

# All4, Inc.

2393 Kimberton Road  
Kimberton, PA 19442

## Coke Oven ICR Sampling Event #07

US Steel Corp - Clairton Works ICR

Project: 00701-0002.00

## Analytical Report (2023EE102)

### *EPA Method 325B*

1,3-Butadiene

Benzene

Ethylbenzene

m/p-Xylene

o-Xylene

Toluene



### Enthalpy Analytical, LLC

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / [www.enthalpy.com](http://www.enthalpy.com)

800-1 Capitola Drive, Durham, NC 27713

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)

This analytical report was prepared in Portable Document Format (.PDF). This report shall not be reproduced except in full without approval of the laboratory. This will provide assurance that parts of a report are not taken out of context.

A handwritten signature in black ink, consisting of a stylized 'A' followed by a long horizontal line and a large loop.

Report Issued: 02/01/2023



# Summary of Results

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### Summary

Sample Code	Tube ID	1,3-Butadiene (ug/m <sup>3</sup> )	Flag	Benzene (ug/m <sup>3</sup> )	Flag	Ethylbenzene (ug/m <sup>3</sup> )	Flag	m-/p-Xylenes (ug/m <sup>3</sup> )	Flag	o-Xylene (ug/m <sup>3</sup> )	Flag	Toluene (ug/m <sup>3</sup> )	Flag
USSCL-PT01-S-20230103	C00825		ND	8.66			ND			ND		3.76	P
USSCL-PT02-S-20230103	B11717		ND	3.60			ND			ND		11.8	P
USSCL-PT03-S-20230103	B52889		ND	8.48			ND			ND		5.65	P
USSCL-PT04-S-20230103	C00716		ND	9.30			ND	0.963				4.47	P
USSCL-PT05-S-20230103	B39531		ND	4.08			ND			ND		3.55	P
USSCL-PT06-S-20230103	C00715		ND	4.43			ND	0.636				3.56	P
USSCL-PT07-S-20230103	B31166		ND	2.16			ND			ND		6.08	P
USSCL-PT08-S-20230103	C01753		ND	2.55			ND			ND		4.45	P
USSCL-PT09-S-20230103	B44193		ND	4.94			ND	0.688				3.22	P
USSCL-PT10-D-20230103	C01635		ND	13.3			ND	1.11				23.3	P
USSCL-PT10-S-20230103	C01323		ND,Rc	14.3	Rc		ND,Rc	0.980	Rc		ND,Rc	4.89	P,Rc
USSCL-PT10-B-20230103	B50991		ND			ND				ND			ND,P
USSCL-PT11-S-20230103	C01643		ND,Rc	19.1	Rc		ND,Rc	1.03	Rc		ND,Rc	9.46	P,Rc
USSCL-PT12-S-20230103	B14773		ND,Rc	5.14	Rc		ND,Rc	0.723	Rc		ND,Rc	7.18	P,Rc

ND: The analyte was not present above the Method Detection Limit

P: Field duplicate(s) exceed 30%RPD

Rc: Recollection analysis



# Results

# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## 1,3-Butadiene

Sample Code	Tube ID	Conc (ug/m <sup>3</sup> )	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m <sup>3</sup> )	LOQ (ug/m <sup>3</sup> )	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825				37.9	0.433	20,199	0.609	0.609	0.275	0.275	ND
USSCL-PT02-S-20230103	B11717				37.9	0.433	20,196	0.609	0.609	0.275	0.275	ND
USSCL-PT03-S-20230103	B52889				37.9	0.433	20,193	0.609	0.609	0.275	0.275	ND
USSCL-PT04-S-20230103	C00716				37.9	0.433	20,190	0.609	0.609	0.275	0.275	ND
USSCL-PT05-S-20230103	B39531				37.9	0.433	20,187	0.609	0.609	0.276	0.276	ND
USSCL-PT06-S-20230103	C00715				37.9	0.433	20,191	0.609	0.609	0.275	0.275	ND
USSCL-PT07-S-20230103	B31166				37.9	0.433	20,179	0.609	0.609	0.276	0.276	ND
USSCL-PT08-S-20230103	C01753				37.9	0.433	20,196	0.609	0.609	0.275	0.275	ND
USSCL-PT09-S-20230103	B44193				37.9	0.433	20,192	0.609	0.609	0.275	0.275	ND
USSCL-PT10-D-20230103	C01635				37.9	0.433	20,185	0.609	0.609	0.276	0.276	ND
USSCL-PT10-S-20230103	C01323				37.9	0.433	20,183	0.609	0.609	0.276	0.276	ND,Rc
USSCL-PT10-B-20230103	B50991				37.9	0.433	20,181	0.609	0.609	0.276	0.276	ND
USSCL-PT11-S-20230103	C01643				37.9	0.433	20,182	0.609	0.609	0.276	0.276	ND,Rc
USSCL-PT12-S-20230103	B14773				37.9	0.433	20,180	0.609	0.609	0.276	0.276	ND,Rc

# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## Benzene

Sample Code	Tube ID	Conc (ug/m <sup>3</sup> )	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m <sup>3</sup> )	LOQ (ug/m <sup>3</sup> )	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825	8.66	2.71	113	37.9	0.645	20,199	0.192	0.410	0.0601	0.128	
USSCL-PT02-S-20230103	B11717	3.60	1.13	46.9	37.9	0.645	20,196	0.192	0.410	0.0601	0.128	
USSCL-PT03-S-20230103	B52889	8.48	2.66	110	37.9	0.645	20,193	0.192	0.410	0.0601	0.128	
USSCL-PT04-S-20230103	C00716	9.30	2.91	121	37.9	0.645	20,190	0.192	0.410	0.0601	0.128	
USSCL-PT05-S-20230103	B39531	4.08	1.28	53.1	37.9	0.645	20,187	0.192	0.410	0.0601	0.128	
USSCL-PT06-S-20230103	C00715	4.43	1.39	57.7	37.9	0.645	20,191	0.192	0.410	0.0601	0.128	
USSCL-PT07-S-20230103	B31166	2.16	0.677	28.1	37.9	0.645	20,179	0.192	0.410	0.0601	0.128	
USSCL-PT08-S-20230103	C01753	2.55	0.800	33.3	37.9	0.645	20,196	0.192	0.410	0.0601	0.128	
USSCL-PT09-S-20230103	B44193	4.94	1.55	64.4	37.9	0.645	20,192	0.192	0.410	0.0601	0.128	
USSCL-PT10-D-20230103	C01635	13.3	4.16	173	37.9	0.645	20,185	0.192	0.410	0.0601	0.128	
USSCL-PT10-S-20230103	C01323	14.3	4.48	186	37.9	0.645	20,183	0.192	0.410	0.0601	0.128	Rc
USSCL-PT10-B-20230103	B50991				37.9	0.645	20,181	0.192	0.410	0.0601	0.128	ND
USSCL-PT11-S-20230103	C01643	19.1	5.97	248	37.9	0.645	20,182	0.192	0.410	0.0601	0.128	Rc
USSCL-PT12-S-20230103	B14773	5.14	1.61	66.9	37.9	0.645	20,180	0.192	0.410	0.0601	0.128	Rc

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### Ethylbenzene

Sample Code	Tube ID	Conc (ug/m <sup>3</sup> )	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m <sup>3</sup> )	LOQ (ug/m <sup>3</sup> )	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825				37.9	0.443	20,199	0.613	0.613	0.141	0.141	ND
USSCL-PT02-S-20230103	B11717				37.9	0.443	20,196	0.613	0.613	0.141	0.141	ND
USSCL-PT03-S-20230103	B52889				37.9	0.443	20,193	0.613	0.613	0.141	0.141	ND
USSCL-PT04-S-20230103	C00716				37.9	0.443	20,190	0.613	0.613	0.141	0.141	ND
USSCL-PT05-S-20230103	B39531				37.9	0.443	20,187	0.614	0.614	0.141	0.141	ND
USSCL-PT06-S-20230103	C00715				37.9	0.443	20,191	0.613	0.613	0.141	0.141	ND
USSCL-PT07-S-20230103	B31166				37.9	0.443	20,179	0.614	0.614	0.141	0.141	ND
USSCL-PT08-S-20230103	C01753				37.9	0.443	20,196	0.613	0.613	0.141	0.141	ND
USSCL-PT09-S-20230103	B44193				37.9	0.443	20,192	0.613	0.613	0.141	0.141	ND
USSCL-PT10-D-20230103	C01635				37.9	0.443	20,185	0.614	0.614	0.141	0.141	ND
USSCL-PT10-S-20230103	C01323				37.9	0.443	20,183	0.614	0.614	0.141	0.141	ND,Rc
USSCL-PT10-B-20230103	B50991				37.9	0.443	20,181	0.614	0.614	0.141	0.141	ND
USSCL-PT11-S-20230103	C01643				37.9	0.443	20,182	0.614	0.614	0.141	0.141	ND,Rc
USSCL-PT12-S-20230103	B14773				37.9	0.443	20,180	0.614	0.614	0.141	0.141	ND,Rc

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### m-/p-Xylenes

Sample Code	Tube ID	Conc (ug/m <sup>3</sup> )	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m <sup>3</sup> )	LOQ (ug/m <sup>3</sup> )	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825				37.9	0.443	20,199	0.617	0.617	0.142	0.142	ND
USSCL-PT02-S-20230103	B11717				37.9	0.443	20,196	0.617	0.617	0.142	0.142	ND
USSCL-PT03-S-20230103	B52889				37.9	0.443	20,193	0.617	0.617	0.142	0.142	ND
USSCL-PT04-S-20230103	C00716	0.963	0.222	8.62	37.9	0.443	20,190	0.617	0.617	0.142	0.142	
USSCL-PT05-S-20230103	B39531				37.9	0.443	20,187	0.617	0.617	0.142	0.142	ND
USSCL-PT06-S-20230103	C00715	0.636	0.146	5.68	37.9	0.443	20,191	0.617	0.617	0.142	0.142	
USSCL-PT07-S-20230103	B31166				37.9	0.443	20,179	0.618	0.618	0.142	0.142	ND
USSCL-PT08-S-20230103	C01753				37.9	0.443	20,196	0.617	0.617	0.142	0.142	ND
USSCL-PT09-S-20230103	B44193	0.688	0.159	6.15	37.9	0.443	20,192	0.617	0.617	0.142	0.142	
USSCL-PT10-D-20230103	C01635	1.11	0.257	9.95	37.9	0.443	20,185	0.617	0.617	0.142	0.142	
USSCL-PT10-S-20230103	C01323	0.980	0.226	8.76	37.9	0.443	20,183	0.618	0.618	0.142	0.142	Rc
USSCL-PT10-B-20230103	B50991				37.9	0.443	20,181	0.618	0.618	0.142	0.142	ND
USSCL-PT11-S-20230103	C01643	1.03	0.238	9.23	37.9	0.443	20,182	0.618	0.618	0.142	0.142	Rc
USSCL-PT12-S-20230103	B14773	0.723	0.167	6.46	37.9	0.443	20,180	0.618	0.618	0.142	0.142	Rc

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### o-Xylene

Sample Code	Tube ID	Conc (ug/m³)	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m³)	LOQ (ug/m³)	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825				37.9	0.443	20,199	0.621	0.621	0.143	0.143	ND
USSCL-PT02-S-20230103	B11717				37.9	0.443	20,196	0.621	0.621	0.143	0.143	ND
USSCL-PT03-S-20230103	B52889				37.9	0.443	20,193	0.621	0.621	0.143	0.143	ND
USSCL-PT04-S-20230103	C00716				37.9	0.443	20,190	0.621	0.621	0.143	0.143	ND
USSCL-PT05-S-20230103	B39531				37.9	0.443	20,187	0.621	0.621	0.143	0.143	ND
USSCL-PT06-S-20230103	C00715				37.9	0.443	20,191	0.621	0.621	0.143	0.143	ND
USSCL-PT07-S-20230103	B31166				37.9	0.443	20,179	0.621	0.621	0.143	0.143	ND
USSCL-PT08-S-20230103	C01753				37.9	0.443	20,196	0.621	0.621	0.143	0.143	ND
USSCL-PT09-S-20230103	B44193				37.9	0.443	20,192	0.621	0.621	0.143	0.143	ND
USSCL-PT10-D-20230103	C01635				37.9	0.443	20,185	0.621	0.621	0.143	0.143	ND
USSCL-PT10-S-20230103	C01323				37.9	0.443	20,183	0.621	0.621	0.143	0.143	ND,Rc
USSCL-PT10-B-20230103	B50991				37.9	0.443	20,181	0.621	0.621	0.143	0.143	ND
USSCL-PT11-S-20230103	C01643				37.9	0.443	20,182	0.621	0.621	0.143	0.143	ND,Rc
USSCL-PT12-S-20230103	B14773				37.9	0.443	20,180	0.621	0.621	0.143	0.143	ND,Rc

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### Toluene

Sample Code	Tube ID	Conc (ug/m <sup>3</sup> )	Conc (ppbv)	Calc Amt (ng)	Temp (°F)	Uptake Rate (mL/min)	Sample Time (min)	LOD (ug/m <sup>3</sup> )	LOQ (ug/m <sup>3</sup> )	LOD (ppbv)	LOQ (ppbv)	Flags
USSCL-PT01-S-20230103	C00825	3.76	0.999	38.0	37.9	0.501	20,199	0.247	0.548	0.0656	0.146	P
USSCL-PT02-S-20230103	B11717	11.8	3.14	120	37.9	0.501	20,196	0.247	0.548	0.0656	0.146	P
USSCL-PT03-S-20230103	B52889	5.65	1.50	57.2	37.9	0.501	20,193	0.247	0.548	0.0657	0.146	P
USSCL-PT04-S-20230103	C00716	4.47	1.19	45.2	37.9	0.501	20,190	0.247	0.548	0.0657	0.146	P
USSCL-PT05-S-20230103	B39531	3.55	0.943	35.9	37.9	0.501	20,187	0.247	0.548	0.0657	0.146	P
USSCL-PT06-S-20230103	C00715	3.56	0.946	36.0	37.9	0.501	20,191	0.247	0.548	0.0657	0.146	P
USSCL-PT07-S-20230103	B31166	6.08	1.61	61.4	37.9	0.501	20,179	0.247	0.549	0.0657	0.146	P
USSCL-PT08-S-20230103	C01753	4.45	1.18	45.0	37.9	0.501	20,196	0.247	0.548	0.0656	0.146	P
USSCL-PT09-S-20230103	B44193	3.22	0.855	32.6	37.9	0.501	20,192	0.247	0.548	0.0657	0.146	P
USSCL-PT10-D-20230103	C01635	23.3	6.20	236	37.9	0.501	20,185	0.247	0.548	0.0657	0.146	P
USSCL-PT10-S-20230103	C01323	4.89	1.30	49.4	37.9	0.501	20,183	0.247	0.548	0.0657	0.146	P,Rc
USSCL-PT10-B-20230103	B50991				37.9	0.501	20,181	0.247	0.548	0.0657	0.146	ND,P
USSCL-PT11-S-20230103	C01643	9.46	2.51	95.6	37.9	0.501	20,182	0.247	0.548	0.0657	0.146	P,Rc
USSCL-PT12-S-20230103	B14773	7.18	1.91	72.5	37.9	0.501	20,180	0.247	0.548	0.0657	0.146	P,Rc

ND: The analyte was not present above the Method Detection Limit

P: Field duplicate(s) exceed 30%RPD

Rc: Recollection analysis

QC



# Enthalpy Analytical

Company: All4, Inc.  
Job No.: 2023EE102-1 EPA Method 325B Analysis  
Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## QC Samples

Field Sample Type	Sample Code	1,3-Butadiene		Benzene		Ethylbenzene		m-/p-Xylenes		o-Xylene		Toluene	
Blanks (ug/m³)	USSCL-PT10-B-20230103	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass
Duplicates (difference)	USSCL-PT10-D-20230103		Pass	7.3%	Pass		Pass	13%	Pass		Pass	130%	P

# Narrative Summary

## Enthalpy Analytical Narrative Summary

<b>Company</b>	All4, Inc.
<b>Site</b>	US Steel Corp - Clairton Works ICR
<b>Project</b>	00701-0002.00
<b>Report #</b>	2023EE102

<b>Custody</b>	<p>Wilson Matthews of Enthalpy Analytical, LLC received the thermal desorption sample tubes on 01/18/2023. The tubes were received in good condition at a temperature of 12.6 °C.</p> <p>Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.</p>
<b>Analysis</b>	<p>The thermal desorption tube samples were analyzed for benzene, 1,3-butadiene, toluene, ethylbenzene, m/p-xylene, and o-xylene using EPA Method 325B, Volatile Organic Compounds from Fugitive and Area Sources by Thermal Desorption and GC/MS.</p> <p>The Agilent Technologies Model 8890, Gas Chromatograph "Voldemort" (S/N US2215A022) was equipped with a 5977 Mass Selective Detector (S/N US2210M022) for these analyses.</p> <p>The Perkin-Elmer ATD-650 Thermal Desorber introduced the samples and standards to the analyzer.</p>
<b>Chromatographic Conditions</b>	<p>A copy of the acquisition method (M325B-TD-CRYO9.M) is not included in this report but may be available upon request.</p>
<b>Calibration</b>	<p>The BFB tune associated with the initial calibration failed to meet method criteria for ion 174. However, because the 174 ion is not near the tuning region of the quant ion for the analytes in this report and the continuing calibration checks met the 30% difference criteria, the lab believes that the analyses were unaffected by the deviation. All other BFB criteria have been met for this analysis.</p> <p>The initial calibration (V010423A) met 30% RSD criteria. The initial calibration verification met 30% recovery criteria. The continuing calibration verifications met 30% difference criteria. The initial and continuing calibration raw data are not included in this report but are available upon request.</p>



## Enthalpy Analytical Narrative Summary (continued)

### QC Notes

All internal standard response and retention time criteria were met for these analyses.

The field blank and the lab (method) blank met the requirements of the method.

The primary sample USSCL-PT10-S-20230103 (tube C01323) and its corresponding duplicate USSCL-PT10-D-20230103 (tube C01635) failed to meet the 30% difference criterion for toluene as outlined in EPA Method 325B. The lab could not determine a cause for the difference. The toluene results for all samples in the data set have been flagged "P" to denote this failure. The collocated pairs met the 30% difference criterion for all other target compounds.

### Reporting Notes

A portion of each sample (or calibration standard) was recollected onto the original sample tube after internal standard was added in the initial analysis to allow for reanalysis if necessary. An "Rc" flag indicates that a reanalysis has been performed and the resulting data have been included in the report.

As specified in EPA Method 325B, the response factor of the daily continuing calibration standard was used to quantitate all field samples and blanks.

All samples were reported as amount in ng catch, and concentration in  $\mu\text{g}/\text{m}^3$  and ppbv.

The results presented in this report are representative of the samples as provided to the laboratory.

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.

# Sample Custody



EPA Method 325 A/B  
Field Test Data Sheet and  
Chain of Custody Record

Page (x of y) 1 of 2

- ☒ Standard Turn Around Time (7 business days)  
☐ Rush Turn Around Time  
• All TATs Subject to Approval by Enthalpy Analytical, LLC  
• Unless otherwise specified, sample tubes will be conditioned for re-use 3 business days after submission of results

Site Name: US steel Grp - Clairton Works	Client Name: ALL4 LLC	Field Sampling Conditions: <input checked="" type="checkbox"/> Rain During Deployment / Retrieval <input type="checkbox"/> Sample Period w/ Continuous Rain <input type="checkbox"/> Sample Period w/ Snow or Melt <input type="checkbox"/> Other (Please explain in Notes)
Site Address: 400 State Street	Project Number: 00701-0002.00	
City: Clairton	Project Manager: Dustin Snare	
State: PA	Email Address: dsnares@all4inc.com	
Zip: 15025	Telephone #: 610 422 1126	

Location	Sample ID (Tube ID)	Sample, Blank, or Duplicate	Start Date	Start Time	Stop Date	Stop Time	Sampler Initials	Avg. Ambient Temp. (°F)
PT01-230103-S	C00825	S	23/01/03	8:35 AM	23/01/17	9:14 am	SRG	
PT02-230103-S	B11717	S	23/01/03	8:43 AM	23/01/17	9:19 am	SRG	
PT03-230103-S	B52889	S	23/01/03	8:50 AM	23/01/17	9:23 am	SRG	
PT04-230103-S	C00716	S	23/01/03	8:56 AM	23/01/17	9:26 am	SRG	
PT05-230103-S	B39531	S	23/01/03	9:04 AM	23/01/17	9:31 am	SRG	
PT06-230103-S	C00715	S	23/01/03	9:11 AM	23/01/17	9:42 am	SRG	
PT07-230103-S	B31106	S	23/01/03	9:14 AM	23/01/17	9:38 am	SRG	
PT08-230103-S	C01753	S	23/01/03	9:29 AM	23/01/17	10:05 am	SRG	

Collected By: Print Name and Signature

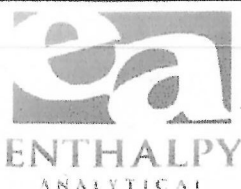
Stacy Arner	1	Stacy R Arner
Relinquished to Shipper: Print Name and Signature	Relinquished Date	Relinquished Time

Stacy Arner	1	Stacy Arner
Received by: Print Name and Signature	Receipt Date	Custody Seal Intact (Yes or No)

Wilson Matthews	1	Wilson Matthews
Sample Condition Upon Receipt: GOOD	Custody Seal # →	21 V05742

Analysis Required:

Comments: IP: 0.3  
TB: 12.6  
Fluke 3



EPA Method 325 A/B  
Field Test Data Sheet and  
Chain of Custody Record

Page (x of y) 2 of 2

- ☒ Standard Turn Around Time (7 business days)  
☐ Rush Turn Around Time  
• All TATs Subject to Approval by Enthalpy Analytical, LLC  
• Unless otherwise specified, sample tubes will be conditioned for re-use 3 business days after submission of results

Site Name: US STEEL CORP - CLARION WORKS	Client Name: ALL4 LLC	Field Sampling Conditions:
Site Address: 400 STATE STREET	Project Number: 00701-0002.00	<input checked="" type="checkbox"/> Rain During Deployment / Retrieval
City: CLARION	Project Manager: DUSTIN SNAKE	<input type="checkbox"/> Sample Period w/ Continuous Rain
State: PA	Email Address: dsnafe@all4llc.com	<input type="checkbox"/> Sample Period w/ Snow or Melt
Zip: 15025	Telephone #: 410 422 1126	<input type="checkbox"/> Other (Please explain in Notes)

Location	Sample ID (Tube ID)	Sample, Blank, or Duplicate	Start Date	Start Time	Stop Date	Stop Time	Sampler Initials	Avg. Ambient Temp. (°F)
PT09-23003-S	B44193	S	23/01/03	9:38 AM	23/01/17	10:10am	SKA	
PT10-23003-D	C01635	D	23/01/03	9:54 AM	23/01/17	10:19am	SKA	
PT10-230103-S	C01323	S	23/01/03	9:54 AM	23/01/17	10:17am	SKA	
PT10-230103-TB	B50991	TB	23/01/03	9:54 AM	23/01/17	10:15am	SKA	
PT11-230103-S	C01643	S	23/01/03	10:00 AM	23/01/17	10:22am	SKA	
PT12-230103-S	B14773	S	23/01/03	10:06 AM	23/01/17	10:26am	SKA	

Collected By: Print Name and Signature

Stacy Arner / Stacy Arner		
Relinquished to Shipper: Print Name and Signature	Relinquished Date	Relinquished Time
Stacy Arner / Stacy Arner	23/01/17	10:50 am
Received by: Print Name and Signature	Receipt Date	Custody Seal Intact (Yes or No)
Wilson Matthews / [Signature]	1/18/23	Yes
Sample Condition Upon Receipt: GOOD	Custody Seal # →	21V05742

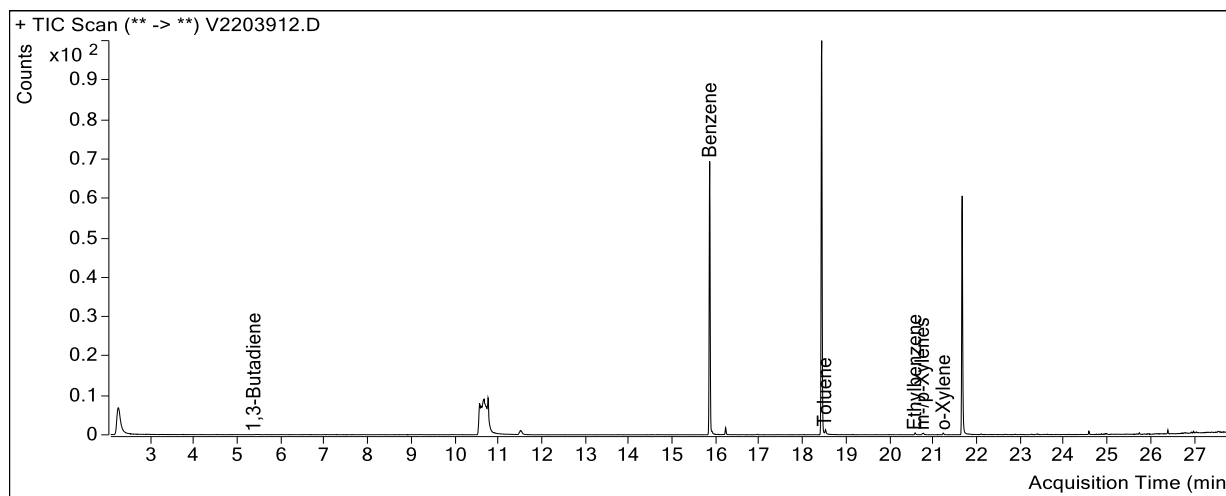
Analysis Required:

Comments: Ip: 0.3 → Fluke 3  
TB: 12.6

# Sample Chromatograms



Sample Name : 2023EE102 Method Blank  
Sample Info : B38564  
Data File : V2203912.D  
Acquisition Date : 2023-01-20 18:03:24  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

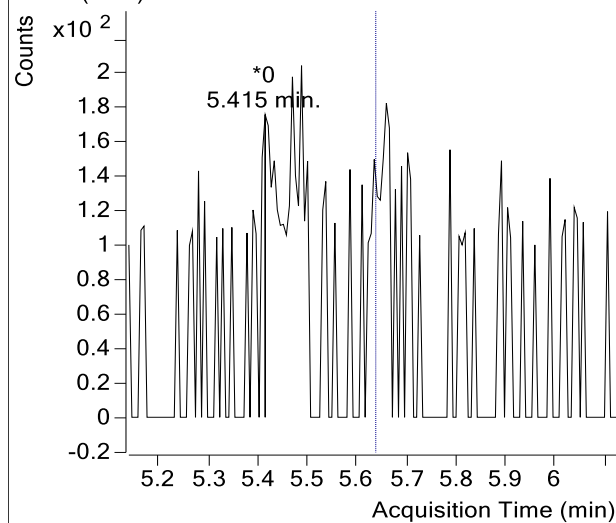


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	737,481	
Benzene	15.92	9,162	m
Toluene-d8 (IS)	18.45	776,511	
Toluene	18.53	7,631	
Ethylbenzene	20.59	5,208	
m-/p-Xylenes	20.78	5,085	
o-Xylene	21.24	4,106	

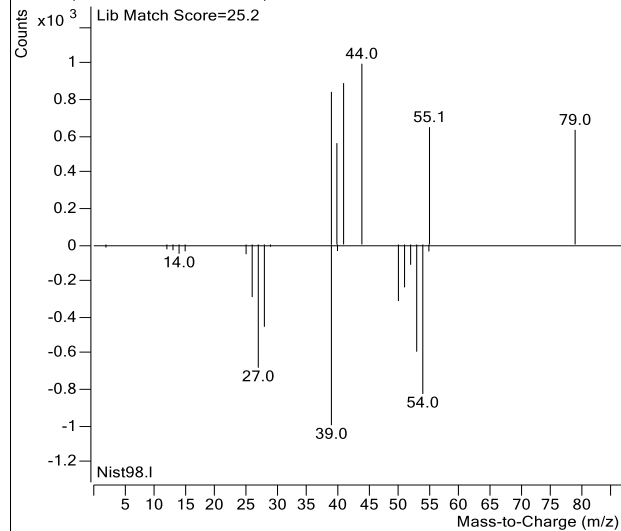
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203912.D

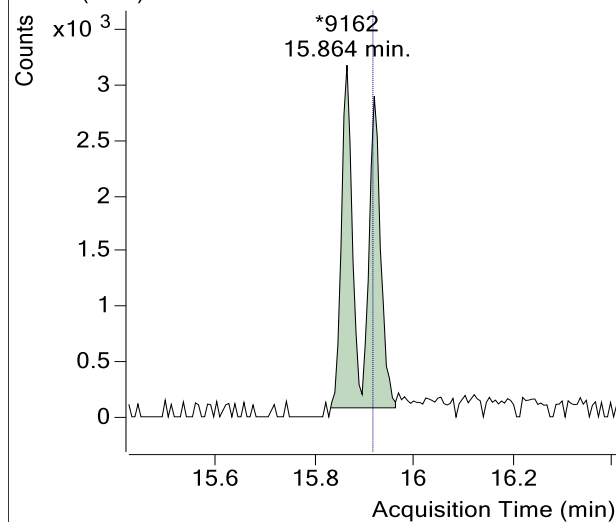


+ Scan (5.415-5.415 min, 1 scans) V2203912.D

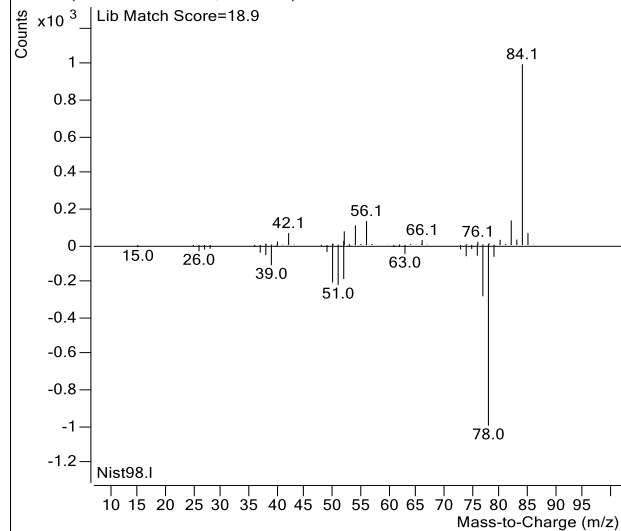


## Benzene

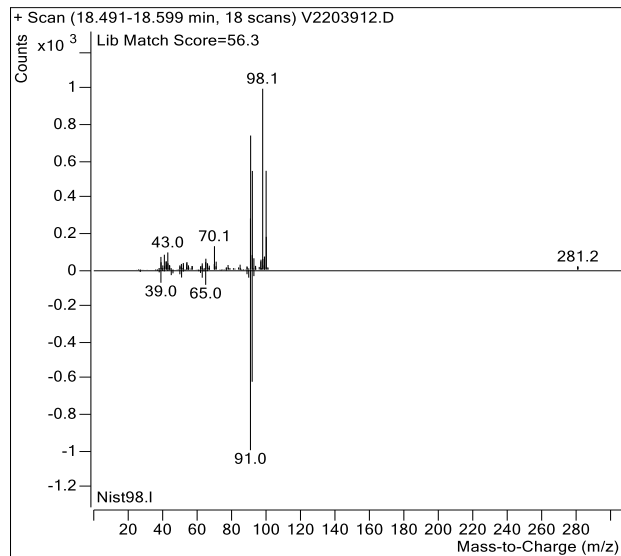
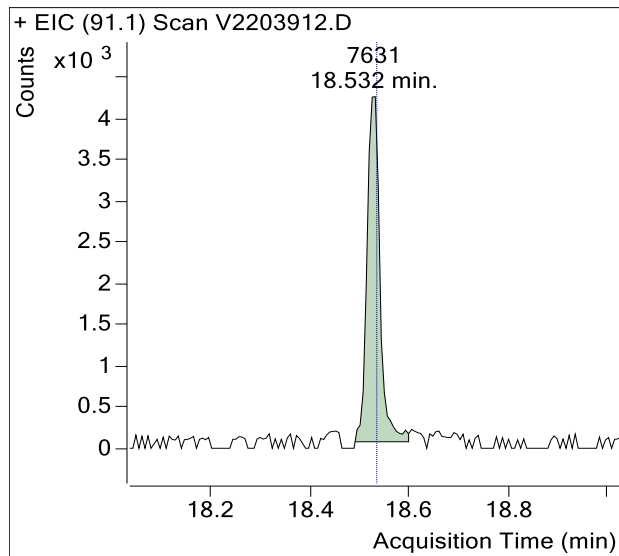
+ EIC (78.1) Scan V2203912.D



