	22.05	
2/2/2023 8:30	0.00	-0.43	17.59	22.06	
2/2/2023 8:31	3.77	21.30	10.03	4.83	
2/2/2023 8:32	47.43	45.06	9.07	0.04	
2/2/2023 8:33	47.88	45.09	9.10	0.03	
2/2/2023 8:34	47.01	45.19	9.08	0.03	
2/2/2023 8:35	46.55	45.18	9.07	0.03	
2/2/2023 8:36	46.55	45.11	9.07	0.02	
2/2/2023 8:37	46.40	45.16	9.06	0.00	
2/2/2023 8:38	46.05	45.11	9.05	0.00	
2/2/2023 8:39	46.05	45.15	9.06	0.00	
2/2/2023 8:40	44.43	37.53	9.18	4.84	
2/2/2023 8:41	2.92	0.70	8.95	10.03	
2/2/2023 8:42	0.00	-0.43	8.97	10.03	
2/2/2023 8:43	5.34	2.89	6.00	12.99	
2/2/2023 8:44	19.53	1.98	1.64	3.54	
2/2/2023 8:45	0.25	-0.02	0.06	0.10	
2/2/2023 8:46	0.00	-0.01	0.05	0.09	
2/2/2023 8:47	0.00	-0.02	0.03	0.08	Remote calibrations
2/2/2023 8:48	0.00	-0.02	0.03	0.08	Response times
2/2/2023 8:49	0.00	0.11	0.59	0.08	
2/2/2023 8:50	27.95	32.40	8.85	0.05	
2/2/2023 8:51	45.05	44.98	8.95	0.05	
2/2/2023 8:52	45.11	45.20	8.97	0.05	
2/2/2023 8:53	45.05	45.03	9.00	0.05	
2/2/2023 8:54	45.05	44.91	8.30	0.04	
2/2/2023 8:55	19.88	14.19	0.24	0.05	

Primary Energy
Cokenergy
HRSG Main Stack

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry	
2/2/2023 8:56	0.28	0.16	0.06	0.05	
2/2/2023 8:57	0.00	0.07	0.04	0.05	
2/2/2023 8:58	0.00	0.05	0.03	0.05	
2/2/2023 8:59	0.00	0.10	0.03	0.05	
2/2/2023 9:00	0.00	0.09	0.04	0.31	
2/2/2023 9:01	0.00	-0.12	8.65	9.73	
2/2/2023 9:02	27.57	-0.28	8.90	9.95	
2/2/2023 9:03	47.55	-0.23	8.93	9.96	
2/2/2023 9:04	48.05	-0.23	8.95	9.97	NOx Converter check
2/2/2023 9:05	48.05	-0.23	8.95	9.98	
2/2/2023 9:06	48.43	-0.28	8.97	9.98	
2/2/2023 9:07	32.87	-0.25	9.04	9.98	
2/2/2023 9:08	0.42	-0.23	8.52	9.09	
2/2/2023 9:09	0.00	-0.12	0.17	0.14	
2/2/2023 9:10	0.00	0.00	0.07	0.08	
2/2/2023 9:11	0.00	0.01	0.05	0.08	
2/2/2023 9:12	0.00	0.02	0.03	0.06	
2/2/2023 10:49	9.93	0.20	0.07	0.10	Post Calibration Run 1
2/2/2023 10:50	0.00	0.02	0.03	0.07	
2/2/2023 10:51	0.00	0.02	0.03	0.05	
2/2/2023 10:52	0.00	-0.01	0.03	0.05	
2/2/2023 10:53	0.00	0.06	0.73	0.05	
2/2/2023 10:54	22.82	34.77	8.98	0.03	
2/2/2023 10:55	46.05	45.14	9.13	0.03	
2/2/2023 10:56	45.43	45.13	9.13	0.03	
2/2/2023 10:57	45.05	45.14	9.13	0.02	
2/2/2023 10:58	45.05	45.16	9.13	0.03	
2/2/2023 10:59	45.05	45.12	9.14	0.01	
2/2/2023 11:00	45.05	45.10	9.13	0.66	
2/2/2023 11:01	26.15	10.65	9.01	9.82	
2/2/2023 11:02	0.15	-0.24	9.05	9.93	
2/2/2023 11:03	0.00	-0.31	9.06	9.93	
2/2/2023 11:04	0.00	-0.27	5.64	6.24	
2/2/2023 11:05	0.01	0.08	0.05	0.03	
2/2/2023 11:06	0.03	0.27	0.03	0.03	
2/2/2023 11:07	0.00	-0.01	0.02	0.01	Second Linearity for CO
2/2/2023 11:08	2.50	27.21	4.57	0.01	
2/2/2023 11:09	75.68	90.01	9.16	0.00	
2/2/2023 11:10	94.05	88.41	9.17	0.00	
2/2/2023 11:11	92.17	87.98	9.17	-0.01	
2/2/2023 11:12	91.55	87.88	9.18	-0.02	
2/2/2023 11:13	91.13	88.16	9.18	-0.02	
2/2/2023 11:14	91.05	88.24	9.18	-0.03	
2/2/2023 11:15	91.28	88.30	9.18	-0.03	
2/2/2023 11:16	91.55	88.18	9.18	-0.03	
2/2/2023 11:17	91.38	87.83	9.18	-0.03	
2/2/2023 11:18	91.65	88.49	9.18	-0.03	
2/2/2023 11:19	91.52	88.15	9.19	-0.02	
2/2/2023 11:20	88.13	70.87	4.92	0.00	

Primary Energy
Cokenergy
HRSG Main Stack

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry	
2/2/2023 11:21	11.44	2.05	0.05	0.00	
2/2/2023 11:22	0.33	6.31	3.24	0.00	
2/2/2023 11:23	36.96	42.18	9.13	-0.03	
2/2/2023 11:24	45.55	44.00	9.14	-0.03	
2/2/2023 11:25	45.55	43.96	9.14	-0.03	
2/2/2023 11:26	45.55	44.00	9.14	-0.03	
2/2/2023 11:27	45.55	43.98	9.14	-0.03	
2/2/2023 11:28	41.13	34.28	8.49	5.56	
2/2/2023 11:29	17.84	1.69	2.86	4.23	
2/2/2023 11:30	0.25	-0.02	0.08	0.05	
2/2/2023 11:31	0.00	-0.02	0.06	0.03	
2/2/2023 11:32	0.00	-0.02	0.04	0.03	Remote pre-test calibration
2/2/2023 11:33	19.86	25.29	7.66	0.00	
2/2/2023 11:34	45.05	43.81	9.05	0.00	
2/2/2023 11:35	45.05	43.81	9.05	0.00	
2/2/2023 12:44	9.67	1.74	0.08	0.07	Post Calibration Run 2
2/2/2023 12:45	0.27	0.16	0.04	0.05	
2/2/2023 12:46	0.01	0.19	0.03	0.05	
2/2/2023 12:47	0.00	0.14	0.03	0.03	
2/2/2023 12:48	1.25	8.51	3.96	0.02	
2/2/2023 12:49	40.34	42.73	8.92	0.00	
2/2/2023 12:50	45.05	43.95	8.95	0.00	
2/2/2023 12:51					
2/2/2023 12:52	45.55	44.07	8.98	0.00	
2/2/2023 12:53	45.36	44.11	8.98	0.00	
2/2/2023 12:54	35.75	28.06	8.90	6.63	
2/2/2023 12:55	1.01	0.20	8.89	9.90	
2/2/2023 12:56	0.01	-0.10	8.89	9.93	
2/2/2023 12:57	16.44	1.07	6.47	11.56	
2/2/2023 12:58	36.43	1.66	6.13	11.75	

Primary Energy
Cokenergy
HRSG Main Stack

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry	
2/2/2023 14:09	36.51	1.52	5.76	11.57	Post Calibration Run 3
2/2/2023 14:10	17.06	0.37	0.55	0.45	
2/2/2023 14:11	0.21	0.12	0.05	0.06	
2/2/2023 14:12	0.00	0.16	0.03	0.05	
2/2/2023 14:13	0.58	3.59	2.85	0.05	
2/2/2023 14:14	33.04	39.22	8.95	0.02	
2/2/2023 14:15	44.93	43.93	9.00	0.00	
2/2/2023 14:16	44.72	43.93	9.02	0.00	
2/2/2023 14:17	44.78	43.61	8.98	1.69	
2/2/2023 14:18	20.11	7.59	8.92	9.88	
2/2/2023 14:19	0.15	-0.23	8.93	9.92	
2/2/2023 14:20	0.00	-0.23	8.94	9.93	
2/2/2023 14:21	0.63	-0.02	7.88	10.75	
2/2/2023 14:22	29.28	1.48	6.08	11.94	
2/2/2023 14:23	36.05	1.56	6.04	11.98	
2/2/2023 15:57	0.58	0.07	0.07	0.08	Post Calibration Run 4
2/2/2023 15:58	0.00	0.14	0.05	0.05	
2/2/2023 15:59	0.00	0.12	0.03	0.05	
2/2/2023 16:00	0.00	0.14	0.03	0.05	
2/2/2023 16:01	12.09	23.15	7.13	0.04	
2/2/2023 16:02	45.17	43.93	9.00	0.02	
2/2/2023 16:03	45.05	44.07	9.03	0.00	
2/2/2023 16:04	45.05	44.06	9.03	0.00	
2/2/2023 16:05	43.30	32.08	8.96	6.00	
2/2/2023 16:06	5.51	0.51	8.95	9.92	
2/2/2023 16:07	0.00	-0.20	8.95	9.94	
2/2/2023 16:08	0.00	-0.26	8.95	9.95	
2/2/2023 16:09	0.01	-0.16	8.95	9.95	
2/2/2023 16:10	11.52	1.49	6.98	11.27	
2/2/2023 16:11	39.88	3.26	4.46	14.60	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry	
2/2/2023 9:45	7.13	11.51	Point 1
2/2/2023 9:46	7.05	11.50	
2/2/2023 9:47	7.03	11.49	
2/2/2023 9:48	6.99	11.51	
2/2/2023 9:49	6.98	11.52	
2/2/2023 9:50	6.97	11.52	
2/2/2023 9:51	6.96	11.54	
2/2/2023 9:52	6.93	11.56	
2/2/2023 9:53	6.91	11.55	
2/2/2023 9:54	6.84	11.60	
2/2/2023 9:55	6.73	11.63	
2/2/2023 9:56	6.60	11.64	
2/2/2023 9:57	6.53	11.64	
2/2/2023 9:58	6.49	11.64	
2/2/2023 9:59	6.49	11.62	
2/2/2023 10:00	6.48	11.65	
2/2/2023 10:01	6.50	11.63	
2/2/2023 10:02	6.51	11.61	
2/2/2023 10:03	6.49	11.64	
2/2/2023 10:04	6.49	11.62	
2/2/2023 10:05	6.45	11.65	Point 2
2/2/2023 10:06	6.45	11.64	
2/2/2023 10:07	6.44	11.63	
2/2/2023 10:08	6.44	11.62	
2/2/2023 10:09	6.42	11.64	
2/2/2023 10:10	6.37	11.65	
2/2/2023 10:11	6.39	11.64	
2/2/2023 10:12	6.41	11.63	
2/2/2023 10:13	6.41	11.63	
2/2/2023 10:14	6.40	11.63	
2/2/2023 10:15	6.39	11.64	
2/2/2023 10:16	6.39	11.63	
2/2/2023 10:17	6.38	11.63	
2/2/2023 10:18	6.39	11.63	
2/2/2023 10:19	6.39	11.63	
2/2/2023 10:20	6.39	11.63	
2/2/2023 10:21	6.41	11.64	
2/2/2023 10:22	6.39	11.64	
2/2/2023 10:23	6.42	11.63	
2/2/2023 10:24	6.41	11.66	
2/2/2023 10:25	6.42	11.65	Point 3
2/2/2023 10:26	6.42	11.63	
2/2/2023 10:27	6.41	11.62	
2/2/2023 10:28	6.41	11.62	
2/2/2023 10:29	6.40	11.63	
2/2/2023 10:30	6.39	11.61	
2/2/2023 10:31	6.40	11.61	
2/2/2023 10:32	6.39	11.61	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/2/2023 10:33	6.39	11.61
2/2/2023 10:34	6.37	11.61
2/2/2023 10:35	6.38	11.62
2/2/2023 10:36	6.36	11.64
2/2/2023 10:37	6.36	11.65
2/2/2023 10:38	6.35	11.66
2/2/2023 10:39	6.36	11.64
2/2/2023 10:40	6.33	11.68
2/2/2023 10:41	6.33	11.69
2/2/2023 10:42	6.36	11.64
2/2/2023 10:43	6.37	11.62
2/2/2023 10:44	6.36	11.60
Average	**6.51**	**11.62**

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 11:40	34.88	1.56	6.35	11.46
2/2/2023 11:41	35.05	1.57	6.35	11.45
2/2/2023 11:42	35.05	1.52	6.37	11.44
2/2/2023 11:43	35.13	1.57	6.35	11.45
2/2/2023 11:44	35.63	1.74	6.36	11.43
2/2/2023 11:45	35.48	1.86	6.35	11.46
2/2/2023 11:46	35.55	1.66	6.35	11.45
2/2/2023 11:47	35.55	1.66	6.33	11.48
2/2/2023 11:48	35.55	1.66	6.34	11.47
2/2/2023 11:49	35.13	1.73	6.33	11.48
2/2/2023 11:50	35.80	1.80	6.34	11.48
2/2/2023 11:51	35.90	1.66	6.34	11.48
2/2/2023 11:52	35.55	1.65	6.34	11.49
2/2/2023 11:53	35.55	1.57	6.33	11.51
2/2/2023 11:54	35.47	1.56	6.33	11.50
2/2/2023 11:55	35.43	1.63	6.33	11.52
2/2/2023 11:56	35.55	1.57	6.31	11.54
2/2/2023 11:57	35.55	1.60	6.32	11.53
2/2/2023 11:58	35.05	1.61	6.30	11.54
2/2/2023 11:59	35.05	1.57	6.30	11.54
2/2/2023 12:00	35.28	1.52	6.31	11.53
2/2/2023 12:01	35.55	1.45	6.31	11.53
2/2/2023 12:02	35.55	1.56	6.30	11.55
2/2/2023 12:03	35.55	1.66	6.31	11.53
2/2/2023 12:04	35.30	1.49	6.29	11.56
2/2/2023 12:05	35.40	1.53	6.30	11.56
2/2/2023 12:06	35.05	1.57	6.28	11.57
2/2/2023 12:07	34.88	1.66	6.28	11.57
2/2/2023 12:08	34.38	1.70	6.28	11.58
2/2/2023 12:09	34.30	1.70	6.26	11.59
2/2/2023 12:10	34.93	1.66	6.26	11.59
2/2/2023 12:11	35.47	1.59	6.26	11.58
2/2/2023 12:12	35.70	1.86	6.27	11.57
2/2/2023 12:13	35.67	1.61	6.27	11.57
2/2/2023 12:14	35.55	1.52	6.25	11.60
2/2/2023 12:15	35.80	1.54	6.23	11.62
2/2/2023 12:16	36.05	1.48	6.24	11.61
2/2/2023 12:17	36.05	1.45	6.25	11.60
2/2/2023 12:18	36.05	1.45	6.25	11.61
2/2/2023 12:19	36.22	1.63	6.24	11.62
2/2/2023 12:20	36.09	1.73	6.24	11.62
2/2/2023 12:21	36.36	1.66	6.24	11.62
2/2/2023 12:22	36.55	1.86	6.25	11.62
2/2/2023 12:23	36.27	1.78	6.23	11.64
2/2/2023 12:24	36.63	1.57	6.23	11.65
2/2/2023 12:25	36.97	1.63	6.20	11.68
2/2/2023 12:26	36.74	1.48	6.18	11.70
2/2/2023 12:27	37.05	1.49	6.21	11.66
2/2/2023 12:28	37.28	1.58	6.18	11.70

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 12:29	37.55	1.45	6.20	11.68
2/2/2023 12:30	37.09	1.45	6.18	11.71
2/2/2023 12:31	37.05	1.45	6.20	11.67
2/2/2023 12:32	37.38	1.47	6.20	11.67
2/2/2023 12:33	37.13	1.59	6.20	11.69
2/2/2023 12:34	37.05	1.63	6.19	11.70
2/2/2023 12:35	37.05	1.66	6.20	11.69
2/2/2023 12:36	37.05	1.66	6.19	11.70
2/2/2023 12:37	36.82	1.71	6.19	11.69
2/2/2023 12:38	36.63	1.68	6.18	11.71
2/2/2023 12:39	37.05	1.66	6.19	11.70
Average	**35.91**	**1.61**	**6.27**	**11.58**

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 13:00	36.47	1.52	6.14	11.73
2/2/2023 13:01	36.55	1.45	6.15	11.73
2/2/2023 13:02	36.51	1.56	6.13	11.76
2/2/2023 13:03	36.34	1.56	6.13	11.74
2/2/2023 13:04	36.51	1.45	6.11	11.77
2/2/2023 13:05	36.55	1.48	6.13	11.74
2/2/2023 13:06	36.09	1.45	6.10	11.78
2/2/2023 13:07	36.47	1.48	6.13	11.77
2/2/2023 13:08	36.55	1.48	6.13	11.78
2/2/2023 13:09	36.55	1.48	6.12	11.78
2/2/2023 13:10	36.30	1.59	6.13	11.78
2/2/2023 13:11	36.55	1.45	6.13	11.77
2/2/2023 13:12	36.55	1.52	6.13	11.78
2/2/2023 13:13	36.26	1.45	6.12	11.79
2/2/2023 13:14	36.30	1.45	6.12	11.79
2/2/2023 13:15	36.05	1.45	6.12	11.80
2/2/2023 13:16	36.05	1.45	6.12	11.80
2/2/2023 13:17	36.05	1.45	6.11	11.81
2/2/2023 13:18	36.13	1.45	6.12	11.81
2/2/2023 13:19	36.38	1.52	6.10	11.81
2/2/2023 13:20	36.20	1.76	6.11	11.80
2/2/2023 13:21	36.05	1.53	6.10	11.81
2/2/2023 13:22	36.05	1.45	6.10	11.82
2/2/2023 13:23	36.05	1.42	6.08	11.85
2/2/2023 13:24	35.86	1.50	6.04	11.90
2/2/2023 13:25	35.55	1.63	6.02	11.93
2/2/2023 13:26	35.55	1.42	6.02	11.93
2/2/2023 13:27	35.55	1.42	6.03	11.91
2/2/2023 13:28	35.55	1.45	6.01	11.93
2/2/2023 13:29	35.55	1.45	6.04	11.91
2/2/2023 13:30	35.55	1.45	6.01	11.95
2/2/2023 13:31	35.55	1.45	6.01	11.94
2/2/2023 13:32	35.55	1.42	6.00	11.96
2/2/2023 13:33	35.38	1.45	6.01	11.93
2/2/2023 13:34	35.55	1.45	6.00	11.94
2/2/2023 13:35	35.55	1.49	6.01	11.94
2/2/2023 13:36	35.55	1.42	6.02	11.93
2/2/2023 13:37	35.55	1.45	6.00	11.95
2/2/2023 13:38	35.55	1.45	6.01	11.95
2/2/2023 13:39	35.68	1.45	6.02	11.94
2/2/2023 13:40	36.18	1.45	6.00	11.97
2/2/2023 13:41	35.86	1.45	6.01	11.97
2/2/2023 13:42	36.01	1.45	6.03	11.96
2/2/2023 13:43	35.78	1.45	6.03	11.97
2/2/2023 13:44	35.84	1.52	6.02	11.97
2/2/2023 13:45	36.05	1.63	6.02	11.97
2/2/2023 13:46	36.05	1.78	6.02	11.96
2/2/2023 13:47	35.76	1.98	6.01	11.98
2/2/2023 13:48	35.55	1.65	6.02	11.97

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 13:49	35.55	1.53	6.01	11.98
2/2/2023 13:50	35.72	1.70	6.05	11.93
2/2/2023 13:51	35.97	1.47	6.07	11.90
2/2/2023 13:52	36.05	1.45	6.07	11.89
2/2/2023 13:53	36.05	1.45	6.07	11.90
2/2/2023 13:54	36.09	1.45	6.09	11.88
2/2/2023 13:55	36.55	1.58	6.09	11.87
2/2/2023 13:56	36.55	1.45	6.08	11.89
2/2/2023 13:57	36.55	1.45	6.08	11.90
2/2/2023 13:58	36.28	1.45	6.06	11.92
2/2/2023 13:59	36.05	1.59	6.07	11.91
Average	**36.02**	**1.50**	**6.07**	**11.87**

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 3

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 14:25	36.05	1.48	6.05	11.98
2/2/2023 14:26	36.05	1.39	6.05	11.99
2/2/2023 14:27	36.18	1.35	6.06	11.97
2/2/2023 14:28	36.31	1.51	6.04	12.00
2/2/2023 14:29	36.05	1.45	6.04	12.00
2/2/2023 14:30	36.05	1.45	6.04	12.00
2/2/2023 14:31	36.05	1.32	6.05	11.99
2/2/2023 14:32	36.05	1.38	6.04	11.99
2/2/2023 14:33	36.05	1.28	6.03	12.01
2/2/2023 14:34	36.05	1.37	6.03	12.01
2/2/2023 14:35	36.18	1.35	6.03	12.01
2/2/2023 14:36	36.55	1.38	6.02	12.04
2/2/2023 14:37	36.78	1.38	6.02	12.03
2/2/2023 14:38	36.43	1.45	6.01	12.05
2/2/2023 14:39	36.05	1.45	5.99	12.07
2/2/2023 14:40	36.05	1.49	5.99	12.07
2/2/2023 14:41	36.20	1.52	5.98	12.08
2/2/2023 14:42	36.43	1.45	5.99	12.06
2/2/2023 14:43	36.55	1.48	6.04	12.01
2/2/2023 14:44	36.63	1.70	6.03	12.01
2/2/2023 14:45	37.05	2.21	6.04	12.00
2/2/2023 14:46	36.80	3.10	6.05	11.99
2/2/2023 14:47	37.05	4.24	6.06	11.97
2/2/2023 14:48	37.05	3.73	6.05	11.98
2/2/2023 14:49	36.74	3.38	6.04	12.01
2/2/2023 14:50	36.55	3.17	6.05	11.98
2/2/2023 14:51	36.86	2.97	6.07	11.98
2/2/2023 14:52	36.59	2.82	6.09	11.95
2/2/2023 14:53	37.05	2.64	6.09	11.92
2/2/2023 14:54	37.43	3.75	6.10	11.91
2/2/2023 14:55	37.30	4.80	6.11	11.91
2/2/2023 14:56	37.55	4.83	6.11	11.92
2/2/2023 14:57	37.55	4.57	6.11	11.93
2/2/2023 14:58	37.55	4.12	6.11	11.93
2/2/2023 14:59	37.55	3.78	6.11	11.93
2/2/2023 15:00	37.63	3.47	6.14	11.89
2/2/2023 15:01	38.01	3.28	6.16	11.87
2/2/2023 15:02	38.22	2.93	6.17	11.84
2/2/2023 15:03	38.55	2.96	6.17	11.83
2/2/2023 15:04	38.55	2.80	6.14	11.88
2/2/2023 15:05	38.09	2.65	6.12	11.90
2/2/2023 15:06	38.05	2.84	6.11	11.90
2/2/2023 15:07	38.05	3.06	6.12	11.89
2/2/2023 15:08	37.55	2.93	6.13	11.89
2/2/2023 15:09	37.70	2.97	6.13	11.88
2/2/2023 15:10	37.72	3.01	6.14	11.86
2/2/2023 15:11	37.55	3.12	6.16	11.84
2/2/2023 15:12	37.63	3.14	6.18	11.81
2/2/2023 15:13	37.72	3.10	6.15	11.84

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 3

Date / Time	NOX ppmvd	CO ppmvd	CO2 %dry	O2 %dry
2/2/2023 15:14	37.47	2.96	6.13	11.86
2/2/2023 15:15	38.05	2.84	6.12	11.89
2/2/2023 15:16	37.55	2.44	6.11	11.89
2/2/2023 15:17	37.63	2.23	6.12	11.87
2/2/2023 15:18	37.80	2.26	6.14	11.86
2/2/2023 15:19	38.05	2.49	6.15	11.84
2/2/2023 15:20	38.22	3.49	6.15	11.85
2/2/2023 15:21	38.38	3.66	6.15	11.84
2/2/2023 15:22	38.24	3.27	6.14	11.87
2/2/2023 15:23	38.05	2.82	6.13	11.87
2/2/2023 15:24	38.13	2.65	6.13	11.85
Average	**37.17**	**2.60**	**6.09**	**11.94**

Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/4/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	-0.01	0.01	0.06	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.05	0.03	0.15	Pass
	High	17.52	08/28/27	CC487388	17.59	0.07	0.40	Pass
O_2	Low	0	10/29/27	CC313930	0.04	0.04	0.18	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.05	0.02	0.09	Pass
	High	22.02	08/28/27	CC487388	22.03	0.01	0.05	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/5/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	0.00	0.00	0.00	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.00	0.08	0.43	Pass
	High	17.52	08/28/27	CC487388	17.53	0.01	0.06	Pass
O_2	Low	0	10/29/27	CC313930	0.03	0.03	0.14	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.03	0.00	0.00	Pass
	High	22.02	08/28/27	CC487388	22.03	0.01	0.05	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Start Date:	2/4/2023
Customer:	Primary Energy	End Date:	2/5/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
Load Level/Condition:	Normal	Fc Factor:	-
		Fd Factor:	-

Test Parameter				NO_X	SO_2	CO	CO_2	O_2	Volumetric Flow Rate	Moisture Fraction
Calibration Span, CS (Day 1)				-	-	-	17.52	22.02		
Calibration Span, CS (Day 2)				-	-	-	17.52	22.02		
Run No.	Start Date	First Minute	Last Minute	Run Average Raw Analyzer Responses					DSCFM	Bws
1	2/4/23	8:40	12:57	-	-	-	6.05	11.74	-	-
-	-	-	-	-	-	-	-	-	-	-
2	2/5/23	8:10	12:40	-	-	-	5.69	12.31	-	-

Actual Concentration of the Upscale Calibration Gas, C_{MA}					
	NO_X	SO_2	CO	CO_2	O_2
C_{MA} (Day 1)	-	-	-	9.076	10.03
C_{MA} (Day 2)	-	-	-	9.076	10.03

System Responses to Zero Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	0.00	0.01	0.09	0.03
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	0.03	0.03	0.03	0.02

System Responses to Upscale Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	8.92	8.89	9.98	9.86
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	8.90	8.91	9.93	9.88

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Instrumental Reference Method Calibration Data

Project Number:	508369	Start Date:	2/4/2023
Customer:	Primary Energy	End Date:	2/5/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis

CO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (%vol)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	17.52	-0.01	0.00	0.1	0.01	0.1	0.1
	Upscale Gas	17.52	9.05	8.92	-0.7	8.89	-0.9	0.2
2	Low Level Gas	17.52	0	0.03	0.2	0.03	0.2	0.0
	Upscale Gas	17.52	9	8.90	-0.6	8.91	-0.5	0.1

O_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (ppm)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	22.02	0.04	0.09	0.2	0.03	0.0	0.3
	Upscale Gas	22.02	10.05	9.98	-0.3	9.86	-0.9	0.5
2	Low Level Gas	22.02	0.03	0.03	0.0	0.02	0.0	0.0
	Upscale Gas	22.02	10.03	9.93	-0.5	9.88	-0.7	0.2

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Instrumental Reference Method
Calibration Corrected Test Data

Project Number:	508369	Start Date:	2/4/2023
Customer:	Primary Energy	End Date:	2/5/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
RM Probe Type:	Extractive (Dry)	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

Reference Method Results, As Measured Moisture Basis

Run #	Date	Start Time	End Time	NOX ppmvd	SO2 ppmvd	CO ppmvd	CO2 % v/v dry	O2 % v/v dry
1	2/4/23	8:40	12:57	-	-	-	6.16	11.88
-	-	-	-	-	-	-	-	-
2	2/5/23	8:10	12:40	-	-	-	5.79	12.47

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Primary Energy
Cokenergy Facility
HRSG Main Stack

Date / Time	CO2 %dry	O2 %dry	
2/4/2023 7:16	-0.01	0.05	
2/4/2023 7:17	-0.01	0.04	Local Linearity
2/4/2023 7:17	11.99	16.50	
2/4/2023 7:18	17.11	21.94	
2/4/2023 7:19	17.42	22.03	
2/4/2023 7:21	17.58	22.05	
2/4/2023 7:22	17.59	22.05	
2/4/2023 7:22	17.60	22.05	
2/4/2023 7:23	17.60	22.05	
2/4/2023 7:25	17.59	22.03	
2/4/2023 7:25	15.58	19.02	
2/4/2023 7:27	9.07	10.08	
2/4/2023 7:28	9.05	10.05	
2/4/2023 7:28	9.05	10.05	
2/4/2023 7:29	9.04	10.05	
2/4/2023 7:30	9.04	10.05	
2/4/2023 7:32	9.03	10.05	
2/4/2023 7:32	3.81	17.15	
2/4/2023 7:33	0.92	20.29	
2/4/2023 7:34	0.71	20.53	
2/4/2023 7:36	0.31	20.82	
2/4/2023 7:36	0.18	20.78	
2/4/2023 7:38	0.24	20.77	
2/4/2023 7:39	0.32	20.73	
2/4/2023 7:39	0.27	20.83	
2/4/2023 7:40	0.10	20.97	
2/4/2023 7:41	0.10	20.98	
2/4/2023 7:43	0.10	20.98	
2/4/2023 7:44	0.10	20.98	
2/4/2023 7:45	0.10	20.98	
2/4/2023 7:45	0.10	20.98	
2/4/2023 7:46	0.10	20.98	
2/4/2023 7:48	0.10	20.98	
2/4/2023 7:48	0.10	20.96	
2/4/2023 7:49	0.10	20.97	
2/4/2023 7:50	0.10	20.97	
2/4/2023 7:51	0.10	20.95	
2/4/2023 7:52	0.10	20.95	
2/4/2023 7:53	0.10	20.95	
2/4/2023 7:54	0.10	20.95	
2/4/2023 7:56	0.10	20.95	
2/4/2023 7:56	0.07	15.35	
2/4/2023 7:57	0.10	20.94	
2/4/2023 7:58	0.11	20.93	
2/4/2023 7:59	0.10	20.94	
2/4/2023 8:00	0.06	19.30	
2/4/2023 8:01	0.05	20.90	
2/4/2023 8:02	0.05	20.89	
2/4/2023 8:03	0.38	20.17	
2/4/2023 8:04	3.28	14.73	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Date / Time	CO2 %dry	O2 %dry	
2/4/2023 8:06	5.93	11.67	
2/4/2023 8:06	2.70	16.89	
2/4/2023 8:07	5.84	10.71	
2/4/2023 8:08	0.17	0.24	
2/4/2023 8:10	0.02	0.13	
2/4/2023 8:10	0.01	0.11	
2/4/2023 8:11	0.00	0.10	Remote calibrations
2/4/2023 8:13	0.00	0.10	
2/4/2023 8:13	0.00	0.09	
2/4/2023 8:15	0.00	0.38	
2/4/2023 8:15	7.39	9.29	
2/4/2023 8:16	8.88	9.97	
2/4/2023 8:18	8.90	9.98	
2/4/2023 8:18	8.92	9.98	
2/4/2023 8:19	1.61	0.96	
2/4/2023 8:20	0.06	0.10	
2/4/2023 8:21	0.03	0.09	
2/4/2023 8:23	1.16	2.15	
2/4/2023 8:23	6.08	11.47	
2/4/2023 8:24	6.11	11.54	
2/4/2023 13:11	0.01	0.05	Post Calibration Run
2/4/2023 13:12	0.01	0.03	
2/4/2023 13:13	3.85	4.40	
2/4/2023 13:14	8.83	9.84	
2/4/2023 13:15	8.86	9.85	
2/4/2023 13:16	8.88	9.85	
2/4/2023 13:17	8.88	9.85	
2/4/2023 13:18	8.89	9.86	
2/4/2023 13:19	8.89	9.86	
2/4/2023 13:20	8.90	9.86	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 8:40	6.10	11.62
2/4/2023 8:41	6.10	11.61
2/4/2023 8:42	6.11	11.60
2/4/2023 8:43	6.12	11.58
2/4/2023 8:44	6.11	11.60
2/4/2023 8:45	6.11	11.61
2/4/2023 8:46	6.10	11.62
2/4/2023 8:47	6.09	11.62
2/4/2023 8:48	6.11	11.60
2/4/2023 8:49	6.09	11.63
2/4/2023 8:50	6.10	11.61
2/4/2023 8:51	6.09	11.61
2/4/2023 8:52	6.09	11.62
2/4/2023 8:53	6.10	11.61
2/4/2023 8:54	6.10	11.60
2/4/2023 8:55	6.09	11.62
2/4/2023 8:56	6.08	11.64
2/4/2023 8:57	6.09	11.62
2/4/2023 8:58	6.09	11.63
2/4/2023 8:59	6.09	11.63
2/4/2023 9:00	6.08	11.65
2/4/2023 9:01	6.07	11.68
2/4/2023 9:02	6.09	11.66
2/4/2023 9:03	6.11	11.63
2/4/2023 9:04	6.11	11.64
2/4/2023 9:05	6.10	11.65
2/4/2023 9:06	6.09	11.67
2/4/2023 9:07	6.07	11.69
2/4/2023 9:08	6.08	11.68
2/4/2023 9:09	6.09	11.66
2/4/2023 9:10	6.08	11.69
2/4/2023 9:11	6.10	11.65
2/4/2023 9:12	6.10	11.66
2/4/2023 9:13	6.09	11.67
2/4/2023 9:14	6.09	11.68
2/4/2023 9:15	6.07	11.70
2/4/2023 9:16	6.08	11.69
2/4/2023 9:17	6.08	11.69
2/4/2023 9:18	6.07	11.71
2/4/2023 9:19	6.08	11.70
2/4/2023 9:20	6.09	11.68
2/4/2023 9:21	6.08	11.70
2/4/2023 9:22	6.08	11.70
2/4/2023 9:23	6.07	11.71
2/4/2023 9:24	6.08	11.69
2/4/2023 9:25	6.05	11.74
2/4/2023 9:26	6.06	11.72
2/4/2023 9:27	6.06	11.73

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 9:28	6.06	11.73
2/4/2023 9:29	6.07	11.71
2/4/2023 9:30	6.08	11.70
2/4/2023 9:31	6.06	11.72
2/4/2023 9:32	6.07	11.72
2/4/2023 9:33	6.06	11.73
2/4/2023 9:34	6.06	11.73
2/4/2023 9:35	6.06	11.73
2/4/2023 9:36	6.05	11.74
2/4/2023 9:37	6.06	11.73
2/4/2023 9:38	6.07	11.72
2/4/2023 9:39	6.07	11.71
2/4/2023 9:40	6.08	11.71
2/4/2023 9:41	6.06	11.72
2/4/2023 9:42	6.04	11.76
2/4/2023 9:43	6.05	11.74
2/4/2023 9:44	6.06	11.74
2/4/2023 9:45	6.07	11.72
2/4/2023 9:46	6.06	11.73
2/4/2023 9:47	6.05	11.74
2/4/2023 9:48	6.06	11.74
2/4/2023 9:49	6.04	11.76
2/4/2023 9:50	6.05	11.74
2/4/2023 9:51	6.04	11.75
2/4/2023 9:52	6.04	11.76
2/4/2023 9:53	6.04	11.76
2/4/2023 9:54	6.06	11.74
2/4/2023 9:55	6.05	11.75
2/4/2023 9:56	6.05	11.75
2/4/2023 9:57	6.04	11.76
2/4/2023 9:58	6.05	11.74
2/4/2023 9:59	6.04	11.76
2/4/2023 10:00	6.03	11.78
2/4/2023 10:01	6.05	11.75
2/4/2023 10:02	6.04	11.76
2/4/2023 10:03	6.03	11.78
2/4/2023 10:04	6.05	11.75
2/4/2023 10:05	6.05	11.75
2/4/2023 10:06	6.05	11.74
2/4/2023 10:07	6.06	11.74
2/4/2023 10:08	6.05	11.75
2/4/2023 10:09	6.06	11.74
2/4/2023 10:10	6.04	11.77
2/4/2023 10:11	6.04	11.76
2/4/2023 10:12	6.04	11.78
2/4/2023 10:13	6.04	11.77
2/4/2023 10:14	6.04	11.76
2/4/2023 10:15	6.06	11.74

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 10:16	6.05	11.75
2/4/2023 10:17	6.04	11.75
2/4/2023 10:18	6.03	11.77
2/4/2023 10:19	6.03	11.78
2/4/2023 10:20	6.04	11.77
2/4/2023 10:21	6.03	11.78
2/4/2023 10:22	6.03	11.78
2/4/2023 10:23	6.04	11.76
2/4/2023 10:24	6.05	11.75
2/4/2023 10:25	6.03	11.78
2/4/2023 10:26	6.06	11.73
2/4/2023 10:27	6.03	11.79
2/4/2023 10:28	6.02	11.79
2/4/2023 10:29	6.01	11.80
2/4/2023 10:30	6.01	11.80
2/4/2023 10:31	6.02	11.80
2/4/2023 10:32	6.00	11.82
2/4/2023 10:33	6.02	11.81
2/4/2023 10:34	6.02	11.80
2/4/2023 10:35	6.01	11.81
2/4/2023 10:36	5.99	11.84
2/4/2023 10:37	5.99	11.83
2/4/2023 10:38	6.01	11.82
2/4/2023 10:39	6.02	11.80
2/4/2023 10:40	6.01	11.82
2/4/2023 10:41	6.02	11.80
2/4/2023 10:42	6.00	11.82
2/4/2023 10:43	6.01	11.81
2/4/2023 10:44	6.02	11.81
2/4/2023 10:45	6.01	11.82
2/4/2023 10:46	6.03	11.79
2/4/2023 10:47	6.03	11.78
2/4/2023 10:48	6.04	11.76
2/4/2023 10:49	6.05	11.75
2/4/2023 10:50	6.07	11.72
2/4/2023 10:51	6.08	11.72
2/4/2023 10:52	6.08	11.71
2/4/2023 10:53	6.08	11.71
2/4/2023 10:54	6.10	11.68
2/4/2023 10:55	6.08	11.70
2/4/2023 10:56	6.10	11.69
2/4/2023 10:57	6.09	11.70
2/4/2023 10:58	6.08	11.71
2/4/2023 10:59	6.08	11.71
2/4/2023 11:00	6.09	11.70
2/4/2023 11:01	6.08	11.72
2/4/2023 11:02	6.07	11.71
2/4/2023 11:03	6.09	11.69

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 11:04	6.08	11.70
2/4/2023 11:05	6.08	11.71
2/4/2023 11:05	6.09	11.70
2/4/2023 11:07	6.10	11.68
2/4/2023 11:08	6.08	11.71
2/4/2023 11:09	6.09	11.70
2/4/2023 11:10	6.09	11.70
2/4/2023 11:11	6.09	11.69
2/4/2023 11:12	6.07	11.73
2/4/2023 11:13	6.08	11.71
2/4/2023 11:14	6.09	11.70
2/4/2023 11:15	6.06	11.73
2/4/2023 11:16	6.06	11.74
2/4/2023 11:17	6.06	11.73
2/4/2023 11:18	6.08	11.70
2/4/2023 11:19	6.07	11.72
2/4/2023 11:20	6.09	11.69
2/4/2023 11:21	6.08	11.72
2/4/2023 11:22	6.08	11.72
2/4/2023 11:23	6.08	11.72
2/4/2023 11:24	6.07	11.72
2/4/2023 11:25	6.07	11.73
2/4/2023 11:26	6.08	11.71
2/4/2023 11:27	6.06	11.74
2/4/2023 11:28	6.07	11.73
2/4/2023 11:29	6.06	11.73
2/4/2023 11:30	6.08	11.71
2/4/2023 11:31	6.06	11.72
2/4/2023 11:32	6.08	11.71
2/4/2023 11:33	6.09	11.70
2/4/2023 11:34	6.06	11.73
2/4/2023 11:35	6.08	11.69
2/4/2023 11:36	6.05	11.74
2/4/2023 11:37	6.06	11.72
2/4/2023 11:38	6.06	11.73
2/4/2023 11:39	6.07	11.71
2/4/2023 11:40	6.05	11.74
2/4/2023 11:41	6.07	11.72
2/4/2023 11:42	6.06	11.74
2/4/2023 11:43	6.06	11.73
2/4/2023 11:44	6.06	11.74
2/4/2023 11:45	6.05	11.75
2/4/2023 11:46	6.04	11.76
2/4/2023 11:47	6.04	11.76
2/4/2023 11:48	6.03	11.78
2/4/2023 11:49	6.03	11.78
2/4/2023 11:50	6.03	11.78
2/4/2023 11:51	6.04	11.76

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 11:52	6.04	11.77
2/4/2023 11:53	6.03	11.78
2/4/2023 11:54	6.03	11.78
2/4/2023 11:55	6.02	11.78
2/4/2023 11:56	6.03	11.79
2/4/2023 11:57	6.01	11.80
2/4/2023 11:58	6.01	11.80
2/4/2023 11:59	6.03	11.78
2/4/2023 12:00	6.02	11.79
2/4/2023 12:01	6.01	11.80
2/4/2023 12:02	6.02	11.79
2/4/2023 12:03	6.03	11.79
2/4/2023 12:04	6.02	11.77
2/4/2023 12:05	6.02	11.78
2/4/2023 12:06	6.01	11.78
2/4/2023 12:07	6.02	11.78
2/4/2023 12:08	6.03	11.78
2/4/2023 12:09	6.02	11.76
2/4/2023 12:10	6.02	11.77
2/4/2023 12:11	6.03	11.74
2/4/2023 12:12	6.03	11.73
2/4/2023 12:13	6.03	11.73
2/4/2023 12:14	6.05	11.74
2/4/2023 12:15	6.03	11.73
2/4/2023 12:16	6.03	11.73
2/4/2023 12:17	6.02	11.75
2/4/2023 12:18	6.01	11.74
2/4/2023 12:19	6.02	11.75
2/4/2023 12:20	6.03	11.74
2/4/2023 12:21	6.03	11.72
2/4/2023 12:22	6.03	11.76
2/4/2023 12:23	6.04	11.76
2/4/2023 12:24	6.04	11.76
2/4/2023 12:25	6.03	11.76
2/4/2023 12:26	6.03	11.76
2/4/2023 12:27	6.04	11.79
2/4/2023 12:28	6.05	11.75
2/4/2023 12:29	6.01	11.78
2/4/2023 12:30	6.02	11.78
2/4/2023 12:31	6.02	11.77
2/4/2023 12:32	6.04	11.76
2/4/2023 12:33	6.04	11.78
2/4/2023 12:34	6.03	11.77
2/4/2023 12:35	6.01	11.78
2/4/2023 12:36	6.03	11.77
2/4/2023 12:37	6.03	11.78
2/4/2023 12:38	6.03	11.80
2/4/2023 12:39	6.05	11.77

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/4/2023 12:40	6.05	11.79
2/4/2023 12:41	6.04	11.79
2/4/2023 12:42	6.01	11.79
2/4/2023 12:43	6.02	11.79
2/4/2023 12:44	6.02	11.78
2/4/2023 12:45	6.02	11.78
2/4/2023 12:46	6.03	11.79
2/4/2023 12:47	6.01	11.78
2/4/2023 12:48	6.03	11.79
2/4/2023 12:49	6.06	11.78
2/4/2023 12:50	6.06	11.83
2/4/2023 12:51	6.02	11.80
2/4/2023 12:52	6.03	11.83
2/4/2023 12:53	6.04	11.84
2/4/2023 12:54	6.01	11.83
2/4/2023 12:55	6.05	11.83
2/4/2023 12:56	6.06	11.84
2/4/2023 12:57	6.06	11.83
Average	**6.05**	**11.74**

Primary Energy
Cokenergy Facility
HRSG Main Stack

Date / Time	CO2 %dry	O2 %dry	
2/5/2023 7:11	0.00	0.02	Local linearity
2/5/2023 7:12	0.00	0.03	
2/5/2023 7:13	0.00	0.03	
2/5/2023 7:14	8.35	10.32	
2/5/2023 7:15	17.34	21.71	
2/5/2023 7:16	17.39	21.73	
2/5/2023 7:17	17.40	21.73	
2/5/2023 7:18	17.40	21.75	
2/5/2023 7:19	17.41	21.87	
2/5/2023 7:20	17.53	22.00	
2/5/2023 7:21	17.53	22.02	
2/5/2023 7:22	17.53	22.03	
2/5/2023 7:23	17.53	22.03	
2/5/2023 7:24	17.47	21.96	
2/5/2023 7:25	9.70	10.83	
2/5/2023 7:26	9.02	10.04	
2/5/2023 7:27	9.01	10.03	
2/5/2023 7:28	9.00	10.03	
2/5/2023 7:29	9.00	10.03	
2/5/2023 7:30	6.63	12.25	
2/5/2023 7:31	0.85	2.58	
2/5/2023 7:32	0.07	0.07	
2/5/2023 7:33	0.05	0.05	
2/5/2023 7:34	0.04	0.05	Remote calibrations
2/5/2023 7:35	0.03	0.03	
2/5/2023 7:36	0.03	0.03	
2/5/2023 7:37	1.28	1.39	
2/5/2023 7:38	8.84	9.88	
2/5/2023 7:39	8.90	9.92	
2/5/2023 7:40	8.90	9.93	
2/5/2023 7:41	7.87	8.69	
2/5/2023 7:42	0.13	0.08	
2/5/2023 7:43	0.06	0.04	
2/5/2023 12:52	0.30	0.48	Post Calibration Run
2/5/2023 12:53	0.04	0.03	
2/5/2023 12:54	0.03	0.03	
2/5/2023 12:55	0.03	0.02	
2/5/2023 12:56	1.80	2.13	
2/5/2023 12:57	8.77	9.83	
2/5/2023 12:58	8.89	9.86	
2/5/2023 12:59	8.91	9.88	
2/5/2023 13:00	8.92	9.88	
2/5/2023 13:01	6.11	12.13	
2/5/2023 13:02	5.68	12.42	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 8:10	5.73	12.17
2/5/2023 8:11	5.73	12.18
2/5/2023 8:12	5.71	12.20
2/5/2023 8:13	5.70	12.21
2/5/2023 8:14	5.71	12.19
2/5/2023 8:15	5.69	12.23
2/5/2023 8:16	5.70	12.21
2/5/2023 8:17	5.70	12.20
2/5/2023 8:18	5.70	12.20
2/5/2023 8:19	5.71	12.21
2/5/2023 8:20	5.71	12.21
2/5/2023 8:21	5.70	12.25
2/5/2023 8:22	5.70	12.25
2/5/2023 8:23	5.71	12.23
2/5/2023 8:24	5.71	12.24
2/5/2023 8:25	5.71	12.24
2/5/2023 8:26	5.71	12.24
2/5/2023 8:27	5.70	12.25
2/5/2023 8:28	5.72	12.22
2/5/2023 8:29	5.71	12.23
2/5/2023 8:30	5.72	12.22
2/5/2023 8:31	5.73	12.21
2/5/2023 8:32	5.72	12.21
2/5/2023 8:33	5.72	12.22
2/5/2023 8:34	5.71	12.23
2/5/2023 8:35	5.72	12.21
2/5/2023 8:36	5.71	12.23
2/5/2023 8:37	5.72	12.22
2/5/2023 8:38	5.73	12.21
2/5/2023 8:39	5.71	12.24
2/5/2023 8:40	5.73	12.21
2/5/2023 8:41	5.71	12.23
2/5/2023 8:42	5.70	12.25
2/5/2023 8:43	5.72	12.23
2/5/2023 8:44	5.72	12.23
2/5/2023 8:45	5.71	12.25
2/5/2023 8:46	5.70	12.25
2/5/2023 8:47	5.70	12.25
2/5/2023 8:48	5.71	12.24
2/5/2023 8:49	5.73	12.23
2/5/2023 8:50	5.72	12.23
2/5/2023 8:51	5.70	12.25
2/5/2023 8:52	5.71	12.24
2/5/2023 8:53	5.71	12.24
2/5/2023 8:54	5.71	12.25
2/5/2023 8:55	5.72	12.24
2/5/2023 8:56	5.71	12.25
2/5/2023 8:57	5.71	12.25

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 8:58	5.72	12.24
2/5/2023 8:59	5.71	12.25
2/5/2023 9:00	5.70	12.25
2/5/2023 9:01	5.73	12.24
2/5/2023 9:02	5.71	12.25
2/5/2023 9:03	5.73	12.23
2/5/2023 9:04	5.73	12.22
2/5/2023 9:05	5.73	12.23
2/5/2023 9:06	5.74	12.22
2/5/2023 9:07	5.75	12.21
2/5/2023 9:08	5.79	12.16
2/5/2023 9:09	5.79	12.14
2/5/2023 9:10	5.80	12.13
2/5/2023 9:11	5.80	12.13
2/5/2023 9:12	5.81	12.11
2/5/2023 9:13	5.82	12.12
2/5/2023 9:14	5.82	12.12
2/5/2023 9:15	5.83	12.10
2/5/2023 9:16	5.81	12.12
2/5/2023 9:17	5.82	12.11
2/5/2023 9:18	5.81	12.13
2/5/2023 9:19	5.78	12.15
2/5/2023 9:20	5.80	12.15
2/5/2023 9:21	5.81	12.13
2/5/2023 9:22	5.81	12.13
2/5/2023 9:23	5.82	12.11
2/5/2023 9:24	5.84	12.09
2/5/2023 9:25	5.82	12.12
2/5/2023 9:26	5.82	12.13
2/5/2023 9:27	5.82	12.13
2/5/2023 9:28	5.83	12.12
2/5/2023 9:29	5.83	12.11
2/5/2023 9:30	5.85	12.09
2/5/2023 9:31	5.83	12.12
2/5/2023 9:32	5.83	12.12
2/5/2023 9:33	5.82	12.13
2/5/2023 9:34	5.82	12.13
2/5/2023 9:36	5.84	12.12
2/5/2023 9:37	5.84	12.11
2/5/2023 9:38	5.86	12.10
2/5/2023 9:39	5.83	12.13
2/5/2023 9:40	5.84	12.11
2/5/2023 9:41	5.82	12.14
2/5/2023 9:42	5.81	12.15
2/5/2023 9:43	5.82	12.15
2/5/2023 9:44	5.81	12.15
2/5/2023 9:45	5.81	12.15
2/5/2023 9:46	5.82	12.14

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 9:47	5.83	12.13
2/5/2023 9:48	5.80	12.17
2/5/2023 9:49	5.81	12.15
2/5/2023 9:50	5.78	12.19
2/5/2023 9:51	5.79	12.18
2/5/2023 9:52	5.80	12.16
2/5/2023 9:53	5.79	12.18
2/5/2023 9:54	5.80	12.17
2/5/2023 9:55	5.80	12.17
2/5/2023 9:56	5.80	12.16
2/5/2023 9:57	5.80	12.17
2/5/2023 9:58	5.78	12.20
2/5/2023 9:59	5.78	12.21
2/5/2023 10:00	5.78	12.19
2/5/2023 10:01	5.78	12.20
2/5/2023 10:02	5.80	12.18
2/5/2023 10:03	5.79	12.19
2/5/2023 10:04	5.81	12.17
2/5/2023 10:05	5.78	12.20
2/5/2023 10:06	5.78	12.21
2/5/2023 10:07	5.77	12.21
2/5/2023 10:08	5.77	12.23
2/5/2023 10:09	5.77	12.21
2/5/2023 10:10	5.79	12.20
2/5/2023 10:11	5.78	12.20
2/5/2023 10:12	5.78	12.20
2/5/2023 10:13	5.77	12.22
2/5/2023 10:14	5.75	12.25
2/5/2023 10:15	5.76	12.24
2/5/2023 10:16	5.74	12.25
2/5/2023 10:17	5.76	12.22
2/5/2023 10:18	5.76	12.24
2/5/2023 10:19	5.77	12.21
2/5/2023 10:20	5.75	12.25
2/5/2023 10:21	5.74	12.25
2/5/2023 10:22	5.72	12.30
2/5/2023 10:23	5.71	12.29
2/5/2023 10:24	5.70	12.31
2/5/2023 10:25	5.70	12.31
2/5/2023 10:26	5.70	12.31
2/5/2023 10:27	5.69	12.33
2/5/2023 10:28	5.71	12.31
2/5/2023 10:29	5.71	12.32
2/5/2023 10:30	5.71	12.31
2/5/2023 10:31	5.69	12.34
2/5/2023 10:32	5.68	12.34
2/5/2023 10:33	5.69	12.33
2/5/2023 10:34	5.68	12.34

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 10:35	5.69	12.34
2/5/2023 10:36	5.69	12.33
2/5/2023 10:37	5.68	12.34
2/5/2023 10:38	5.68	12.34
2/5/2023 10:39	5.68	12.35
2/5/2023 10:40	5.69	12.33
2/5/2023 10:41	5.67	12.35
2/5/2023 10:42	5.68	12.34
2/5/2023 10:43	5.67	12.35
2/5/2023 10:44	5.68	12.34
2/5/2023 10:45	5.70	12.33
2/5/2023 10:46	5.69	12.33
2/5/2023 10:47	5.70	12.32
2/5/2023 10:48	5.68	12.34
2/5/2023 10:49	5.68	12.35
2/5/2023 10:50	5.65	12.38
2/5/2023 10:51	5.67	12.36
2/5/2023 10:52	5.66	12.38
2/5/2023 10:53	5.67	12.36
2/5/2023 10:54	5.65	12.39
2/5/2023 10:55	5.66	12.38
2/5/2023 10:56	5.67	12.36
2/5/2023 10:57	5.65	12.38
2/5/2023 10:58	5.66	12.39
2/5/2023 10:59	5.65	12.40
2/5/2023 11:00	5.63	12.42
2/5/2023 11:01	5.63	12.42
2/5/2023 11:02	5.63	12.42
2/5/2023 11:03	5.63	12.43
2/5/2023 11:04	5.62	12.43
2/5/2023 11:05	5.63	12.42
2/5/2023 11:06	5.63	12.41
2/5/2023 11:07	5.63	12.42
2/5/2023 11:08	5.64	12.42
2/5/2023 11:09	5.62	12.45
2/5/2023 11:10	5.63	12.43
2/5/2023 11:11	5.63	12.43
2/5/2023 11:12	5.63	12.43
2/5/2023 11:13	5.65	12.41
2/5/2023 11:14	5.62	12.44
2/5/2023 11:15	5.63	12.43
2/5/2023 11:16	5.61	12.46
2/5/2023 11:17	5.60	12.47
2/5/2023 11:18	5.60	12.46
2/5/2023 11:19	5.60	12.45
2/5/2023 11:20	5.60	12.46
2/5/2023 11:21	5.61	12.44
2/5/2023 11:22	5.59	12.47

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 11:23	5.60	12.47
2/5/2023 11:24	5.60	12.46
2/5/2023 11:25	5.59	12.48
2/5/2023 11:26	5.60	12.48
2/5/2023 11:27	5.59	12.48
2/5/2023 11:28	5.59	12.48
2/5/2023 11:29	5.60	12.47
2/5/2023 11:30	5.60	12.46
2/5/2023 11:31	5.60	12.48
2/5/2023 11:32	5.58	12.49
2/5/2023 11:33	5.59	12.48
2/5/2023 11:34	5.58	12.49
2/5/2023 11:35	5.59	12.47
2/5/2023 11:36	5.60	12.46
2/5/2023 11:37	5.60	12.46
2/5/2023 11:38	5.61	12.45
2/5/2023 11:39	5.63	12.42
2/5/2023 11:40	5.63	12.43
2/5/2023 11:41	5.65	12.41
2/5/2023 11:43	5.62	12.45
2/5/2023 11:44	5.61	12.46
2/5/2023 11:45	5.61	12.46
2/5/2023 11:46	5.62	12.45
2/5/2023 11:47	5.62	12.45
2/5/2023 11:48	5.63	12.44
2/5/2023 11:49	5.63	12.45
2/5/2023 11:50	5.61	12.47
2/5/2023 11:51	5.61	12.47
2/5/2023 11:52	5.60	12.48
2/5/2023 11:53	5.59	12.50
2/5/2023 11:54	5.59	12.48
2/5/2023 11:55	5.60	12.48
2/5/2023 11:56	5.60	12.48
2/5/2023 11:57	5.60	12.49
2/5/2023 11:58	5.60	12.48
2/5/2023 11:59	5.58	12.50
2/5/2023 12:00	5.58	12.50
2/5/2023 12:01	5.58	12.51
2/5/2023 12:02	5.58	12.51
2/5/2023 12:03	5.58	12.50
2/5/2023 12:04	5.58	12.50
2/5/2023 12:05	5.60	12.48
2/5/2023 12:06	5.58	12.52
2/5/2023 12:07	5.56	12.54
2/5/2023 12:08	5.56	12.53
2/5/2023 12:09	5.56	12.54
2/5/2023 12:10	5.56	12.54
2/5/2023 12:11	5.56	12.54

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/5/2023 12:12	5.57	12.52
2/5/2023 12:13	5.56	12.54
2/5/2023 12:14	5.55	12.55
2/5/2023 12:15	5.56	12.54
2/5/2023 12:16	5.54	12.56
2/5/2023 12:17	5.54	12.56
2/5/2023 12:18	5.53	12.58
2/5/2023 12:19	5.54	12.56
2/5/2023 12:20	5.56	12.53
2/5/2023 12:21	5.56	12.54
2/5/2023 12:22	5.56	12.53
2/5/2023 12:23	5.56	12.54
2/5/2023 12:24	5.57	12.51
2/5/2023 12:25	5.59	12.49
2/5/2023 12:26	5.59	12.49
2/5/2023 12:27	5.62	12.46
2/5/2023 12:28	5.63	12.44
2/5/2023 12:29	5.63	12.44
2/5/2023 12:30	5.65	12.42
2/5/2023 12:31	5.66	12.39
2/5/2023 12:32	5.66	12.40
2/5/2023 12:33	5.66	12.40
2/5/2023 12:34	5.68	12.38
2/5/2023 12:35	5.67	12.39
2/5/2023 12:36	5.67	12.38
2/5/2023 12:37	5.66	12.40
2/5/2023 12:38	5.67	12.39
2/5/2023 12:39	5.67	12.39
2/5/2023 12:40	5.65	12.41
Average	**5.69**	**12.31**

Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/6/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	0.02	0.02	0.11	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.04	0.04	0.21	Pass
	High	17.52	08/28/27	CC487388	17.55	0.03	0.17	Pass
O_2	Low	0	10/29/27	CC313930	0.00	0.00	0.00	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.06	0.03	0.14	Pass
	High	22.02	08/28/27	CC487388	22.07	0.05	0.23	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/7/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	0.01	0.01	0.06	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.03	0.05	0.26	Pass
	High	17.52	08/28/27	CC487388	17.56	0.04	0.23	Pass
O_2	Low	0	10/29/27	CC313930	0.00	0.00	0.00	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.02	0.01	0.05	Pass
	High	22.02	08/28/27	CC487388	22.02	0.00	0.00	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Start Date:	2/6/2023
Customer:	Primary Energy	End Date:	2/7/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
Load Level/Condition:	Normal	Fc Factor:	-
		Fd Factor:	-

Test Parameter				NO_X	SO_2	CO	CO_2	O_2	Volumetric Flow Rate	Moisture Fraction
Calibration Span, CS (Day 1)				-	-	-	17.52	22.02		
Calibration Span, CS (Day 2)				-	-	-	17.52	22.02		
Run No.	Start Date	First Minute	Last Minute	Run Average Raw Analyzer Responses					DSCFM	Bws
1	2/6/23	8:50	13:20	-	-	-	5.80	12.20	-	-
-	-	-	-	-	-	-	-	-	-	-
2	2/7/23	8:05	12:35	-	-	-	6.07	11.69	-	-

Actual Concentration of the Upscale Calibration Gas, C_{MA}					
	NO_X	SO_2	CO	CO_2	O_2
C_{MA} (Day 1)	-	-	-	9.076	10.03
C_{MA} (Day 2)	-	-	-	9.076	10.03

System Responses to Zero Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	0.04	0.04	0.03	0.03
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	0.05	0.05	0.03	0.00

System Responses to Upscale Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	8.94	8.85	9.94	9.87
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	8.93	9.02	9.90	9.95

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Instrumental Reference Method Calibration Data

Project Number:	508369	Start Date:	2/6/2023
Customer:	Primary Energy	End Date:	2/7/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis

CO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (%vol)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	17.52	0.02	0.04	0.1	0.04	0.1	0.0
	Upscale Gas	17.52	9.04	8.94	-0.6	8.85	-1.1	0.5
2	Low Level Gas	17.52	0.01	0.05	0.2	0.05	0.2	0.0

O_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (ppm)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	22.02	0	0.03	0.1	0.03	0.1	0.0
	Upscale Gas	22.02	10.06	9.94	-0.5	9.87	-0.9	0.3
2	Low Level Gas	22.02	0	0.03	0.1	0.00	0.0	0.1
	Upscale Gas	22.02	10.02	9.90	-0.5	9.95	-0.3	0.2

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Instrumental Reference Method
Calibration Corrected Test Data

Project Number:	508369	Start Date:	2/6/2023
Customer:	Primary Energy	End Date:	2/7/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
RM Probe Type:	Extractive (Dry)	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

Reference Method Results, As Measured Moisture Basis

Run #	Date	Start Time	End Time	NOX ppmvd	SO2 ppmvd	CO ppmvd	CO2 % v/v dry	O2 % v/v dry
1	2/6/23	8:50	13:20	-	-	-	5.90	12.36
-	-	-	-	-	-	-	-	-
2	2/7/23	8:05	12:35	-	-	-	6.12	11.82

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Primary Energy
Cokenergy Facility
HRSG Main Stack

Date / Time	CO2 %dry	O2 %dry	
2/6/2023 7:35	0.02	0.00	Local Linearity
2/6/2023 7:36	0.02	0.00	
2/6/2023 7:37	0.01	-0.02	
2/6/2023 7:38	6.95	9.11	
2/6/2023 7:39	17.81	22.28	
2/6/2023 7:40	17.56	22.05	
2/6/2023 7:41	17.54	22.05	
2/6/2023 7:42	17.55	22.05	
2/6/2023 7:43	17.55	22.07	
2/6/2023 7:44	17.55	22.07	
2/6/2023 7:45	17.57	22.08	
2/6/2023 7:46	17.53	22.03	
2/6/2023 7:47	11.19	13.02	
2/6/2023 7:48	9.05	10.07	
2/6/2023 7:49	9.04	10.06	
2/6/2023 7:50	9.04	10.06	
2/6/2023 7:51	9.03	10.29	
2/6/2023 7:52	4.74	11.00	
2/6/2023 7:53	0.14	0.16	
2/6/2023 7:54	0.08	0.05	
2/6/2023 7:55	0.05	0.04	
2/6/2023 7:56	0.05	0.03	
2/6/2023 7:57	0.04	0.03	
2/6/2023 7:58	1.53	1.80	
2/6/2023 7:59	8.86	9.90	
2/6/2023 8:00	8.91	9.93	
2/6/2023 8:01	8.93	9.93	
2/6/2023 8:02	8.94	9.94	
2/6/2023 8:03	1.73	1.74	
2/6/2023 8:04	0.09	0.04	
2/6/2023 8:05	0.06	0.03	
2/6/2023 13:38	0.05	0.05	Post Calibration Run
2/6/2023 13:39	0.05	0.03	
2/6/2023 13:40	0.04	0.03	
2/6/2023 13:41	5.16	6.10	
2/6/2023 13:42	8.80	9.85	
2/6/2023 13:43	8.84	9.87	
2/6/2023 13:44	8.85	9.87	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 8:50	5.80	12.16
2/6/2023 8:51	5.80	12.16
2/6/2023 8:52	5.80	12.15
2/6/2023 8:53	5.80	12.15
2/6/2023 8:54	5.79	12.16
2/6/2023 8:55	5.78	12.19
2/6/2023 8:56	5.78	12.18
2/6/2023 8:57	5.79	12.17
2/6/2023 8:58	5.80	12.17
2/6/2023 8:59	5.78	12.18
2/6/2023 9:00	5.79	12.18
2/6/2023 9:01	5.78	12.19
2/6/2023 9:02	5.78	12.18
2/6/2023 9:03	5.77	12.19
2/6/2023 9:04	5.78	12.18
2/6/2023 9:05	5.78	12.19
2/6/2023 9:06	5.76	12.21
2/6/2023 9:07	5.78	12.20
2/6/2023 9:08	5.78	12.20
2/6/2023 9:09	5.77	12.21
2/6/2023 9:10	5.78	12.19
2/6/2023 9:11	5.78	12.20
2/6/2023 9:12	5.76	12.23
2/6/2023 9:13	5.78	12.20
2/6/2023 9:14	5.76	12.23
2/6/2023 9:15	5.78	12.20
2/6/2023 9:16	5.76	12.22
2/6/2023 9:17	5.76	12.23
2/6/2023 9:18	5.75	12.23
2/6/2023 9:19	5.75	12.23
2/6/2023 9:20	5.75	12.23
2/6/2023 9:21	5.77	12.22
2/6/2023 9:22	5.77	12.22
2/6/2023 9:23	5.76	12.23
2/6/2023 9:24	5.75	12.23
2/6/2023 9:25	5.75	12.23
2/6/2023 9:26	5.76	12.22
2/6/2023 9:27	5.74	12.25
2/6/2023 9:28	5.75	12.24
2/6/2023 9:29	5.73	12.27
2/6/2023 9:30	5.75	12.24
2/6/2023 9:31	5.76	12.23
2/6/2023 9:32	5.76	12.23
2/6/2023 9:33	5.76	12.24
2/6/2023 9:34	5.77	12.22
2/6/2023 9:35	5.75	12.24
2/6/2023 9:36	5.76	12.23
2/6/2023 9:37	5.78	12.21

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 9:38	5.78	12.22
2/6/2023 9:39	5.78	12.22
2/6/2023 9:40	5.79	12.19
2/6/2023 9:41	5.79	12.20
2/6/2023 9:42	5.81	12.18
2/6/2023 9:43	5.83	12.17
2/6/2023 9:44	5.82	12.16
2/6/2023 9:45	5.83	12.15
2/6/2023 9:46	5.83	12.14
2/6/2023 9:47	5.85	12.12
2/6/2023 9:48	5.85	12.13
2/6/2023 9:49	5.83	12.15
2/6/2023 9:50	5.84	12.13
2/6/2023 9:51	5.84	12.12
2/6/2023 9:52	5.86	12.11
2/6/2023 9:53	5.85	12.13
2/6/2023 9:54	5.85	12.12
2/6/2023 9:55	5.83	12.14
2/6/2023 9:56	5.85	12.11
2/6/2023 9:57	5.84	12.13
2/6/2023 9:58	5.85	12.12
2/6/2023 9:59	5.85	12.12
2/6/2023 10:00	5.85	12.12
2/6/2023 10:01	5.84	12.14
2/6/2023 10:02	5.83	12.15
2/6/2023 10:03	5.85	12.12
2/6/2023 10:04	5.84	12.13
2/6/2023 10:05	5.83	12.14
2/6/2023 10:06	5.84	12.13
2/6/2023 10:07	5.83	12.15
2/6/2023 10:08	5.84	12.13
2/6/2023 10:09	5.83	12.14
2/6/2023 10:10	5.84	12.14
2/6/2023 10:11	5.83	12.15
2/6/2023 10:12	5.83	12.16
2/6/2023 10:13	5.82	12.16
2/6/2023 10:14	5.83	12.15
2/6/2023 10:15	5.83	12.16
2/6/2023 10:16	5.84	12.15
2/6/2023 10:17	5.85	12.13
2/6/2023 10:18	5.84	12.14
2/6/2023 10:19	5.84	12.15
2/6/2023 10:20	5.84	12.15
2/6/2023 10:21	5.83	12.15
2/6/2023 10:22	5.84	12.14
2/6/2023 10:23	5.83	12.15
2/6/2023 10:24	5.83	12.15
2/6/2023 10:25	5.84	12.14

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 10:26	5.84	12.15
2/6/2023 10:27	5.85	12.13
2/6/2023 10:28	5.85	12.14
2/6/2023 10:29	5.84	12.14
2/6/2023 10:30	5.85	12.13
2/6/2023 10:31	5.85	12.13
2/6/2023 10:32	5.85	12.14
2/6/2023 10:33	5.85	12.13
2/6/2023 10:34	5.85	12.14
2/6/2023 10:35	5.85	12.14
2/6/2023 10:36	5.84	12.14
2/6/2023 10:37	5.86	12.12
2/6/2023 10:38	5.85	12.13
2/6/2023 10:39	5.85	12.13
2/6/2023 10:40	5.86	12.12
2/6/2023 10:41	5.85	12.13
2/6/2023 10:42	5.84	12.15
2/6/2023 10:43	5.85	12.14
2/6/2023 10:44	5.85	12.13
2/6/2023 10:45	5.85	12.13
2/6/2023 10:46	5.85	12.14
2/6/2023 10:47	5.84	12.15
2/6/2023 10:48	5.86	12.13
2/6/2023 10:49	5.86	12.12
2/6/2023 10:50	5.85	12.13
2/6/2023 10:51	5.87	12.11
2/6/2023 10:52	5.86	12.13
2/6/2023 10:53	5.85	12.14
2/6/2023 10:54	5.86	12.12
2/6/2023 10:55	5.86	12.13
2/6/2023 10:56	5.86	12.13
2/6/2023 10:57	5.85	12.15
2/6/2023 10:58	5.85	12.14
2/6/2023 10:59	5.85	12.14
2/6/2023 11:00	5.85	12.14
2/6/2023 11:01	5.84	12.15
2/6/2023 11:02	5.86	12.12
2/6/2023 11:03	5.85	12.14
2/6/2023 11:04	5.86	12.14
2/6/2023 11:05	5.86	12.14
2/6/2023 11:06	5.86	12.13
2/6/2023 11:07	5.86	12.13
2/6/2023 11:08	5.86	12.13
2/6/2023 11:09	5.85	12.14
2/6/2023 11:10	5.86	12.13
2/6/2023 11:11	5.86	12.13
2/6/2023 11:12	5.85	12.14
2/6/2023 11:13	5.85	12.15

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 11:14	5.86	12.13
2/6/2023 11:15	5.85	12.14
2/6/2023 11:16	5.86	12.14
2/6/2023 11:17	5.85	12.16
2/6/2023 11:18	5.86	12.14
2/6/2023 11:19	5.85	12.14
2/6/2023 11:20	5.84	12.16
2/6/2023 11:21	5.87	12.13
2/6/2023 11:22	5.85	12.15
2/6/2023 11:23	5.86	12.13
2/6/2023 11:24	5.87	12.13
2/6/2023 11:25	5.85	12.15
2/6/2023 11:26	5.85	12.14
2/6/2023 11:27	5.85	12.14
2/6/2023 11:28	5.85	12.15
2/6/2023 11:29	5.85	12.15
2/6/2023 11:30	5.85	12.14
2/6/2023 11:31	5.84	12.16
2/6/2023 11:32	5.84	12.16
2/6/2023 11:33	5.85	12.14
2/6/2023 11:34	5.85	12.14
2/6/2023 11:35	5.84	12.16
2/6/2023 11:36	5.85	12.15
2/6/2023 11:37	5.85	12.14
2/6/2023 11:38	5.84	12.15
2/6/2023 11:39	5.84	12.17
2/6/2023 11:40	5.85	12.15
2/6/2023 11:41	5.83	12.18
2/6/2023 11:42	5.84	12.16
2/6/2023 11:43	5.85	12.15
2/6/2023 11:44	5.84	12.17
2/6/2023 11:45	5.83	12.17
2/6/2023 11:46	5.84	12.16
2/6/2023 11:47	5.84	12.16
2/6/2023 11:48	5.82	12.18
2/6/2023 11:49	5.83	12.17
2/6/2023 11:50	5.82	12.18
2/6/2023 11:51	5.83	12.17
2/6/2023 11:52	5.81	12.20
2/6/2023 11:53	5.81	12.19
2/6/2023 11:54	5.80	12.20
2/6/2023 11:55	5.82	12.18
2/6/2023 11:56	5.81	12.18
2/6/2023 11:57	5.83	12.17
2/6/2023 11:58	5.82	12.19
2/6/2023 11:59	5.82	12.19
2/6/2023 12:00	5.83	12.17
2/6/2023 12:01	5.83	12.18

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 12:02	5.82	12.18
2/6/2023 12:03	5.81	12.20
2/6/2023 12:04	5.80	12.21
2/6/2023 12:05	5.80	12.20
2/6/2023 12:06	5.80	12.20
2/6/2023 12:07	5.81	12.20
2/6/2023 12:08	5.81	12.20
2/6/2023 12:09	5.80	12.20
2/6/2023 12:10	5.81	12.20
2/6/2023 12:11	5.81	12.20
2/6/2023 12:12	5.80	12.22
2/6/2023 12:13	5.80	12.21
2/6/2023 12:14	5.80	12.23
2/6/2023 12:15	5.79	12.23
2/6/2023 12:16	5.79	12.22
2/6/2023 12:17	5.81	12.20
2/6/2023 12:18	5.80	12.21
2/6/2023 12:19	5.80	12.20
2/6/2023 12:20	5.80	12.22
2/6/2023 12:21	5.80	12.21
2/6/2023 12:22	5.80	12.21
2/6/2023 12:23	5.80	12.21
2/6/2023 12:24	5.80	12.23
2/6/2023 12:25	5.79	12.22
2/6/2023 12:26	5.79	12.24
2/6/2023 12:27	5.80	12.22
2/6/2023 12:28	5.79	12.23
2/6/2023 12:29	5.80	12.22
2/6/2023 12:30	5.79	12.23
2/6/2023 12:31	5.79	12.23
2/6/2023 12:32	5.80	12.22
2/6/2023 12:33	5.80	12.22
2/6/2023 12:34	5.79	12.24
2/6/2023 12:35	5.79	12.22
2/6/2023 12:36	5.80	12.21
2/6/2023 12:37	5.78	12.25
2/6/2023 12:38	5.78	12.24
2/6/2023 12:39	5.79	12.23
2/6/2023 12:40	5.78	12.24
2/6/2023 12:41	5.78	12.25
2/6/2023 12:42	5.79	12.23
2/6/2023 12:43	5.80	12.23
2/6/2023 12:44	5.78	12.24
2/6/2023 12:45	5.78	12.24
2/6/2023 12:46	5.79	12.23
2/6/2023 12:47	5.79	12.23
2/6/2023 12:48	5.77	12.25
2/6/2023 12:49	5.78	12.25

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/6/2023 12:50	5.76	12.26
2/6/2023 12:51	5.76	12.28
2/6/2023 12:52	5.76	12.27
2/6/2023 12:53	5.75	12.29
2/6/2023 12:54	5.75	12.29
2/6/2023 12:55	5.74	12.30
2/6/2023 12:56	5.71	12.34
2/6/2023 12:57	5.73	12.32
2/6/2023 12:58	5.70	12.35
2/6/2023 12:59	5.69	12.38
2/6/2023 13:00	5.68	12.38
2/6/2023 13:01	5.67	12.39
2/6/2023 13:02	5.67	12.40
2/6/2023 13:03	5.67	12.39
2/6/2023 13:04	5.66	12.42
2/6/2023 13:05	5.64	12.44
2/6/2023 13:06	5.63	12.46
2/6/2023 13:07	5.64	12.45
2/6/2023 13:08	5.65	12.42
2/6/2023 13:09	5.65	12.42
2/6/2023 13:10	5.66	12.42
2/6/2023 13:11	5.67	12.40
2/6/2023 13:12	5.67	12.41
2/6/2023 13:13	5.66	12.41
2/6/2023 13:14	5.65	12.43
2/6/2023 13:15	5.67	12.41
2/6/2023 13:16	5.66	12.42
2/6/2023 13:17	5.66	12.40
2/6/2023 13:18	5.65	12.43
2/6/2023 13:19	5.66	12.42
2/6/2023 13:20	5.65	12.42
Average	**5.80**	**12.20**

Primary Energy
Cokenergy Facility
HRSG Main Stack

Date / Time	CO2 %dry	O2 %dry	
2/7/2023 7:28	0.87	1.52	Local linearity
2/7/2023 7:29	0.02	0.01	
2/7/2023 7:30	0.01	0.00	
2/7/2023 7:32	11.68	14.62	
2/7/2023 7:32	17.16	21.72	
2/7/2023 7:33	17.22	21.86	
2/7/2023 7:35	17.55	22.00	
2/7/2023 7:35	17.56	22.02	
2/7/2023 7:37	17.57	22.03	
2/7/2023 7:37	17.57	22.03	
2/7/2023 7:39	17.56	21.99	
2/7/2023 7:39	14.03	17.14	
2/7/2023 7:41	9.05	10.04	
2/7/2023 7:42	9.04	10.03	
2/7/2023 7:42	9.03	10.03	
2/7/2023 7:43	9.03	10.03	
2/7/2023 7:45	9.03	10.03	
2/7/2023 7:45	9.03	10.02	
2/7/2023 7:46	9.03	10.00	
2/7/2023 7:48	6.33	11.50	
2/7/2023 7:48	1.33	3.33	
2/7/2023 7:50	0.08	0.04	Remote calibrations
2/7/2023 7:51	0.05	0.03	
2/7/2023 7:51	0.05	0.03	
2/7/2023 7:53	1.86	2.12	
2/7/2023 7:54	8.84	9.87	
2/7/2023 7:55	8.91	9.90	
2/7/2023 7:56	8.93	9.90	
2/7/2023 7:57	8.93	9.90	
2/7/2023 7:58	6.97	7.49	
2/7/2023 7:59	0.19	0.05	
2/7/2023 8:00	1.37	2.60	
2/7/2023 13:13	0.05	0.01	Post Calibration Run
2/7/2023 13:15	0.05	0.00	
2/7/2023 13:16	6.46	7.45	
2/7/2023 13:16	8.96	9.93	
2/7/2023 13:18	9.00	9.95	
2/7/2023 13:18	9.00	9.95	
2/7/2023 13:19	9.01	9.95	
2/7/2023 13:20	9.02	9.95	
2/7/2023 13:21	6.31	11.86	

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 8:05	6.20	11.33
2/7/2023 8:06	6.23	11.31
2/7/2023 8:07	6.25	11.28
2/7/2023 8:08	6.26	11.26
2/7/2023 8:09	6.25	11.27
2/7/2023 8:10	6.24	11.29
2/7/2023 8:11	6.24	11.28
2/7/2023 8:12	6.22	11.31
2/7/2023 8:13	6.22	11.32
2/7/2023 8:14	6.22	11.32
2/7/2023 8:15	6.20	11.34
2/7/2023 8:16	6.19	11.37
2/7/2023 8:17	6.20	11.35
2/7/2023 8:18	6.18	11.38
2/7/2023 8:19	6.17	11.40
2/7/2023 8:20	6.17	11.40
2/7/2023 8:21	6.17	11.41
2/7/2023 8:22	6.16	11.41
2/7/2023 8:23	6.15	11.44
2/7/2023 8:24	6.16	11.42
2/7/2023 8:25	6.15	11.43
2/7/2023 8:26	6.14	11.44
2/7/2023 8:27	6.14	11.44
2/7/2023 8:28	6.13	11.46
2/7/2023 8:29	6.13	11.45
2/7/2023 8:30	6.12	11.47
2/7/2023 8:31	6.13	11.45
2/7/2023 8:32	6.17	11.40
2/7/2023 8:33	6.15	11.42
2/7/2023 8:34	6.18	11.38
2/7/2023 8:35	6.18	11.39
2/7/2023 8:36	6.16	11.41
2/7/2023 8:37	6.15	11.44
2/7/2023 8:38	6.15	11.43
2/7/2023 8:39	6.15	11.43
2/7/2023 8:40	6.16	11.43
2/7/2023 8:41	6.19	11.39
2/7/2023 8:42	6.18	11.39
2/7/2023 8:43	6.17	11.42
2/7/2023 8:44	6.17	11.44
2/7/2023 8:45	6.17	11.44
2/7/2023 8:46	6.16	11.46
2/7/2023 8:47	6.16	11.45
2/7/2023 8:48	6.16	11.46
2/7/2023 8:49	6.18	11.45
2/7/2023 8:50	6.20	11.42
2/7/2023 8:51	6.21	11.41
2/7/2023 8:52	6.20	11.42
2/7/2023 8:53	6.21	11.41

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 8:54	6.20	11.41
2/7/2023 8:55	6.20	11.41
2/7/2023 8:56	6.20	11.41
2/7/2023 8:57	6.22	11.38
2/7/2023 8:58	6.24	11.37
2/7/2023 8:59	6.27	11.32
2/7/2023 9:00	6.26	11.34
2/7/2023 9:01	6.25	11.34
2/7/2023 9:02	6.22	11.37
2/7/2023 9:03	6.18	11.44
2/7/2023 9:04	6.12	11.52
2/7/2023 9:05	6.14	11.51
2/7/2023 9:06	6.16	11.48
2/7/2023 9:07	6.17	11.47
2/7/2023 9:08	6.17	11.47
2/7/2023 9:09	6.15	11.50
2/7/2023 9:10	6.15	11.49
2/7/2023 9:11	6.15	11.51
2/7/2023 9:12	6.13	11.54
2/7/2023 9:13	6.12	11.54
2/7/2023 9:14	6.14	11.52
2/7/2023 9:15	6.13	11.53
2/7/2023 9:16	6.15	11.51
2/7/2023 9:17	6.15	11.50
2/7/2023 9:18	6.16	11.48
2/7/2023 9:19	6.15	11.50
2/7/2023 9:20	6.15	11.51
2/7/2023 9:21	6.15	11.50
2/7/2023 9:22	6.13	11.53
2/7/2023 9:23	6.13	11.53
2/7/2023 9:24	6.10	11.57
2/7/2023 9:25	6.10	11.57
2/7/2023 9:26	6.11	11.55
2/7/2023 9:27	6.09	11.59
2/7/2023 9:28	6.08	11.60
2/7/2023 9:29	6.08	11.61
2/7/2023 9:30	6.08	11.60
2/7/2023 9:31	6.07	11.62
2/7/2023 9:32	6.08	11.61
2/7/2023 9:33	6.07	11.62
2/7/2023 9:34	6.08	11.61
2/7/2023 9:35	6.06	11.64
2/7/2023 9:36	6.06	11.63
2/7/2023 9:37	6.06	11.64
2/7/2023 9:38	6.05	11.66
2/7/2023 9:39	6.04	11.67
2/7/2023 9:40	6.03	11.68
2/7/2023 9:41	6.04	11.68
2/7/2023 9:42	6.02	11.69

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 9:43	6.05	11.66
2/7/2023 9:44	6.03	11.69
2/7/2023 9:45	6.04	11.67
2/7/2023 9:46	6.01	11.71
2/7/2023 9:47	6.02	11.72
2/7/2023 9:48	6.01	11.72
2/7/2023 9:49	6.00	11.73
2/7/2023 9:50	6.00	11.74
2/7/2023 9:51	6.01	11.74
2/7/2023 9:52	6.01	11.73
2/7/2023 9:53	6.01	11.74
2/7/2023 9:54	5.99	11.76
2/7/2023 9:55	6.00	11.75
2/7/2023 9:56	5.98	11.77
2/7/2023 9:57	6.00	11.75
2/7/2023 9:58	6.00	11.76
2/7/2023 9:59	5.99	11.76
2/7/2023 10:00	5.99	11.78
2/7/2023 10:01	6.00	11.75
2/7/2023 10:02	6.00	11.75
2/7/2023 10:03	5.99	11.76
2/7/2023 10:04	6.02	11.72
2/7/2023 10:05	6.07	11.64
2/7/2023 10:06	6.08	11.63
2/7/2023 10:07	6.08	11.63
2/7/2023 10:08	6.08	11.64
2/7/2023 10:09	6.06	11.66
2/7/2023 10:10	6.07	11.66
2/7/2023 10:11	6.06	11.67
2/7/2023 10:12	6.07	11.66
2/7/2023 10:13	6.08	11.66
2/7/2023 10:14	6.08	11.67
2/7/2023 10:15	6.10	11.64
2/7/2023 10:16	6.09	11.64
2/7/2023 10:17	6.08	11.65
2/7/2023 10:18	6.09	11.66
2/7/2023 10:19	6.08	11.66
2/7/2023 10:20	6.07	11.70
2/7/2023 10:21	6.07	11.68
2/7/2023 10:22	6.06	11.70
2/7/2023 10:23	6.09	11.67
2/7/2023 10:24	6.08	11.69
2/7/2023 10:25	6.10	11.66
2/7/2023 10:26	6.09	11.67
2/7/2023 10:27	6.10	11.66
2/7/2023 10:28	6.08	11.69
2/7/2023 10:29	6.08	11.68
2/7/2023 10:30	6.07	11.70
2/7/2023 10:31	6.08	11.68

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 10:32	6.06	11.71
2/7/2023 10:33	6.06	11.71
2/7/2023 10:34	6.06	11.72
2/7/2023 10:35	6.07	11.72
2/7/2023 10:36	6.07	11.72
2/7/2023 10:37	6.07	11.72
2/7/2023 10:38	6.07	11.73
2/7/2023 10:39	6.08	11.73
2/7/2023 10:40	6.08	11.71
2/7/2023 10:41	6.08	11.73
2/7/2023 10:42	6.06	11.74
2/7/2023 10:43	6.05	11.74
2/7/2023 10:44	6.05	11.75
2/7/2023 10:45	6.05	11.75
2/7/2023 10:46	6.06	11.74
2/7/2023 10:47	6.05	11.75
2/7/2023 10:48	6.07	11.74
2/7/2023 10:49	6.07	11.75
2/7/2023 10:50	6.07	11.75
2/7/2023 10:51	6.07	11.75
2/7/2023 10:52	6.06	11.76
2/7/2023 10:53	6.06	11.75
2/7/2023 10:54	6.06	11.75
2/7/2023 10:55	6.06	11.76
2/7/2023 10:56	6.04	11.79
2/7/2023 10:57	6.04	11.79
2/7/2023 10:58	6.05	11.79
2/7/2023 10:59	6.04	11.79
2/7/2023 11:00	6.05	11.79
2/7/2023 11:01	6.04	11.80
2/7/2023 11:02	6.05	11.78
2/7/2023 11:03	6.06	11.78
2/7/2023 11:04	6.04	11.80
2/7/2023 11:05	6.03	11.80
2/7/2023 11:06	6.06	11.77
2/7/2023 11:07	6.04	11.80
2/7/2023 11:08	6.05	11.79
2/7/2023 11:09	6.03	11.81
2/7/2023 11:10	6.02	11.83
2/7/2023 11:11	6.02	11.83
2/7/2023 11:12	6.03	11.83
2/7/2023 11:13	6.03	11.82
2/7/2023 11:14	6.03	11.82
2/7/2023 11:15	6.03	11.82
2/7/2023 11:16	6.04	11.82
2/7/2023 11:17	6.02	11.84
2/7/2023 11:18	6.01	11.86
2/7/2023 11:19	6.03	11.83
2/7/2023 11:20	6.02	11.85

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 11:21	6.02	11.84
2/7/2023 11:22	6.01	11.85
2/7/2023 11:23	6.01	11.85
2/7/2023 11:24	6.00	11.87
2/7/2023 11:25	5.99	11.89
2/7/2023 11:26	6.00	11.88
2/7/2023 11:27	6.01	11.86
2/7/2023 11:28	5.99	11.88
2/7/2023 11:29	5.99	11.88
2/7/2023 11:30	5.98	11.89
2/7/2023 11:31	5.98	11.90
2/7/2023 11:32	5.98	11.90
2/7/2023 11:33	5.96	11.93
2/7/2023 11:34	5.98	11.91
2/7/2023 11:35	5.98	11.90
2/7/2023 11:36	5.99	11.90
2/7/2023 11:37	5.98	11.91
2/7/2023 11:38	5.97	11.92
2/7/2023 11:39	5.97	11.92
2/7/2023 11:40	5.97	11.93
2/7/2023 11:41	5.97	11.93
2/7/2023 11:42	5.98	11.93
2/7/2023 11:43	5.96	11.94
2/7/2023 11:44	5.97	11.94
2/7/2023 11:45	5.97	11.94
2/7/2023 11:46	5.96	11.95
2/7/2023 11:47	5.96	11.95
2/7/2023 11:48	5.97	11.94
2/7/2023 11:49	5.97	11.94
2/7/2023 11:50	5.97	11.94
2/7/2023 11:51	5.96	11.96
2/7/2023 11:52	5.96	11.96
2/7/2023 11:53	5.95	11.97
2/7/2023 11:54	5.95	11.97
2/7/2023 11:55	5.96	11.96
2/7/2023 11:56	5.96	11.96
2/7/2023 11:57	5.96	11.97
2/7/2023 11:58	5.97	11.95
2/7/2023 11:59	5.96	11.96
2/7/2023 12:00	5.97	11.95
2/7/2023 12:01	5.98	11.95
2/7/2023 12:02	5.97	11.96
2/7/2023 12:03	5.96	11.97
2/7/2023 12:04	5.96	11.97
2/7/2023 12:05	5.96	11.96
2/7/2023 12:06	5.96	11.96
2/7/2023 12:07	5.97	11.95
2/7/2023 12:08	5.96	11.96
2/7/2023 12:09	5.96	11.95

Primary Energy
Cokenergy Facility
HRSG Main Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/7/2023 12:10	5.98	11.95
2/7/2023 12:11	5.98	11.95
2/7/2023 12:12	5.98	11.94
2/7/2023 12:13	5.98	11.94
2/7/2023 12:14	5.98	11.95
2/7/2023 12:15	5.99	11.94
2/7/2023 12:16	5.97	11.96
2/7/2023 12:17	5.97	11.97
2/7/2023 12:18	5.96	11.98
2/7/2023 12:19	5.96	11.98
2/7/2023 12:20	5.96	11.98
2/7/2023 12:21	5.96	11.98
2/7/2023 12:22	5.97	11.96
2/7/2023 12:23	5.97	11.98
2/7/2023 12:24	5.97	11.97
2/7/2023 12:25	5.96	11.98
2/7/2023 12:26	5.98	11.96
2/7/2023 12:27	5.96	11.98
2/7/2023 12:28	5.96	11.99
2/7/2023 12:29	5.97	11.98
2/7/2023 12:30	5.96	11.99
2/7/2023 12:31	5.97	11.99
2/7/2023 12:32	5.97	12.00
2/7/2023 12:33	5.98	11.98
2/7/2023 12:34	5.97	11.99
2/7/2023 12:35	5.97	12.00
Average	**6.07**	**11.69**

Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/8/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	0.03	0.03	0.17	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.07	0.01	0.03	Pass
	High	17.52	08/28/27	CC487388	17.60	0.08	0.46	Pass
O_2	Low	0	10/29/27	CC313930	0.00	0.00	0.00	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.03	0.00	0.00	Pass
	High	22.02	08/28/27	CC487388	22.01	0.01	0.05	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Date:	2/9/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded by:	Gavin Lewis
Sample Location:	Main Stack	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

RM Analyzer Information			
Reference Method Probe Type (Moisture Basis):			Extractive (Dry)
Pollutant	Manufacturer	Model #	Serial Number
NO_X	-	-	-
SO_2	-	-	-
CO	-	-	-
CO_2	Servomex	1440	1440DI/3755
O_2	Servomex	1440	1440DI/3755

Reference Method Initial Calibration Error Test								
Pollutant	Cal Gas Level	Cal Gas Cylinder Information			Analyzer Response	Absolute Difference	% Cal Error	Error Status
		Concentration	Exp Date	ID #				
NO_X	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
SO_2	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO	Low	-	-	-	-	-	-	-
	Mid	-	-	-	-	-	-	-
	High	-	-	-	-	-	-	-
CO_2	Low	0	10/29/27	CC313930	0.03	0.03	0.17	Pass
	Mid	9.076	08/31/29	SG9167200BAL	9.03	0.05	0.26	Pass
	High	17.52	08/28/27	CC487388	17.51	0.01	0.06	Pass
O_2	Low	0	10/29/27	CC313930	0.02	0.02	0.09	Pass
	Mid	10.03	08/31/29	SG9167200BAL	10.04	0.01	0.05	Pass
	High	22.02	08/28/27	CC487388	22.01	0.01	0.05	Pass

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Instrumental Reference Method Field Data

Project Number:	508369	Start Date:	2/8/2023
Customer:	Primary Energy	End Date:	2/9/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
Load Level/Condition:	Normal	Fc Factor:	-
		Fd Factor:	-

Test Parameter				NO_X	SO_2	CO	CO_2	O_2	Volumetric Flow Rate	Moisture Fraction
Calibration Span, CS (Day 1)				-	-	-	17.52	22.02		
Calibration Span, CS (Day 2)				-	-	-	17.52	22.02		
Run No.	Start Date	First Minute	Last Minute	Run Average Raw Analyzer Responses					DSCFM	Bws
1	2/8/23	8:10	12:40	-	-	-	6.02	11.78	-	-
-	-	-	-	-	-	-	-	-	-	-
2	2/9/23	8:25	12:55	-	-	-	6.19	11.39	-	-

Actual Concentration of the Upscale Calibration Gas, C_{MA}					
	NO_X	SO_2	CO	CO_2	O_2
C_{MA} (Day 1)	-	-	-	9.076	10.03
C_{MA} (Day 2)	-	-	-	9.076	10.03

System Responses to Zero Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	0.05	0.05	0.05	0.02
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	0.06	0.04	0.04	0.00

System Responses to Upscale Calibration Gas										
Run No.	NO_X		SO_2		CO		CO_2		O_2	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	-	-	-	-	-	-	8.95	8.93	9.91	9.87
-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	8.90	8.94	9.90	9.89

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Instrumental Reference Method Calibration Data