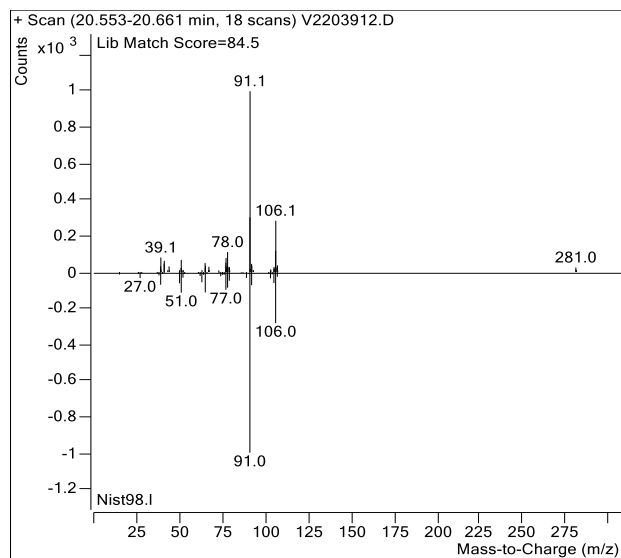
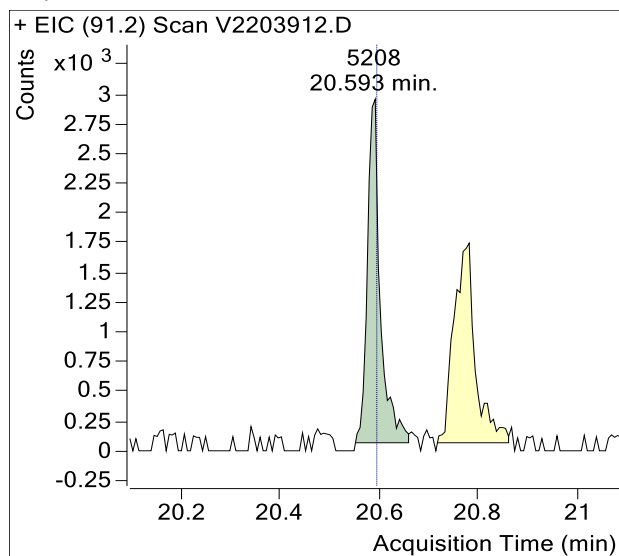
+ Scan (15.831-15.962 min, 22 scans) V2203912.D



## Toluene

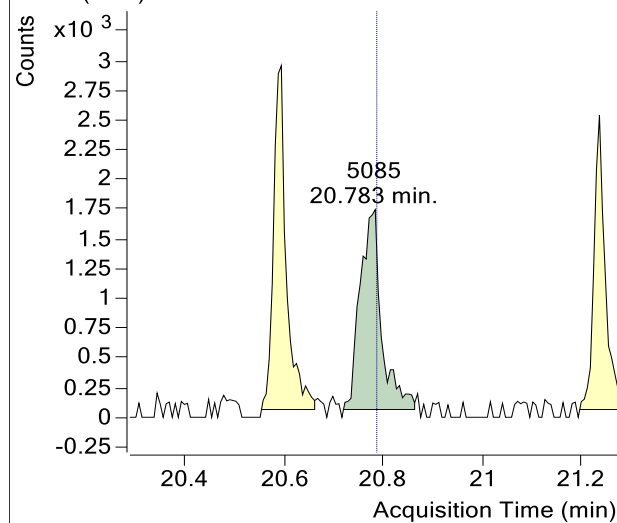


## Ethylbenzene

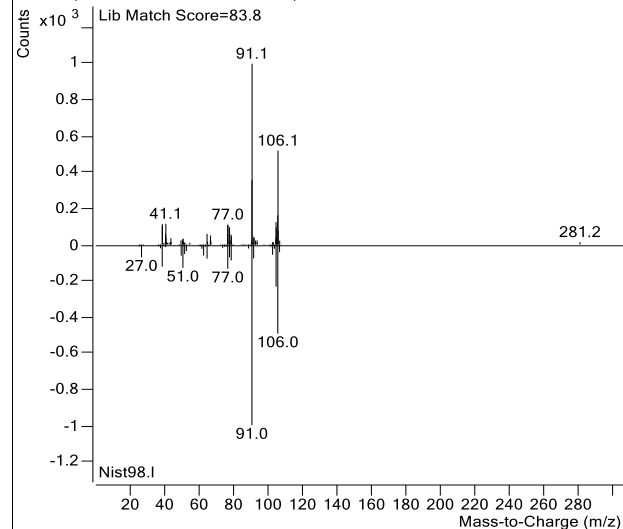


## m-/p-Xylenes

+ EIC (91.1) Scan V2203912.D

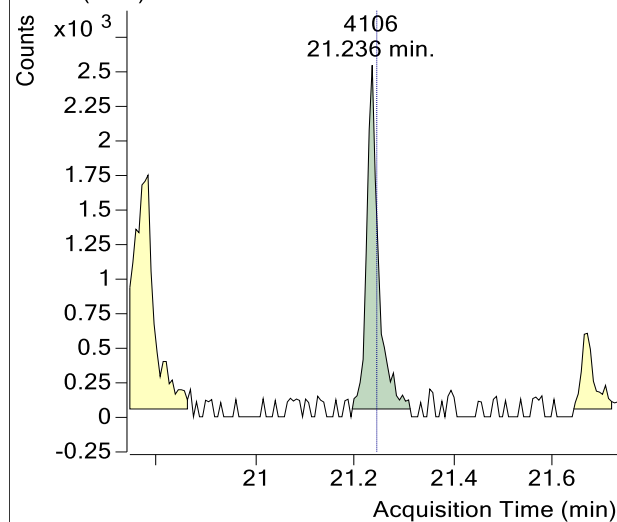


+ Scan (20.719-20.863 min, 24 scans) V2203912.D

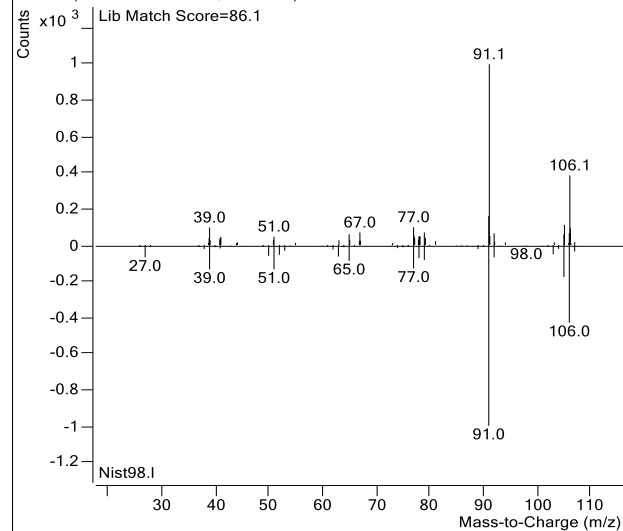


## o-Xylene

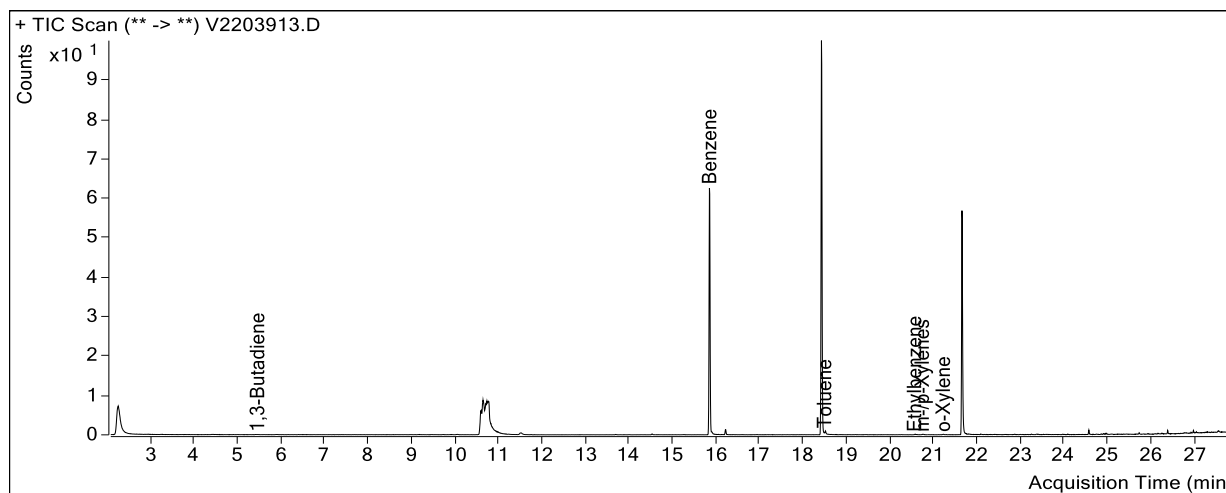
+ EIC (91.2) Scan V2203912.D



+ Scan (21.196-21.312 min, 20 scans) V2203912.D



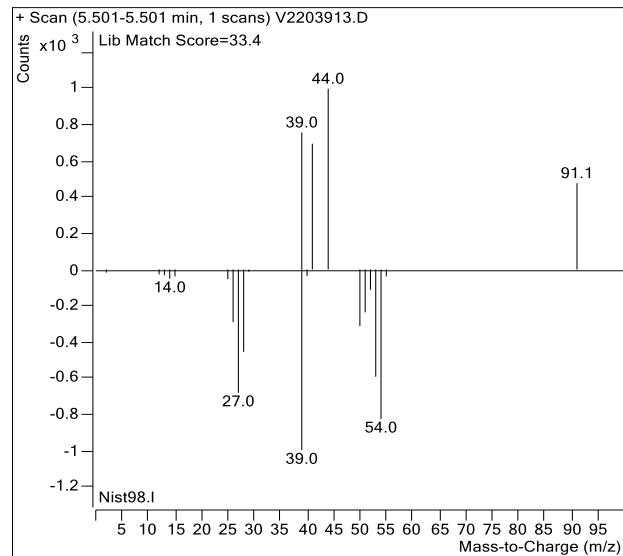
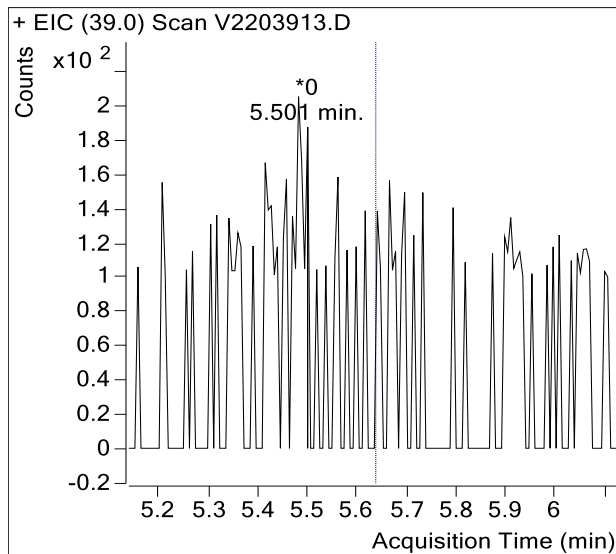
Sample Name : USSCL-PT10-B-20230103  
Sample Info : B50991  
Data File : V2203913.D  
Acquisition Date : 2023-01-20 18:43:15  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



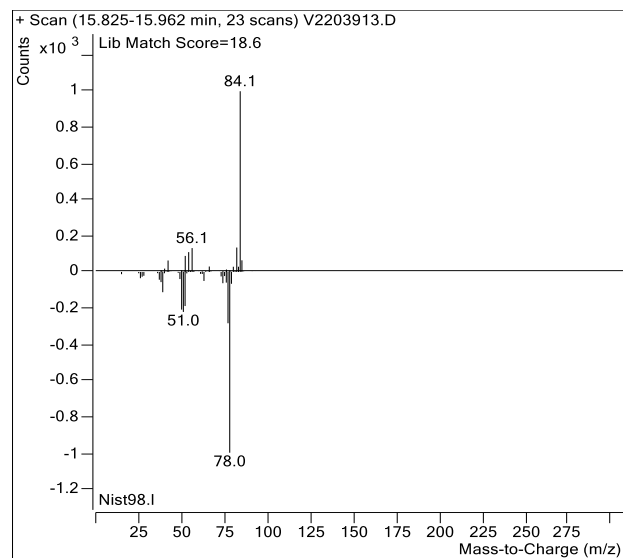
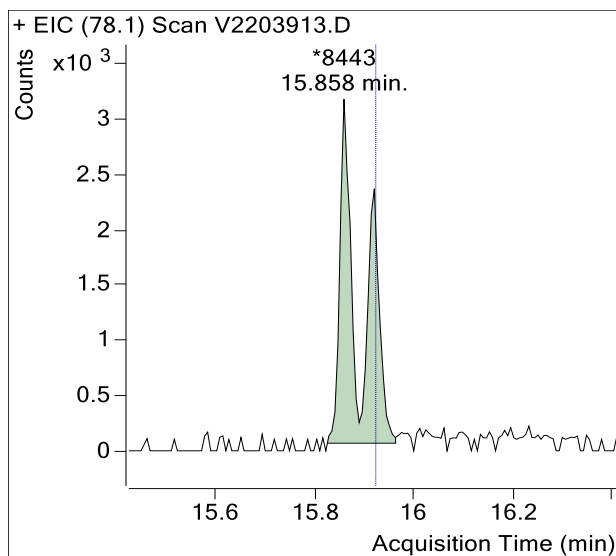
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	712,514	
Benzene	15.92	8,443	m
Toluene-d8 (IS)	18.45	782,396	
Toluene	18.53	6,632	
Ethylbenzene	20.59	2,452	m
m-/p-Xylenes	20.78	1,937	
o-Xylene	21.24	1,468	

(m)=Manual Integration

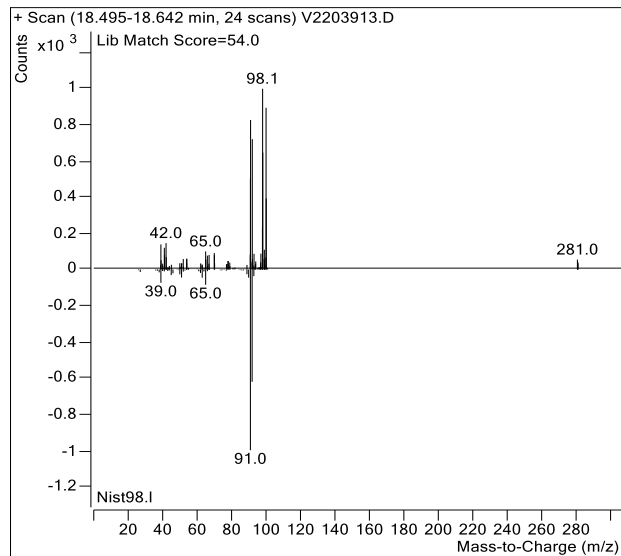
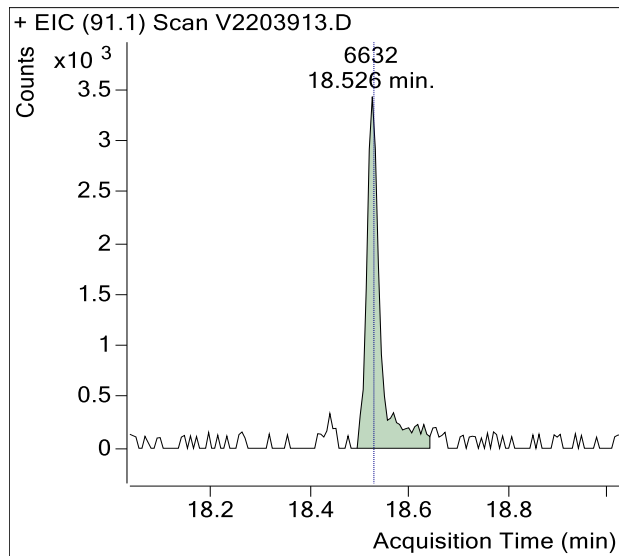
## 1,3-Butadiene



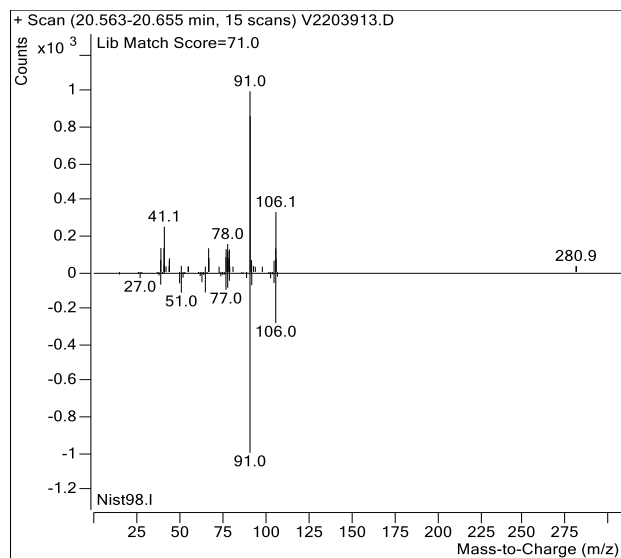
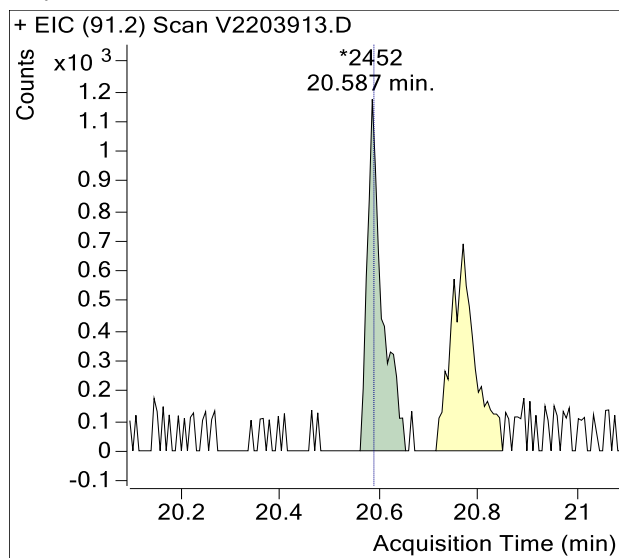
## Benzene



## Toluene

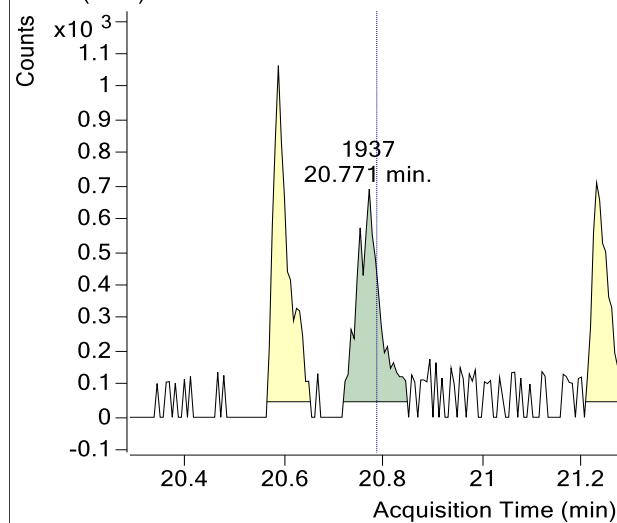
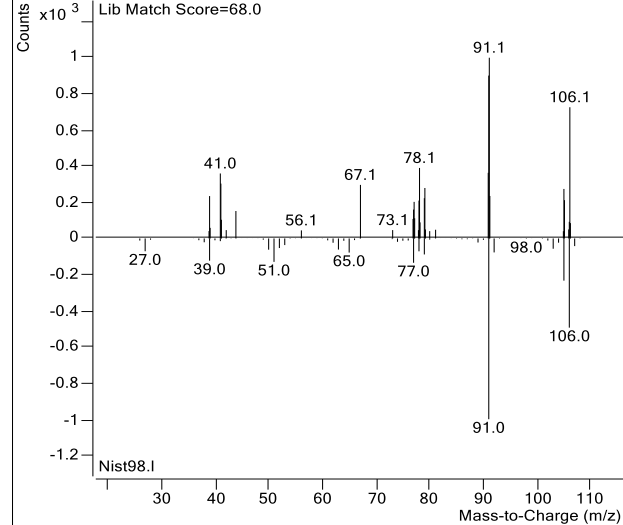


## Ethylbenzene



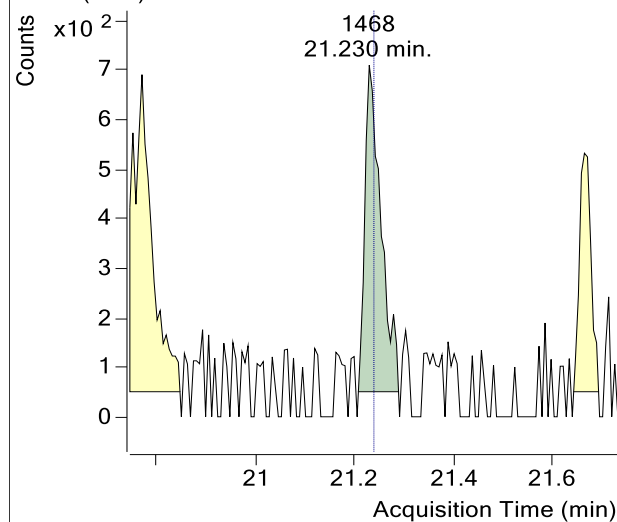
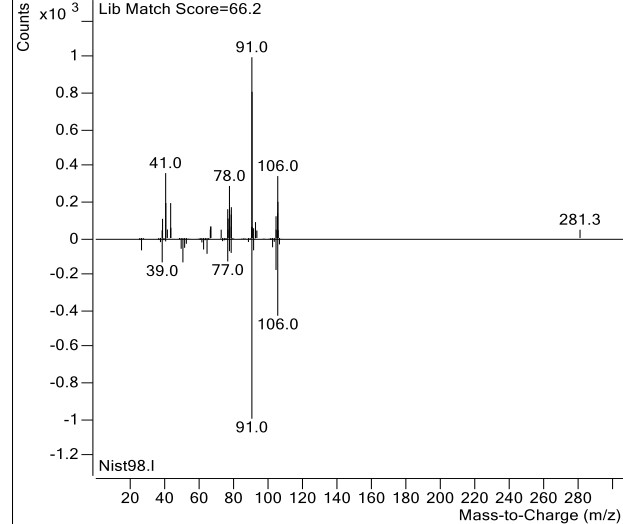
## m-/p-Xylenes

+ EIC (91.1) Scan V2203913.D

+ Scan (20.719-20.848 min, 22 scans) V2203913.D  
Lib Match Score=68.0

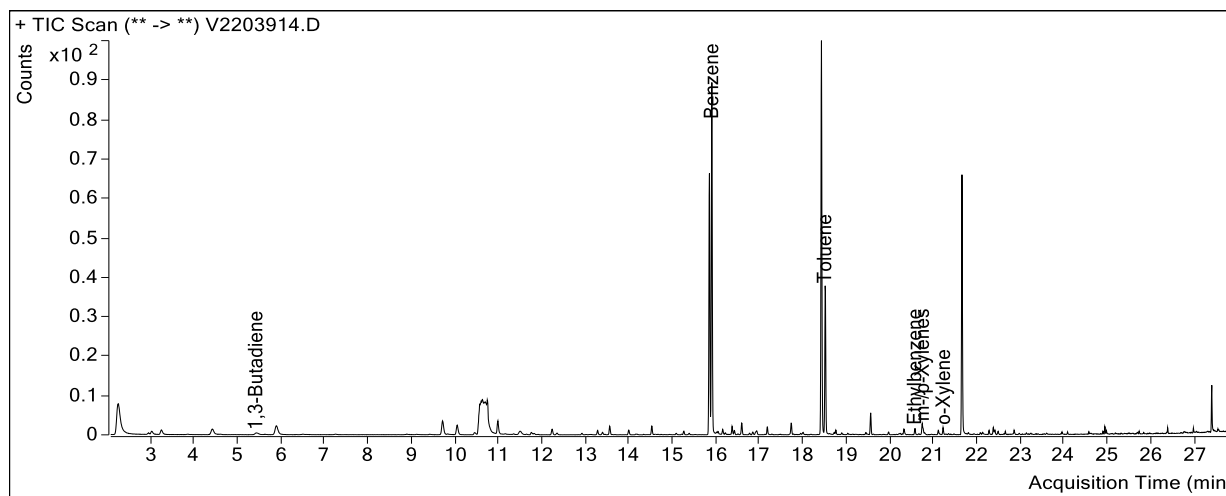
## o-Xylene

+ EIC (91.2) Scan V2203913.D

+ Scan (21.208-21.289 min, 14 scans) V2203913.D  
Lib Match Score=66.2



Sample Name : USSCL-PT01-S-20230103  
Sample Info : C00825  
Data File : V2203914.D  
Acquisition Date : 2023-01-20 19:23:06  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

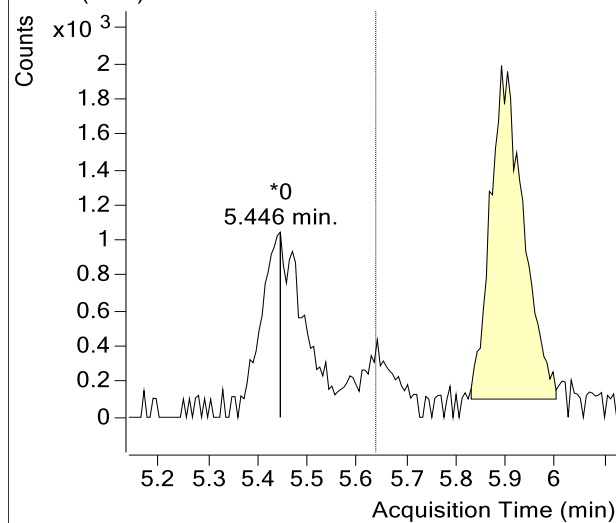


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	744,436	
Benzene	15.92	934,216	
Toluene-d8 (IS)	18.45	779,173	
Toluene	18.53	330,007	
Ethylbenzene	20.59	14,580	
m-/p-Xylenes	20.78	28,372	
o-Xylene	21.24	11,339	

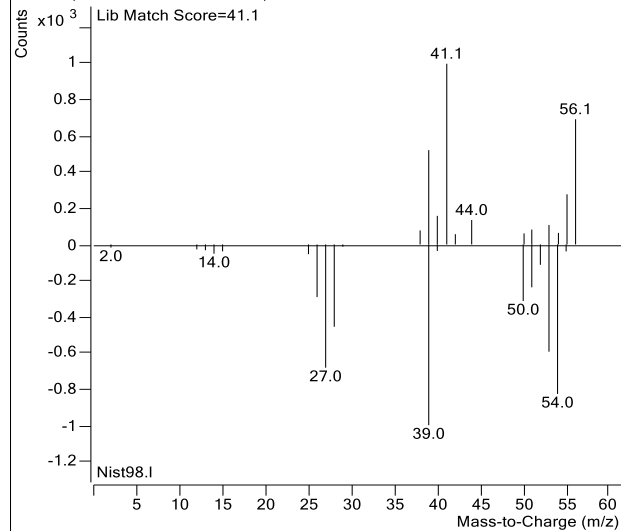
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203914.D

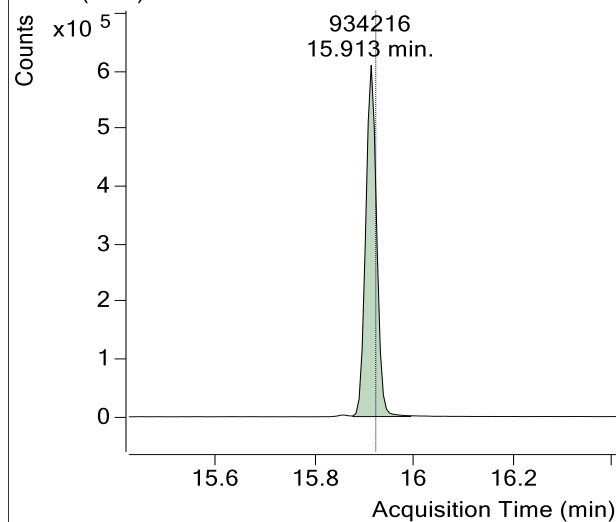


+ Scan (5.446-5.446 min, 1 scans) V2203914.D

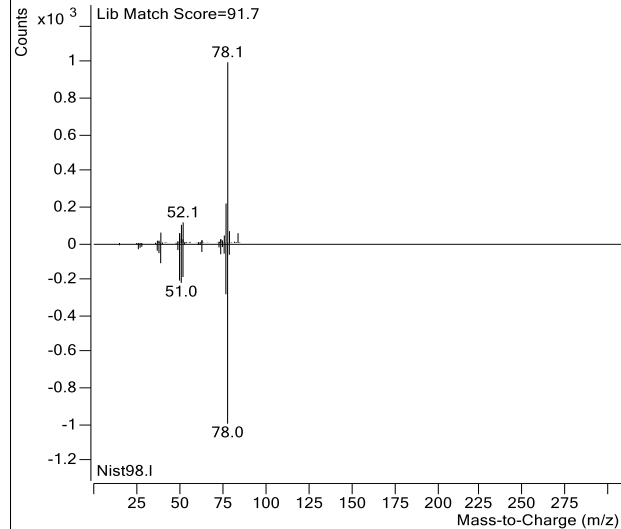


## Benzene

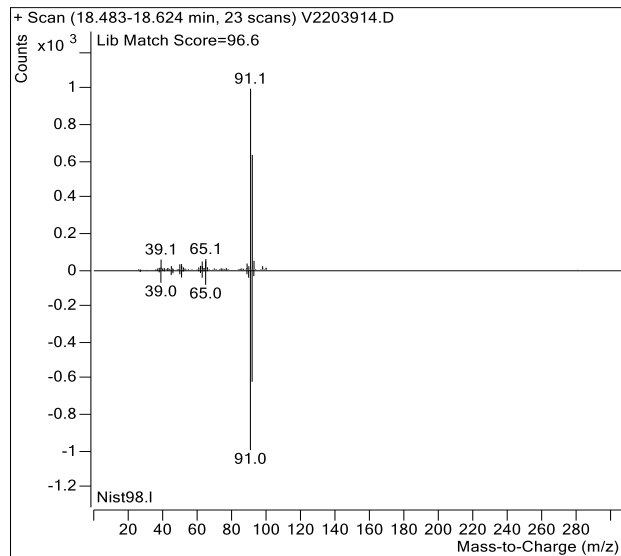
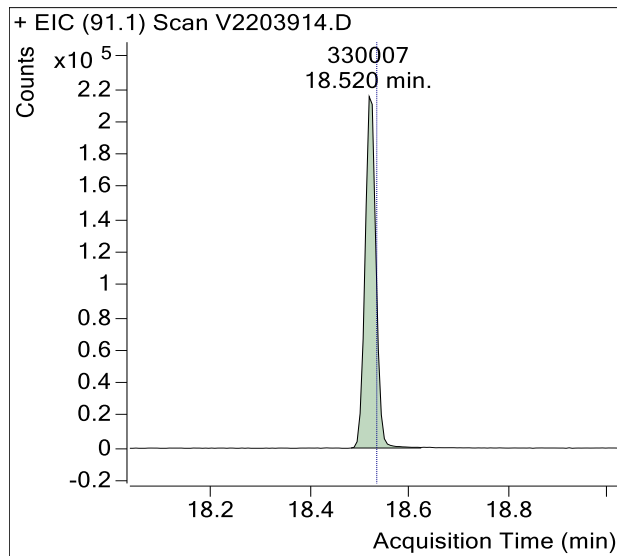
+ EIC (78.1) Scan V2203914.D



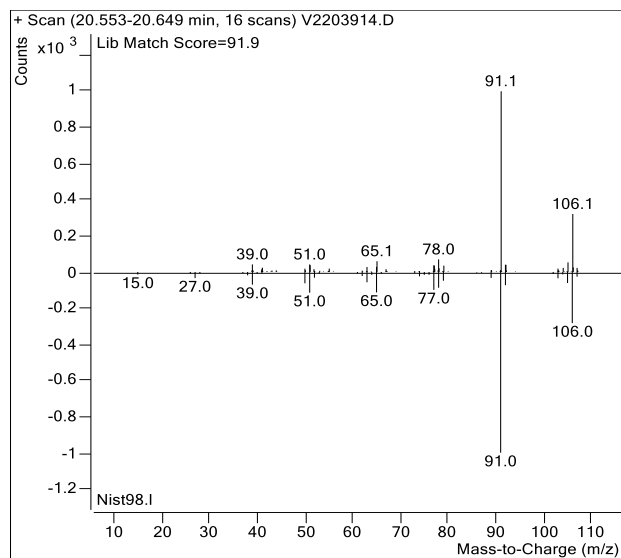
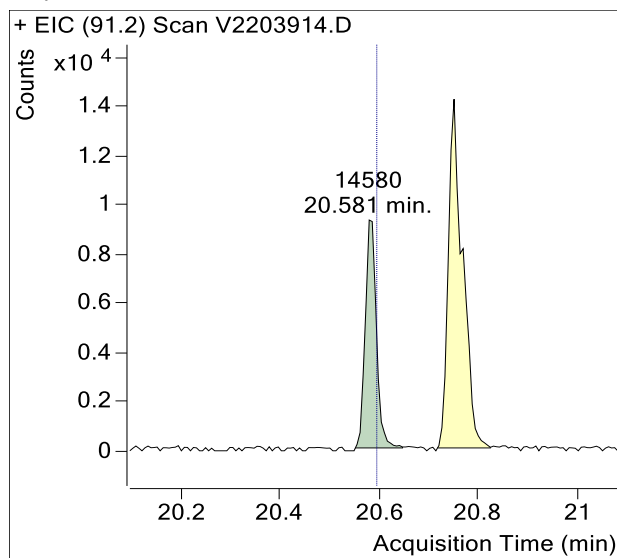
+ Scan (15.877-15.993 min, 19 scans) V2203914.D