Project Number:	508369	Start Date:	2/8/2023
Customer:	Primary Energy	End Date:	2/9/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis

CO_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (%vol)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	17.52	0.03	0.05	0.1	0.05	0.1	0.0
	Upscale Gas	17.52	9.07	8.95	-0.7	8.93	-0.8	0.1
2	Low Level Gas	17.52	0.03	0.06	0.2	0.04	0.1	0.1
	Upscale Gas	17.52	9.03	8.90	-0.7	8.94	-0.5	0.2

O_2 System Bias/Calibration Error and Drift Summary

Run #	Calibration Gas Level	Span	Cdir	Initial Values		Final Values		Drift
		Span Gas Concentration (%vol)	Direct Cal Response (ppm)	System Response (%vol)	System Bias (% of span)	System Response (%vol)	System Bias (% of span)	(% of span)
1	Low Level Gas	22.02	0	0.05	0.2	0.02	0.1	0.1
	Upscale Gas	22.02	10.03	9.91	-0.5	9.87	-0.7	0.2
2	Low Level Gas	22.02	0.02	0.04	0.1	0.00	-0.1	0.2
	Upscale Gas	22.02	10.04	9.90	-0.6	9.89	-0.7	0.0

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Instrumental Reference Method
Calibration Corrected Test Data

Project Number:	508369	Start Date:	2/8/2023
Customer:	Primary Energy	End Date:	2/9/2023
Unit Identification:	HRSG	Facility:	Cokenergy Facility
Sample Location:	Main Stack	Recorded by:	Gavin Lewis
RM Probe Type:	Extractive (Dry)	Fc Factor:	-
Load Level/Condition:	Normal	Fd Factor:	-

Reference Method Results, As Measured Moisture Basis

Run #	Date	Start Time	End Time	NOX ppmvd	SO2 ppmvd	CO ppmvd	CO2 % v/v dry	O2 % v/v dry
1	2/8/23	8:10	12:40	-	-	-	6.09	11.95
-	-	-	-	-	-	-	-	-
2	2/9/23	8:25	12:55	-	-	-	6.28	11.55

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Primary Energy
Cokenergy Facility
HRSG Stack

Date / Time	CO2 %dry	O2 %dry	
2/8/2023 7:35	0.03	0.00	Local linearity
2/8/2023 7:36	0.03	0.00	
2/8/2023 7:37	1.59	2.76	
2/8/2023 7:38	17.77	22.04	
2/8/2023 7:39	17.96	22.34	
2/8/2023 7:40	17.97	22.36	
2/8/2023 7:41	17.99	22.37	
2/8/2023 7:42	17.87	22.13	
2/8/2023 7:43	17.60	22.01	
2/8/2023 7:44	17.60	22.01	
2/8/2023 7:45	17.55	21.94	
2/8/2023 7:46	11.98	14.24	
2/8/2023 7:47	9.08	10.03	
2/8/2023 7:48	9.07	10.03	
2/8/2023 7:49	9.07	10.03	
2/8/2023 7:50	7.11	12.69	
2/8/2023 7:51	4.20	14.40	
2/8/2023 7:52	3.56	8.06	
2/8/2023 7:53	0.11	0.10	
2/8/2023 7:54	0.08	0.07	
2/8/2023 7:55	0.06	0.06	Remote calibrations
2/8/2023 7:56	0.05	0.05	
2/8/2023 7:57	0.05	0.05	
2/8/2023 7:58	1.52	1.97	
2/8/2023 7:59	8.79	9.86	
2/8/2023 8:00	8.92	9.90	
2/8/2023 8:01	8.94	9.91	
2/8/2023 8:02	8.95	9.91	
2/8/2023 8:03	8.38	9.12	
2/8/2023 14:22	0.05	0.02	Post Calibration Run
2/8/2023 14:23	0.05	0.02	
2/8/2023 14:24	0.92	1.27	
2/8/2023 14:25	8.75	9.81	
2/8/2023 14:26	8.89	9.84	
2/8/2023 14:27	8.91	9.85	
2/8/2023 14:28	8.92	9.85	
2/8/2023 14:29	8.93	9.86	
2/8/2023 14:30	8.93	9.87	
2/8/2023 14:31	8.93	9.87	

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 8:10	6.00	11.75
2/8/2023 8:11	6.00	11.75
2/8/2023 8:12	6.00	11.75
2/8/2023 8:13	5.99	11.77
2/8/2023 8:14	5.98	11.79
2/8/2023 8:15	5.98	11.80
2/8/2023 8:16	5.98	11.78
2/8/2023 8:17	6.01	11.77
2/8/2023 8:18	5.98	11.78
2/8/2023 8:19	5.98	11.79
2/8/2023 8:20	5.97	11.81
2/8/2023 8:21	5.98	11.79
2/8/2023 8:22	5.97	11.80
2/8/2023 8:23	5.99	11.76
2/8/2023 8:24	5.98	11.78
2/8/2023 8:25	6.01	11.75
2/8/2023 8:26	6.02	11.73
2/8/2023 8:27	6.04	11.71
2/8/2023 8:28	6.03	11.73
2/8/2023 8:29	6.02	11.73
2/8/2023 8:30	6.03	11.72
2/8/2023 8:31	6.02	11.73
2/8/2023 8:32	6.01	11.74
2/8/2023 8:33	6.01	11.75
2/8/2023 8:34	6.03	11.72
2/8/2023 8:35	6.03	11.72
2/8/2023 8:36	6.05	11.68
2/8/2023 8:37	6.05	11.68
2/8/2023 8:38	6.03	11.72
2/8/2023 8:39	6.01	11.75
2/8/2023 8:40	6.00	11.77
2/8/2023 8:41	6.00	11.77
2/8/2023 8:42	6.01	11.75
2/8/2023 8:43	6.00	11.77
2/8/2023 8:44	6.00	11.78
2/8/2023 8:45	6.00	11.78
2/8/2023 8:46	6.00	11.76
2/8/2023 8:47	6.02	11.78
2/8/2023 8:48	6.00	11.81
2/8/2023 8:49	6.01	11.79
2/8/2023 8:50	5.99	11.83
2/8/2023 8:51	5.98	11.83
2/8/2023 8:52	5.98	11.83
2/8/2023 8:53	5.98	11.84
2/8/2023 8:54	5.98	11.84
2/8/2023 8:55	5.97	11.84
2/8/2023 8:56	5.98	11.83
2/8/2023 8:57	6.00	11.81
2/8/2023 8:58	6.00	11.81

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 8:59	5.99	11.81
2/8/2023 9:00	6.00	11.82
2/8/2023 9:01	5.99	11.82
2/8/2023 9:02	5.99	11.83
2/8/2023 9:03	5.98	11.82
2/8/2023 9:04	6.01	11.79
2/8/2023 9:05	6.01	11.78
2/8/2023 9:06	6.03	11.77
2/8/2023 9:07	6.02	11.77
2/8/2023 9:08	6.01	11.78
2/8/2023 9:09	6.01	11.78
2/8/2023 9:10	6.01	11.80
2/8/2023 9:11	6.01	11.78
2/8/2023 9:12	6.01	11.78
2/8/2023 9:13	6.02	11.78
2/8/2023 9:14	6.02	11.76
2/8/2023 9:15	6.03	11.76
2/8/2023 9:16	6.03	11.76
2/8/2023 9:17	6.04	11.75
2/8/2023 9:18	6.03	11.76
2/8/2023 9:19	6.03	11.76
2/8/2023 9:20	6.00	11.78
2/8/2023 9:21	6.01	11.79
2/8/2023 9:22	6.02	11.78
2/8/2023 9:23	6.03	11.75
2/8/2023 9:24	6.03	11.76
2/8/2023 9:25	6.04	11.74
2/8/2023 9:26	6.05	11.72
2/8/2023 9:27	6.05	11.72
2/8/2023 9:28	6.05	11.73
2/8/2023 9:29	6.04	11.75
2/8/2023 9:30	6.03	11.74
2/8/2023 9:31	6.03	11.76
2/8/2023 9:32	6.03	11.75
2/8/2023 9:33	6.05	11.73
2/8/2023 9:34	6.07	11.70
2/8/2023 9:35	6.05	11.73
2/8/2023 9:36	6.05	11.72
2/8/2023 9:37	6.06	11.71
2/8/2023 9:38	6.04	11.74
2/8/2023 9:39	6.05	11.73
2/8/2023 9:40	6.03	11.76
2/8/2023 9:41	6.03	11.77
2/8/2023 9:42	6.02	11.78
2/8/2023 9:43	6.03	11.77
2/8/2023 9:44	6.01	11.79
2/8/2023 9:45	6.01	11.80
2/8/2023 9:46	6.00	11.81
2/8/2023 9:47	5.99	11.83

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 9:48	5.98	11.83
2/8/2023 9:49	5.98	11.82
2/8/2023 9:50	5.98	11.83
2/8/2023 9:51	5.97	11.85
2/8/2023 9:52	5.96	11.87
2/8/2023 9:53	5.96	11.86
2/8/2023 9:54	5.95	11.87
2/8/2023 9:55	5.96	11.87
2/8/2023 9:56	5.95	11.87
2/8/2023 9:57	5.94	11.90
2/8/2023 9:58	5.95	11.88
2/8/2023 9:59	5.95	11.89
2/8/2023 10:00	5.93	11.91
2/8/2023 10:01	5.94	11.90
2/8/2023 10:02	5.93	11.92
2/8/2023 10:03	5.92	11.92
2/8/2023 10:04	5.93	11.91
2/8/2023 10:05	5.92	11.92
2/8/2023 10:06	5.93	11.93
2/8/2023 10:07	5.90	11.96
2/8/2023 10:08	5.92	11.94
2/8/2023 10:09	5.91	11.96
2/8/2023 10:10	5.90	11.95
2/8/2023 10:11	5.91	11.95
2/8/2023 10:12	5.89	11.98
2/8/2023 10:13	5.89	11.99
2/8/2023 10:14	5.89	11.98
2/8/2023 10:15	5.88	11.98
2/8/2023 10:16	5.89	11.99
2/8/2023 10:17	5.89	11.99
2/8/2023 10:18	5.88	12.01
2/8/2023 10:19	5.87	12.01
2/8/2023 10:20	5.86	12.02
2/8/2023 10:21	5.86	12.02
2/8/2023 10:22	5.87	12.03
2/8/2023 10:23	5.85	12.04
2/8/2023 10:24	5.86	12.04
2/8/2023 10:25	5.87	12.03
2/8/2023 10:26	5.87	12.03
2/8/2023 10:27	5.86	12.04
2/8/2023 10:28	5.87	12.02
2/8/2023 10:29	5.86	12.06
2/8/2023 10:30	5.85	12.05
2/8/2023 10:31	5.86	12.03
2/8/2023 10:32	5.87	12.03
2/8/2023 10:33	5.84	12.07
2/8/2023 10:34	5.86	12.04
2/8/2023 10:35	5.87	12.03
2/8/2023 10:36	5.89	12.01

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 10:37	5.90	11.99
2/8/2023 10:38	5.92	11.97
2/8/2023 10:39	5.90	11.99
2/8/2023 10:40	5.90	11.99
2/8/2023 10:41	5.90	11.99
2/8/2023 10:42	5.91	11.96
2/8/2023 10:43	5.93	11.95
2/8/2023 10:44	5.94	11.94
2/8/2023 10:45	5.96	11.91
2/8/2023 10:46	5.95	11.92
2/8/2023 10:47	5.93	11.95
2/8/2023 10:48	5.94	11.93
2/8/2023 10:49	5.95	11.92
2/8/2023 10:50	5.94	11.94
2/8/2023 10:51	5.96	11.91
2/8/2023 10:52	5.95	11.93
2/8/2023 10:53	5.96	11.90
2/8/2023 10:54	5.98	11.89
2/8/2023 10:55	5.99	11.87
2/8/2023 10:56	5.97	11.90
2/8/2023 10:57	5.94	11.95
2/8/2023 10:58	5.95	11.91
2/8/2023 10:59	5.95	11.91
2/8/2023 11:00	5.96	11.91
2/8/2023 11:01	5.96	11.90
2/8/2023 11:02	5.96	11.90
2/8/2023 11:03	5.97	11.89
2/8/2023 11:04	5.97	11.88
2/8/2023 11:05	5.96	11.89
2/8/2023 11:06	5.95	11.90
2/8/2023 11:07	5.96	11.90
2/8/2023 11:08	5.97	11.88
2/8/2023 11:09	5.97	11.88
2/8/2023 11:10	5.99	11.87
2/8/2023 11:11	6.00	11.83
2/8/2023 11:12	6.01	11.83
2/8/2023 11:13	5.99	11.85
2/8/2023 11:14	5.99	11.85
2/8/2023 11:15	5.99	11.86
2/8/2023 11:16	5.98	11.86
2/8/2023 11:17	5.98	11.87
2/8/2023 11:18	5.98	11.86
2/8/2023 11:19	5.98	11.87
2/8/2023 11:20	5.98	11.87
2/8/2023 11:21	5.98	11.85
2/8/2023 11:22	6.01	11.82
2/8/2023 11:23	6.00	11.84
2/8/2023 11:24	6.00	11.84
2/8/2023 11:25	5.98	11.87

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 11:26	5.99	11.86
2/8/2023 11:27	6.02	11.81
2/8/2023 11:28	6.01	11.81
2/8/2023 11:29	6.05	11.76
2/8/2023 11:30	6.06	11.76
2/8/2023 11:31	6.03	11.78
2/8/2023 11:32	6.03	11.78
2/8/2023 11:33	6.04	11.78
2/8/2023 11:34	6.05	11.77
2/8/2023 11:35	6.07	11.75
2/8/2023 11:36	6.08	11.72
2/8/2023 11:37	6.09	11.70
2/8/2023 11:38	6.12	11.67
2/8/2023 11:39	6.13	11.66
2/8/2023 11:40	6.10	11.68
2/8/2023 11:41	6.10	11.68
2/8/2023 11:42	6.10	11.67
2/8/2023 11:43	6.10	11.68
2/8/2023 11:44	6.11	11.66
2/8/2023 11:45	6.11	11.67
2/8/2023 11:46	6.14	11.63
2/8/2023 11:47	6.13	11.63
2/8/2023 11:48	6.13	11.63
2/8/2023 11:49	6.13	11.64
2/8/2023 11:50	6.12	11.65
2/8/2023 11:51	6.10	11.67
2/8/2023 11:52	6.11	11.67
2/8/2023 11:53	6.12	11.65
2/8/2023 11:54	6.10	11.68
2/8/2023 11:55	6.11	11.65
2/8/2023 11:56	6.14	11.63
2/8/2023 11:57	6.14	11.63
2/8/2023 11:58	6.14	11.63
2/8/2023 11:59	6.15	11.62
2/8/2023 12:00	6.14	11.62
2/8/2023 12:01	6.13	11.63
2/8/2023 12:02	6.14	11.62
2/8/2023 12:03	6.13	11.62
2/8/2023 12:04	6.15	11.60
2/8/2023 12:05	6.16	11.57
2/8/2023 12:06	6.16	11.58
2/8/2023 12:07	6.18	11.56
2/8/2023 12:08	6.17	11.57
2/8/2023 12:09	6.15	11.58
2/8/2023 12:10	6.16	11.58
2/8/2023 12:11	6.14	11.61
2/8/2023 12:12	6.17	11.57
2/8/2023 12:13	6.17	11.56
2/8/2023 12:14	6.18	11.54

Primary Energy
Cokenergy Facility
HRSG Stack

Run 1

Date / Time	CO2 %dry	O2 %dry
2/8/2023 12:15	6.19	11.54
2/8/2023 12:16	6.17	11.56
2/8/2023 12:17	6.18	11.54
2/8/2023 12:18	6.18	11.54
2/8/2023 12:19	6.15	11.57
2/8/2023 12:20	6.16	11.56
2/8/2023 12:21	6.17	11.55
2/8/2023 12:22	6.17	11.56
2/8/2023 12:23	6.19	11.50
2/8/2023 12:24	6.20	11.49
2/8/2023 12:25	6.21	11.50
2/8/2023 12:26	6.21	11.49
2/8/2023 12:27	6.18	11.52
2/8/2023 12:28	6.19	11.51
2/8/2023 12:29	6.19	11.51
2/8/2023 12:30	6.18	11.52
2/8/2023 12:31	6.19	11.49
2/8/2023 12:32	6.20	11.48
2/8/2023 12:33	6.19	11.50
2/8/2023 12:34	6.19	11.51
2/8/2023 12:35	6.18	11.52
2/8/2023 12:36	6.18	11.54
2/8/2023 12:37	6.16	11.55
2/8/2023 12:38	6.15	11.57
2/8/2023 12:39	6.19	11.51
2/8/2023 12:40	6.19	11.50
Average	**6.02**	**11.78**

Primary Energy
Cokenergy Facility
HRSG Stack

Date / Time	CO2 %dry	O2 %dry	
2/9/2023 7:34	0.15	20.35	Local linearity
2/9/2023 7:35	0.14	20.34	
2/9/2023 7:36	0.15	20.36	
2/9/2023 7:37	0.14	20.36	
2/9/2023 7:38	0.15	20.35	
2/9/2023 7:39	0.15	20.35	
2/9/2023 7:40	0.08	7.97	
2/9/2023 7:41	0.03	0.04	
2/9/2023 7:42	0.03	0.03	
2/9/2023 7:43	0.03	0.02	
2/9/2023 7:44	10.52	13.68	
2/9/2023 7:45	16.99	21.61	
2/9/2023 7:46	17.46	22.02	
2/9/2023 7:47	18.34	22.02	
2/9/2023 7:48	17.88	22.03	
2/9/2023 7:49	17.81	22.02	
2/9/2023 7:50	17.82	22.03	
2/9/2023 7:51	17.58	22.03	
2/9/2023 7:52	17.55	22.03	
2/9/2023 7:53	17.51	22.01	
2/9/2023 7:54	14.07	17.26	
2/9/2023 7:55	9.05	10.05	
2/9/2023 7:56	9.03	10.04	
2/9/2023 7:57	5.45	14.75	
2/9/2023 7:58	5.16	12.76	
2/9/2023 7:59	5.56	10.16	
2/9/2023 8:00	0.19	0.11	
2/9/2023 8:01	0.09	0.06	Remote calibrations
2/9/2023 8:02	0.08	0.05	
2/9/2023 8:03	0.06	0.04	
2/9/2023 8:04	1.46	1.87	
2/9/2023 8:05	8.75	9.85	
2/9/2023 8:06	8.88	9.89	
2/9/2023 8:07	8.90	9.90	
2/9/2023 8:08	8.05	8.69	
2/9/2023 8:09	0.25	0.09	
2/9/2023 8:10	0.10	0.04	
2/9/2023 13:10	0.04	0.00	Post Calibration Run
2/9/2023 13:11	5.29	6.23	
2/9/2023 13:12	8.86	9.85	
2/9/2023 13:13	8.89	9.87	
2/9/2023 13:14	8.90	9.87	
2/9/2023 13:15	8.91	9.88	
2/9/2023 13:16	8.92	9.88	
2/9/2023 13:17	8.93	9.89	
2/9/2023 13:18	8.93	9.87	
2/9/2023 13:19	8.94	9.89	
2/9/2023 13:20	8.94	9.89	

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 8:25	6.33	11.14
2/9/2023 8:26	6.31	11.14
2/9/2023 8:27	6.30	11.15
2/9/2023 8:28	6.28	11.19
2/9/2023 8:29	6.30	11.16
2/9/2023 8:30	6.31	11.16
2/9/2023 8:31	6.33	11.11
2/9/2023 8:32	6.31	11.13
2/9/2023 8:33	6.30	11.15
2/9/2023 8:34	6.30	11.15
2/9/2023 8:35	6.29	11.18
2/9/2023 8:36	6.29	11.17
2/9/2023 8:37	6.30	11.14
2/9/2023 8:38	6.34	11.09
2/9/2023 8:39	6.36	11.05
2/9/2023 8:40	6.38	11.04
2/9/2023 8:41	6.37	11.04
2/9/2023 8:42	6.38	11.03
2/9/2023 8:43	6.37	11.04
2/9/2023 8:44	6.34	11.09
2/9/2023 8:45	6.34	11.09
2/9/2023 8:46	6.38	11.03
2/9/2023 8:47	6.37	11.05
2/9/2023 8:48	6.37	11.04
2/9/2023 8:49	6.36	11.06
2/9/2023 8:50	6.36	11.09
2/9/2023 8:51	6.35	11.10
2/9/2023 8:52	6.35	11.11
2/9/2023 8:53	6.34	11.13
2/9/2023 8:54	6.35	11.13
2/9/2023 8:55	6.38	11.06
2/9/2023 8:56	6.37	11.09
2/9/2023 8:57	6.36	11.10
2/9/2023 8:58	6.35	11.11
2/9/2023 8:59	6.35	11.10
2/9/2023 9:00	6.34	11.13
2/9/2023 9:01	6.33	11.12
2/9/2023 9:02	6.33	11.15
2/9/2023 9:03	6.35	11.11
2/9/2023 9:04	6.36	11.10
2/9/2023 9:05	6.36	11.10
2/9/2023 9:06	6.37	11.09
2/9/2023 9:07	6.36	11.10
2/9/2023 9:08	6.35	11.10
2/9/2023 9:09	6.34	11.11
2/9/2023 9:10	6.34	11.12
2/9/2023 9:11	6.34	11.10
2/9/2023 9:12	6.37	11.07
2/9/2023 9:13	6.35	11.10

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 9:14	6.35	11.10
2/9/2023 9:15	6.35	11.09
2/9/2023 9:16	6.35	11.09
2/9/2023 9:17	6.34	11.12
2/9/2023 9:18	6.34	11.12
2/9/2023 9:19	6.33	11.13
2/9/2023 9:20	6.33	11.14
2/9/2023 9:21	6.33	11.13
2/9/2023 9:22	6.31	11.15
2/9/2023 9:23	6.30	11.17
2/9/2023 9:24	6.30	11.17
2/9/2023 9:25	6.31	11.16
2/9/2023 9:26	6.29	11.18
2/9/2023 9:27	6.29	11.20
2/9/2023 9:28	6.27	11.21
2/9/2023 9:29	6.27	11.23
2/9/2023 9:30	6.27	11.25
2/9/2023 9:31	6.27	11.22
2/9/2023 9:32	6.26	11.23
2/9/2023 9:33	6.25	11.25
2/9/2023 9:34	6.25	11.25
2/9/2023 9:35	6.25	11.25
2/9/2023 9:36	6.26	11.23
2/9/2023 9:37	6.26	11.24
2/9/2023 9:38	6.25	11.26
2/9/2023 9:39	6.25	11.26
2/9/2023 9:40	6.25	11.26
2/9/2023 9:41	6.25	11.24
2/9/2023 9:42	6.27	11.24
2/9/2023 9:43	6.26	11.26
2/9/2023 9:44	6.25	11.27
2/9/2023 9:45	6.25	11.26
2/9/2023 9:46	6.27	11.24
2/9/2023 9:47	6.25	11.26
2/9/2023 9:48	6.25	11.27
2/9/2023 9:49	6.25	11.26
2/9/2023 9:50	6.25	11.25
2/9/2023 9:51	6.24	11.28
2/9/2023 9:52	6.23	11.30
2/9/2023 9:53	6.25	11.28
2/9/2023 9:54	6.24	11.30
2/9/2023 9:55	6.24	11.31
2/9/2023 9:56	6.24	11.30
2/9/2023 9:57	6.23	11.31
2/9/2023 9:58	6.21	11.34
2/9/2023 9:59	6.20	11.34
2/9/2023 10:00	6.20	11.34
2/9/2023 10:01	6.21	11.34
2/9/2023 10:02	6.22	11.33

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 10:03	6.20	11.34
2/9/2023 10:04	6.20	11.36
2/9/2023 10:05	6.19	11.37
2/9/2023 10:06	6.20	11.36
2/9/2023 10:07	6.20	11.34
2/9/2023 10:08	6.19	11.38
2/9/2023 10:09	6.20	11.35
2/9/2023 10:10	6.20	11.36
2/9/2023 10:11	6.19	11.37
2/9/2023 10:12	6.19	11.37
2/9/2023 10:13	6.18	11.40
2/9/2023 10:14	6.18	11.39
2/9/2023 10:15	6.18	11.39
2/9/2023 10:16	6.21	11.35
2/9/2023 10:17	6.20	11.37
2/9/2023 10:18	6.19	11.38
2/9/2023 10:19	6.19	11.39
2/9/2023 10:20	6.20	11.37
2/9/2023 10:21	6.18	11.40
2/9/2023 10:22	6.19	11.39
2/9/2023 10:23	6.20	11.39
2/9/2023 10:24	6.19	11.39
2/9/2023 10:25	6.18	11.41
2/9/2023 10:26	6.18	11.41
2/9/2023 10:27	6.20	11.38
2/9/2023 10:28	6.20	11.38
2/9/2023 10:29	6.19	11.38
2/9/2023 10:30	6.21	11.36
2/9/2023 10:31	6.21	11.36
2/9/2023 10:32	6.21	11.36
2/9/2023 10:33	6.21	11.36
2/9/2023 10:34	6.23	11.34
2/9/2023 10:35	6.22	11.35
2/9/2023 10:36	6.23	11.34
2/9/2023 10:37	6.21	11.36
2/9/2023 10:38	6.22	11.36
2/9/2023 10:39	6.22	11.35
2/9/2023 10:40	6.25	11.33
2/9/2023 10:41	6.23	11.33
2/9/2023 10:42	6.25	11.33
2/9/2023 10:43	6.26	11.31
2/9/2023 10:44	6.25	11.32
2/9/2023 10:45	6.23	11.35
2/9/2023 10:46	6.23	11.34
2/9/2023 10:47	6.23	11.36
2/9/2023 10:48	6.23	11.34
2/9/2023 10:49	6.23	11.36
2/9/2023 10:50	6.22	11.36
2/9/2023 10:51	6.22	11.35

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 10:52	6.23	11.34
2/9/2023 10:53	6.22	11.37
2/9/2023 10:54	6.22	11.36
2/9/2023 10:55	6.22	11.36
2/9/2023 10:56	6.22	11.36
2/9/2023 10:57	6.23	11.35
2/9/2023 10:58	6.22	11.37
2/9/2023 10:59	6.22	11.35
2/9/2023 11:00	6.22	11.35
2/9/2023 11:01	6.23	11.36
2/9/2023 11:02	6.25	11.31
2/9/2023 11:03	6.24	11.33
2/9/2023 11:04	6.22	11.35
2/9/2023 11:05	6.23	11.33
2/9/2023 11:06	6.23	11.33
2/9/2023 11:07	6.24	11.32
2/9/2023 11:08	6.22	11.37
2/9/2023 11:09	6.18	11.41
2/9/2023 11:10	6.18	11.41
2/9/2023 11:11	6.18	11.43
2/9/2023 11:12	6.19	11.41
2/9/2023 11:13	6.19	11.41
2/9/2023 11:14	6.19	11.43
2/9/2023 11:15	6.19	11.41
2/9/2023 11:16	6.19	11.41
2/9/2023 11:17	6.18	11.43
2/9/2023 11:18	6.14	11.48
2/9/2023 11:19	6.12	11.51
2/9/2023 11:20	6.12	11.51
2/9/2023 11:21	6.12	11.51
2/9/2023 11:22	6.12	11.51
2/9/2023 11:23	6.12	11.49
2/9/2023 11:24	6.14	11.48
2/9/2023 11:25	6.14	11.48
2/9/2023 11:26	6.13	11.49
2/9/2023 11:27	6.12	11.52
2/9/2023 11:28	6.14	11.48
2/9/2023 11:29	6.15	11.47
2/9/2023 11:30	6.14	11.48
2/9/2023 11:31	6.12	11.49
2/9/2023 11:32	6.14	11.48
2/9/2023 11:33	6.13	11.49
2/9/2023 11:34	6.13	11.49
2/9/2023 11:35	6.13	11.49
2/9/2023 11:36	6.12	11.51
2/9/2023 11:37	6.15	11.46
2/9/2023 11:38	6.14	11.48
2/9/2023 11:39	6.15	11.48
2/9/2023 11:40	6.13	11.49

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 11:41	6.13	11.49
2/9/2023 11:42	6.13	11.48
2/9/2023 11:43	6.12	11.51
2/9/2023 11:44	6.12	11.51
2/9/2023 11:45	6.12	11.50
2/9/2023 11:46	6.13	11.50
2/9/2023 11:47	6.12	11.51
2/9/2023 11:48	6.10	11.54
2/9/2023 11:49	6.11	11.54
2/9/2023 11:50	6.10	11.54
2/9/2023 11:51	6.10	11.55
2/9/2023 11:52	6.10	11.53
2/9/2023 11:53	6.09	11.55
2/9/2023 11:54	6.09	11.56
2/9/2023 11:55	6.08	11.56
2/9/2023 11:56	6.08	11.57
2/9/2023 11:57	6.08	11.58
2/9/2023 11:58	6.08	11.58
2/9/2023 11:59	6.07	11.58
2/9/2023 12:00	6.09	11.58
2/9/2023 12:01	6.09	11.57
2/9/2023 12:02	6.07	11.60
2/9/2023 12:03	6.07	11.62
2/9/2023 12:04	6.07	11.60
2/9/2023 12:05	6.08	11.60
2/9/2023 12:06	6.07	11.61
2/9/2023 12:07	6.06	11.62
2/9/2023 12:08	6.06	11.61
2/9/2023 12:09	6.07	11.60
2/9/2023 12:10	6.07	11.61
2/9/2023 12:11	6.06	11.61
2/9/2023 12:12	6.06	11.63
2/9/2023 12:13	6.07	11.62
2/9/2023 12:14	6.05	11.64
2/9/2023 12:15	6.04	11.65
2/9/2023 12:16	6.05	11.64
2/9/2023 12:17	6.04	11.67
2/9/2023 12:18	6.04	11.65
2/9/2023 12:19	6.03	11.68
2/9/2023 12:20	6.04	11.65
2/9/2023 12:21	6.04	11.67
2/9/2023 12:22	6.04	11.68
2/9/2023 12:23	6.03	11.67
2/9/2023 12:24	6.04	11.68
2/9/2023 12:25	6.02	11.69
2/9/2023 12:26	6.02	11.71
2/9/2023 12:27	6.01	11.71
2/9/2023 12:28	6.02	11.70
2/9/2023 12:29	6.03	11.70

Primary Energy
Cokenergy Facility
HRSG Stack

Run 2

Date / Time	CO2 %dry	O2 %dry
2/9/2023 12:30	6.02	11.71
2/9/2023 12:31	6.02	11.72
2/9/2023 12:32	6.02	11.72
2/9/2023 12:33	5.99	11.74
2/9/2023 12:34	5.99	11.75
2/9/2023 12:35	6.01	11.73
2/9/2023 12:36	6.01	11.74
2/9/2023 12:37	5.99	11.76
2/9/2023 12:38	6.00	11.75
2/9/2023 12:39	5.99	11.76
2/9/2023 12:40	5.98	11.79
2/9/2023 12:41	6.00	11.75
2/9/2023 12:42	5.98	11.77
2/9/2023 12:43	5.97	11.80
2/9/2023 12:44	5.97	11.80
2/9/2023 12:45	5.96	11.79
2/9/2023 12:46	5.98	11.77
2/9/2023 12:47	5.98	11.80
2/9/2023 12:48	5.99	11.78
2/9/2023 12:49	5.98	11.79
2/9/2023 12:50	5.99	11.80
2/9/2023 12:51	5.97	11.82
2/9/2023 12:52	5.98	11.80
2/9/2023 12:53	5.98	11.80
2/9/2023 12:54	5.98	11.79
2/9/2023 12:55	5.98	11.81
Average	**6.19**	**11.39**

Method 320 QA Data

Quality control measures for the FTIR measurements included calibrations, bias checks, and system and instrument leak checks as well as verification and documentation of instrument performance. The FTIR system was challenged with direct and system calibration checks for several components. A CTS (calibration transfer standard) containing ethylene (C_2H_4, nominally 10 ppm) was used for local and system calibration checks and to verify the system pathlength. Nitrogen gas from a nitrogen cylinder was used for local and system zero checks. Four gas standards hydrogen chloride (HCl)/sulfur hexafluoride (SF6), hydrogen fluoride (HF)/SF6, hydrogen cyanide (HCN)/SF6, and formaldehyde /SF6) were used for direct, system, and dynamic matrix spiking calibrations.

Testing was conducted on the HRSG Main Stack during normal conditions using one MKS FTIR analyzer and a heated, extractive sampling system.

Measurement Equipment Leak Checks, Detector Linearity Check

The sampling system was checked for leaks after assembly on-site and allowing all heated equipment to stabilize. The sampling system was leak-checked by capping the end of the sample probe and observing the sampling system flow rate as measured by an inline rotameter. The rotameters indicated zero flow, showing the sampling system was leak free.

A detector linearity check was performed by verifying that detector response in a region with no response had no detectable signal.

Table 1: Sampling System Leak Check, Instrument Leak Check, and Detector Linearity

Sampling System Leak Check	
Date Conducted	2/6/2023
Length of Sample Line (feet)	20
System Flow Rate (lpm)	12
Leak Check Flow Rate (lpm)	0
Allowable Leak Check Flow Rate (lpm)	0.2
Pass/Fail	**PASS**

MCT Detector Saturation Check	
Date Conducted	2/6/2023
Maximum Signal 200-500 cm^{-1}	0.002
Maximum Single Beam Signal	1.446
Allowable Signal 200-500 cm^{-1} (1% of Max)	0.01446
Pass/Fail	**PASS**

1% of Max Single Beam Signal Acceptance Criteria
(Not specified in method)

Figure 1: MKS Instrument Monitor Single Beam Signal at 200–500 cm^{-1}

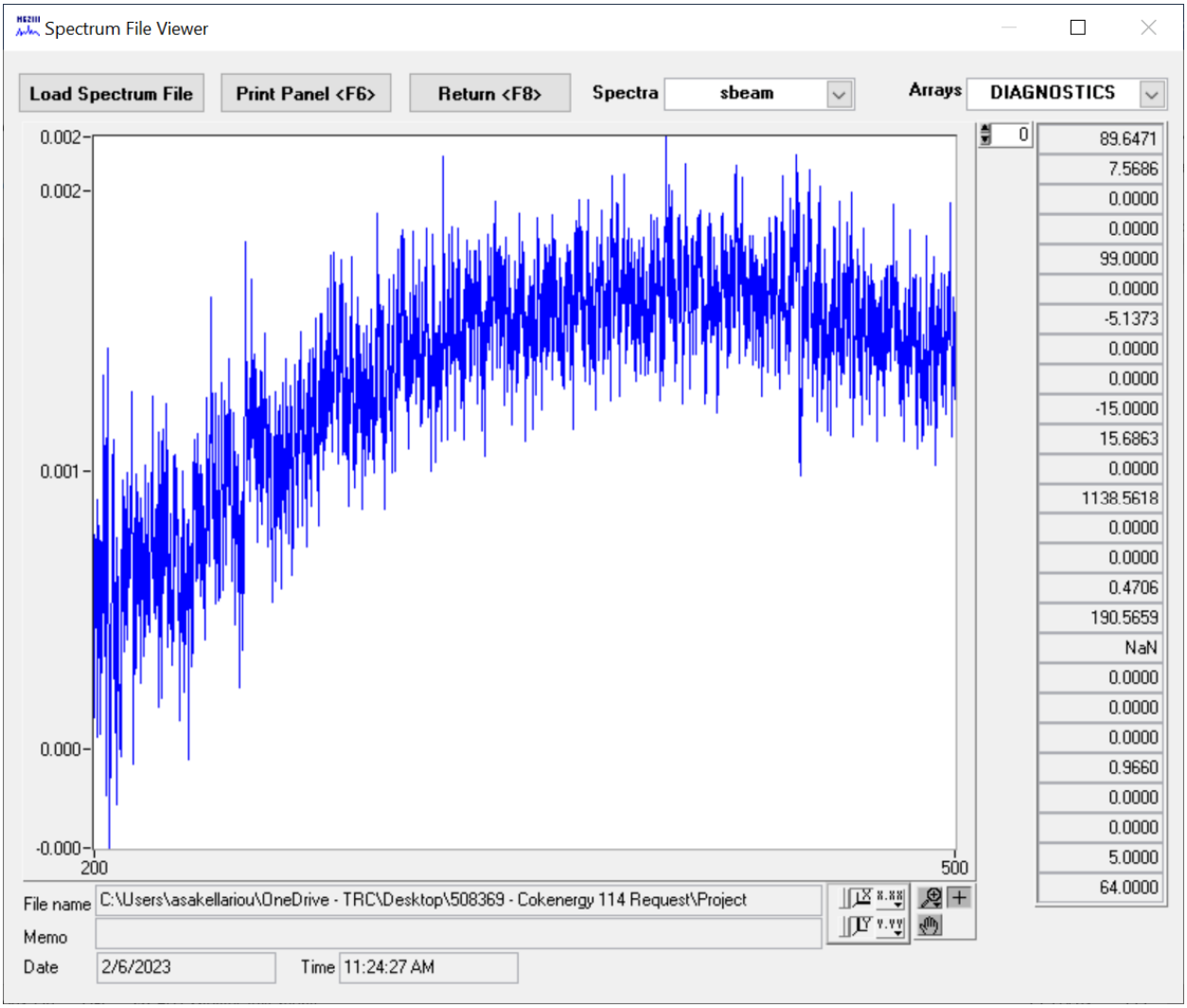
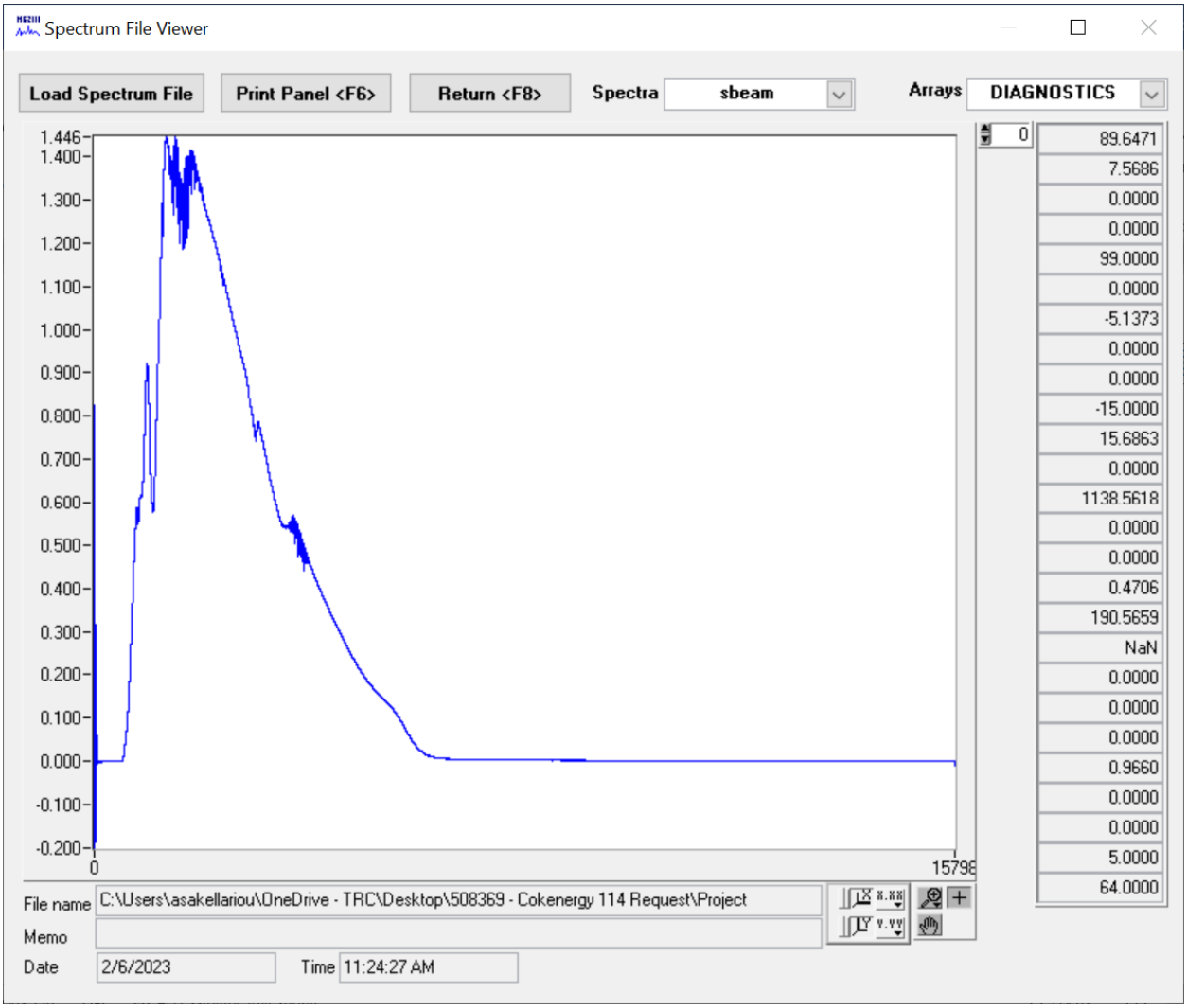


Figure 2: MKS Instrument Monitor Maximum Single Beam Signal



CTS Calibration Check

Direct and system CTS calibration measurements were made each day prior to the test runs and upon completion of testing. The 10.07 ppm ethylene (C_2H_4) gas standard (cylinder CC282663) was used to demonstrate instrument performance. The repeatability (% RPD) of each measurement is reported that is a calculation comparing two successive measurements of the CTS gas. The % RPD is a measure of the difference between two consecutive measurements and indicates the calibration gas had stabilized. The CTS gas calibrations met method requirements.

Table 2: FTIR CTS Measurement Summary

Cylinder Number	Ethylene Conc.
CC282663	10.07

CTS Measurement	Date Time	C_2H_4 Avg, ppm	C_2H_4 % Error	C_2H_4 % Repeatability	% Difference Pre/Post	Method Limit
Pre-Test Direct	2/06/23 09:31	10.29	2.22%	0.14%		
Post-Test Direct	2/06/23 17:12	9.94	-1.32%	0.22%	3.58%	5%
Pre-Test Direct	2/07/23 08:57	10.25	1.83%	0.16%		
Post-Test Direct	2/07/23 17:31	10.37	2.96%	0.10%	1.10%	5%
Pre-Test Direct	2/08/23 09:01	10.25	1.79%	0.03%		
Post-Test Direct	2/08/23 16:45	10.03	-0.40%	0.04%	2.20%	5%
Pre-Test System	2/06/23 09:40	10.27	2.03%	0.03%		
Post-Test System	2/06/23 17:07	10.05	-0.16%	0.11%	2.19%	5%
Pre-Test System	2/07/23 09:06	10.18	1.11%	0.14%		
Post-Test System	2/07/23 17:28	10.28	2.13%	0.16%	0.99%	5%
Pre-Test System	2/08/23 09:09	10.25	1.76%	0.55%		
Post-Test System	2/08/23 16:37	9.95	-1.21%	0.09%	3.00%	5%

FTIR CTS Response Summary

The sampling system response time was determined using the System CTS calibration. The CTS was measured in a system calibration immediately after a system zero calibration. A response time of 2 minutes was measured based on measuring 95% of the CTS cylinder concentration.

Table 3: CTS System Calibration Time Response

Date Time	C_2H_4 ppmvw	% Pre-Test System Concentration	Minutes	Time Response >95% Syst. Conc.
2/06/23 09:37	0.00	0.0%	0	
2/06/23 09:38	9.22	89.7%	1	
2/06/23 09:39	10.30	100.2%	2	>0.95
2/06/23 09:40	10.28	100.0%	3	
2/06/23 09:41	10.27	100.0%	4	

Direct and System Zero Calibration Check

The FTIR system was challenged with nitrogen gas (AirGas Cylinder CC313009) flowed directly to the analyzer as well as through the sampling system at the start and end of each test day. There is no method requirement for the zero-calibration check, but TRC has established a quality assurance standard requiring an acceptable zero calibration be demonstrated by detection of analytes (except H_2O and CO_2) below 1 ppm. The table below shows the zero measurement for selected analytes; acceptable zero calibration values were obtained for all measured compounds. The background concentrations were well below stack levels.

Table 4: Zero Calibration Measurement Summary

Zero Calibration	Date Time	Hydrogen Chloride HCl		Hydrogen Cyanide HCN		Hydrogen Fluoride HF		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
		ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
Pre-Test Direct	2/06/23 09:26	-0.010	0.028	-0.049	0.040	0.026	0.013	-0.024	0.021	-0.001	0.002	0.003	0.002
Pre-Test System	2/06/23 09:36	0.063	0.102	-0.251	0.187	0.020	0.015	-0.045	0.033	0.020	0.003	0.002	0.003
Post-Test System	2/06/23 17:02	0.236	0.067	-0.130	0.160	-0.015	0.018	0.130	0.030	0.003	0.004	0.044	0.013
Post-Test Direct	2/06/23 17:15	0.006	0.048	-0.155	0.129	-0.007	0.015	0.027	0.030	-0.001	0.004	0.051	0.013
Pre-Test Direct	2/07/23 08:52	-0.032	0.024	0.006	0.048	-0.014	0.015	0.045	0.020	0.004	0.002	-0.004	0.002
Pre-Test System	2/07/23 09:04	0.143	0.028	-0.037	0.053	0.001	0.015	0.006	0.021	0.005	0.002	-0.006	0.002
Post-Test System	2/07/23 17:26	0.345	0.037	-0.046	0.091	0.010	0.014	0.055	0.023	0.009	0.005	0.008	0.005
Post-Test Direct	2/07/23 17:31	0.040	0.036	0.099	0.097	-0.002	0.015	0.050	0.019	0.003	0.006	0.007	0.005
Pre-Test Direct	2/08/23 08:58	-0.006	0.028	-0.024	0.042	-0.012	0.013	-0.097	0.023	0.000	0.002	0.001	0.003
Pre-Test System	2/08/23 09:06	0.202	0.085	-0.219	0.144	0.002	0.013	-0.065	0.035	0.012	0.002	-0.003	0.003
Post-Test System	2/08/23 16:32	0.080	0.040	-0.089	0.105	0.019	0.013	-0.166	0.027	0.029	0.014	0.040	0.010
Post-Test Direct	2/08/23 16:48	0.061	0.037	-0.141	0.103	0.024	0.014	-0.060	0.025	0.029	0.013	0.037	0.011

Direct and System Calibration Check

Direct and system calibration measurements were performed with the following gas standards:

Table 5: List of Calibration and Spiking Gases

Cylinder Number	Cylinder Conc.	Compound
CC481144	25.22	HCl
CC481144	5.053	SF6
EB0130539	12.35	Formaldehyde
EB0130539	5.084	SF6
CC752703	25.90	HF
CC752703	5.47	SF6
SX40524	179.8	HCN
SX40524	20.1	SF6

Table 6: FTIR Calibration Measurement Summary

Compound	Cal Type	Date Time	Concentration Avg, ppm	Concentration % Error	Concentration % Repeatability
HCl	**Direct**	2/05/23 13:26	23.88	-5.3%	0.0%
SF6	**Direct**	2/05/23 13:26	5.060	0.1%	0.2%
Formaldehyde	**Direct**	2/05/23 11:05	11.64	-5.7%	0.2%
SF6	**Direct**	2/05/23 11:05	5.096	0.2%	0.1%
HF	**Direct**	2/05/23 12:25	20.74	-19.9%	0.2%
SF6	**Direct**	2/05/23 12:25	5.271	-3.6%	0.1%
HCN	**Direct**	2/05/23 10:32	175.23	-2.5%	0.1%
SF6	**Direct**	2/05/23 10:32	19.877	-1.1%	0.5%
HCl	**System**	2/07/23 17:19	22.72	-9.9%	0.4%
SF6	**System**	2/07/23 17:19	5.042	-0.2%	0.2%
Formaldehyde	**System**	2/06/23 16:56	11.39	-7.8%	0.8%
SF6	**System**	2/06/23 16:56	5.123	0.8%	0.2%
HCN	**System**	2/06/23 15:40	175.44	-2.4%	0.0%
SF6	**System**	2/06/23 15:40	19.914	-0.9%	0.1%

System Calibration Response Summary

The sampling system response time was determined using several gas standards based on the direct measured concentrations. The measured response time varied for the different compounds.