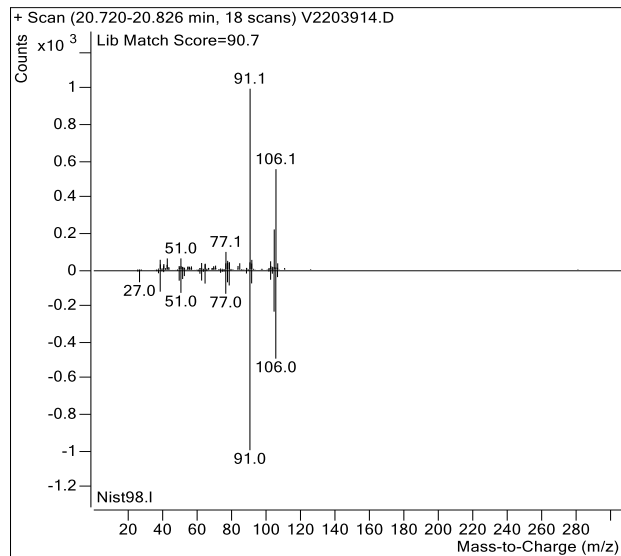
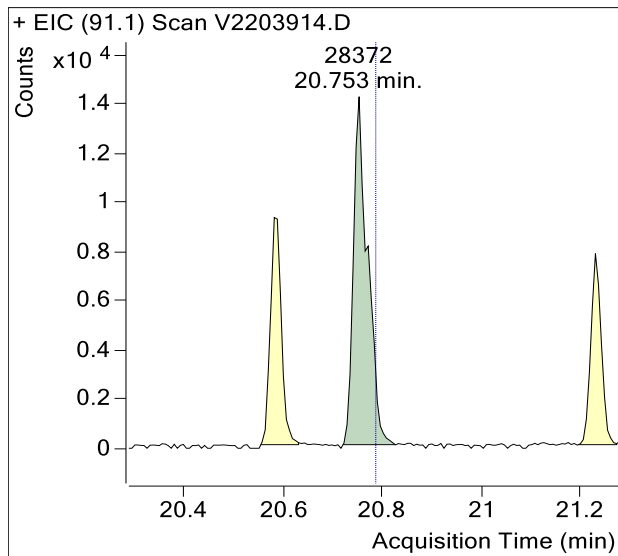
## Toluene



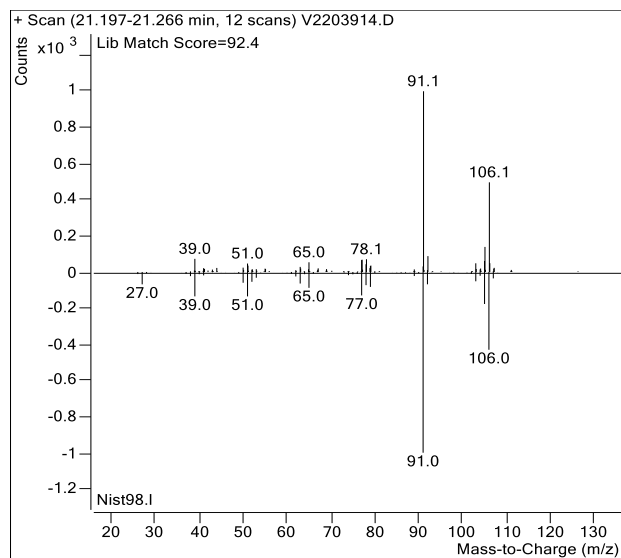
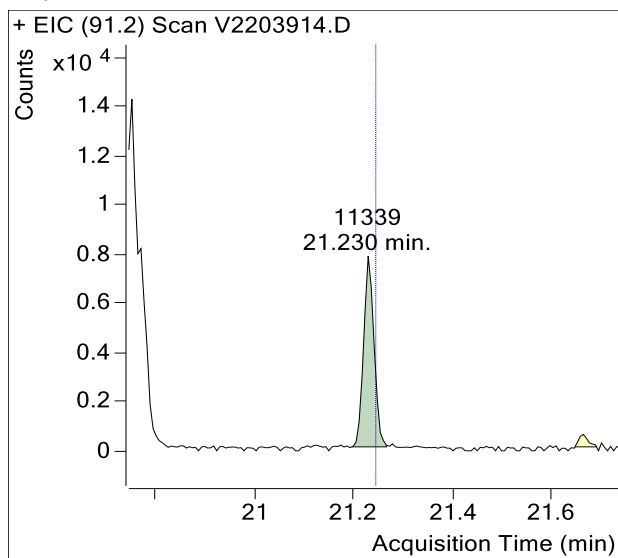
## Ethylbenzene



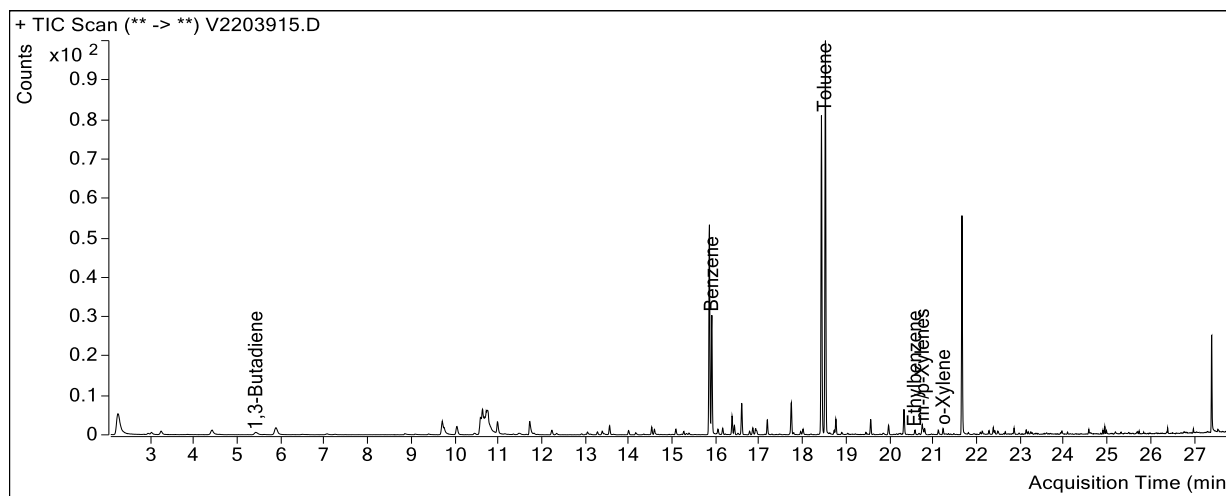
## m-/p-Xylenes



## o-Xylene



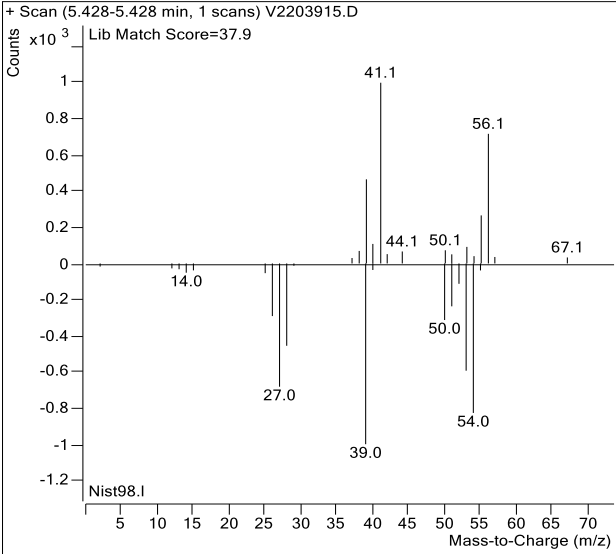
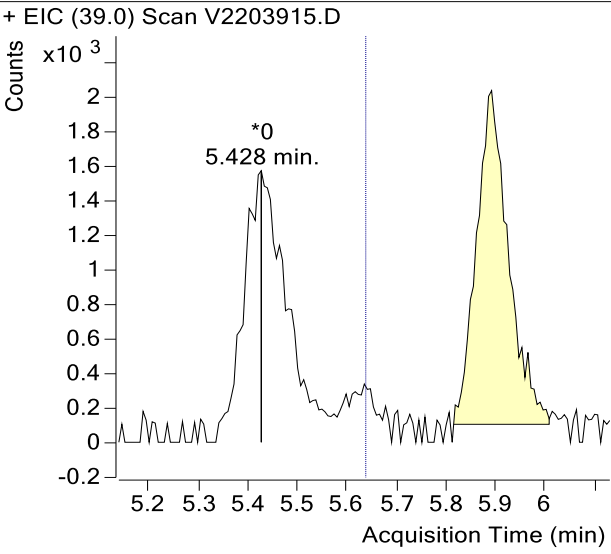
Sample Name : USSCL-PT02-S-20230103  
Sample Info : B11717  
Data File : V2203915.D  
Acquisition Date : 2023-01-20 20:02:56  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



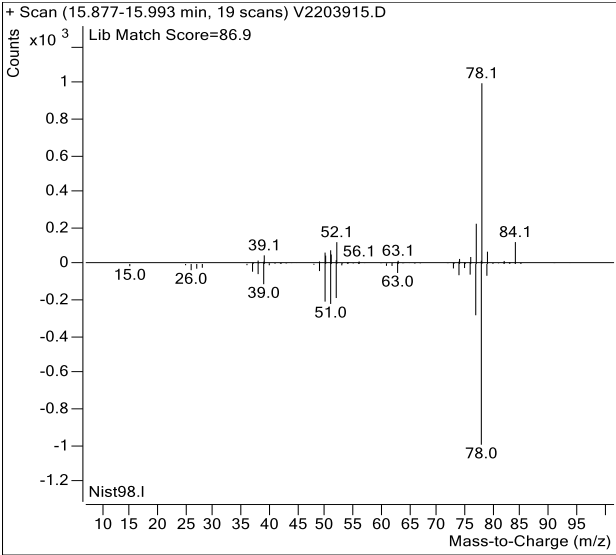
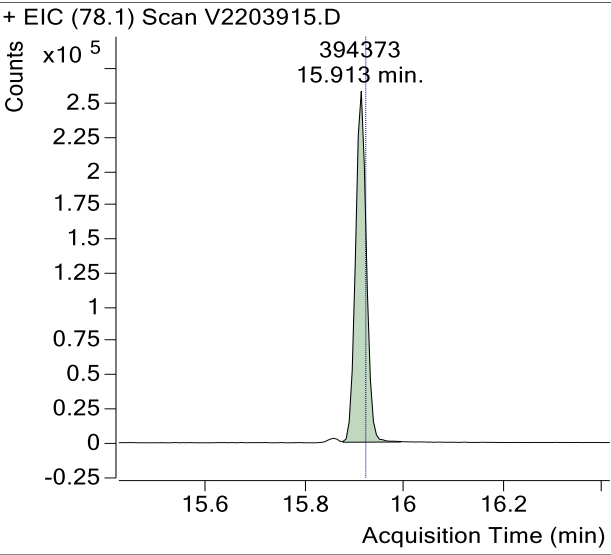
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	755,852	
Benzene	15.92	394,373	
Toluene-d8 (IS)	18.45	801,339	
Toluene	18.53	1,068,795	
Ethylbenzene	20.59	13,195	
m-/p-Xylenes	20.78	31,770	
o-Xylene	21.24	13,660	

(m)=Manual Integration

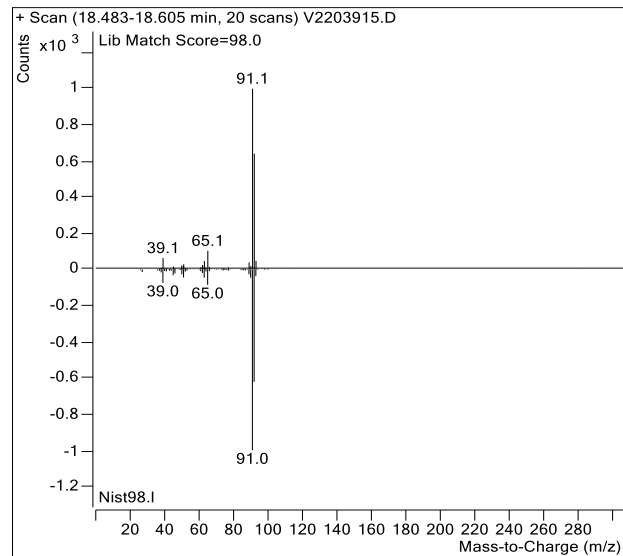
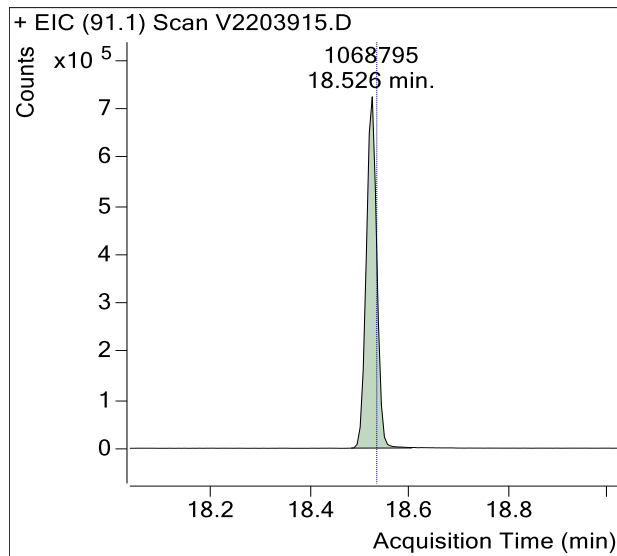
1,3-Butadiene



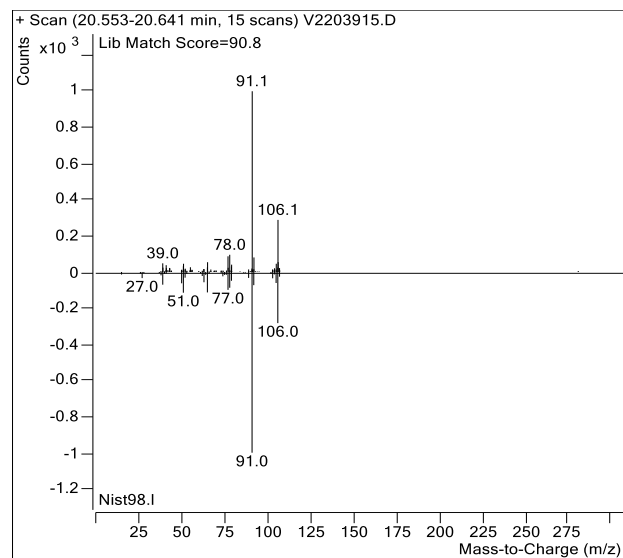
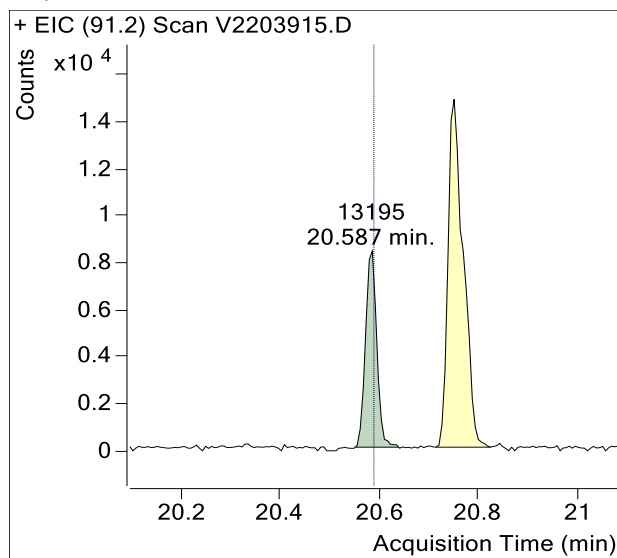
Benzene



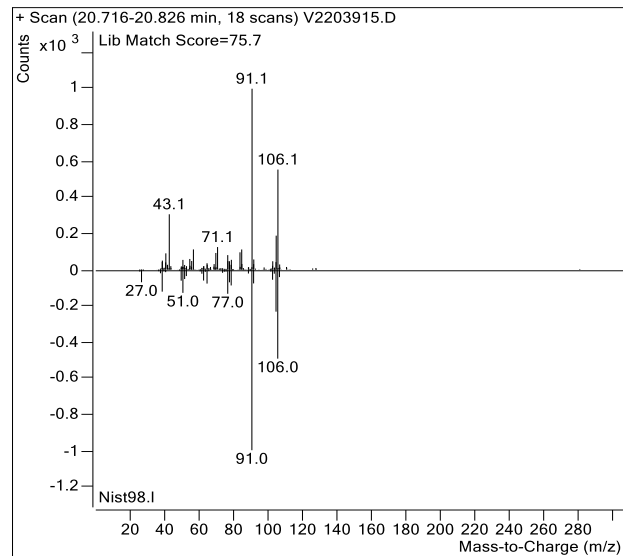
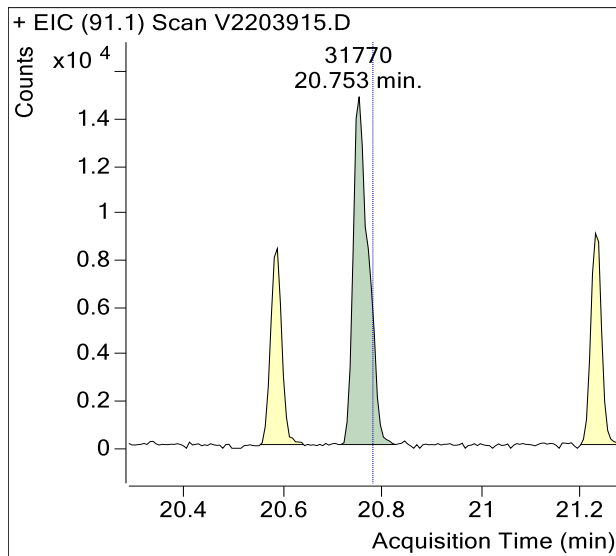
## Toluene



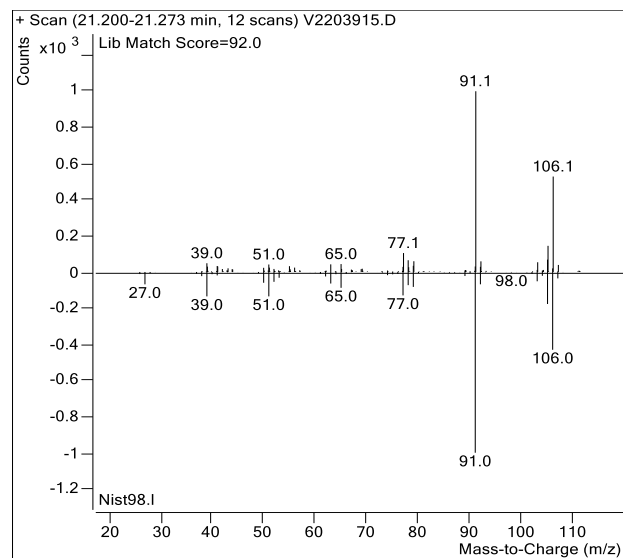
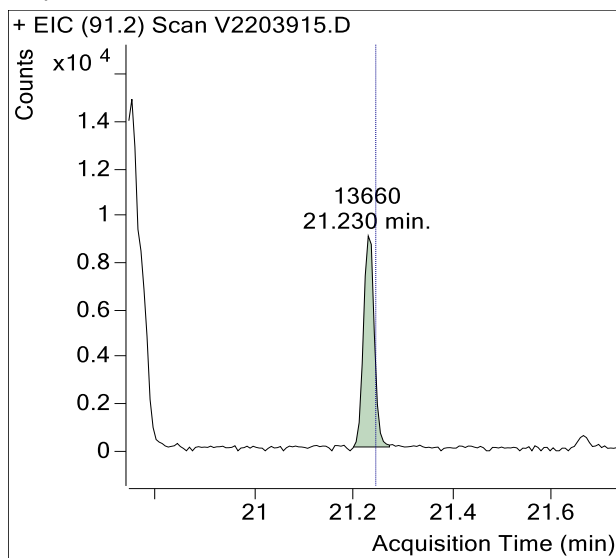
## Ethylbenzene



## m-/p-Xylenes

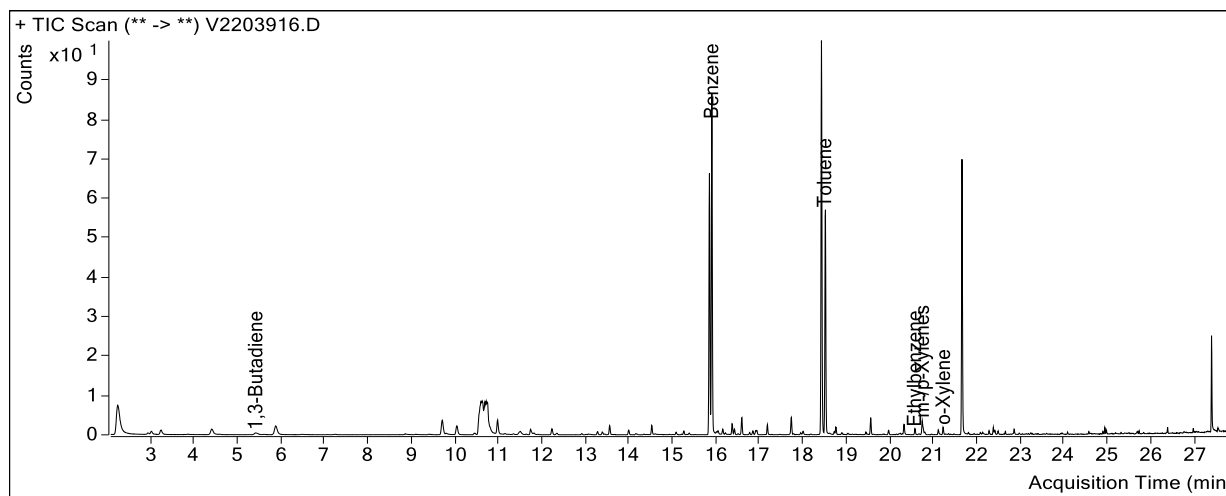


## o-Xylene





Sample Name : USSCL-PT03-S-20230103  
Sample Info : B52889  
Data File : V2203916.D  
Acquisition Date : 2023-01-20 20:42:44  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

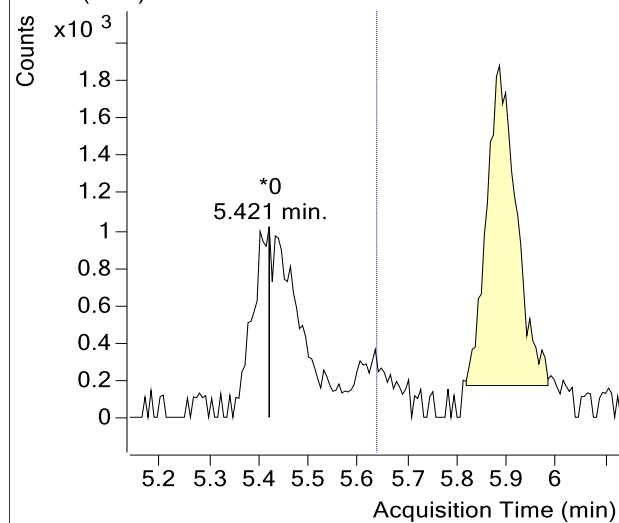


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	748,011	
Benzene	15.92	918,581	
Toluene-d8 (IS)	18.45	796,430	
Toluene	18.53	507,015	
Ethylbenzene	20.59	14,138	
m-/p-Xylenes	20.78	34,042	
o-Xylene	21.24	12,944	

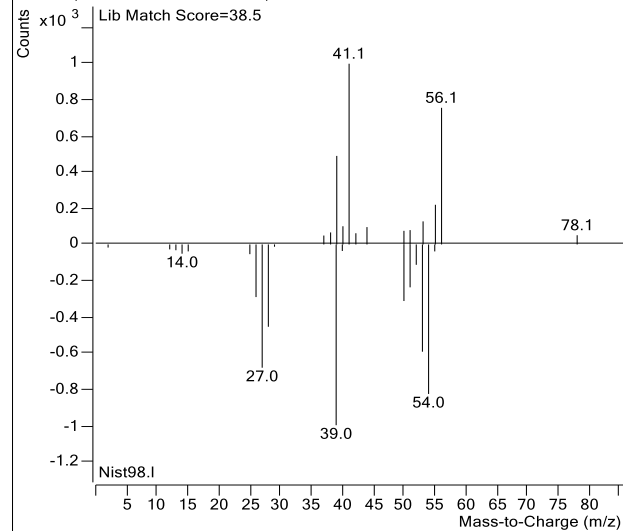
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203916.D

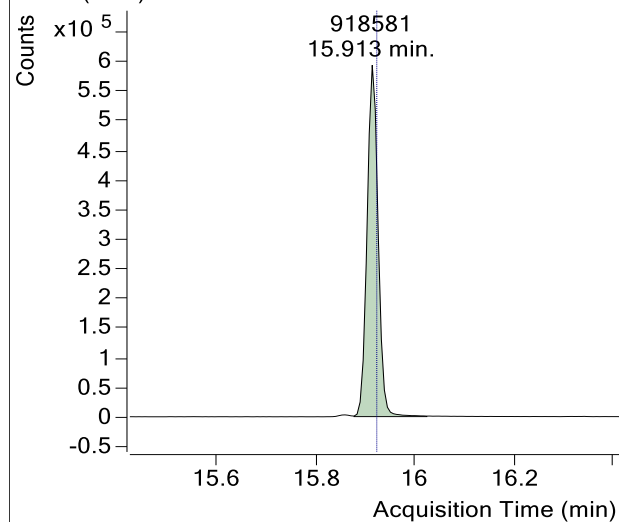


+ Scan (5.421-5.421 min, 1 scans) V2203916.D

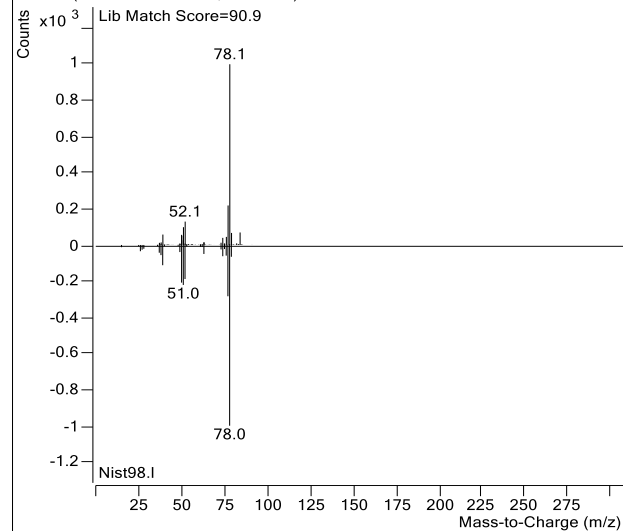


## Benzene

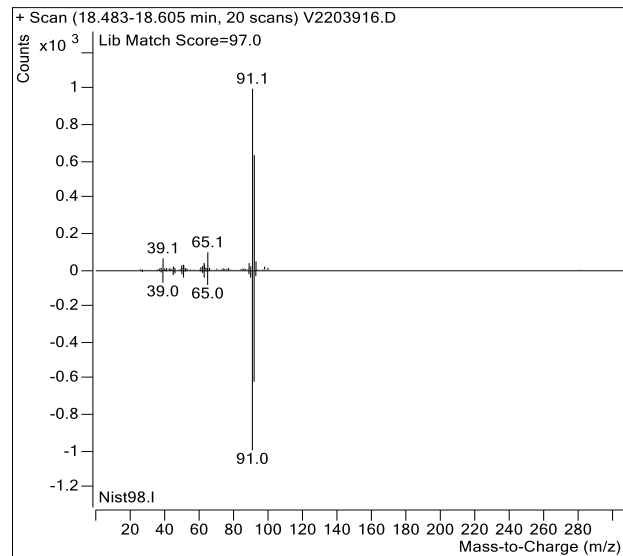
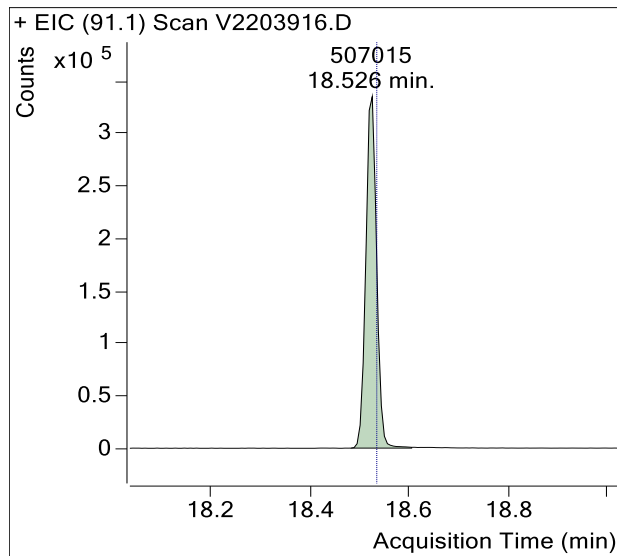
+ EIC (78.1) Scan V2203916.D



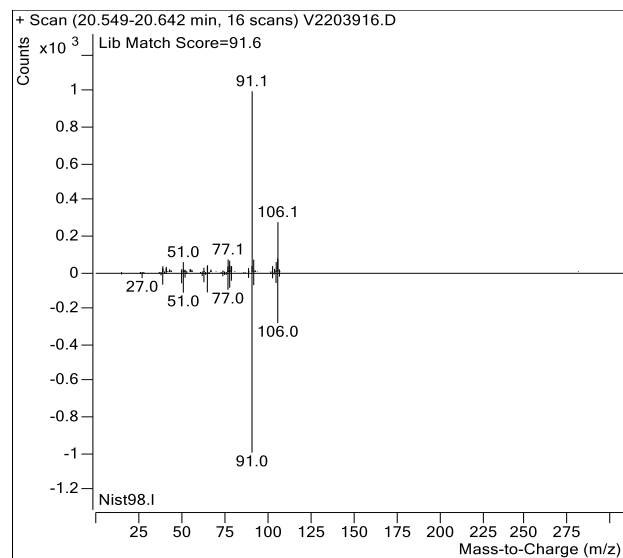
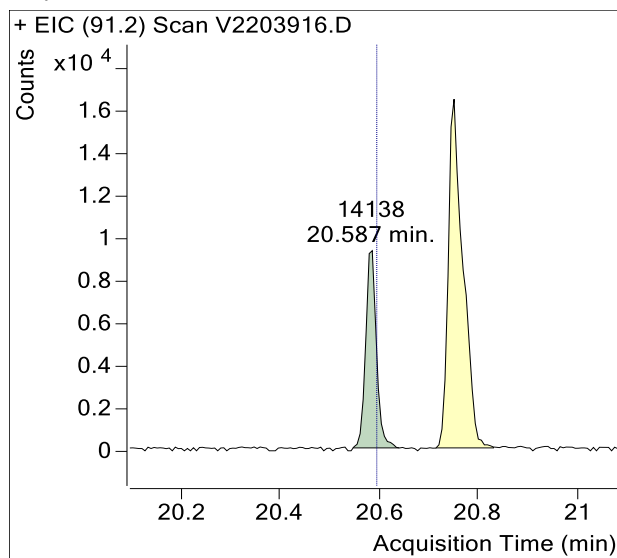
+ Scan (15.877-16.023 min, 25 scans) V2203916.D



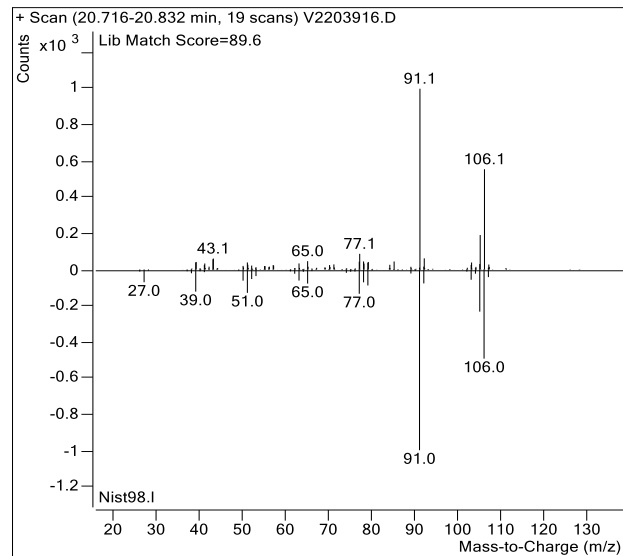
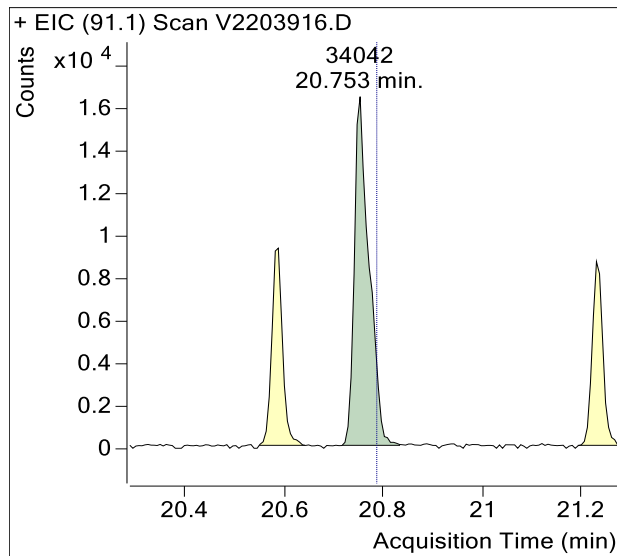
## Toluene



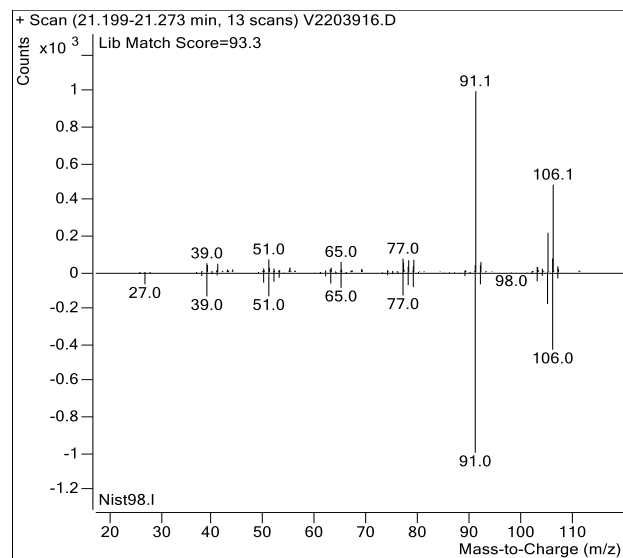
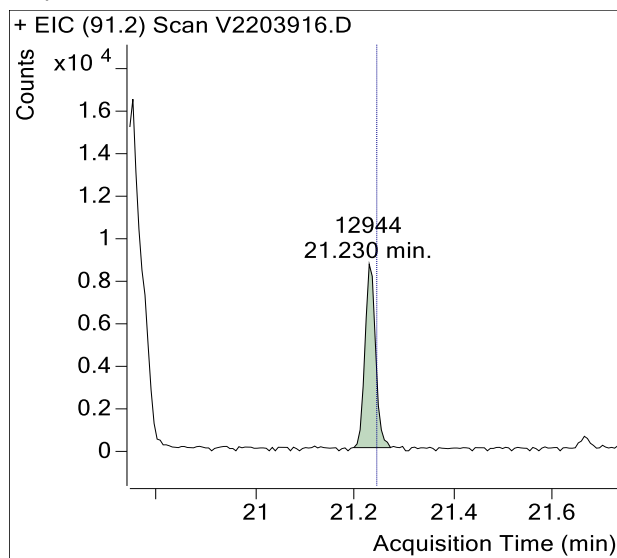
## Ethylbenzene



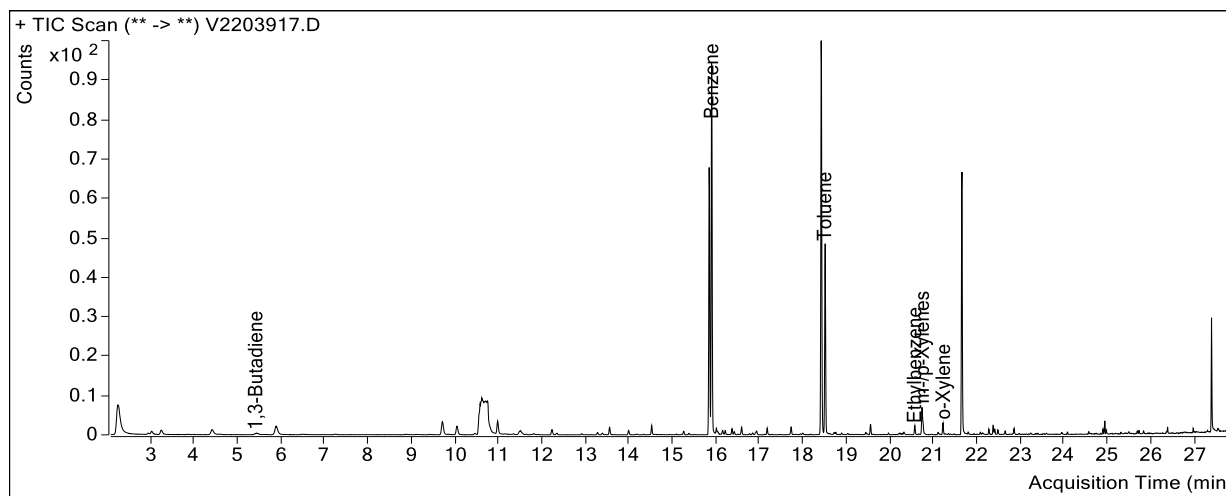
## m-/p-Xylenes



## o-Xylene



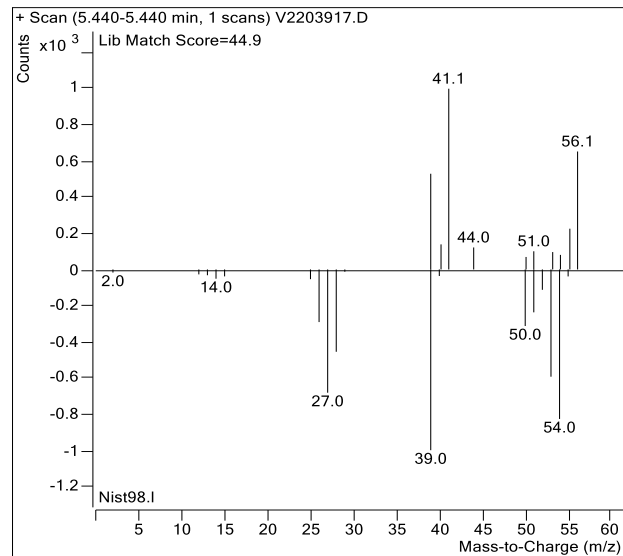
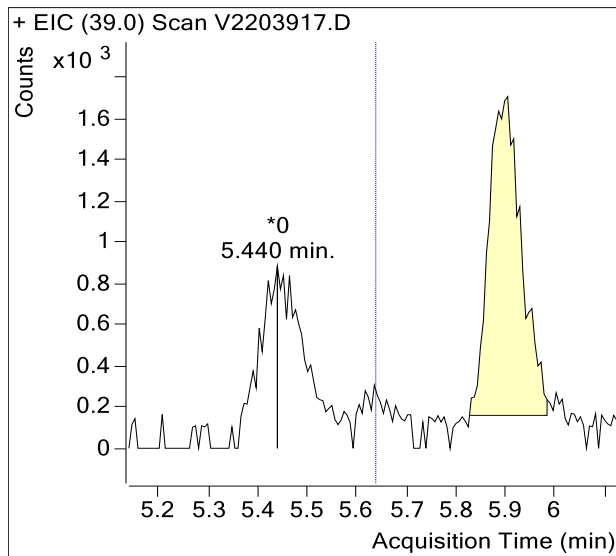
Sample Name : USSCL-PT04-S-20230103  
Sample Info : C00716  
Data File : V2203917.D  
Acquisition Date : 2023-01-20 21:22:32  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



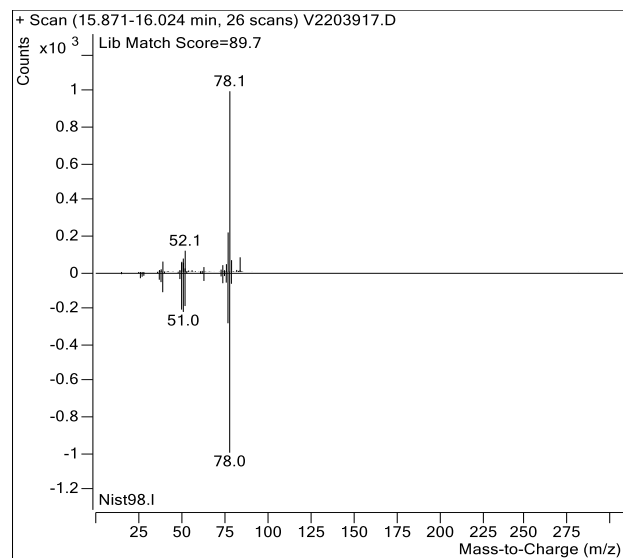
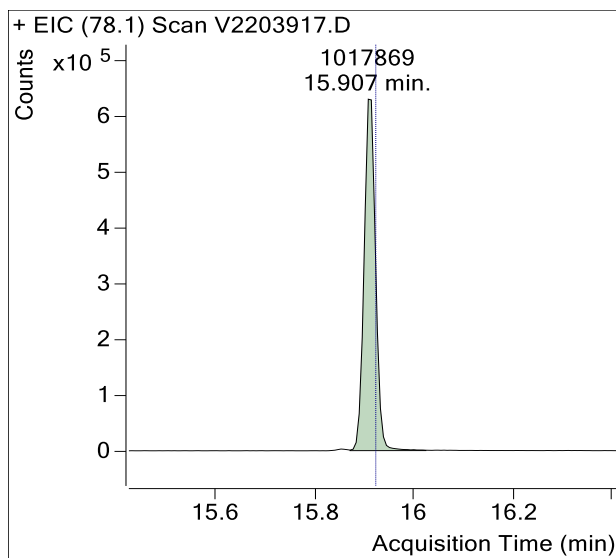
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	755,699	
Benzene	15.92	1,017,869	
Toluene-d8 (IS)	18.45	795,305	
Toluene	18.53	400,604	
Ethylbenzene	20.59	19,989	
m-/p-Xylenes	20.78	66,104	
o-Xylene	21.24	20,791	

(m)=Manual Integration

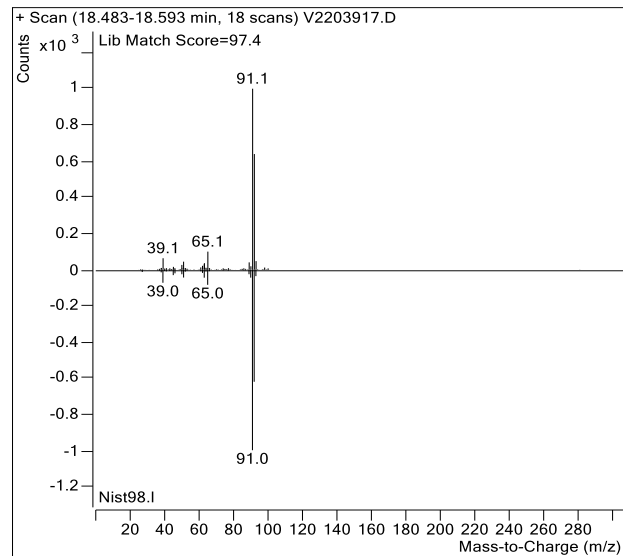
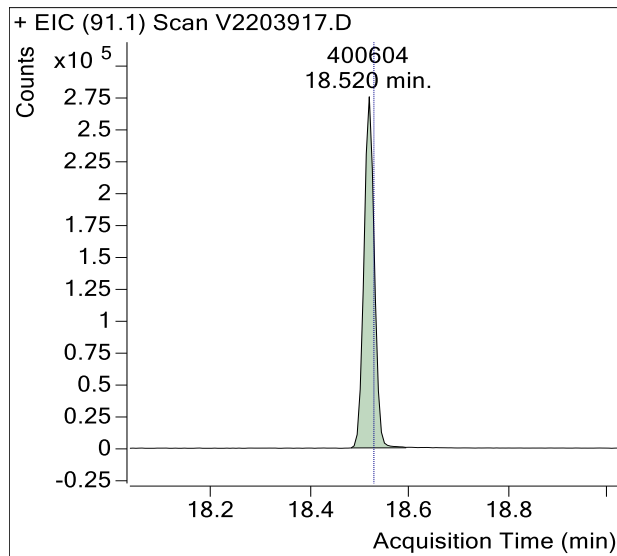
## 1,3-Butadiene



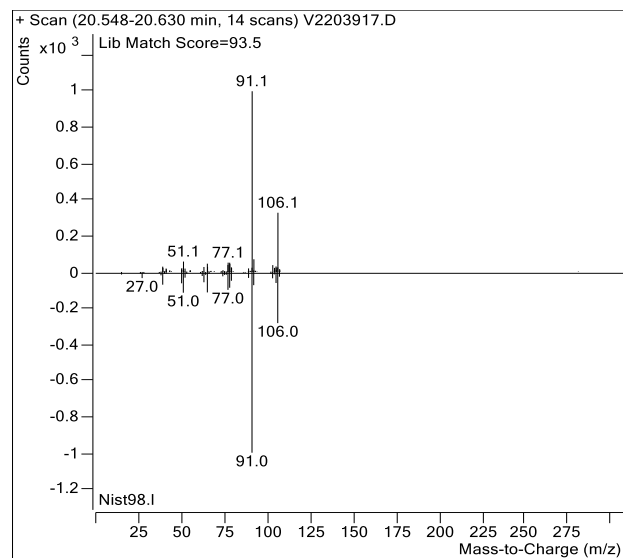
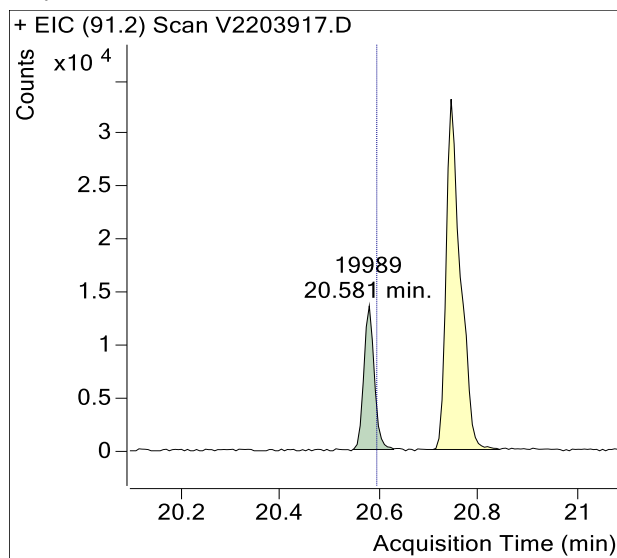
## Benzene



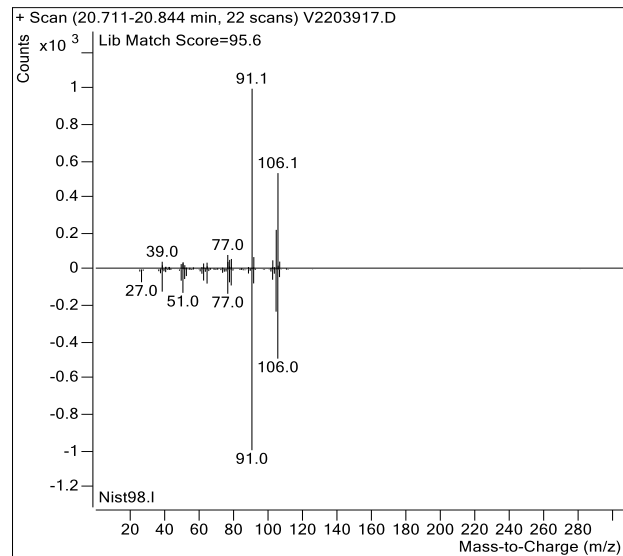
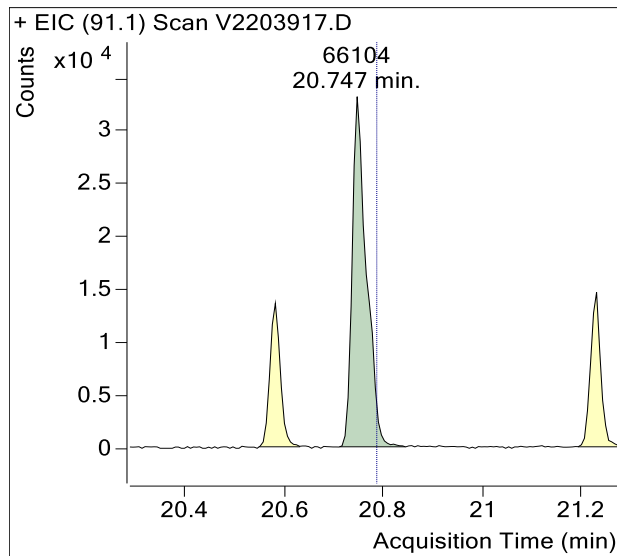
## Toluene



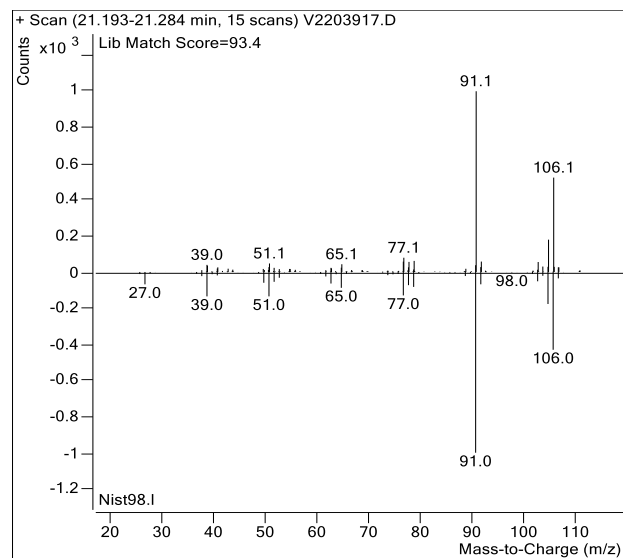
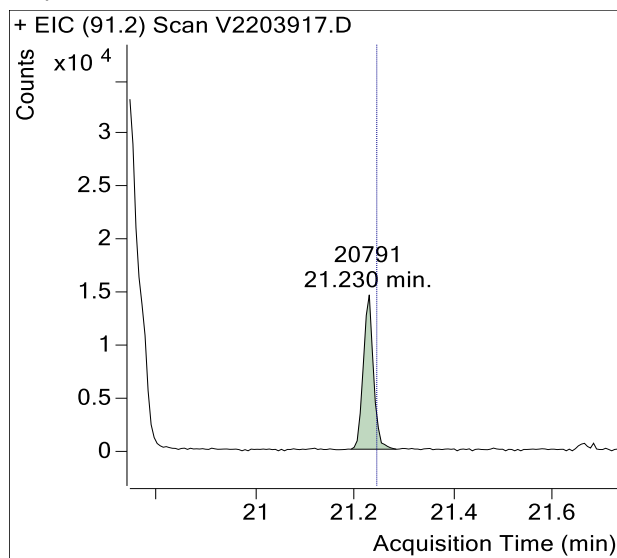
## Ethylbenzene



## m-/p-Xylenes

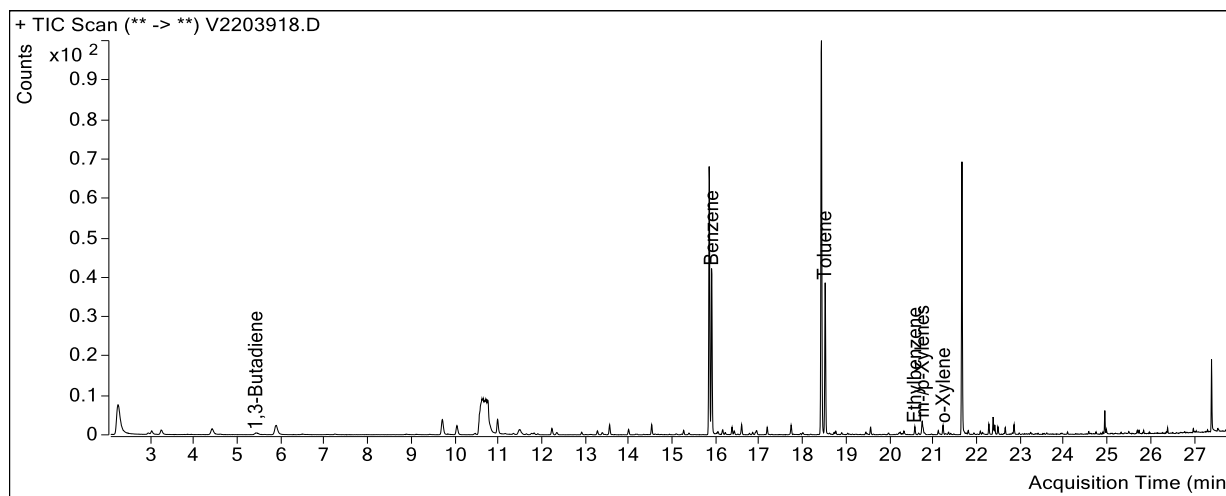


## o-Xylene





Sample Name : USSCL-PT05-S-20230103  
Sample Info : B39531  
Data File : V2203918.D  
Acquisition Date : 2023-01-20 22:02:23  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

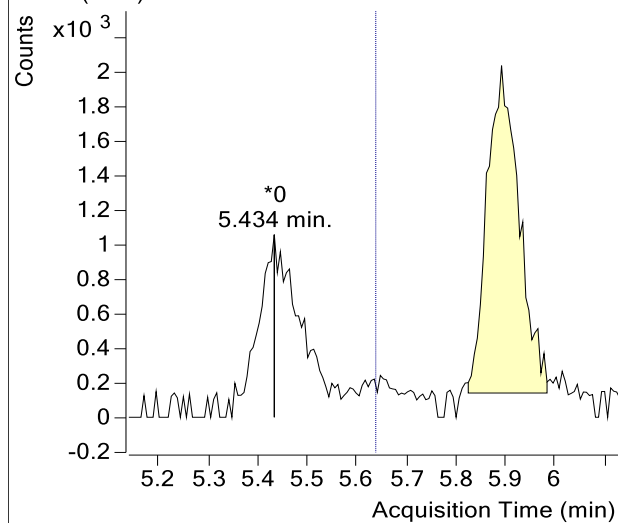


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	753,662	
Benzene	15.92	445,203	
Toluene-d8 (IS)	18.45	792,053	
Toluene	18.53	316,636	
Ethylbenzene	20.59	16,738	
m-/p-Xylenes	20.78	33,130	
o-Xylene	21.24	15,524	

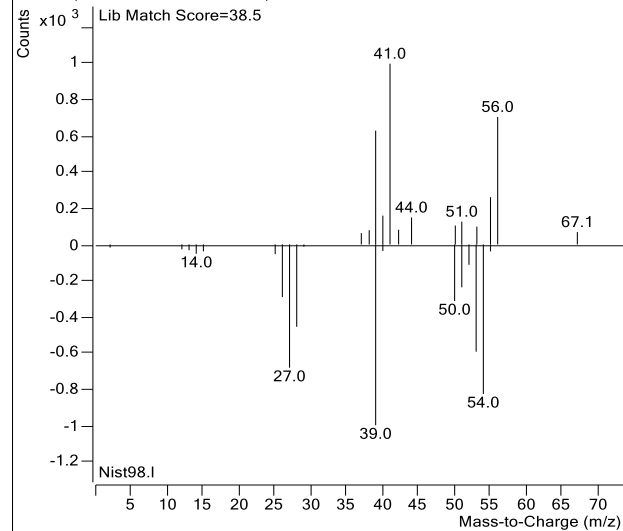
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203918.D

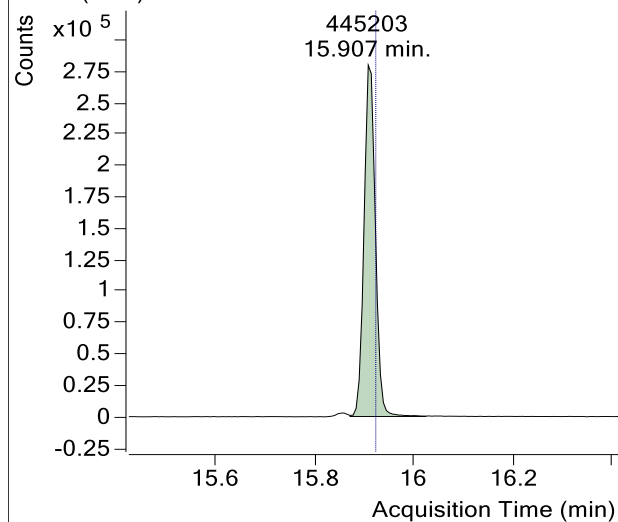


+ Scan (5.434-5.434 min, 1 scans) V2203918.D

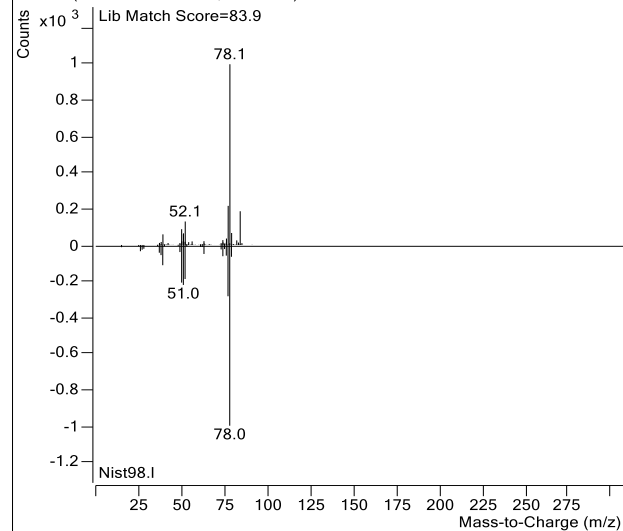


## Benzene

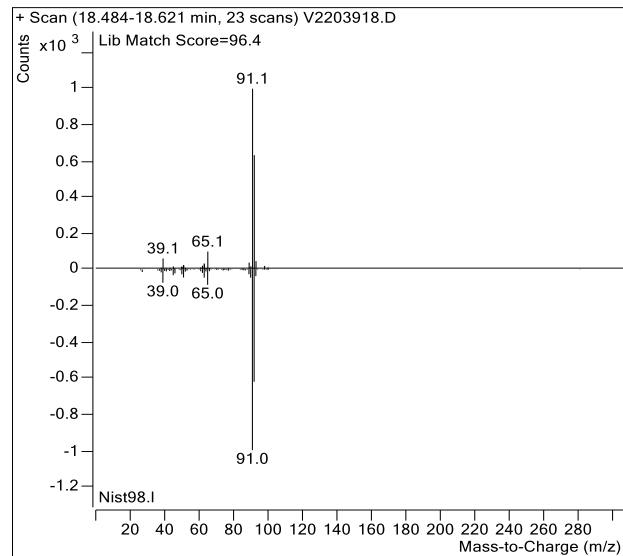
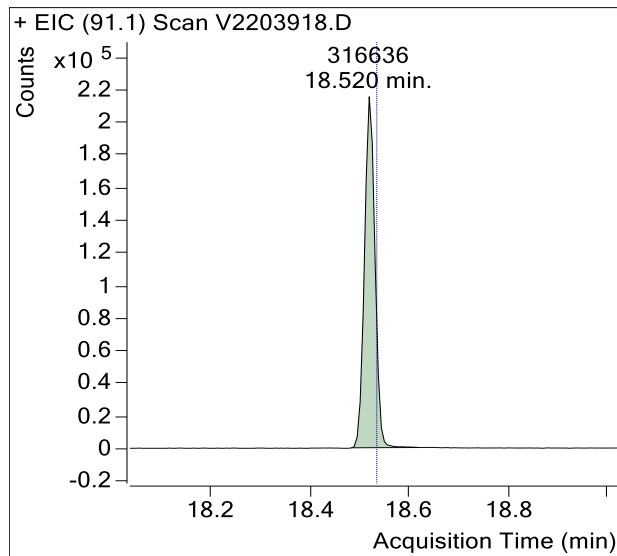
+ EIC (78.1) Scan V2203918.D



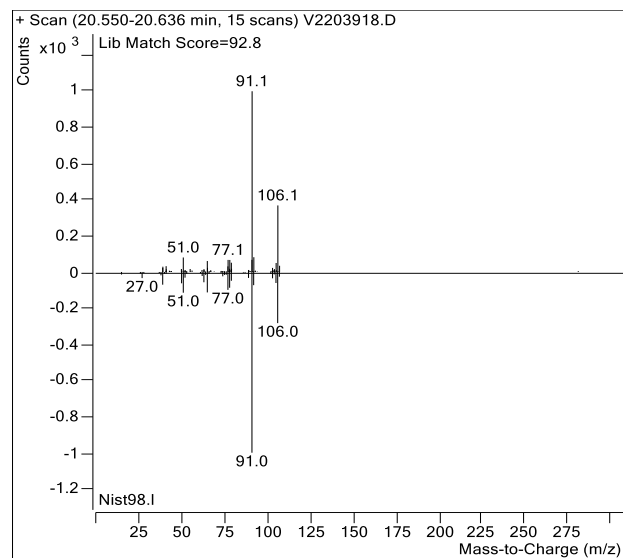
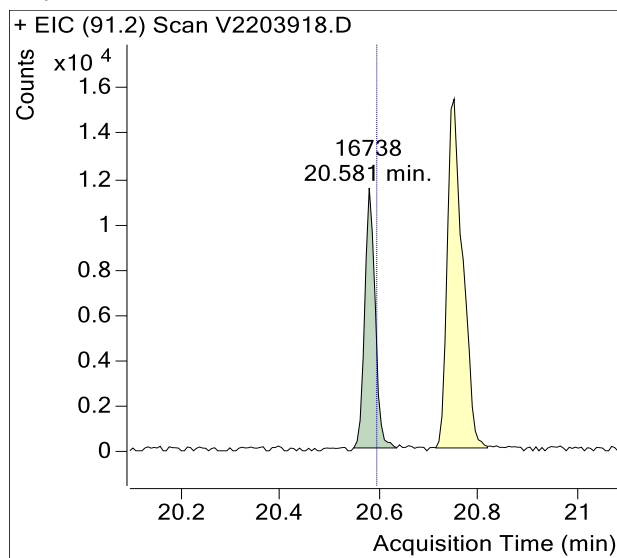
+ Scan (15.871-16.024 min, 26 scans) V2203918.D



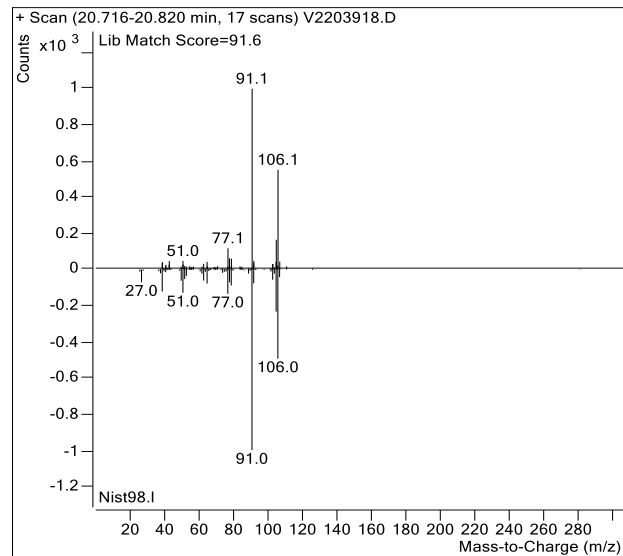
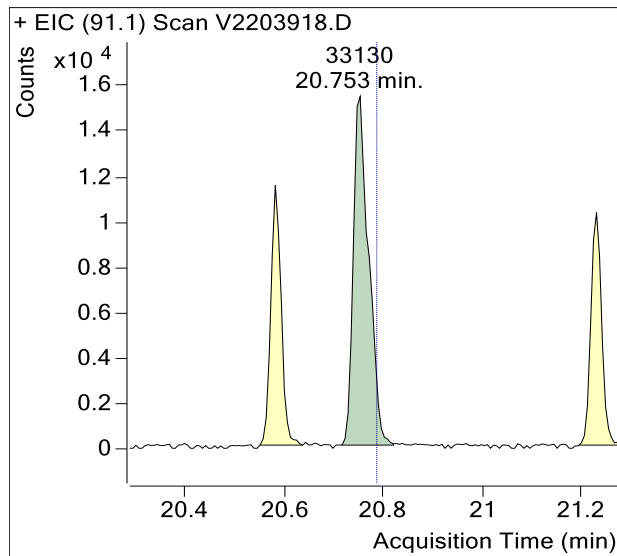
## Toluene



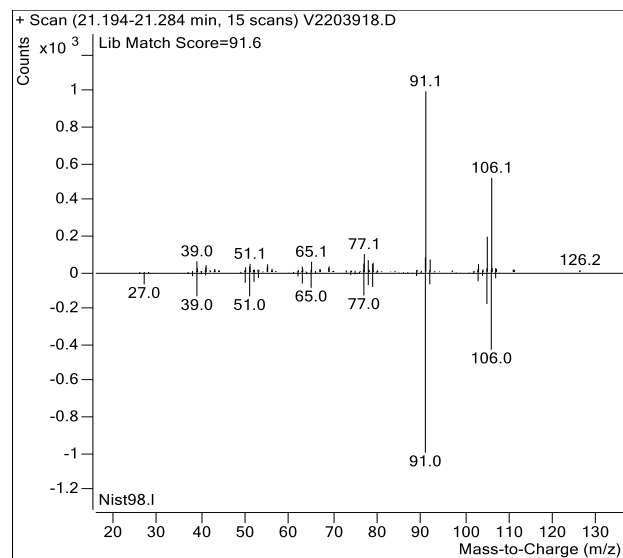
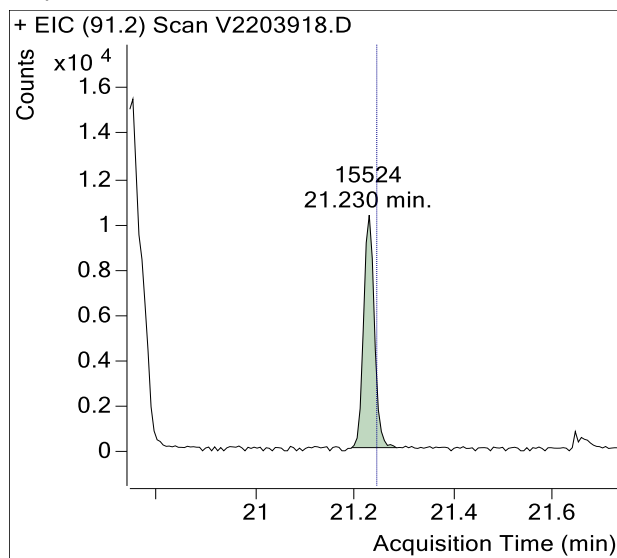
## Ethylbenzene