Table 7: System Calibration Time Response

Date Time	HCl ppmvw	% System Concentration	Minutes	Time Response >95% Syst. Conc.
2/07/23 17:09	0.15	0.6%	0	
2/07/23 17:10	8.67	38.2%	1	
2/07/23 17:11	18.14	79.8%	2	
2/07/23 17:12	20.06	88.3%	3	
2/07/23 17:13	20.93	92.1%	4	
2/07/23 17:14	21.41	94.3%	5	
2/07/23 17:15	21.88	96.3%	6	>0.95
2/07/23 17:16	22.09	97.2%	7	
2/07/23 17:17	22.35	98.4%	8	

Date Time	HCN ppmvw	% System Concentration	Minutes	Time Response >95% Syst. Conc.
2/06/23 15:36	-0.32	-0.2%	0	
2/06/23 15:37	56.74	32.3%	1	
2/06/23 15:38	174.02	99.2%	2	>0.95
2/06/23 15:39	175.24	99.9%	3	
2/06/23 15:40	175.49	100.0%	4	

Date Time	Formaldehyde ppmvw	% System Concentration	Minutes	Time Response >95% Syst. Conc.
2/06/23 16:45	-0.01	-0.1%	0	
2/06/23 16:46	1.29	11.3%	1	
2/06/23 16:47	10.90	95.7%	2	>0.95
2/06/23 16:48	10.94	96.0%	3	
2/06/23 16:49	11.09	97.4%	4	

Analysis Confirmation by Manual Subtraction

In order to confirm the accuracy of the computer analysis, a separate manual analysis was conducted by subtracting the scaled reference spectra of the analyzed compounds from a representative spectrum from the testing. The results from this scaled subtraction are compared with the computer analysis to verify accuracy. One spectral file from the HRSG Main Stack test location was used to confirm the computer CLS (Classical Least Squares) analysis. The spectra used were:

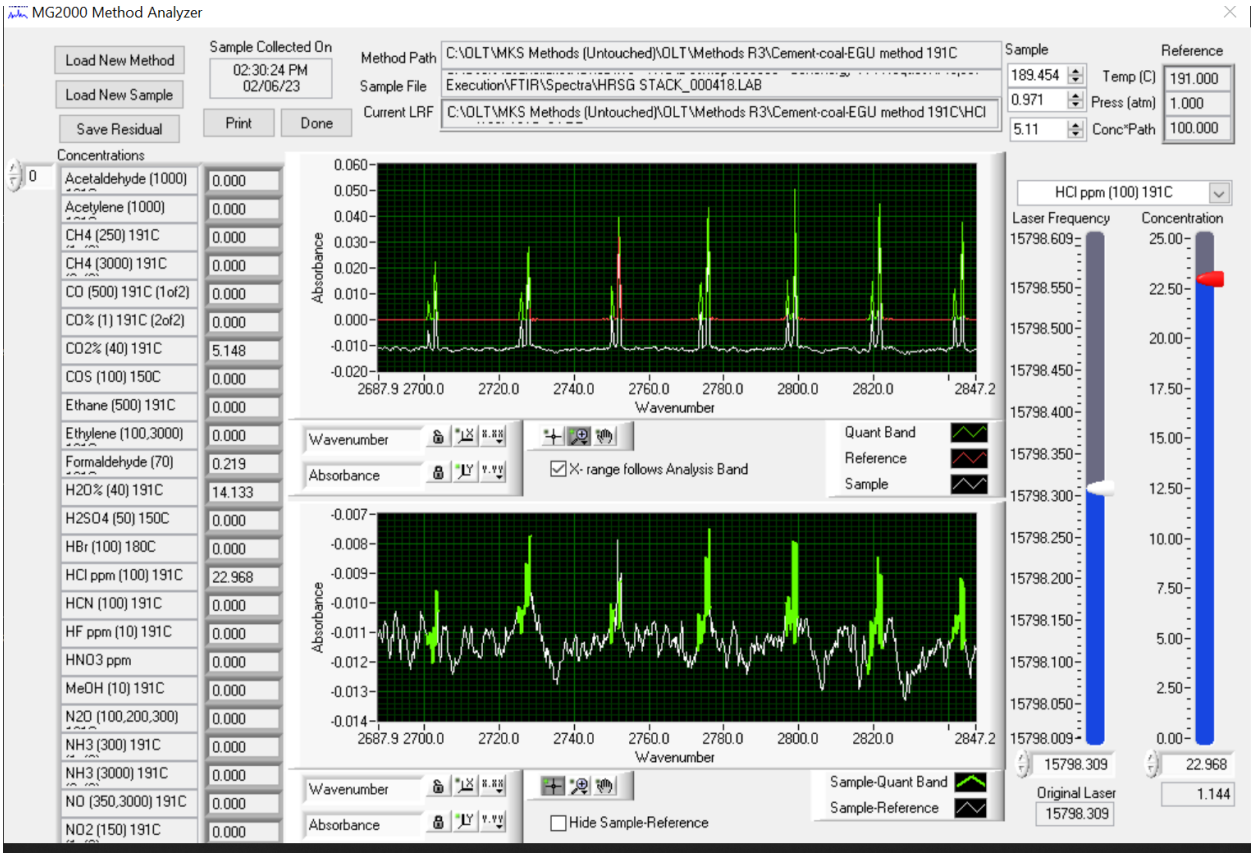
- HRSG STACK_000418.LAB, collected 2/6/2023 at 12:30 at the HRSG Main Stack Location during Run 3 and analyzed using MKS Method file "Cement-Coal-EGU Method 191C". This spectrum is representative of the measured emissions.

The reference spectra for the compounds identified in this spectrum were sequentially subtracted, and the subtraction factor (the ratio between the spectrum measured at the source and reference spectrum) was used to calculate the measured concentration. The table below compares the calculated and manually subtracted concentrations. In some cases, the percent difference between the two analyses is relatively large, but the absolute concentration difference is small. "ND" indicates the compound was not detected in the computerized analysis, and this was confirmed by manual subtraction. This comparison confirms the spectral analysis accuracy and verifies that additional compounds are not present in the matrix that could be interferents from the analytes of interest.

Table 8: FTIR Analysis Confirmation by Manual Subtraction

Confirmation of CLS Analysis by Manual Subtraction			
Company:	**Primary Energy**		
Plant:	**Cokenergy**		
Unit:	**HRSG**		
Sample Location:	**Main Stack**		
Project #:	**508369**		
Spectrum File Name	**HRSG STACK_000418.LAB**		
Spectrum Date	**2/6/2023**		
Spectrum Time	**12:30**		
Analysis Method	**Cement-Coal-EGU Method 191C**		
Compound	**Measured Concentration**	**Subtraction Concentration**	**% Difference**
Hydrogen Chloride HCl	**22.953**	**22.968**	**0.1%**
Hydrogen Fluoride HF	**-0.006**	**ND**	**ND**
Hydrogen Cyanide HCN	**-0.117**	**ND**	**ND**
Formaldehyde CH2O	**0.223**	**0.219**	**1.9%**
Water H2O	**14.116**	**14.133**	**0.1%**
Carbon Dioxide CO2	**5.250**	**5.148**	**2.0%**

Figure 3: MG2000 Method Analyzer Screenshot of HCl Manual Subtraction



Dynamic Matrix Spiking Calibration

Dynamic matrix spiking calibrations were conducted at the HRSG Main Stack test location using the gas standards listed in Table 5; the direct measured cylinder concentrations were used to calculate spike recoveries. A mass flow meter and needle valve were used to control the spike gas flow rate. The spiking results are summarized in the tables below. The acceptable limits for spike recovery in the EPA Method 320 are 70-130% recovery. The dilution ratio is calculated using the tracer gas measurement, and in turn the expected spike value is calculated from the dilution ratio. The spiking met all method requirements.

Table 9: Dynamic Matrix Spiking

Dynamic Matrix Spiking Table		Spike Gas:	HCl	23.88	Measured Concentration
Date Conducted	2/7/2023	Tracer Gas:	SF6	5.060	Measured Concentration
	Time Start	Time End	HCl ppm	SF6 ppm	
Tracer Off	13:13	13:17		-0.004	
Tracer On	13:27	13:31		0.301	
Spike Off	13:13	13:17	2.81		
Spike On	13:27	13:31	3.77		
	Expected Spike		1.44		
	Spike Off		2.81	-0.004	
	Diluted Spike Off		2.64		Corrected: Dilution by Spike
	Spike On		3.77	0.301	
	Dilution Factor			0.060	**16.61** Dilution Ratio
	Measured Spike		1.14	0.305	
	Spike Recovery		**79.0%**		

Dynamic Matrix Spiking Table		Spike Gas:	HF	25.90	Cylinder Concentration
Date Conducted	2/8/2023	Tracer Gas:	SF6	5.470	Cylinder Concentration
	Time Start	Time End	HF ppm	SF6 ppm	
Tracer Off	13:19	13:23		-0.016	
Tracer On	14:04	14:08		0.468	
Spike Off	13:19	13:23	-0.06		
Spike On	14:04	14:08	2.40		
	Expected Spike		2.29		
	Spike Off		-0.06	-0.016	
	Diluted Spike Off		-0.05		Corrected: Dilution by Spike
	Spike On		2.40	0.468	
	Dilution Factor			0.088	**11.32** Dilution Ratio
	Measured Spike		2.45	0.483	
	Spike Recovery		**107.2%**		

Dynamic Matrix Spiking Table		Spike Gas:	HCN	175.23	Measured Concentration
Date Conducted	2/6/2023	Tracer Gas:	SF6	19.877	Measured Concentration
	Time Start	Time End	HCN ppm	SF6 ppm	
Tracer Off	14:51	14:55		-0.006	
Tracer On	15:01	15:05		0.402	
Spike Off	14:51	14:55	-0.06		
Spike On	15:01	15:05	3.43		
	Expected Spike		3.59		
	Spike Off		-0.06	-0.006	
	Diluted Spike Off		-0.06		Corrected: Dilution by Spike
	Spike On		3.43	0.402	
	Dilution Factor			0.021	**48.76** Dilution Ratio
	Measured Spike		3.49	0.408	
	Spike Recovery		**97.2%**		

Dynamic Matrix Spiking Table		Spike Gas:	Formaldehyde	11.64	Measured Concentration
Date Conducted	2/6/2023	Tracer Gas:	SF6	5.096	Measured Concentration
	Time Start	Time End	Formaldehyde ppm	SF6 ppm	
Tracer Off	15:45	15:49		-0.006	
Tracer On	15:59	16:03		0.290	
Spike Off	15:45	15:49	0.16		
Spike On	15:59	16:03	0.68		
	Expected Spike		0.68		
	Spike Off		0.16	-0.006	
	Diluted Spike Off		0.15		Corrected: Dilution by Spike
	Spike On		0.68	0.290	
	Dilution Factor			0.058	**17.21** Dilution Ratio
	Measured Spike		0.53	0.296	
	Spike Recovery		**78.7%**		

Dynamic Matrix Example Calculation for HCl

The example calculations demonstrate how spike recovery for HCl was calculated. First the Dilution Ratio for the spike flow rate that was used is calculated from the measured SF_6 tracer concentration and the SF_6 unspiked and spiked measurements:

Dilution Ratio

DILUTION RATIO = TRACER GAS (SPIKED) - TRACER GAS (UNSPIKED) / TRACER GAS MEASURED CONCENTRATION

Tracer Spiked =	0.305	ppm
Tracer Unspiked Spiked =	-0.004	ppm
Tracer Measured Concentration =	5.060	ppm
Dilution Ratio =	**0.060**	**or 16.61 : 1**

The total measured spike is the difference between the spiked and unspiked concentrations, but first the unspiked level must be corrected for dilution by the spike. In other words, when the spike is added to the gas stream, the original gas concentration is diluted by the presence of the spike, and so is less than the measured unspiked concentration. The unspiked concentration is corrected using the average unspiked measurement and the Dilution Ratios:

Unspiked Concentration (Dilution Correction)

CORRECTED UNSPIKED CONCENTRATION = UNSPIKED CONCENTRATION X (1- DILUTION RATIO)

Unspiked Concentration =	2.81	ppm
Dilution Ratio =	0.060	
Corrected Unspiked Concentration =	**2.64**	**ppm**

The expected spike concentration is calculated from the direct measured concentration and the dilution ratio:

Expected Spike Concentration

EXPECTED CONCENTRATION = SPIKE GAS MEASURED CONCENTRATION X DILUTION RATIO

Spike Measured Concentration =	23.88	ppm
Dilution Ratio =	0.060	
Expected Spike Concentration =	**1.44**	**ppm**

The measured spike concentration is the difference between the spiked and corrected unspiked concentrations:

Measured Spike Concentration

MEASURED SPIKE CONCENTRATION = SPIKED - UNSPIKED CONCENTRATION (DILUTION CORRECTED)

Spiked Concentration =	3.77	ppm
Unspiked Concentration	2.64	ppm
Measured Spike Concentration =	**1.14**	**ppm**

The Spike Recovery is then calculated from the ratio of the expected and measured spike concentrations:

Percent Spike Recovery

$$\% \text{ SPIKE RECOVERY} = 1 - \frac{(\text{EXPECTED SPIKE} - \text{MEASURED SPIKE})}{\text{EXPECTED SPIKE}} \times 100$$

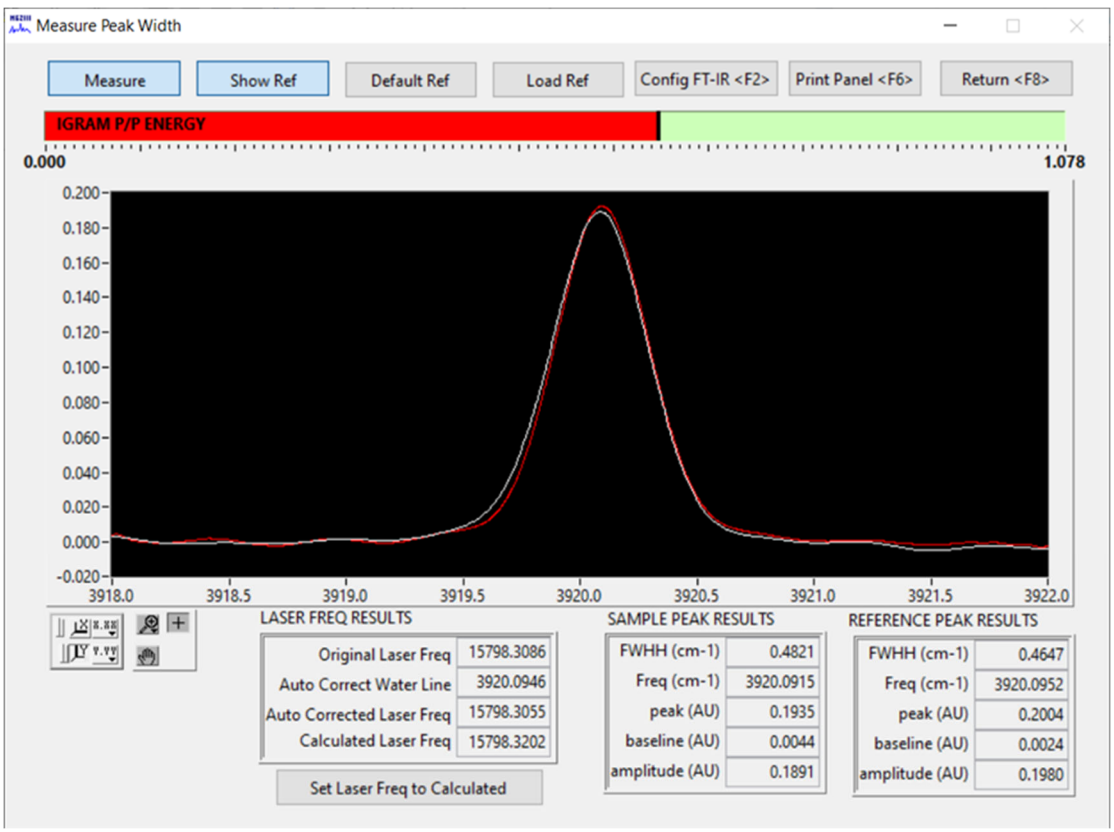
Expected Spike =	1.44	ppm
Measured Spike =	1.14	ppm
Percent Spike Recovery =	**79.0%**	

FTIR Peak Width and Wavelength Accuracy

The screenshots below show the total FTIR wavelength and peak width accuracy (in comparison with a water peak from a reference standard). These demonstrate that the MKS FTIR was operating properly.

Equipment Information	
FTIR Analyzer	MKS AU4
Background Averaging Time (sec) (Normally 120 sec)	128
Spectrum Averaging Time (sec) (Normally 60 sec)	64
FTIR Cell Temperature (^{o}C) (Normally 191 ^{o}C)	191
Wavenumber Range (verify set to 600-4500 cm^{-1})	600 - 4500

Figure 4: MKS Peak Width Screenshot



EPA Protocol Calculations

The EPA FTIR protocol defines two measures of FTIR data quality, the Minimum Analytical Uncertainty (MAU) and the Fractional Model Uncertainty (FMU). These are analogous to the Instrumental Detection Limit and Percent Measurement Uncertainty used in other analytical measurements. The MAU is a measure of the noise limited detection limit and does not take into account the interferences encountered in measuring a complex gas matrix. The FMU is a more true detection limit taking into account the interferences in the gas matrix.

The noise-limited detection is defined in EPA Reference Method 320 as Minimum Analytical Uncertainty defined as:

$$\mathbf{MAU} = \frac{RMS_{noise} * [\nu_u - \nu_l]}{\frac{\mathbf{A}_i}{\mathbf{C}_i * \mathbf{L}_i}}$$

In this equation RMS_{noise} is the RMS (root mean square) noise in the analysis region between ν_u and ν_l, A_i the area of the ith reference spectrum in this analysis region, while C_i, L_i are the concentration and path length of the reference spectrum. MAU has the units of ppm*m and represents the lowest detection possible with the system as limited by system noise. If the system has a path length of L the ppm limit is (1/L) time this value.

The true detection of an FTIR system is usually limited not by noise but by interference from other compounds. The FMU attempts to model this by looking at the spectral residual resulting after analysis (what is left over that the analysis routines have not accounted for) and comparing this to the reference spectra. FMU is defined as:

$$\mathbf{FMU} = \frac{RMS_{resid} * (\nu_u - \nu_l)}{\frac{\mathbf{A}_i}{(\mathbf{C}_i * \mathbf{L}_i)} * C_i^{cls}}$$

Here RMS_{resid} is the RMS of the spectral residual in the analysis region from ν_u to ν_l, A_i is (as above) the area of the ith reference spectrum normalized to its concentration (C_i) and path length (L_i), and C_i^{cls} is the (ppm*m) concentration provided by the CLS-routine (classical least squares) for the ith analyte. The FMU is a percentage representing the percent-uncertainty of the analysis system near detection limit. The CLS error bar provided by most CLS routines is very similar to this value as it is derived from the spectral residual and the references as well.

An equivalent extractive FTIR test method has been published by ASTM (ASTM D6348 12, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy). This test method includes additional equations

to calculate the MDC (minimum detectable concentration). For example, the MDC #1 and MDC#3 are defined as:

$$\boldsymbol{MDC\#1} = \frac{RMS_{noise}}{RMS_{ref}} \times \frac{C_i \times L_i}{L_{cell}}$$

$$\boldsymbol{MDC\#3} = \frac{RMS_{resid}}{RMS_{ref}} \times \frac{C_i \times L_i}{L_{cell}}$$

These equations are shown in a different format than the ASTM method so that the factors defined above can be expressed in the same fashion. The RMS_{ref} is the RMS of the reference spectrum in the analysis region from v_u to v_l and L_{cell} is the pathlength of the gas cell used in the test program. The ASTM Method also states that the spectral residual returned by the CLS analysis program of the FTIR analyzer can be used as MDC#3.

The figure below summarizes the FTIR Protocol and ASTM calculations for this test program. A single spectrum from the HRSG Main Stack test location (file name HRSG STACK_000418.LAB, collected 2/6/2023 at 12:30 during Run 3) was selected as representative of the test runs and used for the calculations. The table lists the measured concentration and residual from the CLS analysis and the calculated MAU and FMU for the analytes of interest. The different calculations yield a wide range of concentrations. The absorbance features are plainly visible (and can be analyzed) to concentrations below 0.1 ppm. The spectral residuals indicate that the measurements were performed with sufficient accuracy to quantify the analyte concentrations. Please note the HF analysis wave number range is not compatible with the support spectra and therefore calculations were not performed for HF.

Figure 5: FTIR Protocol Calculation Summary

Analyte	Measured Conc. (ppm)	ASTM D6348 MDC#3	ASTM D6348 MDC#1	FTIR Protocol MAU (ppm)	FTIR Protocol FMU (%)	Measured CLS Residual
HCL PPM (100) 191C	22.91	1.47	0.36	0.66	2.66	0.69
HCN (100) 191C	-0.12	1.73	2.19	3.75	2.96	0.71
FORMALDEHYDE (70) 191C	0.22	0.9	0.43	0.51	1.08	1.34

EPA Method 301 Validations

TRC performed a Method 301 validation for HCl at the HRSG Main Stack. One sampling system (heated probe, umbilical, pump, and manifold) was used to spike with an HCl/SF_6 calibration gas (cylinder CC481144, 25.22 ppm HCl/5.104 ppm SF_6) and for unspiked sampling. The FTIR system alternated sampling between the spiked and unspiked gas streams to collect the required 12 paired samples.

The Table below summarizes the Validation measurements and calculations. Because the Relative Bias was <10%, the calculated correction factor of 1.05 did not have to be applied. The Plot below shows the spiked and unspiked measurements for HCl and SF_6.

Time Spiked	Time Unspiked	Sample Pair	HCl Spiked S_i	HCl Unspiked S_u	HCl Unspiked Corrected $S_{u\ cor}$	HCl S_i-S_m	HCl $(S_i-S_m)^2$	SF_6 Spiked	SF_6 Tracer Unspiked T_u	SF_6 Tracer Spiked T_s	DilFactor	1-DilFactor	1-DF*Su	CS	Bias	HCl Expected Spike S_{exp}	HCl Measured Spike S_{meas}	HCl % Spike Recovery
14:48	**15:00**	1	**8.3**	**6.9**	**6.3**	2.16	4.66	**0.43**	**-0.0041**	**0.44**	0.086	0.91	6.3	8.4	-0.05	2.1	2.0	97.6%
15:05	**15:10**	2	**8.1**	**7.0**	**6.4**	1.94	3.78	**0.43**	**-0.0047**	**0.44**	0.087	0.91	6.4	8.4	-0.33	2.1	1.7	83.9%
15:12	**15:16**	3	**8.1**	**6.7**	**6.1**	1.94	3.75	**0.43**	**-0.0056**	**0.44**	0.086	0.91	6.1	8.2	-0.06	2.1	2.0	97.0%
15:20	**15:25**	4	**7.8**	**6.7**	**6.1**	1.59	2.53	**0.43**	**-0.0098**	**0.44**	0.087	0.91	6.1	8.2	-0.41	2.1	1.7	80.3%
15:28	**15:34**	5	**7.8**	**6.8**	**6.2**	1.59	2.52	**0.43**	**-0.0056**	**0.44**	0.086	0.91	6.2	8.3	-0.54	2.1	1.5	73.7%
15:55	**15:51**	6	**6.1**	**4.9**	**4.4**	-0.11	0.01	**0.43**	**-0.0066**	**0.44**	0.087	0.91	4.4	6.5	-0.45	2.1	1.6	78.1%
16:04	**16:00**	7	**5.8**	**4.3**	**4.0**	-0.38	0.14	**0.43**	**-0.0069**	**0.44**	0.087	0.91	4.0	6.0	-0.25	2.1	1.8	88.1%
16:08	**16:13**	8	**5.2**	**3.9**	**3.6**	-0.99	0.99	**0.43**	**-0.0083**	**0.44**	0.087	0.91	3.6	5.7	-0.50	2.1	1.6	76.0%
16:26	**16:20**	9	**5.0**	**3.4**	**3.1**	-1.18	1.40	**0.43**	**-0.0082**	**0.44**	0.087	0.91	3.1	5.2	-0.17	2.1	1.9	91.7%
16:37	**16:30**	10	**4.5**	**2.8**	**2.6**	-1.67	2.78	**0.43**	**-0.0062**	**0.44**	0.087	0.91	2.6	4.7	-0.17	2.1	1.9	91.9%
16:47	**16:41**	11	**3.9**	**2.4**	**2.1**	-2.26	5.09	**0.43**	**-0.0046**	**0.43**	0.086	0.91	2.1	4.2	-0.29	2.1	1.8	85.9%
16:55	**16:51**	12	**3.5**	**2.1**	**1.9**	-2.63	6.89	**0.44**	**-0.0061**	**0.44**	0.088	0.91	1.9	4.0	-0.49	2.1	1.6	76.7%
		Average	**6.2**	**4.8**	**4.4**			**0.43**	**-0.0064**	**0.44**	0.087	0.91	4.4	**6.5**	**-0.31**	2.1	1.8	**85.1%**

Measured HCl Cylinder Concentration	C_{cyl}	**23.88**	**ppm**
Measured SF_6 Cyinder Concentration	$C_{cyl(tracer)}$	**5.060**	**ppm**
Average Spiked Measurement	S_m	**6.17**	**ppm**
Calculated Spike	C_s	**6.48**	**ppm**
Standard Deviation	SD	1.77	
	RSD	28.73%	
Mean Std Dev	SDM	0.512	
Bias	$B=S_m-C_S$	-0.31	**ppm**
	t=B/SDM	0.6	
Correction Factor	CF	1.05	
Relative Bias	Br=B/CS	4.77%	
Spike Recovery			
Expected Spike	$S_{exp}=DR*C_{cyl}$	2.1	**ppm**
Measured Spike	$S_{meas} = S_m - S_{u\ cor}$	1.8	**ppm**
% Spike Recovery	$\%R=S_{meas}/S_{exp}$	85.1%	

TRC also performed a Method 301 validation for HF at the HRSG Main Stack. Two identical sampling systems (heated probe, umbilical, pump, and manifold) were assembled. One sampling system was spiked with an HF/SF_6 calibration gas (cylinder CC752703, 25.9 ppm HF/5.47 ppm SF_6) and the second sampling system was unspiked. The FTIR alternated sampling between the spiked and unspiked gas streams to collect the required 12 paired samples. Separate sampling systems were used for the spiked and unspiked samples in order to achieve faster time response. HF is slow to equilibrate in the sampling system, and by continuously sampling the spiked stream the time response was improved. An "overspiking" technique was employed to improve response time. The spike flow was increased while the unspiked gas stream was measured, and then the spike flow was reduced to measure the spiked concentration.

The Table below summarizes the Validation measurements and calculations. Because the Relative Bias was <10%, the calculated correction factor of 1.08 did not have to be applied. The Plot below shows the spiked and unspiked measurements for HF and SF_6.

Time	Time		HF	HF	HF	HF	HF	SF_6	SF_6	SF_6						HF	HF	HF
Spiked	Unspiked	Sample Pair	Spiked S_i	Unspiked S_u	Unspiked Corrected $S_{u\,cor}$	S_i-S_m	$(S_i$-$S_m)^2$	Spiked	Tracer Unspiked T_u	Tracer Spiked T_s	DilFactor	1-DilFactor	1-DF*Su	CS	Bias	Expected Spike S_{exp}	Measured Spike S_{meas}	% Spike Recovery
15:11	**15:26**	1	**2.1**	**0.2**	**0.2**	-0.42	0.18	**0.49**	**-0.0116**	**0.50**	0.092	0.91	0.2	2.5	-0.47	2.4	1.9	80.3%
15:30	**15:46**	2	**2.4**	**0.2**	**0.2**	-0.10	0.01	**0.49**	**-0.0106**	**0.50**	0.091	0.91	0.2	2.6	-0.20	2.4	2.2	91.7%
15:49	**16:09**	3	**2.5**	**0.3**	**0.2**	0.00	0.00	**0.49**	**-0.0106**	**0.50**	0.091	0.91	0.2	2.6	-0.13	2.4	2.2	94.5%
16:16	**16:23**	4	**2.6**	**0.4**	**0.4**	0.13	0.02	**0.49**	**-0.0100**	**0.50**	0.091	0.91	0.4	2.8	-0.15	2.4	2.2	93.8%
16:30	**16:36**	5	**2.4**	**0.5**	**0.4**	-0.05	0.00	**0.49**	**-0.0119**	**0.50**	0.091	0.91	0.4	2.8	-0.34	2.4	2.0	85.6%
16:39	**16:58**	6	**2.6**	**0.4**	**0.3**	0.16	0.02	**0.49**	**-0.0087**	**0.50**	0.091	0.91	0.3	2.7	-0.05	2.4	2.3	98.0%
17:01	**17:12**	7	**2.8**	**0.4**	**0.4**	0.36	0.13	**0.49**	**-0.0114**	**0.50**	0.092	0.91	0.4	2.7	0.10	2.4	2.5	104.3%
17:15	**17:24**	8	**2.7**	**0.4**	**0.3**	0.18	0.03	**0.49**	**-0.0073**	**0.50**	0.091	0.91	0.3	2.7	-0.02	2.4	2.3	99.1%
17:28	**17:31**	9	**2.2**	**0.5**	**0.4**	-0.28	0.08	**0.49**	**-0.0111**	**0.50**	0.092	0.91	0.4	2.8	-0.58	2.4	1.8	75.4%
17:34	**17:43**	10	**2.5**	**0.5**	**0.4**	0.00	0.00	**0.45**	**-0.0139**	**0.46**	0.085	0.92	0.4	2.6	-0.13	2.2	2.1	93.9%
17:46	**17:49**	11	**2.1**	**0.4**	**0.4**	-0.34	0.12	**0.49**	**-0.0131**	**0.50**	0.092	0.91	0.4	2.7	-0.59	2.4	1.8	75.0%
17:53	**18:03**	12	**2.9**	**0.5**	**0.4**	0.37	0.14	**0.48**	**-0.0131**	**0.50**	0.091	0.91	0.4	2.8	0.09	2.3	2.4	103.8%
		Average	**2.5**	**0.4**	**0.3**			**0.49**	**-0.0111**	**0.50**	0.091	0.91	0.3	**2.7**	**-0.21**	2.4	2.1	**91.3%**

HF Cylinder Concentration	C_{cyl}	**25.90**	**ppm**
SF_6 Cyinder Concentration	$C_{cyl(tracer)}$	**5.47**	**ppm**
Average Spiked Measurement	S_m	**2.49**	**ppm**
Calculated Spike	C_s	**2.69**	**ppm**
Standard Deviation	SD	0.26	
	RSD	10.31%	
Mean Std Dev	SDM	0.074	
Bias	$B=S_m-C_S$	-0.21	**ppm**
	t=B/SDM	2.8	
Correction Factor	CF	1.08	
Relative Bias	Br=B/CS	7.64%	
Spike Recovery			
Expected Spike	$S_{exp}=DR*C_{cyl}$	2.4	**ppm**
Measured Spike	$S_{meas} = S_m - S_{u\,cor}$	2.1	**ppm**
% Spike Recovery	$\%R=S_{meas}/S_{exp}$	91.3%	

Method 301 Validation Example Calculations for HCl

The example calculations below demonstrate how the Method 301 validation for HCl was calculated:

Dilution Ratio

$$DR = \frac{(T_s - T_u)}{C_{cyl(tracer)}}$$

SF_6 Tracer Spiked T_s =	0.439	**ppmv**
SF_6 Tracer Unspiked T_u =	-0.006	**ppmv**
Tracer Cylinder Concentration =	5.060	**ppmv**
Dilution Ratio DR =	**0.087**	**or 11.54 : 1**

Unspiked Concentration (Dilution Correction)

$$S_{u\,cor} = S_u \times (1 - DR)$$

Unspiked Concentration =	4.82	**ppmv**
1-Dilution Ratio =	0.913	
Corrected Unspiked Concentration $S_{u\,cor}$=	**4.41**	**ppmv**

Expected Spike Concentration

$$S_{exp} = DR \times C_{cyl}$$

DR =	0.087	
C_{cyl} =	23.9	
Expected Spike Concentration S_{exp}=	**2.07**	**ppmv**

Measured Spike

$$S_{meas} = S_m - S_{u\ corr}$$

S_m =	**6.17**	**ppmv**
$S_{u\ corr}$ =	**4.41**	**ppmv**
S_{meas} =	**1.76**	**ppmv**

% Recovery

$$\%R = \frac{S_{meas}}{S_{exp}}$$

S_{meas} =	**1.76**	**ppmv**
S_{exp} =	**2.07**	**ppmv**
%R =	**85.1%**	

Calculated Spike

$$C_s = DR \times C_{cyl} + S_{u,cor} \times (1 - DR)$$

DR =	0.087	
C_{cyl} =	**23.88**	**ppm**
$S_{u\ corr}$ =	**4.41**	**ppmv**
C_S =	6.477	

Measured Spike Standard Deviation SD= $\sqrt{\frac{\sum_{i=1}^{n}(S_i - S_m)^2}{n-1}} = \sqrt{\frac{34.54}{11}} = 1.77$

Mean Standard Deviation $SDM = \frac{SD}{\sqrt{n}} = \frac{1.77}{\sqrt{12}} = 0.512$

Bias $B = S_m - CS = 6.17 - 6.48 = -0.31$

Bias Test using t-statistic $t = \frac{|B|}{SDM} = \frac{0.31}{0.512} = 0.61$

IF t>2.201 Bias is statistically significant and correction can be applied

Test Run 1	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 10:18	12.96	0.179	0.09	0.173	-0.02	0.223	0.14	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:19	12.74	0.178	0.08	0.171	-0.05	0.221	0.14	0.08	14.6	0.01	5.2	0.02
2/6/2023 10:20	12.28	0.175	0.08	0.168	-0.02	0.219	0.08	0.08	14.6	0.01	5.2	0.02
2/6/2023 10:21	12.59	0.173	0.08	0.171	-0.05	0.224	0.07	0.08	14.6	0.01	5.2	0.02
2/6/2023 10:22	13.49	0.189	0.08	0.169	-0.02	0.212	0.05	0.07	14.6	0.01	5.2	0.02
2/6/2023 10:23	14.21	0.190	0.06	0.171	-0.04	0.214	0.14	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:24	13.93	0.187	0.09	0.175	-0.06	0.214	0.10	0.08	14.7	0.01	5.2	0.02
2/6/2023 10:25	14.07	0.187	0.07	0.172	-0.03	0.213	0.01	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:26	14.21	0.195	0.08	0.172	-0.07	0.214	0.18	0.08	14.6	0.01	5.2	0.02
2/6/2023 10:27	14.48	0.193	0.08	0.169	-0.04	0.211	0.16	0.07	14.6	0.01	5.2	0.02
2/6/2023 10:28	14.84	0.199	0.07	0.173	-0.04	0.210	0.02	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:29	15.31	0.201	0.07	0.169	-0.05	0.217	0.21	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:30	15.69	0.205	0.06	0.166	-0.10	0.221	0.15	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:31	16.02	0.209	0.07	0.164	-0.11	0.219	0.13	0.07	14.5	0.02	5.2	0.02
2/6/2023 10:32	16.06	0.206	0.05	0.173	-0.14	0.210	0.17	0.07	14.5	0.02	5.2	0.02
2/6/2023 10:33	16.58	0.211	0.05	0.164	-0.16	0.212	0.06	0.07	14.5	0.02	5.2	0.02
2/6/2023 10:34	16.63	0.208	0.05	0.167	-0.09	0.211	0.07	0.08	14.5	0.02	5.2	0.02
2/6/2023 10:35	16.68	0.210	0.05	0.172	-0.09	0.201	0.10	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:36	16.60	0.205	0.06	0.163	-0.12	0.207	0.10	0.08	14.5	0.02	5.2	0.02
2/6/2023 10:37	16.95	0.212	0.03	0.167	-0.10	0.208	0.15	0.07	14.5	0.02	5.3	0.02
2/6/2023 10:38	17.45	0.214	0.06	0.165	-0.09	0.206	0.10	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:39	17.32	0.217	0.05	0.165	-0.10	0.208	0.04	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:40	17.25	0.215	0.03	0.164	-0.08	0.203	0.15	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:41	17.48	0.217	0.04	0.172	-0.06	0.206	0.03	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:42	17.50	0.215	0.02	0.168	-0.08	0.204	0.10	0.08	14.6	0.02	5.2	0.02
2/6/2023 10:43	17.43	0.216	0.04	0.169	-0.05	0.208	0.17	0.07	14.6	0.02	5.3	0.02
2/6/2023 10:44	17.17	0.210	0.02	0.170	-0.04	0.203	0.04	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:45	16.56	0.206	0.02	0.167	-0.04	0.206	0.13	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:46	16.91	0.211	0.05	0.173	-0.07	0.214	0.18	0.08	14.5	0.02	5.2	0.02
2/6/2023 10:47	18.52	0.224	0.02	0.169	-0.08	0.209	0.11	0.08	14.5	0.02	5.2	0.02
2/6/2023 10:48	18.71	0.230	0.04	0.169	-0.12	0.202	0.12	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:49	19.00	0.233	0.03	0.166	-0.14	0.202	0.23	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:50	18.97	0.231	0.04	0.169	-0.08	0.205	0.20	0.08	14.6	0.02	5.3	0.02
2/6/2023 10:51	18.66	0.233	0.02	0.169	-0.06	0.205	0.13	0.07	14.6	0.02	5.3	0.02
2/6/2023 10:52	18.67	0.226	0.03	0.170	-0.07	0.206	0.11	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:53	18.79	0.230	0.05	0.172	-0.02	0.211	0.11	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:54	18.95	0.230	0.02	0.170	-0.03	0.199	0.12	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:55	19.30	0.234	0.01	0.171	-0.08	0.207	0.15	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:56	19.19	0.235	0.04	0.171	-0.06	0.205	0.18	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:57	18.87	0.228	0.03	0.174	-0.10	0.206	0.20	0.08	14.5	0.02	5.2	0.02
2/6/2023 10:58	19.51	0.235	0.03	0.171	-0.04	0.198	0.14	0.08	14.5	0.02	5.3	0.02
2/6/2023 10:59	19.55	0.240	0.03	0.167	-0.10	0.204	0.12	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:00	19.06	0.235	0.03	0.167	-0.13	0.209	0.15	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:01	19.01	0.235	0.04	0.170	-0.06	0.207	0.18	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:02	19.12	0.233	0.02	0.171	0.01	0.206	0.10	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:03	19.47	0.235	0.03	0.175	-0.02	0.209	0.12	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:04	19.14	0.236	0.02	0.171	-0.01	0.203	0.11	0.08	14.6	0.02	5.3	0.02
2/6/2023 11:05	18.33	0.224	0.02	0.171	-0.03	0.209	0.15	0.08	14.6	0.02	5.3	0.02
2/6/2023 11:06	18.45	0.221	0.04	0.168	0.05	0.206	0.07	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:07	18.91	0.229	0.00	0.174	0.01	0.206	0.09	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:08	19.98	0.246	0.01	0.174	-0.11	0.202	0.12	0.07	14.5	0.02	5.3	0.02

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Test Run 1	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 11:09	19.85	0.248	0.04	0.167	-0.10	0.205	0.12	0.08	14.4	0.02	5.3	0.02
2/6/2023 11:10	18.99	0.234	0.00	0.165	-0.14	0.210	0.17	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:11	18.46	0.230	0.03	0.170	-0.15	0.205	0.15	0.08	14.4	0.02	5.3	0.02
2/6/2023 11:12	18.50	0.226	0.01	0.170	-0.03	0.205	0.11	0.08	14.4	0.02	5.3	0.02
2/6/2023 11:13	18.65	0.229	0.03	0.172	-0.07	0.202	0.12	0.08	14.4	0.02	5.3	0.02
2/6/2023 11:14	19.17	0.233	0.03	0.174	-0.08	0.207	0.13	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:15	19.27	0.237	0.00	0.171	-0.02	0.206	0.16	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:16	18.91	0.230	0.01	0.172	-0.06	0.206	0.17	0.08	14.5	0.02	5.3	0.02
2/6/2023 11:17	18.15	0.227	0.01	0.171	-0.09	0.206	0.09	0.07	14.5	0.02	5.3	0.02
2/6/2023 11:18	18.59	0.230	0.02	0.173	-0.09	0.203	0.14	0.08	14.5	0.02	5.3	0.02

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Test Run 2	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 11:19	18.90	0.234	0.02	0.175	-0.01	0.202	0.17	0.076	14.4	0.02	5.3	0.02
2/6/2023 11:20	18.90	0.234	0.01	0.172	-0.08	0.206	0.13	0.075	14.4	0.02	5.3	0.02
2/6/2023 11:21	19.00	0.235	0.03	0.176	-0.07	0.203	0.10	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:22	18.60	0.230	0.03	0.169	-0.11	0.203	0.06	0.075	14.4	0.02	5.3	0.02
2/6/2023 11:23	18.50	0.235	0.00	0.174	-0.07	0.211	0.07	0.080	14.4	0.02	5.3	0.02
2/6/2023 11:24	19.20	0.239	0.03	0.174	-0.05	0.207	0.11	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:25	19.90	0.238	0.01	0.174	-0.09	0.209	0.08	0.075	14.4	0.02	5.3	0.02
2/6/2023 11:26	20.30	0.250	0.01	0.172	-0.10	0.205	0.16	0.075	14.5	0.02	5.3	0.02
2/6/2023 11:27	19.90	0.240	0.04	0.171	-0.04	0.205	0.24	0.079	14.4	0.02	5.3	0.02
2/6/2023 11:28	20.20	0.248	0.01	0.171	-0.07	0.208	0.14	0.075	14.4	0.02	5.3	0.02
2/6/2023 11:29	20.40	0.252	0.02	0.167	-0.09	0.209	0.18	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:30	20.10	0.243	0.01	0.171	-0.05	0.208	0.12	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:31	20.20	0.245	0.04	0.173	-0.09	0.202	0.18	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:32	19.60	0.239	0.01	0.174	-0.03	0.209	0.14	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:33	19.70	0.244	0.01	0.173	-0.06	0.208	0.18	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:34	20.10	0.247	0.03	0.171	-0.06	0.206	0.19	0.075	14.4	0.02	5.3	0.02
2/6/2023 11:35	20.30	0.246	0.03	0.171	-0.14	0.208	0.22	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:36	20.30	0.242	0.03	0.172	-0.06	0.204	0.11	0.076	14.4	0.02	5.3	0.02
2/6/2023 11:37	20.70	0.251	0.03	0.176	-0.03	0.206	0.18	0.078	14.4	0.02	5.3	0.02
2/6/2023 11:38	20.90	0.248	0.02	0.170	-0.06	0.201	0.15	0.077	14.3	0.02	5.3	0.02
2/6/2023 11:39	20.50	0.251	0.02	0.173	-0.10	0.205	0.23	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:40	20.00	0.245	0.01	0.176	-0.02	0.205	0.07	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:41	20.00	0.250	0.02	0.168	-0.01	0.201	0.12	0.082	14.4	0.02	5.3	0.02
2/6/2023 11:42	20.20	0.250	0.02	0.171	-0.10	0.206	0.13	0.077	14.4	0.02	5.3	0.02
2/6/2023 11:43	20.80	0.250	0.02	0.171	-0.11	0.206	0.16	0.079	14.3	0.02	5.3	0.02
2/6/2023 11:44	21.60	0.263	0.01	0.174	-0.07	0.202	0.10	0.075	14.3	0.02	5.3	0.02
2/6/2023 11:45	22.10	0.268	0.00	0.176	-0.10	0.206	0.15	0.078	14.3	0.02	5.3	0.02
2/6/2023 11:46	22.00	0.264	0.02	0.173	-0.08	0.201	0.11	0.076	14.4	0.02	5.3	0.02
2/6/2023 11:47	21.70	0.261	0.02	0.174	-0.12	0.212	0.17	0.079	14.3	0.02	5.3	0.02
2/6/2023 11:48	21.80	0.265	0.00	0.171	-0.15	0.206	0.12	0.079	14.3	0.02	5.3	0.02
2/6/2023 11:49	21.50	0.256	0.01	0.171	-0.12	0.210	0.23	0.077	14.3	0.02	5.3	0.02
2/6/2023 11:50	21.20	0.256	0.01	0.170	-0.10	0.207	0.18	0.077	14.4	0.02	0	0.02
2/6/2023 11:51	21.10	0.258	0.01	0.172	-0.08	0.208	0.12	0.076	14.4	0.02	0	0.02
2/6/2023 11:52	21.80	0.262	0.02	0.175	-0.09	0.207	0.10	0.077	14.3	0.02	0	0.02
2/6/2023 11:53	22.00	0.260	0.02	0.169	-0.03	0.205	0.11	0.080	14.3	0.02	0	0.02
2/6/2023 11:54	22.10	0.268	0.03	0.167	-0.10	0.204	0.15	0.078	14.3	0.02	0	0.02
2/6/2023 11:55	22.80	0.271	0.02	0.174	-0.13	0.208	0.05	0.080	14.3	0.02	0	0.02
2/6/2023 11:56	23.40	0.276	0.01	0.173	-0.07	0.211	0.13	0.078	14.3	0.02	0	0.02
2/6/2023 11:57	23.10	0.275	0.03	0.175	-0.08	0.205	0.27	0.076	14.3	0.02	0	0.02
2/6/2023 11:58	23.50	0.278	0.02	0.173	-0.08	0.203	0.09	0.080	14.3	0.02	0	0.02
2/6/2023 11:59	22.90	0.275	0.03	0.174	-0.03	0.211	0.17	0.081	14.3	0.02	0	0.02
2/6/2023 12:00	23.10	0.274	0.02	0.172	-0.06	0.209	0.17	0.079	14.3	0.02	0	0.02
2/6/2023 12:01	22.90	0.274	0.01	0.169	-0.13	0.211	0.17	0.076	14.3	0.02	0	0.02
2/6/2023 12:02	22.20	0.266	0.01	0.170	-0.10	0.207	0.10	0.080	14.2	0.02	0	0.02
2/6/2023 12:03	22.30	0.264	0.00	0.172	-0.09	0.212	0.15	0.079	14.3	0.02	0	0.02
2/6/2023 12:04	22.80	0.268	-0.01	0.171	-0.08	0.208	0.13	0.078	14.2	0.02	0	0.02
2/6/2023 12:05	22.60	0.270	0.00	0.171	-0.04	0.203	0.16	0.079	14.3	0.02	0	0.02
2/6/2023 12:06	22.50	0.274	0.00	0.173	0.04	0.204	0.18	0.081	14.3	0.02	0	0.02
2/6/2023 12:07	22.20	0.265	0.01	0.174	-0.03	0.208	0.11	0.077	14.3	0.02	0	0.02
2/6/2023 12:08	21.50	0.258	0.00	0.172	-0.05	0.209	0.11	0.081	14.3	0.02	0	0.02
2/6/2023 12:09	21.50	0.260	-0.01	0.178	-0.11	0.206	0.10	0.079	14.3	0.02	0	0.02