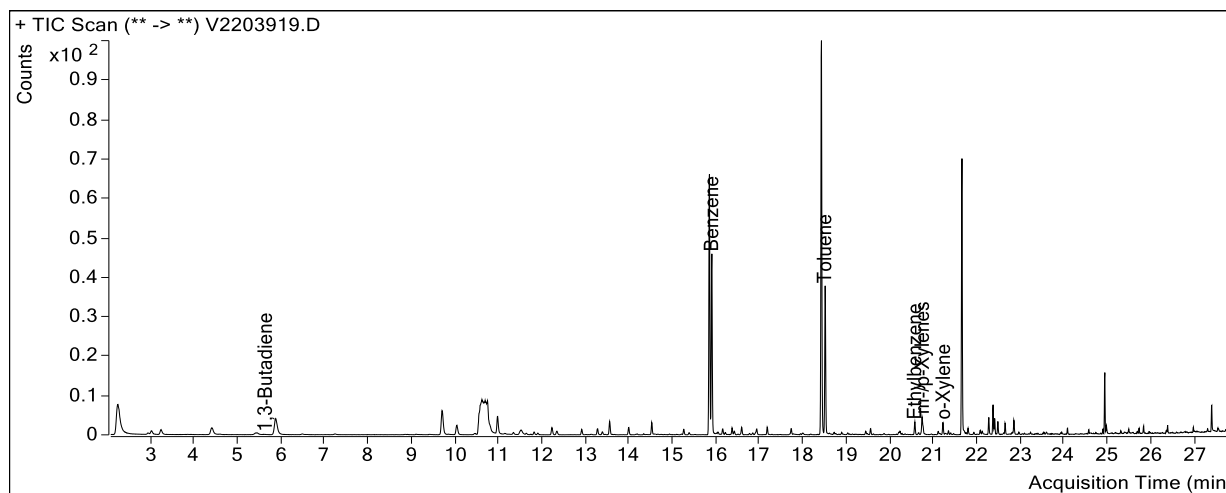
## m-/p-Xylenes



## o-Xylene



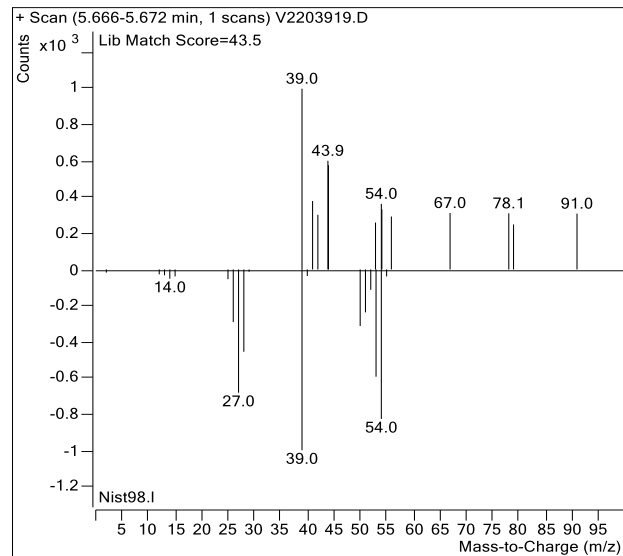
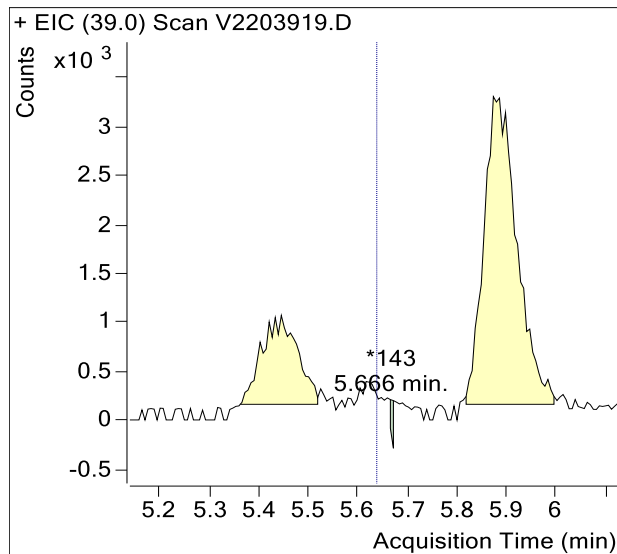
Sample Name : USSCL-PT06-S-20230103  
Sample Info : C00715  
Data File : V2203919.D  
Acquisition Date : 2023-01-20 22:42:11  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



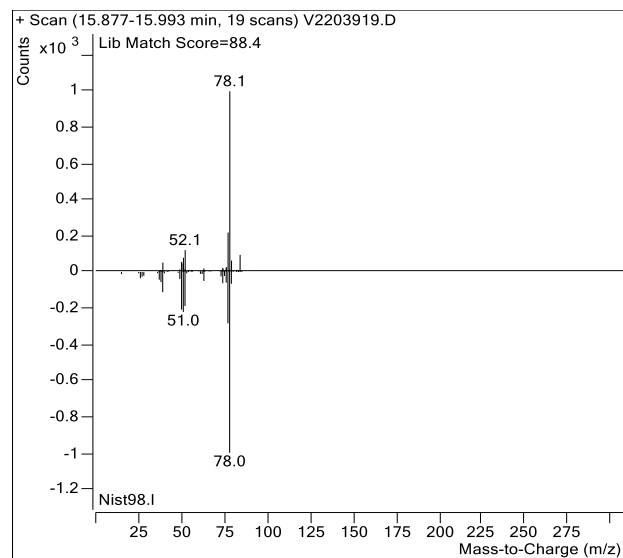
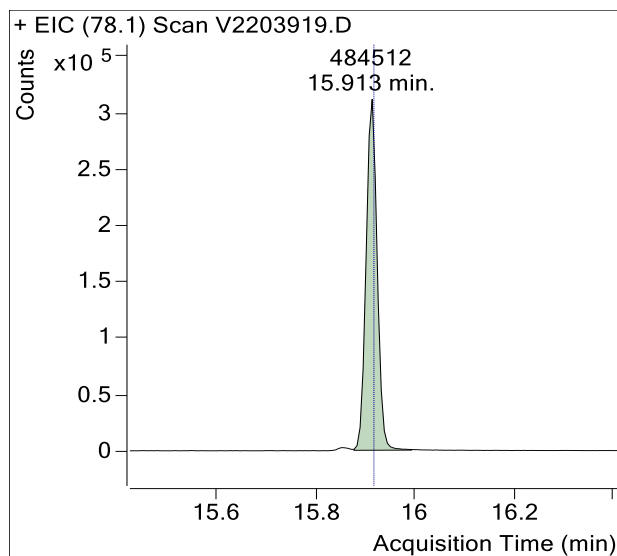
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	143	m
Benzene-d6 (IS)	15.86	754,922	
Benzene	15.92	484,512	
Toluene-d8 (IS)	18.45	793,268	
Toluene	18.53	318,101	
Ethylbenzene	20.59	28,788	
m-/p-Xylenes	20.78	43,503	
o-Xylene	21.24	19,859	

(m)=Manual Integration

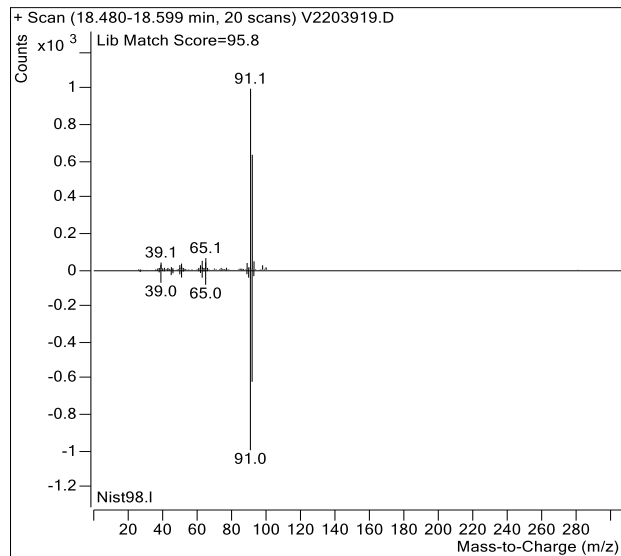
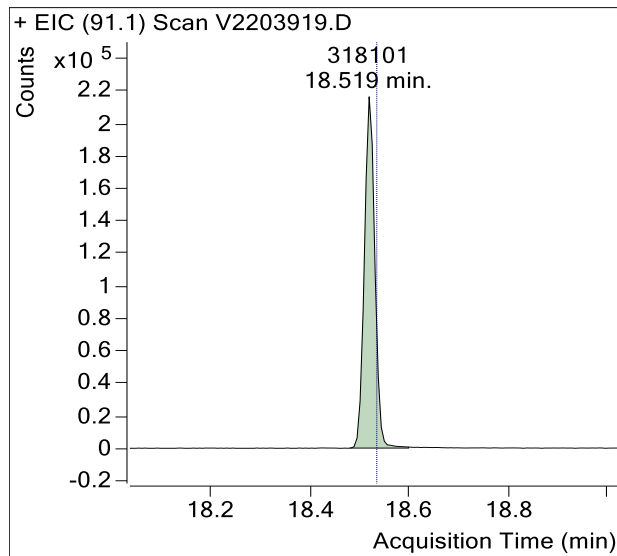
## 1,3-Butadiene



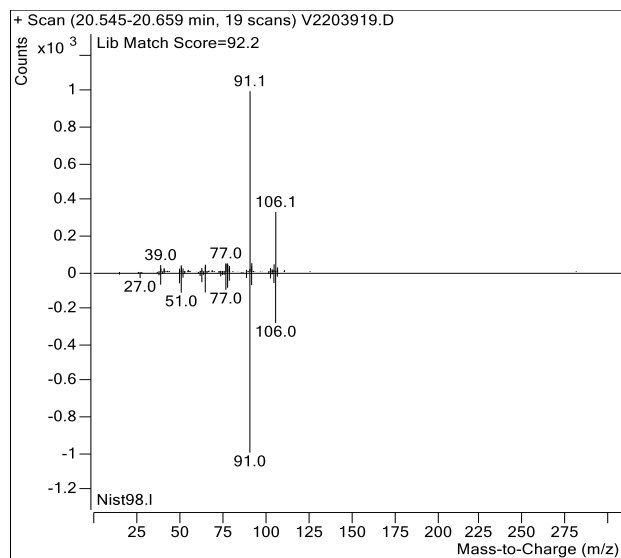
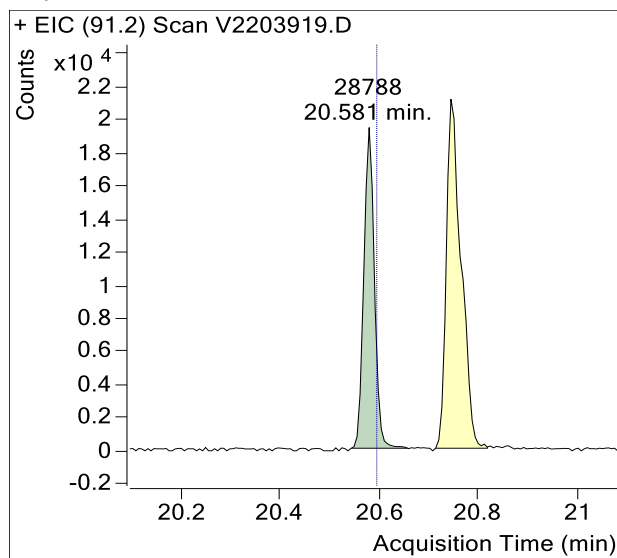
## Benzene



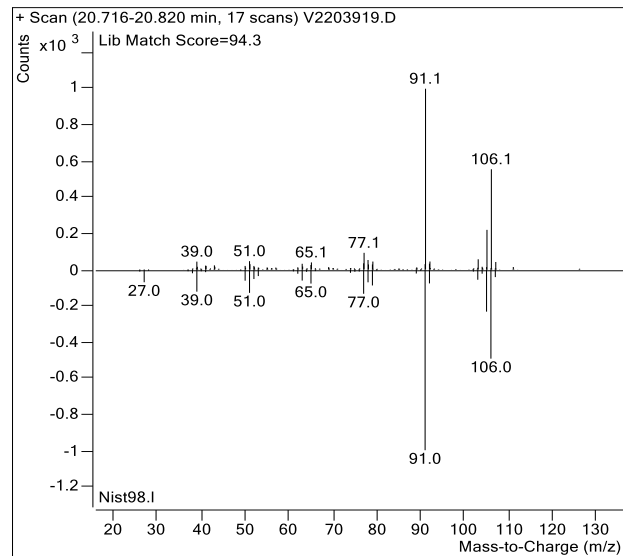
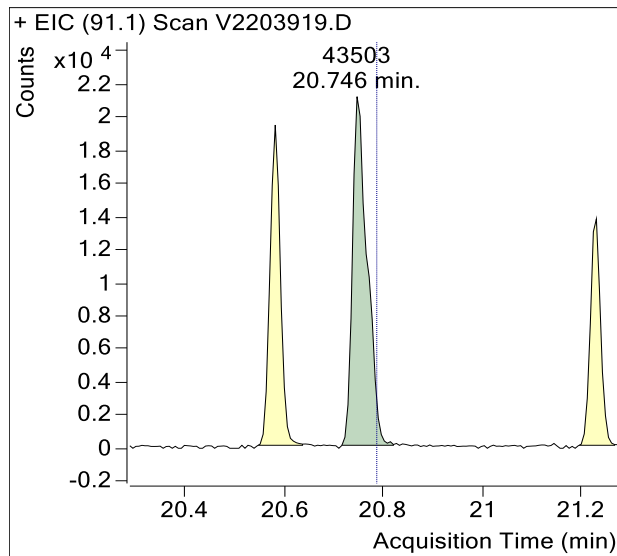
## Toluene



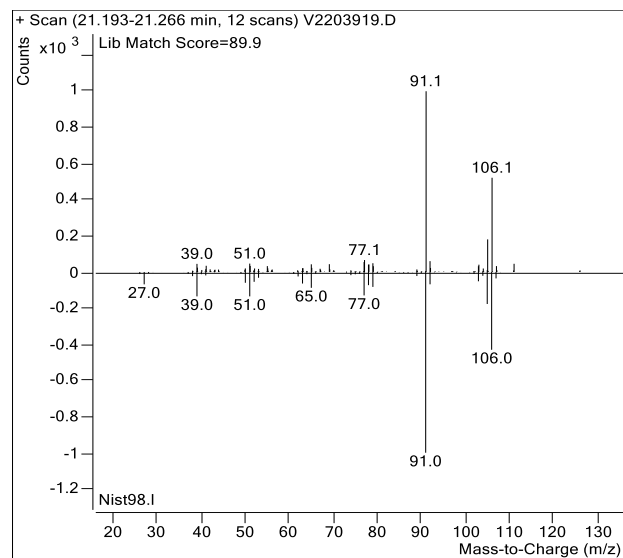
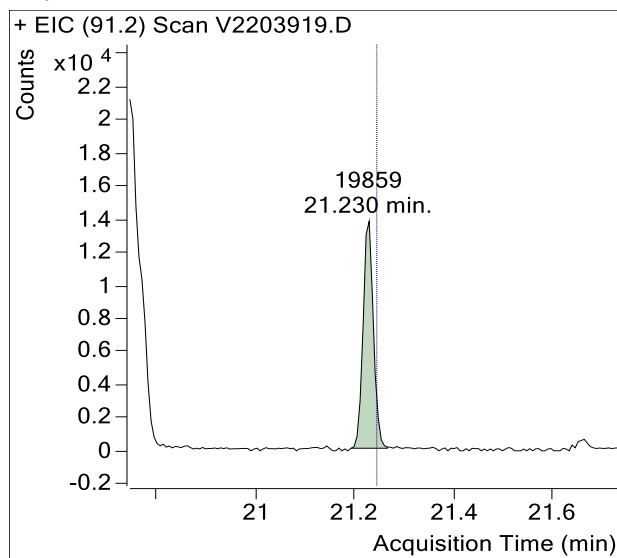
## Ethylbenzene



## m-/p-Xylenes

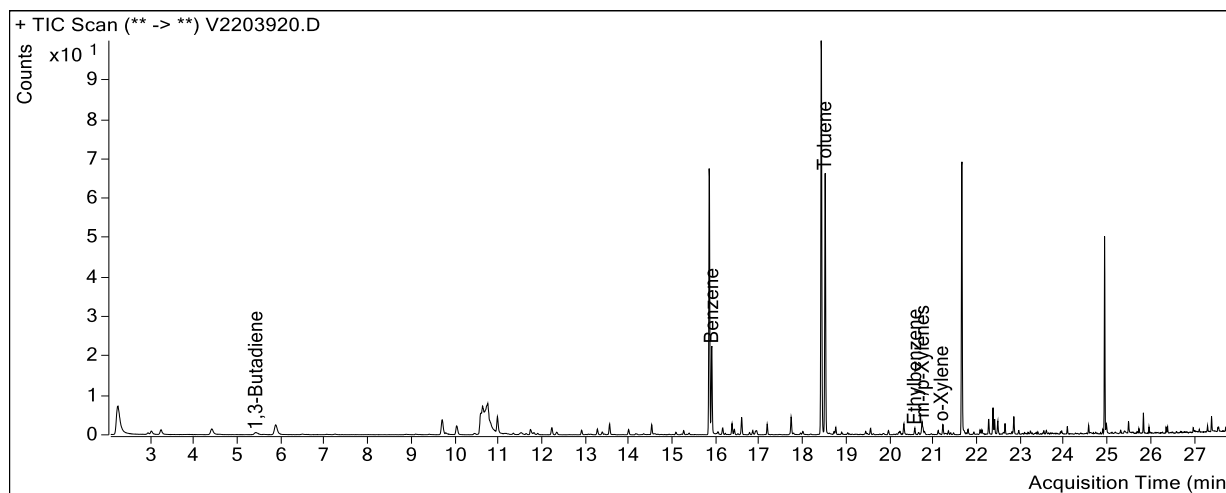


## o-Xylene





Sample Name : USSCL-PT07-S-20230103  
Sample Info : B31166  
Data File : V2203920.D  
Acquisition Date : 2023-01-20 23:22:01  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

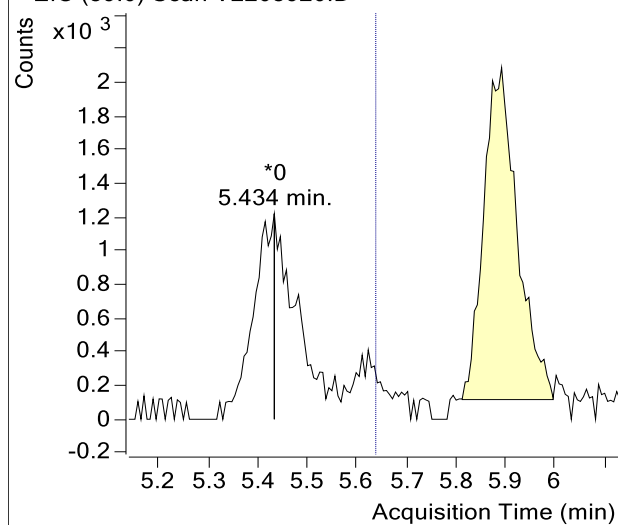


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	755,451	
Benzene	15.92	236,346	
Toluene-d8 (IS)	18.45	802,548	
Toluene	18.53	549,086	
Ethylbenzene	20.59	14,057	
m-/p-Xylenes	20.78	32,182	
o-Xylene	21.24	16,281	

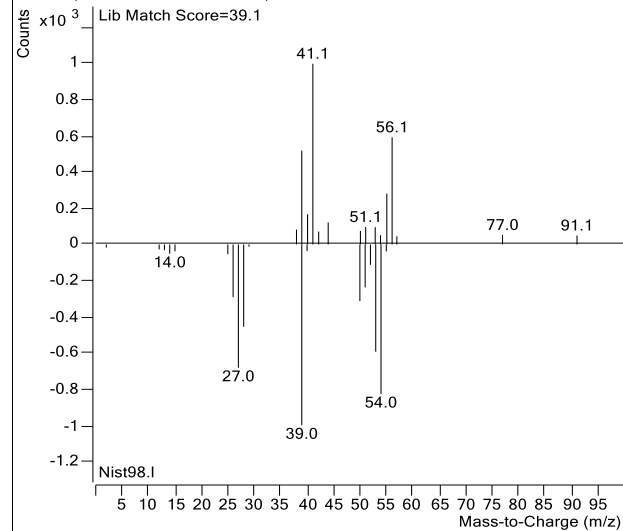
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203920.D

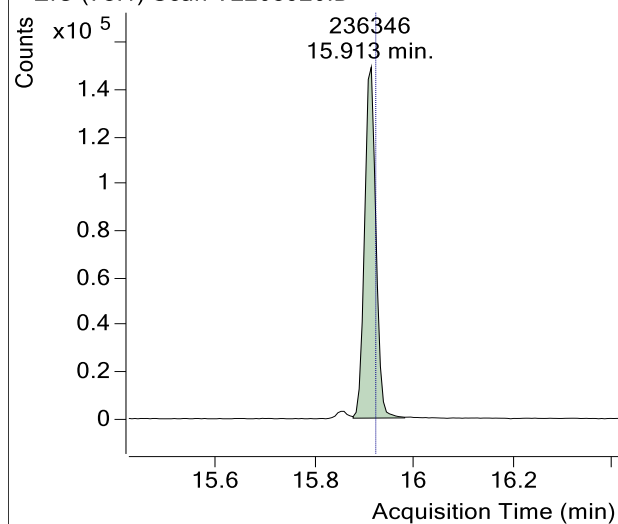


+ Scan (5.434-5.434 min, 1 scans) V2203920.D

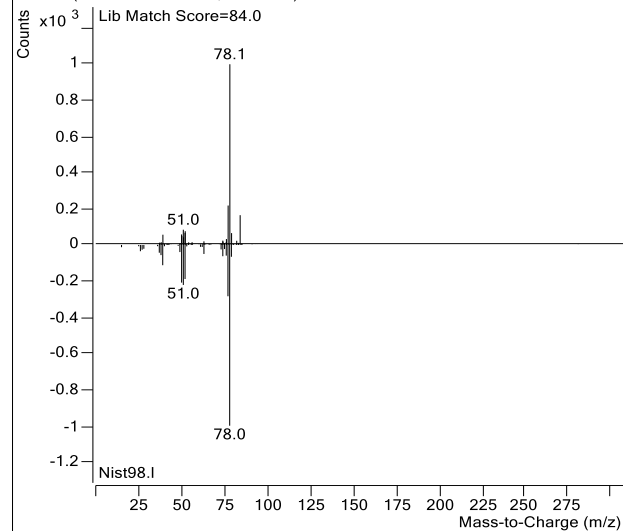


## Benzene

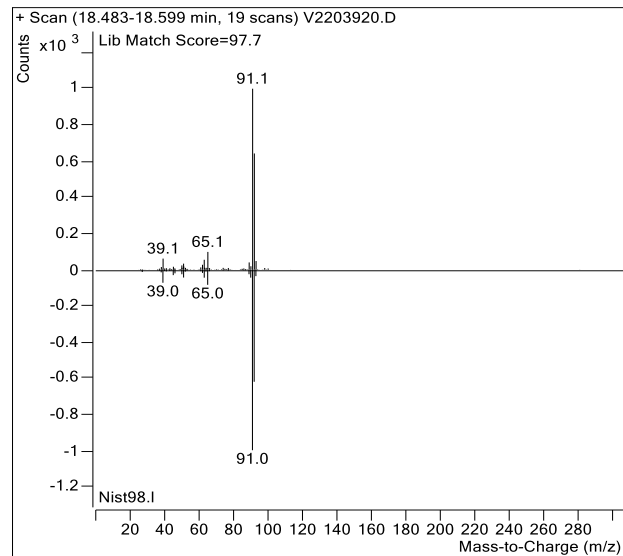
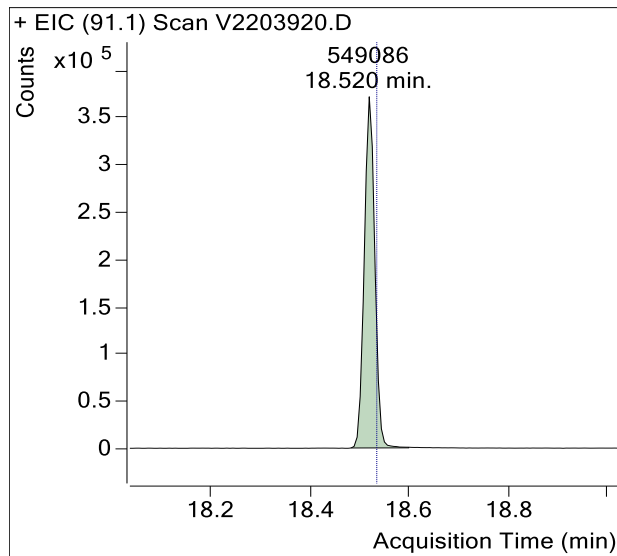
+ EIC (78.1) Scan V2203920.D



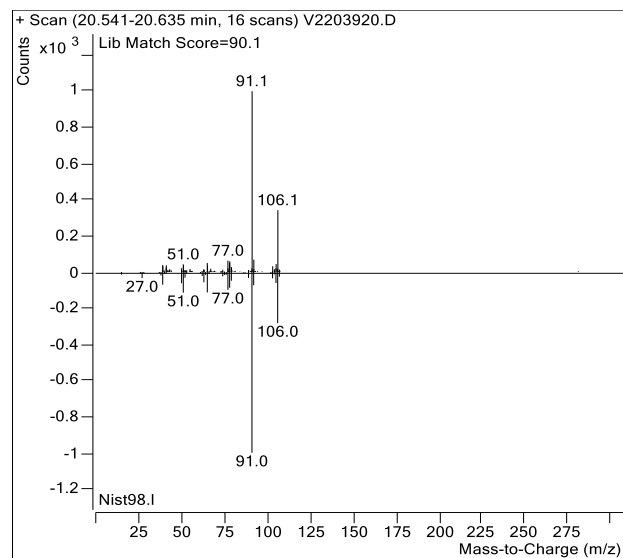
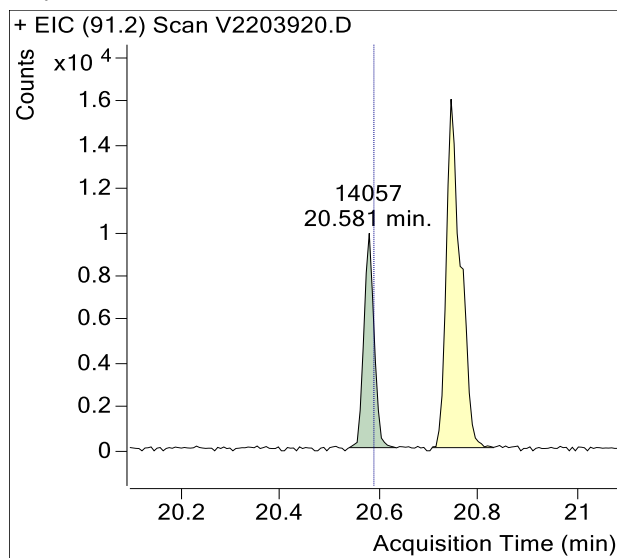
+ Scan (15.877-15.981 min, 17 scans) V2203920.D



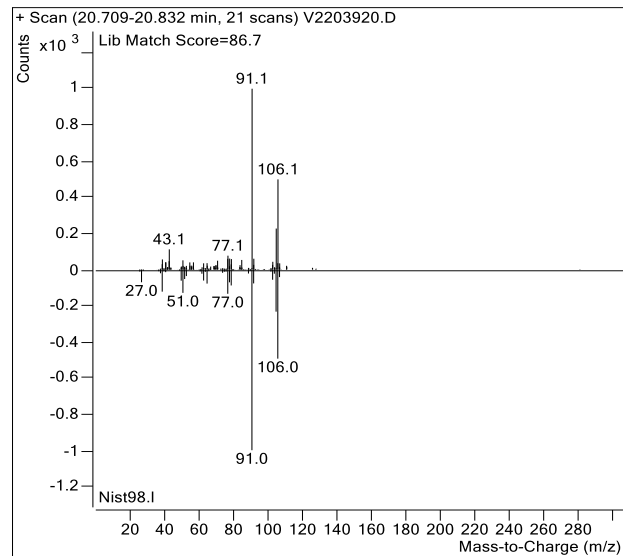
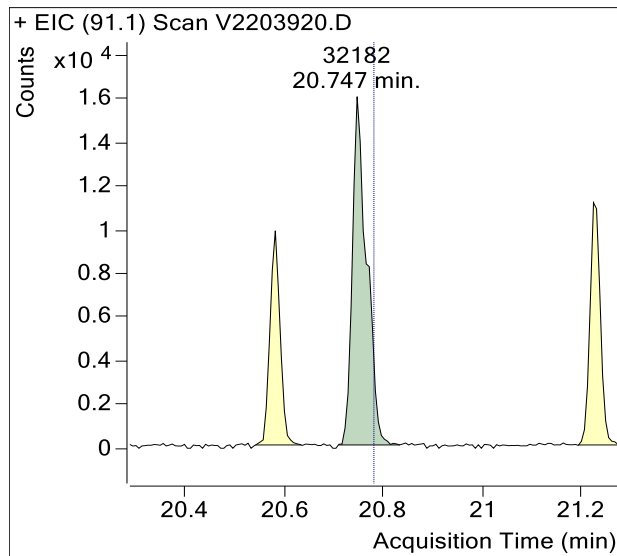
## Toluene



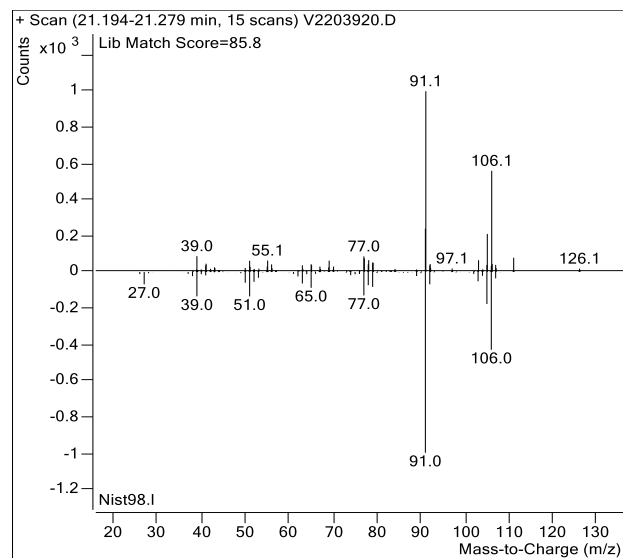
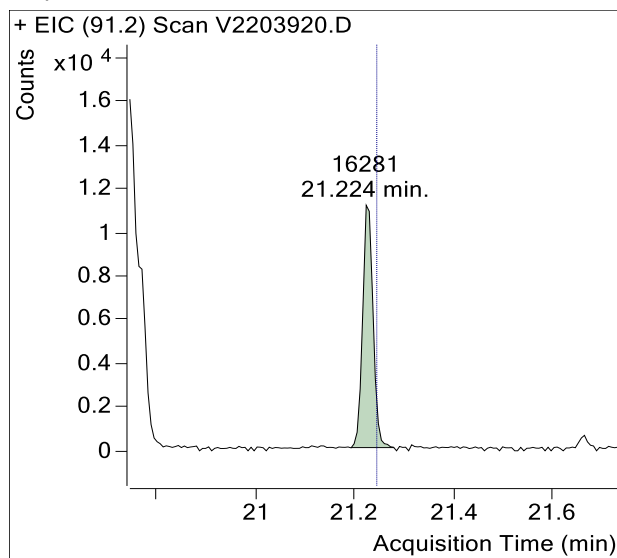
## Ethylbenzene



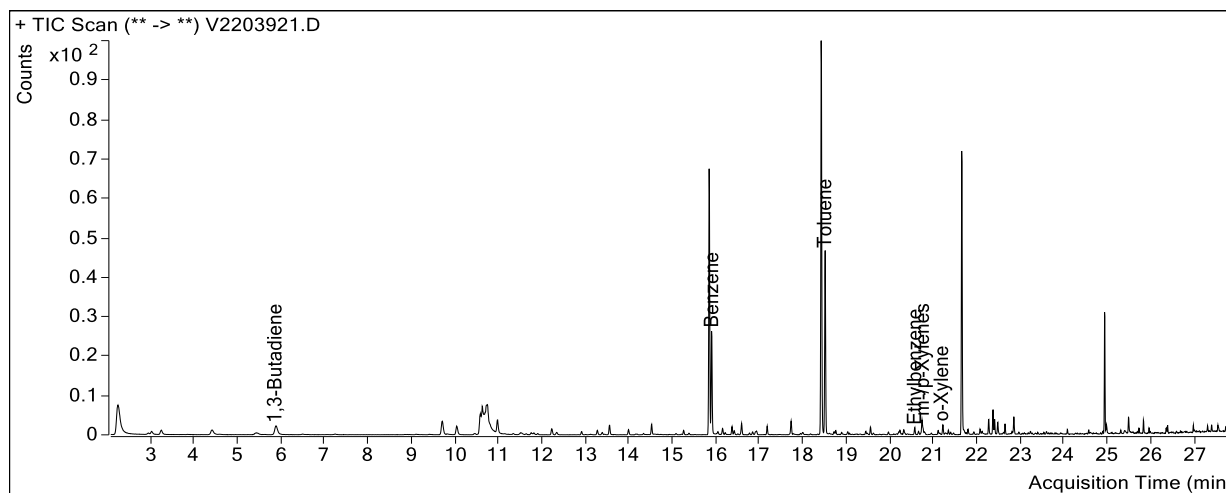
## m-/p-Xylenes



## o-Xylene



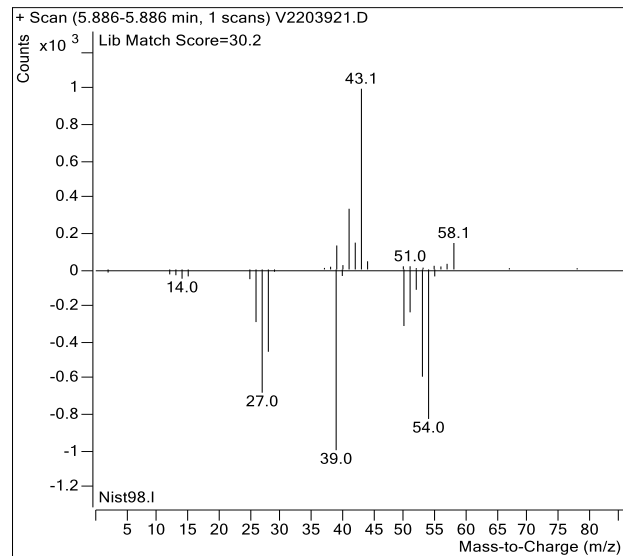
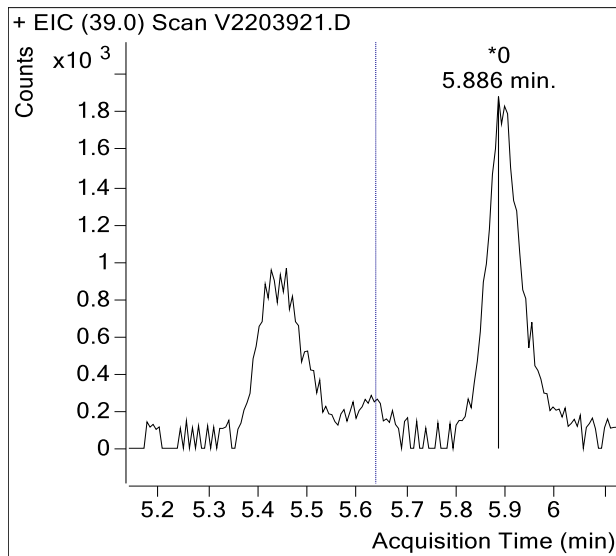
Sample Name : USSCL-PT08-S-20230103  
Sample Info : C01753  
Data File : V2203921.D  
Acquisition Date : 2023-01-21 00:01:52  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