Test Run 2	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 12:10	21.40	0.261	-0.01	0.177	-0.11	0.208	0.17	0.079	14.3	0.02	0	0.02
2/6/2023 12:11	21.60	0.263	-0.01	0.173	-0.06	0.211	0.07	0.082	14.3	0.02	0	0.02
2/6/2023 12:12	22.10	0.263	0.01	0.172	-0.05	0.208	0.13	0.079	14.2	0.02	0	0.02
2/6/2023 12:13	22.40	0.271	0.00	0.173	-0.10	0.209	0.08	0.079	14.2	0.02	0	0.02
2/6/2023 12:14	22.90	0.272	0.02	0.172	-0.05	0.209	0.09	0.078	14.2	0.02	0	0.02
2/6/2023 12:15	22.70	0.272	0.00	0.173	-0.18	0.213	0.22	0.079	14.2	0.02	0	0.02
2/6/2023 12:16	23.40	0.277	0.02	0.173	-0.11	0.206	0.15	0.076	14.3	0.02	0	0.02
2/6/2023 12:17	23.50	0.277	0.00	0.175	-0.13	0.211	0.16	0.076	14.3	0.02	0	0.02
2/6/2023 12:18	23.00	0.275	0.01	0.171	-0.09	0.213	0.17	0.076	14.2	0.02	0	0.02
2/6/2023 12:19	22.80	0.270	0.02	0.171	0.00	0.212	0.27	0.078	14.2	0.02	0	0.02

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Test Run 3	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 12:20	22.56	0.266	-0.01	0.171	-0.07	0.208	0.13	0.079	14.2	0.02	5.3	0.02
2/6/2023 12:21	21.82	0.259	0.01	0.173	-0.08	0.203	0.12	0.080	14.3	0.02	5.3	0.02
2/6/2023 12:22	22.03	0.267	0.01	0.173	-0.01	0.209	0.05	0.081	14.2	0.02	5.2	0.02
2/6/2023 12:23	21.83	0.260	-0.01	0.170	-0.08	0.208	0.12	0.078	14.2	0.02	5.3	0.02
2/6/2023 12:24	21.85	0.263	0.00	0.173	-0.11	0.205	0.18	0.079	14.2	0.02	5.3	0.02
2/6/2023 12:25	22.01	0.264	0.00	0.173	-0.06	0.210	0.15	0.077	14.2	0.02	5.3	0.02
2/6/2023 12:26	22.74	0.271	-0.01	0.170	-0.08	0.207	0.10	0.080	14.2	0.02	5.2	0.02
2/6/2023 12:27	23.11	0.276	0.01	0.172	-0.08	0.208	0.18	0.079	14.2	0.02	5.2	0.02
2/6/2023 12:28	23.40	0.276	0.00	0.172	-0.12	0.207	0.12	0.078	14.2	0.02	5.3	0.02
2/6/2023 12:29	24.10	0.282	-0.01	0.169	-0.08	0.215	0.14	0.078	14.2	0.02	5.3	0.02
2/6/2023 12:30	22.95	0.271	-0.01	0.166	-0.12	0.212	0.22	0.078	14.1	0.02	5.3	0.02
2/6/2023 12:31	22.41	0.268	0.00	0.169	-0.18	0.209	0.24	0.076	14.1	0.02	5.3	0.02
2/6/2023 12:32	22.43	0.267	0.01	0.171	-0.11	0.211	0.22	0.078	14.2	0.02	5.3	0.02
2/6/2023 12:33	23.06	0.275	0.01	0.171	-0.03	0.212	0.21	0.076	14.2	0.02	5.3	0.02
2/6/2023 12:34	24.02	0.283	-0.01	0.172	-0.05	0.211	0.12	0.078	14.2	0.02	5.2	0.02
2/6/2023 12:35	24.01	0.281	-0.02	0.170	-0.05	0.212	0.21	0.080	14.3	0.02	5.3	0.02
2/6/2023 12:36	23.39	0.280	0.01	0.169	-0.07	0.209	0.19	0.079	14.2	0.02	5.3	0.02
2/6/2023 12:37	23.79	0.277	0.00	0.170	-0.05	0.212	0.13	0.077	14.1	0.02	5.2	0.02
2/6/2023 12:38	24.00	0.279	0.00	0.172	-0.08	0.213	0.09	0.079	14.1	0.02	5.2	0.02
2/6/2023 12:39	24.49	0.286	-0.01	0.171	-0.08	0.208	0.14	0.077	14.1	0.02	5.2	0.02
2/6/2023 12:40	25.15	0.289	-0.02	0.172	-0.01	0.209	0.08	0.077	14.2	0.02	5.3	0.02
2/6/2023 12:41	24.26	0.281	-0.02	0.171	-0.03	0.209	0.15	0.076	14.2	0.02	5.2	0.02
2/6/2023 12:42	23.31	0.272	-0.02	0.171	-0.07	0.208	0.05	0.078	14.3	0.02	5.3	0.03
2/6/2023 12:43	23.63	0.276	-0.01	0.173	-0.08	0.211	0.19	0.080	14.2	0.02	5.3	0.02
2/6/2023 12:44	24.63	0.283	0.00	0.171	-0.05	0.210	0.07	0.078	14.2	0.02	5.3	0.02
2/6/2023 12:45	25.56	0.291	-0.02	0.172	-0.04	0.205	0.15	0.077	14.2	0.02	5.3	0.02
2/6/2023 12:46	25.32	0.292	0.00	0.173	-0.02	0.211	0.19	0.079	14.2	0.02	5.3	0.02
2/6/2023 12:47	24.60	0.287	-0.01	0.169	-0.08	0.211	0.16	0.077	14.2	0.02	5.3	0.02
2/6/2023 12:48	24.86	0.289	-0.02	0.176	-0.08	0.217	0.07	0.078	14.2	0.02	5.3	0.03
2/6/2023 12:49	23.90	0.276	-0.01	0.172	-0.01	0.211	0.12	0.079	14.2	0.02	5.2	0.02
2/6/2023 12:50	24.83	0.286	-0.02	0.174	-0.09	0.213	0.12	0.080	14.1	0.02	5.2	0.02
2/6/2023 12:51	25.23	0.288	0.00	0.170	-0.09	0.212	0.16	0.079	14.1	0.02	0	0.02
2/6/2023 12:52	24.53	0.284	-0.01	0.174	-0.07	0.211	0.16	0.081	14.1	0.02	0	0.02
2/6/2023 12:53	24.29	0.278	0.01	0.175	-0.05	0.209	0.16	0.079	14.1	0.02	0	0.02
2/6/2023 12:54	23.90	0.280	-0.01	0.174	-0.08	0.213	0.15	0.079	14.1	0.02	0	0.02
2/6/2023 12:55	23.60	0.275	-0.03	0.173	-0.11	0.206	0.12	0.079	14.1	0.02	0	0.02
2/6/2023 12:56	23.39	0.275	-0.01	0.171	-0.08	0.213	0.20	0.078	14.1	0.02	0	0.02
2/6/2023 12:57	23.65	0.277	-0.02	0.173	-0.11	0.211	0.27	0.077	14.1	0.02	0	0.02
2/6/2023 12:58	24.05	0.280	-0.01	0.172	0.01	0.208	0.13	0.080	14.0	0.02	0	0.02
2/6/2023 12:59	24.37	0.281	-0.02	0.166	0.00	0.219	0.14	0.077	14.0	0.02	0	0.02
2/6/2023 13:00	24.60	0.282	-0.01	0.172	-0.06	0.210	0.19	0.080	14.0	0.02	0	0.02
2/6/2023 13:01	24.72	0.283	-0.01	0.168	-0.10	0.209	0.13	0.078	13.9	0.02	0	0.02
2/6/2023 13:02	24.51	0.286	0.00	0.171	-0.07	0.216	0.14	0.077	14.0	0.02	0	0.02
2/6/2023 13:03	24.67	0.287	-0.01	0.171	-0.05	0.208	0.10	0.080	14.0	0.02	0	0.02
2/6/2023 13:04	24.25	0.281	-0.01	0.172	-0.12	0.214	0.16	0.080	14.0	0.02	0	0.02
2/6/2023 13:05	25.03	0.287	-0.01	0.173	-0.12	0.211	0.16	0.079	13.9	0.02	0	0.02
2/6/2023 13:06	25.48	0.294	0.00	0.172	-0.09	0.210	0.14	0.077	13.9	0.02	0	0.02
2/6/2023 13:07	25.85	0.297	-0.01	0.172	-0.11	0.216	0.10	0.079	13.9	0.02	0	0.02
2/6/2023 13:08	24.93	0.290	0.02	0.171	-0.16	0.219	0.15	0.079	14.0	0.02	0	0.02
2/6/2023 13:09	24.87	0.289	-0.01	0.169	-0.07	0.207	0.10	0.080	13.9	0.02	0	0.02
2/6/2023 13:10	24.98	0.283	0.01	0.174	-0.10	0.216	0.12	0.080	13.9	0.02	0	0.02
2/6/2023 13:11	25.36	0.290	-0.03	0.175	-0.17	0.214	0.08	0.078	13.9	0.02	0	0.02

Test Run 3	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/6/2023 13:12	25.95	0.300	0.01	0.174	-0.12	0.211	0.08	0.078	13.9	0.02	0	0.02
2/6/2023 13:13	26.59	0.305	-0.02	0.173	-0.02	0.210	0.06	0.077	14.0	0.02	0	0.02
2/6/2023 13:14	27.04	0.306	-0.01	0.176	0.00	0.212	0.11	0.077	13.9	0.02	0	0.02
2/6/2023 13:15	25.78	0.295	0.01	0.171	-0.02	0.213	0.14	0.076	14.0	0.02	0	0.02
2/6/2023 13:16	25.22	0.292	0.01	0.169	-0.07	0.211	0.13	0.082	14.0	0.02	0	0.02
2/6/2023 13:17	24.81	0.287	-0.01	0.167	-0.05	0.220	0.13	0.082	13.9	0.02	0	0.02
2/6/2023 13:18	25.72	0.299	-0.02	0.168	-0.11	0.216	0.19	0.081	13.9	0.02	0	0.02
2/6/2023 13:19	25.71	0.296	-0.02	0.170	-0.01	0.215	0.21	0.077	13.9	0.02	0	0.02
2/6/2023 13:20	24.51	0.288	-0.02	0.171	-0.07	0.214	0.19	0.082	13.9	0.02	0	0.02

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Test Run 4	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 9:33	1.06	0.092	0.06	0.191	0.27	0.304	0.32	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:34	1.04	0.094	0.06	0.184	0.22	0.308	0.30	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:35	0.99	0.097	0.04	0.188	0.16	0.312	0.28	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:36	1.00	0.098	0.03	0.188	0.24	0.303	0.26	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:37	1.02	0.094	0.04	0.192	0.20	0.302	0.14	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:38	0.93	0.100	0.06	0.189	0.19	0.298	0.24	0.08	15.5	0.03	5.3	0.02
2/7/2023 9:39	0.93	0.095	0.05	0.190	0.14	0.300	0.24	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:40	0.93	0.097	0.03	0.189	0.15	0.313	0.29	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:41	0.92	0.100	0.05	0.189	0.11	0.298	0.22	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:42	0.91	0.094	0.05	0.189	0.11	0.315	0.29	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:43	0.93	0.091	0.02	0.190	0.10	0.307	0.23	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:44	0.90	0.098	0.04	0.186	0.20	0.296	0.23	0.08	15.5	0.03	5.2	0.02
2/7/2023 9:45	0.87	0.096	0.01	0.189	0.15	0.304	0.25	0.08	15.4	0.03	5.3	0.02
2/7/2023 9:46	0.93	0.094	0.03	0.188	0.12	0.296	0.23	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:47	0.88	0.092	0.04	0.193	0.26	0.300	0.21	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:48	0.87	0.095	0.03	0.191	0.21	0.304	0.14	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:49	0.91	0.094	0.04	0.189	0.20	0.294	0.30	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:50	0.91	0.093	0.04	0.189	0.16	0.293	0.29	0.08	15.4	0.03	5.2	0.02
2/7/2023 9:51	0.89	0.101	0.02	0.189	0.14	0.318	0.37	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:52	0.86	0.096	0.02	0.191	0.17	0.323	0.22	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:53	0.86	0.090	0.02	0.191	0.13	0.313	0.23	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:54	0.86	0.098	0.05	0.188	0.07	0.309	0.31	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:55	0.85	0.091	0.03	0.194	0.12	0.314	0.22	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:56	0.82	0.093	0.02	0.188	0.26	0.307	0.25	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:57	0.80	0.101	0.02	0.190	0.19	0.307	0.14	0.08	15.3	0.03	5.2	0.02
2/7/2023 9:58	0.85	0.098	0.03	0.191	0.20	0.314	0.05	0.09	15.4	0.03	5.2	0.02
2/7/2023 9:59	0.83	0.091	0.02	0.194	0.23	0.314	0.08	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:00	0.84	0.094	0.01	0.189	0.24	0.315	0.22	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:01	0.80	0.095	0.04	0.187	0.20	0.305	0.21	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:02	0.79	0.095	0.02	0.194	0.24	0.316	0.19	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:03	0.84	0.097	0.03	0.192	0.15	0.320	0.47	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:04	0.86	0.092	0.03	0.193	0.09	0.314	0.34	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:05	0.82	0.096	0.01	0.190	0.12	0.300	0.21	0.08	15.4	0.03	5.2	0.02
2/7/2023 10:06	0.82	0.094	0.01	0.194	0.15	0.305	0.21	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:07	0.82	0.097	0.02	0.194	0.21	0.307	0.25	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:08	0.81	0.095	0.02	0.193	0.21	0.295	0.23	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:09	0.77	0.096	0.02	0.190	0.20	0.299	0.16	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:10	0.76	0.095	0.02	0.189	0.22	0.303	0.15	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:11	0.79	0.092	0.00	0.192	0.11	0.299	0.19	0.08	15.4	0.03	5.2	0.02
2/7/2023 10:12	0.78	0.094	0.01	0.190	0.27	0.303	0.17	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:13	0.81	0.096	0.00	0.191	0.17	0.311	0.23	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:14	0.84	0.090	0.02	0.195	0.11	0.306	0.22	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:15	0.79	0.095	0.01	0.191	0.24	0.309	0.17	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:16	0.80	0.089	0.01	0.185	0.30	0.307	0.21	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:17	0.78	0.091	0.01	0.188	0.21	0.306	0.17	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:18	0.84	0.096	0.00	0.185	0.23	0.304	0.15	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:19	0.82	0.095	0.01	0.192	0.18	0.309	0.23	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:20	0.77	0.096	0.01	0.190	0.25	0.309	0.21	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:21	0.81	0.099	0.02	0.193	0.19	0.304	0.26	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:22	0.78	0.096	0.02	0.189	0.18	0.307	0.25	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:23	0.83	0.100	0.01	0.197	0.30	0.306	0.26	0.08	15.4	0.03	5.3	0.02

Test Run 4	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 10:24	0.81	0.091	0.02	0.194	0.23	0.303	0.23	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:25	0.82	0.094	0.02	0.196	0.16	0.313	0.35	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:26	0.80	0.092	0.04	0.189	0.22	0.309	0.25	0.08	15.5	0.03	5.3	0.02
2/7/2023 10:27	0.81	0.097	0.02	0.190	0.20	0.312	0.26	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:28	0.79	0.097	0.02	0.194	0.25	0.301	0.22	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:29	0.83	0.092	0.01	0.191	0.16	0.304	0.20	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:30	0.80	0.092	0.00	0.192	0.23	0.303	0.12	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:31	0.75	0.093	0.02	0.192	0.24	0.308	0.14	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:32	0.79	0.093	0.02	0.192	0.23	0.300	0.16	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:33	0.81	0.095	0.03	0.200	0.16	0.306	0.40	0.08	15.3	0.03	5.3	0.02

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Test Run 5	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 10:34	0.80	0.09	0.03	0.20	0.22	0.30	0.24	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:35	0.80	0.10	-0.01	0.20	0.27	0.31	0.22	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:36	0.80	0.09	0.02	0.20	0.11	0.31	0.28	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:37	0.80	0.10	0.03	0.20	0.18	0.31	0.24	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:38	0.80	0.09	0.01	0.20	0.19	0.32	0.23	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:39	0.90	0.10	0.01	0.20	0.19	0.31	0.30	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:40	0.80	0.10	0.01	0.20	0.21	0.32	0.29	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:41	0.80	0.09	0.00	0.20	0.17	0.32	0.26	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:42	0.80	0.09	0.01	0.20	0.20	0.32	0.23	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:43	0.80	0.10	0.02	0.20	0.17	0.32	0.31	0.08	15.4	0.03	5.3	0.02
2/7/2023 10:44	0.80	0.09	0.01	0.20	0.28	0.33	0.23	0.08	15.4	0.03	5.2	0.02
2/7/2023 10:45	0.80	0.09	0.03	0.20	0.24	0.33	0.26	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:46	0.80	0.09	0.01	0.20	0.12	0.32	0.23	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:47	0.80	0.09	0.00	0.20	0.13	0.31	0.27	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:48	0.90	0.09	0.01	0.20	0.10	0.31	0.25	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:49	0.90	0.10	0.02	0.20	0.20	0.31	0.28	0.08	15.3	0.03	5.3	0.02
2/7/2023 10:50	0.90	0.09	0.01	0.20	0.15	0.32	0.31	0.08	15.4	0.03	5.2	0.02
2/7/2023 10:51	0.80	0.09	0.02	0.20	0.17	0.32	0.15	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:52	0.80	0.10	0.03	0.19	0.14	0.33	0.27	0.08	15.3	0.03	5.2	0.02
2/7/2023 10:53	0.80	0.10	0.01	0.20	0.20	0.33	0.26	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:54	0.80	0.09	0.04	0.20	0.20	0.32	0.33	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:55	0.90	0.09	0.02	0.20	0.09	0.31	0.25	0.08	15.2	0.03	5.3	0.02
2/7/2023 10:56	0.80	0.10	0.05	0.20	0.23	0.30	0.24	0.08	15.1	0.03	5.2	0.02
2/7/2023 10:57	0.80	0.10	0.00	0.20	0.20	0.30	0.18	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:58	0.80	0.09	0.01	0.20	0.14	0.31	0.23	0.08	15.2	0.03	5.2	0.02
2/7/2023 10:59	0.80	0.10	0.00	0.20	0.15	0.31	0.02	0.09	15.2	0.02	5.2	0.02
2/7/2023 11:00	0.80	0.09	0.01	0.20	0.23	0.31	0.03	0.08	15.3	0.03	5.2	0.02
2/7/2023 11:01	0.80	0.10	0.02	0.20	0.17	0.31	0.09	0.08	15.2	0.02	5.2	0.02
2/7/2023 11:02	0.80	0.10	0.02	0.20	0.18	0.31	0.04	0.08	15.2	0.03	5.2	0.02
2/7/2023 11:03	0.90	0.10	0.01	0.20	0.12	0.31	0.26	0.08	15.2	0.03	5.2	0.02
2/7/2023 11:04	0.80	0.10	0.02	0.20	0.27	0.31	0.05	0.08	15.2	0.03	5.3	0.02
2/7/2023 11:05	0.90	0.097	0.01	0.201	0.23	0.308	0.09	0.084	15.2	0.02	0	0.02
2/7/2023 11:06	0.80	0.095	0.02	0.199	0.15	0.307	0.18	0.084	15.1	0.03	0	0.02
2/7/2023 11:07	0.90	0.094	0.02	0.204	0.13	0.320	0.21	0.083	15.1	0.03	0	0.02
2/7/2023 11:08	0.90	0.096	0.01	0.202	0.10	0.321	0.17	0.083	15.2	0.03	0	0.02
2/7/2023 11:09	0.90	0.089	0.02	0.200	0.12	0.313	0.27	0.086	15.2	0.02	0	0.02
2/7/2023 11:10	0.90	0.095	0.02	0.199	0.20	0.309	0.09	0.084	15.2	0.03	0	0.02
2/7/2023 11:11	0.90	0.097	-0.01	0.203	0.23	0.304	0.18	0.081	15.2	0.03	0	0.02
2/7/2023 11:12	0.90	0.099	0.00	0.200	0.23	0.304	0.15	0.083	15.2	0.03	0	0.02
2/7/2023 11:13	0.90	0.097	0.01	0.207	0.16	0.303	0.20	0.081	15.1	0.03	0	0.02
2/7/2023 11:14	0.90	0.097	0.00	0.202	0.22	0.304	0.14	0.085	15.1	0.02	0	0.02
2/7/2023 11:15	0.90	0.093	0.05	0.203	0.16	0.314	-0.03	0.081	15.1	0.02	0	0.02
2/7/2023 11:16	0.90	0.093	0.05	0.204	0.15	0.308	-0.05	0.084	15.1	0.02	0	0.02
2/7/2023 11:17	1.00	0.098	-0.01	0.199	0.17	0.295	0.12	0.084	15.2	0.02	0	0.02
2/7/2023 11:18	1.00	0.095	0.00	0.190	0.23	0.301	0.22	0.082	15.1	0.03	0	0.02
2/7/2023 11:19	1.00	0.093	0.00	0.189	0.24	0.300	0.27	0.085	15.1	0.03	0	0.02
2/7/2023 11:20	1.00	0.093	0.06	0.196	0.26	0.313	0.00	0.079	15.2	0.02	0	0.02
2/7/2023 11:21	1.00	0.094	0.01	0.192	0.20	0.300	0.12	0.083	15.1	0.02	0	0.02
2/7/2023 11:22	1.00	0.094	0.02	0.190	0.29	0.306	0.15	0.083	15.1	0.02	0	0.02
2/7/2023 11:23	1.00	0.097	0.04	0.191	0.21	0.306	0.08	0.083	15.1	0.02	0	0.02
2/7/2023 11:24	1.00	0.092	0.03	0.196	0.19	0.306	0.06	0.079	15.1	0.02	0	0.02

Test Run 5	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 11:25	1.00	0.093	0.02	0.195	0.23	0.304	0.01	0.081	15.1	0.02	0	0.02
2/7/2023 11:26	1.00	0.092	0.04	0.193	0.29	0.309	0.05	0.083	15.1	0.02	0	0.02
2/7/2023 11:27	1.00	0.091	0.03	0.197	0.23	0.303	-0.03	0.081	15.0	0.02	0	0.02
2/7/2023 11:28	1.20	0.090	0.04	0.198	0.20	0.305	-0.04	0.082	15.0	0.02	0	0.02
2/7/2023 11:29	1.20	0.098	0.03	0.193	0.23	0.300	-0.04	0.080	15.0	0.02	0	0.02
2/7/2023 11:30	1.20	0.093	0.02	0.195	0.17	0.302	0.03	0.080	14.9	0.02	0	0.02
2/7/2023 11:31	1.20	0.087	0.05	0.190	0.27	0.301	-0.02	0.080	15.0	0.02	0	0.02
2/7/2023 11:32	1.20	0.098	0.04	0.187	0.29	0.298	-0.05	0.080	15.0	0.02	0	0.02
2/7/2023 11:33	1.20	0.090	0.04	0.191	0.17	0.302	0.15	0.081	15.0	0.02	0	0.02
2/7/2023 11:34	1.30	0.094	0.03	0.189	0.20	0.292	-0.01	0.081	15.0	0.02	0	0.02

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Test Run 6	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 11:35	1.25	0.090	0.03	0.193	0.20	0.292	0.06	0.083	15.1	0.02	5.2	0.02
2/7/2023 11:36	1.27	0.096	0.05	0.184	0.23	0.294	-0.05	0.082	15.0	0.02	5.2	0.02
2/7/2023 11:37	1.26	0.094	0.04	0.188	0.19	0.300	0.03	0.081	15.0	0.02	5.2	0.02
2/7/2023 11:38	1.27	0.094	0.03	0.192	0.24	0.304	0.03	0.082	15.0	0.02	5.2	0.02
2/7/2023 11:39	1.23	0.093	0.02	0.190	0.12	0.293	0.04	0.083	15.1	0.02	5.2	0.02
2/7/2023 11:40	1.25	0.097	0.04	0.193	0.22	0.288	-0.03	0.080	15.0	0.02	5.2	0.02
2/7/2023 11:41	1.30	0.095	0.01	0.188	0.20	0.293	0.03	0.083	15.0	0.02	5.2	0.02
2/7/2023 11:42	1.25	0.090	0.03	0.191	0.25	0.292	0.11	0.082	15.0	0.02	5.2	0.02
2/7/2023 11:43	1.27	0.088	0.04	0.186	0.25	0.296	0.02	0.081	15.0	0.02	5.2	0.02
2/7/2023 11:44	1.31	0.096	0.02	0.190	0.21	0.292	-0.03	0.082	15.0	0.02	5.2	0.02
2/7/2023 11:45	1.35	0.098	0.01	0.189	0.14	0.283	0.00	0.081	15.0	0.02	5.2	0.02
2/7/2023 11:46	1.42	0.100	0.01	0.191	0.17	0.299	0.02	0.077	15.0	0.02	5.2	0.02
2/7/2023 11:47	1.47	0.090	0.02	0.187	0.22	0.299	0.00	0.080	15.1	0.02	5.2	0.02
2/7/2023 11:48	1.48	0.093	0.02	0.190	0.09	0.289	0.06	0.079	15.0	0.02	5.2	0.02
2/7/2023 11:49	1.45	0.091	0.00	0.193	0.10	0.290	0.03	0.080	15.0	0.02	5.2	0.02
2/7/2023 11:50	1.51	0.091	0.03	0.190	0.15	0.285	0.08	0.080	15.0	0.02	5.2	0.02
2/7/2023 11:51	1.52	0.096	0.02	0.189	0.15	0.288	0.03	0.081	15.0	0.02	5.2	0.02
2/7/2023 11:52	1.53	0.093	0.02	0.188	0.13	0.287	0.10	0.080	15.0	0.02	5.2	0.02
2/7/2023 11:53	1.58	0.094	0.01	0.191	0.12	0.288	-0.01	0.081	14.9	0.02	5.2	0.02
2/7/2023 11:54	1.61	0.094	0.02	0.189	0.12	0.288	0.10	0.080	14.9	0.02	5.2	0.02
2/7/2023 11:55	1.66	0.097	0.02	0.188	0.16	0.284	0.12	0.080	14.9	0.02	5.2	0.02
2/7/2023 11:56	1.64	0.094	0.01	0.189	0.13	0.282	0.01	0.081	15.0	0.02	5.2	0.02
2/7/2023 11:57	1.63	0.089	0.04	0.186	0.14	0.283	0.16	0.080	14.9	0.02	5.2	0.02
2/7/2023 11:58	1.60	0.093	0.01	0.189	0.17	0.285	-0.02	0.082	14.9	0.02	5.2	0.02
2/7/2023 11:59	1.62	0.096	0.03	0.191	0.10	0.281	0.03	0.081	14.9	0.02	5.2	0.02
2/7/2023 12:00	1.66	0.093	0.02	0.187	0.16	0.283	-0.01	0.079	14.9	0.02	5.2	0.02
2/7/2023 12:01	1.65	0.095	0.01	0.184	0.15	0.281	0.03	0.081	14.9	0.02	5.2	0.03
2/7/2023 12:02	1.69	0.088	0.01	0.183	0.14	0.292	0.03	0.083	14.9	0.02	5.2	0.03
2/7/2023 12:03	1.67	0.092	0.00	0.189	0.14	0.285	0.20	0.083	14.9	0.02	5.2	0.02
2/7/2023 12:04	1.70	0.097	0.03	0.196	0.13	0.303	0.15	0.084	14.8	0.03	5.2	0.03
2/7/2023 12:05	1.74	0.100	0.02	0.198	0.13	0.297	-0.01	0.083	14.8	0.03	5.2	0.02
2/7/2023 12:06	1.80	0.100	0.02	0.196	0.17	0.295	0.02	0.083	14.9	0.02	0	0.02
2/7/2023 12:07	1.77	0.095	0.02	0.195	0.25	0.297	0.07	0.084	14.9	0.03	0	0.02
2/7/2023 12:08	1.86	0.092	0.03	0.192	0.19	0.294	0.04	0.086	15.0	0.02	0	0.02
2/7/2023 12:09	1.82	0.092	0.01	0.203	0.19	0.300	0.01	0.083	15.0	0.02	0	0.02
2/7/2023 12:10	1.82	0.093	0.03	0.194	0.20	0.295	0.06	0.082	14.9	0.02	0	0.02
2/7/2023 12:11	1.83	0.092	0.02	0.195	0.21	0.296	0.06	0.084	15.0	0.02	0	0.02
2/7/2023 12:12	1.84	0.092	0.02	0.197	0.20	0.297	0.02	0.087	14.9	0.03	0	0.02
2/7/2023 12:13	1.78	0.095	0.02	0.196	0.15	0.298	0.05	0.083	14.9	0.03	0	0.03
2/7/2023 12:14	1.81	0.096	0.03	0.195	0.11	0.300	0.01	0.083	15.0	0.03	0	0.03
2/7/2023 12:15	1.80	0.097	0.03	0.198	0.22	0.299	-0.05	0.089	15.0	0.02	0	0.03
2/7/2023 12:16	1.82	0.097	0.02	0.198	0.16	0.305	0.04	0.085	15.0	0.02	0	0.02
2/7/2023 12:17	1.80	0.096	0.02	0.200	0.14	0.300	0.13	0.083	15.0	0.02	0	0.02
2/7/2023 12:18	1.84	0.092	0.01	0.198	0.29	0.301	-0.04	0.083	15.0	0.02	0	0.03
2/7/2023 12:19	1.94	0.096	0.02	0.198	0.19	0.303	0.19	0.084	14.9	0.03	0	0.03
2/7/2023 12:20	1.99	0.101	0.00	0.201	0.14	0.302	0.09	0.084	14.8	0.02	0	0.03
2/7/2023 12:21	2.07	0.100	0.03	0.196	0.16	0.299	0.09	0.083	14.8	0.02	0	0.03
2/7/2023 12:22	1.98	0.090	0.05	0.195	0.08	0.309	-0.02	0.086	14.9	0.02	0	0.03
2/7/2023 12:23	1.99	0.097	0.05	0.195	0.09	0.296	0.02	0.083	14.8	0.03	0	0.03
2/7/2023 12:24	1.95	0.098	0.04	0.194	0.13	0.301	0.11	0.086	14.9	0.03	0	0.03
2/7/2023 12:25	1.97	0.097	0.03	0.195	0.22	0.297	0.02	0.082	14.8	0.02	0	0.02

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Test Run 6	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/7/2023 12:26	1.98	0.100	0.01	0.197	0.06	0.296	-0.03	0.084	14.9	0.02	0	0.02
2/7/2023 12:27	1.96	0.099	0.02	0.199	0.16	0.299	0.06	0.086	14.9	0.02	0	0.02
2/7/2023 12:28	2.03	0.096	0.00	0.198	0.10	0.300	0.04	0.086	14.8	0.02	0	0.03
2/7/2023 12:29	2.07	0.095	0.03	0.188	0.05	0.310	-0.01	0.083	14.8	0.03	0	0.03
2/7/2023 12:30	2.12	0.099	0.03	0.191	0.04	0.302	0.06	0.080	14.7	0.02	0	0.03
2/7/2023 12:31	2.09	0.096	0.00	0.193	0.13	0.297	0.02	0.081	14.8	0.02	0	0.03
2/7/2023 12:32	2.14	0.101	0.01	0.197	0.20	0.288	0.00	0.081	14.8	0.02	0	0.02
2/7/2023 12:33	2.13	0.092	0.02	0.194	0.20	0.291	0.23	0.084	14.8	0.02	0	0.02
2/7/2023 12:34	2.19	0.094	0.01	0.191	0.10	0.290	0.10	0.082	14.8	0.02	0	0.03
2/7/2023 12:35	2.11	0.100	0.03	0.193	0.05	0.292	0.07	0.082	14.7	0.03	0	0.03

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Test Run 7	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 9:38	5.96	0.127	-0.02	0.166	0.08	0.243	0.02	0.08	15.4	0.02	5.3	0.02
2/8/2023 9:39	5.44	0.126	-0.03	0.167	0.09	0.248	0.02	0.08	15.5	0.02	5.3	0.02
2/8/2023 9:40	5.08	0.122	-0.05	0.172	0.00	0.243	0.02	0.08	15.5	0.02	5.3	0.02
2/8/2023 9:41	5.00	0.118	-0.03	0.172	0.02	0.237	0.08	0.08	15.3	0.02	5.3	0.02
2/8/2023 9:42	5.44	0.123	-0.02	0.168	-0.05	0.232	0.04	0.08	15.3	0.02	5.3	0.02
2/8/2023 9:43	6.60	0.125	-0.05	0.168	-0.04	0.242	-0.05	0.08	15.3	0.02	5.3	0.02
2/8/2023 9:44	8.91	0.147	-0.05	0.172	0.03	0.240	-0.05	0.08	15.3	0.02	5.3	0.02
2/8/2023 9:45	5.85	0.130	-0.04	0.166	-0.01	0.250	0.00	0.08	15.3	0.02	5.3	0.02
2/8/2023 9:46	5.86	0.128	-0.05	0.173	-0.03	0.231	0.04	0.08	15.2	0.02	5.3	0.02
2/8/2023 9:47	6.13	0.128	-0.05	0.173	-0.07	0.226	0.04	0.08	15.1	0.02	5.2	0.02
2/8/2023 9:48	6.26	0.133	-0.05	0.171	-0.05	0.235	0.14	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:49	5.92	0.131	-0.05	0.171	0.00	0.234	0.16	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:50	5.74	0.130	-0.06	0.172	-0.03	0.236	-0.05	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:51	5.57	0.133	-0.05	0.173	-0.02	0.235	0.04	0.08	15.1	0.02	5.2	0.02
2/8/2023 9:52	5.43	0.126	-0.04	0.174	0.02	0.231	0.02	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:53	5.35	0.129	-0.05	0.174	-0.03	0.231	0.11	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:54	5.19	0.119	-0.04	0.173	0.00	0.239	0.08	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:55	5.15	0.122	-0.06	0.169	0.03	0.228	0.09	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:56	5.11	0.127	-0.05	0.173	0.03	0.228	0.03	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:57	5.33	0.123	-0.06	0.174	-0.01	0.231	0.04	0.08	15.1	0.02	5.2	0.02
2/8/2023 9:58	5.76	0.130	-0.05	0.171	-0.03	0.226	0.05	0.08	15.2	0.02	5.2	0.02
2/8/2023 9:59	6.87	0.137	-0.02	0.173	-0.03	0.225	0.08	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:00	6.22	0.138	-0.02	0.172	-0.04	0.235	0.04	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:01	5.99	0.133	-0.05	0.174	0.07	0.225	-0.03	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:02	6.00	0.128	-0.05	0.174	-0.05	0.232	0.03	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:03	6.23	0.129	-0.05	0.175	0.01	0.228	0.01	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:04	6.26	0.133	-0.07	0.172	-0.01	0.233	0.11	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:05	6.41	0.136	-0.05	0.170	0.00	0.236	0.05	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:06	6.52	0.134	-0.05	0.172	-0.01	0.240	0.01	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:07	6.65	0.137	-0.03	0.171	-0.03	0.235	0.07	0.09	15.0	0.02	5.2	0.02
2/8/2023 10:08	6.97	0.143	-0.05	0.170	-0.02	0.235	0.03	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:09	7.14	0.142	-0.06	0.174	0.02	0.226	0.10	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:10	7.10	0.139	-0.04	0.176	-0.02	0.237	0.03	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:11	7.15	0.140	-0.05	0.173	-0.05	0.229	-0.06	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:12	7.18	0.144	-0.04	0.169	-0.09	0.243	0.06	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:13	7.19	0.145	-0.04	0.169	0.02	0.236	0.08	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:14	7.33	0.141	-0.05	0.173	0.04	0.232	0.00	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:15	7.29	0.139	-0.02	0.175	0.07	0.231	0.06	0.08	15.1	0.02	5.2	0.02
2/8/2023 10:16	7.58	0.140	-0.05	0.175	0.00	0.228	-0.09	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:17	7.82	0.144	-0.01	0.173	0.05	0.228	-0.08	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:18	7.77	0.144	-0.04	0.176	-0.01	0.228	-0.12	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:19	7.39	0.135	-0.03	0.174	-0.01	0.231	-0.06	0.08	15.0	0.02	5.1	0.02
2/8/2023 10:20	7.51	0.141	-0.04	0.169	-0.05	0.232	0.07	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:21	7.87	0.142	-0.04	0.169	-0.09	0.227	-0.11	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:22	8.15	0.147	-0.06	0.167	0.06	0.228	-0.13	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:23	8.25	0.147	-0.05	0.170	0.04	0.231	-0.14	0.08	15.0	0.02	5.1	0.02
2/8/2023 10:24	8.27	0.149	-0.04	0.175	0.03	0.220	-0.17	0.08	15.0	0.02	5.1	0.02
2/8/2023 10:25	8.41	0.148	-0.03	0.171	0.08	0.223	-0.08	0.08	15.0	0.02	5.1	0.02
2/8/2023 10:26	8.86	0.151	-0.07	0.171	0.04	0.224	0.12	0.08	15.0	0.02	5.1	0.02
2/8/2023 10:27	11.09	0.169	-0.04	0.172	-0.07	0.231	-0.01	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:28	10.11	0.165	-0.03	0.178	0.00	0.215	-0.13	0.08	14.9	0.02	5.2	0.02

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Test Run 7	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 10:29	9.97	0.162	-0.05	0.173	-0.07	0.223	-0.06	0.08	14.9	0.02	5.1	0.02
2/8/2023 10:30	10.17	0.161	-0.04	0.173	-0.07	0.238	-0.06	0.08	14.9	0.02	5.1	0.02
2/8/2023 10:31	10.36	0.165	-0.02	0.170	-0.01	0.231	-0.13	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:32	10.52	0.165	-0.03	0.171	-0.14	0.242	-0.12	0.08	14.8	0.02	5.2	0.02
2/8/2023 10:33	10.80	0.166	-0.06	0.167	-0.04	0.243	-0.16	0.08	14.8	0.02	5.1	0.02
2/8/2023 10:34	10.99	0.167	-0.04	0.166	-0.11	0.250	-0.12	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:35	11.31	0.171	-0.04	0.167	-0.02	0.241	-0.07	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:36	11.53	0.172	-0.05	0.163	-0.07	0.245	-0.12	0.08	15.0	0.02	5.2	0.02
2/8/2023 10:37	11.80	0.175	-0.06	0.165	-0.03	0.237	-0.19	0.08	14.9	0.02	5.2	0.02
2/8/2023 10:38	11.74	0.173	-0.07	0.161	0.04	0.250	-0.15	0.08	14.9	0.02	5.2	0.02

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Test Run 8	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 10:39	12.00	0.174	-0.05	0.166	0.07	0.240	-0.08	0.081	15.0	0.02	5.2	0.02
2/8/2023 10:40	12.50	0.186	-0.06	0.164	-0.03	0.235	-0.07	0.080	14.9	0.02	5.2	0.02
2/8/2023 10:41	12.20	0.177	-0.06	0.163	0.02	0.229	-0.05	0.080	14.9	0.02	5.2	0.02
2/8/2023 10:42	12.00	0.175	-0.05	0.163	-0.08	0.241	-0.12	0.080	15.1	0.02	5.2	0.02
2/8/2023 10:43	12.50	0.182	-0.06	0.158	-0.06	0.249	0.02	0.081	15.0	0.02	5.2	0.02
2/8/2023 10:44	13.20	0.186	-0.06	0.166	-0.03	0.233	-0.05	0.080	15.0	0.02	5.2	0.02
2/8/2023 10:45	13.10	0.184	-0.05	0.159	-0.02	0.236	-0.17	0.077	15.0	0.02	5.2	0.02
2/8/2023 10:46	12.60	0.183	-0.08	0.159	-0.02	0.248	-0.02	0.081	15.0	0.02	5.2	0.02
2/8/2023 10:47	12.20	0.176	-0.07	0.160	-0.02	0.242	-0.01	0.082	15.0	0.02	5.2	0.02
2/8/2023 10:48	12.00	0.175	-0.09	0.162	-0.10	0.241	0.00	0.081	15.0	0.02	5.2	0.02
2/8/2023 10:49	12.40	0.181	-0.08	0.163	-0.03	0.231	0.16	0.078	14.9	0.02	5.3	0.02
2/8/2023 10:50	11.90	0.173	-0.06	0.162	-0.01	0.233	-0.06	0.078	15.1	0.02	5.2	0.02
2/8/2023 10:51	11.00	0.168	-0.09	0.158	-0.01	0.251	0.03	0.082	15.2	0.02	5.2	0.02
2/8/2023 10:52	11.10	0.165	-0.07	0.159	0.00	0.243	0.02	0.083	15.0	0.02	5.2	0.02
2/8/2023 10:53	11.70	0.174	-0.08	0.164	-0.09	0.235	-0.02	0.080	15.0	0.02	5.3	0.02
2/8/2023 10:54	12.30	0.174	-0.07	0.157	-0.04	0.238	0.06	0.076	15.0	0.02	5.3	0.02
2/8/2023 10:55	12.50	0.177	-0.08	0.157	0.00	0.249	0.00	0.084	15.0	0.02	5.3	0.02
2/8/2023 10:56	12.60	0.181	-0.07	0.158	-0.06	0.235	0.02	0.079	15.0	0.02	5.2	0.02
2/8/2023 10:57	11.80	0.172	-0.08	0.160	-0.04	0.236	0.00	0.081	15.0	0.02	5.2	0.02
2/8/2023 10:58	11.10	0.165	-0.08	0.159	-0.01	0.243	0.03	0.079	15.1	0.02	5.2	0.02
2/8/2023 10:59	11.20	0.169	-0.07	0.159	-0.06	0.235	0.02	0.080	15.1	0.02	5.2	0.02
2/8/2023 11:00	12.00	0.174	-0.09	0.159	-0.06	0.240	0.10	0.079	15.1	0.02	5.3	0.02
2/8/2023 11:01	12.30	0.176	-0.09	0.162	-0.06	0.232	0.05	0.080	15.1	0.02	5.3	0.02
2/8/2023 11:02	12.00	0.170	-0.07	0.159	-0.04	0.233	0.00	0.078	15.0	0.02	5.3	0.02
2/8/2023 11:03	12.30	0.177	-0.07	0.155	0.01	0.239	0.05	0.081	15.1	0.02	5.3	0.02
2/8/2023 11:04	12.00	0.170	-0.08	0.157	0.02	0.249	0.03	0.077	15.1	0.02	5.3	0.02
2/8/2023 11:05	11.80	0.173	-0.08	0.158	-0.02	0.237	0.04	0.079	15.1	0.02	5.3	0.02
2/8/2023 11:06	12.20	0.169	-0.07	0.159	0.01	0.238	-0.06	0.084	15.1	0.02	5.3	0.02
2/8/2023 11:07	12.00	0.170	-0.08	0.155	-0.01	0.244	0.07	0.082	15.1	0.02	5.3	0.02
2/8/2023 11:08	11.40	0.165	-0.09	0.159	-0.01	0.242	0.06	0.083	15.1	0.02	5.3	0.02
2/8/2023 11:09	11.40	0.164	-0.09	0.157	0.00	0.243	-0.01	0.078	15.1	0.02	5.3	0.02
2/8/2023 11:10	11.30	0.164	-0.08	0.154	0.01	0.246	0.08	0.081	15.1	0.02	0	0.02
2/8/2023 11:11	11.10	0.169	-0.07	0.160	0.05	0.249	0.00	0.078	15.2	0.02	0	0.02
2/8/2023 11:12	11.30	0.166	-0.08	0.154	0.08	0.240	-0.03	0.082	15.2	0.02	0	0.02
2/8/2023 11:13	11.70	0.168	-0.06	0.157	0.03	0.241	0.02	0.077	15.2	0.02	0	0.02
2/8/2023 11:14	12.20	0.168	-0.07	0.156	0.05	0.236	0.05	0.080	15.1	0.02	0	0.02
2/8/2023 11:15	11.90	0.169	-0.06	0.157	0.01	0.238	0.01	0.079	15.1	0.02	0	0.02
2/8/2023 11:16	11.80	0.174	-0.07	0.155	-0.07	0.237	0.07	0.079	15.1	0.02	0	0.02
2/8/2023 11:17	11.20	0.160	-0.08	0.151	0.03	0.238	0.01	0.081	15.2	0.02	0	0.02
2/8/2023 11:18	11.10	0.161	-0.07	0.155	0.02	0.233	0.02	0.080	15.1	0.02	0	0.02
2/8/2023 11:19	11.10	0.160	-0.08	0.156	0.02	0.242	0.09	0.081	15.1	0.02	0	0.02
2/8/2023 11:20	11.80	0.165	-0.08	0.155	-0.02	0.243	0.02	0.081	15.1	0.02	0	0.02
2/8/2023 11:21	11.90	0.169	-0.08	0.156	0.02	0.235	0.16	0.081	15.1	0.02	0	0.02
2/8/2023 11:22	12.10	0.171	-0.08	0.155	0.01	0.252	0.02	0.079	15.1	0.02	0	0.02
2/8/2023 11:23	11.70	0.162	-0.07	0.155	0.05	0.246	0.06	0.084	15.1	0.02	0	0.02
2/8/2023 11:24	11.70	0.167	-0.08	0.158	0.00	0.241	0.11	0.080	15.1	0.02	0	0.02
2/8/2023 11:25	11.50	0.174	-0.07	0.157	0.02	0.235	0.07	0.080	15.1	0.02	0	0.02
2/8/2023 11:26	11.30	0.165	-0.08	0.157	0.05	0.240	0.04	0.080	15.2	0.02	0	0.02
2/8/2023 11:27	11.30	0.164	-0.06	0.158	0.00	0.236	0.07	0.081	15.2	0.02	0	0.02
2/8/2023 11:28	11.40	0.165	-0.05	0.160	0.01	0.236	0.04	0.081	15.2	0.02	0	0.02
2/8/2023 11:29	11.60	0.167	-0.09	0.167	0.05	0.227	-0.04	0.080	15.2	0.02	0	0.02

Test Run 8	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 11:30	12.10	0.169	-0.09	0.163	0.01	0.229	-0.03	0.078	15.2	0.02	0	0.02
2/8/2023 11:31	11.60	0.166	-0.08	0.165	-0.03	0.233	0.04	0.076	15.2	0.02	0	0.02
2/8/2023 11:32	11.70	0.168	-0.07	0.161	-0.02	0.235	-0.02	0.080	15.2	0.02	0	0.02
2/8/2023 11:33	11.10	0.166	-0.08	0.163	-0.02	0.230	-0.01	0.078	15.2	0.02	0	0.02
2/8/2023 11:34	10.50	0.160	-0.07	0.161	0.06	0.231	0.00	0.079	15.3	0.02	0	0.02
2/8/2023 11:35	11.00	0.163	-0.06	0.160	-0.01	0.235	0.03	0.080	15.2	0.02	0	0.02
2/8/2023 11:36	11.10	0.167	-0.08	0.171	-0.05	0.229	-0.03	0.075	15.3	0.02	0	0.02
2/8/2023 11:37	11.70	0.169	-0.09	0.166	-0.07	0.224	-0.06	0.077	15.2	0.02	0	0.02
2/8/2023 11:38	11.70	0.162	-0.06	0.175	-0.06	0.229	-0.09	0.080	15.2	0.02	0	0.02
2/8/2023 11:39	12.20	0.171	-0.07	0.171	-0.02	0.233	0.01	0.079	15.2	0.02	0	0.02

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Test Run 9	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 11:40	12.07	0.174	-0.08	0.171	-0.02	0.225	-0.06	0.078	15.2	0.02	5.3	0.02
2/8/2023 11:41	11.07	0.160	-0.06	0.165	-0.12	0.221	0.00	0.080	15.2	0.02	5.3	0.02
2/8/2023 11:42	10.25	0.157	-0.09	0.174	-0.04	0.224	-0.03	0.080	15.3	0.02	5.3	0.02
2/8/2023 11:43	10.22	0.152	-0.07	0.172	-0.09	0.227	-0.01	0.082	15.3	0.02	5.3	0.02
2/8/2023 11:44	11.15	0.166	-0.09	0.172	-0.01	0.226	-0.01	0.077	15.2	0.02	5.4	0.02
2/8/2023 11:45	10.50	0.156	-0.07	0.173	-0.04	0.228	0.02	0.080	15.2	0.02	5.3	0.02
2/8/2023 11:46	9.63	0.151	-0.07	0.174	0.03	0.223	-0.04	0.081	15.3	0.02	5.4	0.02
2/8/2023 11:47	8.95	0.144	-0.09	0.167	-0.08	0.228	-0.04	0.078	15.3	0.02	5.4	0.02
2/8/2023 11:48	8.97	0.147	-0.07	0.174	0.05	0.224	-0.08	0.080	15.3	0.02	5.4	0.02
2/8/2023 11:49	8.91	0.142	-0.08	0.174	-0.04	0.216	0.06	0.079	15.3	0.02	5.4	0.02
2/8/2023 11:50	8.55	0.138	-0.07	0.171	-0.02	0.226	0.09	0.083	15.3	0.02	5.4	0.02
2/8/2023 11:51	8.41	0.142	-0.07	0.173	0.00	0.234	-0.02	0.078	15.2	0.02	5.4	0.02
2/8/2023 11:52	8.31	0.145	-0.08	0.167	-0.01	0.226	-0.02	0.081	15.2	0.02	5.4	0.02
2/8/2023 11:53	8.63	0.145	-0.08	0.170	-0.08	0.225	-0.02	0.080	15.2	0.02	5.3	0.02
2/8/2023 11:54	8.43	0.134	-0.08	0.172	-0.09	0.226	-0.01	0.080	15.2	0.02	5.4	0.02
2/8/2023 11:55	8.11	0.136	-0.06	0.169	-0.06	0.220	0.13	0.080	15.2	0.02	5.4	0.02
2/8/2023 11:56	8.41	0.143	-0.05	0.173	-0.11	0.211	0.21	0.079	15.3	0.02	5.4	0.02
2/8/2023 11:57	8.24	0.145	-0.06	0.171	-0.10	0.210	0.22	0.081	15.2	0.02	5.4	0.02
2/8/2023 11:58	7.97	0.139	-0.08	0.175	-0.02	0.207	0.18	0.081	15.3	0.02	5.4	0.02
2/8/2023 11:59	7.99	0.137	-0.05	0.173	-0.10	0.215	0.16	0.080	15.3	0.02	5.4	0.02
2/8/2023 12:00	7.99	0.140	-0.04	0.172	-0.08	0.216	0.18	0.079	15.2	0.02	5.4	0.02
2/8/2023 12:01	7.87	0.134	-0.06	0.170	-0.07	0.221	0.21	0.078	15.2	0.02	5.4	0.02
2/8/2023 12:02	7.68	0.135	-0.06	0.169	-0.04	0.222	0.11	0.081	15.2	0.02	5.4	0.02
2/8/2023 12:03	7.58	0.131	-0.07	0.170	-0.07	0.223	-0.01	0.082	15.2	0.02	5.4	0.02
2/8/2023 12:04	7.60	0.137	-0.06	0.171	-0.09	0.218	0.19	0.083	15.2	0.02	5.4	0.02
2/8/2023 12:05	7.62	0.135	-0.06	0.173	-0.05	0.218	0.20	0.081	15.3	0.02	5.4	0.02
2/8/2023 12:06	7.47	0.135	-0.06	0.175	-0.04	0.212	0.18	0.079	15.3	0.02	5.4	0.02
2/8/2023 12:07	7.12	0.126	-0.07	0.172	-0.08	0.205	0.06	0.079	15.4	0.02	5.4	0.02
2/8/2023 12:08	7.00	0.131	-0.08	0.175	-0.04	0.214	0.21	0.079	15.4	0.02	5.4	0.02
2/8/2023 12:09	7.06	0.125	-0.06	0.173	0.04	0.222	0.12	0.082	15.3	0.02	5.4	0.02
2/8/2023 12:10	7.11	0.129	-0.07	0.172	-0.01	0.221	0.16	0.080	15.2	0.02	5.4	0.02
2/8/2023 12:11	6.81	0.128	-0.09	0.170	-0.07	0.219	0.25	0.079	15.3	0.02	0	0.02
2/8/2023 12:12	6.27	0.129	-0.06	0.173	-0.06	0.218	0.24	0.080	15.4	0.02	0	0.02
2/8/2023 12:13	6.24	0.127	-0.07	0.170	-0.12	0.216	0.17	0.080	15.3	0.02	0	0.02
2/8/2023 12:14	6.33	0.120	-0.07	0.173	-0.11	0.205	0.16	0.079	15.4	0.02	0	0.02
2/8/2023 12:15	6.33	0.123	-0.08	0.173	-0.05	0.203	0.09	0.076	15.4	0.02	0	0.02
2/8/2023 12:16	6.16	0.119	-0.08	0.173	-0.05	0.204	0.15	0.078	15.4	0.02	0	0.02
2/8/2023 12:17	5.83	0.116	-0.08	0.171	-0.05	0.202	0.14	0.077	15.5	0.02	0	0.02
2/8/2023 12:18	5.79	0.118	-0.07	0.170	-0.11	0.209	0.11	0.078	15.4	0.02	0	0.02
2/8/2023 12:19	5.72	0.115	-0.07	0.172	-0.12	0.205	0.29	0.081	15.4	0.02	0	0.02
2/8/2023 12:20	5.68	0.124	-0.05	0.172	-0.11	0.204	0.13	0.081	15.4	0.02	0	0.02
2/8/2023 12:21	5.71	0.122	-0.06	0.173	-0.06	0.208	0.12	0.081	15.4	0.02	0	0.02
2/8/2023 12:22	5.70	0.119	-0.08	0.172	-0.03	0.202	0.18	0.077	15.5	0.02	0	0.02
2/8/2023 12:23	5.35	0.109	-0.08	0.169	-0.03	0.203	0.16	0.078	15.5	0.02	0	0.02
2/8/2023 12:24	5.32	0.112	-0.08	0.169	-0.09	0.204	0.18	0.078	15.5	0.02	0	0.02
2/8/2023 12:25	5.34	0.112	-0.07	0.174	-0.11	0.210	0.14	0.081	15.4	0.02	0	0.02
2/8/2023 12:26	5.20	0.115	-0.06	0.173	-0.06	0.207	0.12	0.078	15.5	0.02	0	0.02
2/8/2023 12:27	5.11	0.118	-0.05	0.172	-0.04	0.217	0.24	0.079	15.4	0.02	0	0.02
2/8/2023 12:28	5.02	0.121	-0.06	0.172	-0.10	0.210	0.22	0.079	15.4	0.02	0	0.02
2/8/2023 12:29	4.91	0.114	-0.06	0.172	-0.02	0.209	0.21	0.083	15.4	0.02	0	0.02
2/8/2023 12:30	4.65	0.117	-0.06	0.177	-0.15	0.208	0.17	0.083	15.5	0.02	0	0.02

Test Run 9	HRSG Main Stack						Primary Energy		Cokenergy Facility			
Time/Date	Hydrogen Chloride HCl		Hydrogen Fluoride HF		Hydrogen Cyanide HCN		Formaldehyde CH2O		Water H2O		Carbon Dioxide CO2	
	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	ppmvw	Residual	%	Residual	%	Residual
2/8/2023 12:31	4.37	0.108	-0.05	0.172	-0.03	0.212	0.19	0.083	15.5	0.02	0	0.02
2/8/2023 12:32	4.30	0.110	-0.07	0.174	-0.06	0.214	0.11	0.079	15.4	0.02	0	0.02
2/8/2023 12:33	4.39	0.112	-0.07	0.174	-0.08	0.210	0.13	0.080	15.4	0.02	0	0.02
2/8/2023 12:34	4.37	0.104	-0.05	0.177	-0.02	0.203	0.15	0.079	15.5	0.02	0	0.02
2/8/2023 12:35	4.40	0.107	-0.06	0.175	0.01	0.208	0.12	0.080	15.5	0.02	0	0.02
2/8/2023 12:36	4.23	0.108	-0.08	0.173	0.01	0.201	0.06	0.081	15.5	0.02	0	0.02
2/8/2023 12:37	4.25	0.111	-0.04	0.176	-0.07	0.211	0.14	0.080	15.4	0.02	0	0.02
2/8/2023 12:38	4.19	0.108	-0.06	0.172	-0.01	0.203	0.14	0.082	15.4	0.02	0	0.02
2/8/2023 12:39	4.24	0.105	-0.07	0.172	0.11	0.207	0.06	0.077	15.5	0.02	0	0.02
2/8/2023 12:40	4.21	0.102	-0.07	0.172	0.06	0.201	0.03	0.077	15.6	0.02	0	0.02

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Airgas Mid-West region
Airgas USA LLC
1100 Jericho Road
Aurora, IL 60506
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: ULTRA HIGH PURITY-PURE

Part Number:	NI UHP15A	Reference Number:	101-402608332-1
Cylinder Number:	CC313009	Cylinder Volume:	142.0 CF
Laboratory:	192 - Aurora (SAP) - IL	Cylinder Pressure:	2000 PSIG
Analysis Date:	Nov 30, 2022	Valve Outlet:	580
Lot Number:	101-402608332-1		

Expiration Date: Nov 30, 2030

ANALYTICAL RESULTS

Component	Requested Purity		Certified Concentration
NITROGEN	99.999 %		99.999 %
THC	0.5 PPM	<LDL	0.050 PPM
CO + CO2	1.0 PPM	<LDL	0.051 PPM
Moisture	1.0 PPM	<LDL	0.091 PPM
Oxygen	1.0 PPM	<=	0.67 PPM

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: PRIMARY STANDARD

Part Number:	X02NI99P15A48Y3	Reference Number:	54-402370900-1
Cylinder Number:	CC282663	Cylinder Volume:	144.0 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
Analysis Date:	Mar 02, 2022	Valve Outlet:	350
Lot Number:	54-402370900-1		

Expiration Date: Mar 02, 2025

Primary Standard Gas Mixtures are traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHYLENE	10.00 PPM	10.07 PPM	+/- 1%
NITROGEN	Balance		

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
6141 Easton Road
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X03NI99C15W0056	Reference Number:	160-402466814-1
Cylinder Number:	CC481144	Cylinder Volume:	144.0 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2015 PSIG
Analysis Date:	Jun 28, 2022	Valve Outlet:	330
Lot Number:	160-402466814-1		

Expiration Date: Jun 28, 2024

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
SULFUR HEXAFLUORIDE	5.000 PPM	5.053 PPM	+/- 5%
HYDROGEN CHLORIDE	25.00 PPM	25.22 PPM	+/-5%
NITROGEN	Balance		

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
6141 Easton Road
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	CLEAN AIR ENGINEERING,		
Part Number:	X03NI99C15A00T6	Reference Number:	160-402409740-1
Cylinder Number:	EB0130539	Cylinder Volume:	144.0 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2015 PSIG
Analysis Date:	May 12, 2022	Valve Outlet:	350SS
Lot Number:	160-402409740-1		

Expiration Date: May 12, 2023

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
SULFUR HEXAFLUORIDE	5.000 PPM	5.084 PPM	+/- 5%
FORMALDEHYDE	10.00 PPM	12.35 PPM	+/- 5%
NITROGEN	Balance		

Permanent Notes:-NA-

Notes:CUSTOMER CONCESSION ACCEPTED

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
6141 Easton Road
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X03NI99C15A5RA1	Reference Number:	SG02-IC000024932-1
Cylinder Number:	CC752703	Cylinder Volume:	143.3 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2000 PSIG
Analysis Date:	Aug 15, 2022	Valve Outlet:	330
Lot Number:	SG02-IC000024932-1		

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	(Volume %)	(Weight %)	Analytical Uncertainty
SULFUR HEXAFLUORIDE	5.000 PPM	5.470 PPM			+/- 5%
HYDROGEN FLUORIDE	25.00 PPM	25.90 PPM			+/- 5%
NITROGEN	Balance		Balance		

Notes: Analysis Date: 8/8/2022
Expiration Date: 8/8/2023
Blend +/- 20% Analytical +/- 5%
Shelf Life 1 Year

Signature on file
Approved for Release

CUSTOMGAS
SOLUTIONS

1750 East Club Boulevard
Durham, NC 27704
Phone: (919) 220-2570
Fax: (919) 220-4540

Certificate of Analysis

Customer:

TRC Companies Inc.
Accounts Payable
21 Griffin Rd North
Windsor, CT 06095

Phone : (860) 298-6279

Cylinder Number: SX40524
Cylinder Size/CGA: 150/350SS
Fill Pressure: 1365 PSIA
Gas Volume: ~2400 liters
Date of Mfg: 11/21/2019
Expiration Date: 11/21/2020

Customer Number	Ship VIA	Job No.	Customer PO	Mixture Type
0016095CT	Best Way	111919-001	146429	Gravimetric

Component	Nominal Concentration	Actual Concentration*	Mixture Type
Hydrogen Cyanide	179.8 ppm	179.5 ppm +/- 10.0 ppm	Gravimetric Master Gas
Sulfur Hexafluoride	20 ppm	20.1 ppm +/- 1.0 ppm	
Nitrogen	Balance	Balance	

NOTES: **Blend Tolerance:** +/- 2 %
Analytical Tolerance: +/- 2 %
Traceability: NIST by weight set. NIST Traceability No MT001810.
Internal Standards by analysis
Reactive Mixtures: Analyzed twice with required agreement between analyses of 2%.
Required wait time between analyses of >7 days.
Caution: Do not use below 150 PSIG.

Analyst Name: Stephen O. Vaughan

QA Signature:

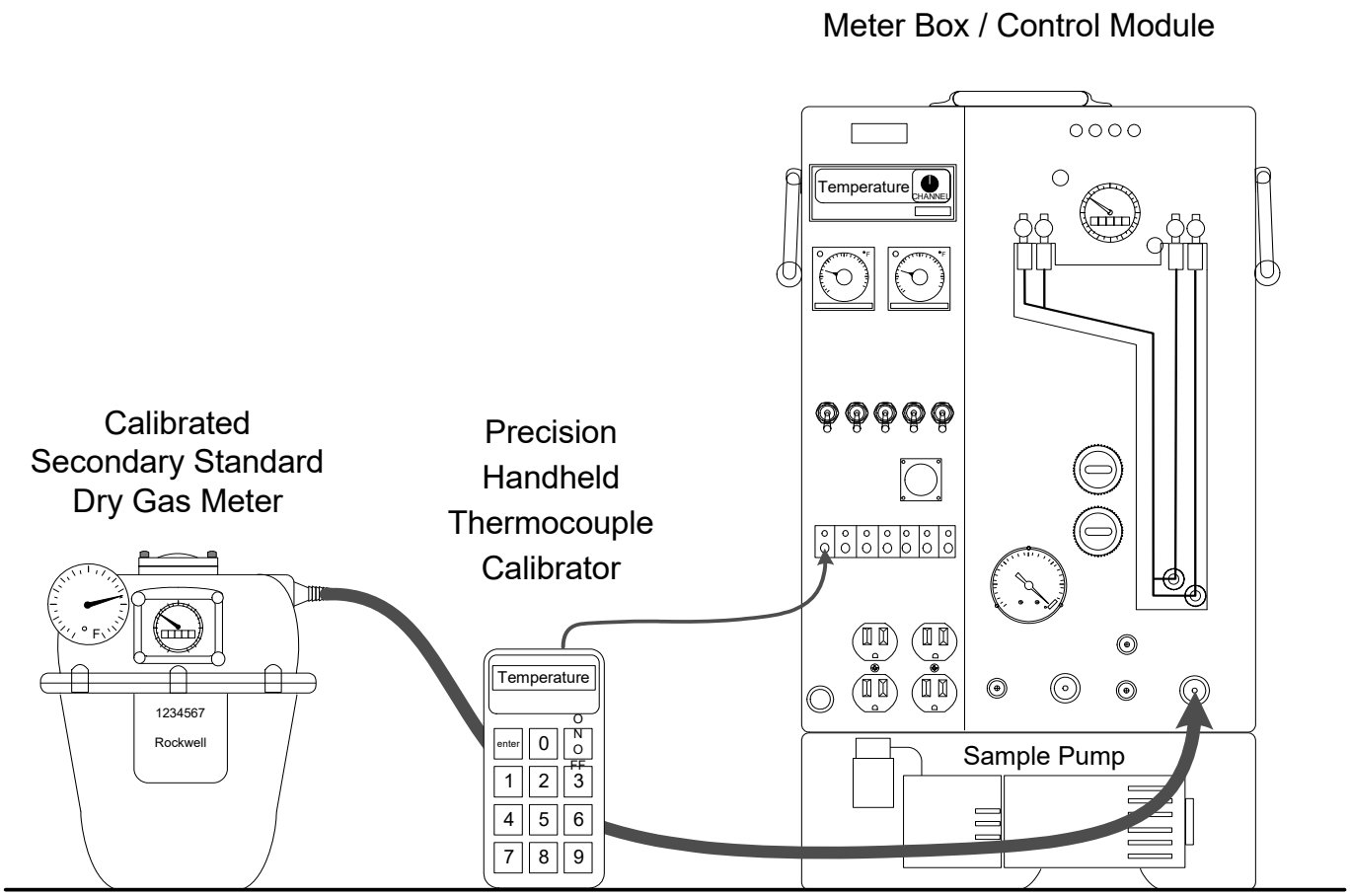
Signature:

Date: 11/21/2019

*Every effort has been made to establish the actual concentration of the components using master gas blending technology however, Custom Gas Solutions shall have no liability in excess of the established charge for this material.

Equipment Configuration for Meter Box Calibration

USEPA Promulgated Method 5



Pre Test DGM Calibration

(before use, as left data)

Control Module I.D. No.	E-24	System Leak Check:	Passed @ > 8" w.c. @ > 5 min.	Date:	02-10-2020
Standard Meter I.D. No.:	3623853	Standard Meter Calibration Date:	8-20-2019	Calibrated By:	L. Campo
Standard Meter (Y_{ds}):	0.9949	Standard Meter Calibration Due Date:	8-20-2020	Barometric Pressure :	29.29

Run Number	Orifice Setting in.$H_2$0	Meter Pressure in.$H_2$0	Standard Meter Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Time Min.	Time Sec.	Gamma Correction Coef. Y	Pressure equal to: 0.75 cfm @ STP (DH@)	Flow Rate (Q) scfm
Initial			26.657	538.864	71	73	73						
Final			31.762	543.948	71	74	74						
Difference 1	0.35	0.35	5.105	5.084	71	74	74	74	15	5	1.003	1.758	0.33
Initial			18.648	530.883	71	72	72						
Final			26.519	538.719	71	73	73						
Difference 2	0.85	0.85	7.871	7.836	71	73	73	73	15	14	1.000	1.835	0.50
Initial			32.024	544.211	71	74	74						
Final			43.761	555.924	71	76	76						
Difference 3	2.00	2.00	11.737	11.713	71	75	75	75	15	3	0.999	1.886	0.76
										Pre Test Calibration Factor (Y_{avg})	1.001	1.826	

Specifications: CFR 40, Part 60, Appendix A, Method 5, section 10.3.1. Calibration Before Use.

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Pre Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 02-10-2020

Name: L. Campo

Control Module Number: E-24

Ambient Temperature: 71 ^{o}F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *****

Reference std. thermocouple calibrator serial number: T-236796

Date of reference std. calibration verification: 6/6/2019

Due date of reference std. calibration verification: 6/6/2020

Reference Thermometer (^{o}F)	Thermometer Under Test (^{o}F)	Temperature Difference (%)
0	2	0.4
600	601	0.1
1200	1199	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. } (^{o}F + 460) - \text{Therm. under test temp. } (^{o}F + 460)}{\text{Reference std temp. } (^{o}F + 460)} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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Post Meter Calibration Verification

Project Number: 508369

Last Test Run: 2/9/2023

Operator(s): D. Wells

	Run 5	Run 6	Run 7	Average
Console/Meter ID:	E-24	E-24	E-24	N/A
Run Time (min):	240	240	240	
V_m (cf):	155.455	153.983	158.111	
T_m (^oR):	530.34	512.13	521.98	
P_{bar} ("H_g):	28.95	29.35	28.65	
DH_{avg} ("H_2O):	1.39	1.42	1.43	
M_d:	29.45	29.45	29.47	
Orifice $\Delta H_{@I}$:	1.826	1.826	1.826	
Meter Y_i:	1.001	1.001	1.001	1.001
Y_{qa}:	1.021	1.016	1.015	1.017

Difference between average Y_{qa} and Y_i: 1.6%

Calibration Status: Pass

Specification: USEPA Method 5, Section 16.3, *Alternative Post-Test Metering System Calibration*
The average Y_{qa} must be within 5% of Y_i

Post Test Leak Checks				Specification:
Train Leak Check:	Pass	Pass	Pass	(≤ 0.020 CFM)
Pump/Orifice Leak Checl	Pass	Pass	Pass	(= 0" @ 5-7" H_20)

Pre Test DGM Calibration

(before use, as left data)

Control Module I.D. No.	E-31	System Leak Check:	Pass @ 8" H_2O	Date:	5-9-22
Standard Meter I.D. No.:	3623853	Standard Meter Calibration Date:	08-04-2021	Calibrated By:	D. Wells
Standard Meter (Y_{ds}):	0.9976	Standard Meter Calibration Due Date:	08-04-2022	Barometric Pressure :	29.15

Run Number	Orifice Setting in.$H_2$0	Meter Pressure in.$H_2$0	Standard Meter Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Time Min.	Time Sec.	Gamma Correction Coef. Y	Pressure equal to: 0.75 cfm @ STP (DH@)	Flow Rate (Q) scfm
Initial			625.908	489.025	66	74	70						
Final			635.359	498.465	66	75	70						
Difference 1	0.50	0.50	9.451	9.440	66	75	70	72	23	0	1.009	1.683	0.40
Initial			607.430	470.656	66	72	70						
Final			625.908	489.025	66	79	70						
Difference 2	1.50	1.50	18.478	18.369	66	76	70	73	27	0	1.013	1.819	0.66
Initial			635.359	498.465	66	75	70						
Final			650.339	513.326	67	85	72						
Difference 3	3.00	3.00	14.980	14.861	67	80	71	76	15	0	1.015	1.703	0.96
								Pre Test Calibration Factor (Y_{avg})			1.012	1.735	

Specifications: CFR 40, Part 60, Appendix A, Method 5, section 10.3.1. Calibration Prior to Use.
Y must be 0.980 - 1.02 ΔH@ must be 1.84 ± 0.25

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Pre Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 5-9-22

Name: D. Wells

Control Module Number: E-31

Ambient Temperature: 67 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2021
Due date of reference std. calibration verification: 8/11/2022

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	0	0.0
600	600	0.0
1200	1200	0.0

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 460)} - \text{Therm. under test temp. (°F + 460)}}{\text{Reference std temp. (°F + 460)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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Post Meter Calibration Verification

Project Number: 508369
Last Test Run: 2/9/2023
Operator(s): A. Sakellariou

	Run 5	Run 6	Run 7	Average
Console/Meter ID:	E31	E31	E31	N/A
Run Time (min):	240	240	240	
V_m (cf):	158.669	159.034	160.691	
T_m (^oR):	534.13	518.42	525.11	
P_{bar} ("H_g):	28.95	29.35	28.65	
DH_{avg} ("H_2O):	1.40	1.48	1.46	
M_d:	29.45	29.45	29.47	
Orifice $\Delta H_{@i}$:	1.735	1.735	1.735	
Meter Y_i:	1.012	1.012	1.012	1.012
Y_{qa}:	1.033	1.035	1.038	1.035

Difference between average Y_{qa} and Y_i: 2.3%

Calibration Status: Pass

Specification: USEPA Method 5, Section 16.3, *Alternative Post-Test Metering System Calibration*
The average Y_{qa} must be within 5% of Y_i

Post Test Leak Checks				Specification:
Train Leak Check:	Pass	Pass	Pass	(≤ 0.020 CFM)
Pump/Orifice Leak Check:	Pass	Pass	Pass	(= 0" @ 5-7" H_20)

PreTest DGM Calibration

(before use, as left data)

Control Module ID No.:	F-1	System Leak Check:	Passed @ > 5" w.c. @ > 5 min.	Date:	1/20/2023
Standard Meter ID No.:	8005096	Standard Meter Calibration Date:	6/10/22	Calibrated By:	D. Wells
Standard Meter Gamma (Y_{ds}):	1.0008	Standard Meter Calibration Due Date:	6/10/23	Barometric Pressure :	29.25
DGM / Channel #:	A	Digital Counter Scale factor:	1.5712	Digital Counter Decimal Places:	3

	Run Number	Dry Gas Meter Pressure (in. H_20)	Standard Meter Volume Vr	Dry Gas Meter DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Run Time (min.)	Run Time (sec.)	Gamma Correction Coef. Y	Flow Rate Calculated (Q) slpm
Initial			0.000	0.000	73	71	71					
Final			30.728	30.514	75	75	75					
Difference	1	0.42	30.728	30.514	74	73	73	73	30	0	1.005	0.99
Initial			0.000	0.000	75	75	75					
Final			30.671	30.467	75	76	76					
Difference	2	0.42	30.671	30.467	75	76	76	76	30	0	1.008	0.98
Initial			0.000	0.000	75	76	76					
Final			37.069	36.820	76	76	76					
Difference	3	0.42	37.069	36.820	76	76	76	76	40	0	1.007	0.89

Specifications: CFR 40, Part 60, Appendix A, Method 6, section 10.1.1. Calibration Before Use.

Pre Test Calibration Factor (Y_{avg}) 1.007

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PreTest DGM Calibration
(before use, as left data)

Pre Test Temperature Indicator Calibration
(For K-Type Thermocouples)

Date: 1/20/2023

Name: D. Wells

Control Module Number: F-1

Ambient Temperature: 76 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2021
Due date of reference std. calibration verification: 8/11/2022

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	2	0.4
600	601	0.1
1200	1202	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 459.67)} - \text{Therm. under test temp. (°F + 459.67)}}{\text{Reference std temp. (°F + 459.67)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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Post Test DGM Calibration

(after use, as found data)

Control Module ID No.	LF-03	System Leak Check:	0.000 @ 7" H2O	Date:	2/16/2023
Standard Meter ID No.	8005096	Standard Meter Calibration Date:	6/10/2022	Calibrated By:	A. Sakellariou
Standard Meter Gamma (Y_{ds}):	1.0008	Standard Meter Calibration Due Date:	6/10/2023	Barometric Pressure :	29.23
DGM / Channel #:	B	Digital Counter Scale factor:	1.6122	Digital Counter Decimal Places:	3

	Run Number	Dry Gas Meter Pressure (in. H_20)	Standard Meter Gas Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Run Time (min.)	Run Time (sec.)	Gamma Correction Coef. Y	Flow Rate Calculated (Q) slpm
Initial			0.000	0.000	75.2	64	64					
Final			14.368	14.849	74.8	88	88					
Difference	1	0	14.368	14.849	75	76	76	76	30	0	0.970	0.48
Initial			14.368	14.849	74.8	88	88					
Final			28.736	29.697	73.2	93	93					
Difference	2	0	14.368	14.848	74	91	91	91	30	0	0.998	0.46

Post Test Calibration Factor (Y_{avg}):	0.984
Pre Test Calibration Factor (Y_{avg}):	1.012
Pre Test Calibration (Date):	1/17/2023
% diff. between Pre & Post (Y_{avg}):	2.7%

Specifications: CFR 40, Part 60, Appendix A, Method 6, section 10.1.2. Post-Test Calibration Check.

If difference between Pre & Post is less than 5% use Pre Test (Y)

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Post Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 2/16/2023

Name: A. Sakellariou

Control Module Number: LF-03

Ambient Temperature: 74 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2022
Due date of reference std. calibration verification: 8/11/2023

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	-1	0.2
600	597	0.3
1200	1199	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 460)} - \text{Therm. under test temp. (°F + 460)}}{\text{Reference std temp. (°F + 460)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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PreTest DGM Calibration

(before use, as left data)

Control Module ID No.:	LF-03	System Leak Check:	Passed @ > 5" w.c. @ > 5 min.	Date:	1/17/2023
Standard Meter ID No.:	8005096	Standard Meter Calibration Date:	6/10/2022	Calibrated By:	D. Wells
Standard Meter Gamma (Y_{ds}):	1.0008	Standard Meter Calibration Due Date:	6/10/2023	Barometric Pressure :	28.85
DGM / Channel #:	A	Digital Counter Scale factor:	1.6122	Digital Counter Decimal Places:	3

	Run Number	Dry Gas Meter Pressure (in. H_20)	Standard Meter Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Run Time (min.)	Run Time (sec.)	Gamma Correction Coef. Y	Flow Rate Calculated (Q) slpm
Initial			0.000	0.000	64	64	73					
Final			15.721	15.712	72	72	75					
Difference	1	0.50	15.721	15.712	68	68	74	71	30	0	1.006	0.50
Initial			0.000	0.000	72	72	75					
Final			18.758	18.507	75	75	75					
Difference	2	0.50	18.758	18.507	74	74	75	74	38	0	1.015	0.46
Initial			0.000	0.000	75	75	75					
Final			16.610	16.340	75	75	76					
Difference	3	0.50	16.610	16.340	75	75	76	75	32	0	1.017	0.49

Specifications: CFR 40, Part 60, Appendix A, Method 6, section 10.1.1. Calibration Before Use.

Pre Test Calibration Factor (Y_{avg}) 1.012

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Pre Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 1/17/2023

Name: D. Wells

Control Module Number: LF-03

Ambient Temperature: 75 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2021
Due date of reference std. calibration verification: 8/11/2022

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	1	0.2
600	600	0.0
1200	1200	0.0

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 459.67)} - \text{Therm. under test temp. (°F + 459.67)}}{\text{Reference std temp. (°F + 459.67)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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Post Test DGM Calibration

(after use, as found data)

Control Module ID No.	LF-05	System Leak Check:	0.000 @ 5" H2O	Date:	2/16/2023
Standard Meter ID No.	3601281	Standard Meter Calibration Date:	6/10/2022	Calibrated By:	A. Sakellariou
Standard Meter Gamma (Y_{ds}):	0.9923	Standard Meter Calibration Due Date:	6/10/2023	Barometric Pressure :	29.23
DGM / Channel #:	A	Digital Counter Scale factor:	1.8604	Digital Counter Decimal Places:	3

	Run Number	Dry Gas Meter Pressure (in. H_20)	Standard Meter Gas Volume Vr	Control Module DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Run Time (min.)	Run Time (sec.)	Gamma Correction Coef. Y	Flow Rate Calculated (Q) slpm
Initial			0.000	0.000	71.7	62	62					
Final			15.143	15.183	71.5	88	88					
Difference	1	0	15.143	15.183	71.6	75	75	75	30	0	0.996	0.49
Initial			15.143	15.183	71.5	88	88					
Final			30.285	30.367	71.2	91	91					
Difference	2	0	15.142	15.184	71.35	90	90	90	30	0	1.023	0.48

Post Test Calibration Factor (Y_{avg}):	1.010
Pre Test Calibration Factor (Y_{avg}):	0.993
Pre Test Calibration (Date):	1/19/2023
% diff. between Pre & Post (Y_{avg}):	1.7%

Specifications: CFR 40, Part 60, Appendix A, Method 6, section 10.1.2. Post-Test Calibration Check.

If difference between Pre & Post is less than 5% use Pre Test (Y)

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Post Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 2/16/2023

Name: A. Sakellariou

Control Module Number: LF-05

Ambient Temperature: 71 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2022
Due date of reference std. calibration verification: 8/11/2023

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	-1	0.2
600	597	0.3
1200	1200	0.0

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 460)} - \text{Therm. under test temp. (°F + 460)}}{\text{Reference std temp. (°F + 460)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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PreTest DGM Calibration

(before use, as left data)

Control Module ID No.:	LF-05	System Leak Check:	Passed @ > 5" w.c. @ > 5 min.	Date:	1/19/2023
Standard Meter ID No.:	8005096	Standard Meter Calibration Date:	6/10/22	Calibrated By:	D. Wells
Standard Meter Gamma (Y_{ds}):	1.0008	Standard Meter Calibration Due Date:	6/10/23	Barometric Pressure :	28.80
DGM / Channel #:	A	Digital Counter Scale factor:	1.8604	Digital Counter Decimal Places:	3

	Run Number	Dry Gas Meter Pressure (in. H_20)	Standard Meter Volume Vr	Dry Gas Meter DGM Volume Vd	Standard Meter Temp. F Tr	Dry Gas Meter Inlet Temp. F Tdi	Dry Gas Meter Outlet Temp. F Tdo	Dry Gas Meter Avg. Temp. F Td	Run Time (min.)	Run Time (sec.)	Gamma Correction Coef. Y	Flow Rate Calculated (Q) slpm
Initial			0.000	0.000	77	75	75					
Final			28.849	28.914	76	75	75					
Difference	1	0.80	28.849	28.914	76	75	75	75	55	0	0.994	0.50
Initial			0.000	0.000	76	75	75					
Final			16.711	16.798	77	76	76					
Difference	2	0.80	16.711	16.798	76	76	76	76	30	0	0.992	0.53
Initial			0.000	0.000	77	76	76					
Final			16.108	16.148	77	75	75					
Difference	3	0.80	16.108	16.148	77	76	76	76	30	0	0.994	0.51

Specifications: CFR 40, Part 60, Appendix A, Method 6, section 10.1.1. Calibration Before Use.

Pre Test Calibration Factor (Y_{avg}) 0.993

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Pre Test Temperature Indicator Calibration

(For K-Type Thermocouples)

Date: 1/19/2023

Name: D. Wells

Control Module Number: LF-05

Ambient Temperature: 77 °F

Reference std. thermocouple calibrator: Omega Engineering, Inc. Model No. CL23A *
Reference std. thermocouple calibrator serial number: T-236796
Date of reference std. calibration verification: 8/11/2021
Due date of reference std. calibration verification: 8/11/2022

Reference Thermometer (°F)	Thermometer Under Test (°F)	Temperature Difference (%)
0	2	0.4
600	601	0.1
1200	1202	0.1

$$\text{Temperature Difference, \%} = \frac{\text{Ref. std. temp. (°F + 459.67)} - \text{Therm. under test temp. (°F + 459.67)}}{\text{Reference std temp. (°F + 459.67)}} \times 100 \leq 1.5\ \%$$

** Reference std. is directly traceable to NIST (National Institute of Standards and Technology)*

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Field Calibration Tool Identification

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

Calibration Tools: Include all of the tools from the field calibration kit that you will be using on this project. (See SOP AM-CAL-025 for instructions on re-verification)

Item	ID#	S/N	Calibration Due Date
Digital Caliper	LMB-Shop	--	
Thermometer	CL23A	T-239267	
Barometer	PAT-30	1405	
Calibration Weight			
Calibration Weight A	w2000b	w2000b	
Calibration Weight B	W500b	W500b	
Type A Angle Finder		--	
Plastic/Magnetic Torpedo Level		--	--

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Pre-Test Thermocouple Calibration Checks

Analyst:	Dave Wells
Date:	2/2/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E-31
Probe ID#	797
Test Location/Measurement Point Info:	Main Stack
NIST Thermometer ID #	CL23A

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, °F	NIST Thermometer Temp, °F	Difference, °F (± 2)	Continuity Check	Overall Status
Stack	44	44.6	0.6	Pass	Pass
Filter	44	44.6	0.6	Pass	Pass
Impinger Exit	44	44.6	0.6	Pass	Pass
Meter in	45	44.6	0.4	Pass	Pass
Meter Out	44	44.6	0.6	Pass	Pass
Probe	44	44.6	0.6	Pass	Pass
Other					
Other					

Notes:

AM-EMT-52 Rev. 15
Revised 5/1/19

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Post-Test Thermocouple Calibration Checks

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E-31
Probe ID#	797
Test Location/Measurement Point Info:	Main Stack
NIST Thermometer ID #	CL23A

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, °F	NIST Thermometer Temp, °F	Difference, °F (± 2)	Continuity Check	Overall Status
Stack	53	53.1	0.1	Pass	Pass
Filter	53	53.1	0.1	Pass	Pass
Impinger Exit	53	53.1	0.1	Pass	Pass
Meter in	54	53.1	0.9	Pass	Pass
Meter Out	53	53.1	0.1	Pass	Pass
Probe	53	53.1	0.1	Pass	Pass
Other					
Other					

Notes:

AM-EMT-52 Rev. 15
Revised 5/1/19

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PRE-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

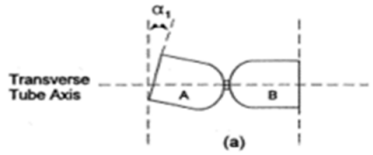
Pitot Tube No. : 797 Date: 2/2/2023 Analyst: Dave Wells

Project Number: 508369 Client: Primary Energy Test Location: HRSG Main Stack

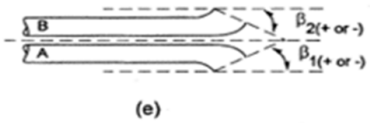
Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

x yes _____ no

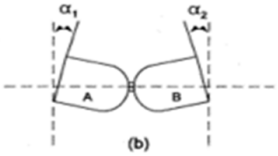
Comments: _____



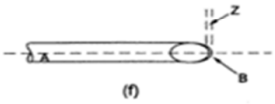
Limit:
$\alpha_1 < 10°$



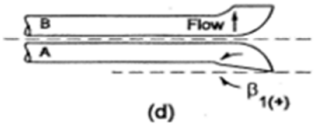
Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



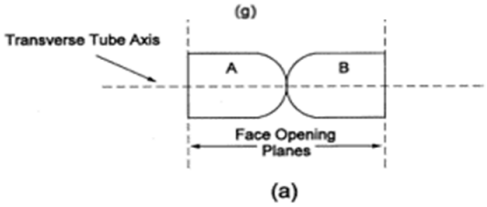
Limit:
$\alpha_2 < 10°$



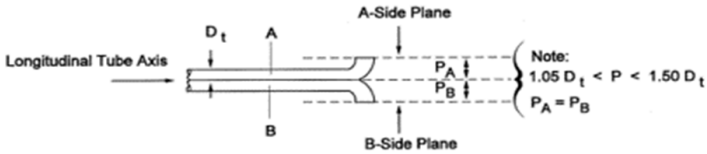
Limit:
$Z \leq 1/8$ (0.125) inch



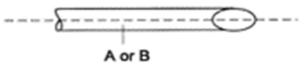
Limit:
$W \leq 1/32$ (0.0132) inch



Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



Requirement:
Both legs of equal length and centerlines coincident when viewed from both sides.

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POST-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

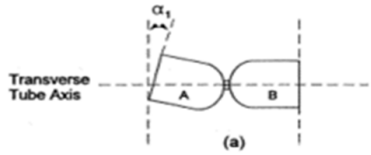
Pitot Tube No. : 797 Date: 2/9/2023 Analyst: Dave Wells

Project Number: 508369 Client: Primary Energy Test Location: HRSG Main Stack

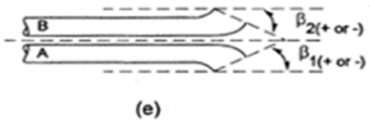
Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

x yes _____ no

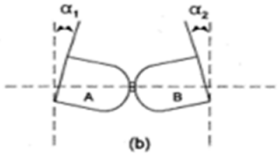
Comments: _____



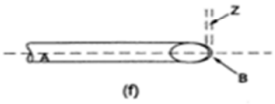
Limit:
$\alpha_1 < 10°$



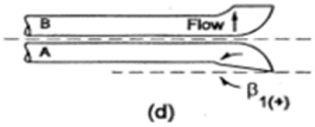
Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



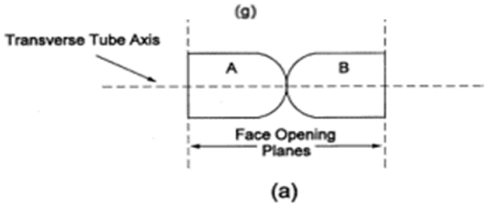
Limit:
$\alpha_2 < 10°$



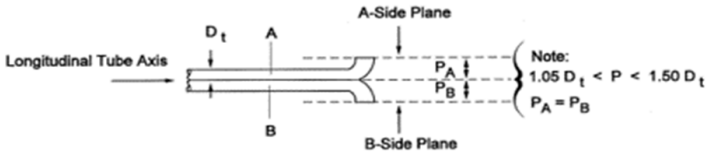
Limit:
$Z \leq 1/8$ (0.125) inch



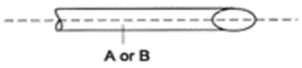
Limit:
$W \leq 1/32$ (0.0132) inch



Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



Requirement:
Both legs of equal length and centerlines coincident when viewed from both sides.

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Top Loading Field Balance Check

Analyst:	Gavin Lewis
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

(See SOP AM-CAL-009 for instructions)

Type of Scale	Lab Top-loading Scale
Scale ID#	10

Tolerance (g) = +/- 0.5

Date	Reference Weight Serial Number	Nominal Weight Value* (g)	Weight Found (g)	Difference	Pass
2/2/23	9282	500.0	499.8	-0.2	YES
2/4/23	9282	500.0	499.8	-0.2	YES
2/5/23	9282	500.0	499.8	-0.2	YES
2/6/23	9282	500.0	499.8	-0.2	YES
2/7/23	9282	500.0	499.8	-0.2	YES
2/8/23	9282	500.0	499.8	-0.2	YES
2/9/23	9282	500.0	499.8	-0.2	YES

*Weight (ASTM Class 6 or better) must be at least 500 g or within 50 g of loaded impinger.

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Barometric Pressure Determination

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

Procedure: Use a NIST traceable field barometer for all field measurements. Bring the field barometer to the test location and allow 15 minutes for the instrument to stabilize prior to recording readings.

Date:	2/2/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	29.25
Barometer Pressure After Testing:	29.25
Average Barometric Pressure:	29.25

Add reading? Yes

Date:	2/4/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	29.35
Barometer Pressure After Testing:	29.35
Average Barometric Pressure:	29.35

Add reading? Yes

Date:	2/5/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	28.95
Barometer Pressure After Testing:	28.95
Average Barometric Pressure:	28.95

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Barometric Pressure Determination

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

Procedure: Use a NIST traceable field barometer for all field measurements. Bring the field barometer to the test location and allow 15 minutes for the instrument to stabilize prior to recording readings.

Date:	2/6/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	29.35
Barometer Pressure After Testing:	29.35
Average Barometric Pressure:	29.35

Add reading? Yes

Date:	2/7/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	28.95
Barometer Pressure After Testing:	28.95
Average Barometric Pressure:	28.95

Add reading? Yes

Date:	2/8/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	29.35
Barometer Pressure After Testing:	29.35
Average Barometric Pressure:	29.35

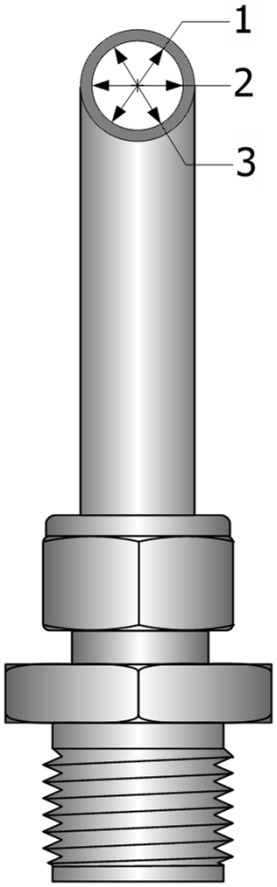
Add reading? Yes

Date:	2/9/2023
Barometer Serial Number:	1405
Barometer Pressure Prior to Testing:	28.65
Barometer Pressure After Testing:	28.65
Average Barometric Pressure:	28.65

Nozzle Calibration

Analyst:	Dave Wells
Date:	2/2/2023 through 2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack (M5/29)

(See SOP AM-CAL-007 for Instructions)



Nozzle ID No.: N/A

Maximum - Minimum ≤ 0.004 inches

Pre Test

0.201	**1**
0.201	**2**
0.200	**3**

PASS - measurements meet specifications.