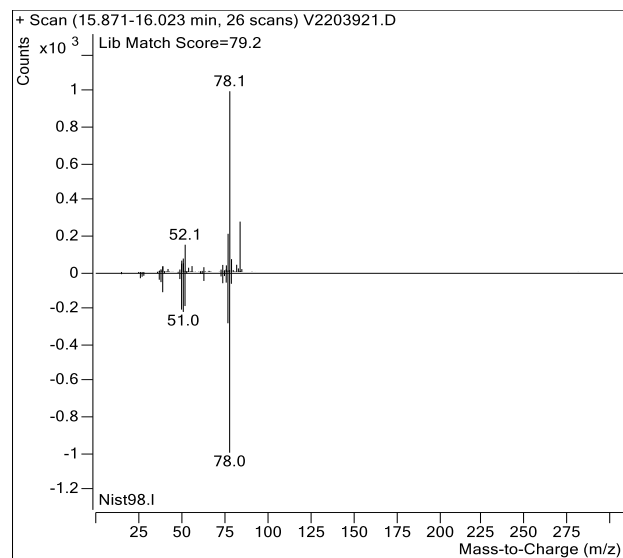
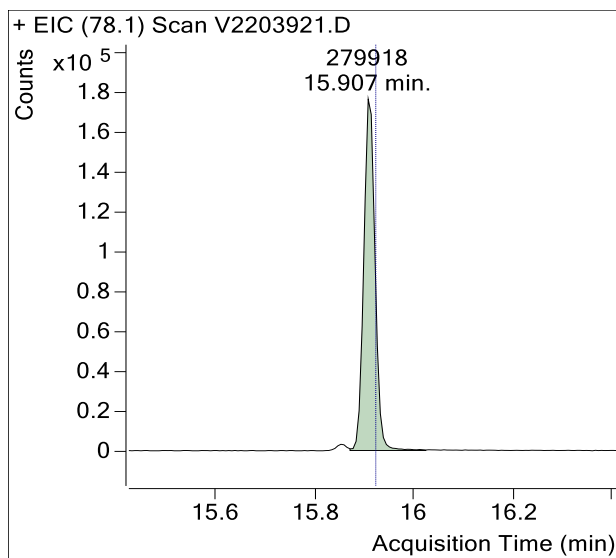
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	756,600	
Benzene	15.92	279,918	
Toluene-d8 (IS)	18.45	788,230	
Toluene	18.53	395,129	
Ethylbenzene	20.59	14,900	
m-/p-Xylenes	20.78	35,096	
o-Xylene	21.24	16,114	

(m)=Manual Integration

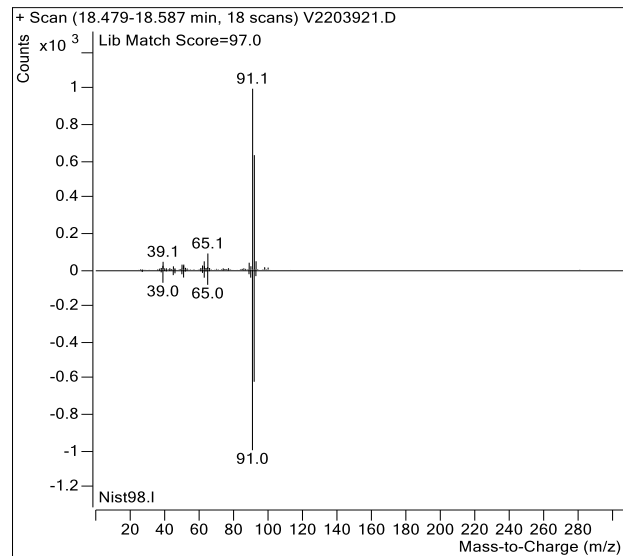
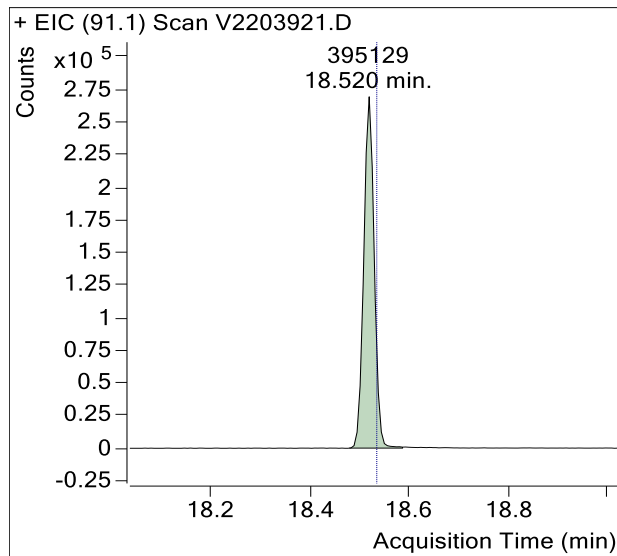
## 1,3-Butadiene



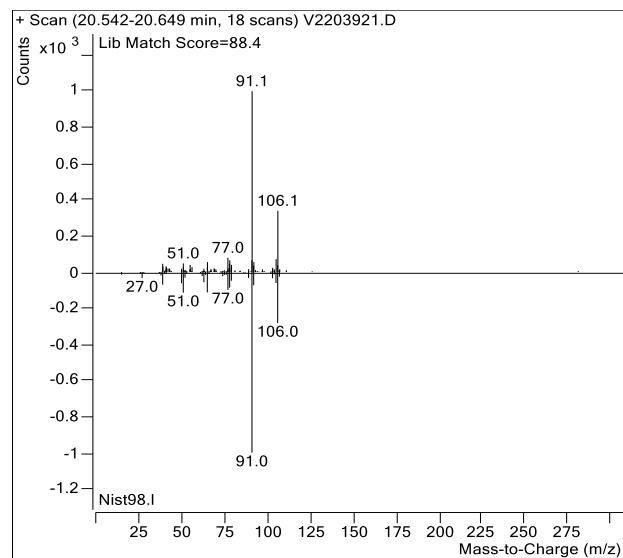
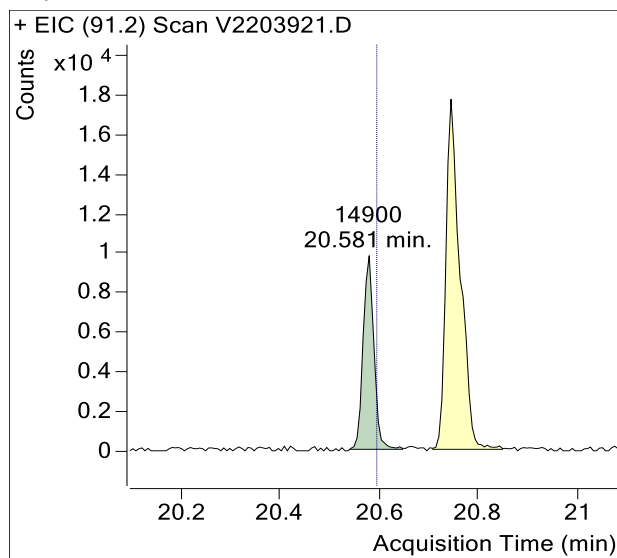
## Benzene



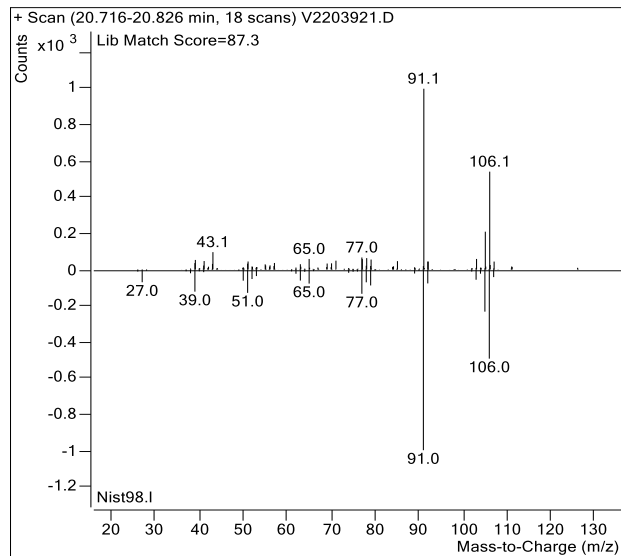
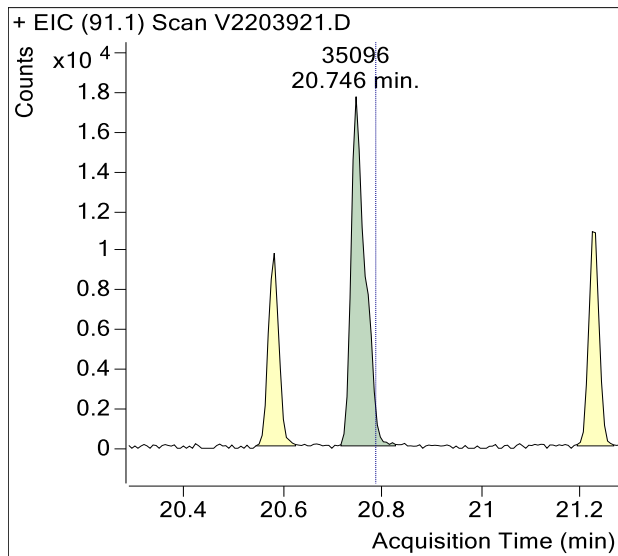
## Toluene



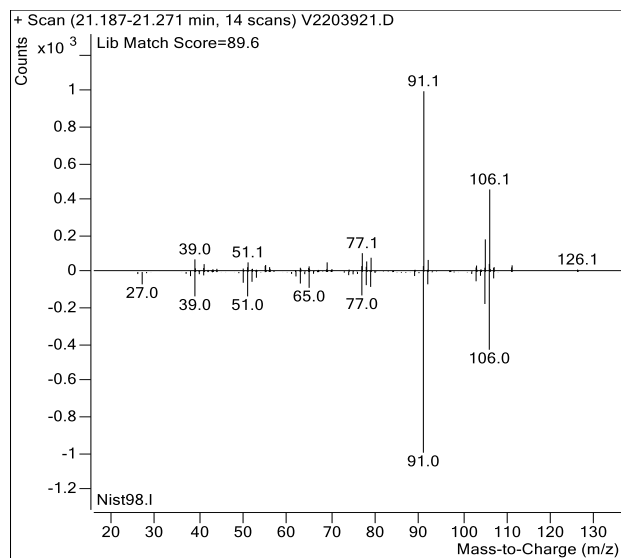
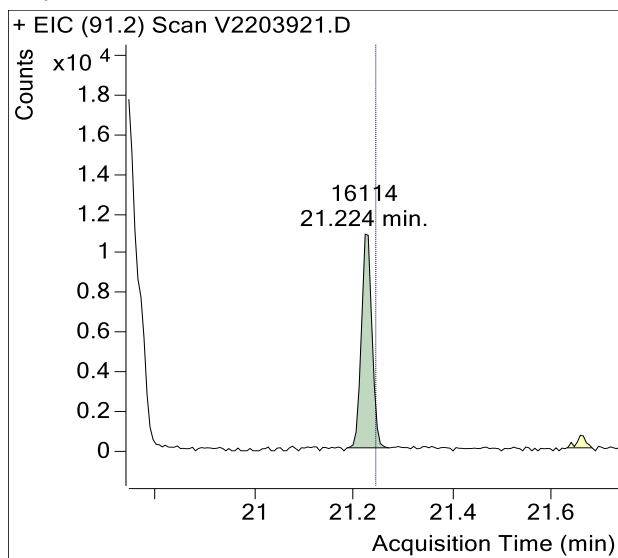
## Ethylbenzene



## m-/p-Xylenes

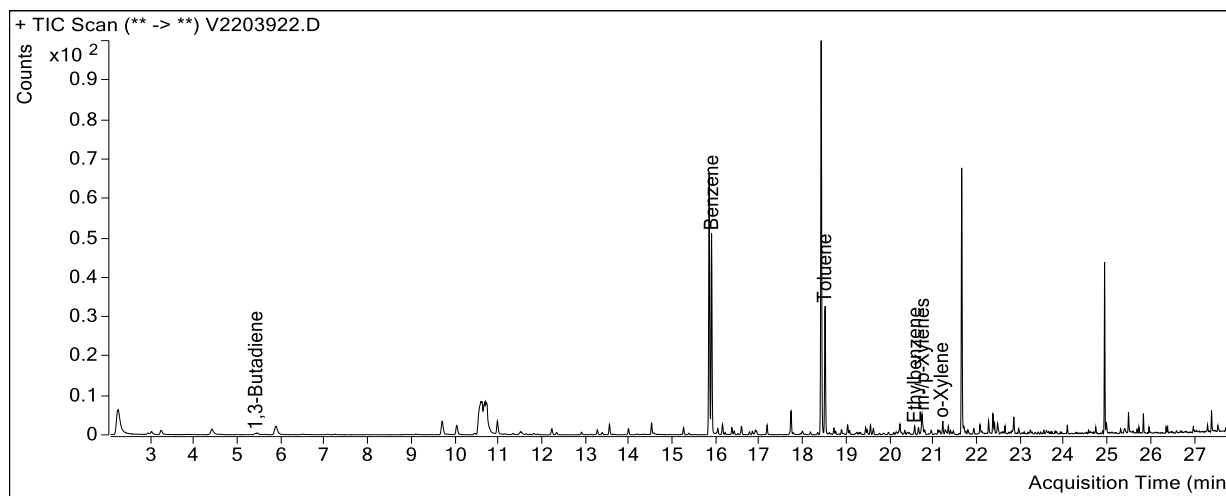


## o-Xylene





Sample Name : USSCL-PT09-S-20230103  
Sample Info : B44193  
Data File : V2203922.D  
Acquisition Date : 2023-01-21 00:41:42  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR

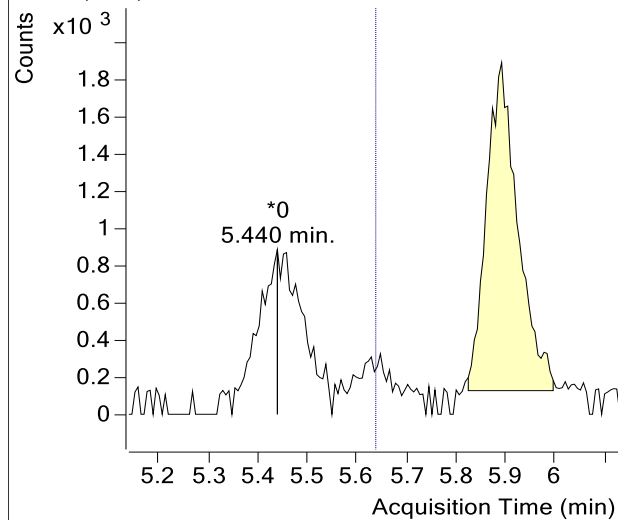


Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	754,523	
Benzene	15.92	539,930	
Toluene-d8 (IS)	18.45	795,182	
Toluene	18.53	288,435	
Ethylbenzene	20.59	17,161	
m-/p-Xylenes	20.78	47,200	
o-Xylene	21.24	19,845	

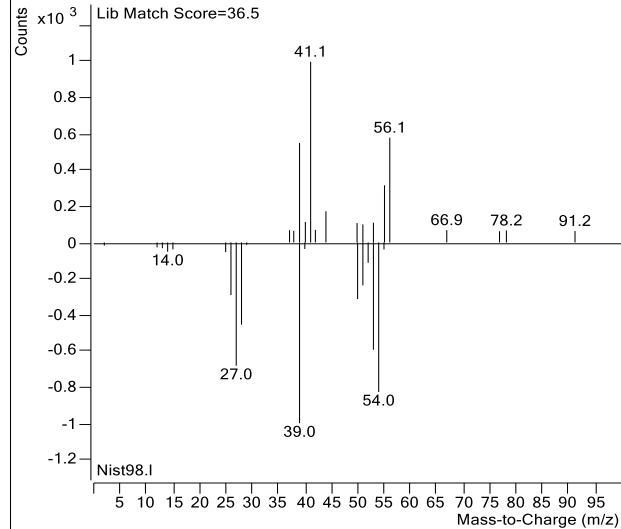
(m)=Manual Integration

## 1,3-Butadiene

+ EIC (39.0) Scan V2203922.D

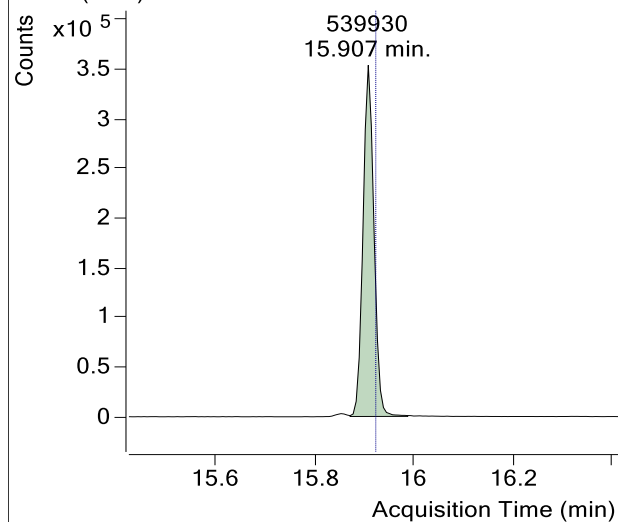


+ Scan (5.440-5.440 min, 1 scans) V2203922.D

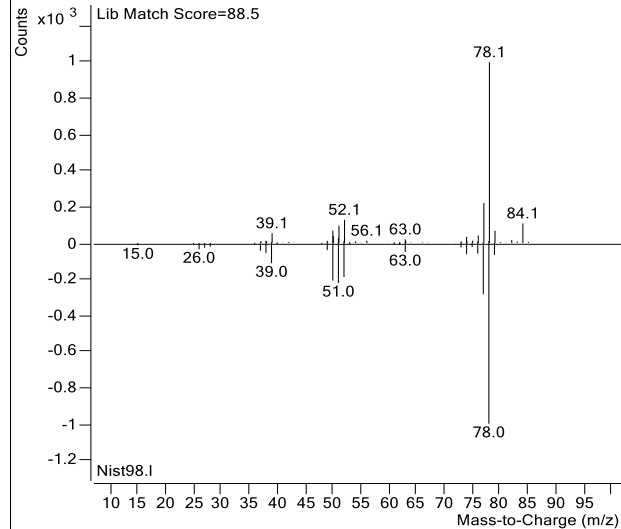


## Benzene

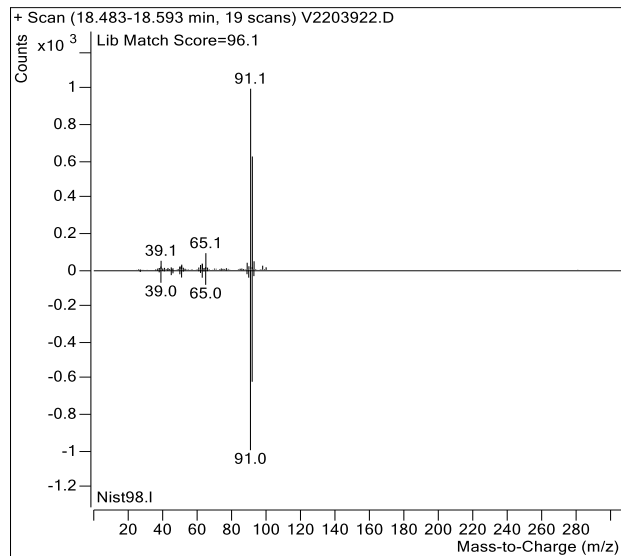
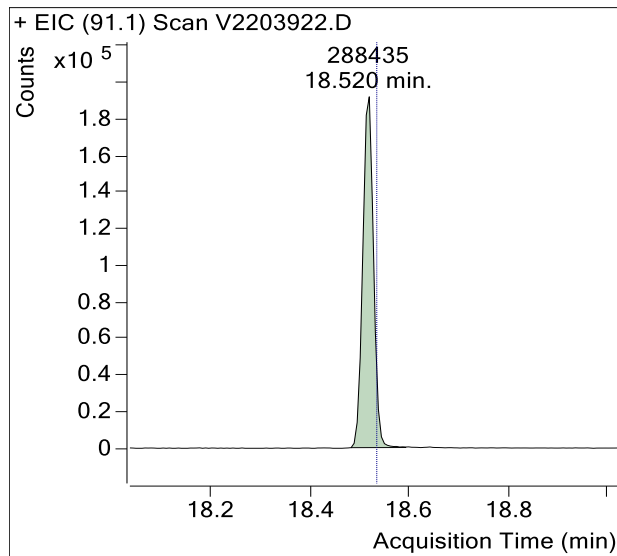
+ EIC (78.1) Scan V2203922.D



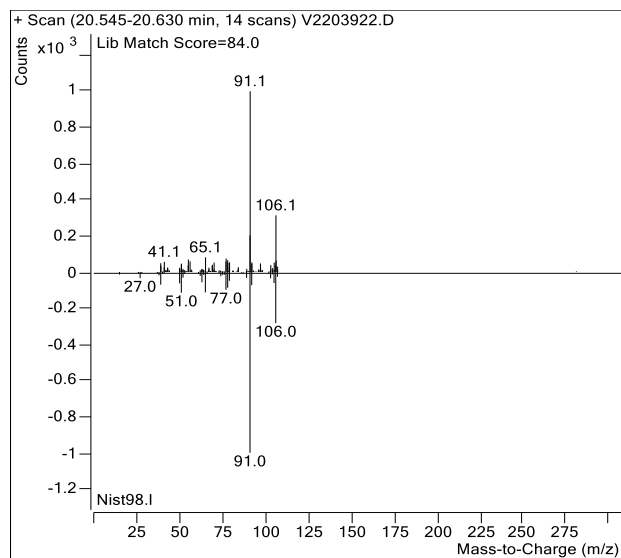
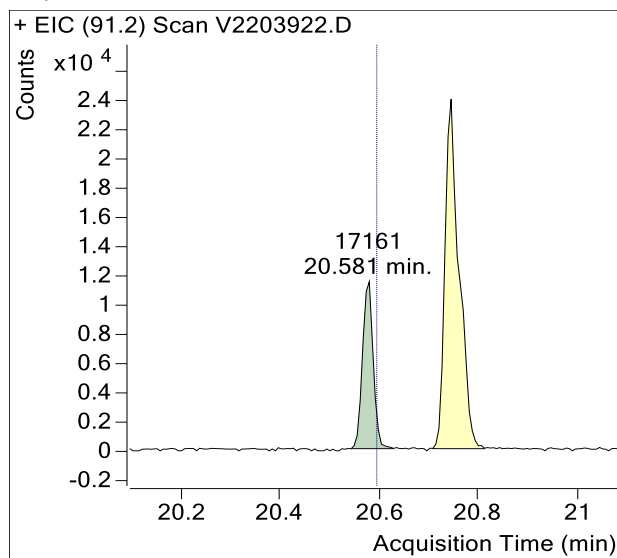
+ Scan (15.871-15.987 min, 19 scans) V2203922.D



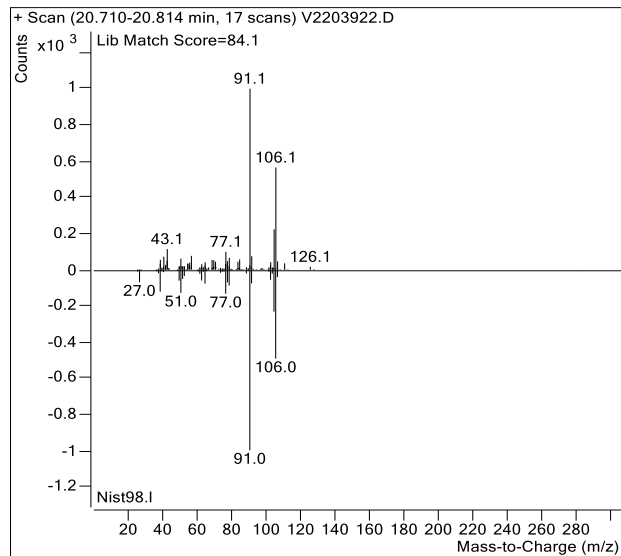
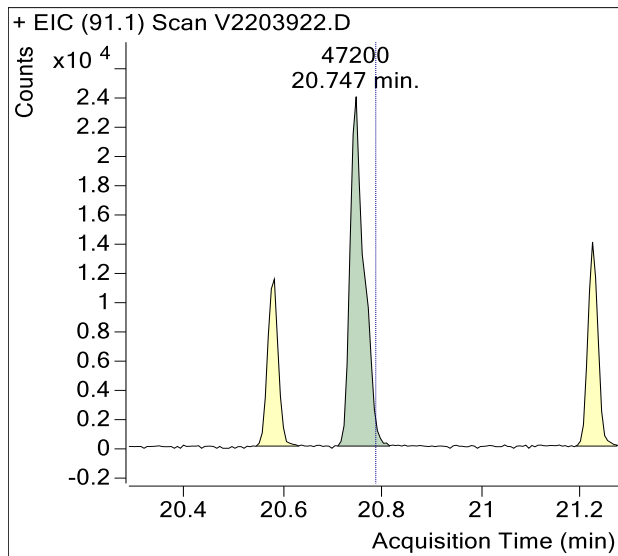
## Toluene



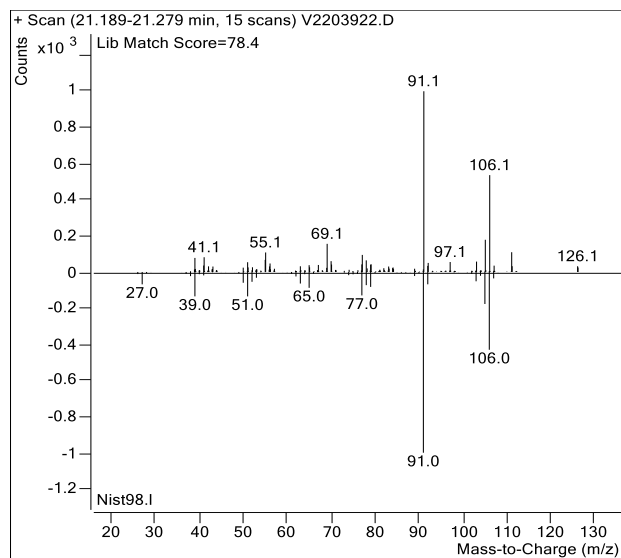
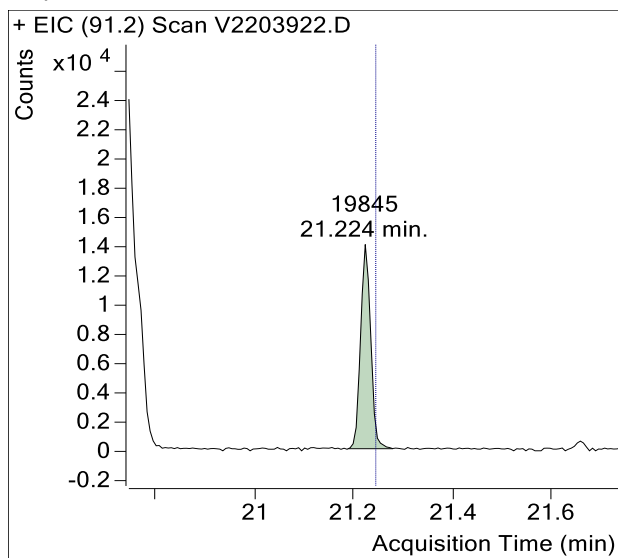
## Ethylbenzene



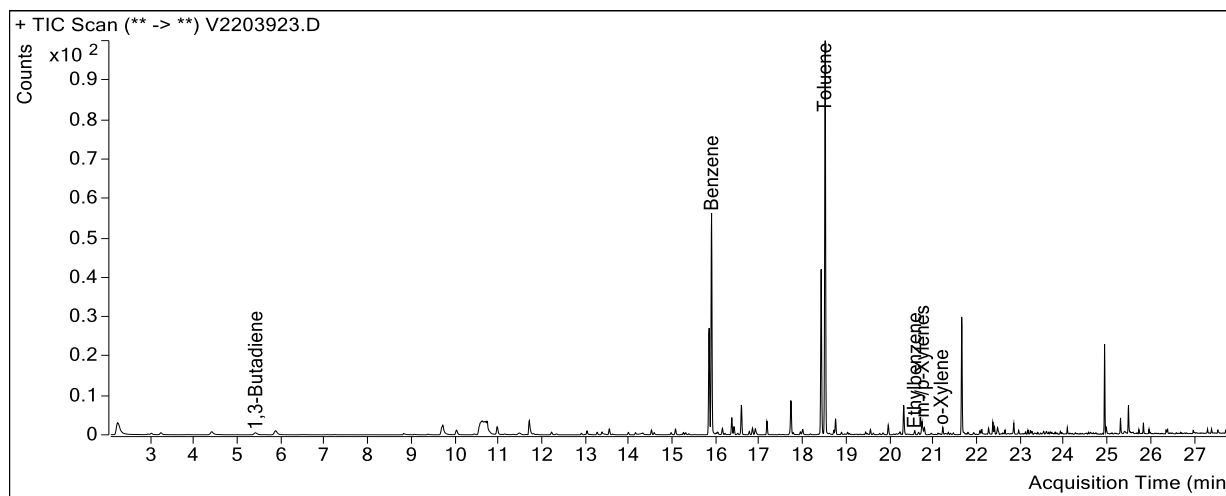
## m-/p-Xylenes



## o-Xylene



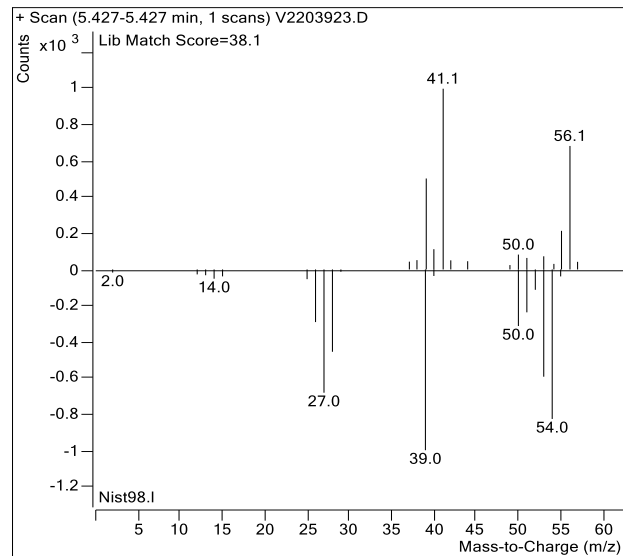
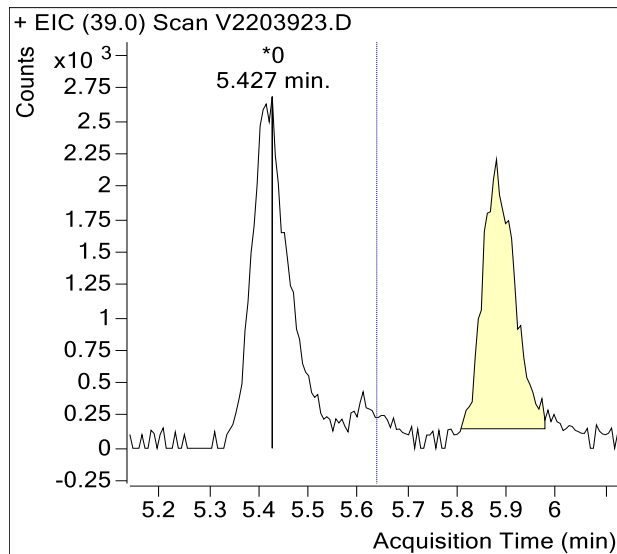
Sample Name : USSCL-PT10-D-20230103  
Sample Info : C01635  
Data File : V2203923.D  
Acquisition Date : 2023-01-21 01:21:35  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



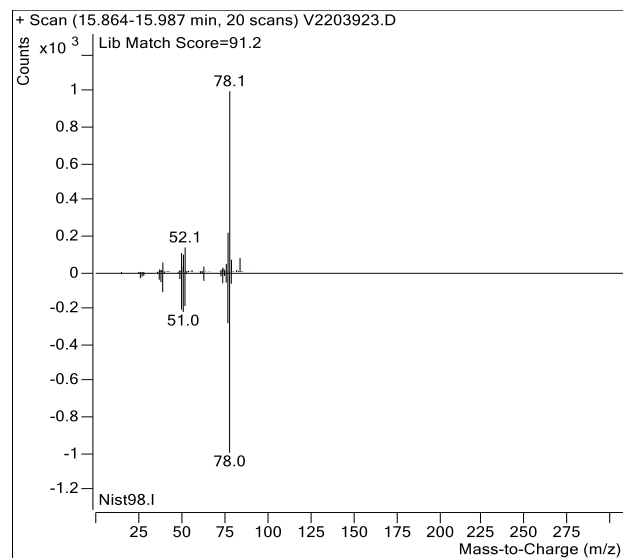
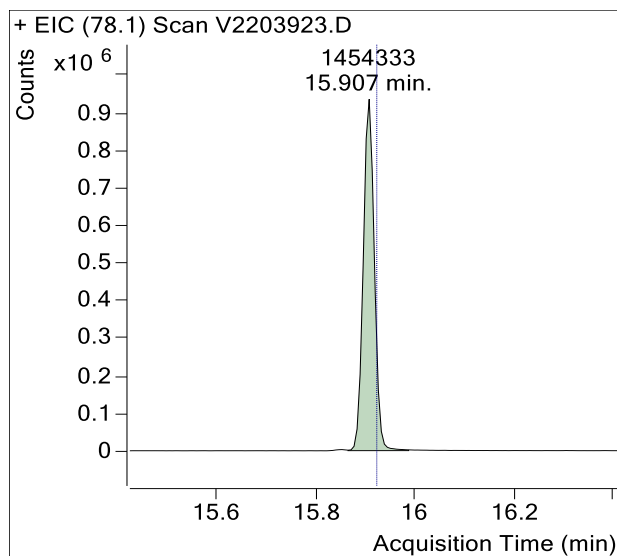
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	755,719	
Benzene	15.92	1,454,333	
Toluene-d8 (IS)	18.45	798,817	
Toluene	18.53	2,098,660	
Ethylbenzene	20.59	19,943	
m-/p-Xylenes	20.78	76,704	
o-Xylene	21.24	28,589	

(m)=Manual Integration

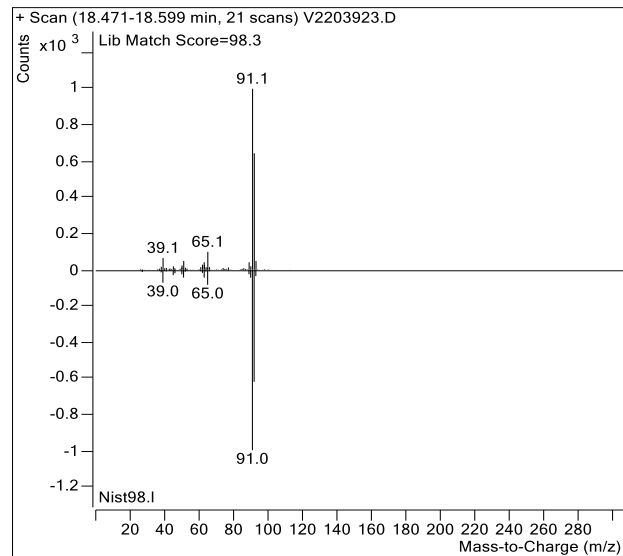
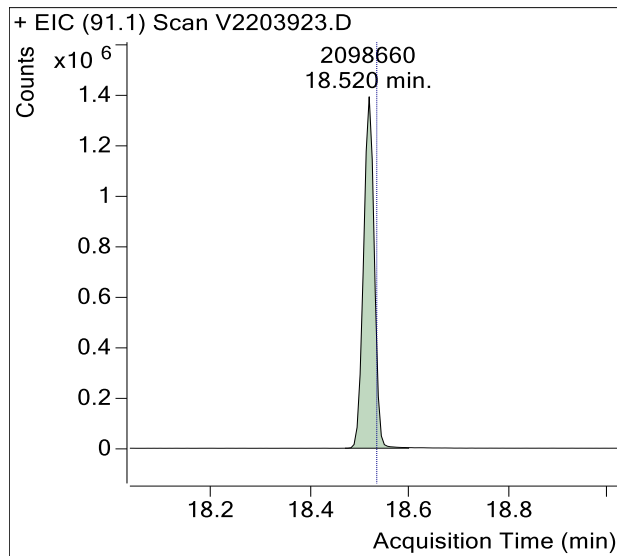
## 1,3-Butadiene



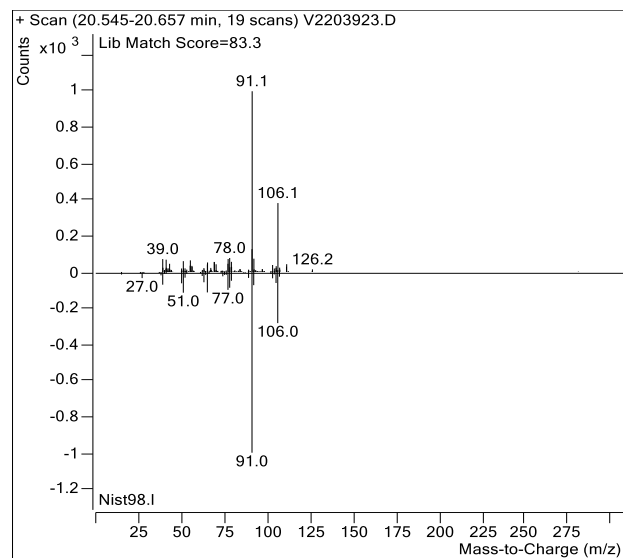
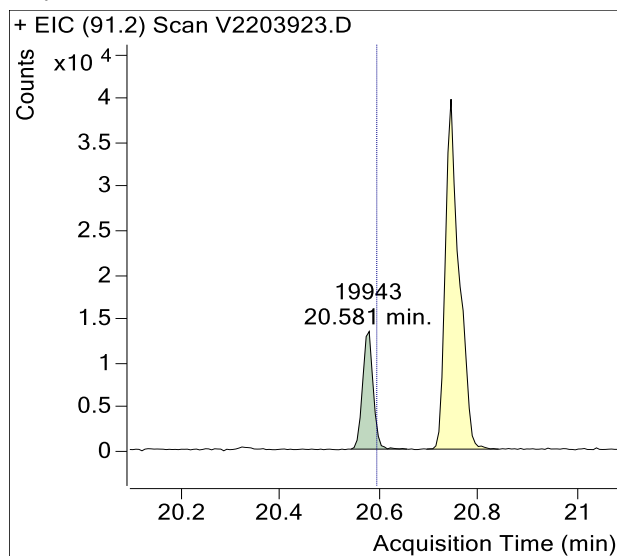
## Benzene



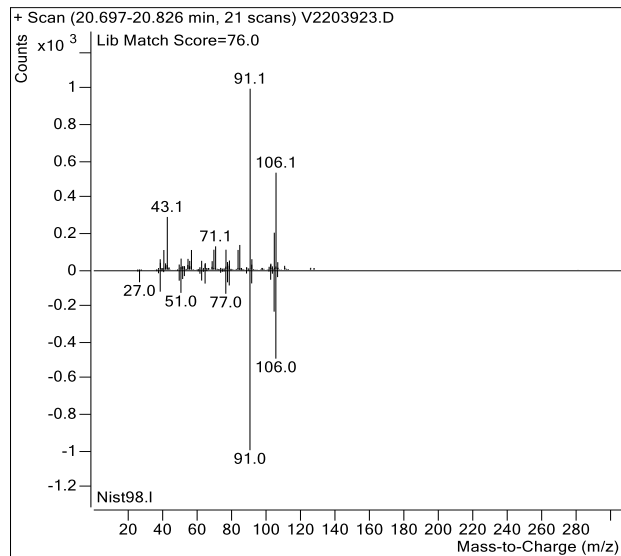
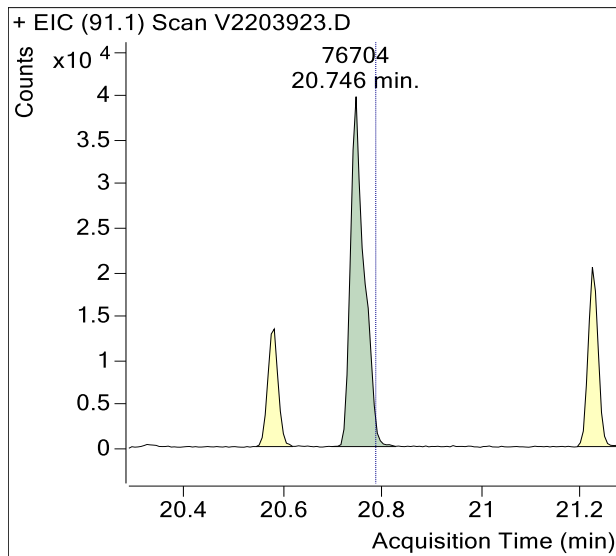
## Toluene



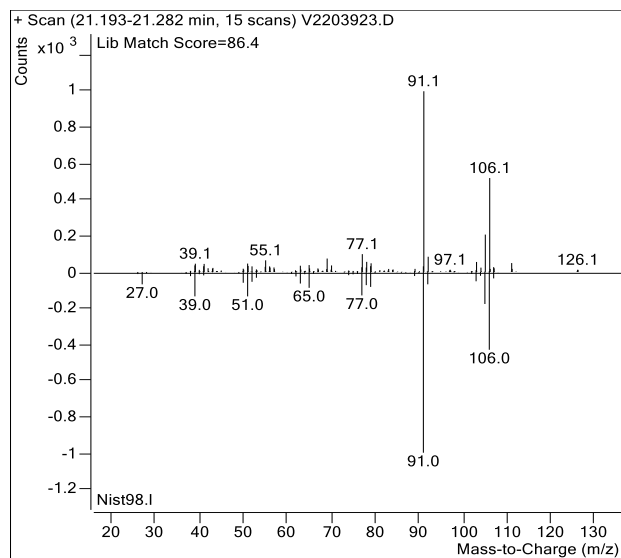
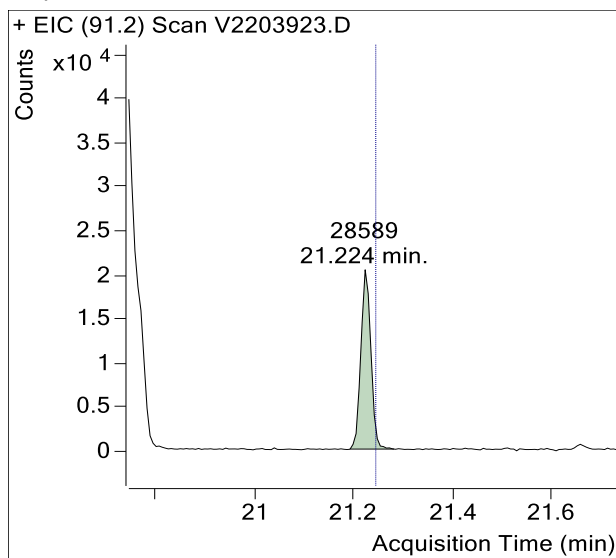
## Ethylbenzene



## m-/p-Xylenes

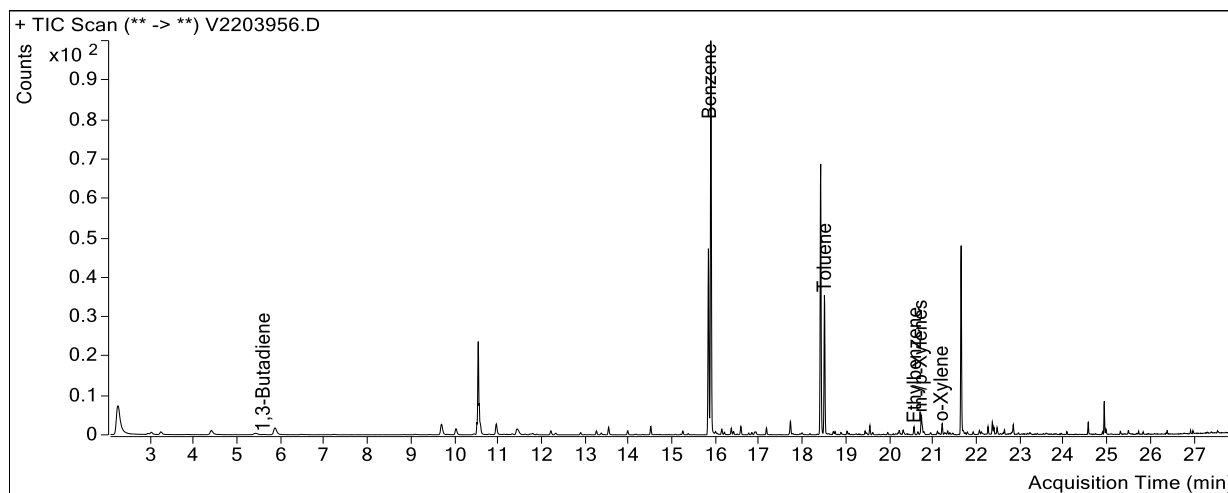


## o-Xylene





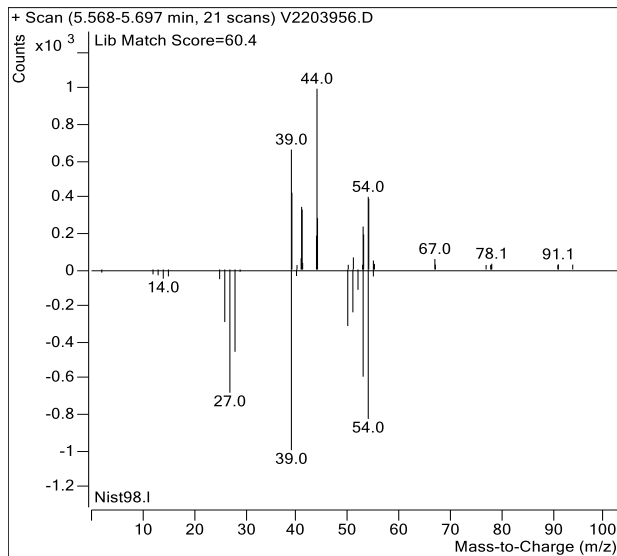
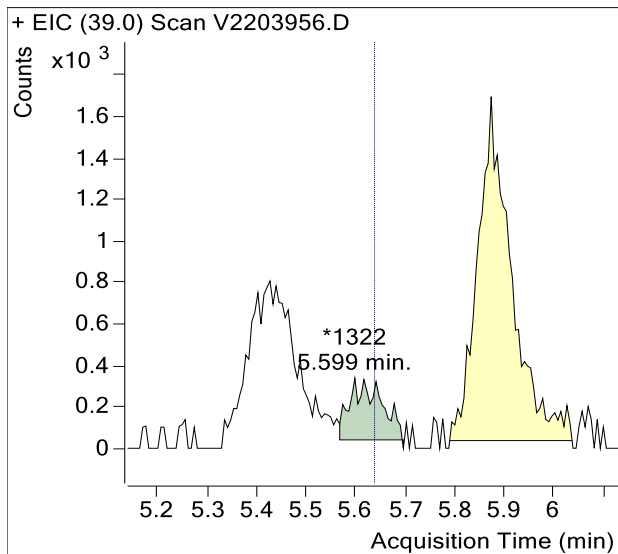
Sample Name : USSCL-PT10-S-20230103  
Sample Info : C01323; Recollect  
Data File : V2203956.D  
Acquisition Date : 2023-01-24 14:33:45  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



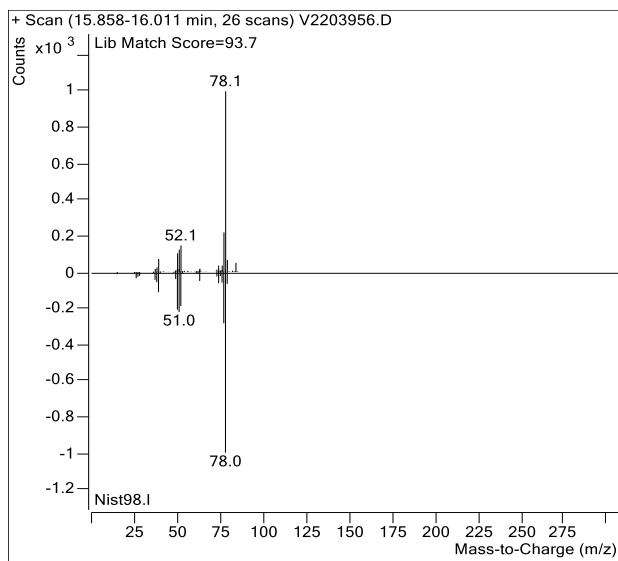
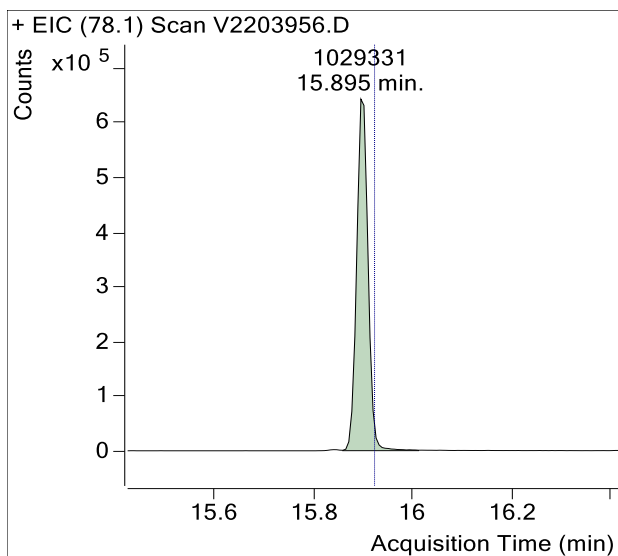
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	1,322	m
Benzene-d6 (IS)	15.86	498,367	
Benzene	15.92	1,029,331	
Toluene-d8 (IS)	18.45	521,559	
Toluene	18.53	293,503	
Ethylbenzene	20.59	16,694	
m-/p-Xylenes	20.78	45,511	
o-Xylene	21.24	17,644	

(m)=Manual Integration

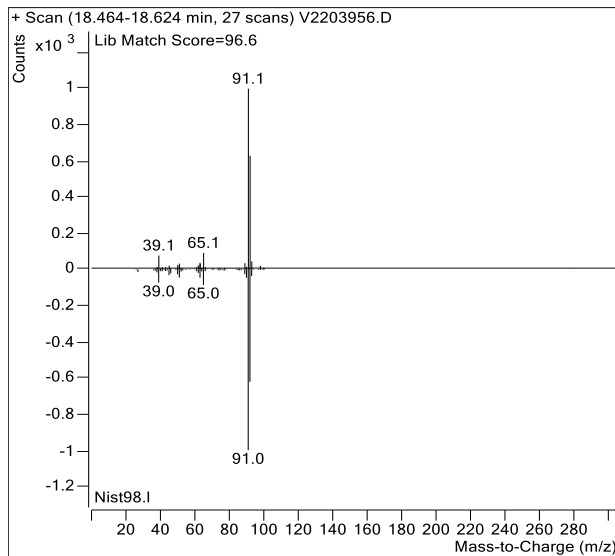
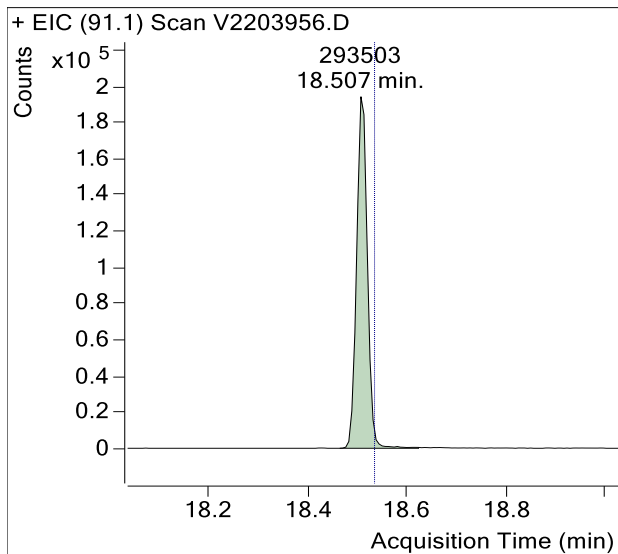
## 1,3-Butadiene



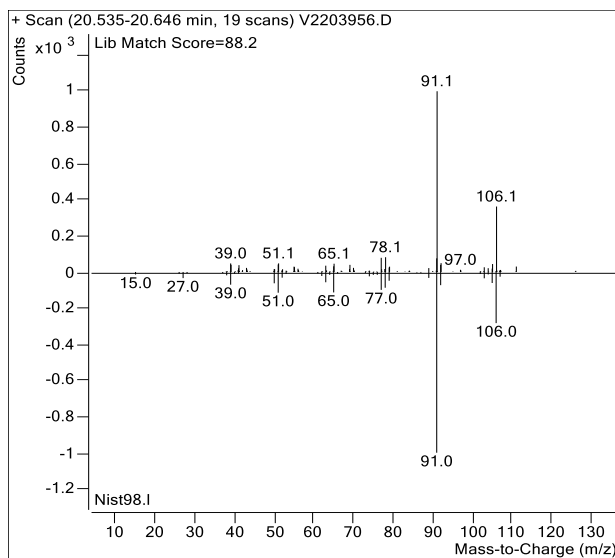
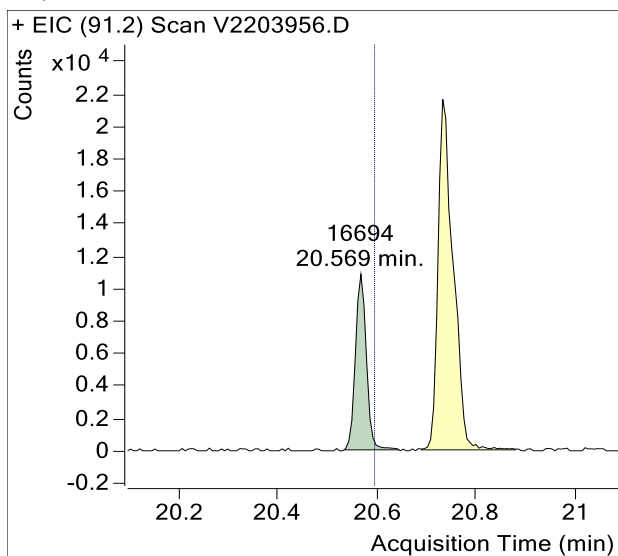
## Benzene



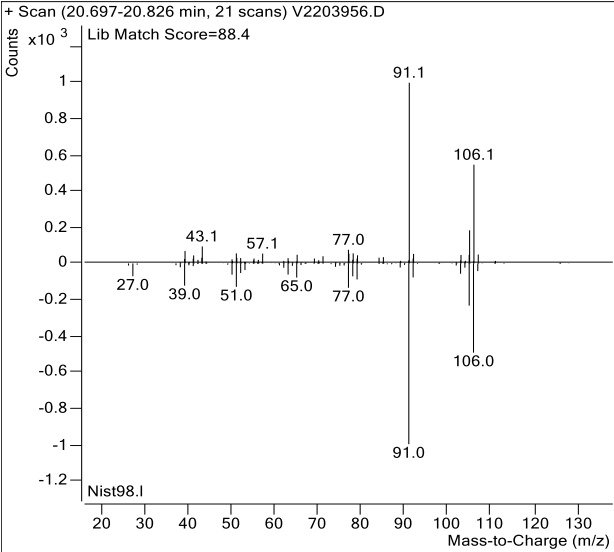
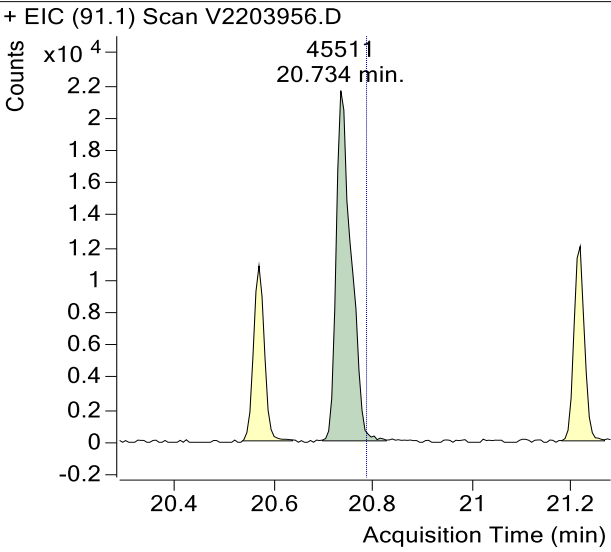
## Toluene



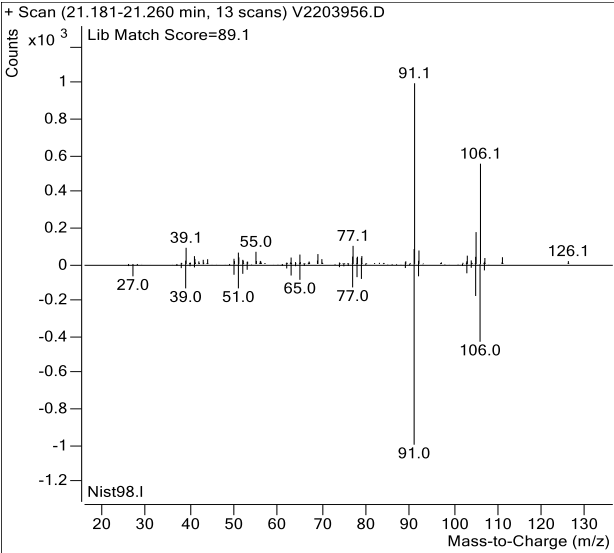
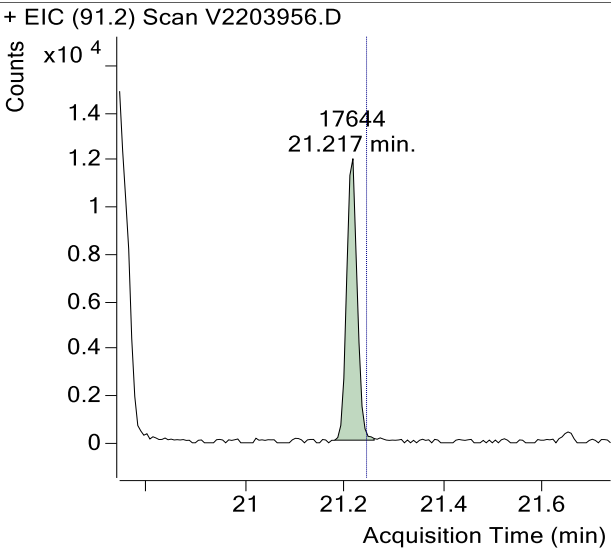
## Ethylbenzene



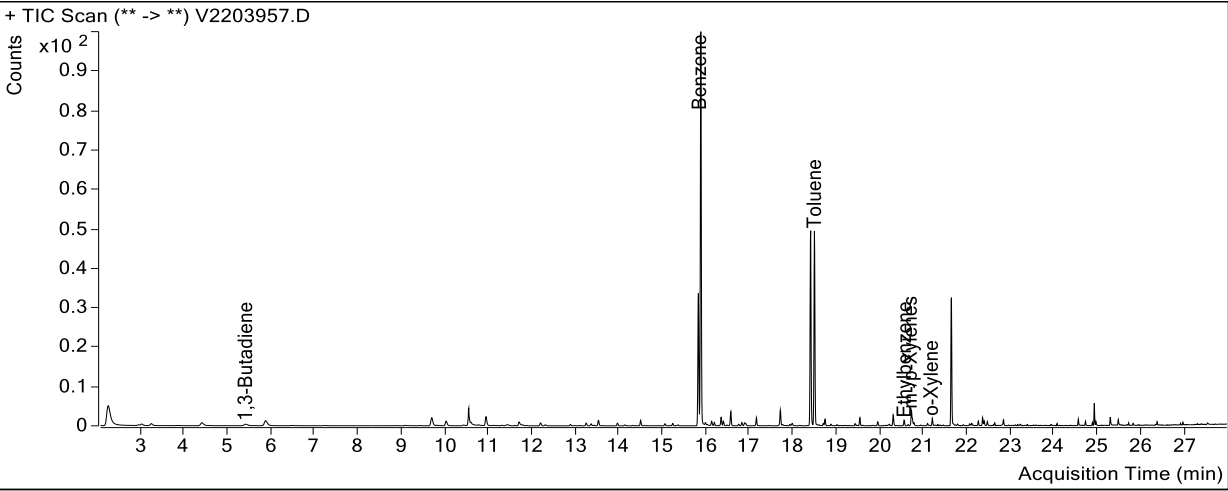
m-/p-Xylenes



o-Xylene



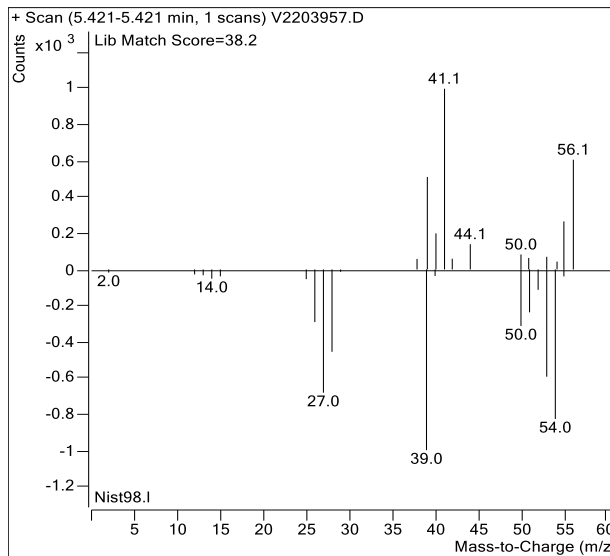
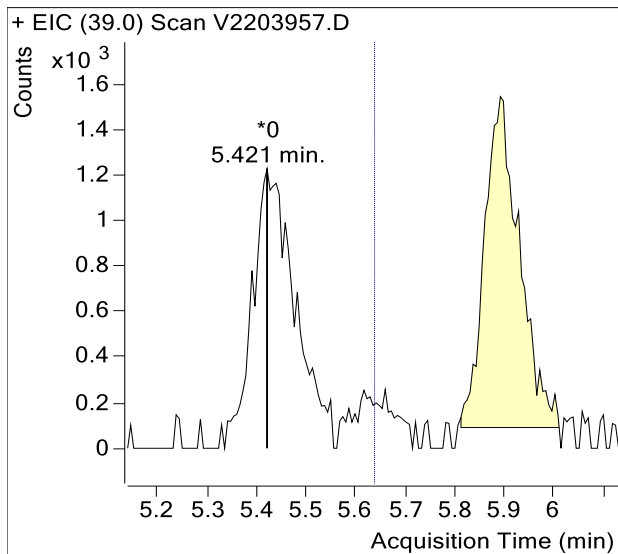
Sample Name : USSCL-PT11-S-20230103  
Sample Info : C01643; Recollect  
Data File : V2203957.D  
Acquisition Date : 2023-01-24 15:12:28  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



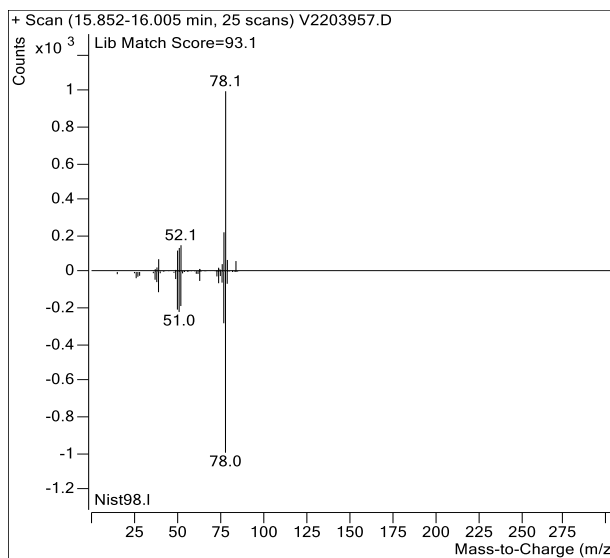
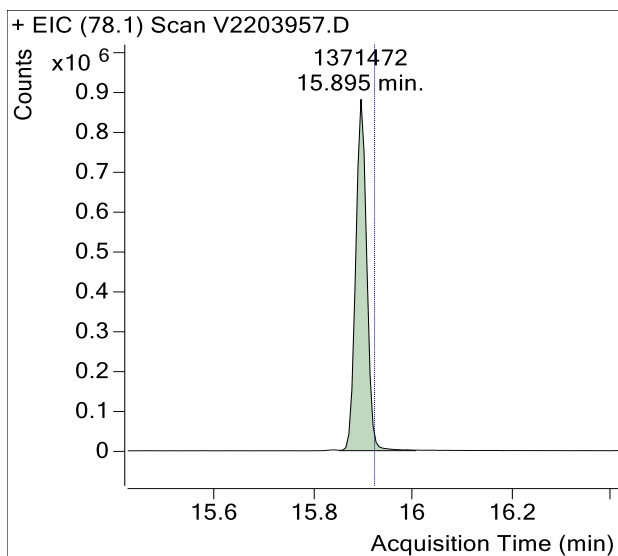
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	498,596	
Benzene	15.92	1,371,472	
Toluene-d8 (IS)	18.45	518,836	
Toluene	18.53	565,221	
Ethylbenzene	20.59	17,495	
m-/p-Xylenes	20.78	47,717	
o-Xylene	21.24	16,572	

(m)=Manual Integration

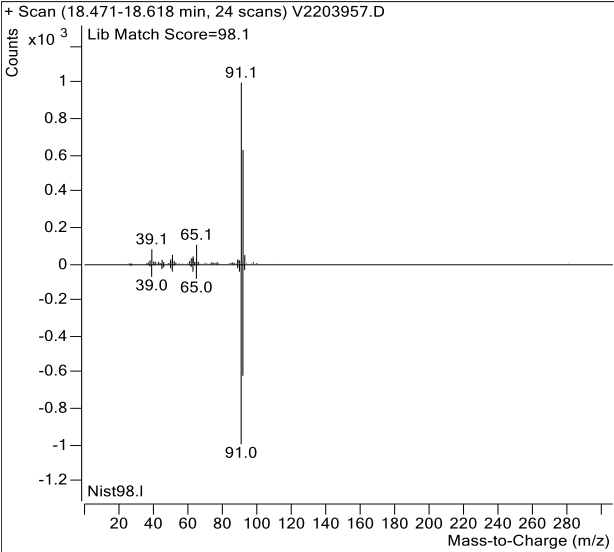
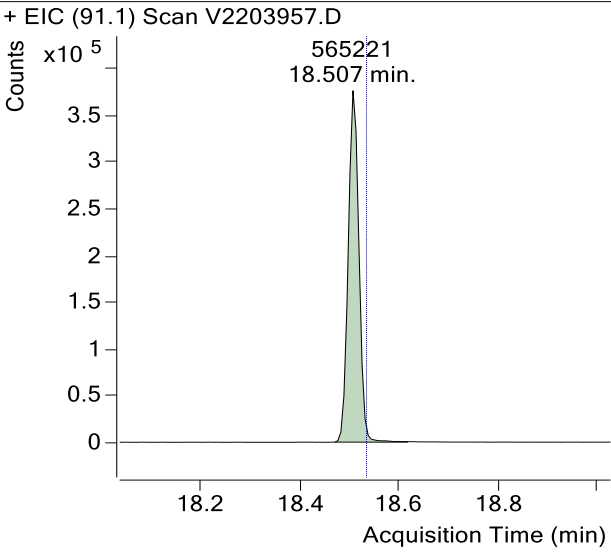
## 1,3-Butadiene



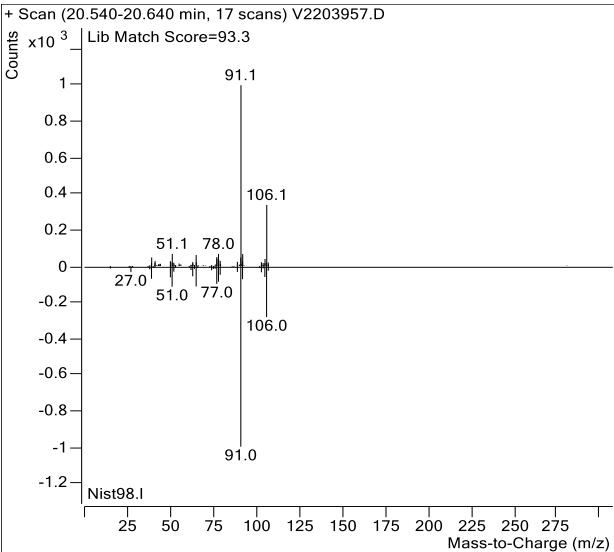
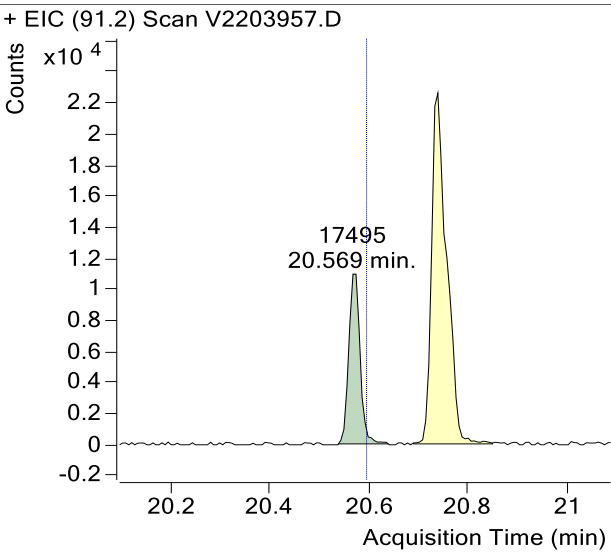
## Benzene



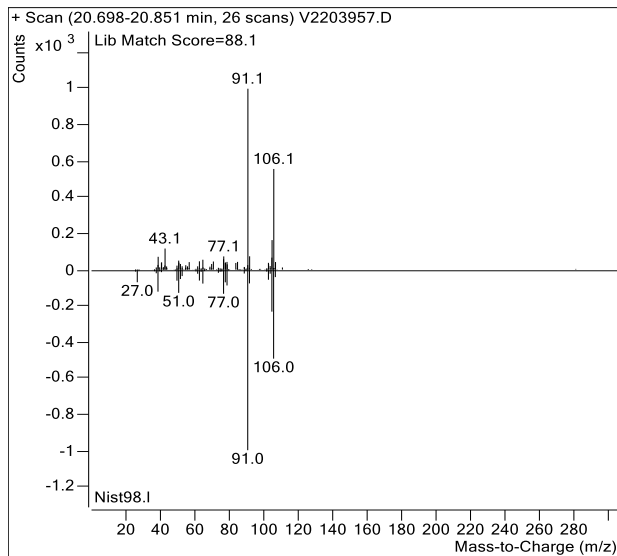
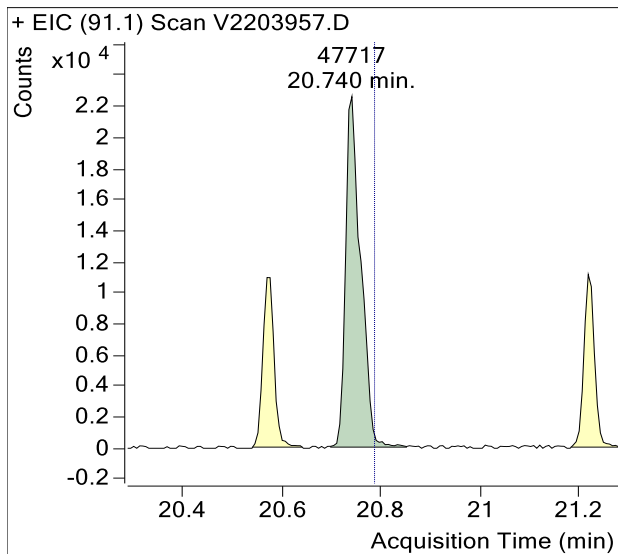
Toluene



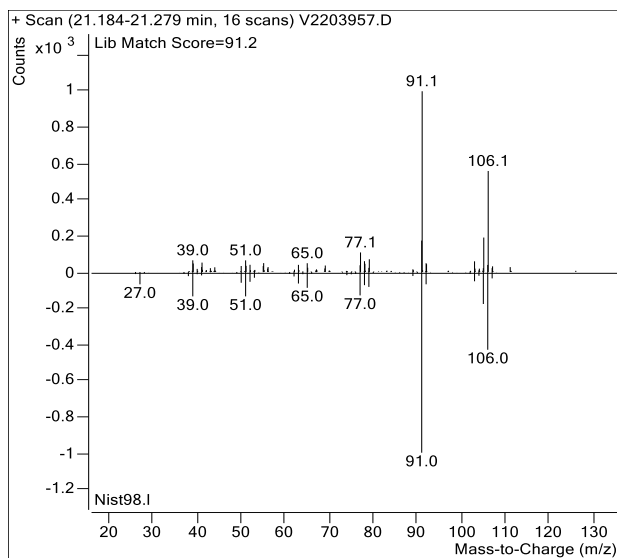
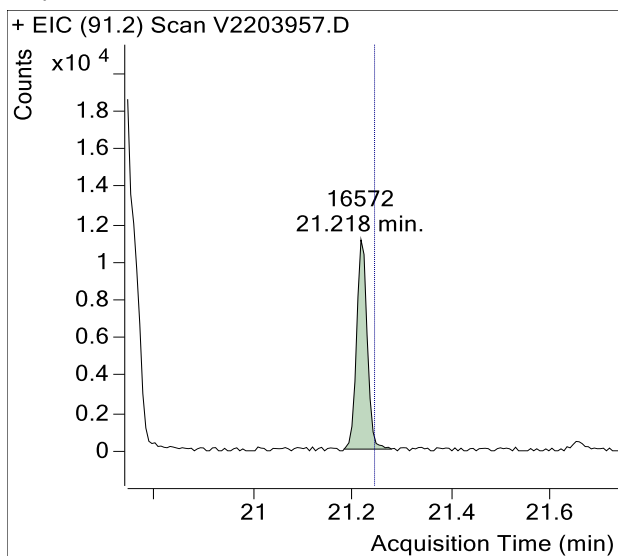
Ethylbenzene



## m-/p-Xylenes

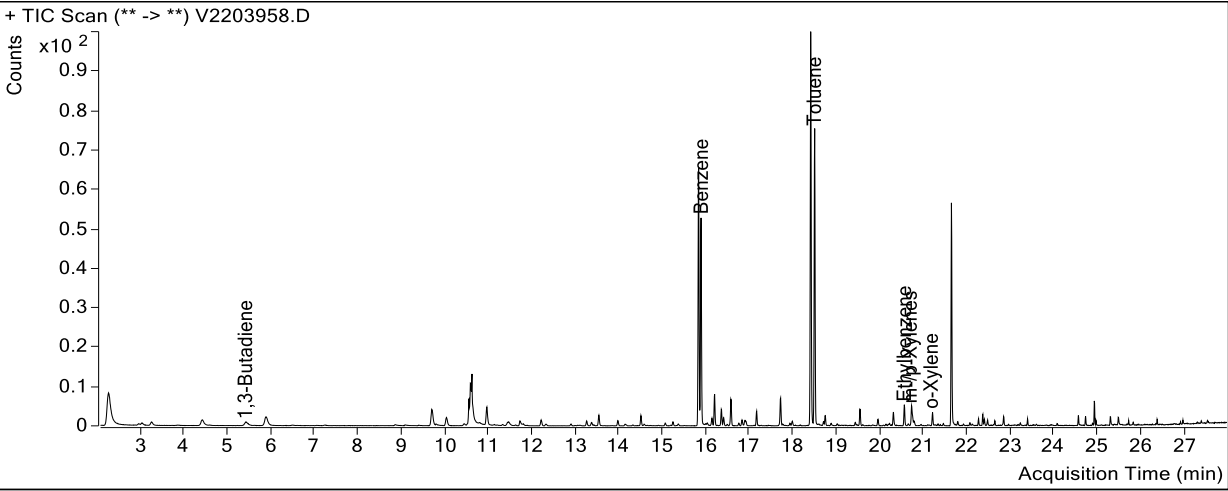


## o-Xylene





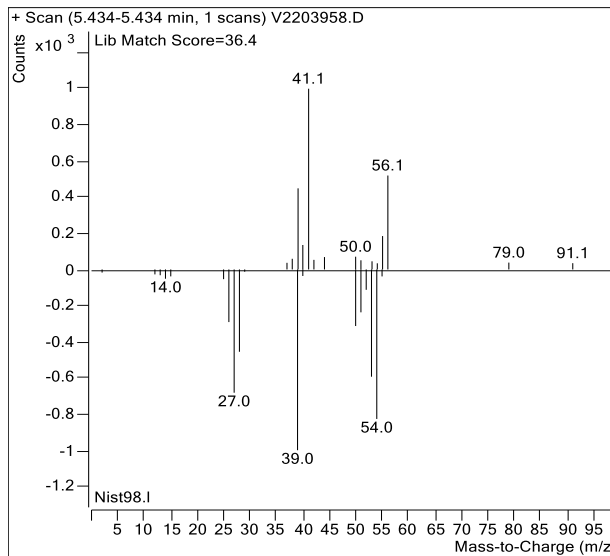
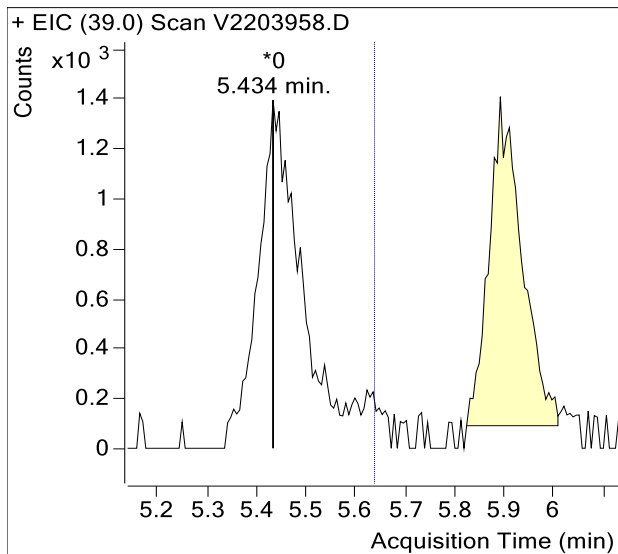
Sample Name : USSCL-PT12-S-20230103  
Sample Info : B14773; Recollect  
Data File : V2203958.D  
Acquisition Date : 2023-01-24 15:51:07  
Instrument Method : M325B-TD-CRYO9  
Matrix : AIR



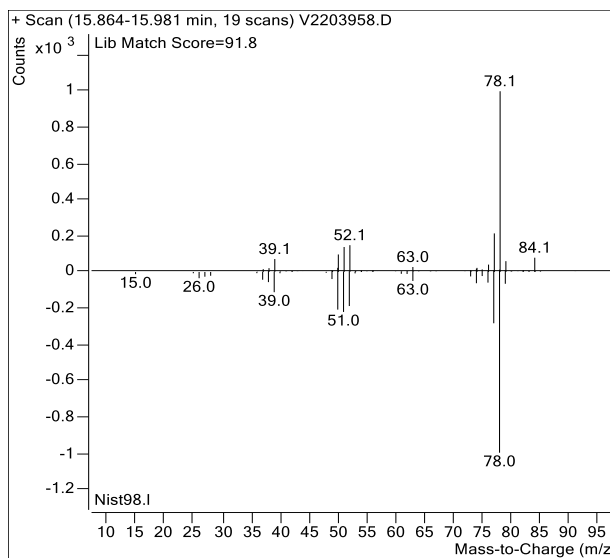
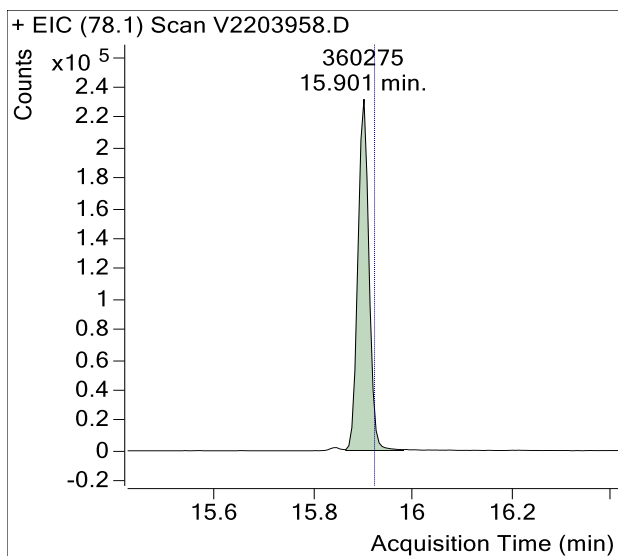
Compound	Retention Time	Response	Flags
1,3-Butadiene	5.64	0	m
Benzene-d6 (IS)	15.86	485,891	
Benzene	15.92	360,275	
Toluene-d8 (IS)	18.45	508,887	
Toluene	18.53	420,457	
Ethylbenzene	20.59	31,666	
m-/p-Xylenes	20.78	32,768	
o-Xylene	21.24	15,490	

(m)=Manual Integration

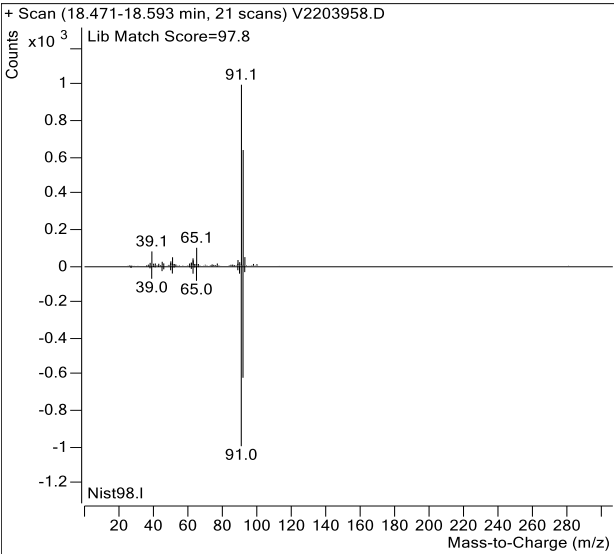
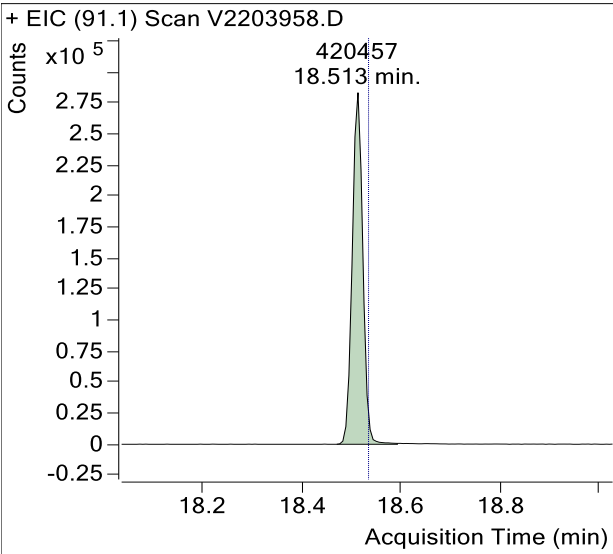
## 1,3-Butadiene



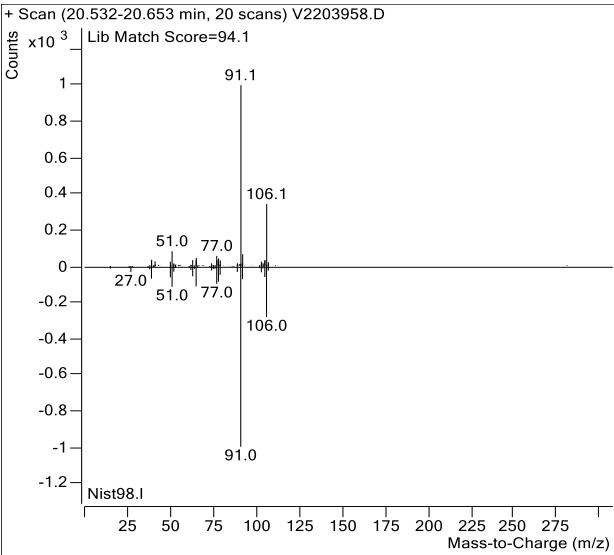
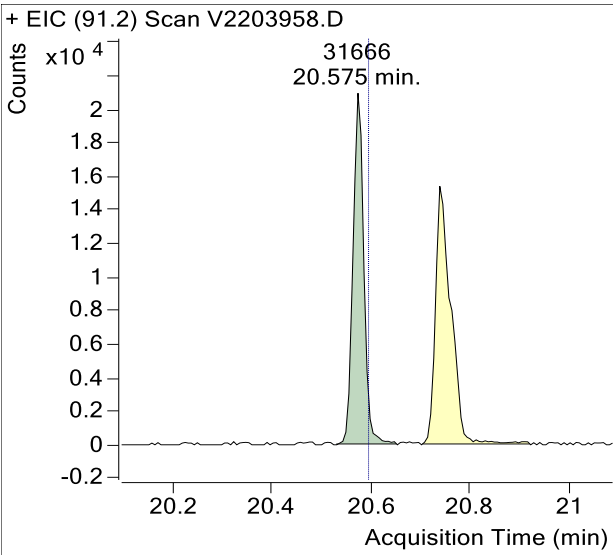
## Benzene



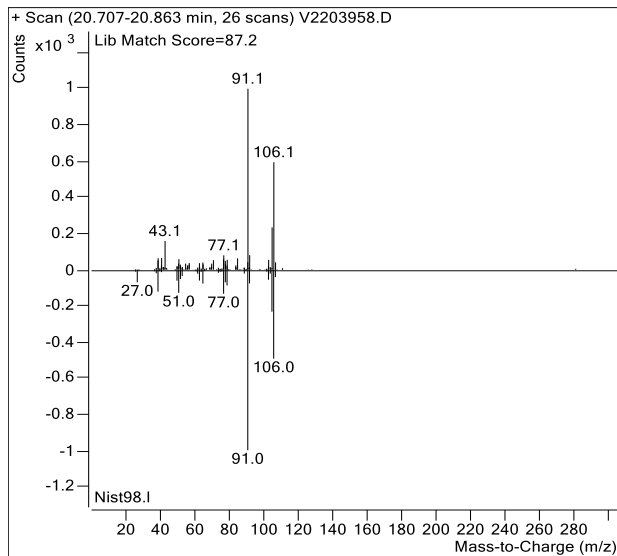
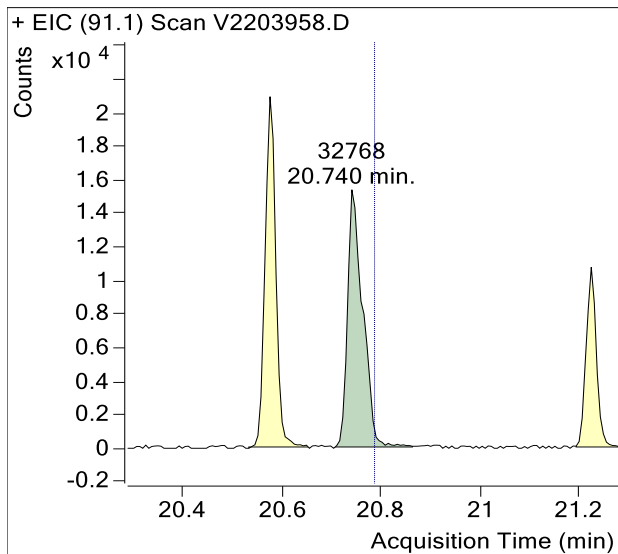
Toluene



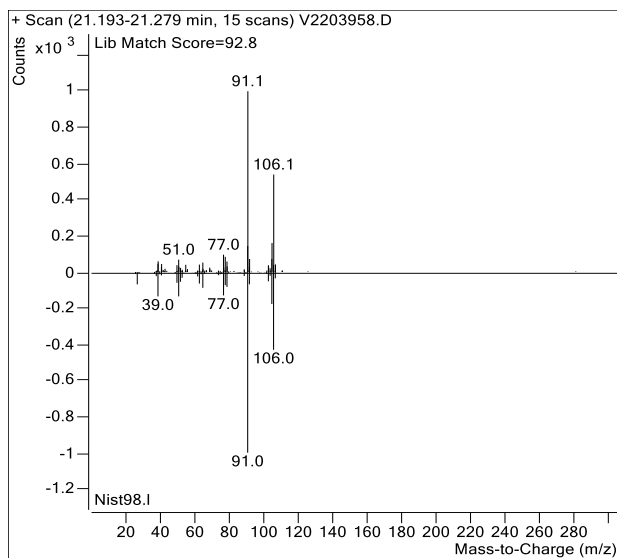
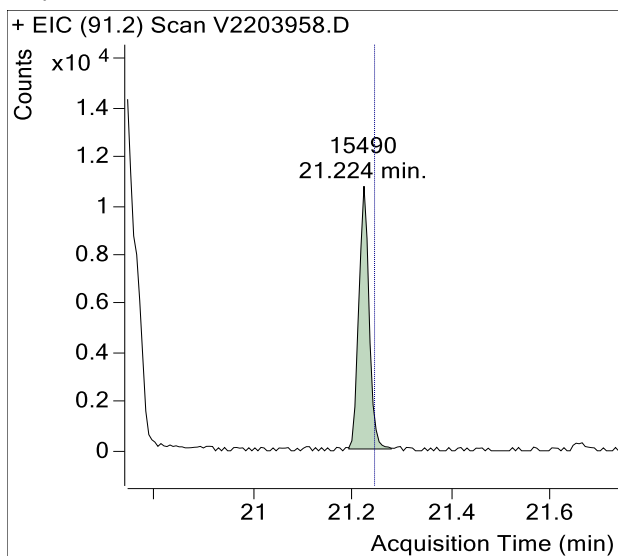
Ethylbenzene



## m-/p-Xylenes



## o-Xylene



# Calibration Summary Reports



## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### 1,3-Butadiene Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	0.219	0.187	0.219	17%	-8.3%		Pass	
2023EE102 Method Blank	Blank		0.187	0.219			12%	Pass	ND
M325B CCV 5	Check	0.173	0.187	0.219	-7.5%		14%	Pass	
M325B CCV 5	Cal	0.210	0.187	0.210	12%	-25%		Pass	
M325B CCV 5	Check	0.206	0.187	0.210	10%		-1.4%	Pass	

### Benzene Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	1.027	1.054	1.027	-2.6%	-8.3%		Pass	
2023EE102 Method Blank	Blank		1.054	1.027			12%	Pass	ND
M325B CCV 5	Check	1.024	1.054	1.027	-2.9%		14%	Pass	
M325B CCV 5	Cal	1.025	1.054	1.025	-2.8%	-25%		Pass	
M325B CCV 5	Check	1.041	1.054	1.025	-1.3%		-1.4%	Pass	

### Ethylbenzene Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	1.390	1.731	1.390	-20%	0.82%		Pass	
2023EE102 Method Blank	Blank		1.731	1.390			-2.2%	Pass	ND
M325B CCV 5	Check	1.369	1.731	1.390	-21%		-0.56%	Pass	
M325B CCV 5	Cal	1.442	1.731	1.442	-17%	-28%		Pass	
M325B CCV 5	Check	1.419	1.731	1.442	-18%		-2.9%	Pass	

### m-/p-Xylenes Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	1.054	1.310	1.054	-19%	0.82%		Pass	
2023EE102 Method Blank	Blank		1.310	1.054			-2.2%	Pass	ND
M325B CCV 5	Check	1.046	1.310	1.054	-20%		-0.56%	Pass	
M325B CCV 5	Cal	1.089	1.310	1.089	-17%	-28%		Pass	
M325B CCV 5	Check	1.049	1.310	1.089	-20%		-2.9%	Pass	

## Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

### o-Xylene Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	1.071	1.476	1.071	-27%	0.82%		Pass	
2023EE102 Method Blank	Blank		1.476	1.071			-2.2%	Pass	ND
M325B CCV 5	Check	1.073	1.476	1.071	-27%		-0.56%	Pass	
M325B CCV 5	Cal	1.113	1.476	1.113	-25%	-28%		Pass	
M325B CCV 5	Check	1.065	1.476	1.113	-28%		-2.9%	Pass	

### Toluene Calibration and Blanks

Sample Code	Type	RRF	ICAL RRF	Last CCV RRF	RRF Change	ISTD Change vs ICal	ISTD Change vs Concal	Pass/ Fail	Flags
M325B CCV 5	Cal	1.217	1.341	1.217	-9.2%	0.82%		Pass	
2023EE102 Method Blank	Blank		1.341	1.217			-2.2%	Pass	ND
M325B CCV 5	Check	1.217	1.341	1.217	-9.2%		-0.56%	Pass	
M325B CCV 5	Cal	1.246	1.341	1.246	-7.1%	-28%		Pass	
M325B CCV 5	Check	1.249	1.341	1.246	-6.9%		-2.9%	Pass	

# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## Calibration Curves

Method	Compound	Level	Cal File	Amount (ng)	Area	ISTD Amt (ng)	ISTD Area	RRF	Dev
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	1	V2203582.D	5.33	7764	92.4	731618	0.183	-1.8%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	2	V2203583.D	10.66	15585	92.4	719073	0.187	0.24%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	3	V2203584.D	21.31	30705	92.4	709285	0.187	0.11%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	4	V2203585.D	42.62	53143	92.4	718633	0.160	-14%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	5	V2203586.D	106.56	149214	92.4	718750	0.179	-4.0%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	6	V2203587.D	213.12	343542	92.4	712897	0.208	11%
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	7	V2203588.D	639.36	1002403	92.4	711892	0.202	8.5%
						Avg:	717450	0.187	
						%RSD:	1.0%	8.5%	
V010423A_BUT_BTEX.quantmethod.xml	Benzene	1	V2203582.D	5.34	47399	92.4	731618	1.116	5.9%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	2	V2203583.D	10.67	86487	92.4	719073	1.036	-1.7%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	3	V2203584.D	21.35	168828	92.4	709285	1.025	-2.8%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	4	V2203585.D	42.69	331745	92.4	718633	0.994	-5.7%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	5	V2203586.D	106.73	838826	92.4	718750	1.005	-4.7%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	6	V2203587.D	213.47	1831707	92.4	712897	1.107	5.0%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	7	V2203588.D	640.40	5442105	92.4	711892	1.098	4.1%
						Avg:	717450	1.054	
						%RSD:	1.0%	4.8%	



# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## Calibration Curves

Method	Compound	Level	Cal File	Amount (ng)	Area	ISTD Amt (ng)	ISTD Area	RRF	Dev
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	1	V2203582.D	5.49	67871	109.3	794465	1.664	-3.9%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	2	V2203583.D	10.97	162425	109.3	789377	2.004	16%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	3	V2203584.D	21.94	316603	109.3	785741	1.962	13%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	4	V2203585.D	43.89	626456	109.3	787694	1.937	12%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	5	V2203586.D	109.71	1150358	109.3	795718	1.408	-19%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	6	V2203587.D	219.43	2366859	109.3	779253	1.479	-15%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	7	V2203588.D	658.29	7979722	109.3	778959	1.663	-3.9%
						Avg:	787315	1.731	
						%RSD:	0.84%	14%	
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	1	V2203582.D	5.52	53479	109.3	794465	1.303	-0.50%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	2	V2203583.D	11.04	123690	109.3	789377	1.517	16%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	3	V2203584.D	22.08	243950	109.3	785741	1.503	15%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	4	V2203585.D	44.16	488742	109.3	787694	1.501	15%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	5	V2203586.D	110.41	887701	109.3	795718	1.080	-18%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	6	V2203587.D	220.81	1808104	109.3	779253	1.123	-14%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	7	V2203588.D	662.44	5509118	109.3	778959	1.141	-13%
						Avg:	787315	1.310	
						%RSD:	0.84%	15%	

# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## Calibration Curves

Method	Compound	Level	Cal File	Amount (ng)	Area	ISTD Amt (ng)	ISTD Area	RRF	Dev
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	1	V2203582.D	5.55	58616	109.3	794465	1.420	-3.8%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	2	V2203583.D	11.10	145370	109.3	789377	1.772	20%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	3	V2203584.D	22.21	280767	109.3	785741	1.719	16%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	4	V2203585.D	44.42	565063	109.3	787694	1.726	17%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	5	V2203586.D	111.04	940928	109.3	795718	1.138	-23%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	6	V2203587.D	222.09	1874162	109.3	779253	1.157	-22%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	7	V2203588.D	666.27	6804008	109.3	778959	1.401	-5.1%
						Avg:	787315	1.476	
						%RSD:	0.84%	18%	
V010423A_BUT_BTEX.quantmethod.xml	Toluene	1	V2203582.D	5.54	63301	109.3	794465	1.536	15%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	2	V2203583.D	11.08	113600	109.3	789377	1.387	3.5%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	3	V2203584.D	22.17	217038	109.3	785741	1.332	-0.70%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	4	V2203585.D	44.34	429512	109.3	787694	1.314	-2.0%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	5	V2203586.D	110.84	961554	109.3	795718	1.165	-13%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	6	V2203587.D	221.68	2032113	109.3	779253	1.257	-6.3%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	7	V2203588.D	665.05	6760423	109.3	778959	1.395	4.0%
						Avg:	787315	1.341	
						%RSD:	0.84%	8.7%	

# Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE102-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

## Calibration Curves

Method	Compound	Level	Cal File	Amount (ng)	Area	ISTD Amt (ng)	ISTD Area	RRF	Dev
V010423A_BUT_BTEX.quantmethod.xml	1,3-Butadiene	ICV	V2203611.D	106.10	158480	92.4	727760	0.189	1.2%
V010423A_BUT_BTEX.quantmethod.xml	Benzene	ICV	V2203611.D	100.79	815037	92.4	727760	1.022	-3.1%
V010423A_BUT_BTEX.quantmethod.xml	Ethylbenzene	ICV	V2203611.D	97.47	998208	109.3	788911	1.387	-20%
V010423A_BUT_BTEX.quantmethod.xml	m-/p-Xylenes	ICV	V2203611.D	97.63	766279	109.3	788911	1.063	-19%
V010423A_BUT_BTEX.quantmethod.xml	o-Xylene	ICV	V2203611.D	98.53	803597	109.3	788911	1.105	-25%
V010423A_BUT_BTEX.quantmethod.xml	Toluene	ICV	V2203611.D	100.66	882829	109.3	788911	1.188	-11%

**This Is The Last Page  
Of This Report.**