Average
0.201

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Field Calibration Tool Identification

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

Calibration Tools: Include all of the tools from the field calibration kit that you will be using on this project. (See SOP AM-CAL-025 for instructions on re-verification)

Item	ID#	S/N	Calibration Due Date
Digital Caliper	LMB-Shop	--	
Thermometer	CL23A	T-239267	
Barometer	PAT-30	1405	
Calibration Weight			
Calibration Weight A	w2000b	w2000b	
Calibration Weight B	W500b	W500b	
Type A Angle Finder		--	
Plastic/Magnetic Torpedo Level		--	--

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Pre-Test Thermocouple Calibration Checks

Analyst:	Dave Wells
Date:	2/2/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E-24
Probe ID#	916
Test Location/Measurement Point Info:	Main Stack
NIST Thermometer ID #	CL23A

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, °F	NIST Thermometer Temp, °F	Difference, °F (± 2)	Continuity Check	Overall Status
Stack	43	44.6	1.6	Pass	Pass
Filter	43	44.6	1.6	Pass	Pass
Impinger Exit	44	44.6	0.6	Pass	Pass
Meter in	44	44.6	0.6	Pass	Pass
Meter Out	43	44.6	1.6	Pass	Pass
Probe	43	44.6	1.6	Pass	Pass
Other					
Other					

Notes:

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Post-Test Thermocouple Calibration Checks

Analyst:	Dave Wells
Date:	2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack

(See SOP AM-CAL-005 for instructions)

Console/Meter Box ID #	E-24
Probe ID#	916
Test Location/Measurement Point Info:	Main Stack
NIST Thermometer ID #	CL23A

Procedure 1: Calibrate thermocouple against a reference thermometer.

After each test run series, check the accuracy (and, hence, the calibration) of each thermocouple system at ambient temperature, or any other temperature, within the range specified by the manufacturer, using a reference thermometer.

Procedure 2: Check the response of the thermocouple to a change in temperature.

Check the "continuity" of the thermocouple by subjecting it to a change in temperature (e.g., removing it from the stack or touching an ice cube). This step will also check for loose connections and reversed connections.

Measurement	T/C Temp, °F	NIST Thermometer Temp, °F	Difference, °F (± 2)	Continuity Check	Overall Status
Stack	52	53.1	1.1	Pass	Pass
Filter	52	53.1	1.1	Pass	Pass
Impinger Exit	53	53.1	0.1	Pass	Pass
Meter in	53	53.1	0.1	Pass	Pass
Meter Out	52	53.1	1.1	Pass	Pass
Probe	52	53.1	1.1	Pass	Pass
Other					
Other					

Notes:

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PRE-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

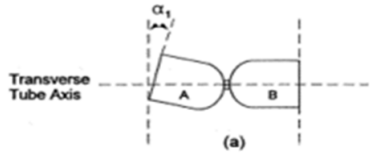
Pitot Tube No. : 916 Date: 2/2/2023 Analyst: Dave Wells

Project Number: 508369 Client: Primary Energy Test Location: HRSG Main Stack

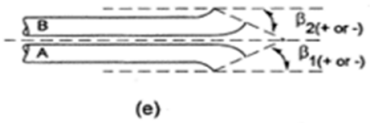
Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

x yes _____ no

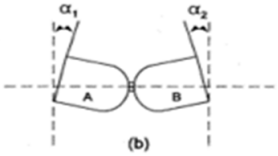
Comments: _____



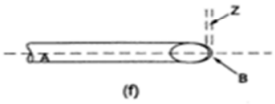
Limit:
$\alpha_1 < 10°$



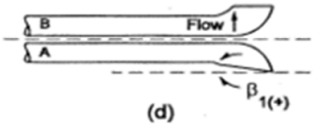
Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



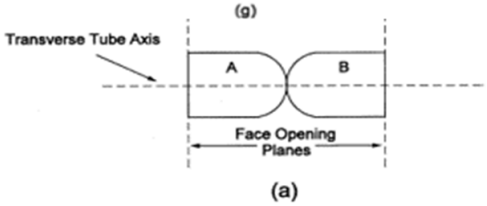
Limit:
$\alpha_2 < 10°$



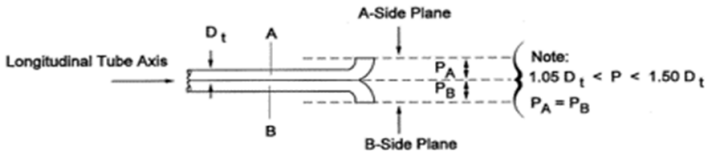
Limit:
$Z \leq 1/8$ (0.125) inch



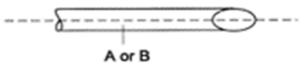
Limit:
$W \leq 1/32$ (0.0132) inch



Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



Requirement:
Both legs of equal length and centerlines coincident when viewed from both sides.

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POST-TEST TYPE S PITOT TUBE INSPECTION

(See SOP AM-CAL-006 for Instructions)

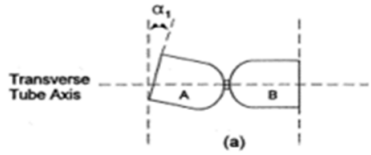
Pitot Tube No. : 916 Date: 2/9/2023 Analyst: Dave Wells

Project Number: 508369 Client: Primary Energy Test Location: HRSG Main Stack

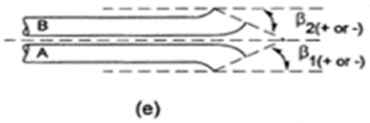
Type S Pitot tube face openings meet alignment specifications illustrated in Figures 2-2 and 2-3 of Method 2?

x yes _____ no

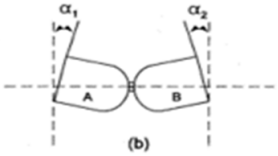
Comments: _____



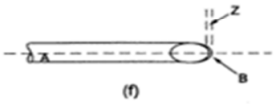
Limit:
$\alpha_1 < 10°$



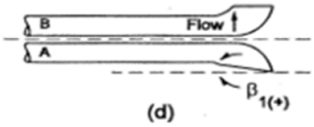
Limit:
$\beta_1 < 5°$
$\beta_2 < 5°$



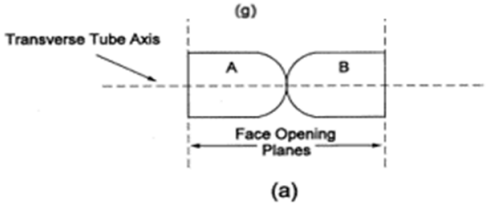
Limit:
$\alpha_2 < 10°$



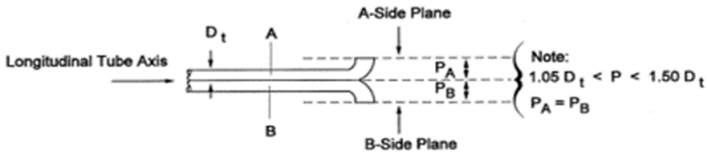
Limit:
$Z \leq 1/8$ (0.125) inch



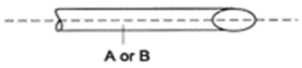
Limit:
$W \leq 1/32$ (0.0132) inch



Requirement:
Face opening planes perpendicular to transverse axis



Requirement:
Face opening planes parallel to longitudinal axis



Requirement:
Both legs of equal length and centerlines coincident when viewed from both sides.

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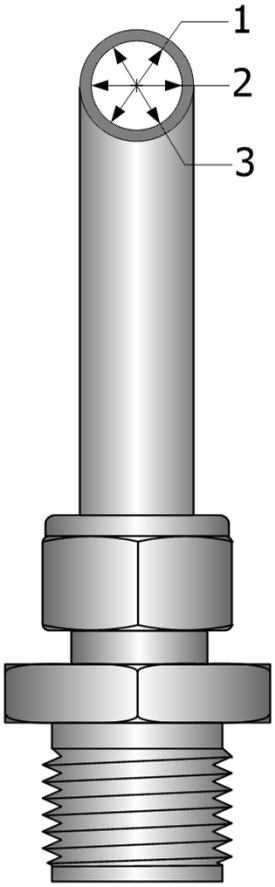
Nozzle Calibration

Analyst:	Dave Wells
Date:	2/2/2023 through 2/9/2023
Project Number:	508369
Client:	Primary Energy
Test Location:	HRSG Main Stack (OTM-46)

(See SOP AM-CAL-007 for Instructions)



Nozzle ID No.: N/A

Maximum - Minimum ≤ 0.004 inches

Pre Test

0.198	**1**
0.199	**2**
0.198	**3**

PASS - measurements meet specifications.

Average
0.198

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NO_2 Converter Efficiency Verification

Project Number:	508369	Stack Test Date:	2/2/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Ientification:	HRSG	Recorded By:	Gavin Lewis
Sample Location:	Main Stack	CE Test Date:	2/2/2023
NOx Analyzer Model #:	42C	Converter Temp:	347 deg. C
NOx Analyzer Serial #:	42CHL-64403-343		

Option I: Cylinder gas verification

NO_2 Gas Certified Concentration:	48.68
NO_2 Gas Cylinder ID:	CC500607
NO_2 Gas Expiration Date:	07/15/24
Analyzer Response to NO_2 Gas:	48.05
Converter Efficiency:	98.7
Converter Status:	Pass

Option II: Tedlar bag verification

Decrease in NO_X value less than 2% of peak value

Peak NO_X Value:	-
Final NO_X Value:	-
Decrease:	-
Status:	-

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Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E02AI99E15W0021	Reference Number:	54-402163057-1
Cylinder Number:	CC500607	Cylinder Volume:	146.2 Cubic Feet
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12021	Valve Outlet:	660
Gas Code:	NO2,BALA	Certification Date:	Jul 15, 2021

Expiration Date: Jul 15, 2024

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted. The results relate only to the items tested. The report shall not be reproduced except in full without approval of the laboratory. Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NITROGEN DIOXIDE	50.00 PPM	48.68 PPM	G1	+/- 1.8% NIST Traceable	06/25/2021, 07/15/2021
AIR	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
GMIS	1534002020505	EB0130067	59.76 PPM NITROGEN DIOXIDE/NITROGEN	+/- 1.4%	Apr 30, 2024
PRM	12397	D887665	74.2 PPM NITROGEN DIOXIDE/AIR	+/- 1.3%	Feb 02, 2022

The SRM, NTRM, PRM, or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
(CH-3) ECO PHYSICS CLD822S	Chemiluminescence	Jul 09, 2021

Triad Data Available Upon Request

Signature on file
Approved for Release

Response Time Verification

Project Number:	508369	Test Date:	2/2/2023
Customer:	Primary Energy	Facility:	Cokenergy Facility
Unit Identification:	HRSG	Recorded By:	Gavin Lewis
Sample Location:	Main Stack		

Upscale Response Check							
Pollutant	Cal Gas Level	Cal Gas Conc.	Start Time	Stable Response	Upscale Target Response	Time at Target	Response Time
NO_X	Mid	45.91	8:49:00	45.05	42.80	8:51:00	0:02:00
SO_2	-	-	-	-	-	-	-
CO	Mid	44.91	8:49:00	45.03	42.78	8:51:00	0:02:00
CO_2	Mid	9.08	9:00:00	9.04	8.59	9:01:00	0:01:00
O_2	Mid	10.03	9:00:00	9.98	9.48	9:01:00	0:01:00

Target Response is 95% of the Pre 1 System Response from the Upscale Bias Test

Start time is the time at which gas is introduced upstream of the probe.

Time at target is the time at which the required target response is achieved.

Response time is the difference between the two.

Downscale Response Check						
Pollutant	Cal Gas Level	Cal Gas Conc.	Start Time	Downscale Target Response	Time at Target	Response Time
NO_X	Mid	45.91	8:54:00	2.30	8:56:00	0:02:00
SO_2	-	-	-	-	-	-
CO	Mid	44.91	8:54:00	2.25	8:56:00	0:02:00
CO_2	Mid	9.08	9:08:00	0.45	9:09:00	0:01:00
O_2	Mid	10.03	9:08:00	0.50	9:09:00	0:01:00

Target Response is 0.5 ppm or 5.0 percent of the upscale gas concentration (whichever is less restrictive)

System Response Times	
Pollutant	**Response Time**
NO_X	**0:02:00**
SO_2	**0:00:00**
CO	**0:02:00**
CO_2	**0:01:00**
O_2	**0:01:00**

System response is the longer of the responses to zero and upscale gas.

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ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____7E_____ Analyzer Type: _____NO_x_____

Analyzer Manufacturer: _____TECO_____ Model Number: _____42C_____

Analyzer Span: _____0-500 ppm_____

Test Performed by: _____B. Randall____ Date: _____12/13/2005_____

Interference Gas	Interference Gas Concentration	Impact of Interference Gas on Analyzer	
		Analyzer Response, ppm	Percent of Span
NO_x	423.6 ppm	--	--
SO_2	223.6 ppm	1.2	0.24
CO	435.1 ppm	-6.9	-1.38
CO_2	10.9%	1.2	0.24
O_2	20.9%	0.1	0.02
	Total Response (sum)	-4.4	-0.88

Total impact on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

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ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____10____ Analyzer Type: _____CO_____

Analyzer Manufacturer: _____TECO____ Model Number: _____48C_____

Analyzer Span: _____0-1000 ppm_____

Test Performed by: ___B. Randall_____ Date: _____12/13/2005_____

Interference Gas	Interference Gas Concentration	Impact of Interference Gas on Analyzer	
		Analyzer Response, ppm	Percent of Span
NO_x	423.6 ppm	-3.2	-0.32
SO_2	223.6 ppm	-2.6	-0.26
CO	435.1 ppm	--	--
CO_2	10.9%	-2.6	-0.26
O_2	20.9%	-1.0	-0.01
	Total Response (sum)	-9.4	-0.85

Total impact on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

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ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____3A_____ Analyzer Type: _____CO_2_____

Analyzer Manufacturer: ___Servomex____ Model Number: _____1440_____

Analyzer Span: _____0-20%_____

Test Performed by: ____D. Grabowski____ Date: _____1/23/1998_ _____

Interference Gas	Interference Gas Concentration	Affect of Interference Gas on Analyzer	
		Analyzer Response, ppm	Percent of Span
NO_x	498.0 ppm	-0.02	-0.10
SO_2	208.9 ppm	-0.02	-0.10
CO	450.7 ppm	-0.02	-0.10
CO_2	10.06%	--	--
O_2	22.5%	-0.02	-0.10
	Total Response (sum)	-0.04	-0.40

Total affect on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

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ANALYZER INTERFERENCE RESPONSE TEST

USEPA Reference Method: _____3A_____ Analyzer Type: _____O_2_____

Analyzer Manufacturer: _____Servomex__ Model Number: _____1440_____

Analyzer Span: _____0-25%_____

Test Performed by: _____D. Grabowski____ Date: _____1/23/1998_____

Interference Gas	Interference Gas Concentration	Affect of Interference Gas on Analyzer	
		Analyzer Response, ppm	Percent of Span
NO_x	498.0 ppm	0.02	0.08
SO_2	208.9 ppm	0.02	0.08
CO	450.7 ppm	0.00	0.00
CO_2	10.06%	0.00	0.00
O_2	22.5%	--	--
	Total Response (sum)	0.04	0.16

Total affect on analyzer reading must be < 2% of analyzer span.

Detailed interference response test data is maintained on file and is available upon request.

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Airgas Mid-West region
Airgas USA LLC
1601 Nicholas Blvd
Elk Grove, IL 60007
Airgas.com

CERTIFICATE OF BATCH ANALYSIS

Grade of Product: CEM-CAL ZERO

Part Number:	NI CZ15A	Reference Number:	136-401642545-1
Cylinder Analyzed:	CC214104	Cylinder Volume:	142.0 CF
Laboratory:	192 - Elk Grove (SAP) - IL	Cylinder Pressure:	2000 PSIG
Analysis Date:	Oct 29, 2019	Valve Outlet:	580
Lot Number:	136-401642545-1		

Expiration Date: Oct 29, 2027 **CC313930**

ANALYTICAL RESULTS

Component	Requested Purity	Certified Concentration
NITROGEN	99.9995 %	99.9995 %
CARBON DIOXIDE	1.0 PPM	0.21 PPM
NOx	0.1 PPM	< 0.1 PPM
SO2	0.1 PPM	< 0.1 PPM
THC	0.1 PPM	0.06 PPM
CARBON MONOXIDE	0.5 PPM	0.21 PPM

Permanent Notes: Airgas certifies that the contents of this cylinder meet the requirements of 40 CFR 72.2

Cylinders in Batch:

ALM-038976, CC19817, CC210474, CC214104, CC235229, CC313930, CC338663, CC348991, CC49644, CC73859, EB0039110, EB0039718, EB0080537, EB0087975, EB0087987, EB0087992, EB0088020, SG9159496, XC007136B, XC031591B

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E05NI90E15A40L3	Reference Number:	54-402235801-1
Cylinder Number:	XC030244B	Cylinder Volume:	149.2 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12021	Valve Outlet:	660
Gas Code:	CO,CO2,NO,NOX,SO2,BALN	Certification Date:	Oct 09, 2021

Expiration Date: Oct 09, 2024

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted. The results relate only to the items tested. The report shall not be reproduced except in full without approval of the laboratory. Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	45.00 PPM	45.91 PPM	G1	+/- 1.1% NIST Traceable	10/02/2021, 10/09/2021
CARBON MONOXIDE	45.00 PPM	44.91 PPM	G1	+/- 1% NIST Traceable	10/04/2021
NITRIC OXIDE	45.00 PPM	45.90 PPM	G1	+/- 1.1% NIST Traceable	10/02/2021, 10/09/2021
SULFUR DIOXIDE	45.00 PPM	45.34 PPM	G1	+/- 1.1% NIST Traceable	10/02/2021, 10/09/2021
CARBON DIOXIDE	9.000 %	8.880 %	G1	+/- 1.4% NIST Traceable	10/02/2021
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	09010234	KAL004881	98.48 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Oct 16, 2024
PRM	12386	D685025	9.91 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Feb 20, 2020
NTRM	200611-11	CC708030	49.82 PPM NITRIC OXIDE/NITROGEN	+/- 1.0%	Feb 02, 2025
GMIS	401423838105	CC506138	4.155 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Feb 18, 2023
PRM	12395	D887660	9.91 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Feb 02, 2022
NTRM	14010328	KAL004421	49.08 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.0%	Apr 17, 2024
NTRM	13060738	CC414595	16.939 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	May 14, 2025

The SRM, NTRM, PRM, or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet iS50 AUP1200220	FTIR	Sep 14, 2021
CO-1 SIEMENS ULTRAMAT 6E N1J5700	NDIR	Sep 28, 2021
Nicolet iS50 AUP1200220	FTIR	Sep 14, 2021
Nicolet iS50 AUP1200220	FTIR	Sep 14, 2021
Nicolet iS50 AUP1200220	FTIR	Sep 14, 2021

Signature on file
Approved for Release

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E05NI90E15A51R6	Reference Number:	54-402467350-1
Cylinder Number:	EB0064066	Cylinder Volume:	149.0 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12022	Valve Outlet:	
Gas Code:	CO,CO2,NO,NOX,SO2,BALN	Certification Date:	Jun 28, 2022

Expiration Date: Jun 28, 2030

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted. The results relate only to the items tested. The report shall not be reproduced except in full without approval of the laboratory. Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	90.00 PPM	91.49 PPM	G1	+/- 1.0% NIST Traceable	06/24/2022, 06/28/2022
CARBON MONOXIDE	90.00 PPM	87.82 PPM	G1	+/- 0.8% NIST Traceable	06/21/2022
NITRIC OXIDE	90.00 PPM	91.48 PPM	G1	+/- 1.0% NIST Traceable	06/24/2022, 06/28/2022
SULFUR DIOXIDE	90.00 PPM	88.32 PPM	G1	+/- 0.8% NIST Traceable	06/24/2022, 06/28/2022
CARBON DIOXIDE	9.000 %	8.809 %	G1	+/- 0.8% NIST Traceable	06/21/2022
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	09010228	KAL004841	98.48 PPM CARBON MONOXIDE/NITROGEN	+/- 0.5%	Oct 16, 2024
PRM	12386	D685025	9.91 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Feb 20, 2020
NTRM	20061055	CC733474	98.61 PPM NITRIC OXIDE/NITROGEN	+/- 0.9%	Oct 06, 2026
GMIS	401423838104	CC505590	4.373 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 18, 2023
NTRM	17060440	CC486570	98.32 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.8%	Dec 07, 2022
NTRM	190604-14	6162723Y	11.105 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Dec 04, 2025

The SRM, NTRM, PRM, or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
CO2-1 HORIBA VIA-510 V1E3H7P5	NDIR	Jun 16, 2022
CO-1 SIEMENS ULTRAMAT 6E N1J5700	NDIR	Jun 16, 2022
Nicolet iS50 AUP2010242	FTIR	Jun 06, 2022
Nicolet iS50 AUP2010242	FTIR	Jun 06, 2022
Nicolet iS50 AUP2010242	FTIR	Jun 06, 2022

Triad Data Available Upon Request

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E03NI81E15A37P2	Reference Number:	54-402209670-1
Cylinder Number:	SG9167200BAL	Cylinder Volume:	150.3 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
PGVP Number:	B12021	Valve Outlet:	590
Gas Code:	CO2,O2,BALN	Certification Date:	Aug 31, 2021

Expiration Date: Aug 31, 2029

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted. The results relate only to the items tested. The report shall not be reproduced except in full without approval of the laboratory. Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON DIOXIDE	9.000 %	9.076 %	G1	+/- 0.6% NIST Traceable	08/31/2021
OXYGEN	10.00 %	10.03 %	G1	+/- 0.8% NIST Traceable	08/31/2021
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	06010607	K-012381	7.016 % CARBON DIOXIDE/NITROGEN	+/- 0.5%	Jan 13, 2022
NTRM	98051104	SG9168324BAL	9.507 % OXYGEN/NITROGEN	+/- 0.7%	Oct 06, 2021

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
CO2-1 HORIBA VIA-510 V1E3H7P5	NDIR	Aug 20, 2021
O2-1 HORIBA MPA-510 3VUYL9NR	Paramagnetic	Aug 27, 2021

Triad Data Available Upon Request

Signature on file
Approved for Release

Airgas Specialty Gases
Airgas USA LLC
525 North Industrial Loop Road
Tooele, UT 84074
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA PROTOCOL STANDARD

Part Number:	E03NI60E15A1069	Reference Number:	153-401579000-1
Cylinder Number:	CC487388	Cylinder Volume:	158.2 CF
Laboratory:	124 - Tooele (SAP) - UT	Cylinder Pressure:	2015 PSIG
PGVP Number:	B72019	Valve Outlet:	590
Gas Code:	CO2,O2,BALN	Certification Date:	Aug 28, 2019

Expiration Date: Aug 28, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a mole/mole basis unless otherwise noted. The results relate only to the items tested. The report shall not be reproduced except in full without approval of the laboratory. Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON DIOXIDE	18.00 %	17.52 %	G1	+/- 0.6% NIST Traceable	08/28/2019
OXYGEN	22.00 %	22.02 %	G1	+/- 0.3% NIST Traceable	08/28/2019
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	06011806	K012669	23.04 % CARBON DIOXIDE/NITROGEN	0.5%	Jun 27, 2022
NTRM	12062019	CC367606	22.883 % OXYGEN/NITROGEN	0.050%	May 14, 2024

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA-510 SV4MEUTJ CO2	CO2 NDIR (Dixon)	Aug 08, 2019
Horiba MPA-510 W603MM58 O2	O2 Paramagnetic (Mason)	Aug 08, 2019

Triad Data Available Upon Request

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Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	5 08 69
Plant:	East Chicago, IN	Test Method(s):	29
Unit ID:	HRSG Main Stack	Test Run #:	1
Location:	Stack	Test Date(s):	2-2-2023

Console Operator:	G. Rock	Unit Operating Mode:	Normal
Console ID:	E31	Duct Shape/Area:	Round / 254.47 ft²
Meter Y:	1.012	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	scf/MMBtu
Pitot Tube ID:	797	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.840	Fuel heat content:	Btu /
Probe Liner Material:	Glass	Process/fuel flow rate:	
Nozzle Material:	Glass	Soot blown? N/A	Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration: N/A	min

Sample collection time

Total # of points: ~~8~~ 12 20

Target Sample time/point: #VALUE! min ~~20~~

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.25 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	687.5	850.8
2	0.1N HNO3/H2O2	794.1	981.2
3	0.1N HNO3/H2O2	730.6	860.0
4	Empty	668.3	711.4
5	KMNO4	787.3	809.8
6	KMNO4	760.0	767.4
7	Silica	746.1	779.3
		Net grams (M_{H20}):	586.0

Leak Checks

Pre-Test Train Leak Check: 0.003 CFM @ 11 "Hg

Pre-Test Pitot Leak Check: Pass (Pass or Fail)

Post-Test Train Leak Rate: 0.003 CFM @ 8 "Hg

Post-Test Pitot Leak Check: Pass (Pass or Fail)

Pump/Orifice Leak Check: Pass (Pass or Fail)

Filter/Thimble ID: 559

Tare Weight: 0.3768 grams

Gas Molecular Weight Method: 3A

% CO_2 : 6.52 %vol dry

% O_2 : 11.72 %vol dry

% Nitrogen + % CO : 81.76 %vol dry

M_d - dry basis : 29.512 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit: HRSG Main Stack
Location: Stack

Project #: 508369
Method(s): 5/29
Run #: 1
Operator: L. Rock

Test Date: 2-2-2023
X/K Factor: X
Minutes/pt: 10 read
20 min point

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
1-1	945	213.363	1.7	275	47	45	1.6	4	256	261	57	
1	955	220.55	1.7	275	54	45	1.6	4	257	262	58	
2	1005	227.52	1.7	275	56	46	1.6	4	257	264	58	
2	1015	234.51	1.7	275	56	47	1.6	4	256	261	57	
3	1025	241.67	1.5	274	56	47	1.4	4	257	261	57	
3	1035	248.3	1.4	274	58	48	1.3	4	257	262	57	
	1045	254.724										
2-1	1050	254.961	1.7	274	55	49	1.6	4	256	262	59	
1	1100	261.77	1.7	275	59	50	1.6	4	257	262	58	
1110	~~1110~~	268.595										
2	~~1120~~	268.595	1.7	274	53	49	1.6	4	257	262	59	
2	~~1130~~	275.56	1.6	274	57	49	1.5	4	257	262	57	
3	~~1140~~	282.3	1.6	274	59	50	1.5	4	257	263	57	
3	~~1150~~	288.97	1.6	274	60	51	1.5	4	257	262	56	
~~3~~		295.743										
3-1	1300	296.078	1.5	274	52	51	1.5	4	256	262	54	
1 2	1310	302.85	1.4	273	59	51	1.4	4	257	263	54	
2 2	1320	309.54	1.5	273	61	52	1.4	4	257	264	55	
2 3	1330	316.14	1.5	272	62	53	1.4	4	257	263	55	
3 3	1340	322.76	1.4	272	61	53	1.4	4	257	262	55	
3	1350	329.3	1.4	272	62	53	1.4	4	256	262	55	
~~4~~	1400	335.973										
4-1 1	1425	336.156	1.4	272	54	53	1.4	4	256	262	53	
1 2	1435	342.7	1.4	272	60	53	1.4	4	257	261	54	
2 2	1445	349.3	1.5	272	61	53	1.4	4	257	267	54	
2 3	1453	355.85	1.4	272	61	53	1.4	4	256	267	55	
3 3	1505	362.36	1.4	272	61	53	1.4	4	257	261	55	
3	1515	369.14	1.4	273	61	53	1.4	4	257	262	55	
	1525	375.835										

Pause 1140 1150 1200 1210 1220

Comments/Notes:

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AM-EMT-15 Rev. 48
Revised 1/17/23

TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	2
Location:	Stack	Test Date(s):	2-4-2023

Console Operator:	G. Rock	Unit Operating Mode:	15 of 16 Boilers
Console ID:	E31	Duct Shape/Area:	Round / 254.47 ft²
Meter Y:	1.012	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	scf/MMBtu
Pitot Tube ID:	797	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.840	Fuel heat content:	Btu /
Probe Liner Material:	Glass	Process/fuel flow rate:	
Nozzle Material:	Glass	Soot blown? N/A	Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration: N/A	min

Sample collection time

Total # of points: ~~8~~ 12

Target Sample time/point: ~~#VALUE!~~ min ~~240~~ 20

Target run duration: min 240

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	688.4	840.2
2	0.1N HNO3/H2O2	800.0	988.9
3	0.1N HNO3/H2O2	727.5	832.6
4	Empty	671.1	723.2
5	KMnO4	788.1	813.9
6	KMnO4	764.0	778.0
7	Silica	752.7	785.3
		Net grams (M_{H2O}):	570.3

Leak Checks

Pre-Test Train Leak Check: 0.005 CFM @ 8 "Hg

Pre-Test Pitot Leak Check: Pass (Pass or Fail)

Post-Test Train Leak Rate: 0.001 CFM @ 7 "Hg

Post-Test Pitot Leak Check: Pass (Pass or Fail)

Pump/Orifice Leak Check: Pass (Pass or Fail)

Filter/Thimble ID: 560

Tare Weight: 0.3747 grams

Gas Molecular Weight Method: 3A

% CO_2 :	6.16	%vol dry
% O_2 :	11.88	%vol dry
% Nitrogen + % CO :	81.96	%vol dry
M_d - dry basis :	29.461	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2-4-2023
Plant:	East Chicago, IN	**Method(s):**	5/29	**X/K Factor:**	x 1.305
Unit:	HRSG Main Stack	**Run #:**	2	**Minutes/pt:**	10 read / 20 point
Location:	Stack	**Operator:**	G. Rock		

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
1-1	8:40	376.346	1.3	273	43	41	1.2	3	266	265	57	NA
1	8:50	382.42	1.4	275	51	42	1.4	3	265	264	56	
2	9:00	388.88	1.4	274	54	43	1.4	3	265	264	55	
2	9:10	395.3	1.4	275	56	45	1.4	3	265	264	55	
3	9:20	401.625	1.4	274	56	46	1.4	3	265	265	55	
3	9:30	408.14	1.3	274	56	47	1.3	3	264	262	56	
	9:40	414.396										
2-1	9:47	414.567	1.4	274	53	48	1.4	3	264	264	57	
1	9:57	420.84	1.4	274	57	48	1.4	3	265	265	57	
2	10:07	427.115	1.4	274	58	49	1.4	3	265	265	56	
2	10:17	433.59	1.4	274	59	50	1.4	3	264	265	55	
3	10:27	440.1	1.4	274	60	50	1.4	3	264	264	55	
3	10:37	446.6	1.3	274	60	51	1.2	3	266	265	55	
	10:47	452.843										
3-1	10:54	453.011	1.6	274	55	51	1.5	3	266	265	55	
1	11:04	459.72	1.5	274	58	52	1.4	3	266	264	54	
2	11:14	466.31	1.4	274	58	51	1.3	3	265	266	54	
2	11:24	472.7	1.6	274	58	51	1.5	3	266	266	55	
3	11:34	479.36	1.4	274	58	51	1.3	3	266	267	55	
3	11:44	485.675	1.5	274	58	51	1.4	3	265	266	54	
	11:54	492.225										
4-1	11:57	492.225	1.5	274	56	51	1.4	3	266	266	57	
1	12:07	498.75	1.6	274	58	51	1.4	3	266	264	55	
2	12:17	505.22	1.5	274	58	51	1.4	3	265	265	55	
2	12:27	511.65	1.5	274	58	51	1.4	3	265	266	57	
3	12:37	517.36	1.5	274	58	51	1.4	3	266	266	56	
3	12:47	523.685	1.4	274	58	51	1.4	3	266	266	56	
	12:57	530.616										

Comments/Notes:

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Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	3
Location:	Stack	Test Date(s):	2/5/23

Console Operator:	A. SANTELLARIOM	Unit Operating Mode:	NORMAL 254.47
Console ID:	C-31	Duct Shape/Area:	Round / ~~#VALUE!~~ ft²
Meter Y:	1.012	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	scf/MMBtu
Pitot Tube ID:	797	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	GLASS	Process/fuel flow rate:	
Nozzle Material:	GLASS	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration:	N/A min

Sample collection time

Total # of points: 20 ~~#VALUE!~~ 12 min

Target Sample time/point: ~~#VALUE!~~ min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	EMPTY	689.6	852.9
2	HNO3/H2O2	799.7	945.0
3	HNO3/H2O2	726.9	838.6
4	EMPTY	670.2	714.6
5	HMNO4	786.9	815.9
6	HMNO4	763.0	775.2
7	SILICA	746.3	777.7
		Net grams (M_{H20}):	537.3

Leak Checks

Pre-Test Train Leak Check: 0.000 CFM @ 10 "Hg

Pre-Test Pitot Leak Check: PASS (Pass or Fail)

Post-Test Train Leak Rate: 0.000 CFM @ 8 "Hg

Post-Test Pitot Leak Check: PASS (Pass or Fail)

Pump/Orifice Leak Check: PASS (Pass or Fail)

Filter/Thimble ID: 622

Tare Weight: 0.3463 grams

Gas Molecular Weight Method: JA

% CO_2 :	5.79	%vol dry
% O_2 :	12.47	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.425	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/5/23
Plant:	East Chicago, IN	**Method(s):**	5/29	**X/K Factor:**	
Unit:	HRSG Main Stack	**Run #:**	3	**Minutes/pt:**	
Location:	Stack	**Operator:**	A. [illegible]		

	Port & Point ID	Clock Time	Meter Volume ft^3	ΔP ("H_2O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	°F
	1-1	810	32.046	1.4	272	58	56	1.2	3	265	266	49	
	1	820	38.80	1.4	274	60	56	1.2	3	265	266	49	
	2	830	45.42	1.4	273	61	55	1.2	3	266	266	54	
	2	840	51.89	1.4	273	61	55	1.2	3	265	267	56	
	3	850	58.75	1.3	273	61	55	1.2	3	266	266	54	
	3	900	64.48	1.3	273	61	55	1.2	3	266	267	55	
		910	70.593										
	2-1	920	70.593	1.5	273	58	54	1.3	3	265	267	57	
	1	930	76.96	1.5	273	60	55	1.3	3	266	267	56	
	2	940	83.17	1.5	273	62	55	1.2	3	265	267	58	
	2	950	89.27	1.5	273	62	55	1.3	3	266	267	62	
	3	1000	95.53	1.4	273	62	56	1.2	3	265	266	49	
	3	1010	101.52	1.4	273	63	56	1.2	3	266	267	49	
		1020	107.48										
1030	3-1	1030	107.48	1.6	273	58	56	1.5	4	266	267	55	
1040	1	1040	114.13	1.6	272	62	56	1.5	4	266	266	52	
1050	2	1050	121.31	1.6	273	63	56	1.5	4	266	266	55	
1100	2	1100	128.75	1.6	272	64	57	1.5	4	266	266	58	
1110	3	1110	135.27	1.5	272	65	57	1.4	4	266	267	60	
1120	3	1120	142.05	1.5	272	65	58	1.4	4	266	267	62	
1130		1130	148.839										
	4-1	1140	148.839	1.5	272	62	58	1.4	4	265	267	55	
	1	1150	155.55	1.5	272	65	58	1.4	4	266	267	57	
	2	1200	162.18	1.5	272	66	59	1.4	4	266	267	56	
	2	1210	169.95	1.5	272	67	60	1.4	4	266	267	57	
	3	1220	175.48	1.4	272	68	60	1.3	4	266	267	57	
	3	1230	181.95	1.4	272	68	60	1.3	4	265	267	59	
		1240	188.479										

Comments/Notes:

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TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	4
Location:	Stack	Test Date(s):	2/6/23

Console Operator:	A. SAMUELSON	Unit Operating Mode:	NORMAL
Console ID:	E31	Duct Shape/Area:	Round / 254.47 ft^2
Meter Y:	1.012	F_d Factor:	dscf/MMBtu scf/
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	MMBtu wscf/
Pitot Tube ID:	797	F_w Factor:	MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	GLASS	Process/fuel flow rate:	
Nozzle Material:	GLASS	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration:	N/A min

Sample collection time

Total # of points: 12

Target Sample time/point: 20 ~~#VALUE!~~ min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	EMPTY	688.8	861.9
2	HNO3/H2O2	794.8	982.3
3	HNO3/H2O2	731.2	847.5
4	EMPTY	669.5	707.0
5	HNO3	789.0	806.6
6	HNO3	765.0	772.8
7	SILICA	748.2	775.2

Net grams (M_{H20}): 566.8

Leak Checks

Pre-Test Train Leak Check: 0.000 CFM @ 8 "Hg

Pre-Test Pitot Leak Check: PASS (Pass or Fail)

Post-Test Train Leak Rate: 0.000 CFM @ 6 "Hg

Post-Test Pitot Leak Check: PASS (Pass or Fail)

Pump/Orifice Leak Check: PASS (Pass or Fail)

Filter/Thimble ID: 615

Tare Weight: 0.3464 grams

Gas Molecular Weight Method:

JA

% CO_2 :	5.90	%vol dry
% O_2 :	12.36	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.438	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/6/23
Plant:	East Chicago, IN	**Method(s):**	5/29	**X/K Factor:**	1.318
Unit:	HRSG Main Stack	**Run #:**	4	**Minutes/pt:**	20
Location:	Stack	**Operator:**	A. SAKELARIOT		

Port & Point ID	Clock Time	Meter Volume ft^3	ΔP ("H_2O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
1-1	850	690.558	1.4	274	45	44	1.3	3	258	261	41	
1	900	697.08	1.4	274	56	46	1.3	3	260	263	39	
2	910	703.49	1.4	274	58	47	1.3	3	260	264	40	
2	920	709.81	1.4	274	56	48	1.3	3	260	264	40	
3	930	716.35	1.3	274	56	48	1.2	3	260	265	42	
3	940	722.48	1.3	273	56	49	1.2	3	260	264	43	
	950	728.548										
2-1	1000	728.548	1.5	272	53	49	1.4	4	260	268	45	
1	1010	735.18	1.5	272	57	50	1.4	4	262	266	48	
2	1020	741.91	1.5	272	58	51	1.4	4	262	268	52	
2	1030	748.87	1.5	272	60	51	1.4	4	262	268	53	
3	1040	755.89	1.4	272	61	52	1.3	4	262	267	55	
3	1050	762.55	1.4	272	61	53	1.3	4	262	268	56	
	1100	769.057			~~60~~				~~262~~	~~269~~	~~46~~	
3-1	1110	769.057	1.6	272	60	54	1.5	4	262	267	46	
1	1120	775.82	1.6	272	63	55	1.5	4	263	268	47	
2	1130	782.81	1.6	272	64	56	1.5	4	263	267	49	
2	1140	789.80	1.6	272	64	56	1.5	4	263	267	48	
3	1150	796.73	1.5	271	65	57	1.4	4	264	270	50	
3	1200	803.42	1.5	271	65	57	1.4	4	262	268	50	
	1210	809.836										
4-1	1220	809.836	1.5	272	63	58	1.4	4	262	266	49	
1	1230	816.43	1.5	272	65	58	1.4	4	262	267	50	
2	1240	823.05	1.5	273	66	58	1.4	4	262	266	52	
2	1250	829.68	1.5	273	67	59	1.4	4	260	267	53	
3	1300	836.47	1.4	271	68	60	1.3	4	262	267	53	
3	1310	843.25	1.4	271	69	60	1.3	4	262	267	54	
	1320	849.919										

Comments/Notes:

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TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	5
Location:	Stack	Test Date(s):	2/7/23

Console Operator:	A. JANSCURION	Unit Operating Mode:	NORMAL
Console ID:	531	Duct Shape/Area:	Round / 254.47 ft²
Meter Y:	1.017	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.755	F_c Factor:	scf/MMBtu
Pitot Tube ID:	397	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	GLASS	Process/fuel flow rate:	
Nozzle Material:	GLASS	Soot blown? N/A	Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration: N/A	min

Sample collection time			
Total # of points:	12		
Target Sample time/point:	20 ~~#VALUE!~~ min		
Target run duration:	min		
Barometric Pressure (P_{bar}):	28.95 in Hg		
Stack Static Pressure (P_g):	-1.4 in H2O		
Stack Pressure (P_s):	28.88 in Hg		

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	EMPTY	688.8	895.8
2	HNO3/H2O2	793.3	985.2
3	HNO3/H2O2	732.1	819.4
4	EMPTY	670.1	709.9
5	KMNO4	787.5	805.8
6	KMNO4	767.6	775.1
7	SILICA	764.1	790.3
		Net grams (M_{H2O}):	578.0

Leak Checks			
Pre-Test Train Leak Check:	0.000 CFM @ 10 "Hg		
Pre-Test Pitot Leak Check:	PASS (Pass or Fail)		
Post-Test Train Leak Rate:	0.000 CFM @ 6 "Hg	Gas Molecular Weight Method:	
Post-Test Pitot Leak Check:	PASS (Pass or Fail)	3A	
Pump/Orifice Leak Check:	PASS (Pass or Fail)	% CO_2 :	6.12 %vol dry
Filter/Thimble ID:	616	% O_2 :	11.82 %vol dry
Tare Weight:	0.3426 grams	% Nitrogen + % CO :	82.06 %vol dry
		M_d - dry basis :	29.452 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit: HRSG Main Stack
Location: Stack

Project #: 508369
Method(s): 5/29
Run #: 5
Operator: A. [illegible]

Test Date: 2/7/23
X/K Factor: 1.318
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
1-1	805	852.244	1.5	276	69	67	1.4	3	261	266	52	
1	815	859.05	1.5	276	75	68	1.4	3	261	265	49	
2	825	865.59	1.4	276	77	69	1.3	3	261	265	52	
2	835	872.05	1.4	276	78	70	1.3	3	262	265	53	
3	845	878.46	1.3	274	79	71	1.3	3	262	266	54	
3	855	884.82	1.3	274	79	72	1.3	3	262	267	55	
	905	890.928										
2-1	915	890.928	1.5	276	74	72	1.4	3	261	264	57	
1	925	897.55	1.5	276	76	72	1.4	3	261	266	52	
1	935	904.18	1.5	276	78	72	1.4	3	262	266	50	
2	945	910.95	1.5	276	79	72	1.4	3	262	266	49	
3	955	917.55	1.4	275	80	72	1.4	3	262	267	49	
3	1005	924.30	1.4	275	80	73	1.4	3	262	266	50	
	1015	930.875										
3-1	1025	930.875	1.6	275	76	77	1.5	3	261	266	50	
1	1035	937.72	1.6	275	80	74	1.5	3	262	266	47	
2	1045	944.56	1.5	275	81	74	1.5	3	262	266	47	
2	1055	951.18	1.5	275	80	74	1.5	3	262	267	47	
3	1105	957.90	1.4	274	79	74	1.4	3	261	266	47	
3	1115	964.47	1.4	274	79	74	1.4	3	262	267	48	
	1125	971.092										
4-1	1135	971.092	1.6	275	77	75	1.5	3	261	266	46	
1	1145	977.95	1.6	275	76	71	1.5	3	262	266	47	
2	1155	984.82	1.5	274	77	71	1.4	3	261	266	48	
2	1205	991.49	1.5	274	77	71	1.4	3	261	267	48	
3	1215	998.10	1.4	273	76	71	1.3	3	261	267	48	
3	1225	1004.49	1.4	273	76	71	1.3	3	261	265	49	
	1235	1010.913										

Comments/Notes:

AM-EMT-15 Rev. 48
Revised 1/17/23

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Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	6
Location:	Stack	Test Date(s):	2/6/23

Console Operator:	A. [illegible]	Unit Operating Mode:	NORMAL
Console ID:	831	Duct Shape/Area:	Round 254.47 ft^2
Meter Y:	1.012	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	scf/MMBtu
Pitot Tube ID:	797	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	GLASS	Process/fuel flow rate:	
Nozzle Material:	GLASS	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration:	N/A min

Sample collection time

Total # of points: 12 ~~6~~

Target Sample time/point: 20 ~~#VALUE!~~ min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	EMPTY	689.3	932.8
2	HNO3/H2O2	798.5	971.7
3	HNO3/H2O2	727.7	832.4
4	EMPTY	669.7	698.1
5	KMNO4	785.7	802.9
6	KMNO4	763.5	770.7
7	SILICA	753.8	793.0

Net grams (M_{H20}): 613.4

Leak Checks

Pre-Test Train Leak Check: 0.005 CFM @ 10 "Hg

Pre-Test Pitot Leak Check: PASS (Pass or Fail)

Post-Test Train Leak Rate: 0.001 CFM @ 8 "Hg

Post-Test Pitot Leak Check: PASS (Pass or Fail)

Pump/Orifice Leak Check: PASS (Pass or Fail)

Filter/Thimble ID: 617

Tare Weight: 0.3441 grams

Gas Molecular Weight Method: 3A

% CO_2 :	6.09	%vol dry
% O_2 :	11.95	%vol dry
% Nitrogen + % CO :	81.96	%vol dry
M_d - dry basis :	29.452	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/8/22
Plant:	East Chicago, IN	**Method(s):**	5/29	**X/K Factor:**	1.3
Unit:	HRSG Main Stack	**Run #:**	5/29	**Minutes/pt:**	10
Location:	Stack	**Operator:**	6		

Port & Point ID	Clock Time	Meter Volume ft^3	ΔP ("H_2O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	°F
1-1	810	11.243	1.6	275	54	52	1.5	4	259	266	34	
1	820	18.19	1.6	275	59	53	1.5	4	261	267	35	
2	830	24.82	1.5	275	61	54	1.4	4	261	265	37	
2	840	31.45	1.5	276	60	54	1.4	4	260	267	37	
3	850	38.19	1.4	275	59	54	1.3	3	260	266	38	
3	900	44.35	1.4	275	59	54	1.3	3	260	266	39	
	910	50.547										
2-1	920	50.547	1.6	274	55	53	1.5	4	259	267	38	
1	930	57.05	1.6	274	57	53	1.5	4	260	267	37	
2	940	64.02	1.6	274	58	52	1.5	4	260	267	37	
2	950	70.10	1.6	274	58	53	1.5	4	260	267	39	
3	1000	77.10	1.5	273	58	52	1.4	4	260	267	39	
3	1010	83.58	1.5	273	58	52	1.4	4	260	268	40	
4	1020	90.020										
3-1	1030	90.020	1.7	273	58	52	1.6	4	265	267	46	
1	1040	97.02	1.7	273	60	52	1.6	4	265	268	48	
2	1050	103.90	1.7	273	63	53	1.6	4	265	267	53	
2	1100	110.59	1.7	273	65	54	1.6	4	266	269	60	
3	1110	117.43	1.6	272	67	56	1.4	4	266	268	62	
3	1120	124.05	1.5	272	68	58	1.4	4	266	268	64	
	1130	130.784										
4-1	1140	130.784	1.7	273	64	60	1.6	4	265	268	55	
1	1150	137.66	1.7	273	69	60	1.6	4	266	268	54	
2	1200	144.92	1.6	273	70	61	1.5	4	266	268	54	
2	1210	151.95	1.6	273	70	62	1.5	4	266	268	53	
3	1220	157.41	1.5	272	70	63	1.4	4	266	268	54	
3	1230	163.88	1.5	272	70	63	1.4	4	266	268	54	
	1240	170.277										

Comments/Notes:

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TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	5/29
Unit ID:	HRSG Main Stack	Test Run #:	7
Location:	Stack	Test Date(s):	2/9/23

Console Operator:	A. SANDLEAM	Unit Operating Mode:	NORMAL
Console ID:	E31	Duct Shape/Area:	Round 254.47 ft^2
Meter Y:	1.012	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.735	F_c Factor:	scf/MMBtu
Pitot Tube ID:	797	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	0.84	Fuel heat content:	Btu /
Probe Liner Material:	GLASS	Process/fuel flow rate:	
Nozzle Material:	GLASS	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	0.201 in	Duration:	N/A min

Sample collection time

Total # of points: 12

Target Sample time/point: 20 ~~#VALUE!~~ min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 28.65 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 28.55 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	EMPTY	690.8	998.0
2	HNO3/H2O2	794.1	1015.7
3	HNO3/H2O2	730.1	794.0
4	EMPTY	670.3	677.6
5	HMNO4	787.0	792.6
6	HMNO4	763.0	765.8
7	SILICA	756.9	787.0

Net grams (M_{H20}): 638.5

Leak Checks

Pre-Test Train Leak Check: 0.005 CFM @ 15 "Hg

Pre-Test Pitot Leak Check: PASS (Pass or Fail)

Post-Test Train Leak Rate: 0.003 CFM @ 10 "Hg

Post-Test Pitot Leak Check: PASS (Pass or Fail)

Pump/Orifice Leak Check: PASS (Pass or Fail)

Filter/Thimble ID: 618

Tare Weight: 0.3432 grams

Gas Molecular Weight Method: 3A

% CO_2 : 6.28 %vol dry

% O_2 : 11.55 %vol dry

% Nitrogen + % CO : 82.17 %vol dry

M_d - dry basis : 29.467 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit: HRSG Main Stack
Location: Stack

Project #: 508369
Method(s): 5/29
Run #: 7
Operator: A. SUBLARIA

Test Date: 2/9/23
X/K Factor: 1.3
Minutes/pt: 10

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
1-1	825	170.718	1.7	277	57	55	1.6	4	262	265	42	
1	835	178.12	1.6	276	61	55	1.5	4	262	262	43	
2	845	184.68	1.5	276	66	56	1.4	4	264	265	47	
2	855	191.28	1.5	276	67	58	1.4	4	261	265	47	
3	905	197.83	1.4	275	67	59	1.3	4	262	263	47	
3	915	204.36	1.4	275	65	59	1.3	4	262	265	48	
	925	210.533										
2-1	935	210.533	1.6	276	58	57	1.5	4	263	264	51	
1	945	217.11	1.6	276	61	56	1.5	4	264	265	53	
2	955	223.73	1.6	275	62	56	1.5	4	264	267	54	
2	1005	230.35	1.6	275	63	56	1.5	4	264	264	56	
3	1015	237.08	1.5	274	66	57	1.4	4	263	266	57	
3	1025	243.58	1.5	274	68	58	1.4	4	264	266	54	
	1035	250.209										
3-1	1045	250.209	1.7	275	68	61	1.6	4	264	264	58	
1	1055	256.85	1.7	275	72	62	1.6	4	264	266	59	
2	1105	263.75	1.6	274	74	64	1.5	4	264	265	62	
2	1115	270.76	1.6	274	76	66	1.5	4	264	265	64	
3	1125	277.62	1.5	274	76	66	1.4	4	264	265	66	
3	1135	284.43	1.5	274	76	68	1.4	4	264	267	60	
	1145	291.079										
4-1	1155	291.079	1.6	274	72	68	1.5	4	263	266	59	
1	1205	298.03	1.6	274	75	69	1.5	4	263	264	58	
2	1215	304.96	1.6	274	76	69	1.5	4	264	264	58	
2	1225	311.98	1.6	274	77	69	1.5	4	264	264	58	
3	1235	318.65	1.5	273	77	70	1.4	4	264	265	66	
3	1245	324.80	1.5	273	77	70	1.4	4	264	267	62	
	1255	331.409										

Comments/Notes:

TRC

Isokinetic Test Support Data

Company:	PRIMARY ENERGY	Project#:	508369
Plant:	COKE ENERGY	Test Method(s):	OTM 46
Unit ID:	HRSG	Test Run #:	1
Location:	MAIN STACK	Test Date(s):	2/2/2023

Console Operator:	D. Wells	Unit Operating Mode:	Normal
Console ID:	- 23 E24 2/28/2023 KEM	Duct Shape/Area:	Round / 254.47 ft²
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	.84	Fuel heat content:	Btu /
Probe Liner Material:	glass	Process/fuel flow rate:	
Nozzle Material:	glass	Soot blown? N/A	Fuel Type:
Nozzle Diameter (D_n):	0.198 in	Duration: N/A	min

Sample collection time

Total # of points: 12

Target Sample time/point: 20 min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.25 in Hg

Stack Static Pressure (P_g): -1.1 in H2O

Stack Pressure (P_s): 29.17 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	KNOCK OUT	395.9	900.8
2	H_2O	720.6	722.7
3	H_2O	719.4	722.7
4	EMPTY	642.8	646.1
5	SG	750.4	781.0
6			
7	SAD TRAP	283.8	298.7

Net grams (M_{H20}): 559.1

Leak Checks

Pre-Test Train Leak Check: .01 CFM @ 15 "Hg

Pre-Test Pitot Leak Check: P (Pass or Fail)

Post-Test Train Leak Rate: .01 CFM @ 10 "Hg

Post-Test Pitot Leak Check: P (Pass or Fail)

Pump/Orifice Leak Check: P (Pass or Fail)

Filter/Thimble ID: --

Tare Weight: -- grams

Gas Molecular Weight Method: CEMS

% CO_2 :	6.52	%vol dry
% O_2 :	11.72	%vol dry
% Nitrogen + % CO :	81.76	%vol dry
M_d - dry basis :	29.512	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company:	PRIMARY ENERGY	Job #:	508369	Test Date:	2/2/2023
Plant:	COLES ENERGY	Methods:	DTM-46	K Factor:	.89
Unit:	HRSG	Run #:	1	Minutes/pt:	20 (60 MINUTES)
Location:	MAIN STACK	Traverse Sheet:	1 of 1		

This data not entered in Excel

Port & Point ID	Clock Time	Meter Volume ft³	ΔP in. H_2O	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH in. H_2O	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train ~~GPM~~ Filter °F	Pump Vacuum in. Hg
A-1	945	570.301	1.6	272	45	45	1.45	251	260	45	45	5
1	955	576.3	1.6	273	44	44	1.45	255	261	44	42	5
2	1005	582.2	1.6	273	44	43	1.45	253	260	44	41	6
2	1015	588.9	1.6	272	44	43	1.45	256	262	44	40	6
3	1025	595.7	1.5	272	48	43	1.35	258	261	45	40	6
3	1035	602.2	1.5	272	50	44	1.35	256	262	45	40	6
	1045	608.530										
B-1	10:52	608.700	1.7	272	49	48	1.50	249	261	48	48	6
1	11:02	615.3	1.7	272	50	44	1.50	255	263	45	44	6
~~[illegible]~~	1112	622.008	~~1.6~~	~~272~~	~~49~~	~~48~~	~~1.45~~	~~256~~	~~263~~	~~45~~	~~42~~	~~6~~
2	11:40	622.008	1.6	272	48	46	1.45	254	265	48	45	6
2	1150	628.6	1.6	272	50	48	1.45	256	264	45	42	6
3	1200	635.4	1.5	271	50	46	1.35	255	264	45	41	6
3	1210	641.7	1.5	271	50	47	1.35	250	264	50	41	6
	1220	648.058										
C-1	1300	648.200	1.60	271	52	48	1.45	257	263	52	48	6
1	1310	654.6	1.60	271	52	48	1.45	256	264	52	45	6
2	1320	661.1	1.60	270	50	48	1.45	256	258	51	42	6
2	1330	667.5	1.60	270	53	49	1.45	258	256	53	41	6
3	1340	674.1	1.5	270	53	50	1.35	258	256	52	42	6
3	1350	680.6	1.5	269	53	50	1.35	257	254	52	41	6
	1400	687.125										
D-1	14:25	687.300	1.6	270	51	51	1.45	256	254	~~256~~ 48	45	6
1	1435	693.8	1.6	270	51	49	1.45	255	256	47	44	6
2	1445	700.5	1.6	270	51	49	1.45	251	258	47	43	6
2	1455	707.0	1.6	269	52	50	1.45	252	256	48	41	6
3	1505	713.6	1.4	269	52	50	1.25	254	255	50	41	5
3	1515	719.8	1.4	269	52	50	1.25	255	257	50	40	5
	1525	725.882										

Comments/notes:

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TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	OTM 46
Unit ID:	HRSG Main Stack	Test Run #:	2
Location:	Stack	Test Date(s):	2/4/2023

Console Operator:	D. Wells	Unit Operating Mode:	Normal 254.47 3/1/2023 KEM
Console ID:	E-24	Duct Shape/Area:	Round / #VALUE! ft²
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	.84	Fuel heat content:	Btu /
Probe Liner Material:	glass	Process/fuel flow rate:	
Nozzle Material:	glass	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	0.198 in	Duration:	N/A min

Sample collection time

Total # of points: 0 12

Target Sample time/point: 20/1 #VALUE! min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.0 in H2O

Stack Pressure (P_s): 29.28 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	396.7	905.1
2	H_2O	725.3	727.7
3	H_2O	719.0	718.6
4	Empty	644.0	645.1
5	SG	746.4	776.7
6	XAD	280.3	296.2

Net grams (M_{H20}): 557.7

Leak Checks

Pre-Test Train Leak Check: .01 CFM @ 15 "Hg

Pre-Test Pitot Leak Check: P (Pass or Fail)

Post-Test Train Leak Rate: 0.005 CFM @ 10 "Hg

Post-Test Pitot Leak Check: P (Pass or Fail)

Pump/Orifice Leak Check: P (Pass or Fail)

Filter/Thimble ID: OTM-46

Tare Weight: -- grams

Gas Molecular Weight Method:

Cmcs

% CO_2 :	6.16	%vol dry
% O_2 :	11.88	%vol dry
% Nitrogen + % CO :	81.96	%vol dry
M_d - dry basis :	29.461	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/14/23
Plant:	East Chicago, IN	**Method(s):**	OTM 46	**X/K Factor:**	.90
Unit:	HRSG Main Stack	**Run #:**	2	**Minutes/pt:**	20/10
Location:	Stack	**Operator:**	DMS/JS		

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
A-1	8:40	726.100	1.65	272	40	40	1.50	5	251	253	40	40
1	8:50	732.70	1.65	272	40	40	1.50	6	258	255	40	42
2	9:00	739.2	1.60	272	45	42	1.45	6	255	257	43	43
2	9:10	745.7	1.60	272	48	43	1.45	6	258	255	43	43
3	9:20	752.15	1.50	272	48	43	1.35	6	259	255	43	44
3	9:30	758.6	1.50	272	49	44	1.35	6	258	255	44	45
	9:40	764.957										
B-1	9:47	764.957	1.50	272	46	45	1.35	6	256	255	41	41
1	957	771.1	1.50	272	49	46	1.35	6	258	255	41	43
2	1007	777.5	1.50	272	51	46	1.35	7	258	255	42	44
2	1017	783.8	1.50	272	52	49	1.35	7	259	256	42	45
3	1027	790.2	1.40	271	53	48	1.25	7	256	255	44	46
3	1037	796.5	1.40	271	54	48	1.25	7	259	255	44	46
	1047	802.723										
C-1	1054	802.723	1.30	271	50	49	1.20	6	257	256	44	45
1	1104	808.75	1.40	272	48	49	1.25	6	251	255	44	45
2	1114	814.9	1.40	271	49	47	1.25	6	258	256	47	45
2	1124	821.0	1.40	271	51	47	1.25	6	258	255	45	46
3	1134	827.2	1.40	271	50	47	1.25	6	258	255	45	47
3	1144	833.35	1.40	271	50	48	1.25	6	259	255	45	47
	1154	839.507										
D-1	1157	839.507	1.50	272	48	49	1.35	7	258	255	47	50
1	1207	845.8	1.50	271	50	48	1.35	7	258	256	47	51
2	1217	852.2	1.50	271	51	48	1.35	7	258	255	47	51
2	1227	858.4	1.50	271	52	49	1.35	7	257	255	48	51
3	1237	864.5	1.40	271	51	49	1.25	6	258	255	48	52
3	1247	870.55	1.40	271	52	49	1.25	6	258	255	48	52
	1257	876.595										

Comments/Notes:

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Revised 1/17/23

TRC

Isokinetic Test Support Data

Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit ID: HRSG Main Stack
Location: Stack

Project#: 508369
Test Method(s): OTM 46
Test Run #: 3
Test Date(s): 2/5/23

Console Operator: D. Wells
Console ID: E-24
Meter Y: 1.001
Orifice $\Delta H_{@i}$: ~~Dwt 96~~ 1.826
Pitot Tube ID: 916
Cal. coefficient (C_p): .84
Probe Liner Material: glass
Nozzle Material: glass
Nozzle Diameter (D_n): .198 in

Unit Operating Mode: Normal 254.47 3/1/2023 KEM
Duct Shape/Area: Round / #VALUE! ft^2
F_d Factor: dscf/MMBtu
F_c Factor: scf/MMBtu
F_w Factor: wscf/MMBtu
Fuel heat content: Btu /
Process/fuel flow rate:
Soot blown? N/A Fuel Type:
Duration: N/A min

Sample collection time
Total # of points: 0 12
Target Sample time/point: 20 #VALUE! min
Target run duration: 240 min

Barometric Pressure (P_{bar}): 28.95 in Hg
Stack Static Pressure (P_g): -1.4 in H2O
Stack Pressure (P_s): 28.85 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	396.6	852.0
2	H2O	721.9	722.6
3	H2O	722.3	721.1
4	Empty	644.7	645.3
5	SG	746.1	779.4
6	XAD	281.2	296.8

Net grams (M_{H20}): 504.4

Leak Checks
Pre-Test Train Leak Check: .005 CFM @ 15 "Hg
Pre-Test Pitot Leak Check: P (Pass or Fail)
Post-Test Train Leak Rate: 0.005 CFM @ 10 "Hg
Post-Test Pitot Leak Check: P (Pass or Fail)
Pump/Orifice Leak Check: P (Pass or Fail)
Filter/Thimble ID: OTM-46
Tare Weight: -- grams

Gas Molecular Weight Method: Cems

% CO_2 : 5.79 %vol dry
% O_2 : 12.47 %vol dry
% Nitrogen + % CO : 81.74 %vol dry
M_d - dry basis : 29.425 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/5/23
Plant:	East Chicago, IN	**Method(s):**	OTM 46	**X/K Factor:**	.90
Unit:	HRSG Main Stack	**Run #:**	3	**Minutes/pt:**	20/60
Location:	Stack	**Operator:**	D. Weeks		

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train ~~XAD~~ °F
A-1	9:10	877.003	1.50	271	57	57	1.40	5	253	256	56	56
1	920	883.5	1.50	271	57	57	1.40	5	257	255	54	50
2	830	889.9	1.50	271	54	53	1.40	6	258	256	52	49
2	840	896.1	1.50	271	52	52	1.40	6	259	255	52	48
3	850	902.4	1.40	271	53	52	1.30	6	260	254	53	48
3	900	909.0	1.40	271	53	52	1.30	6	260	255	55	48
	910	914.727										
B-1	920	914.727	1.60	270	53	52	1.50	7	258	255	53	53
1	930	921.3	1.60	270	53	52	1.50	7	258	255	53	50
2	940	928.1	1.60	270	54	52	1.50	7	259	255	54	50
2	950	934.7	1.50	270	57	53	1.40	6	258	256	56	49
3	1000	941.1	1.50	270	56	53	1.40	6	259	255	58	51
3	1010	948.0	1.50	270	58	54	1.40	6	259	255	57	51
	1020	955.335										
C-1	10:30	955.335	1.40	270	54	53	1.30	6	258	255	54	50
1	1040	961.4	1.40	270	54	54	1.30	6	258	255	51	48
2	1050	967.5	1.40	270	56	54	1.30	6	259	256	50	46
2	1100	973.55	1.40	270	56	54	1.30	6	259	255	50	47
3	1110	979.6	1.30	269	58	55	1.20	6	259	255	53	49
3	1120	985.5	1.30	269	59	56	1.20	6	258	256	53	49
	1130	991.399										
D-1	1140	991.399	1.50	270	56	56	1.40	7	259	256	53	50
1	1150	998.1	1.50	270	57	56	1.40	7	258	256	53	48
2	1200	1004.5	1.50	270	59	56	1.40	7	258	256	54	49
2	1210	1010.6	1.50	270	60	58	1.40	7	259	255	54	51
3	1220	1016.7	1.40	269	60	58	1.30	7	259	255	56	52
3	1230	1022.8	1.40	269	60	58	1.30	7	260	254	58	53
	1240	1028.896										

Comments/Notes:

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TRC

Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	OTM 46
Unit ID:	HRSG Main Stack	Test Run #:	4
Location:	Stack	Test Date(s):	2/6/23

Console Operator:	D. Wells	Unit Operating Mode:	Normal 254.47 3/1/2023 KEM
Console ID:	E-24	Duct Shape/Area:	Round / #VALUE! ft²
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.9216	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	.84	Fuel heat content:	Btu /
Probe Liner Material:	Quartz	Process/fuel flow rate:	
Nozzle Material:	Quartz	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	.199 in	Duration:	N/A min

Sample collection time

Total # of points: 120

Target Sample time/point: 20 #VALUE! min

Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg

Stack Static Pressure (P_g): -1.4 in H2O

Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	397.3	871.8
2	H2O	724.1	733.6
3	H2O	722.0	723.6
4	Empty	645.2	646.9
5	SG	757.0	789.0
6	XAD	280.4	295.7
		Net grams (M_{H2O}):	534.6

Leak Checks

Pre-Test Train Leak Check: .01 CFM @ 15 "Hg

Pre-Test Pitot Leak Check: P (Pass or Fail)

Post-Test Train Leak Rate: .005 CFM @ 20 "Hg

Post-Test Pitot Leak Check: P (Pass or Fail)

Pump/Orifice Leak Check: P (Pass or Fail)

Filter/Thimble ID: OTM-46

Tare Weight: -- grams

Gas Molecular Weight Method: Ctms

% CO_2 :	5.90	%vol dry
% O_2 :	12.36	%vol dry
% Nitrogen + % CO :	81.74	%vol dry
M_d - dry basis :	29.438	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit: HRSG Main Stack
Location: Stack

Project #: 508369
Method(s): OTM 46
Run #: 4
Operator: D. Weiss

Test Date: 2/6/23
X/K Factor: .91
Minutes/pt: 20/10

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
A-1	8:50	29.200	1.50	271	41	43	1.40	5	256	255	50	50
1	9:00	35.8	1.50	271	45	44	1.40	6	257	256	50	43
2	910	42.0	1.50	271	46	44	1.40	7	257	260	52	41
2	920	48.2	1.50	270	47	45	1.40	7	258	254	52	41
3	930	54.6	1.40	270	47	45	1.30	7	256	255	52	41
3	940	60.9	1.40	270	47	45	1.30	7	257	255	52	40
	950	67.575										
B-1	10:00	67.575	1.60	270	46	47	1.45	7	256	255	50	45
1	1010	73.9	1.60	270	49	48	1.45	7	253	254	50	43
2	1020	80.3	1.50	270	50	48	1.40	7	253	255	51	43
2	1030	86.7	1.50	270	52	49	1.40	7	254	255	52	44
3	1040	93.0	1.40	270	54	50	1.30	7	254	254	53	43
3	1050	99.1	1.40	270	53	51	1.30	7	255	255	53	43
	1100	105.243										
C-1	11:10	105.243	1.40	270	51	53	1.30	7	253	254	56	48
1	1120	111.5	1.40	270	53	52	1.30	7	253	254	51	44
2	1130	117.6	1.40	270	54	52	1.30	7	253	255	50	43
2	1140	123.7	1.40	270	56	53	1.30	7	254	255	50	43
3	1150	129.9	1.30	270	55	53	1.20	6.5	255	255	50	43
3	1200	136.1	1.30	270	57	54	1.20	6.5	253	255	50	43
	1210	142.058										
D-1	1220	142.058	1.5	270	54	55	1.40	7	253	254	55	49
1	1230	148.5	1.5	270	55	55	1.40	7	253	254	53	45
2	1240	155.0	1.5	270	57	55	1.40	7	253	255	51	45
2	1250	161.5	1.5	270	59	57	1.40	7	256	255	51	44
3	1300	167.9	1.4	270	60	58	1.30	7	253	254	51	43
3	1310	174.1	1.4	270	61	58	1.30	7	253	255	51	43
	1320	180.361										

Comments/Notes:

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Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	OTM 46
Unit ID:	HRSG Main Stack	Test Run #:	5
Location:	Stack	Test Date(s):	2/7/2023

Console Operator:	D. WELLS	Unit Operating Mode:	Normal 254.47 2/28/2023 KEM
Console ID:	E-24	Duct Shape/Area:	Round / #VALUE! ft²
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	.84	Fuel heat content:	Btu /
Probe Liner Material:	glass	Process/fuel flow rate:	
Nozzle Material:	glass	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	.198 in	Duration:	N/A min

Sample collection time	12	
Total # of points:	6	
Target Sample time/point:	20 ~~#VALUE!~~	min
Target run duration:		min
Barometric Pressure (P_{bar}):	28.95	in Hg
Stack Static Pressure (P_g):	-1.4	in H2O
Stack Pressure (P_s):	28.85	in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	396.9	911.9
2	H2O	721.5	723.6
3	H2O	724.0	724.5
4	Empty	644.5	645.7
5	SG	760.1	792.6
6	XAD	325.7	343.4
		Net grams (M_{H2O}):	569.0

Leak Checks

Pre-Test Train Leak Check:	.005	CFM @ 15	"Hg
Pre-Test Pitot Leak Check:	P	(Pass or Fail)	
Post-Test Train Leak Rate:	.005	CFM @ 10	"Hg
Post-Test Pitot Leak Check:	P	(Pass or Fail)	
Pump/Orifice Leak Check:	P	(Pass or Fail)	
Filter/Thimble ID:	OTM-46		
Tare Weight:	--	grams	

Gas Molecular Weight Method: CEMS

% CO_2 :	6.12	%vol dry
% O_2 :	11.82	%vol dry
% Nitrogen + % CO :	82.06	%vol dry
M_d - dry basis :	29.452	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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TRC

Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit: HRSG Main Stack
Location: Stack

Project #: 508369
Method(s): OTM 46
Run #: 5
Operator: D Weeks

Test Date: 2/7/2023
K Factor: .925
Minutes/pt: 20/10

Port & Point ID	Clock Time	Meter Volume ft³	ΔP ("H₂O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H₂O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train KAD °F
A-1	805	181.200	1.50	274	68	68	1.45	6	253	256	60	60
1	815	187.8	1.50	274	69	68	1.40	6	255	261	50	50
2	825	194.2	1.50	273	70	68	1.45	6	255	260	50	48
2	835	200.8	1.50	274	73	69	1.45	6	256	262	51	47
3	845	207.3	1.40	275	74	70	1.35	6	258	261	52	47
3	855	213.8	1.40	274	74	70	1.35	6	256	262	52	47
	905	220.342										
B-1	915	220.342	1.60	274	71	71	1.50	6	253	261	56	52
1	925	226.85	1.60	274	70	69	1.50	6	255	263	53	47
2	935	233.5	1.50	274	71	69	1.45	6	254	262	54	47
2	945	~~240.8~~ 240.1	1.50	274	73	70	1.45	6	254	266	54	46
3	955	246.7	1.40	274	74	71	1.35	6	256	264	55	49
3	1005	253.2	1.40	274	74	71	1.35	6	255	264	55	48
	1015	259.657										
C-1	1025	259.657	1.40	273	72	72	1.35	6	257	263	61	52
2	1035	266.1	1.40	273	72	71	1.35	6	256	264	60	50
2	1045	272.3	1.40	273	74	71	1.35	6	256	258	59	49
2	1055	278.5	1.40	273	74	71	1.35	6	258	256	59	49
3	1105	284.95	1.30	273	72	71	1.25	5	258	253	59	50
3	1115	291.2	1.30	273	72	70	1.25	5	257	254	59	50
	1125	297.488										
D-1	11:35	297.488	1.50	272	69	69	1.45	6	254	254	59	55
1	1145	304.2	1.50	272	68	68	1.45	6	255	258	56	52
2	1155	310.4	1.50	272	70	68	1.45	6	251	258	55	50
2	1205	317.5	1.50	272	72	68	1.45	6	252	256	55	49
3	1215	324.2	1.40	272	73	68	1.35	6	254	255	56	49
3	1225	330.6	1.30	271	73	69	1.25	5	255	257	56	49
	1235	336.655										

Comments/Notes:

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Isokinetic Test Support Data

Company: Primary Energy: Cokenergy
Plant: East Chicago, IN
Unit ID: HRSG Main Stack
Location: Stack

Project#: 508369
Test Method(s): OTM 46
Test Run #: 6
Test Date(s): 2/8/23

Console Operator: D. Wells
Console ID: E-24
Meter Y: 1.001
Orifice $\Delta H_{@i}$: 1.826
Pitot Tube ID: 916
Cal. coefficient (C_p): .84
Probe Liner Material: glass
Nozzle Material: glass
Nozzle Diameter (D_n): .198 in

Unit Operating Mode: Normal 254.47 2/28/2023 KEM
Duct Shape/Area: Round / #VALUE! ft^2
F_d Factor: dscf/MMBtu
F_c Factor: scf/MMBtu
F_w Factor: wscf/MMBtu
Fuel heat content: Btu /
Process/fuel flow rate:
Soot blown? N/A Fuel Type:
Duration: N/A min

Sample collection time 12
Total # of points: 0
Target Sample time/point: ~~#VALUE!~~ min 20/10
Target run duration: 240 min

Barometric Pressure (P_{bar}): 29.35 in Hg
Stack Static Pressure (P_g): -1.90 in H2O
Stack Pressure (P_s): 29.25 in Hg

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	396.9	931.8
2	H_2O	724.1	724.1
3	H_2O	721.0	721.4
4	Empty	644.4	646.5
5	SG	748.6	778.4
6	XAD	277.0	293.9

Net grams (M_{H20}): 584.1

Leak Checks
Pre-Test Train Leak Check: .005 CFM @ 15 "Hg
Pre-Test Pitot Leak Check: Y (Pass or Fail)
Post-Test Train Leak Rate: .005 CFM @ 10 "Hg
Post-Test Pitot Leak Check: P (Pass or Fail)
Pump/Orifice Leak Check: P (Pass or Fail)
Filter/Thimble ID: OTM-46
Tare Weight: -- grams

Gas Molecular Weight Method: Cems

% CO_2 : 6.09 %vol dry
% O_2 : 11.95 %vol dry
% Nitrogen + % CO : 81.96 %vol dry
M_d - dry basis : 29.452 lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/8/23
Plant:	East Chicago, IN	**Method(s):**	OTM 46	**X/K Factor:**	.930
Unit:	HRSG Main Stack	**Run #:**	6	**Minutes/pt:**	20/10
Location:	Stack	**Operator:**	Dowels		

Port & Point ID	Clock Time	Meter Volume ft^3	ΔP ("H_2O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
A-1	8:10	337.000	1.65	272	52	52	1.55	5	251	253	51	50
1	820	343.4	1.65	273	50	52	1.55	6	252	255	50	46
2	830	350.0	1.60	272	51	52	1.50	6	255	255	51	44
2	840	356.6	1.60	273	50	51	1.50	6	255	255	53	44
3	850	363.1	1.50	272	50	50	1.40	6	255	255	54	45
3	900	369.5	1.50	272	49	49	1.40	6	253	255	55	45
	910	375.900										
B-1	920	375.900	1.60	272	48	48	1.50	6	253	255	55	50
1	930	382.4	1.60	272	48	48	1.50	6	254	255	55	47
2	940	388.9	1.60	272	49	48	1.50	6	254	255	56	44
2	950	395.4	1.60	272	49	49	1.50	6	253	256	56	44
3	1000	402.05	1.50	271	49	48	1.40	6	253	255	57	45
3	1010	408.4	1.50	271	49	47	1.40	6	254	255	58	46
	1020	414.767										
C-1	1030	414.767	1.50	271	45	45	1.40	6	253	254	54	50
1	1040	420.2	1.50	272	52	48	1.40	6	254	255	52	47
2	1050	427.6	1.50	272	54	49	1.40	6	255	256	52	45
2	1100	434.0	1.50	272	55	50	1.40	6	254	255	51	45
3	1110	440.5	1.40	272	59	54	1.30	6	254	254	49	45
3	1120	446.7	1.40	271	60	55	1.30	6	253	255	50	44
	1130	452.891										
D-1	1140	452.891	1.50	272	56	57	1.40	6	253	254	56	52
1	1150	459.3	1.50	272	59	57	1.40	6	253	254	55	49
2	1200	465.6	1.50	272	60	58	1.40	6	254	255	55	46
2	1210	472.0	1.50	272	61	58	1.40	6	255	255	54	45
3	1220	478.3	1.40	271	60	59	1.30	6	253	255	54	45
3	1230	484.6	1.40	271	60	59	1.30	6	254	254	55	45
	1240	490.983										

Comments/Notes:

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Isokinetic Test Support Data

Company:	Primary Energy: Cokenergy	Project#:	508369
Plant:	East Chicago, IN	Test Method(s):	OTM 46
Unit ID:	HRSG Main Stack	Test Run #:	7
Location:	Stack	Test Date(s):	2/9/23

Console Operator:	B. Wells	Unit Operating Mode:	Normal 254.47 2/28/2023 KEM
Console ID:	E-24	Duct Shape/Area:	Round / #VALUE! ft^2
Meter Y:	1.001	F_d Factor:	dscf/MMBtu
Orifice $\Delta H_{@i}$:	1.826	F_c Factor:	scf/MMBtu
Pitot Tube ID:	916	F_w Factor:	wscf/MMBtu
Cal. coefficient (C_p):	.84	Fuel heat content:	Btu /
Probe Liner Material:	Glass	Process/fuel flow rate:	
Nozzle Material:	Stainless	Soot blown?	N/A Fuel Type:
Nozzle Diameter (D_n):	.198 in	Duration:	N/A min

Sample collection time	12	
Total # of points:	0	
Target Sample time/point:	~~#VALUE!~~ min 20/10	
Target run duration:	240 min	
Barometric Pressure (P_{bar}):	28.65 in Hg	
Stack Static Pressure (P_g):	-1.4 in H2O	
Stack Pressure (P_s):	28.55 in Hg	

Imp #	Contents	Tare wt. (grams)	Final wt: (grams)
1	Empty	396.9	964.8
2	H_2O	728.4	729.3
3	H_2O	719.5	717.4
4	Empty	644.9	647.4
5	SG	756.3	787.4
6	XAD	275.0	291.1
		Net grams (M_{H20}):	616.4

Leak Checks

Pre-Test Train Leak Check:	.01 CFM @ 15 "Hg	
Pre-Test Pitot Leak Check:	P (Pass or Fail)	
Post-Test Train Leak Rate:	0.005 CFM @ 10 "Hg	
Post-Test Pitot Leak Check:	P (Pass or Fail)	
Pump/Orifice Leak Check:	P (Pass or Fail)	
Filter/Thimble ID:	--	
Tare Weight:	-- grams	

Gas Molecular Weight Method: CTM3

% CO_2 :	6.28	%vol dry
% O_2 :	11.55	%vol dry
% Nitrogen + % CO :	82.17	%vol dry
M_d - dry basis :	29.467	lb/lb-mole

Description of Filter and Front Half Rinses:

Description of Impinger liquid:

General Comments:

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Company:	Primary Energy: Cokenergy	**Project #:**	508369	**Test Date:**	2/9/23
Plant:	East Chicago, IN	**Method(s):**	OTM 46	**X/K Factor:**	.97
Unit:	HRSG Main Stack	**Run #:**	7	**Minutes/pt:**	20/20
Location:	Stack	**Operator:**	D. wells		

Port & Point ID	Clock Time	Meter Volume ft^3	ΔP ("H_2O)	Stack °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Orifice ΔH ("H_2O)	Sample Vacuum ("Hg)	Probe Liner °F	Filter Outlet °F	Impinger Train Outlet °F	Impinger Train °F
A-1	825	491.302	1.65	275	55	55	1.55	5	253	255	55	50
1	835	498.1	1.65	275	55	54	1.55	6	254	256	52	47
2	845	504.9	1.60	275	58	56	1.50	6	255	256	52	46
2	855	511.7	1.60	275	62	59	1.50	6	253	255	52	46
3	905	518.4	1.50	275	59	58	1.40	6	256	253	53	46
3	915	525.0	1.50	275	60	58	1.40	6	255	252	53	46
	925	531.494										
B-1	935	531.494	1.60	274	56	54	1.50	6	255	254	57	51
1	945	538.0	1.60	274	54	54	1.50	6	253	255	55	49
2	955	544.6	1.60	274	57	54	1.50	6	254	255	54	48
2	1005	551.25	1.60	274	59	56	1.50	6	254	253	54	48
3	1015	557.9	1.50	274	63	57	1.40	6	255	254	54	48
3	1025	564.3	1.50	274	65	58	1.40	6	255	254	54	47
	1035	570.985										
C-1	1045	570.985	1.50	274	63	62	1.40	6	255	254	58	52
1	1055	577.4	1.50	274	65	63	1.40	6	255	254	57	48
2	1105	584.0	1.50	274	67	63	1.40	6	253	255	56	48
2	1115	590.4	1.50	274	67	64	1.40	6	256	254	55	47
3	1125	596.9	1.50	274	68	64	1.40	6	257	252	54	46
3	1135	603.55	1.40	274	70	64	1.30	6	255	253	55	46
	1145	609.834										
D-1	1155	609.834	1.60	273	69	68	1.50	6	255	255	58	52
1	1205	616.5	1.60	274	69	69	1.50	6	256	255	56	48
2	1215	623.2	1.50	274	70	68	1.40	6	256	253	55	47
2	1225	629.85	1.50	274	72	68	1.40	6	255	254	55	47
3	1235	636.5	1.40	273	72	68	1.30	6	255	254	53	46
3	1245	643.1	1.40	273	73	69	1.30	6	252	251	53	46
	1255	649.413										

Comments/Notes:

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METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 1A
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
945	0.000	0.4	43	
950	2.458	0.4	44	
955	5.043	0.4	46	
1000	7.512	0.4	47	
1005	10.021	0.4	49	
1010	12.548	0.4	51	
1015	15.019	0.4	53	
1020	17.584	0.4	54	
1025	20.098	0.4	55	
1030	22.564	0.4	56	
1035	25.054	0.4	56	
1040	27.518	0.4	56	
1045	30.000			
Average				
Total	30.000			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 1B SPIKED
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
945	0.000	1.2	43	
950	2.476	1.2	43	
955	5.051	1.2	45	
1000	7.490	1.2	45	
1005	10.016	1.2	47	
1010	12.538	1.2	49	
1015	15.063	1.2	51	
1020	17.591	1.2	53	
1025	20.132	1.2	54	
1030	22.583	1.2	54	
1035	25.032	1.2	54	
1040	27.545	1.2	54	
1045	30.005			
Average				
Total	30.005			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:
5081 - CONDENSATE
5082 - UNSPIKED
5083 - UNSPIKED
5084 - H_2O
5085 - SPIKED
5086 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 2A
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1140	0.000	0.4	53	
1145	2.569	0.4	53	
1150	5.109	0.4	54	
1155	7.518	0.4	55	
1200	10.009	0.4	57	
1205	12.513	0.4	59	
1210	15.036	0.4	60	
1215	17.518	0.4	62	
1220	20.005	0.4	63	
1225	22.519	0.4	63	
1230	25.035	0.4	63	
1235	27.537	0.4	64	
1240	30.003			
Average				
Total	30.003			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 2B SPIKED
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1140	0.000	1.2	52	
1145	2.541	1.2	52	
1150	5.035	1.2	53	
1155	7.523	1.2	54	
1200	10.039	1.2	55	
1205	12.521	1.2	57	
1210	15.033	1.2	58	
1215	17.584	1.2	59	
1220	20.063	1.2	60	
1225	22.505	1.2	60	
1230	25.091	1.2	61	
1235	27.551	1.2	62	
1240	30.005			
Average				
Total	30.005			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:
5087 - CONDENSATE
5088 - UNSPIKED
5089 - UNSPIKED

5081O - CONDENSATE → YELLOWISH COLOR
5081I - ~~[illegible]~~ SPIKED
5081Z - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 3A
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1300	0.000	0.4	61	
1305	2.518	0.4	61	
1310	5.053	0.4	61	
1315	7.498	0.4	62	
1320	9.995	0.4	63	
1325	12.505	0.4	64	
1330	15.125	0.4	65	
1335	17.549	0.4	65	
1340	19.993	0.4	66	
1345	22.486	0.4	67	
1350	25.033	0.4	67	
1355	27.564	0.4	67	
1400	30.603			
Average				
Total	30.003			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 3B - SPIKED
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1300	0.000	1.2	59	
1305	2.504	1.2	59	
1310	5.135	1.2	59	
1315	7.575	1.2	60	
1320	9.986	1.2	61	
1325	12.523	1.2	62	
1330	15.063	1.2	63	
1335	17.491	1.2	63	
1340	20.035	1.2	64	
1345	22.515	1.2	65	
1350	25.022	1.2	65	
1355	27.518	1.2	65	
1400	30.006			
Average				
Total	30.006			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:
508/3 - CONDENSATE
508/4 - UNSPIKED
508/5 - UNSPIKED

508/6 - CONDENSATE
508/7 - SPIKED
508/8 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LE-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LE-05 Y = 0.993

Test Run Number: 4A
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1440	0.000	0.4	65	
1445	2.466	0.4	65	
1450	4.995	0.4	65	
1455	7.454	0.4	66	
1500	10.006	0.4	66	
1505	12.519	0.4	67	
1510	15.032	0.4	67	
1515	17.264	0.4	67	
1520	20.058	0.4	67	
1525	22.515	0.4	68	
1530	25.022	0.4	69	
1535	27.514	0.4	68	
1540	30.005			
Average				
Total	30.005			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 4B-SPIKED
Date: 2/2/23
Barometric Pressure: 29.25 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1440	0.000	1.2	62	
1445	2.625	1.2	61	
1450	5.213	1.2	61	
1455	7.636	1.2	62	
1500	10.118	1.2	63	
1505	12.622	1.2	64	
1510	15.158	1.2	64	
1515	17.294	1.2	64	
1520	20.019	1.2	65	
1525	22.523	1.2	65	
1530	25.002	1.2	65	
1535	27.514	1.2	66	
1540	30.040			
Average				
Total	30.040			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

YELLOWISH COLOR

Comments:
508/9 - CONDENSATE
508 20 - UNSPIKED
508 21 - UNSPIKED
508 22 - CONDENSATE
508 23 - SPIKED
508 24 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 5A
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
840	0.000	0.4	33	
845	2.489	0.4	34	
850	5.005	0.4	36	
855	7.502	0.4	37	
900	10.067	0.4	40	
905	12.783	0.4	42	
910	15.036	0.4	45	
915	17.503	0.4	46	
920	20.055	0.4	47	
925	22.569	0.4	48	
930	25.033	0.4	49	
935	27.519	0.4	51	
940	30.001			
Average				
Total	30.001			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 5B - SPIKED
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
840	0.000	1.2	33	
845	2.499	1.2	34	
850	5.080	1.2	35	
855	7.518	1.2	36	
900	10.057	1.2	38	
905	12.667	1.2	40	
910	15.098	1.2	43	
915	17.519	1.2	44	
920	20.050	1.2	46	
925	22.583	1.2	47	
930	25.005	1.2	48	
935	27.408	1.2	49	
940	30.008			
Average				
Total	30.008			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:
50825 - CONDENSATE
50826 - UNSPIKED
50827 - UNSPIKED
50828 - CONDENSATE
50829 - SPIKED
50830 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 6A
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1020	0.000	0.4	52	
1025	2.504	0.4	53	
1030	5.032	0.4	53	
1035	7.519	0.4	55	
1040	10.048	0.4	56	
1045	12.530	0.4	57	
1050	15.083	0.4	58	
1055	17.516	0.4	59	
1100	20.034	0.4	60	
1105	22.518	0.4	60	
1110	25.024	0.4	61	
1115	27.492	0.4	61	
1120	30.001			
Average				
Total	30.001			

Leak Check

Pre	0.000	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 6B-SPIKED
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1020	0.000	1.2	57	
1025	2.513	1.2	52	
1030	5.005	1.2	53	
1035	7.632	1.2	54	
1040	9.998	1.2	55	
1045	12.586	1.2	56	
1050	15.154	1.2	57	
1055	17.506	1.2	58	
1100	20.025	1.2	59	
1105	22.504	1.2	59	
1110	25.135	1.2	59	
1115	27.495	1.2	60	
1120	30.006			
Average				
Total	30.006			

Leak Check

Pre	0.009	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:
50831 - CONDENSATE
50832 - UNSPIKED
50833 - UNSPIKED
50834 - CONDENSATE
50835 - SPIKED
50836 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: LF-03 Y = 1.012

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: Anthony Sakellariou
Dry Gas Meter ID: LF-05 Y = 0.993

Test Run Number: 7A
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1145	0.000	0.4	57	
1150	2.537	0.4	58	
1155	5.035	0.4	58	
1200	7.544	0.4	59	
1205	10.028	0.4	59	
1210	12.495	0.4	60	
1215	15.018	0.4	61	
1220	17.505	0.4	61	
1225	19.995	0.4	62	
1230	22.585	0.4	62	
1235	25.036	0.4	63	
1240	27.518	0.4	63	
1245	30.001			
Average				
Total	30.001			

Leak Check

Pre	0.002	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 7A - SPIKED
Date: 2/4/23
Barometric Pressure: 29.35 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1145	0.000	1.2	56	
1150	2.571	1.2	56	
1155	5.084	1.2	57	
1200	7.595	1.2	57	
1205	10.007	1.2	58	
1210	12.511	1.2	58	
1215	15.003	1.2	59	
1220	17.426	1.2	59	
1225	20.032	1.2	60	
1230	22.518	1.2	61	
1235	25.022	1.2	61	
1240	27.523	1.2	61	
1245	30.005			
Average				
Total	30.005			

Leak Check

Pre	0.002	LPM @	5	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

↑ YELLOWISH COLOR

Comments:
50837 - CONDENSATE
50838 - UNSPIKED
50839 - UNSPIKED
50840 - CONDENSATE
50841 - SPIKED
50842 - UNSPIKED

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TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: F1 Y = 1.007

Unit/Location: HRSG Main Stack Inlet
Test Condition: ~~High~~ Normal
Recorded By: ~~Anthony Sakellariou~~ Gavin Lewis GL 2-7-23
Dry Gas Meter ID: F1 Y = 1.007

Test Run Number: 1
Date: 2-7-23
Barometric Pressure: 28.80 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Vac
1010	0.000	0.40	49	49	5"
1020	10.00	0.41	49	49	5"
1030	19.85	0.42	48	49	5"
1040	30.05	0.42	48	49	5"
1050	39.77	0.42	47	48	5"
1100	49.73	0.42	47	48	5"
1110	59.91	0.42	47	48	5"
1120	69.90	0.41	46	47	4.5"
1130	79.85	0.41	45	46	
1140	89.75	0.41	45	46	
1150	99.45	0.41	45	46	
1200	109.13	0.41	45	46	
1210	117.90	0.40	45	46	
Average					
Total					

Total Both sides

Leak Check

Pre	0.000	LPM @	7	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 1
Date: 2-7-23
Barometric Pressure: "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1220	129.58	0.42	45	45
1230	139.10	0.42	45	45
1240	149.48	0.42	45	45
1250	159.90	0.43	45	45
1300	169.90	0.42	~~45~~ 44	45
1310	179.9	0.42	44	45
1320	190.0	0.42	44	45
1330	200.8	0.42	44	45
1340	210.0	0.42	44	45
1350	219.9	0.42	45	45
1400	229.7	0.42	45	45
1410	239.834			
Average				
Total				

GL 2-7-23

Post Leak Check

~~Pre~~	0.000	LPM @	11.0"	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:

TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: F1 Y = 1.007

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: ~~Anthony Sakellariou~~ G. Lewis
Dry Gas Meter ID: F1 Y = 1.007

Test Run Number: 2
Date: 2-8-23
Barometric Pressure: 29.2 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	
624	0.000	0.42	34	34	5
634	9.85	0.42	35	35	5
644	19.80	0.42	35	35	6
654	29.84	0.41	38	38	6
704	39.75	0.41	38	38	6
714	49.63	0.41	38	38	10
724	59.10	0.40	39	38	15
734	69.30	0.40	39	38	15
744	79.54	0.40	39	38	15
754	89.35	0.40	39	38	15
804	99.63	0.40	39	38	15
814	109.78	0.40	39	38	15
824	119.20	0.40	39	38	15
Average					
Total					

total Both sides

Leak Check

Pre	0.000	LPM @	10	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number:
Date:
Barometric Pressure: "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	
834	129.10	0.44	39	38	16
844	138.96	0.44	39	39	16
854	149.20	0.44	40	39	
904	~~159.15~~	0.42	41	39	159.15
914	~~169.05~~	0.42	41	40	169.05
924	178.95	0.42	40	41	
934	188.85	0.41	40	41	
944	198.63	0.40	41	41	
954	208.71	0.40	41	41	
1004	218.73	0.42	41	41	
1014	228.94	0.42	41	41	
1024	239.405	0	~~41~~	~~41~~	
Average					
Total					

GL 2-8-23

Leak Check

Pre		LPM @		"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments:

TRC

METHOD 18

Project Number: 508369
Company Name: Primary Energy
Plant Name: Cokenergy
Dry Gas Meter ID: F1 Y = 1.007

Unit/Location: HRSG Main Stack
Test Condition: High
Recorded By: ~~Anthony Sakellariou~~ G. Lewis
Dry Gas Meter ID: F1 Y = 1.007

Test Run Number: 3
Date: 2-8-23
Barometric Pressure: 29.20 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	
1049	0.000	0.43	41	41	5
1059	9.92	0.44	40	40	5
1109	19.95	0.44	39	40	5
1119	29.93	0.44	40	40	5
1129	40.01	0.44	41	41	5
1139	49.98	0.44	41	41	5
1149	59.90	0.44	42	41	5
1159	69.85	0.44	42	42	5
1209	79.78	0.44	43	42	5
1219	89.61	0.44	43	42	5
1229	99.51	0.44	43	44	5
1239	109.20	0.44	44	44	5
1249	119.40	0.46	45	44	6
Average					
Total					

Leak Check

Pre	0.000	LPM @	10	"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Test Run Number: 3
Date: 2-8-23
Barometric Pressure: 29.20 "Hg

Time	Volume V_m (liters)	Pressure P_m ("H_2O)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)
1259	129.41	0.46	45	44
1309	139.84	0.46	45	45
1319	149.92	0.46	47	46
1329	159.90	0.46	48	48
1339	169.70	0.46	~~48~~	46
1349	179.18	0.43	43	46
1359	188.8	0.44	43	46
1409	198.5	0.44	42	44
1419	208.5	0.45	42	44
1429	218.3	0.45	42	44
1439	228.6	0.46	42	44
1449	238.629			
Average				
Total				

GL 2-8-23 44

Leak Check

Pre		LPM @		"Hg

NOTE: Post-test leak-checks are not allowed for this technique since this can result in sample contamination (Method 18, 8.2.4)

Comments: