

Progress/Inspection Report No. 23
J&H Holding Company, LLC
491 Wortman Avenue, Brooklyn, NY 11208
Brownfield Cleanup Program Site No. C224139
Reporting Period: July – September 2019

1. Introduction

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) submits this progress/inspection report on behalf of J&H Holding Company, LLC (the "Participant") for the Former Watermark Designs Facility (the "Site"). Monitoring and maintenance activities were performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved the Site Management Plan (SMP), which outlined a monthly submittal schedule for progress/inspection reports. In accordance with an email from Alicia Barraza dated January 11, 2019, the schedule for progress/inspection reports was modified to quarterly. This progress/inspection report covers the period between July and September, 2019.

The Site (Block 4384, Lots 31 & 36) is located at 491 Wortman Avenue in Brooklyn, New York (Figure 1) and consists of a rectangular-shaped lot that is about 19,000 square feet (± 0.44 acres). The Site is located in an area zoned for industrial/manufacturing use and is bound by Wortman Street to the south, Linwood Street to the west, Essex Street to the east, and a one-story building to the north. Currently, a one-story building with a partial basement covers the entire Site footprint. The one-story building was previously used as a warehouse and office space and is currently occupied by a new tenant for commercial use.

2. Remedial Actions Relative to the Site during this Reporting Period

Langan performed operation, maintenance, and monitoring (OM&M) activities for the Air Sparge (AS)/Soil Vapor Extraction (SVE) system on August 1, 2019. The AS/SVE system was shut down on September 17, 2019 pursuant to a letter (dated September 13, 2019) from the NYSDEC approving the temporary shutdown of the AS/SVE system. Transition to long-term engineering controls (i.e., sub-slab depressurization and composite cover) will be re-evaluated by the NYSDEC after two additional rounds (September and December 2019) of quarterly groundwater monitoring.

The annual vapor sampling event was conducted on August 6, 2019. Soil vapor samples were collected for volatile organic compounds (VOC) laboratory analysis via United State Environmental Protection Agency (USEPA) Method TO-15. Soil vapor sampling locations are shown on Figure 2. Soil vapor analytical results from the annual vapor sampling event are included in Table 1.

A quarterly groundwater sampling event was conducted on September 19 and 20, 2019. Depth-to-water, total depth, and photoionization detector (PID) well headspace measurements were collected at monitoring wells MW-1, MW-2, MW-3AS, MW-6, MW-7, MW-9, MW-10, MW-11, MW-16, MW-17, MW-18S, MW-18M, MW-10, and PZ-2. Following the collection of field data, the monitoring wells were purged until water quality parameters stabilized, at which point groundwater samples were collected for laboratory analysis of Target Compound List (TCL)

VOCs. This set of wells was sampled during the Supplemental Design Investigation (SDI)/Quarterly Groundwater Sampling Event that occurred between March 5 and 8, 2019 and is consistent with the monitoring well sampling schedule in the NYSDEC September 13, 2019 letter. Groundwater sampling locations are shown on Figure 2. Groundwater sample analytical results from the quarterly groundwater monitoring event are included in Table 2.

On October 4, 2019, Langan submitted a sub-slab depressurization system design to the NYSDEC. The design includes two options – 1A reusing the existing SVE system piping network along with a suction pit system and 1B using suction pits throughout the Site. The two options were presented to coordinate the new owner's business operations.

3. Actions Relative to the Site Anticipated for the Next Reporting Period

The following activities are planned:

- Bidding and procurement of a contractor to install the subslab depressurization system.
- Performance of a Quarterly Groundwater Monitoring Event in early December 2019. The monitoring event will include sampling and analysis of wells MW-1, MW-2, MW-3AS, MW-6, MW-7, MW-9, MW-10, MW-11, MW-16, PZ-2, MW-17, MW-18S, MW-18M, and MW-19.
- Submission of a letter requesting to approve decommissioning the AS/SVE system and transition into long-term operation, maintenance, and protection of engineering controls to manage residual contamination and mitigate vapor intrusion. The letter will document the results of the September and December, 2019 Quarterly Groundwater Monitoring Events.

4. Approved Activity Modifications (changes of work scope and/or schedule)

On September 13, 2019, the NYSDEC approved the temporary shutdown of the AS/SVE system and plan to transition the Site to long-term engineering controls (i.e., sub-slab depressurization and composite cover) after two rounds of quarterly groundwater monitoring.

5. Results of Sampling, Testing and Other Relevant Data

The annual vapor sampling event was conducted on August 6, 2019. Soil vapor samples were collected for VOC laboratory analysis via USEPA Method TO-15. Samples were analyzed by Alpha Analytical, Inc. (Alpha), a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. Total VOCs ranged from 1,560 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in VP-06 to 12,700 $\mu\text{g}/\text{m}^3$ in VP-01. Soil vapor analytical results from the annual vapor sampling event are included as Table 1.

The September 2019 quarterly groundwater sample analytical results were compared to the NYSDEC Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1. Ambient Water Quality Standards and Guidance Values for Class GA water (herein referred to as "NYSDEC SGVs"). A summary of the groundwater analytical results is provided below:

September 2019 Quarterly Groundwater Monitoring Event

- Chloroform exceeded the NYSDEC SGV (7 micrograms per liter [µg/L]) in monitoring wells MW-10 and MW-11 at 47 µg/L and 9.7 µg/L, respectively.
- Cis-1,2-Dichloroethene exceeded the NYSDEC SGV (5 µg/L) in four monitoring wells (MW-6, MW-17, MW-18S, and MW-19) at concentrations ranging from 5.8 µg/L to 36 µg/L.
- Tetrachloroethene (PCE) exceeded the NYSDEC SGV (5 µg/L) in seven monitoring wells (MW3AS, MW-6, MW-11, MW-17, MW-18S, MW-18M, MW-19) at concentrations ranging from 9.6 µg/L to 2,600 µg/L.
- Trichloroethene (TCE) exceeded the NYSDEC SGV (5 µg/L) in seven monitoring wells (MW-3AS, MW-6, MW-11, MW-17, MW-18S, MW-18M, and MW-19) at concentrations ranging from 7 µg/L to 1,800 µg/L.

No CVOCs were detected at concentrations exceeding the NYSDEC SGVs in four of the five on-site monitoring wells (MW-1, MW-2, MW-9, and PZ-2). PCE and TCE were detected in on-site monitoring well, MW-3S, at concentrations of 9.6 µg/L and 7 µg/L, respectively. Analytical results from on-site monitoring wells are consistent with previous environmental investigations and monitoring events and demonstrate that the AS/SVE system has been effective for remediating CVOC contamination at the site.

Analytical results from off-site monitoring wells (MW-6, MW-7, MW-10, MW-11, MW-16S, MW-17, MW-18S, MW-18M, and MW-19) were consistent with the previous quarter's sampling results. Four CVOCs were detected at concentrations exceeding the NYSDEC SGVs in off-site monitoring wells and concentrations of PCE and TCE in monitoring well MW-19 were greater than the respective baseline (August 2015) concentrations of either compound in any on-site monitoring wells. The off-site analytical results do not appear to be associated with historic on-site activities and indicate that an unidentified off-site source area likely exists to the north of the site.

Tabulated groundwater data from the September Quarterly Groundwater Monitoring Event is included in Table 2 and shown on Figure 2. A summary of quarterly CVOC concentrations from August 2015 to September 2019 is included in Table 3. A groundwater contour map based on depth-to-groundwater measurements taken in September 2019 is presented as Figure 4. The laboratory analytical data reports are included as Attachment 1.

6. Deliverables Submitted During This Reporting Period

A sub-slab depressurization system design was submitted to the NYSDEC on October 4, 2019.

7. Information Regarding Percentage of Completion

As of September 17, 2019 and since the system was first started, the SVE system operated for 30,648 hours (95% uptime), and the AS system operated for 29,105 hours (94% uptime).

8. Unresolved Delays Encountered or Anticipated That May Affect the Schedule and Mitigation Efforts

None

9. Citizen Participation Plan Activities during This Reporting Period

None

10. Activities Anticipated in Support of the CPP for the Next Reporting Period

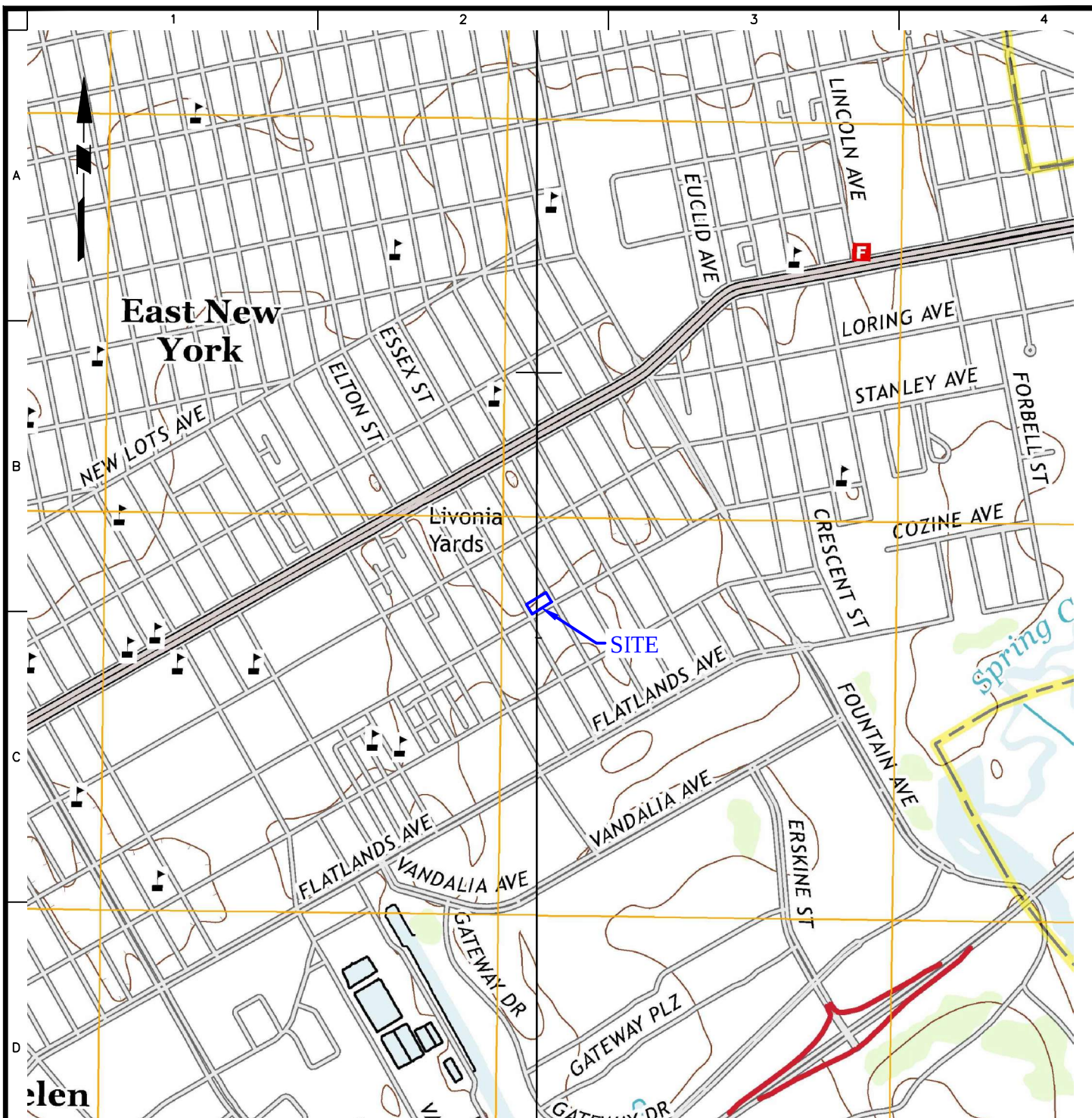
None

11. Miscellaneous Information

None

Enclosure(s): Figure 1 – Site Location Map
Figure 2 – September 2019 Groundwater Analytical Results Map
Figure 3 – September 2019 Groundwater Contour Map
Table 1 – Annual Soil Vapor Analytical Results Summary
Table 2 – September 2019 Groundwater Sample Analytical Results Summary –
VOCs
Table 3 – Groundwater Results Summary
Attachment 1 – Laboratory Analytical Data Reports

FIGURES



LEGEND:



APPROXIMATE SITE BOUNDARY

NOTE: BASE MAPS ARE REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC QUADRANGLE MAPS FOR BROOKLYN AND JAMAICA.

LANGAN

21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001

T: 212.479.5400 F: 212.479.5444 www.langan.com

Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

**491 WORTMAN
AVENUE**

BLOCK No. 4384, LOT Nos. 31 & 36
BROOKLYN

KINGS

NEW YORK

Figure Title

**SITE LOCATION
MAP**

Project No.
170329301

Date

04/18/2015

Scale

N.T.S.

Drawn By

Checked By

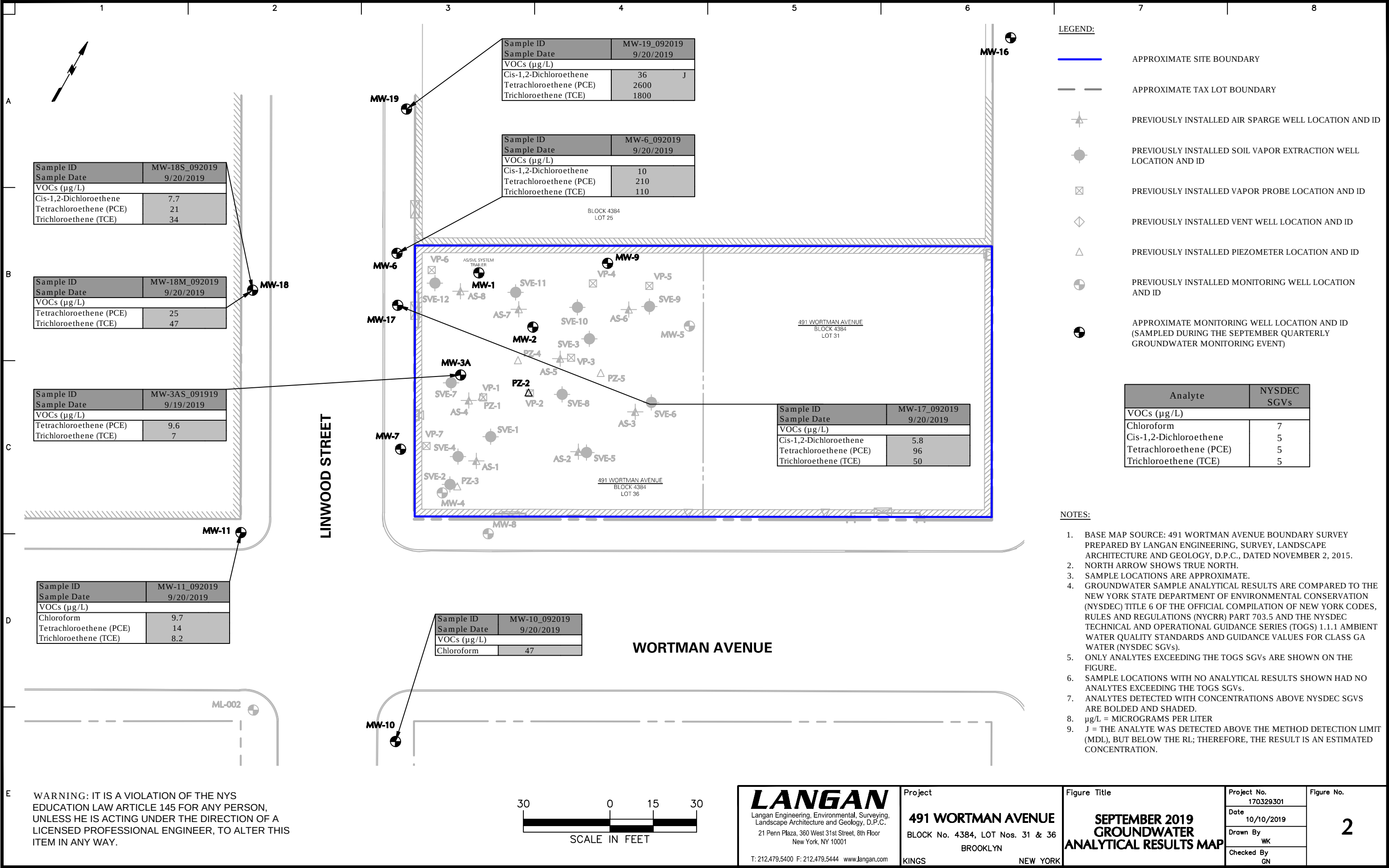
MLR

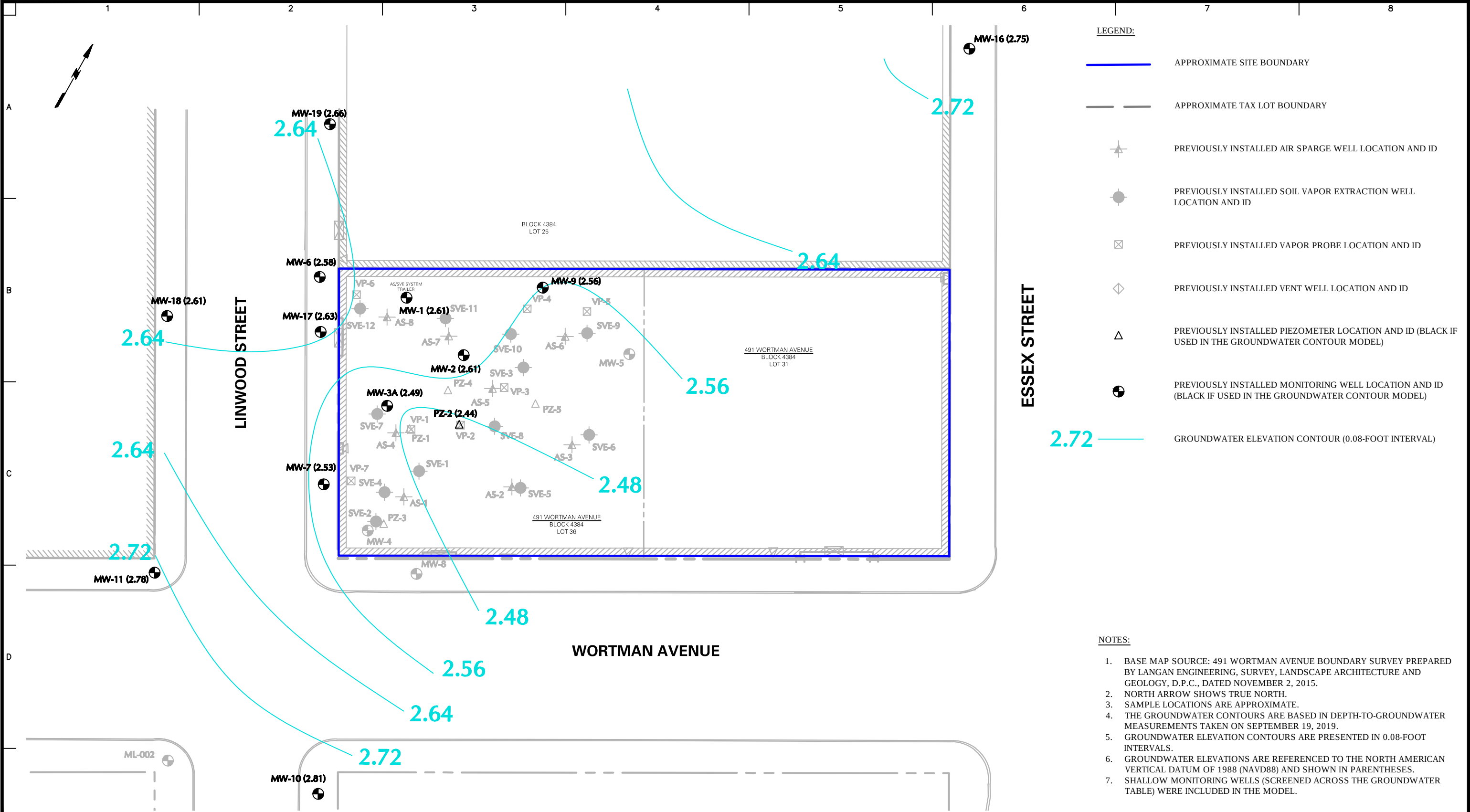
GN

Submission Date

Figure

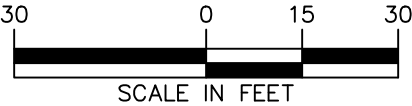
1





- NOTES:**
1. BASE MAP SOURCE: 491 WORTMAN AVENUE BOUNDARY SURVEY PREPARED BY LANGAN ENGINEERING, SURVEY, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C., DATED NOVEMBER 2, 2015.
 2. NORTH ARROW SHOWS TRUE NORTH.
 3. SAMPLE LOCATIONS ARE APPROXIMATE.
 4. THE GROUNDWATER CONTOURS ARE BASED IN DEPTH-TO-GROUNDWATER MEASUREMENTS TAKEN ON SEPTEMBER 19, 2019.
 5. GROUNDWATER ELEVATION CONTOURS ARE PRESENTED IN 0.08-FOOT INTERVALS.
 6. GROUNDWATER ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND SHOWN IN PARENTHESES.
 7. SHALLOW MONITORING WELLS (SCREENED ACROSS THE GROUNDWATER TABLE) WERE INCLUDED IN THE MODEL.

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.



LANGAN
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

Project
491 WORTMAN AVENUE
BLOCK No. 4384, LOT Nos. 31 & 36
BROOKLYN
KINGS NEW YORK

Figure Title
**SEPTEMBER 2019
GROUNDWATER
CONTOUR MAP**

Project No.
170329301
Date
10/14/2019
Drawn By
WK
Checked By
GN

Figure No.
3

TABLES

Table 1
Quarterly Monitoring Report
Annual Soil Vapor Analytical Results Summary

491 Wortman Avenue
 Brooklyn, New York
 BCP Site No: C224139
 Langan Project No.: 170329301

Location	VP-01		VP-02		VP-03		VP-04		VP-05		VP-06		VP-07	
Sample ID	VP-1_080619		VP-2_080619		VP-3_080619		VP-4_080619		VP-5_080619		VP-6_080619		VP-7_080619	
Laboratory ID	L1935043-04		L1935043-06		L1935043-07		L1935043-03		L1935043-05		L1935043-01		L1935043-02	
Sample Date	8/6/2019		8/6/2019		8/6/2019		8/6/2019		8/6/2019		8/6/2019		8/6/2019	
Sample Type	SV		SV		SV		SV		SV		SV		SV	
Volatile Organic Compounds (µg/m³)														
1,1,1-Trichloroethane	9.98		3.9	U	4.91		12.2		8.4		6.77		8.57	
1,2,4-Trimethylbenzene	34	U	6.19		11.2		14.8		11		6.49		11.9	
1,2-Dichloropropane	31.9	U	3.3	U	3.3	U	2.31	U	6.61	U	4.52		2.31	U
1,3,5-Trimethylbenzene (Mesitylene)	34	U	3.51	U	3.51	U	4.47		7.03	U	2.46	U	3.69	
4-Ethyltoluene	34	U	3.51	U	3.51	U	4.08		7.03	U	2.46	U	3.5	
Acetone	228		120		131		225		195		92.9		252	
Carbon Disulfide	21.5	U	2.27		3.27		7.1		11.8		2.44		3.55	
Chloroform	33.7	U	3.49	U	29		2.49		6.98	U	2.44	U	2.44	U
Chloromethane	14.3	U	1.64		1.77		1.16		2.95	U	5.99		1.1	
Cis-1,2-Dichloroethene	3.96		2.85		2.83	U	1.98	U	0.567	U	1.98	U	1.98	U
Ethanol	326	U	33.5	U	33.5	U	53.7		67.3	U	25.6		55.6	
Ethyl Acetate	62.3	U	18.6		38.2		42.9		12.9	U	4.5	U	27.4	
Ethylbenzene	30	U	3.1	U	3.1	U	3.8		6.21	U	2.57		2.91	
Isopropanol	42.5	U	7.3		11.6		23		13		3.93		22.1	
M,P-Xylene	59.9	U	6.34		6.21	U	15.1		12.4	U	8.95		11.9	
Methyl Ethyl Ketone (2-Butanone)	386		549		696		145		1,280		165		475	
Methylene Chloride	64.3		6.18	U	6.18	U	4.34	U	12.4	U	4.34	U	12.1	
n-Heptane	28.3	U	2.93	U	2.93	U	7.62		5.86	U	2.05	U	9.59	
n-Hexane	24.4	U	2.52	U	2.52	U	1.76	U	5.04	U	2.15		1.76	U
o-Xylene (1,2-Dimethylbenzene)	30	U	3.1	U	3.1	U	6.04		6.21	U	2.96		4.52	
Tert-Butyl Alcohol	52.4	U	5.4	U	5.4	U	3.79	U	10.8	U	3.79	U	4	
Tetrachloroethene (PCE)	70.5		91.5		42.5		48.7		65.8		97		27.1	
Tetrahydrofuran	188		321		522		510		900		118		275	
Toluene	313		19.4		45.2		314		50.5		33		315	
Total 1,2-Dichloroethene (Cis and Trans)	3.96		NA		NA		NA		0.567	U	NA		NA	
Trichloroethene (TCE)	11,400		1,540		1,210		769		522		983		1,070	
Total VOCs	12,700		2,690		2,750		2,210		3,060		1,560		2,600	

Notes:

1. Only detected analytes are shown in the table.
2. SV = Soil Vapor

Qualifiers:

U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

Table 2
Quarterly Progress Report
Groundwater Sample Analytical F

491 Wortman Avenue
Brooklyn, New York
NYSDEC BCP Site No. C2241
Langan Project No.: 1703293

Location		MW-1	MW-2	MW-3A-S	MW-6	MW-7	MW-9	MW-9	MW-10	MW-11	MW16-S	MW-17	MW-18S	MW-18M	MW-19	PZ-02			
Sample ID	NYSDEC	MW-1_091919	MW-2_091919	MW-3AS_091919	MW-6_092019	MW-7_092019	MW-9_091919	GWDUP01_091919	MW-10_092019	MW-11_092019	MW-16_091919	MW-17_092019	MW-18S_092019	MW-18M_092019	MW-19_092019	PZ-2_091919			
Laboratory ID	SGVs	L1943339-01	L1943339-02	L1943339-03	L1943646-02	L1943646-04	L1943339-04	L1943646-05	L1943646-06	L1943646-06	L1943339-06	L1943646-03	L1943646-08	L1943646-07	L1943646-01	L1943339-05			
Sample Date		9/19/2019	9/19/2019	9/19/2019	9/20/2019	9/20/2019	9/19/2019	9/19/2019	9/20/2019	9/20/2019	9/19/2019	9/20/2019	9/20/2019	9/20/2019	9/20/2019	9/19/2019			
Volatile Organic Compounds (µg/L)																			
1,1-Dichloroethene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J	10	U	0.5	U
Acetone	50	5	UJ	5	UJ	5	UJ	10	UJ	1.8	J	5	UJ	5	UJ	5	UJ	5	UJ
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	10	U	0.5	U
Chloroform	7	2.5	U	2.5	U	2.5	U	5	U	2.5	U	2.5	U	2.5	U	50	U	2.5	U
Cis-1,2-Dichloroethene	5	2.5	U	2.5	U	2	J	10		2.5	U	2.5	U	1.8	J	36	J	2.5	U
Tetrachloroethene (PCE)	5	1.8		1.2		9.6		210		0.96		1.6		2	J	7.4	J	7.7	U
Total 1,2-Dichloroethene (Cis and Trans)	~	2.5	U	2.5	U	2	J	12	J	2.5	U	2.5	U	1.8	J	36	J	2.5	U
Trans-1,2-Dichloroethene	5	2.5	U	2.5	U	2.5	U	2.1	J	2.5	U	2.5	U	2.5	U	50	U	2.5	U
Trichloroethene (TCE)	5	2		3.1		7		110		1.5		0.65		0.7		1.3		0.5	U
Vinyl Chloride	2	1	U	1	U	1	U	0.21	J	1	U	1	U	1	U	0.28	J	1	U

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "NYSDEC SGVs").
2. Only detected analytes are shown in the table.
3. Detected analytical results above NYSDEC SGVs are bolded and shaded.
4. Analytical results with reporting limits (RL) above NYSDEC SGVs are italicized.
5. Sample GWDUP01_091919 is a duplicate sample of MW-9_091919.
6. ~ = Regulatory limit for this analyte does not exist
7. µg/L = micrograms per liter

Qualifiers:

J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
 UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
 U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination

Table 3
Quarterly Progress Report
Groundwater Results Summary

491 Wortman Avenue
Brooklyn, New York
BCP Site No: C224139
Langan Project No.: 170329301

Compound	NYSDEC SGVs	Sampling Location																			
		MW-1	MW-2	MW-3S	MW-3M	MW-3D	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-16S	MW-17	MW-18S	MW-18M	MW-19	PZ-1	PZ-2
Baseline Sampling Results Summary (µg/L) - August 2015																					
CVOCs	~	1274.9	2314	873.3	23.4	27.8	653	175	1236.3	1272	458	602	NT	NT	NT	NT	NT	NT	NT	903.6	438.2
PCE	5	750	480	380	14	8.3	79	110	710	460	180	400	NT	NT	NT	NT	NT	NT	NT	310	230
TCE	5	500	1800	480	5.9	16	540	55	500	780	240	190	NT	NT	NT	NT	NT	NT	NT	580	200
cis-1,2- DCE	5	19	14	8.3	2.5	2.5	29	9	22	27	36	10	NT	NT	NT	NT	NT	NT	NT	8.6	6.2
vinyl chloride	2	5.9	20	5	1	1	5	1	4.3	5	2	2	NT	NT	NT	NT	NT	NT	NT	5	2
First Quarter Sampling Results Summary (µg/L) - January 2016																					
CVOCs	~	12.8	2.14	7.6	23.4	16.13	14.8	1.87	676	11.41	184.56	5.8	NT	NT	NT	NT	NT	NT	NT	10	2.6
PCE	5	6	1	2	20	14	3	1	240	2	15	4	NT	NT	NT	NT	NT	NT	NT	3	1
TCE	5	5.3	0.74	5.2	3	1.7	11	0.37	400	9	130	1.4	NT	NT	NT	NT	NT	NT	NT	5.4	1.2
cis-1,2- DCE	5	1.3	0.2	0.2	0.2	0.23	0.6	0.3	35	0.21	39	0.2	NT	NT	NT	NT	NT	NT	NT	1.4	0.2
vinyl chloride	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1	0.2	0.56	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
Q1 Percent CVOC Reduction		99.0%	99.9%	99.1%	0.0%	42.0%	97.7%	98.9%	45.3%	99.1%	59.7%	99.0%	NA	NA	NA	NA	NA	NA	NA	98.9%	99.4%
Second Quarter Sampling Results Summary (µg/L) / Baseline Annual Sampling Results Summary - April 2016																					
CVOCs	~	3.8	1.99	4.3	18.5	9.3	3.28	1.64	401	2.46	71.96	0.91	188.2	2.9	NT	NT	NT	NT	NT	1.45	1.79
PCE	5	1.7	0.87	1.2	16	7.6	0.48	0.67	160	0.26	5.7	0.31	120	1.5	NT	NT	NT	NT	NT	0.3	0.61
TCE	5	1.7	0.72	2.7	2.1	1.3	2.4	0.38	220	1.8	43	0.2	57	1	NT	NT	NT	NT	NT	0.75	0.78
cis-1,2- DCE	5	0.2	0.2	0.2	0.2	0.2	0.2	0.39	19	0.2	23	0.2	11	0.2	NT	NT	NT	NT	NT	0.2	0.2
vinyl chloride	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	0.2	0.26	0.2	0.2	0.2	NT	NT	NT	NT	NT	0.2	0.2
Q2 Percent CVOC Reduction from Last Quarter (Q1)		70.3%	7.0%	43.4%	20.9%	42.3%	77.8%	12.3%	40.7%	78.4%	61.0%	84.3%	NA	NA	NA	NA	NA	NA	NA	85.5%	31.2%
Q2 Percent CVOC Reduction from Baseline		99.7%	99.9%	99.5%	20.9%	66.5%	99.5%	99.1%	67.6%	99.8%	84.3%	99.8%	NA	NA	NA	NA	NA	NA	NA	99.8%	99.6%
Third Quarter Sampling Results Summary (µg/L) - July 2016																					
CVOCs	~	1.65	4.26	7.69	24.5	14.01	6.26	3.48	1249.5	4.21	53.5	1.49	NT	NT	NT	NT	NT	NT	NT	1.97	4.15
PCE	5	0.68	2.2	3	22	12	2.2	1.6	570	0.71	5.3	0.76	NT	NT	NT	NT	NT	NT	NT	0.47	2
TCE	5	0.57	1.6	4.2	2.1	1.6	3.5	0.76	640	3.1	27	0.33	NT	NT	NT	NT	NT	NT	NT	1.1	1.6
cis-1,2- DCE	5	0.2	0.26	0.29	0.2	0.21	0.36	0.92	39	0.2	21	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.35
vinyl chloride	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.2	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
Q3 Percent CVOC Reduction from Last Quarter (Q2)		56.6%	Increased	Increased	Increased	Increased	Increased	Increased	Increased	Increased	25.7%	Increased	NA	NA	NA	NA	NA	NA	NA	Increased	Increased
Q3 Percent CVOC Reduction from Baseline		99.9%	99.8%	99.1%	Increased	49.6%	99.0%	98.0%	Increased	99.7%	88.3%	99.8%	NA	NA	NA	NA	NA	NA	NA	99.8%	99.1%

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Results exceeding the NYSDEC SGVs are shaded and bolded.
3. PCE = tetrachloroethylene
4. TCE = trichloroethylene
5. cis-1,2-DCE = cis-1,2-Dichloroethylene

6. µg/L = microgram per liter
7. CVOC = chlorinated volatile organic compounds
8. ND = Non detect
9. NT = Not tested
10. NA = Not applicable

Table 3
Quarterly Progress Report
Groundwater Results Summary

491 Wortman Avenue
Brooklyn, New York
BCP Site No: C224139
Langan Project No.: 170329301

Compound	NYSDEC SGVs	Sampling Location																			
		MW-1	MW-2	MW-3S	MW-3M	MW-3D	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-16S	MW-17	MW-18S	MW-18M	MW-19	PZ-1	PZ-2
Fourth Quarter Sampling Results Summary (µg/L) - October 2016																					
CVOCs	~	0.91	8.39	18.59	18.1	11.36	3.38	0.84	158.4	1.1	33.9	0.99	NT	NT	NT	NT	NT	NT	NT	0.81	1.57
PCE	5	0.22	4.6	8.8	16	10	0.98	0.24	67	0.2	2.7	0.39	NT	NT	NT	NT	NT	NT	NT	0.2	0.54
TCE	5	0.29	3.2	9	1.7	0.96	2	0.2	87	0.5	19	0.2	NT	NT	NT	NT	NT	NT	NT	0.21	0.63
cis-1,2- DCE	5	0.2	0.39	0.59	0.2	0.2	0.2	0.2	4.2	0.2	12	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
vinyl chloride	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
Q4 Percent CVOC Reduction from Last Quarter (Q3)		44.8%	Increased	Increased	26.1%	18.9%	46.0%	75.9%	87.3%	73.9%	36.6%	33.6%	NA	NA	NA	NA	NA	NA	NA	58.9%	62.2%
Q4 Percent CVOC Reduction from Baseline		99.9%	99.6%	97.9%	22.6%	59.1%	99.5%	99.5%	87.2%	99.9%	92.6%	99.8%	NA	NA	NA	NA	NA	NA	NA	99.9%	99.6%
Fifth Quarter Sampling Results Summary (µg/L) - January 2017																					
CVOCs	~	0.8	1.32	20.71	21.1	14.21	1.89	1.02	812.7	0.9	42.4	7.9	NT	NT	NT	NT	NT	NT	NT	0.8	1.49
PCE	5	0.2	0.56	10	19	13	0.52	0.42	380	0.2	3.2	5.5	NT	NT	NT	NT	NT	NT	NT	0.2	0.66
TCE	5	0.2	0.36	10	1.7	0.81	0.97	0.2	410	0.3	20	2	NT	NT	NT	NT	NT	NT	NT	0.2	0.43
cis-1,2- DCE	5	0.2	0.2	0.51	0.2	0.2	0.2	0.2	22	0.2	19	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
vinyl chloride	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.2	NT	NT	NT	NT	NT	NT	NT	0.2	0.2
Q5 Percent CVOC Reduction from Last Quarter (Q4)		12.1%	84.3%	Increased	Increased	Increased	44.1%	Increased	Increased	18.2%	Increased	Increased	NA	NA	NA	NA	NA	NA	NA	1.2%	5.1%
Q5 Percent CVOC Reduction from Baseline		99.9%	99.9%	97.6%	9.8%	48.9%	99.7%	99.4%	34.3%	99.9%	90.7%	98.7%	NA	NA	NA	NA	NA	NA	NA	99.9%	99.7%
Sixth Quarter Sampling Results Summary (µg/L) / Second Annual Sampling Results Summary - April 2017																					
CVOCs	~	4.5	11.6	6.4	24.4	16.35	6.8	4.5	57.3	4.4	17.5	4.15	12.23	4.58	NT	NT	NT	NT	NT	4.5	4.09
PCE	5	0.5	5.5	1.2	19	12	1.5	0.5	26	0.5	2.1	0.4	5.6	0.56	NT	NT	NT	NT	NT	0.5	0.26
TCE	5	0.5	2.6	1.7	1.9	0.85	1.8	0.5	28	0.4	5.5	0.25	4.7	0.52	NT	NT	NT	NT	NT	0.5	0.33
cis-1,2- DCE	5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.3	2.5	8.9	2.5	0.93	2.5	NT	NT	NT	NT	NT	2.5	2.5
vinyl chloride	2	1	1	1	1	1	1	1	1	1	1	1	1	1	NT	NT	NT	NT	NT	1	1
Q6 Percent CVOC Reduction from Last Quarter (Q5)		Increased	Increased	69.1%	Increased	Increased	Increased	Increased	92.9%	Increased	58.7%	47.5%	NA	NA	NA	NA	NA	NA	NA	Increased	Increased
Q6 Percent CVOC Reduction from Baseline		99.6%	99.5%	99.3%	Increased	41.2%	99.0%	97.4%	95.4%	99.7%	96.2%	99.3%	93.5%	Increased	NA	NA	NA	NA	NA	99.5%	99.1%
Seventh Quarter Sampling Results Summary (µg/L) - July 2017																					
CVOCs	~	4.5	4.61	3.98	16	18.24	4.21	4.5	758	4.32	17.2	4.23	NT	NT	NT	NT	NT	NT	NT	15.1	4.36
PCE	5	0.5	0.67	0.22	11	14	0.33	0.5	490	0.5	1.2	0.23	NT	NT	NT	NT	NT	NT	NT	10	0.54
TCE	5	0.5	0.44	0.26	1.5	0.74	0.38	0.5	240	0.32	5.8	0.5	NT	NT	NT	NT	NT	NT	NT	1.6	0.32
cis-1,2- DCE	5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	26	2.5	9.2	2.5	NT	NT	NT	NT	NT	NT	NT	2.5	2.5
vinyl chloride	2	1	1	1	1	1	1	1	2	1	1	1	NT	NT	NT	NT	NT	NT	NT	1	1
Q7 Percent CVOC Reduction from Last Quarter (Q6)		None	60.3%	37.8%	34.4%	Increased	38.1%	None	Increased	1.8%	1.7%	Increased	NA	NA	NA	NA	NA	NA	NA	Increased	Increased
Q7 Percent CVOC Reduction from Baseline		99.6%	99.8%	99.5%	31.6%	34.4%	99.4%	97.4%	38.7%	99.7%	96.2%	99.3%	NA	NA	NA	NA	NA	NA	NA	98.3%	99.0%

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Results exceeding the NYSDEC SGVs are shaded and bolded.
3. PCE = tetrachloroethylene
4. TCE = trichloroethylene
5. cis-1,2-DCE = cis-1,2-Dichloroethylene

6. µg/L = microgram per liter
7. CVOC = chlorinated volatile organic compounds
8. ND = Non detect
9. NT = Not tested
10. NA = Not applicable

Table 3
Quarterly Progress Report
Groundwater Results Summary

491 Wortman Avenue
Brooklyn, New York
BCP Site No: C224139
Langan Project No.: 170329301

Compound	NYSDEC SGVs	Sampling Location																			
		MW-1	MW-2	MW-3S	MW-3M	MW-3D	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-16S	MW-17	MW-18S	MW-18M	MW-19	PZ-1	PZ-2
Eighth Quarter Sampling Results Summary (µg/L) / Third Annual Sampling Results Summary- October 2017																					
CVOCs	~	4.5	4.39	4.5	20.3	19.31	4.27	4.08	276	4.5	10.08	6.18	14.93	10.7	NT	NT	NT	NT	NT	4.5	4.5
PCE	5	0.5	0.42	0.5	15	15	0.5	0.36	160	0.5	0.78	1.8	8.8	5.6	NT	NT	NT	NT	NT	0.5	0.5
TCE	5	0.5	0.47	0.5	1.8	0.81	0.27	0.22	93	0.5	3.3	0.88	4.2	1.6	NT	NT	NT	NT	NT	0.5	0.5
cis-1,2- DCE	5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	21	2.5	5	2.5	0.93	2.5	NT	NT	NT	NT	NT	2.5	2.5
vinyl chloride	2	1	1	1	1	1	1	1	2	1	1	1	1	1	NT	NT	NT	NT	NT	1	1
Q8 Percent CVOC Reduction from Last Quarter (Q7)		None	4.8%	Increased	Increased	Increased	Increased	9.3%	63.6%	Increased	41.4%	Increased	NA	NA	NA	NA	NA	NA	NA	70.2%	Increased
Q8 Percent CVOC Reduction from Baseline		99.6%	99.8%	99.5%	13.2%	30.5%	99.3%	97.7%	77.7%	99.6%	97.8%	99.0%	92.1%	Increased	NA	NA	NA	NA	NA	99.5%	99.0%
Ninth Quarter Sampling Results Summary (µg/L) - January 2018																					
CVOCs	~	4.08	4.49	4.5	20.1	18.7	4.32	4.24	623.71	4.5	10.99	6.9	NT	NT	NT	NT	NT	NT	NT	5.86	4.5
PCE	5	0.26	0.63	0.5	15	14	0.2	0.48	430	0.5	0.99	2	NT	NT	NT	NT	NT	NT	NT	1.7	0.5
TCE	5	0.32	0.36	0.5	1.6	1.2	0.62	0.26	180	0.5	3.5	1.4	NT	NT	NT	NT	NT	NT	NT	0.66	0.5
cis-1,2- DCE	5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	13	2.5	5.5	2.5	NT	NT	NT	NT	NT	NT	NT	2.5	2.5
vinyl chloride	2	1	1	1	1	1	1	1	0.71	1	1	1	NT	NT	NT	NT	NT	NT	NT	1	1
Q9 Percent CVOC Reduction from Last Quarter (Q8)		9.3%	Increased	0.0%	1.0%	3.2%	Increased	Increased	Increased	0.0%	Increased	Increased	NA	NA	NA	NA	NA	NA	NA	Increased	0.0%
Q9 Percent CVOC Reduction from Baseline		99.7%	99.8%	99.5%	14.1%	32.7%	99.3%	97.6%	49.6%	99.6%	97.6%	98.9%	NA	NA	NA	NA	NA	NA	NA	99.4%	99.0%
Tenth Quarter Sampling Results Summary (µg/L) / Fourth Annual Sampling Results Summary - April 2018																					
CVOCs	~	6.1	15	10	20.6	19.5	5.62	19.3	357.5	5.72	12	8.6	93	10	NT	NT	NT	NT	NT	11.6	26.1
PCE	5	1.4	9.1	4	15	15	1.2	14	240	1.4	3.9	3.8	44	4.7	NT	NT	NT	NT	NT	5.7	14
TCE	5	1.2	2.4	2.5	2.1	1	0.92	3	100	0.82	3.6	1.3	22	1.8	NT	NT	NT	NT	NT	2.6	4.4
cis-1,2- DCE	5	2.5	2.5	2.5	2.5	2.5	2.5	1.3	15	2.5	3.5	2.5	26	2.5	NT	NT	NT	NT	NT	2.3	6.7
vinyl chloride	2	1	1	1	1	1	1	1	2.5	1	1	1	1	1	NT	NT	NT	NT	NT	1	1
Q10 Percent CVOC Reduction from Last Quarter (Q9)		Increased	Increased	Increased	Increased	Increased	Increased	Increased	42.7%	Increased	Increased	Increased	NA	NA	NA	NA	NA	NA	NA	Increased	Increased
Q10 Percent CVOC Reduction from Baseline		99.5%	99.4%	98.9%	12.0%	29.9%	99.1%	89.0%	71.1%	99.6%	97.4%	98.6%	50.6%	Increased	NA	NA	NA	NA	NA	98.7%	94.0%
Eleventh Quarter Sampling Results Summary (µg/L) - June 2018																					
CVOCs	~	8.5	27.88	9.1	15.2	18.74	2.3	20.1	309	6.6	13	14.4	NT	NT	NT	NT	NT	NT	NT	27.5	48.8
PCE	5	4.5	21	5.6	13	18	1.2	15	200	4.3	5.3	9.5	NT	NT	NT	NT	NT	NT	NT	19	32
TCE	5	4	6.1	3.5	2.2	0.74	1.1	3.7	95	2.3	4.8	3.3	NT	NT	NT	NT	NT	NT	NT	6.5	9.5
cis-1,2- DCE	5	ND	0.78	ND	ND	ND	ND	1.4	14	ND	2.9	1.6	NT	NT	NT	NT	NT	NT	NT	2	7.3
vinyl chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	ND	ND
Q11 Percent CVOC Reduction from Last Quarter (Q10)		Increased	Increased	9.0%	26.2%	3.9%	59.1%	Increased	13.6%	Increased	Increased	Increased	NA	NA	NA	NA	NA	NA	NA	Increased	Increased
Q11 Percent CVOC Reduction from Baseline		99.3%	98.8%	99.0%	35.0%	32.6%	99.6%	88.5%	75.0%	99.5%	97.2%	97.6%	NA	NA	NA	NA	NA	NA	NA	97.0%	88.9%

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Results exceeding the NYSDEC SGVs are shaded and bolded.
3. PCE = tetrachloroethylene
4. TCE = trichloroethylene
5. cis-1,2-DCE = cis-1,2-Dichloroethylene

6. µg/L = microgram per liter
7. CVOC = chlorinated volatile organic compounds
8. ND = Non detect
9. NT = Not tested
10. NA = Not applicable

Table 3
Quarterly Progress Report
Groundwater Results Summary

491 Wortman Avenue
Brooklyn, New York
BCP Site No: C224139
Langan Project No.: 170329301

Compound	NYSDEC SGVs	Sampling Location																			
		MW-1	MW-2	MW-3S	MW-3M	MW-3D	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-16S	MW-17	MW-18S	MW-18M	MW-19	PZ-1	PZ-2
Twelfth Quarter Sampling Results Summary (µg/L) - March 2019																					
CVOCs	~	0.94	0.69	1.68	NT	NT	NT	NT	249.4	0	NT	0	0	218.9	NT	316	18.3	117.3	4735	NT	0.88
PCE	5	0.54	0.41	0.72	NT	NT	NT	NT	150	ND	NT	ND	ND	120	NT	190	5.6	56	2600	NT	0.59
TCE	5	0.4	0.28	0.96	NT	NT	NT	NT	95	ND	NT	ND	ND	96	NT	120	11	59	2100	NT	0.29
cis-1,2- DCE	5	ND	ND	ND	NT	NT	NT	NT	4.4	ND	NT	ND	ND	2.9	NT	6	1.7	2.2	35	NT	ND
vinyl chloride	2	ND	ND	ND	NT	NT	NT	NT	ND	ND	NT	ND	ND	ND	NT	ND	ND	0.1	ND	NT	ND
Q12 Percent CVOC Reduction from Last Quarter (Q11)		88.9%	97.5%	81.5%	NA	NA	NA	NA	19.3%	100.0%	NA	100.0%	NA	NA	NA	NA	NA	NA	NA	NA	98.2%
Q12 Percent CVOC Reduction from Baseline		99.9%	100.0%	99.8%	NA	NA	NA	NA	79.8%	100.0%	NA	100.0%	100.0%	Increased	NA	NA	NA	NA	NA	NA	99.8%
Thirteenth Quarter Sampling Results Summary (µg/L) - June 2019																					
CVOCs	~	0.19	0.7	0.68	NT	NT	NT	NT	1014	0.24	NT	1.08	0.79	96.2	2.82	367.95	23.3	99.6	5645	NT	3.15
PCE	5	ND	0.28	0.27	NT	NT	NT	NT	580	ND	NT	0.79	0.55	55	1.2	220	6.9	35	3200	NT	2.4
TCE	5	0.19	0.42	0.41	NT	NT	NT	NT	420	0.24	NT	0.29	0.24	40	0.71	140	14	61	2400	NT	0.75
cis-1,2- DCE	5	ND	ND	ND	NT	NT	NT	NT	14	ND	NT	ND	ND	1.2	0.91	7.7	2.4	2.6	45	NT	ND
vinyl chloride	2	ND	ND	ND	NT	NT	NT	NT	ND	ND	NT	ND	ND	ND	ND	0.25	ND	1	ND	NT	ND
Q13 Percent CVOC Reduction from Last Quarter (Q12)		79.8%	Increased	59.5%	NA	NA	NA	NA	Increased	Increased	NA	Increased	Increased	56.1%	NA	Increased	Increased	15.1%	Increased	NA	Increased
Q13 Percent CVOC Reduction from Baseline		100.0%	99.9%	99.9%	NA	NA	NA	NA	20.5%	100.0%	NA	99.9%	99.9%	92.5%	99.8%	71.1%	98.2%	92.2%	Increased	NA	99.8%
Fourteenth Quarter Sampling Results Summary (µg/L) - September 2019																					
CVOCs	~	3.8	4.3	18.6	NT	NT	NT	NT	330.21	2.46	NT	2.25	0.96	22.91	5.9	151.8	62.98	73.8	4436	NT	6.6
PCE	5	1.8	1.2	9.6	NT	NT	NT	NT	210	0.96	NT	1.6	0.96	14	2.6	96	21	25	2600	NT	4.6
TCE	5	2	3.1	7	NT	NT	NT	NT	110	1.5	NT	0.65	ND	8.2	1.3	50	34	47	1800	NT	2
cis-1,2- DCE	5	ND	ND	2	NT	NT	NT	NT	10	ND	NT	ND	ND	0.71	2	5.8	7.7	1.8	36	NT	ND
vinyl chloride	2	ND	ND	ND	NT	NT	NT	NT	0.21	ND	NT	ND	ND	ND	ND	ND	0.28	ND	ND	NT	ND
Q14 Percent CVOC Reduction from Last Quarter (Q13)		Increased	Increased	Increased	NA	NA	NA	NA	67.4%	Increased	NA	Increased	Increased	76.2%	Increased	58.7%	Increased	25.9%	21.4%	NA	Increased
Q14 Percent CVOC Reduction from Baseline		99.7%	99.7%	98.5%	NA	NA	NA	NA	74.1%	99.8%	NA	99.8%	99.9%	98.2%	99.5%	88.1%	95.1%	94.2%	-247.9%	NA	99.5%

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Results exceeding the NYSDEC SGVs are shaded and bolded.
3. PCE = tetrachloroethylene
4. TCE = trichloroethylene
5. cis-1,2-DCE = cis-1,2-Dichloroethylene

6. µg/L = microgram per liter
7. CVOC = chlorinated volatile organic compounds
8. ND = Non detect
9. NT = Not tested
10. NA = Not applicable

ATTACHMENT 1
LABORATORY ANALYTICAL DATA REPORTS



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1943339

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Table of Contents

New York ASP Category B Data Deliverable Package.....	1
Table of Contents	2
Sample ID Cross Reference	4
SDG Narrative	5
Data Qualifier Definitions	7
Instrument Information	9
Sample Log-in Sheet	12
Lims COC (LN01)	13
External Chain of Custody	15
Organics Analysis	16
GCMS 8260 Analysis	17
Volatiles QC Summary	18
Form 2 - Organics	19
Form 3 - Organics	20
Form 4 - Organics	23
Form 5 - Organics	24
Form 8 - Organics	26
MDL Study - Volatile Organics 8260	27
Volatiles Sample Data	36
Form 1 - Organics	37
MW-1_091919 (L1943339-01) Analyzed: 09/25/19 10:53	77
MW-2_091919 (L1943339-02) Analyzed: 09/25/19 11:19	84
MW-3AS_091919 (L1943339-03) Analyzed: 09/25/19 11:44	92
MW-9_091919 (L1943339-04) Analyzed: 09/25/19 12:10	101
PZ-2_091919 (L1943339-05) Analyzed: 09/25/19 12:36	109
MW-16_091919 (L1943339-06) Analyzed: 09/25/19 13:02	117
GWDUP01_091919 (L1943339-07) Analyzed: 09/25/19 13:28	132
GWFB01_091919 (L1943339-08) Analyzed: 09/25/19 13:53	141
GWTB01_091919 (L1943339-09) Analyzed: 09/25/19 14:19	147
Volatile Standards Data	152
Initial Calibration	153
Form 6 - Organics	154
ICAL for VOA122 on 08/22/19 ICAL16065	157
Initial Calibration Summary - Cal Date: 08/22/19 00:00	157
BFB Injected on: 08/21/19 14:44	161
STD0.2PPB Injected on: 08/21/19 16:46	162
STD0.5PPB Injected on: 08/21/19 17:36	165
STD2PPB Injected on: 08/21/19 18:25	170
STD10PPB Injected on: 08/21/19 18:50	176
STD30PPB Injected on: 08/21/19 19:15	181
STD80PPB Injected on: 08/21/19 19:40	186
STD120PPB Injected on: 08/21/19 20:05	191
STD200PPB Injected on: 08/21/19 20:30	196
ICV Summary Form Injected on: 08/21/19 23:00	201
ICV Quant Report Injected on: 08/21/19 23:00	204
Continuing Calibration	209
Form 7 - Organics	210
CC Summary - VOA122 Run: 09/25/19 08:45	213
CC Quant - VOA122 Run: 09/25/19 08:45	216
bfb tune - Inst. VOA122 09/25/19 08:11	221

Table of Contents

Volatiles Raw QC Data	222
Laboratory Method BI (WG1288542-5) Analyzed: 09/25/19 10:02	223
Laboratory Control S (WG1288542-3) Analyzed: 09/25/19 08:45	229
LCS Duplicate (WG1288542-4) Analyzed: 09/25/19 09:11	307
Volatiles Calculations	385
QC Batch WG1288542	386
ICAL Sequence for VOA122 on 22-AUG-2019 00:00 ICAL16065	387
Sequence Log	388

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943339
Report Date: 09/26/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1943339-01	MW-1_091919	WATER	BROOKLYN, NY	09/19/19 15:45	09/19/19
L1943339-02	MW-2_091919	WATER	BROOKLYN, NY	09/19/19 13:15	09/19/19
L1943339-03	MW-3AS_091919	WATER	BROOKLYN, NY	09/19/19 14:45	09/19/19
L1943339-04	MW-9_091919	WATER	BROOKLYN, NY	09/19/19 12:30	09/19/19
L1943339-05	PZ-2_091919	WATER	BROOKLYN, NY	09/19/19 14:00	09/19/19
L1943339-06	MW-16_091919	WATER	BROOKLYN, NY	09/19/19 16:35	09/19/19
L1943339-07	GWDUP01_091919	WATER	BROOKLYN, NY	09/19/19 00:00	09/19/19
L1943339-08	GWFB01_091919	WATER	BROOKLYN, NY	09/19/19 12:00	09/19/19
L1943339-09	GWTB01_091919	WATER	BROOKLYN, NY	09/19/19 00:00	09/19/19

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943339
Report Date: 09/26/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943339
Report Date: 09/26/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: *Melissa Sturgis*

Report Date: 09/26/19

Title: Technical Director/Representative



GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943339
Report Date: 09/26/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.32 μ m
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.25 μ m
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1 μ L
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLP Pesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1 μ L
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



Sample Delivery Group Summary

Alpha Job Number : L1943339

Received : 19-SEP-2019

Reviewer : Chris Tebeau

Account Name : Langan Engineering & Environmental

Project Number : 170329301

Project Name : 491 WORTMAN AVENUE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.5	

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	NA

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NO

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 26 2019, 02:14 pm

Login Number: L1943339

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 19SEP19 Due Date: 26SEP19

Sample #	Client ID	Mat PR Collected
L1943339-01 MW-1_091919		1 S0 19SEP19 15:45
ASP-B Package Due Date: 09/26/19		
ASP-B, NYTCL-8260		
L1943339-02 MW-2_091919		1 S0 19SEP19 13:15
Package Due Date: 09/26/19		
NYTCL-8260		
L1943339-03 MW-3AS_091919		1 S0 19SEP19 14:45
Package Due Date: 09/26/19		
NYTCL-8260		
L1943339-04 MW-9_091919		1 S0 19SEP19 12:30
Package Due Date: 09/26/19		
NYTCL-8260		
L1943339-05 PZ-2_091919		1 S0 19SEP19 14:00
Package Due Date: 09/26/19		
NYTCL-8260		
L1943339-06 MW-16_091919		1 S0 19SEP19 16:35
Package Due Date: 09/26/19		
NYTCL-8260		
L1943339-07 GWDUP01_091919		1 S0 19SEP19 00:00
Package Due Date: 09/26/19		

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 26 2019, 02:14 pm

Login Number: L1943339

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 19SEP19 Due Date: 26SEP19

Sample # Client ID Mat PR Collected

NYTCL-8260

L1943339-08 GWFB01_091919

1 S0 19SEP19 12:00

| Package Due Date: 09/26/19

NYTCL-8260

L1943339-09 GWTB01_091919

1 S0 19SEP19 00:00

| Package Due Date: 09/26/19

NYTCL-8260

Page 2

Logged By: Ben Rao

 ALPHA LABORATORY	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 9/20/19	ALPHA Job # 11943339				
		Westborough, MA 01561 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables	Billing Information		
		Project Name: 491 Northman Avenue Project Location: Brooklyn, NY Project # 17032A 301 (Use Project name as Project #) ☐		☐ ASP-A ☐ ASP-B ☒ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other		☒ Same as Client Info PO #			
Client Information Client: Langan Engineering Address: 300 W 31st St, Apt 4A New York, NY 10001 Phone: (212) 479-5440 Fax: (212) 479-5444 Email: gnicholls@langan.com		Project Manager: Gerry Nicholls ALPHAQuote #: Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		Regulatory Requirement ☐ NY TOGS ☒ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:			
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: Please also email results to datamanagement@langan.com (and wkim@langan.com) Please specify Metals or TAL.				ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)	Total Bottles		
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Sample Specific Comments	
		Date	Time						
43339-01	MW-1-091919	9-19-19	1545	GW	GNM	X			
-02	MW-2-091919		1315			X			
-03	MW-3AS-091919		1445			X			
-04	MW-9-091919		1230			X			
-05	PZ-2-091919		1400			X			
-06	MW-16-091919		1635			X			
-07	GWDP01-091919		-	-		X			
-08	GWFB01-091919		1200	W		X			
-09	GWTR01-091919		-	W		X			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: 40 ml Vials (3) Preservative: HCl		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By: [Signature] Date/Time: 9/19/19 16:50		Received By: [Signature] Date/Time: 9/19/19 17:20		Relinquished By: [Signature] Date/Time: 9/20/19 09:05		Received By: [Signature] Date/Time: 9/20/19 09:05			

Organics

GC/MS 8260

Analysis

Volatiles QC Summary

Surrogate Recovery Summary

Form 2

Volatiles

Client: Langan Engineering & Environmental
Project Name: 491 WORTMAN AVENUE

Lab Number: L1943339
Project Number: 170329301
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
MW-1_091919 (L1943339-01)	102	90	81	104	0
MW-2_091919 (L1943339-02)	107	88	82	105	0
MW-3AS_091919 (L1943339-03)	107	88	81	109	0
MW-9_091919 (L1943339-04)	103	88	82	104	0
PZ-2_091919 (L1943339-05)	105	90	81	104	0
MW-16_091919 (L1943339-06)	104	90	81	105	0
GWDUP01_091919 (L1943339-07)	108	90	82	106	0
GWFB01_091919 (L1943339-08)	110	89	79	108	0
GWTB01_091919 (L1943339-09)	109	89	79	109	0
WG1288542-3LCS	101	88	77	94	0
WG1288542-4LCSD	102	89	78	94	0
WG1288542-5BLANK	101	89	82	102	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

* Values outside of QC limits

FORM II NYTCL-8260



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943339
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288542-3 Analysis Date : 09/25/19 08:45 File ID : V22190925A02
 LCSD Sample ID : WG1288542-4 Analysis Date : 09/25/19 09:11 File ID : V22190925A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	10	100	10	10	100	0	70-130	20
1,1-Dichloroethane	10	11	110	10	10	100	10	70-130	20
Chloroform	10	10	100	10	9.8	98	2	70-130	20
Carbon tetrachloride	10	10	100	10	9.5	95	5	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	9.9	99	10	9.8	98	1	63-130	20
1,1,2-Trichloroethane	10	10	100	10	10	100	0	70-130	20
Tetrachloroethene	10	9.4	94	10	9.4	94	0	70-130	20
Chlorobenzene	10	9.4	94	10	9.1	91	3	75-130	20
Trichlorofluoromethane	10	9.7	97	10	9.4	94	3	62-150	20
1,2-Dichloroethane	10	10	100	10	9.7	97	3	70-130	20
1,1,1-Trichloroethane	10	9.5	95	10	9.3	93	2	67-130	20
Bromodichloromethane	10	9.9	99	10	9.6	96	3	67-130	20
trans-1,3-Dichloropropene	10	9.3	93	10	9.0	90	3	70-130	20
cis-1,3-Dichloropropene	10	8.6	86	10	8.8	88	2	70-130	20
1,1-Dichloropropene	10	9.2	92	10	8.9	89	3	70-130	20
Bromoform	10	11	110	10	10	100	10	54-136	20
1,1,2,2-Tetrachloroethane	10	10	100	10	9.7	97	3	67-130	20
Benzene	10	11	110	10	10	100	10	70-130	20
Toluene	10	9.5	95	10	9.2	92	3	70-130	20
Ethylbenzene	10	9.3	93	10	9.0	90	3	70-130	20
Chloromethane	10	14	140 Q	10	13	130	7	64-130	20
Bromomethane	10	3.2	32 Q	10	2.7	27 Q	17	39-139	20
Vinyl chloride	10	8.2	82	10	7.8	78	5	55-140	20
Chloroethane	10	6.3	63	10	6.1	61	3	55-138	20
1,1-Dichloroethene	10	10	100	10	9.9	99	1	61-145	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943339
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288542-3 Analysis Date : 09/25/19 08:45 File ID : V22190925A02
 LCSD Sample ID : WG1288542-4 Analysis Date : 09/25/19 09:11 File ID : V22190925A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
trans-1,2-Dichloroethene	10	9.8	98	10	9.6	96	2	70-130	20
Trichloroethene	10	10	100	10	9.5	95	5	70-130	20
1,2-Dichlorobenzene	10	9.5	95	10	9.3	93	2	70-130	20
1,3-Dichlorobenzene	10	9.9	99	10	9.6	96	3	70-130	20
1,4-Dichlorobenzene	10	9.6	96	10	9.4	94	2	70-130	20
Methyl tert butyl ether	10	7.4	74	10	7.3	73	1	63-130	20
p/m-Xylene	20	18	90	20	18	90	0	70-130	20
o-Xylene	20	18	90	20	17	85	6	70-130	20
cis-1,2-Dichloroethene	10	9.8	98	10	9.5	95	3	70-130	20
Dibromomethane	10	9.6	96	10	9.3	93	3	70-130	20
1,2,3-Trichloropropane	10	9.4	94	10	9.1	91	3	64-130	20
Acrylonitrile	10	11	110	10	11	110	0	70-130	20
Styrene	20	19	95	20	18	90	5	70-130	20
Dichlorodifluoromethane	10	11	110	10	11	110	0	36-147	20
Acetone	10	14	140	10	15	150 Q	7	58-148	20
Carbon disulfide	10	11	110	10	11	110	0	51-130	20
2-Butanone	10	13	130	10	13	130	0	63-138	20
Vinyl acetate	10	13	130	10	12	120	8	70-130	20
4-Methyl-2-pentanone	10	9.1	91	10	9.4	94	3	59-130	20
2-Hexanone	10	8.7	87	10	8.7	87	0	57-130	20
Bromochloromethane	10	10	100	10	9.8	98	2	70-130	20
2,2-Dichloropropane	10	9.2	92	10	8.0	80	14	63-133	20
1,2-Dibromoethane	10	9.5	95	10	9.2	92	3	70-130	20
1,3-Dichloropropane	10	9.9	99	10	9.7	97	2	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	10	100	0	64-130	20
Bromobenzene	10	9.0	90	10	9.2	92	2	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943339
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288542-3 Analysis Date : 09/25/19 08:45 File ID : V22190925A02
 LCSD Sample ID : WG1288542-4 Analysis Date : 09/25/19 09:11 File ID : V22190925A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
n-Butylbenzene	10	9.7	97	10	9.5	95	2	53-136	20
sec-Butylbenzene	10	9.8	98	10	9.4	94	4	70-130	20
tert-Butylbenzene	10	8.6	86	10	8.2	82	5	70-130	20
o-Chlorotoluene	10	11	110	10	11	110	0	70-130	20
p-Chlorotoluene	10	9.2	92	10	8.9	89	3	70-130	20
1,2-Dibromo-3-chloropropane	10	9.2	92	10	9.4	94	2	41-144	20
Hexachlorobutadiene	10	11	110	10	10	100	10	63-130	20
Isopropylbenzene	10	8.5	85	10	8.2	82	4	70-130	20
p-Isopropyltoluene	10	8.6	86	10	8.4	84	2	70-130	20
Naphthalene	10	8.2	82	10	7.8	78	5	70-130	20
n-Propylbenzene	10	9.1	91	10	8.9	89	2	69-130	20
1,2,3-Trichlorobenzene	10	9.3	93	10	9.0	90	3	70-130	20
1,2,4-Trichlorobenzene	10	9.0	90	10	8.8	88	2	70-130	20
1,3,5-Trimethylbenzene	10	8.8	88	10	8.7	87	1	64-130	20
1,2,4-Trimethylbenzene	10	8.8	88	10	8.5	85	3	70-130	20
1,4-Dioxane	500	380	76	500	420	84	10	56-162	20
p-Diethylbenzene	10	8.4	84	10	8.2	82	2	70-130	20
p-Ethyltoluene	10	8.7	87	10	8.6	86	1	70-130	20
1,2,4,5-Tetramethylbenzene	10	7.8	78	10	7.6	76	3	70-130	20
Ethyl ether	10	9.7	97	10	9.3	93	4	59-134	20
trans-1,4-Dichloro-2-butene	10	9.2	92	10	8.6	86	7	70-130	20



**Method Blank Summary
Form 4
Volatiles**

Client	: Langan Engineering & Environmental	Lab Number	: L1943339
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab Sample ID	: WG1288542-5	Lab File ID	: V22190925A05
Instrument ID	: VOA122		
Matrix	: WATER	Analysis Date	: 09/25/19 10:02

Client Sample No.	Lab Sample ID	Analysis Date
WG1288542-3LCS	WG1288542-3	09/25/19 08:45
WG1288542-4LCSD	WG1288542-4	09/25/19 09:11
MW-1_091919	L1943339-01	09/25/19 10:53
MW-2_091919	L1943339-02	09/25/19 11:19
MW-3AS_091919	L1943339-03	09/25/19 11:44
MW-9_091919	L1943339-04	09/25/19 12:10
PZ-2_091919	L1943339-05	09/25/19 12:36
MW-16_091919	L1943339-06	09/25/19 13:02
GWDUP01_091919	L1943339-07	09/25/19 13:28
GWFB01_091919	L1943339-08	09/25/19 13:53
GWTB01_091919	L1943339-09	09/25/19 14:19

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1943339
Project Name : 491 WORTMAN AVENUE	Project Number : 170329301
Instrument ID : VOA122	Analysis Date : 08/21/19 14:44
Tune Standard : WG1275628-1	Tune File ID : V22190821ABF3_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	46.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1 (1.3)1
174	Greater than 50.0 of mass 95	75.6
175	5.0 - 9.0% of mass 174	5.8 (7.7)1
176	95.0 - 101% of mass 174	74.6 (98.7)1
177	5.0 - 9.0% of mass 176	5 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.2PPB	R1222916-1	V22190821A05	08/21/19 16:46
STD0.5PPB	R1222916-2	V22190821A07	08/21/19 17:36
STD2PPB	R1222916-3	V22190821A09	08/21/19 18:25
STD10PPB	R1222916-4	V22190821A10	08/21/19 18:50
STD30PPB	R1222916-5	V22190821A11	08/21/19 19:15
STD80PPB	R1222916-6	V22190821A12	08/21/19 19:40
STD120PPB	R1222916-7	V22190821A13	08/21/19 20:05
STD200PPB	R1222916-8	V22190821A14	08/21/19 20:30
ICV Quant Report	R1222916-9	V22190821A20	08/21/19 23:00

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1943339
Project Name : 491 WORTMAN AVENUE	Project Number : 170329301
Instrument ID : VOA122	Analysis Date : 09/25/19 08:11
Tune Standard : WG1288542-1	Tune File ID : V22190925ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (.6)1
174	Greater than 50.0 of mass 95	86.9
175	5.0 - 9.0% of mass 174	6.5 (7.5)1
176	95.0 - 101% of mass 174	82.8 (95.3)1
177	5.0 - 9.0% of mass 176	5.5 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1288542-2CCAL	WG1288542-2	V22190925A02	09/25/19 08:45
WG1288542-3LCS	WG1288542-3	V22190925A02	09/25/19 08:45
WG1288542-4LCSD	WG1288542-4	V22190925A03	09/25/19 09:11
WG1288542-5BLANK	WG1288542-5	V22190925A05	09/25/19 10:02
MW-1_091919	L1943339-01	V22190925A07	09/25/19 10:53
MW-2_091919	L1943339-02	V22190925A08	09/25/19 11:19
MW-3AS_091919	L1943339-03	V22190925A09	09/25/19 11:44
MW-9_091919	L1943339-04	V22190925A10	09/25/19 12:10
PZ-2_091919	L1943339-05	V22190925A11	09/25/19 12:36
MW-16_091919	L1943339-06	V22190925A12	09/25/19 13:02
GWDUP01_091919	L1943339-07	V22190925A13	09/25/19 13:28
GWFB01_091919	L1943339-08	V22190925A14	09/25/19 13:53
GWTB01_091919	L1943339-09	V22190925A15	09/25/19 14:19

Internal Standard Area and RT Summary

Form 8a

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : VOA122
 Sample No : WG1288542-2

Lab Number : L1943339
 Project Number : 170329301
 Analysis Date : 09/25/19 08:45
 Lab File ID : V22190925A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1288542-2	181577	5.93	132701	9.46	68356	12.19
Upper Limit	363154	6.43	265402	9.96	136712	12.69
Lower Limit	90789	5.43	66351	8.96	34178	11.69
Sample ID						
WG1288542-3 LCS	181577	5.93	132701	9.46	68356	12.19
WG1288542-4 LCSD	188777	5.93	137369	9.46	70645	12.19
WG1288542-5 BLANK	169054	5.93	122298	9.46	52322	12.19
MW-1_091919	153785	5.93	109974	9.46	46419	12.19
MW-2_091919	146151	5.93	107412	9.46	44814	12.19
MW-3AS_091919	148460	5.93	109954	9.46	46628	12.19
MW-9_091919	156185	5.93	112651	9.46	46215	12.19
PZ-2_091919	152930	5.93	111184	9.46	46356	12.19
MW-16_091919	145732	5.93	104831	9.46	45398	12.19
GWDUP01_091919	148327	5.93	106539	9.46	45101	12.19
GWFB01_091919	142608	5.93	103984	9.46	43928	12.19
GWTB01_091919	146050	5.93	106335	9.46	45216	12.19

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
Page: 1

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.210	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.240	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.200	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
Page: 2

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.430	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.220	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,3,5-Trichlorobenzene	108-70-3	2	0.141	ug/l	70-130	20	70-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
Methyl Acetate	79-20-9	10	0.234	ug/l	70-130	20	70-130	20	20			
Ethyl Acetate	141-78-6	10	0.716	ug/l	70-130	20	70-130	20	20			
Isopropyl Ether	108-20-3	2	0.425	ug/l	70-130	20	70-130	20	20			
Cyclohexane	110-82-7	10	0.271	ug/l	70-130	20	70-130	20	20			
Ethyl-Tert-Butyl-Ether	637-92-3	2	0.179	ug/l	70-130	20	70-130	20	20			

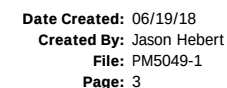
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

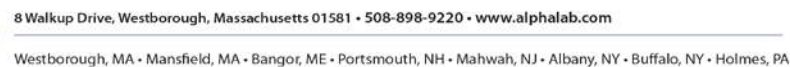
Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 1

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.140	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.230	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.140	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.560	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 2

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	10	4.81	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	2	0.173	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.650	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
Iso-Propyl Alcohol	67-63-0	100	100	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	4	0.950	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	10	1.21	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	2	0.213	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	10	0.544	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 1

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	250	115	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	50	7.25	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	75	7.00	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	50	11.5	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	50	6.25	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	50	7.00	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	50	13.4	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	25	9.80	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	25	6.35	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	200	34.8	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	50	12.9	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	25	8.35	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	25	5.45	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	50	13.7	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	25	7.90	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	25	7.95	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	200	12.3	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	25	8.30	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	25	8.30	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	50	27.2	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	50	7.05	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	200	46.6	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	100	29.1	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	50	16.8	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	100	22.6	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	50	11.9	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	75	6.85	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	25	6.85	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	100	7.20	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	100	7.40	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	100	8.55	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	100	10.1	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	100	28.0	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	50	14.6	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	50	8.75	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
Dibromomethane	74-95-3	100	11.9	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
 Created By: Jason Hebert
 File: PM5048-1
 Page: 2

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
 Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	500	11.3	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	100	6.35	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	50	9.80	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	500	45.8	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	500	241	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	500	228	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	500	111	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	500	108	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	500	64.0	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	500	59.0	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	500	79.0	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	200	57.5	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	100	10.3	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	200	79.5	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	100	10.1	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	50	14.0	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	100	8.35	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	25	6.60	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	100	7.25	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	50	8.35	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	50	7.30	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	100	5.90	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	100	8.65	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	100	9.55	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	100	5.40	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	150	49.9	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	200	8.45	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	50	5.45	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	50	5.45	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	200	32.5	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	50	8.55	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	100	16.1	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	100	13.6	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	100	9.65	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	100	16.7	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	250	71.0	ug/kg	70-130	30	70-130	30	30			
iso-Propyl Alcohol	67-63-0	5000	5000	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	100	17.1	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	200	47.5	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	500	60.5	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	100	10.7	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	500	27.2	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days

Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



Volatiles Sample Data

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-01
 Client ID : MW-1_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 15:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 10:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	1.8	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-01
 Client ID : MW-1_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 15:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 10:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	2.0	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-01
 Client ID : MW-1_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 15:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 10:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-01
 Client ID : MW-1_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 15:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 10:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-02
 Client ID : MW-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 13:15
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	1.2	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-02
 Client ID : MW-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 13:15
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.1	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-02
 Client ID : MW-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 13:15
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-02
 Client ID : MW-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 13:15
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-03
 Client ID : MW-3AS_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:44
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	9.6	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-03
 Client ID : MW-3AS_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:44
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	7.0	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	2.0	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	2.0	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-03
 Client ID : MW-3AS_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:44
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-03
 Client ID : MW-3AS_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:45
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 11:44
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-04
 Client ID : MW-9_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:30
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:10
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	1.6	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-04
 Client ID : MW-9_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:30
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:10
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.65	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-04
 Client ID : MW-9_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:30
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:10
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-04
 Client ID : MW-9_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:30
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:10
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-05
 Client ID : PZ-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:36
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	4.6	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-05
 Client ID : PZ-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:36
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	2.0	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-05
 Client ID : PZ-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:36
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-05
 Client ID : PZ-2_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 14:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 12:36
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-06
 Client ID : MW-16_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 16:35
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:02
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	2.6	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-06
 Client ID : MW-16_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 16:35
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:02
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	0.54	0.50	0.17	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	1.3	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	2.0	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	2.0	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-06
 Client ID : MW-16_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 16:35
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:02
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-06
 Client ID : MW-16_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 16:35
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:02
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-07
 Client ID : GWDUP01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:28
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	1.7	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-07
 Client ID : GWDUP01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:28
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.70	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-07
 Client ID : GWDUP01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:28
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1943339
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab ID	: L1943339-07	Date Collected	: 09/19/19 00:00
Client ID	: GWDUP01_091919	Date Received	: 09/19/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 09/25/19 13:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PK
Lab File ID	: V22190925A13	Instrument ID	: VOA122
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-08
 Client ID : GWFB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-08
 Client ID : GWFB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-08
 Client ID : GWFB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-08
 Client ID : GWFB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 12:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 13:53
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-09
 Client ID : GWTB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 14:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-09
 Client ID : GWTB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 14:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943339-09
 Client ID : GWTB01_091919
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : 09/19/19 00:00
 Date Received : 09/19/19
 Date Analyzed : 09/25/19 14:19
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1943339
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab ID	: L1943339-09	Date Collected	: 09/19/19 00:00
Client ID	: GWTB01_091919	Date Received	: 09/19/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 09/25/19 14:19
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PK
Lab File ID	: V22190925A15	Instrument ID	: VOA122
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288542-5
 Client ID : WG1288542-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/25/19 10:02
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288542-5
 Client ID : WG1288542-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/25/19 10:02
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288542-5
 Client ID : WG1288542-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/25/19 10:02
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288542-5
 Client ID : WG1288542-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V22190925A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943339
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/25/19 10:02
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA122
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A07.D
 Acq On : 25 Sep 2019 10:53 am
 Operator : VOA122:PK
 Sample : 11943339-01,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 25 15:44:27 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	153785	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	84.69%		
62) Chlorobenzene-d5	9.457	117	109974	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	82.87%		
83) 1,4-Dichlorobenzene-d4	12.186	152	46419	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	67.91%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	42284	10.425	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.25%		
46) 1,2-Dichloroethane-d4	5.637	65	46175	10.157	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.57%		
63) Toluene-d8	7.610	98	133776	8.958	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.58%		
87) 4-Bromofluorobenzene	10.962	95	39069	8.140	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	81.40%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0		N.D.	
3) Chloromethane	0.000		0		N.D.	
4) Vinyl chloride	0.000		0		N.D.	
5) Bromomethane	0.000		0		N.D.	
6) Chloroethane	0.000		0		N.D.	
7) Trichlorofluoromethane	0.000		0		N.D.	
8) Ethyl ether	0.000		0		N.D.	
10) 1,1-Dichloroethene	0.000		0		N.D.	
11) Carbon disulfide	2.898	76	319		N.D.	
15) Methylene chloride	0.000		0		N.D.	
17) Acetone	0.000		0		N.D.	
18) trans-1,2-Dichloroethene	3.579	96	235		N.D.	
21) Methyl tert-butyl ether	0.000		0		N.D.	
25) 1,1-Dichloroethane	0.000		0		N.D.	
27) Acrylonitrile	0.000		0		N.D.	
29) Vinyl acetate	0.000		0		N.D.	
30) cis-1,2-Dichloroethene	0.000		0		N.D.	
31) 2,2-Dichloropropane	0.000		0		N.D.	
32) Bromochloromethane	0.000		0		N.D.	
34) Chloroform	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A07.D
 Acq On : 25 Sep 2019 10:53 am
 Operator : VOA122:PK
 Sample : l1943339-01,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 25 15:44:27 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.091	95	8146	1.995	ug/L	92
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	7624	1.811	ug/L	94
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A07.D
 Acq On : 25 Sep 2019 10:53 am
 Operator : VOA122:PK
 Sample : l1943339-01,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 25 15:44:27 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	0.000		0		N.D.	
105)	1,4-Dichlorobenzene	0.000		0		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

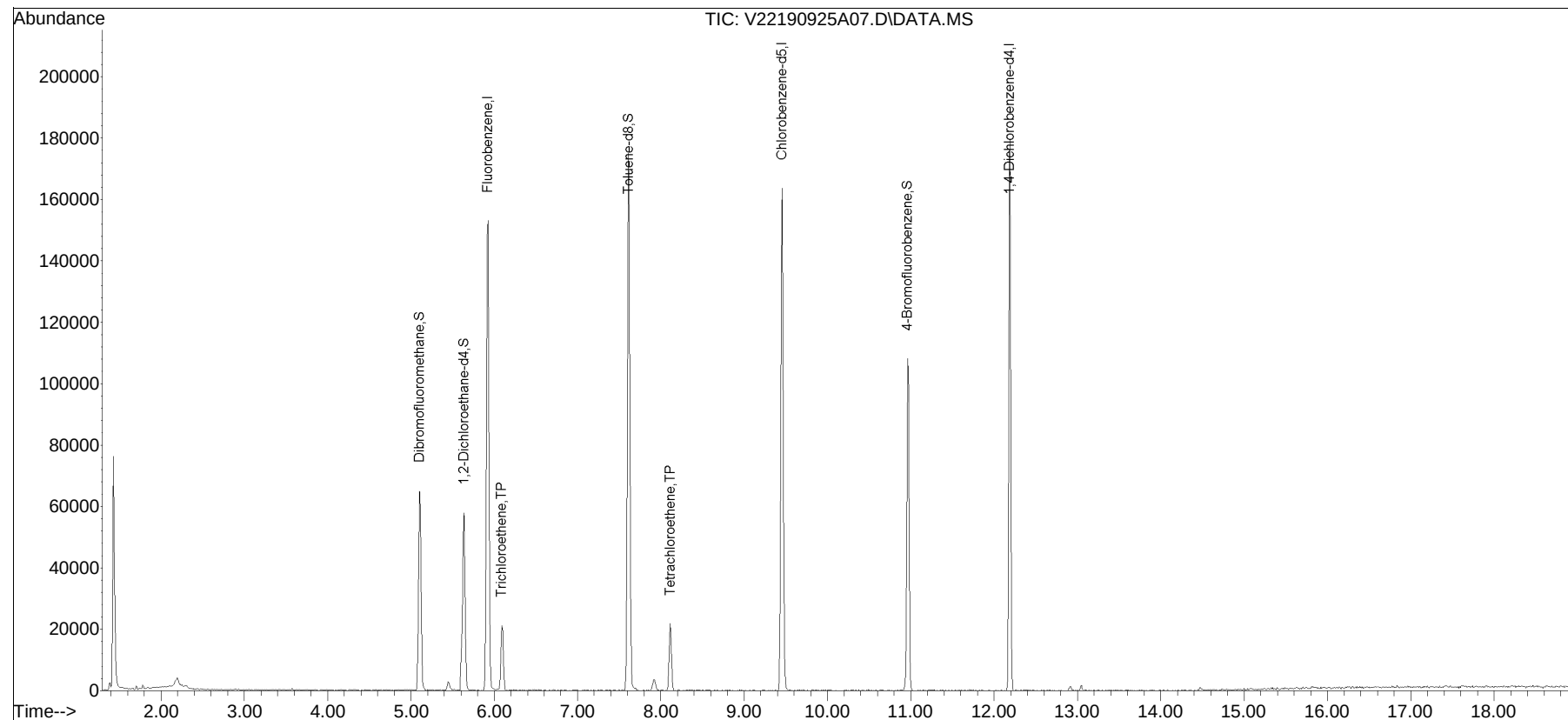
(#) = qualifier out of range (m) = manual integration (+) = signals summed

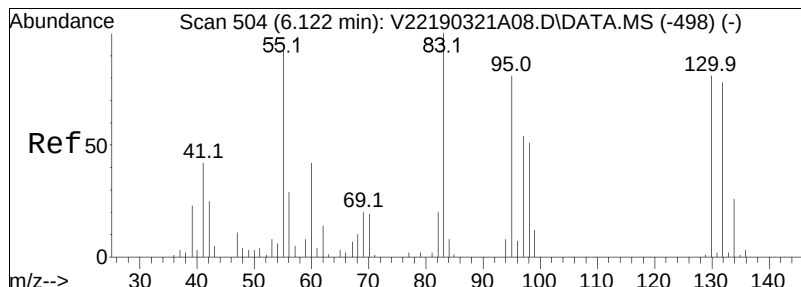
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A07.D
 Acq On : 25 Sep 2019 10:53 am
 Operator : VOA122:PK
 Sample : l1943339-01,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 25 15:44:27 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•





#51

Trichloroethene

Concen: 2.00 ug/L

RT: 6.091 min Scan# 501

Delta R.T. 0.000 min

Lab File: V22190925A07.D

Acq: 25 Sep 2019 10:53 am

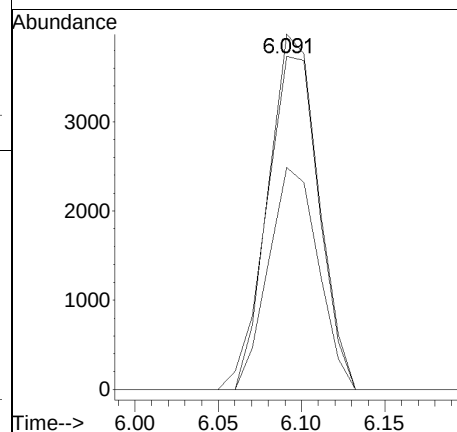
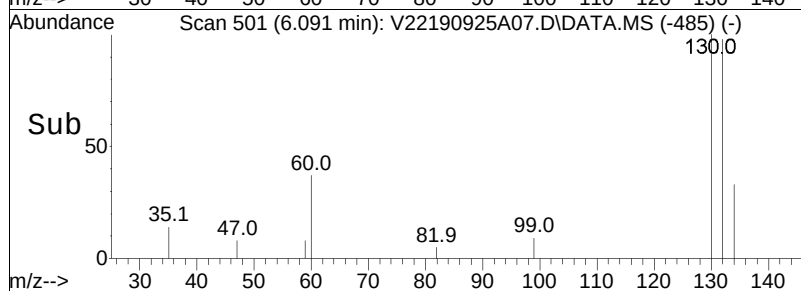
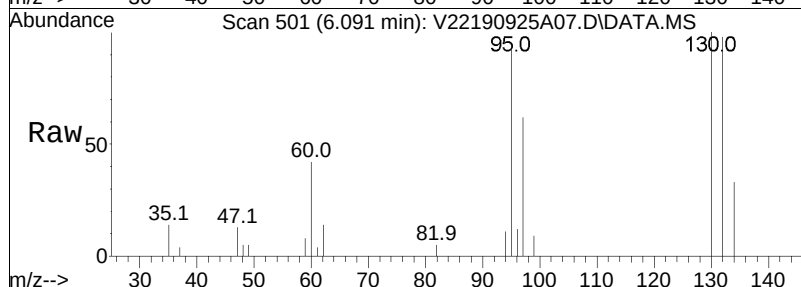
Tgt Ion: 95 Resp: 8146

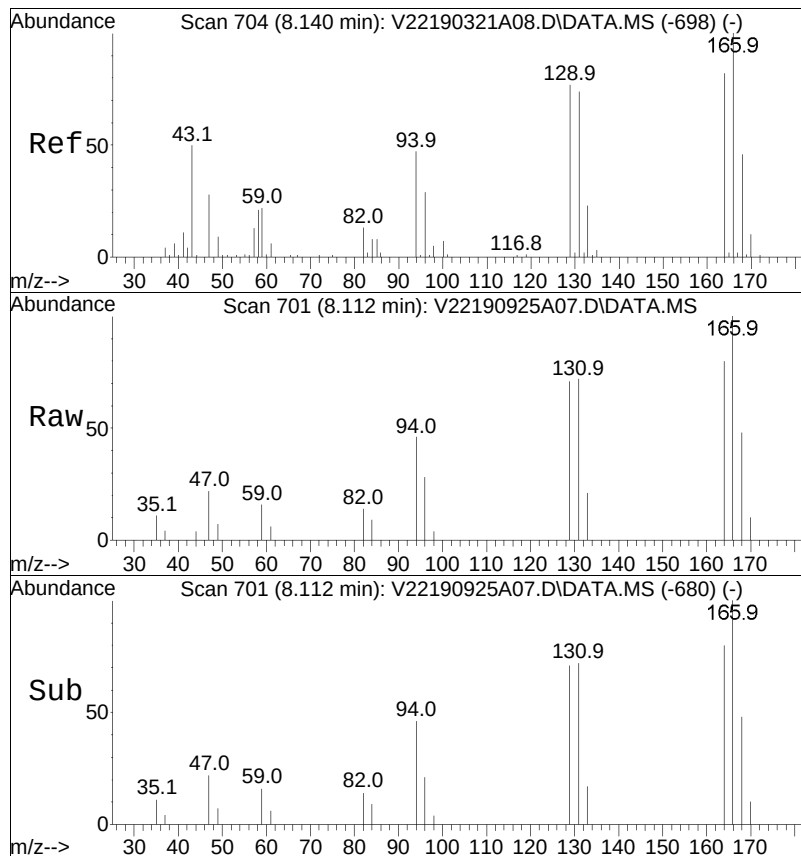
Ion Ratio Lower Upper

95 100

97 63.5 55.0 82.4

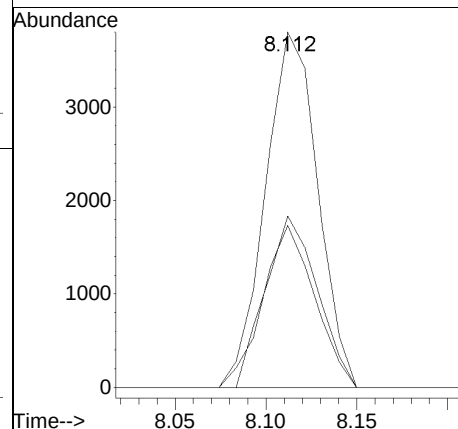
130 101.8 89.2 133.8





#66
Tetrachloroethene
Concen: 1.81 ug/L
RT: 8.112 min Scan# 701
Delta R.T. -0.000 min
Lab File: V22190925A07.D
Acq: 25 Sep 2019 10:53 am

Tgt Ion:	166	Resp:	7624
Ion Ratio	Lower	Upper	
166	100		
168	47.8	27.8	67.8
94	45.2	16.7	56.7



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10 Method : V122_190821_8260.m
Data File : V22190925A07.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 10:53 am Instrument : VOA122
Sample : l1943339-01,31,10,10,,a Quant Date : 9/25/2019 3:44 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A08.D
 Acq On : 25 Sep 2019 11:19 am
 Operator : VOA122:PK
 Sample : 11943339-02,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 15:44:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	146151	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	80.49%		
62) Chlorobenzene-d5	9.457	117	107412	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	80.94%		
83) 1,4-Dichlorobenzene-d4	12.186	152	44814	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	65.56%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	40635	10.542	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.42%		
46) 1,2-Dichloroethane-d4	5.637	65	46191	10.692	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.92%		
63) Toluene-d8	7.610	98	128580	8.815	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	88.15%		
87) 4-Bromofluorobenzene	10.962	95	37824	8.163	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	81.63%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	240	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	374	0.095	ug/L	# 42
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A08.D
 Acq On : 25 Sep 2019 11:19 am
 Operator : VOA122:PK
 Sample : 11943339-02,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 15:44:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.091	95	12142	3.129	ug/L	96
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	5076	1.234	ug/L	97
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A08.D
 Acq On : 25 Sep 2019 11:19 am
 Operator : VOA122:PK
 Sample : l1943339-02,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 15:44:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	0.000		0		N.D.	
105)	1,4-Dichlorobenzene	0.000		0		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

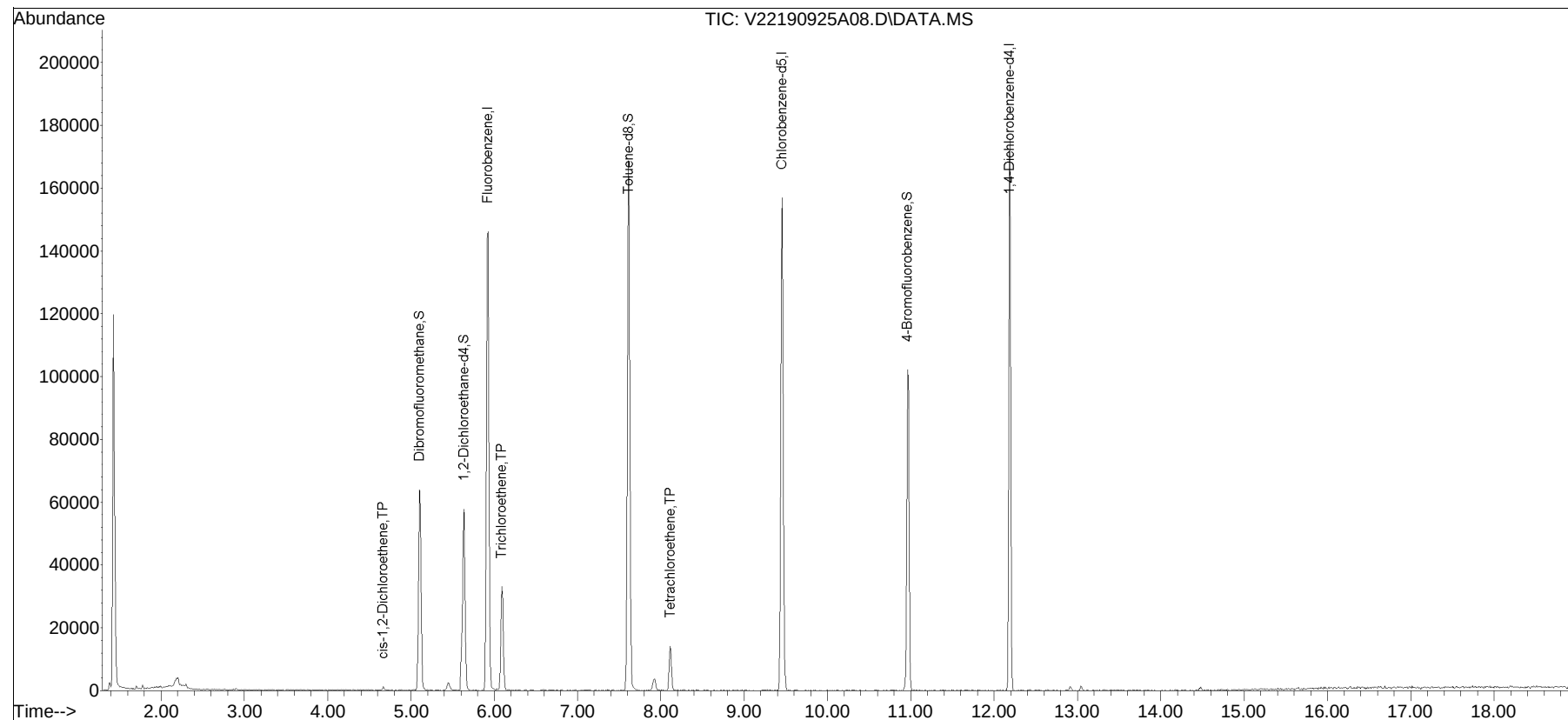
(#) = qualifier out of range (m) = manual integration (+) = signals summed

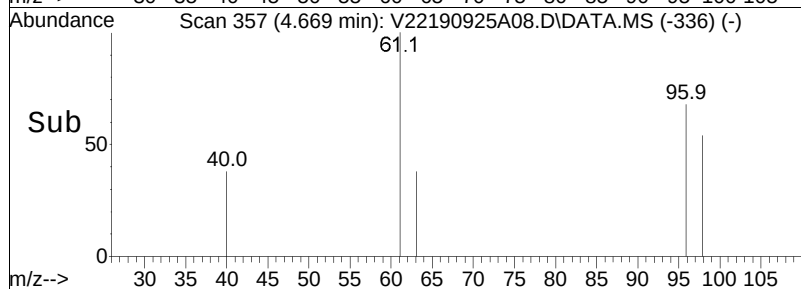
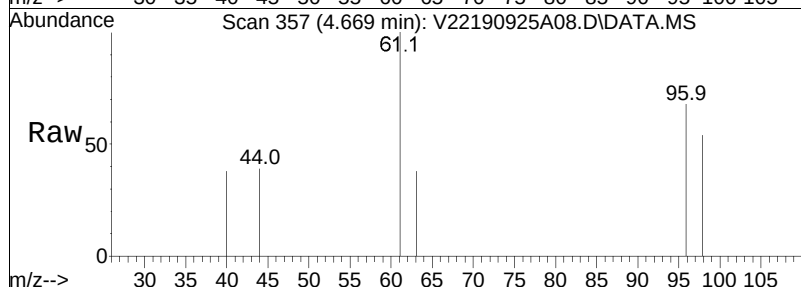
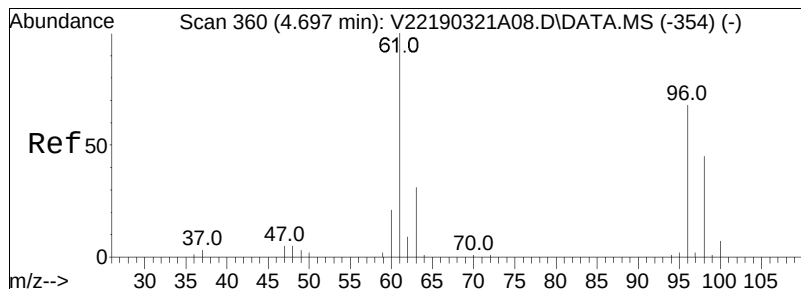
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A08.D
 Acq On : 25 Sep 2019 11:19 am
 Operator : VOA122:PK
 Sample : l1943339-02,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 25 15:44:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

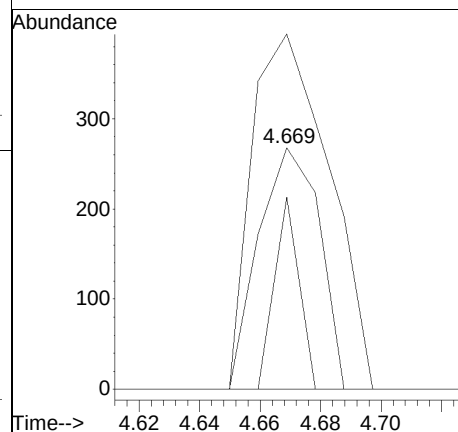
Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•

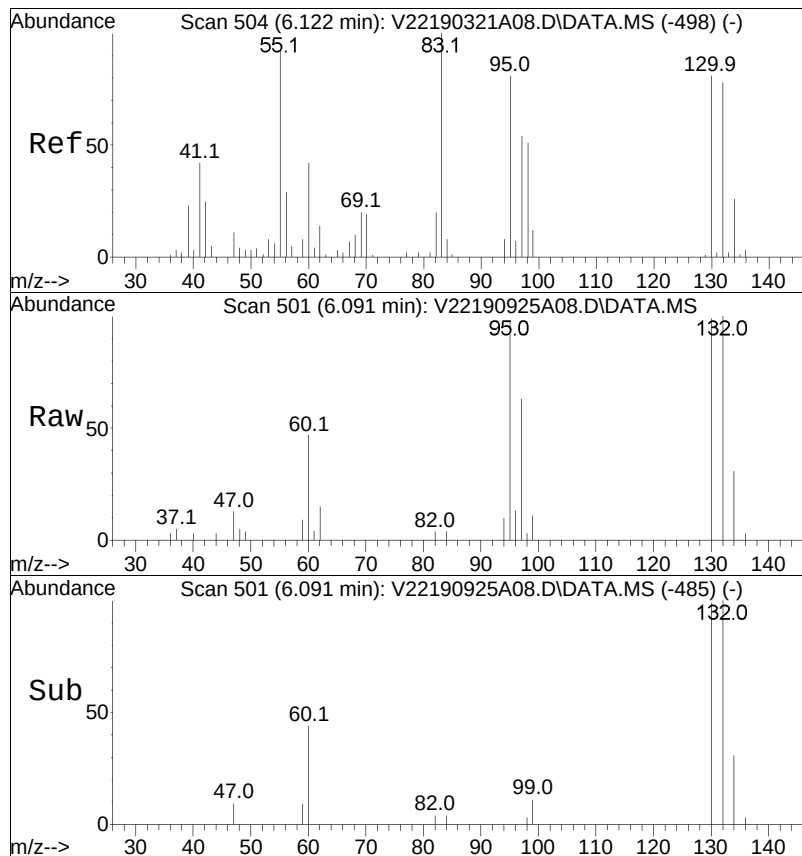




#30
 cis-1,2-Dichloroethene
 Concen: 0.10 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A08.D
 Acq: 25 Sep 2019 11:19 am

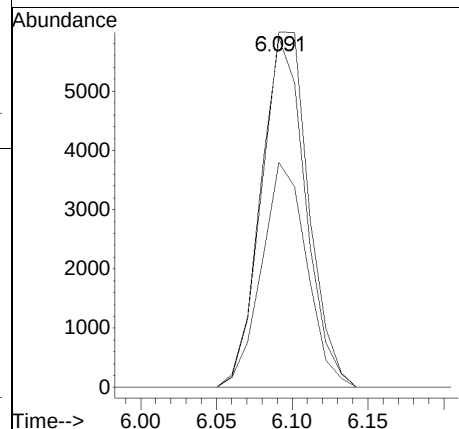
Tgt Ion: 96 Resp: 374
 Ion Ratio Lower Upper
 96 100
 61 186.1 90.3 135.5#
 98 32.4 50.8 76.2#

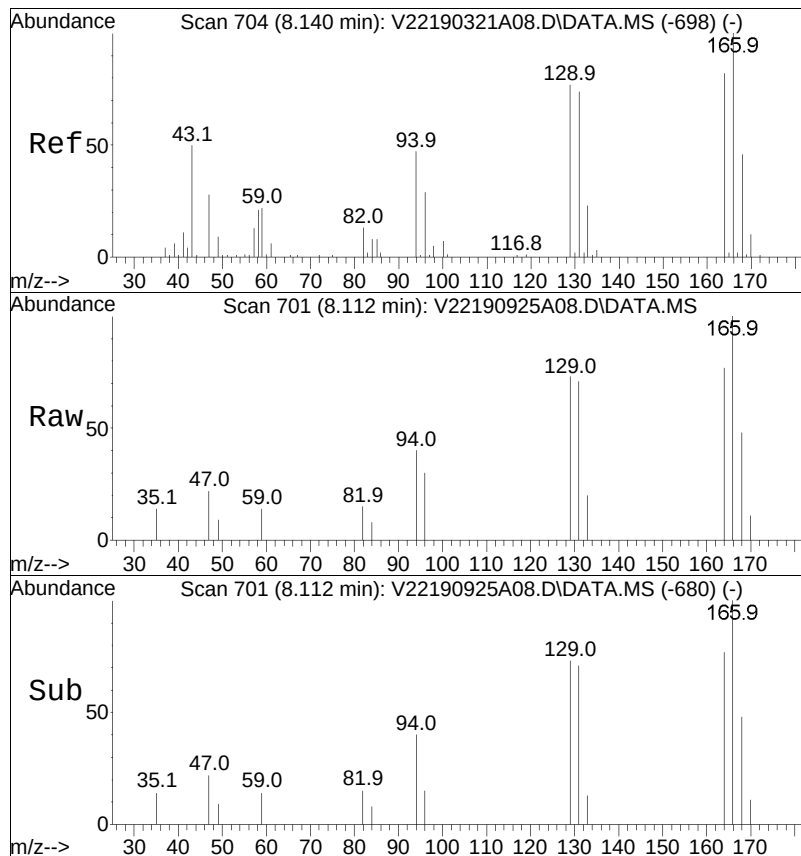




#51
 Trichloroethene
 Concen: 3.13 ug/L
 RT: 6.091 min Scan# 501
 Delta R.T. 0.000 min
 Lab File: V22190925A08.D
 Acq: 25 Sep 2019 11:19 am

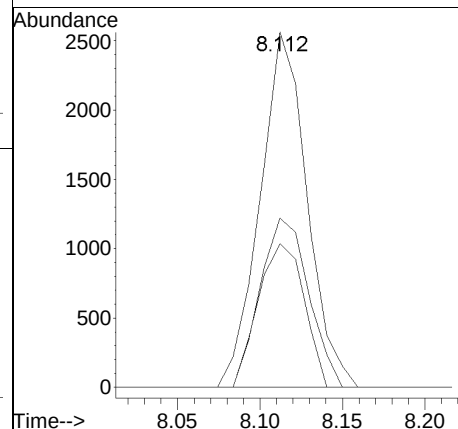
Tgt Ion	Ratio	Lower	Upper
95	100		
97	64.8	55.0	82.4
130	107.0	89.2	133.8





#66
Tetrachloroethene
Concen: 1.23 ug/L
RT: 8.112 min Scan# 701
Delta R.T. 0.000 min
Lab File: V22190925A08.D
Acq: 25 Sep 2019 11:19 am

Tgt Ion:	166	Resp:	5076
Ion Ratio	Lower	Upper	
166	100		
168	49.1	27.8	67.8
94	39.6	16.7	56.7



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10Method : V122_190821_8260.m
Data File : V22190925A08.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 11:19 am Instrument : VOA122
Sample : l1943339-02,31,10,10,,a Quant Date : 9/25/2019 3:44 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A09.D
 Acq On : 25 Sep 2019 11:44 am
 Operator : VOA122:PK
 Sample : 11943339-03,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 25 15:44:43 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	148460	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	81.76%		
62) Chlorobenzene-d5	9.457	117	109954	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	82.86%		
83) 1,4-Dichlorobenzene-d4	12.186	152	46628	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	68.21%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.105	113	42600	10.880	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.80%		
46) 1,2-Dichloroethane-d4	5.638	65	46758	10.655	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.55%		
63) Toluene-d8	7.610	98	131748	8.823	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	88.23%		
87) 4-Bromofluorobenzene	10.963	95	38865	8.062	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	80.62%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	115	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	3.570	96	2376	0.638	ug/L	95
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	7838	1.965	ug/L	91
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	4.925	83	202	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A09.D
 Acq On : 25 Sep 2019 11:44 am
 Operator : VOA122:PK
 Sample : 11943339-03,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 25 15:44:43 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.091	95	27510	6.980	ug/L	96
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	40385	9.593	ug/L	95
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A09.D
 Acq On : 25 Sep 2019 11:44 am
 Operator : VOA122:PK
 Sample : l1943339-03,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 25 15:44:43 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	12.203	146	91		N.D.	
105)	1,4-Dichlorobenzene	12.203	146	91		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

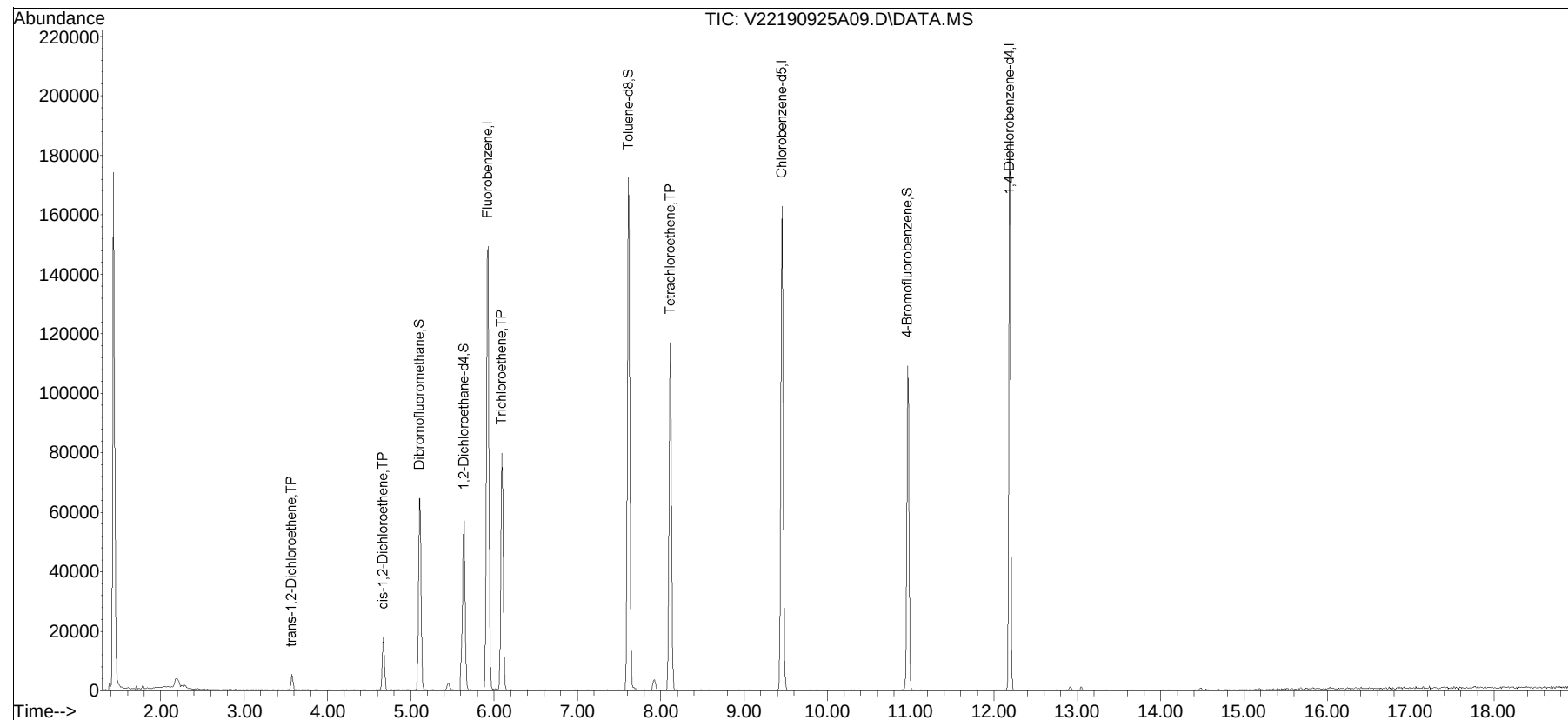
(#) = qualifier out of range (m) = manual integration (+) = signals summed

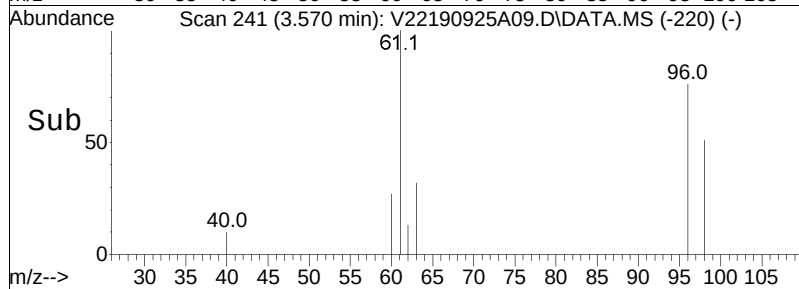
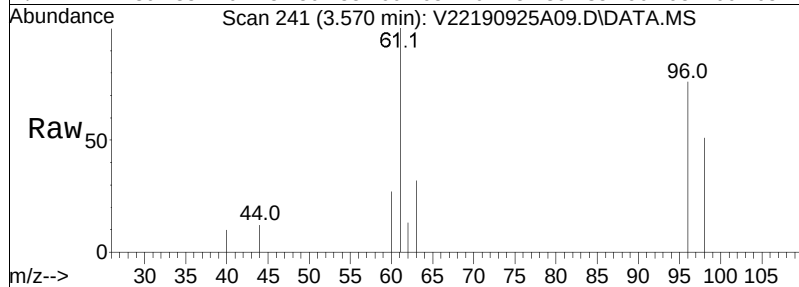
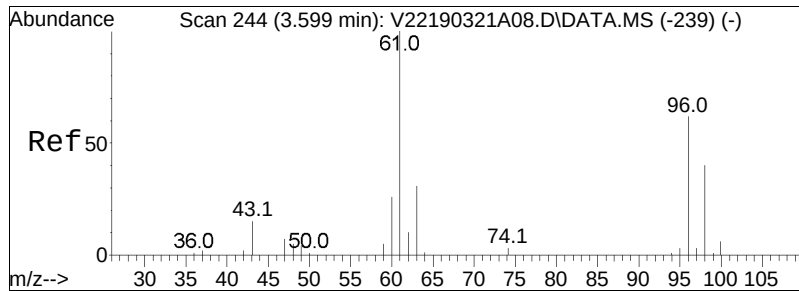
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A09.D
 Acq On : 25 Sep 2019 11:44 am
 Operator : VOA122:PK
 Sample : l1943339-03,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 25 15:44:43 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•





#18

trans-1,2-Dichloroethene

Concen: 0.64 ug/L

RT: 3.570 min Scan# 241

Delta R.T. 0.000 min

Lab File: V22190925A09.D

Acq: 25 Sep 2019 11:44 am

Tgt Ion: 96 Resp: 2376

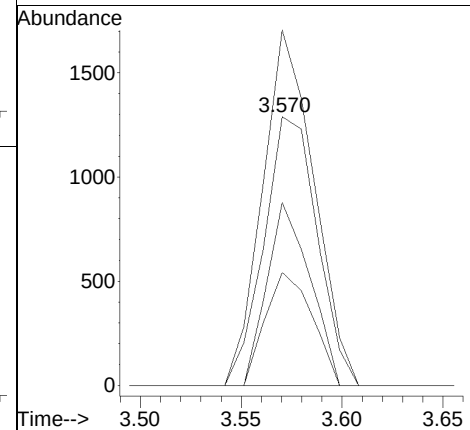
Ion Ratio Lower Upper

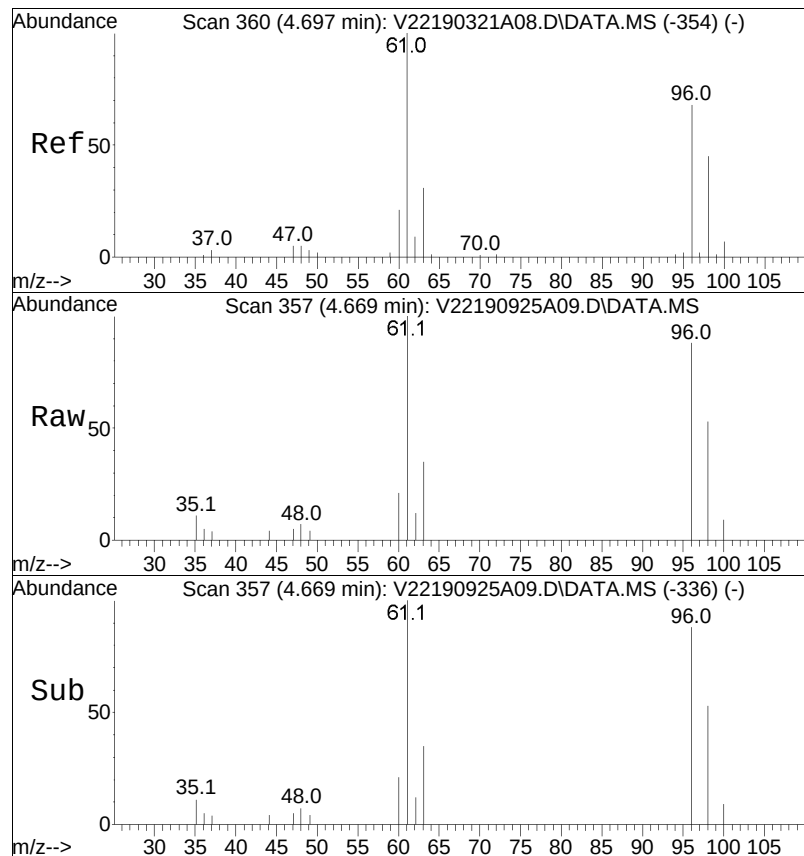
96 100

61 127.8 81.6 169.6

98 54.8 41.8 86.8

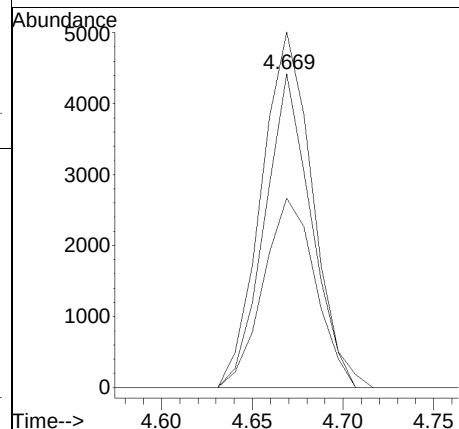
63 36.8 26.3 54.7

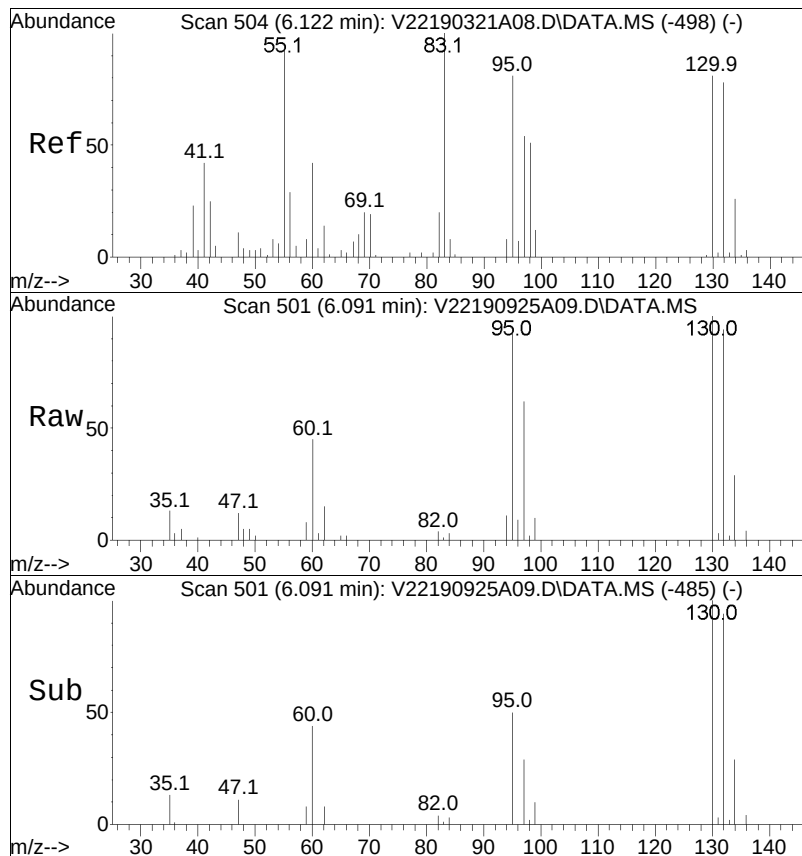




#30
 cis-1,2-Dichloroethene
 Concen: 1.97 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A09.D
 Acq: 25 Sep 2019 11:44 am

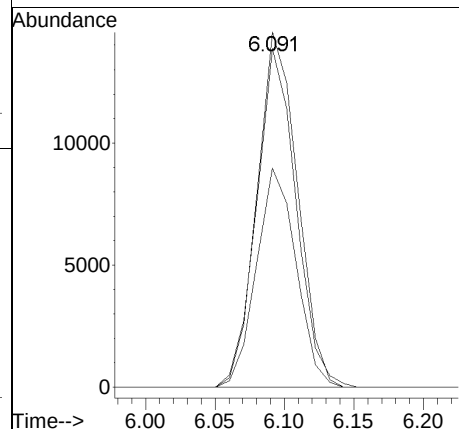
Tgt Ion: 96	Resp: 7838
Ion Ratio	Lower Upper
96 100	
61 125.4	90.3 135.5
98 67.8	50.8 76.2

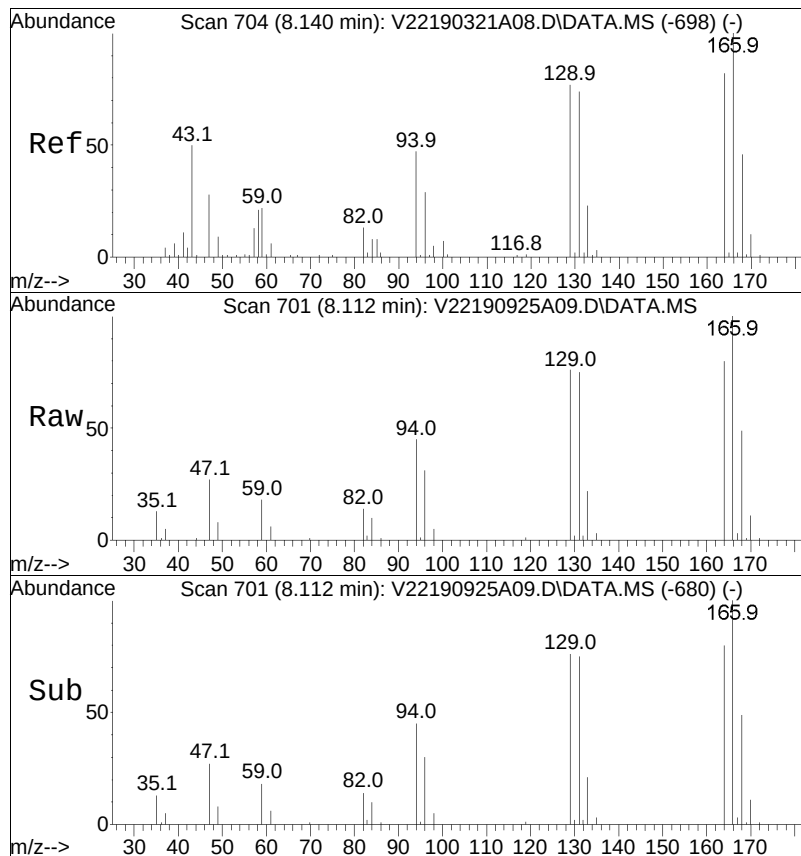




#51
 Trichloroethene
 Concen: 6.98 ug/L
 RT: 6.091 min Scan# 501
 Delta R.T. 0.000 min
 Lab File: V22190925A09.D
 Acq: 25 Sep 2019 11:44 am

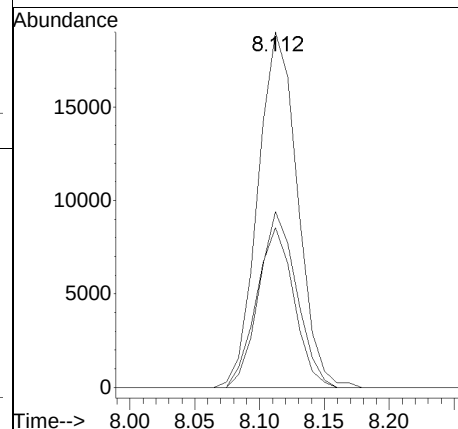
Tgt Ion:	95	Resp:	27510
Ion Ratio	Lower	Upper	
95	100		
97	65.0	55.0	82.4
130	106.9	89.2	133.8





#66
 Tetrachloroethene
 Concen: 9.59 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A09.D
 Acq: 25 Sep 2019 11:44 am

Tgt Ion:	166	Resp:	40385
Ion Ratio	Lower	Upper	
166	100		
168	46.8	27.8	67.8
94	42.7	16.7	56.7



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\10	Method	: V122_190821_8260.m
Data File	: V22190925A09.D	Operator	: VOA122:PK
Date Inj'd	: 9/25/2019 11:44 am	Instrument	: VOA122
Sample	: l1943339-03,31,10,10,,a	Quant Date	: 9/25/2019 3:44 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A10.D
 Acq On : 25 Sep 2019 12:10 pm
 Operator : VOA122:PK
 Sample : 11943339-04,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 15:44:49 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	156185	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	86.02%		
62) Chlorobenzene-d5	9.457	117	112651	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	84.89%		
83) 1,4-Dichlorobenzene-d4	12.186	152	46215	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	67.61%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	42925	10.421	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.21%		
46) 1,2-Dichloroethane-d4	5.637	65	47362	10.258	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.58%		
63) Toluene-d8	7.610	98	134457	8.789	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	87.89%		
87) 4-Bromofluorobenzene	10.962	95	39060	8.174	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	81.74%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		Qvalue
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	264	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	199	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A10.D
 Acq On : 25 Sep 2019 12:10 pm
 Operator : VOA122:PK
 Sample : 11943339-04,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 15:44:49 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0	N.D.		
39) 1,1,1-Trichloroethane	0.000		0	N.D.		
41) 2-Butanone	0.000		0	N.D.		
42) 1,1-Dichloropropene	0.000		0	N.D.		
44) Benzene	0.000		0	N.D.		
47) 1,2-Dichloroethane	0.000		0	N.D.		
51) Trichloroethene	6.091	95	2701	0.651	ug/L	96
53) Dibromomethane	0.000		0	N.D.		
54) 1,2-Dichloropropane	0.000		0	N.D.		
57) Bromodichloromethane	0.000		0	N.D.		
60) 1,4-Dioxane	0.000		0	N.D.		
61) cis-1,3-Dichloropropene	0.000		0	N.D.		
64) Toluene	7.667	92	903	0.093	ug/L	92
65) 4-Methyl-2-pentanone	0.000		0	N.D.		
66) Tetrachloroethene	8.112	166	6802	1.577	ug/L	93
68) trans-1,3-Dichloropropene	0.000		0	N.D.		
71) 1,1,2-Trichloroethane	0.000		0	N.D.		
72) Chlorodibromomethane	0.000		0	N.D.		
73) 1,3-Dichloropropane	0.000		0	N.D.		
74) 1,2-Dibromoethane	0.000		0	N.D.		
76) 2-Hexanone	0.000		0	N.D.		
77) Chlorobenzene	9.476	112	94	N.D.		
78) Ethylbenzene	0.000		0	N.D.		
79) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
80) p/m Xylene	0.000		0	N.D.		
81) o Xylene	0.000		0	N.D.		
82) Styrene	0.000		0	N.D.		
84) Bromoform	0.000		0	N.D.		
86) Isopropylbenzene	0.000		0	N.D.		
88) Bromobenzene	0.000		0	N.D.		
89) n-Propylbenzene	0.000		0	N.D.		
91) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
92) 4-Ethyltoluene	0.000		0	N.D.		
93) 2-Chlorotoluene	0.000		0	N.D.		
94) 1,3,5-Trimethylbenzene	0.000		0	N.D.		
95) 1,2,3-Trichloropropane	0.000		0	N.D.		
96) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
97) 4-Chlorotoluene	0.000		0	N.D.		
98) tert-Butylbenzene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A10.D
 Acq On : 25 Sep 2019 12:10 pm
 Operator : VOA122:PK
 Sample : l1943339-04,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 15:44:49 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	12.203	146	256		N.D.	
105)	1,4-Dichlorobenzene	12.203	146	256		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

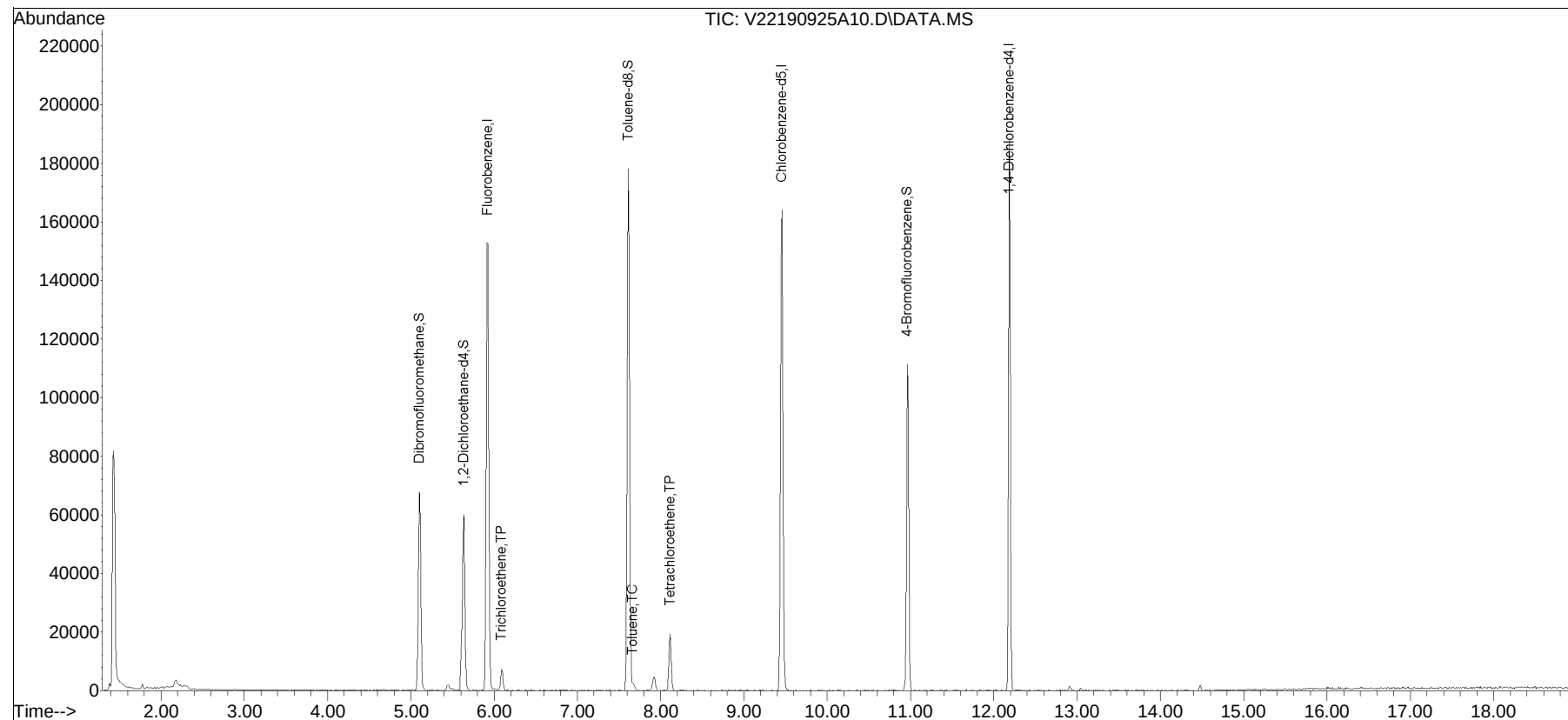
(#) = qualifier out of range (m) = manual integration (+) = signals summed

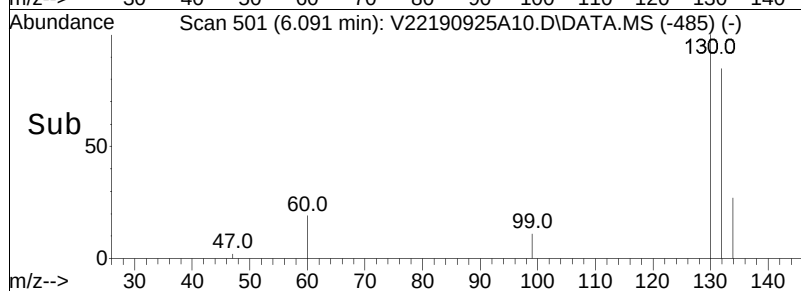
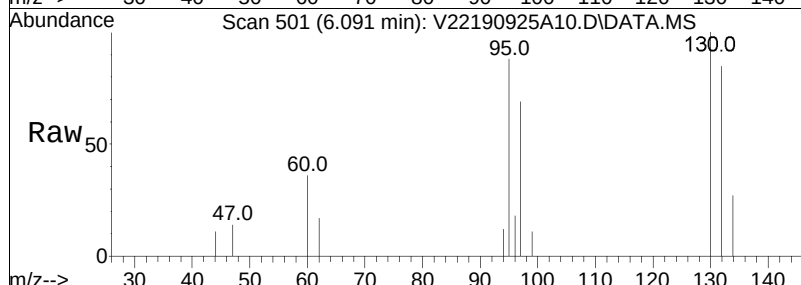
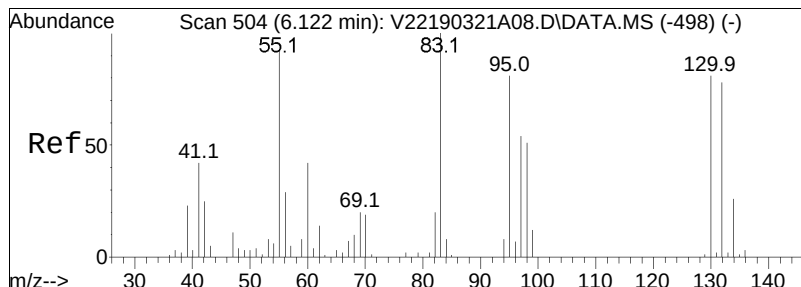
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A10.D
 Acq On : 25 Sep 2019 12:10 pm
 Operator : VOA122:PK
 Sample : l1943339-04,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 25 15:44:49 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•





#51

Trichloroethene

Concen: 0.65 ug/L

RT: 6.091 min Scan# 501

Delta R.T. 0.000 min

Lab File: V22190925A10.D

Acq: 25 Sep 2019 12:10 pm

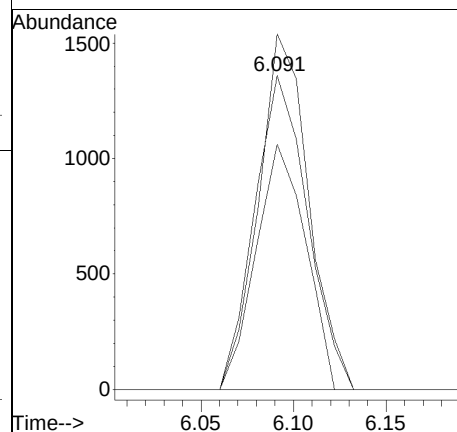
Tgt Ion: 95 Resp: 2701

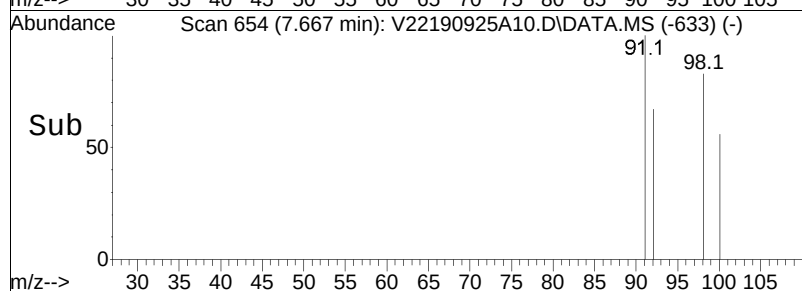
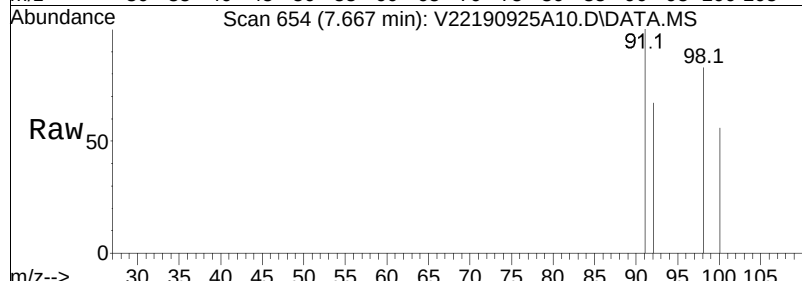
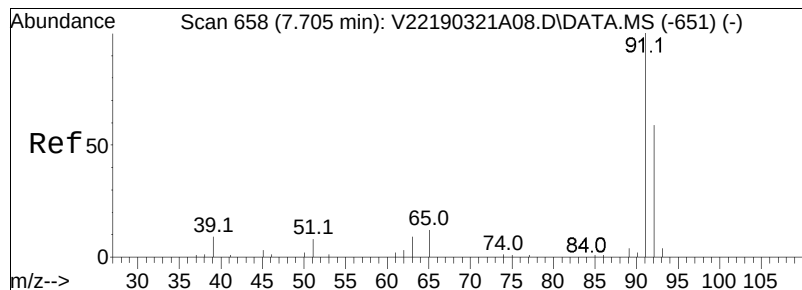
Ion Ratio Lower Upper

95 100

97 73.5 55.0 82.4

130 108.0 89.2 133.8





#64

Toluene

Concen: 0.09 ug/L

RT: 7.667 min Scan# 654

Delta R.T. -0.000 min

Lab File: V22190925A10.D

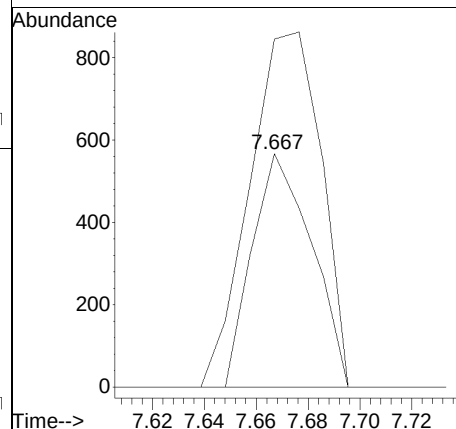
Acq: 25 Sep 2019 12:10 pm

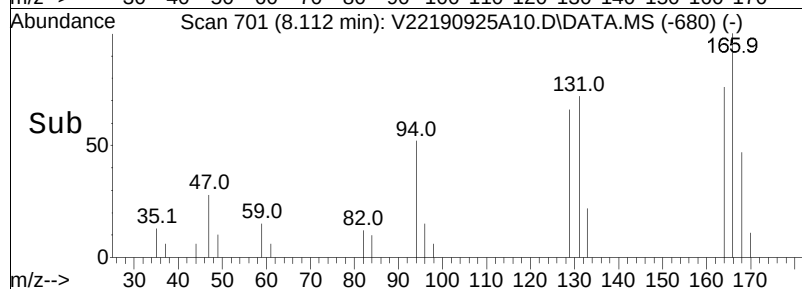
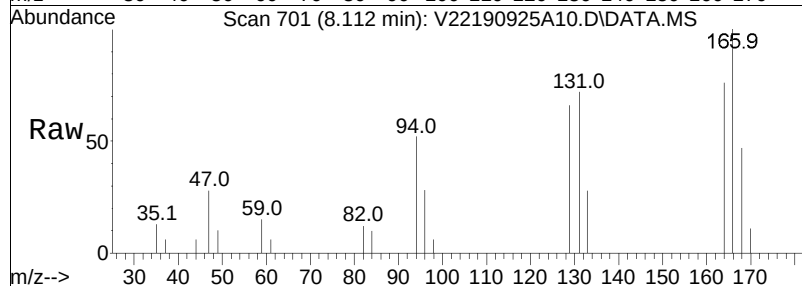
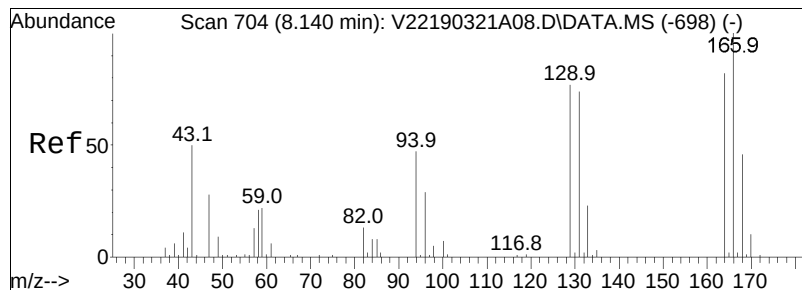
Tgt Ion: 92 Resp: 903

Ion Ratio Lower Upper

92 100

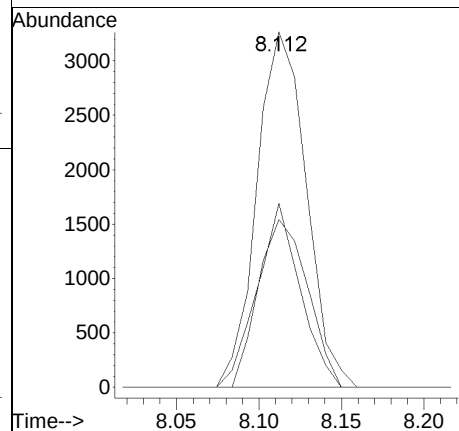
91 182.6 137.0 205.6





#66
 Tetrachloroethene
 Concen: 1.58 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A10.D
 Acq: 25 Sep 2019 12:10 pm

Tgt Ion:	166	Resp:	6802
Ion Ratio	Lower	Upper	
166	100		
168	47.4	27.8	67.8
94	45.2	16.7	56.7



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10 Method : V122_190821_8260.m
Data File : V22190925A10.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 12:10 pm Instrument : VOA122
Sample : l1943339-04,31,10,10,,a Quant Date : 9/25/2019 3:44 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A11.D
 Acq On : 25 Sep 2019 12:36 pm
 Operator : VOA122:PK
 Sample : 11943339-05,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 15:45:00 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	152930	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	84.22%		
62) Chlorobenzene-d5	9.457	117	111184	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	83.79%		
83) 1,4-Dichlorobenzene-d4	12.186	152	46356	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	67.82%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	41767	10.355	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.55%		
46) 1,2-Dichloroethane-d4	5.637	65	47626	10.535	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.35%		
63) Toluene-d8	7.610	98	135191	8.954	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.54%		
87) 4-Bromofluorobenzene	10.963	95	38697	8.074	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	80.74%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	260	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.684	73	241	N.D.		
25) 1,1-Dichloroethane	4.157	63	199	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	2698	0.657	ug/L	90
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	4.925	83	115	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A11.D
 Acq On : 25 Sep 2019 12:36 pm
 Operator : VOA122:PK
 Sample : 11943339-05,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 15:45:00 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.091	95	8143	2.006	ug/L	99
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	19562	4.595	ug/L	94
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A11.D
 Acq On : 25 Sep 2019 12:36 pm
 Operator : VOA122:PK
 Sample : l1943339-05,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 15:45:00 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	12.203	146	90		N.D.	
105)	1,4-Dichlorobenzene	12.203	146	90		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

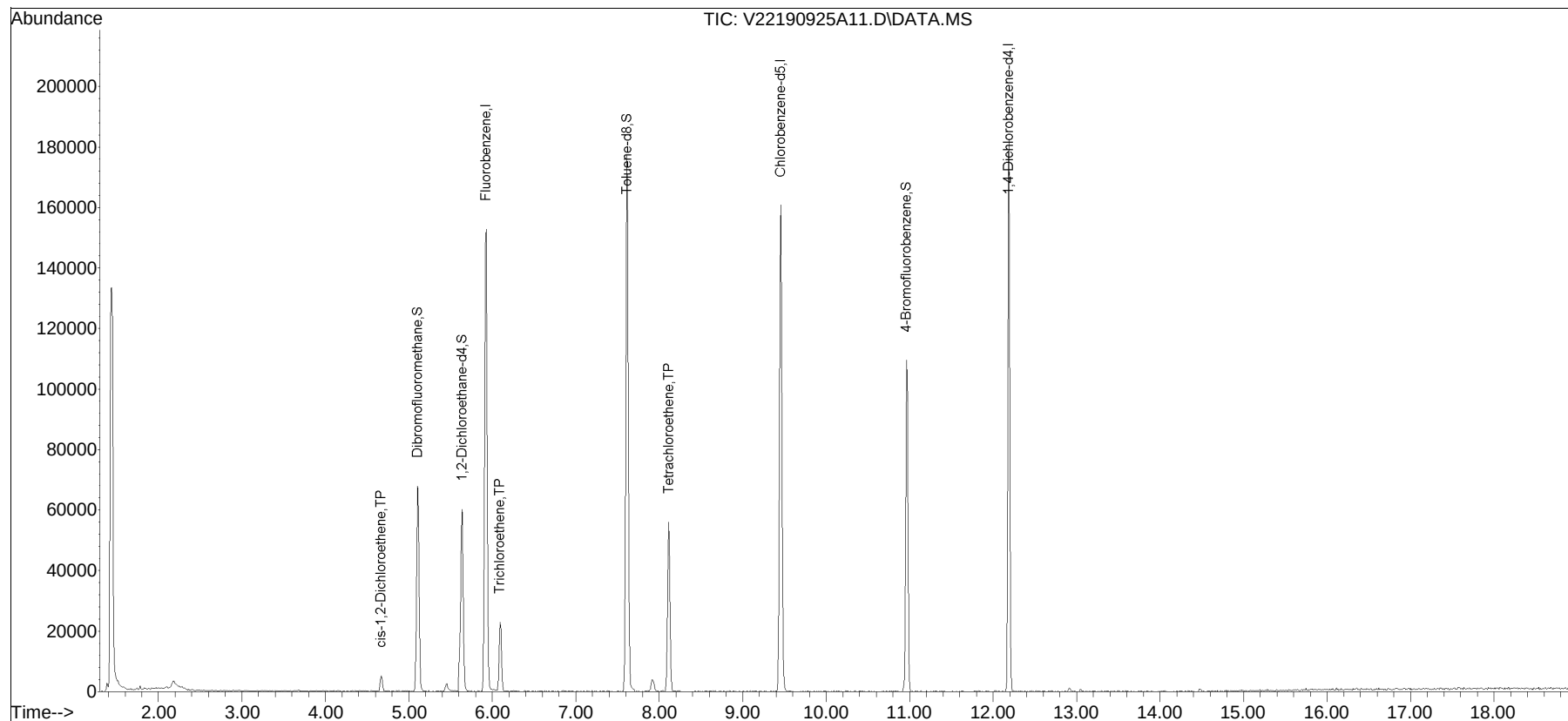
(#) = qualifier out of range (m) = manual integration (+) = signals summed

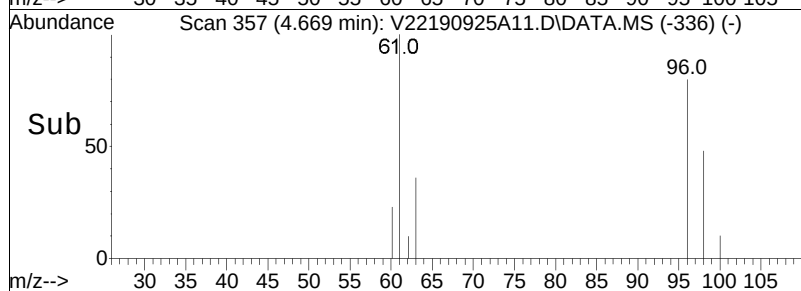
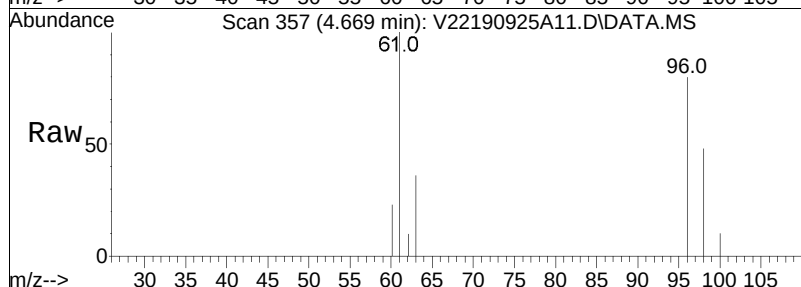
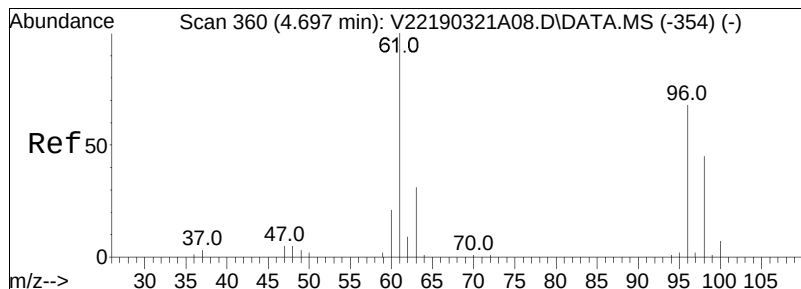
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A11.D
 Acq On : 25 Sep 2019 12:36 pm
 Operator : VOA122:PK
 Sample : l1943339-05,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 25 15:45:00 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

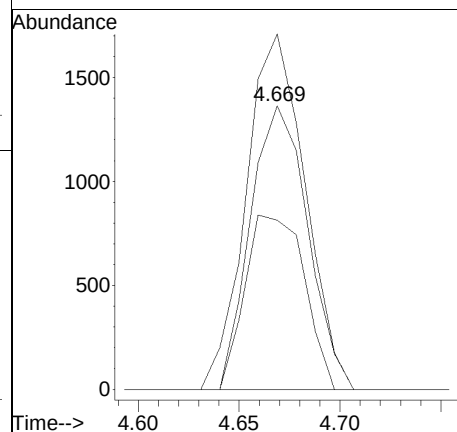
Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•

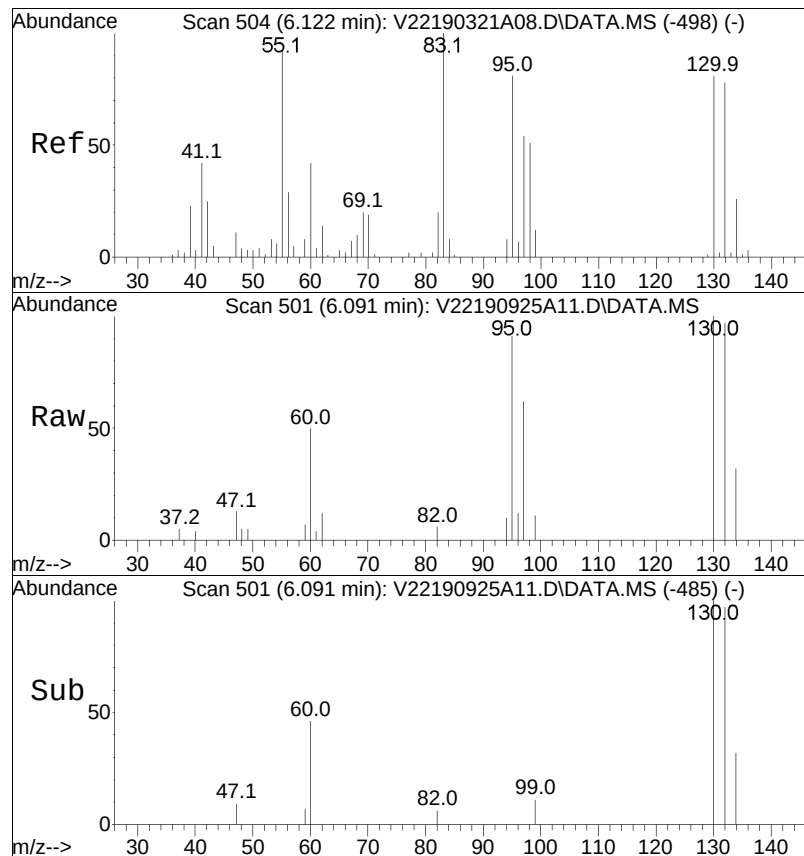




#30
 cis-1,2-Dichloroethene
 Concen: 0.66 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A11.D
 Acq: 25 Sep 2019 12:36 pm

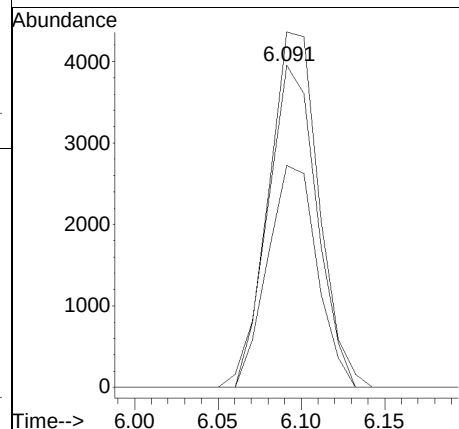
Tgt Ion:	96	Resp:	2698
Ion Ratio	Lower	Upper	
96	100		
61	128.9	90.3	135.5
98	63.4	50.8	76.2

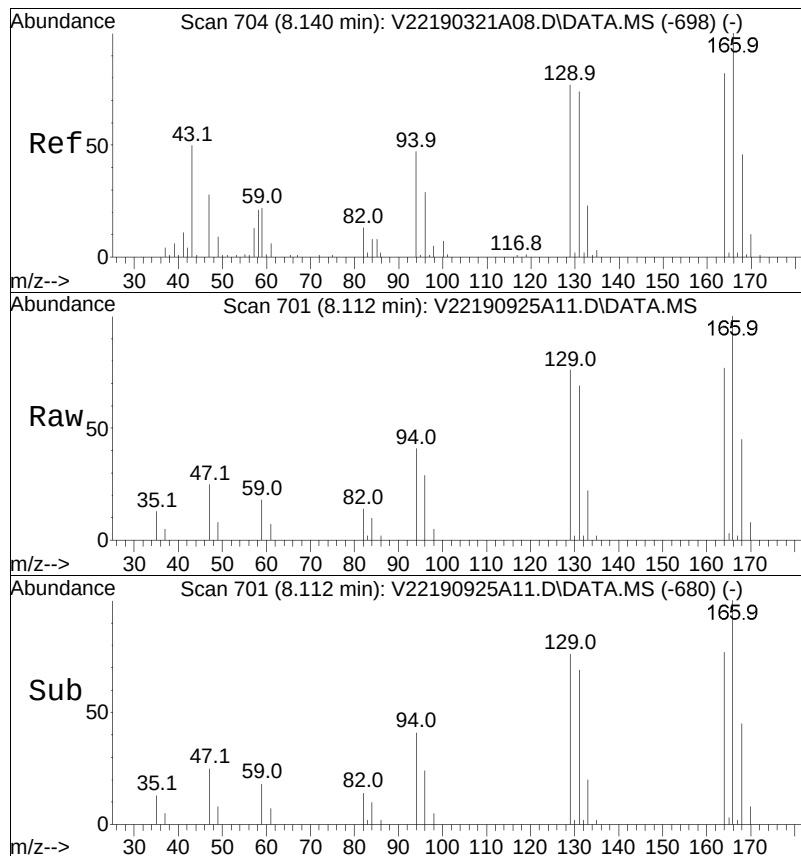




#51
 Trichloroethene
 Concen: 2.01 ug/L
 RT: 6.091 min Scan# 501
 Delta R.T. 0.000 min
 Lab File: V22190925A11.D
 Acq: 25 Sep 2019 12:36 pm

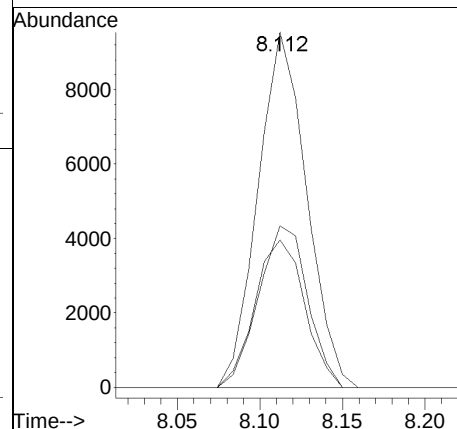
Tgt Ion	Ratio	Lower	Upper
95	100		
97	69.4	55.0	82.4
130	111.9	89.2	133.8





#66
 Tetrachloroethene
 Concen: 4.60 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A11.D
 Acq: 25 Sep 2019 12:36 pm

Tgt Ion:	166	Resp:	19562
Ion Ratio	Lower	Upper	
166	100		
168	46.0	27.8	67.8
94	42.4	16.7	56.7



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10 Method : V122_190821_8260.m
Data File : V22190925A11.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 12:36 pm Instrument : VOA122
Sample : l1943339-05,31,10,10,,a Quant Date : 9/25/2019 3:44 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A12.D
 Acq On : 25 Sep 2019 01:02 pm
 Operator : VOA122:PK
 Sample : 11943339-06,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 25 15:48:15 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	145732	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	80.26%		
62) Chlorobenzene-d5	9.457	117	104831	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	79.00%		
83) 1,4-Dichlorobenzene-d4	12.186	152	45398	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	66.41%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.105	113	40408	10.513	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.13%		
46) 1,2-Dichloroethane-d4	5.637	65	44779	10.395	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.95%		
63) Toluene-d8	7.610	98	128011	8.992	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.92%		
87) 4-Bromofluorobenzene	10.963	95	37915	8.078	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	80.78%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D. d		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	2.869	96	1750	0.537	ug/L	87
11) Carbon disulfide	2.898	76	311	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	3.475	43	141	Below Cal	#	46
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	3.674	73	1764	0.236	ug/L	# 76
25) 1,1-Dichloroethane	4.157	63	2687	0.415	ug/L	94
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	7843	2.003	ug/L	94
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A12.D
 Acq On : 25 Sep 2019 01:02 pm
 Operator : VOA122:PK
 Sample : 11943339-06,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 25 15:48:15 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	5.142	97	336		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	5.502	78	562		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.102	95	5176	1.338	ug/L	92
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	10555	2.630	ug/L	97
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	9.476	112	1842	0.188	ug/L #	67
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A12.D
 Acq On : 25 Sep 2019 01:02 pm
 Operator : VOA122:PK
 Sample : l1943339-06,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 25 15:48:15 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	11.891	105	142	N.D.		
102)	sec-Butylbenzene	11.891	105	142	N.D.		
103)	p-Isopropyltoluene	0.000		0	N.D.		
104)	1,3-Dichlorobenzene	12.108	146	211	N.D.		
105)	1,4-Dichlorobenzene	12.203	146	509	0.075 ug/L	#	1
106)	p-Diethylbenzene	0.000		0	N.D.		
107)	n-Butylbenzene	0.000		0	N.D.		
108)	1,2-Dichlorobenzene	12.635	146	1048	0.169 ug/L		90
109)	1,2,4,5-Tetramethylben...	0.000		0	N.D.		
110)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
112)	Hexachlorobutadiene	0.000		0	N.D.		
113)	1,2,4-Trichlorobenzene	14.050	180	308	0.082 ug/L	#	72
114)	Naphthalene	0.000		0	N.D.		
115)	1,2,3-Trichlorobenzene	0.000		0	N.D.		

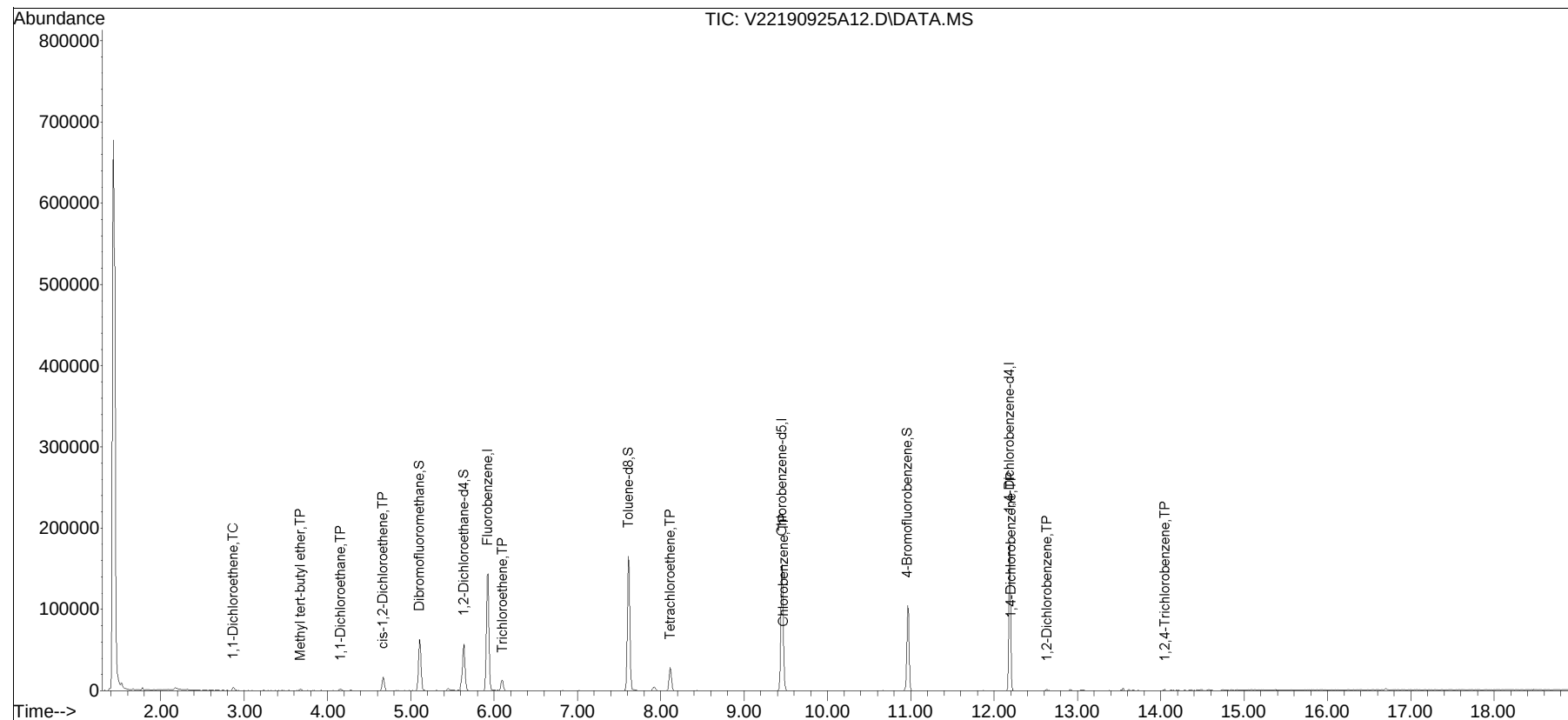
(#) = qualifier out of range (m) = manual integration (+) = signals summed

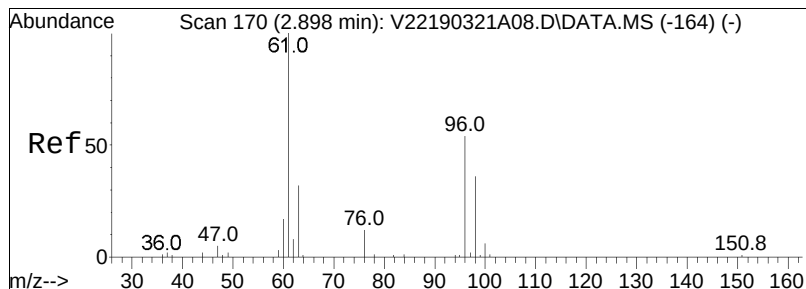
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A12.D
 Acq On : 25 Sep 2019 01:02 pm
 Operator : VOA122:PK
 Sample : l1943339-06,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 25 15:48:15 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

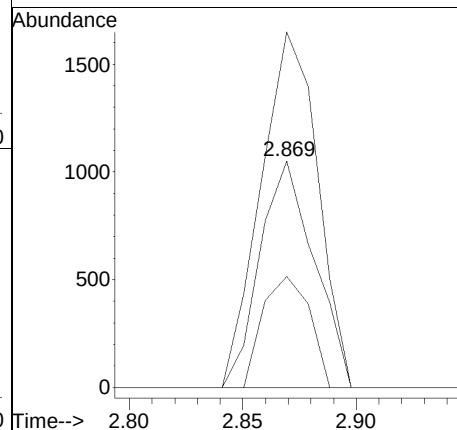
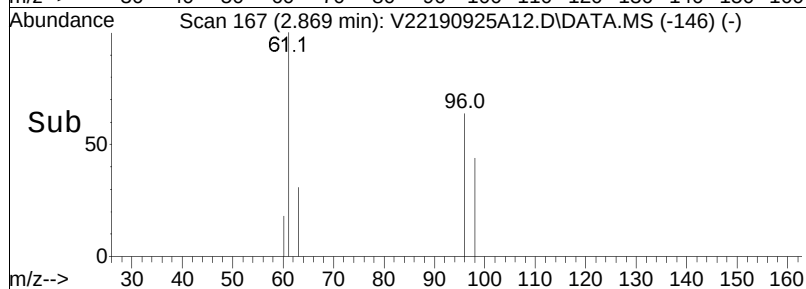
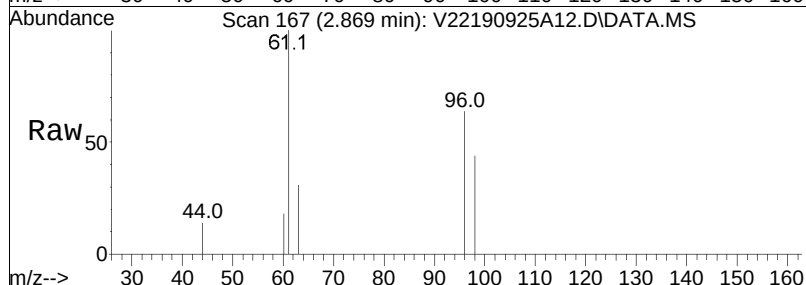
Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•

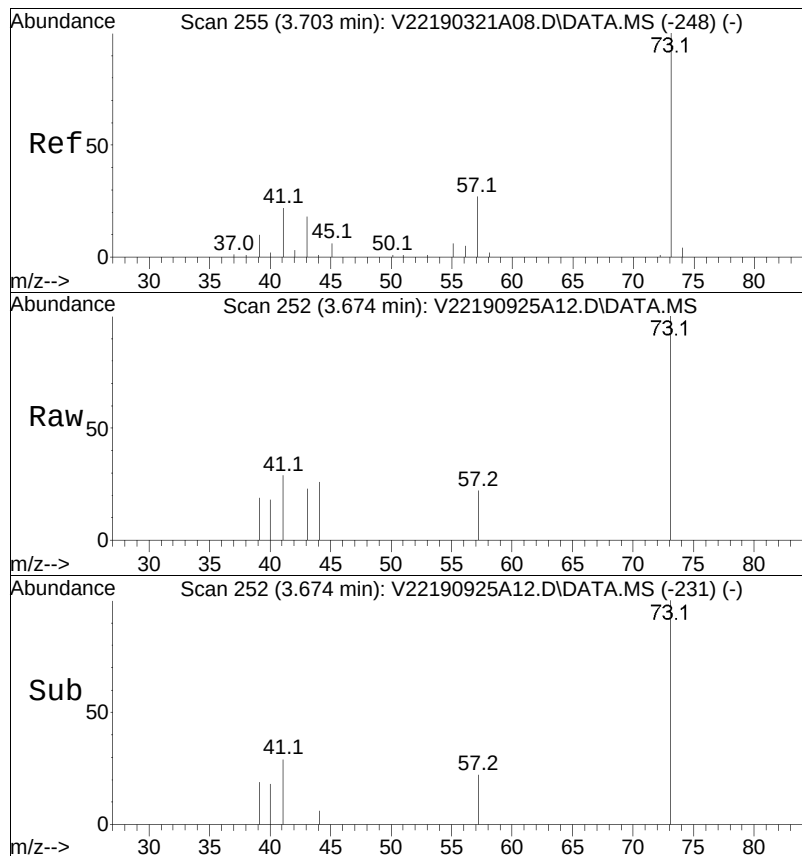




#10
 1,1-Dichloroethene
 Concen: 0.54 ug/L
 RT: 2.869 min Scan# 167
 Delta R.T. 0.000 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

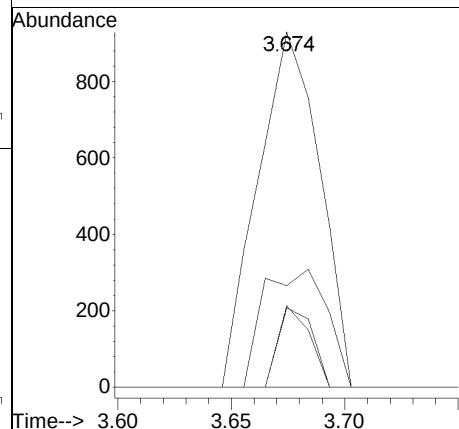
Tgt Ion:	96	Resp:	1750
Ion Ratio	Lower	Upper	
96	100		
61	164.2	117.0	175.4
63	42.5	37.8	56.6

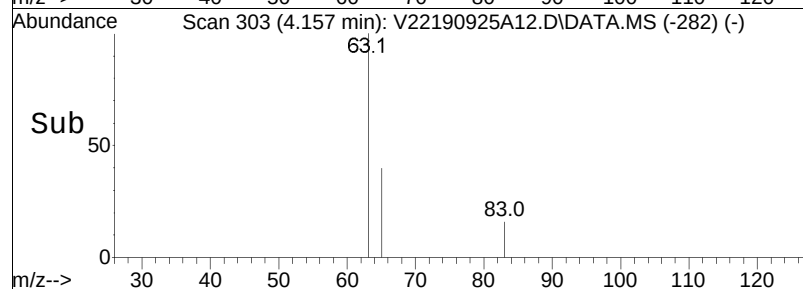
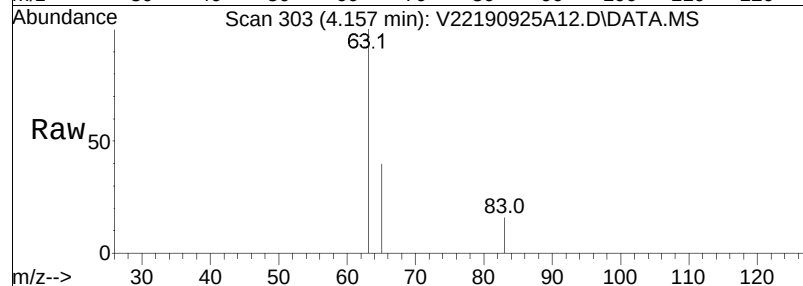
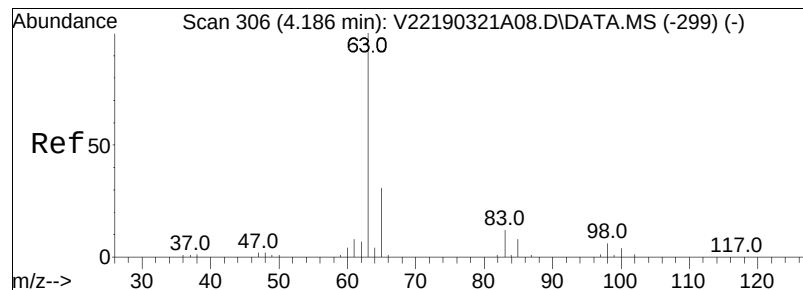




#21
 Methyl tert-butyl ether
 Concen: 0.24 ug/L
 RT: 3.674 min Scan# 252
 Delta R.T. 0.000 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

Tgt Ion:	73	Resp:	1764
Ion Ratio	Lower	Upper	
73	100		
57	12.5	13.6	28.2#
43	11.7	12.7	26.5#
41	34.0	11.4	23.8#





#25

1,1-Dichloroethane

Concen: 0.42 ug/L

RT: 4.157 min Scan# 303

Delta R.T. 0.000 min

Lab File: V22190925A12.D

Acq: 25 Sep 2019 01:02 pm

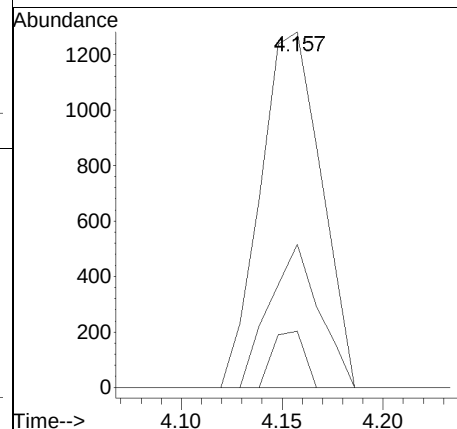
Tgt Ion: 63 Resp: 2687

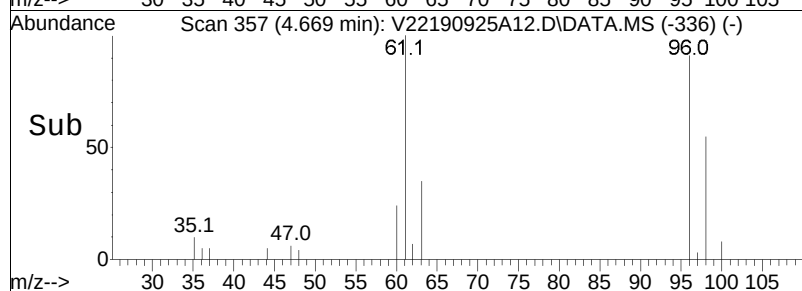
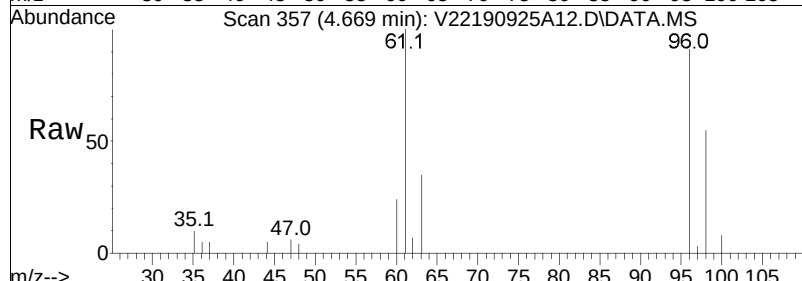
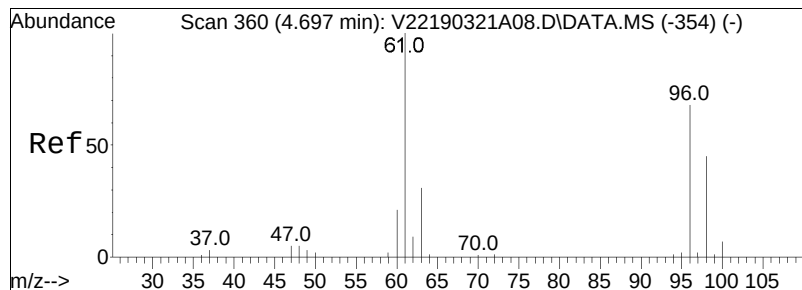
Ion Ratio Lower Upper

63 100

65 32.9 11.9 51.9

83 8.3 0.0 34.2





#30

cis-1,2-Dichloroethene

Concen: 2.00 ug/L

RT: 4.669 min Scan# 357

Delta R.T. -0.000 min

Lab File: V22190925A12.D

Acq: 25 Sep 2019 01:02 pm

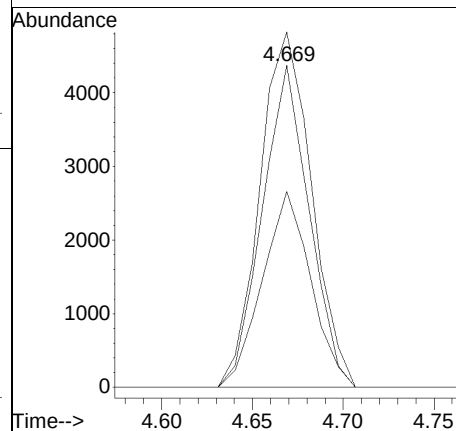
Tgt Ion: 96 Resp: 7843

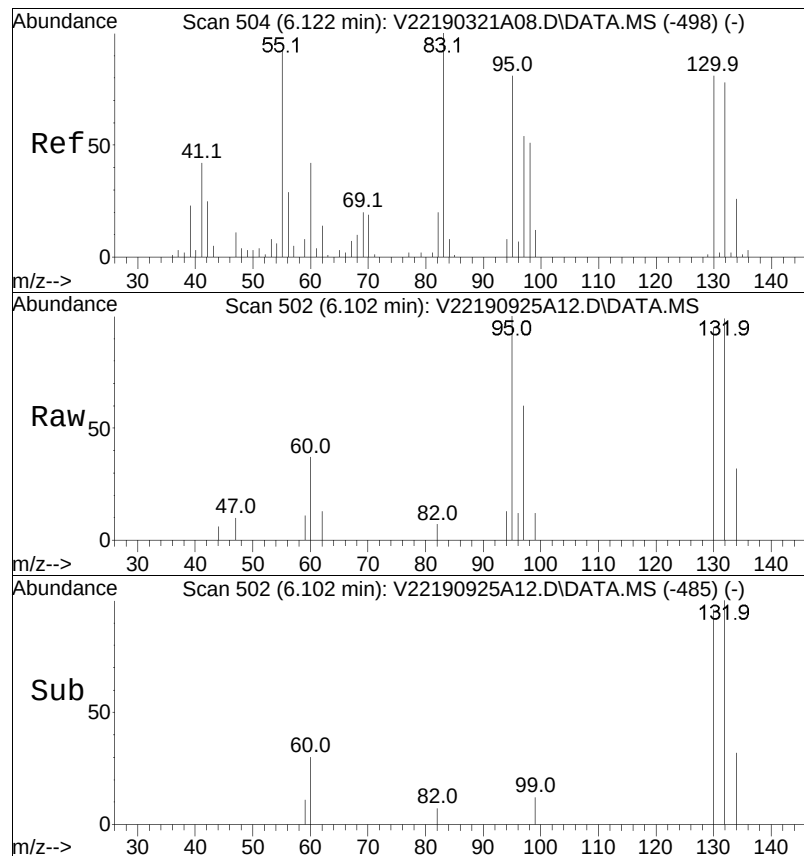
Ion Ratio Lower Upper

96 100

61 121.9 90.3 135.5

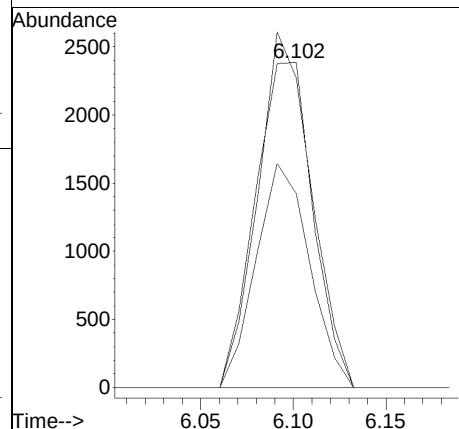
98 63.0 50.8 76.2

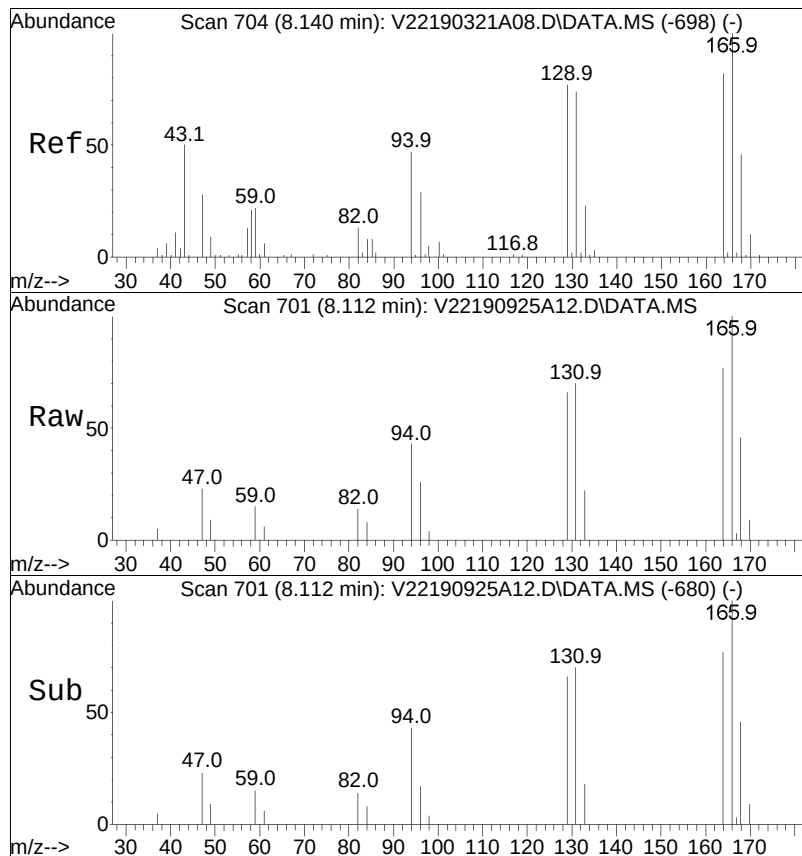




#51
 Trichloroethene
 Concen: 1.34 ug/L
 RT: 6.102 min Scan# 502
 Delta R.T. 0.011 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

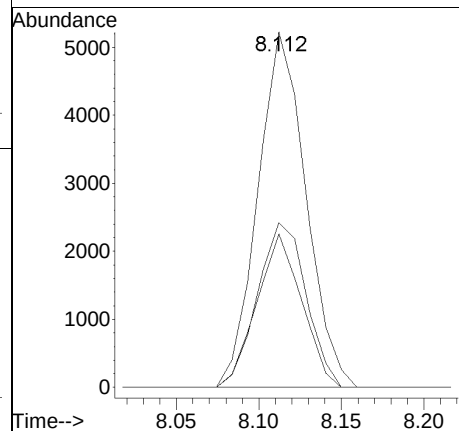
Tgt Ion:	95	Resp:	5176
Ion Ratio	Lower	Upper	
95	100		
97	63.7	55.0	82.4
130	101.2	89.2	133.8

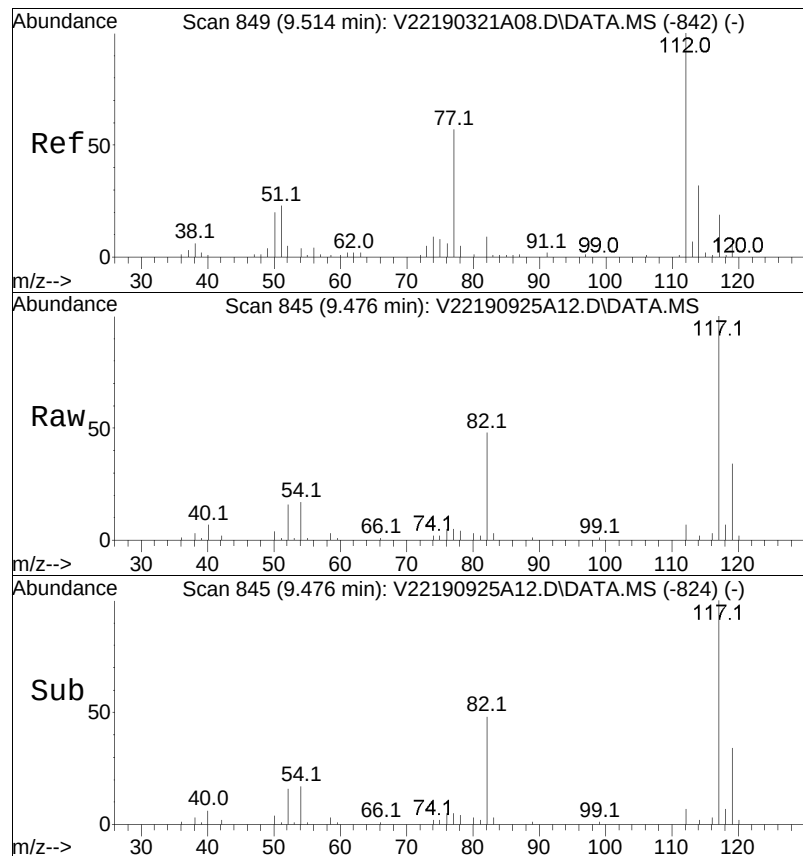




#66
 Tetrachloroethene
 Concen: 2.63 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

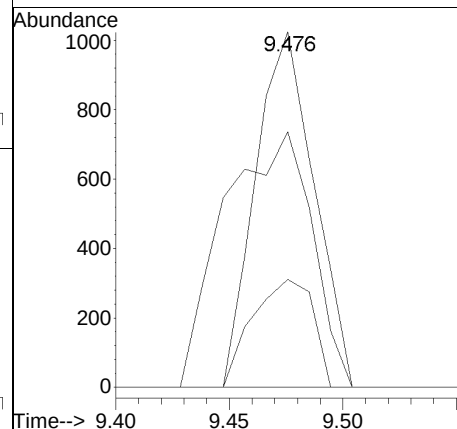
Tgt Ion:	166	Resp:	10555
Ion Ratio	Lower	Upper	
166	100		
168	47.0	27.8	67.8
94	40.5	16.7	56.7

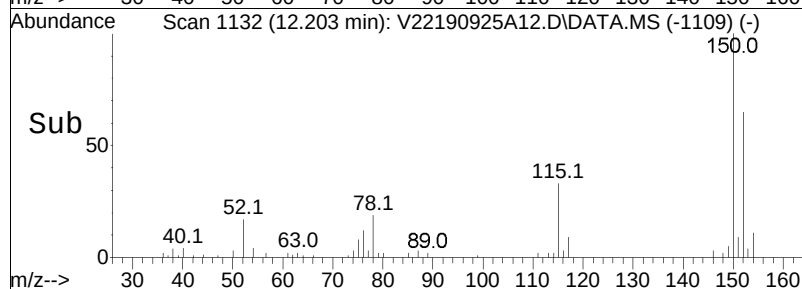
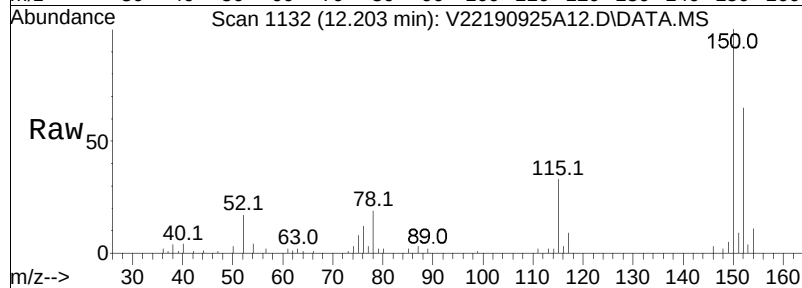
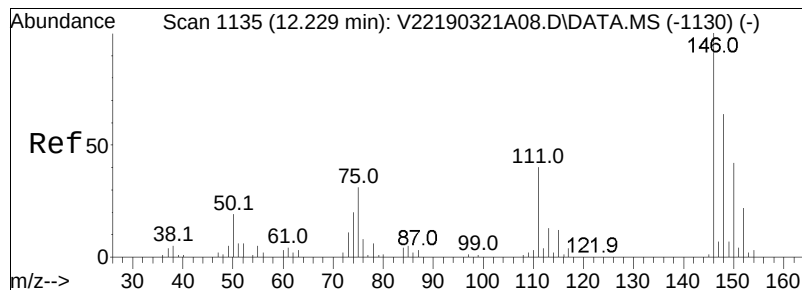




#77
 Chlorobenzene
 Concen: 0.19 ug/L
 RT: 9.476 min Scan# 845
 Delta R.T. -0.000 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

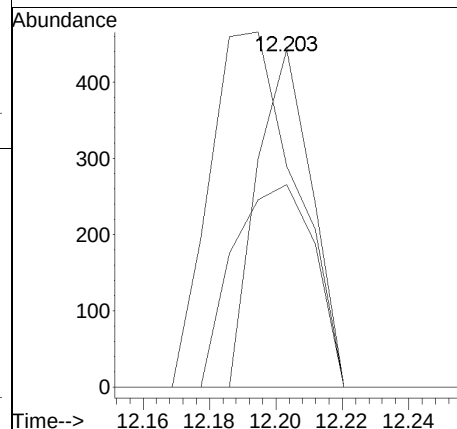
Tgt Ion	Ratio	Lower	Upper
112	100		
77	107.7	55.4	83.0#
114	31.3	26.2	39.4

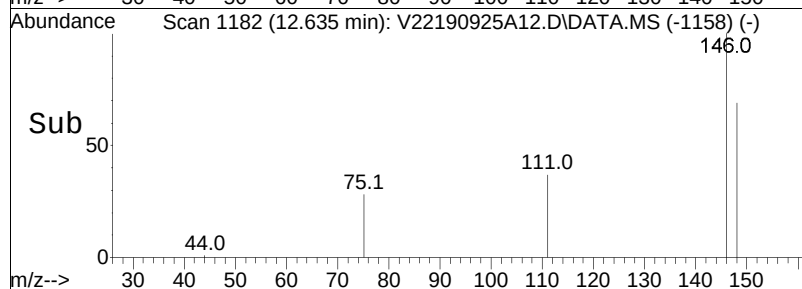
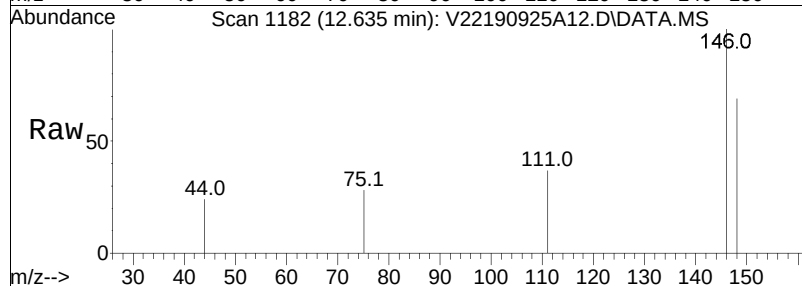
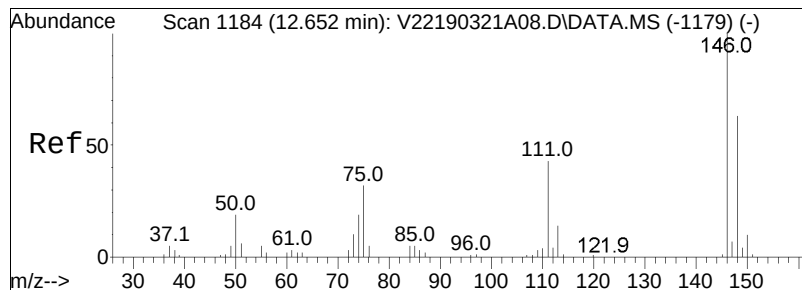




#105
 1,4-Dichlorobenzene
 Concen: 0.07 ug/L
 RT: 12.203 min Scan# 1132
 Delta R.T. 0.000 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

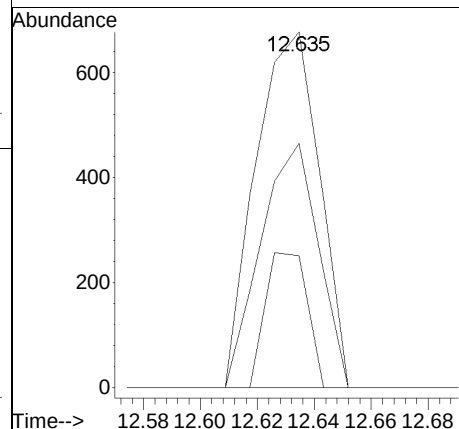
Tgt Ion	Ratio	Lower	Upper
146	100		
111	164.6	28.9	43.3#
148	89.2	51.4	77.2#

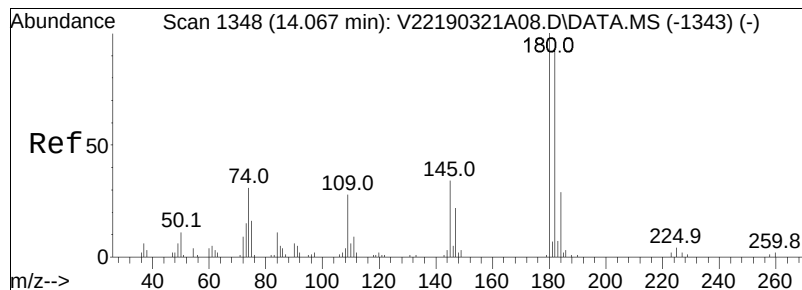




#108
 1,2-Dichlorobenzene
 Concen: 0.17 ug/L
 RT: 12.635 min Scan# 1182
 Delta R.T. 0.009 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

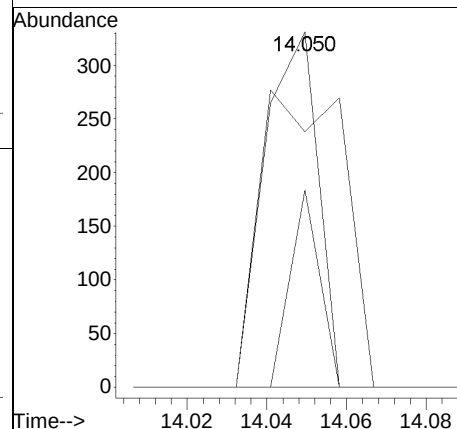
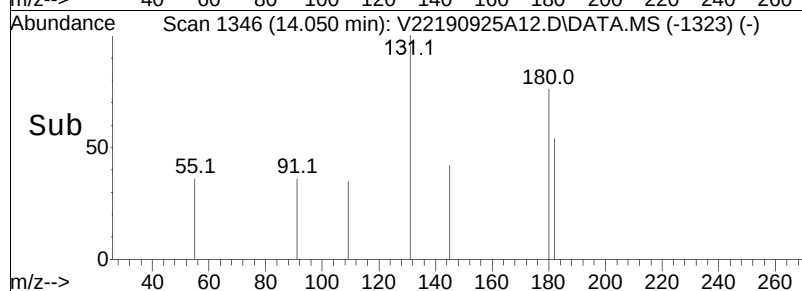
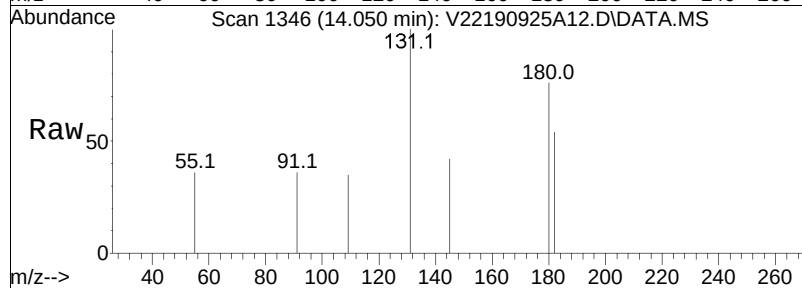
Tgt Ion	Ratio	Lower	Upper
146	100		
111	25.1	24.8	51.6
148	62.4	42.2	87.6





#113
 1,2,4-Trichlorobenzene
 Concen: 0.08 ug/L
 RT: 14.050 min Scan# 1346
 Delta R.T. 0.001 min
 Lab File: V22190925A12.D
 Acq: 25 Sep 2019 01:02 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	131.8	76.6	114.8#
145	30.8	25.5	38.3



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10 Method : V122_190821_8260.m
Data File : V22190925A12.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 1:02 pm Instrument : VOA122
Sample : l1943339-06,31,10,10,,a Quant Date : 9/25/2019 3:45 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A13.D
 Acq On : 25 Sep 2019 01:28 pm
 Operator : VOA122:PK
 Sample : 11943339-07,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 25 15:45:13 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	148327	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	81.69%		
62) Chlorobenzene-d5	9.457	117	106539	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	80.29%		
83) 1,4-Dichlorobenzene-d4	12.186	152	45101	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	65.98%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	41285	10.554	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.54%		
46) 1,2-Dichloroethane-d4	5.637	65	47540	10.842	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.42%		
63) Toluene-d8	7.610	98	130041	8.988	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.88%		
87) 4-Bromofluorobenzene	10.962	95	38046	8.159	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	81.59%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	116	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	4.669	96	299	0.075	ug/L	# 61
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A13.D
 Acq On : 25 Sep 2019 01:28 pm
 Operator : VOA122:PK
 Sample : 11943339-07,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 25 15:45:13 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	6.101	95	2776	0.705	ug/L	93
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	7.667	92	938	0.102	ug/L	75
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	8.112	166	6877	1.686	ug/L	94
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A13.D
 Acq On : 25 Sep 2019 01:28 pm
 Operator : VOA122:PK
 Sample : l1943339-07,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 25 15:45:13 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	12.117	146	94		N.D.	
105)	1,4-Dichlorobenzene	12.203	146	357		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

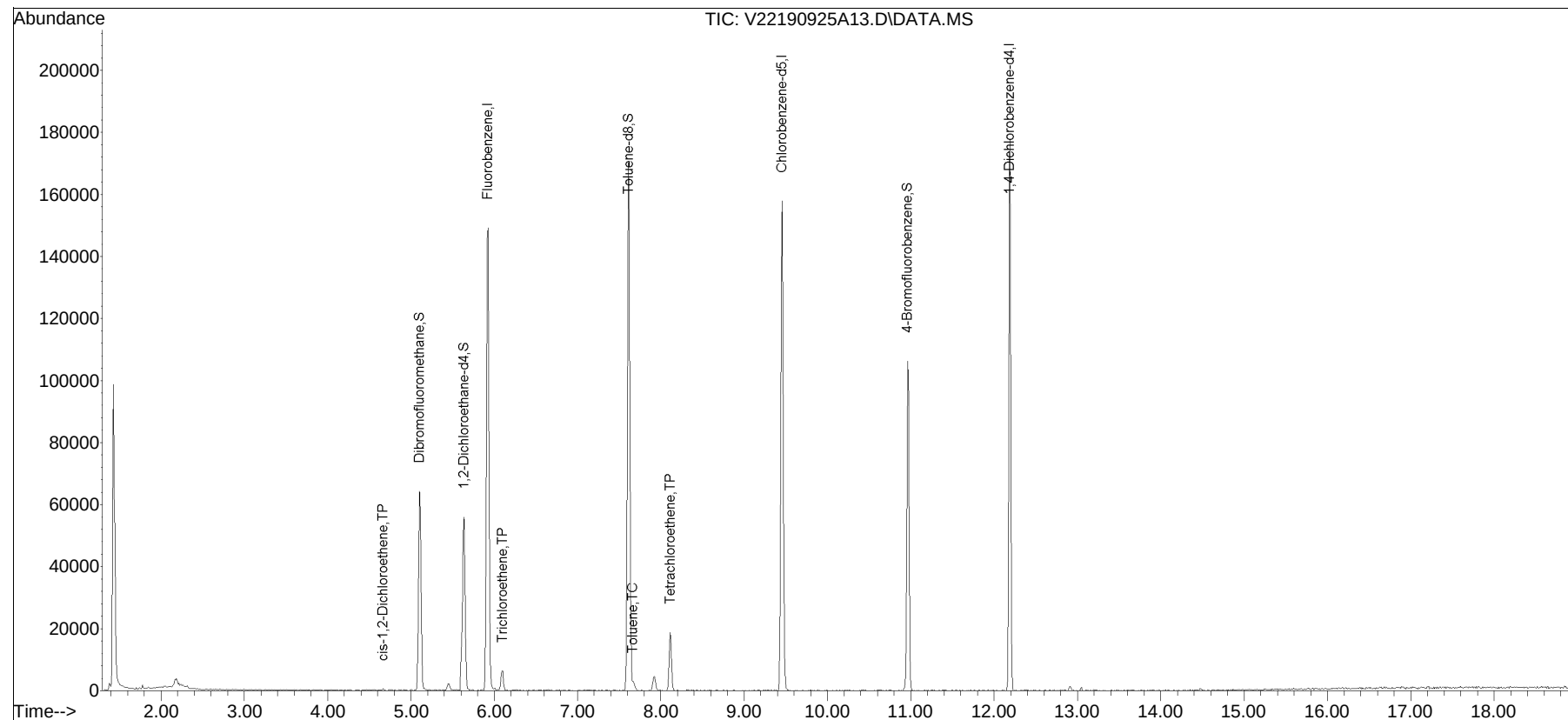
(#) = qualifier out of range (m) = manual integration (+) = signals summed

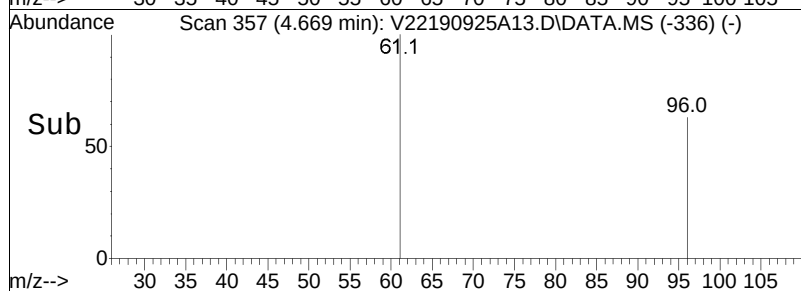
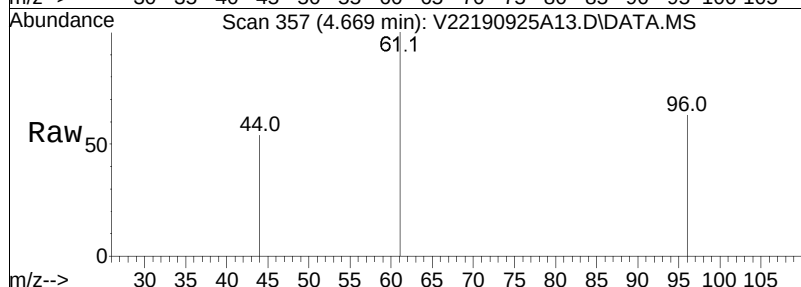
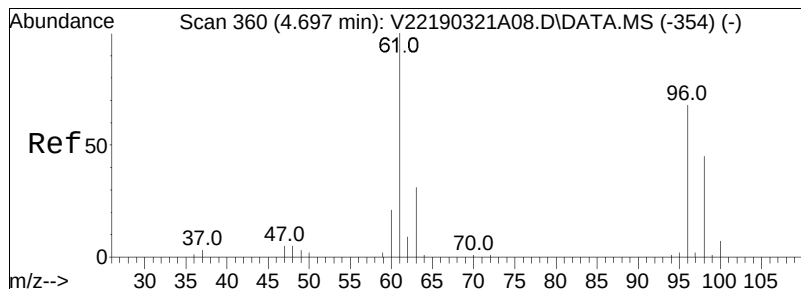
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A13.D
 Acq On : 25 Sep 2019 01:28 pm
 Operator : VOA122:PK
 Sample : l1943339-07,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 25 15:45:13 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

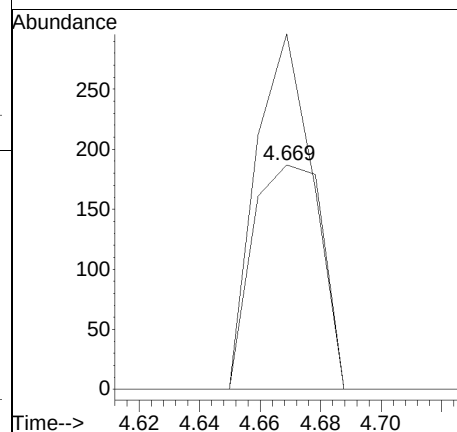
Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•

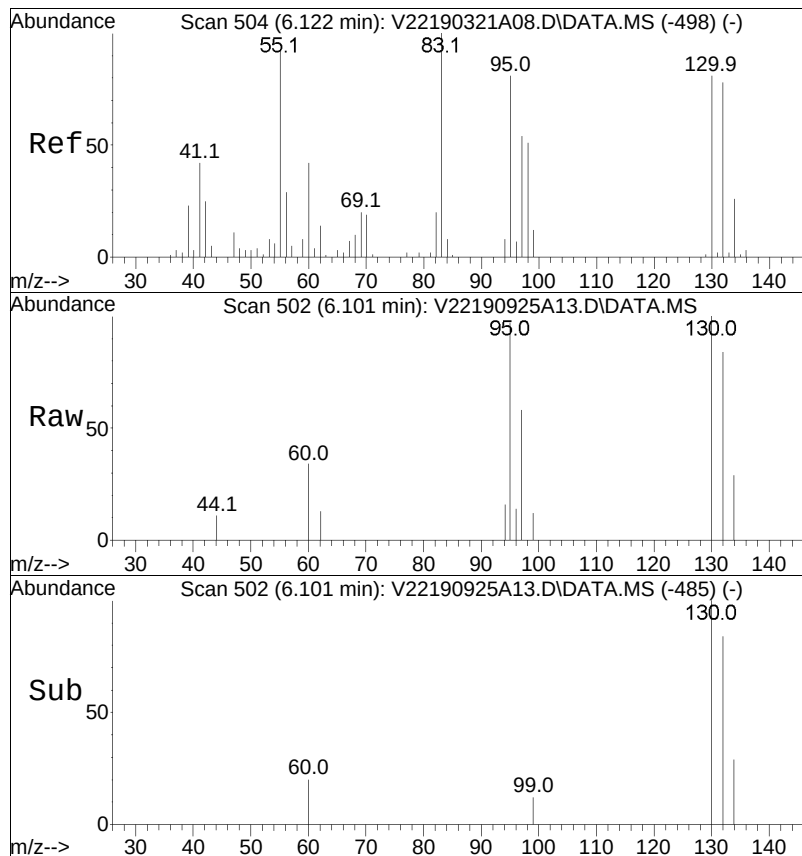




#30
 cis-1,2-Dichloroethene
 Concen: 0.08 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A13.D
 Acq: 25 Sep 2019 01:28 pm

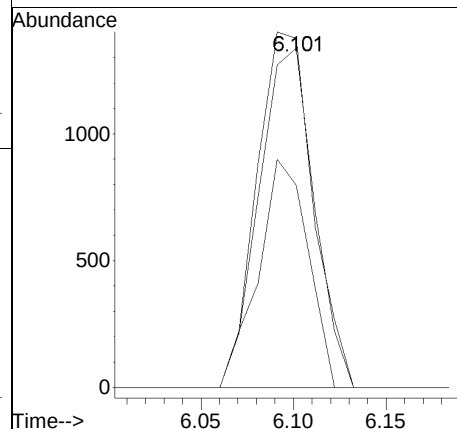
Tgt Ion: 96 Resp: 299
 Ion Ratio Lower Upper
 96 100
 61 128.4 90.3 135.5
 98 0.0 50.8 76.2#

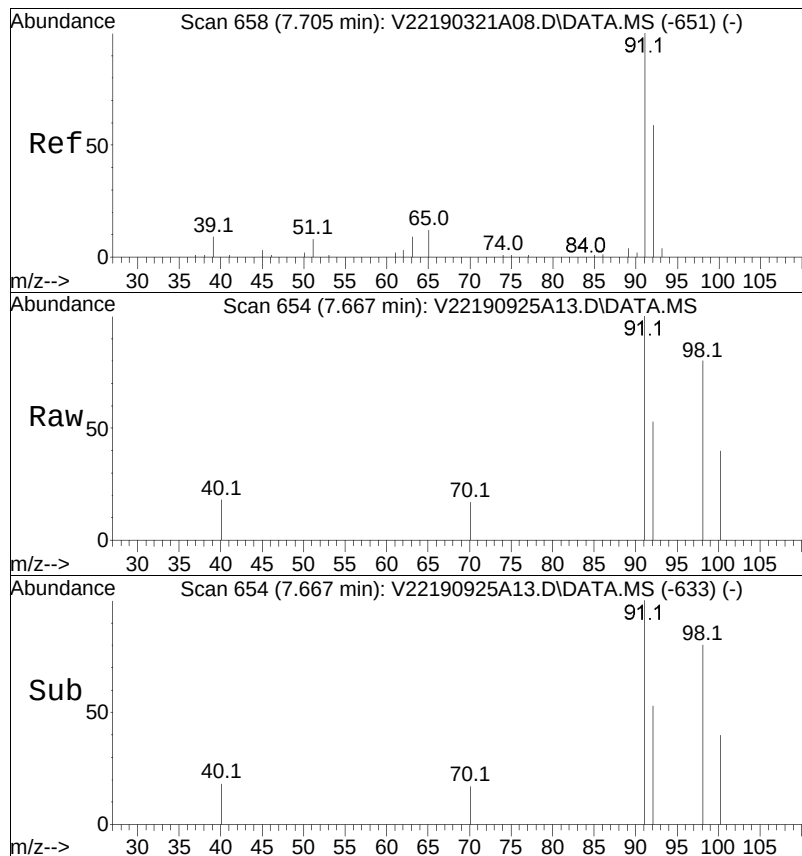




#51
 Trichloroethene
 Concen: 0.70 ug/L
 RT: 6.101 min Scan# 502
 Delta R.T. 0.010 min
 Lab File: V22190925A13.D
 Acq: 25 Sep 2019 01:28 pm

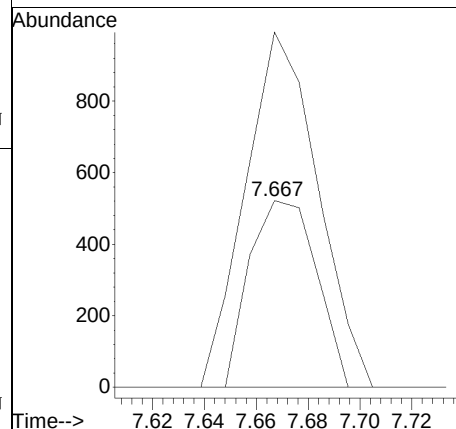
Tgt Ion:	95	Resp:	2776
Ion Ratio	Lower	Upper	
95	100		
97	60.6	55.0	82.4
130	106.6	89.2	133.8

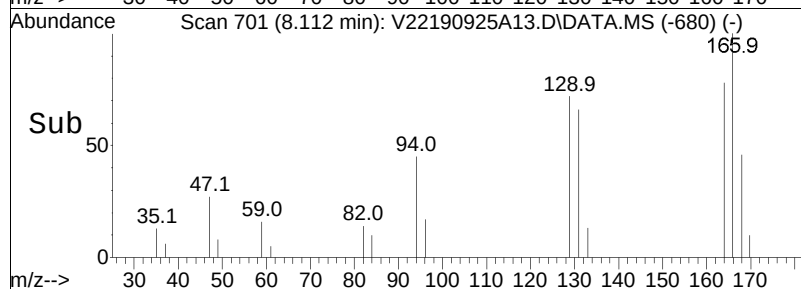
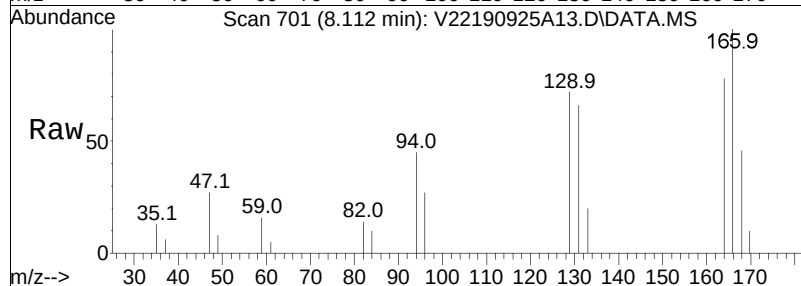
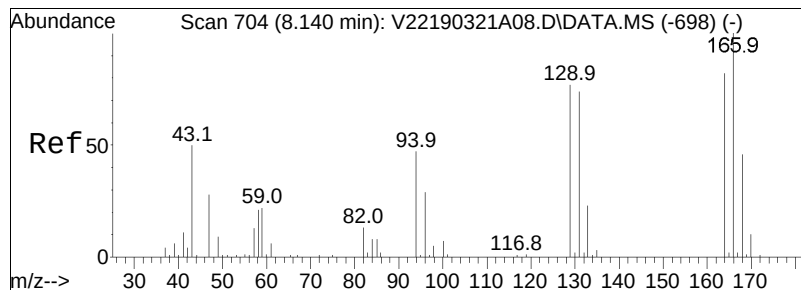




#64
Toluene
Concen: 0.10 ug/L
RT: 7.667 min Scan# 654
Delta R.T. -0.000 min
Lab File: V22190925A13.D
Acq: 25 Sep 2019 01:28 pm

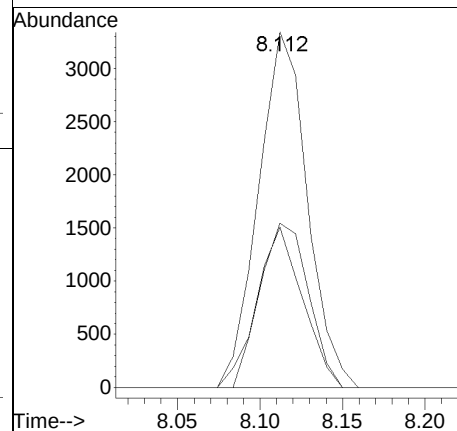
Tgt Ion:	92	Resp:	938
Ion Ratio	Lower	Upper	
92	100		
91	205.3	137.0	205.6





#66
 Tetrachloroethene
 Concen: 1.69 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A13.D
 Acq: 25 Sep 2019 01:28 pm

Tgt Ion:	166	Resp:	6877
Ion Ratio	Lower	Upper	
166	100		
168	46.1	27.8	67.8
94	42.4	16.7	56.7



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\10	Method	: V122_190821_8260.m
Data File	: V22190925A13.D	Operator	: VOA122:PK
Date Inj'd	: 9/25/2019 1:28 pm	Instrument	: VOA122
Sample	: l1943339-07,31,10,10,,a	Quant Date	: 9/25/2019 3:45 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A14.D
 Acq On : 25 Sep 2019 01:53 pm
 Operator : VOA122:PK
 Sample : 11943339-08,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 25 15:45:19 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	142608	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	78.54%		
62) Chlorobenzene-d5	9.457	117	103984	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	78.36%		
83) 1,4-Dichlorobenzene-d4	12.186	152	43928	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	64.26%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	40492	10.766	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.66%		
46) 1,2-Dichloroethane-d4	5.637	65	46336	10.992	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.92%		
63) Toluene-d8	7.610	98	126157	8.934	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.34%		
87) 4-Bromofluorobenzene	10.962	95	36058	7.939	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	79.39%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	114	N.D.		
15) Methylene chloride	3.419	84	505	0.143	ug/L #	75
17) Acetone	3.466	43	87	Below Cal	#	46
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A14.D
 Acq On : 25 Sep 2019 01:53 pm
 Operator : VOA122:PK
 Sample : l1943339-08,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 25 15:45:19 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A14.D
 Acq On : 25 Sep 2019 01:53 pm
 Operator : VOA122:PK
 Sample : l1943339-08,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 25 15:45:19 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	0.000		0		N.D.	
105)	1,4-Dichlorobenzene	0.000		0		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

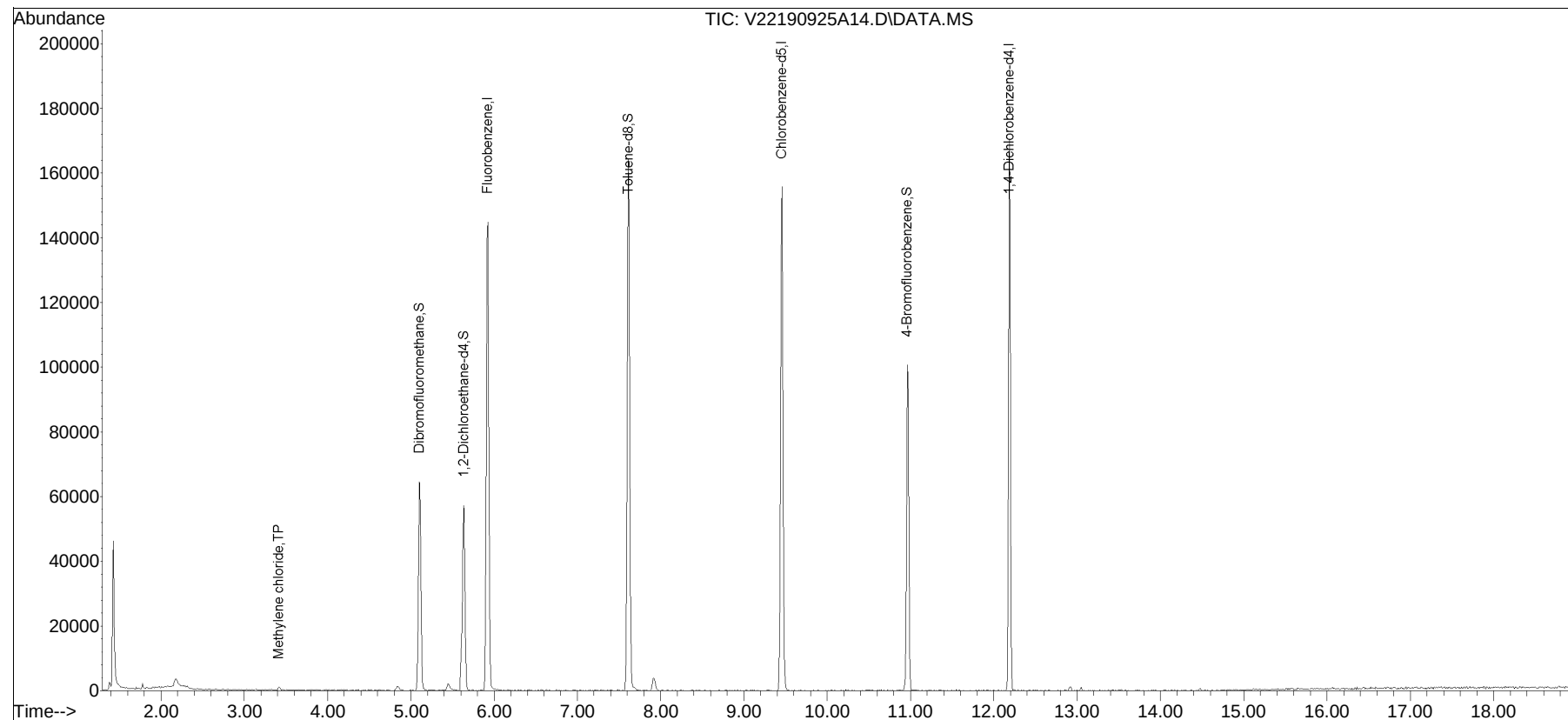
(#) = qualifier out of range (m) = manual integration (+) = signals summed

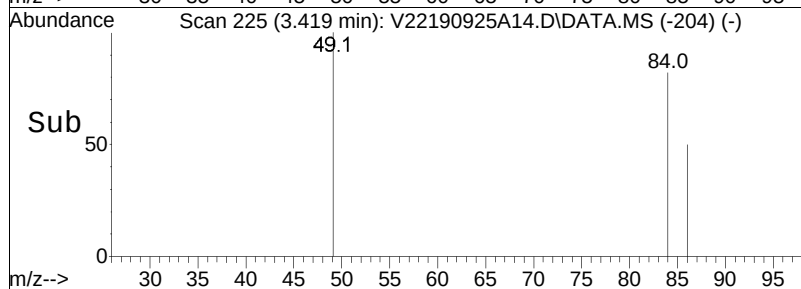
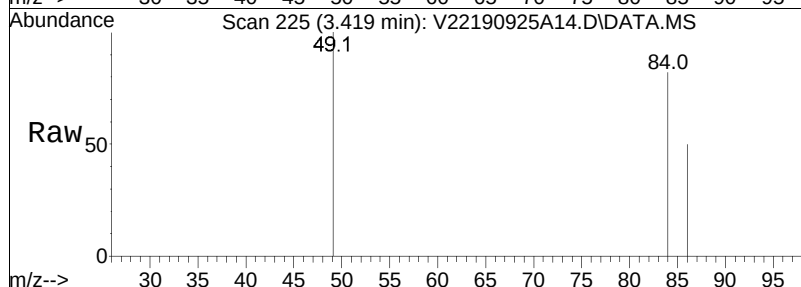
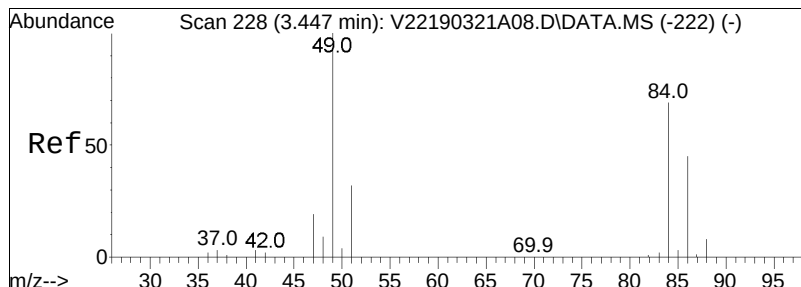
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A14.D
 Acq On : 25 Sep 2019 01:53 pm
 Operator : VOA122:PK
 Sample : l1943339-08,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 25 15:45:19 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

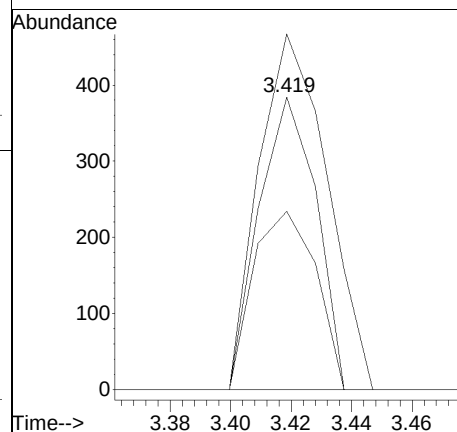
Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•





#15
Methylene chloride
Concen: 0.14 ug/L
RT: 3.419 min Scan# 225
Delta R.T. -0.000 min
Lab File: V22190925A14.D
Acq: 25 Sep 2019 01:53 pm

Tgt Ion: 84 Resp: 505
Ion Ratio Lower Upper
84 100
86 66.5 41.5 86.3
49 144.6 68.8 143.0#



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\10 Method : V122_190821_8260.m
Data File : V22190925A14.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 1:53 pm Instrument : VOA122
Sample : l1943339-08,31,10,10,,a Quant Date : 9/25/2019 3:45 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A15.D
 Acq On : 25 Sep 2019 02:19 pm
 Operator : VOA122:PK
 Sample : 11943339-09,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 25 15:45:26 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	146050	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	80.43%		
62) Chlorobenzene-d5	9.457	117	106335	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	80.13%		
83) 1,4-Dichlorobenzene-d4	12.186	152	45216	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	66.15%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.105	113	41928	10.885	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.85%		
46) 1,2-Dichloroethane-d4	5.637	65	47104	10.911	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.11%		
63) Toluene-d8	7.610	98	128393	8.891	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	88.91%		
87) 4-Bromofluorobenzene	10.963	95	36748	7.861	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	78.61%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0		N.D.	
3) Chloromethane	0.000		0		N.D.	
4) Vinyl chloride	0.000		0		N.D.	
5) Bromomethane	0.000		0		N.D.	
6) Chloroethane	0.000		0		N.D.	
7) Trichlorofluoromethane	0.000		0		N.D.	
8) Ethyl ether	0.000		0		N.D.	
10) 1,1-Dichloroethene	0.000		0		N.D.	
11) Carbon disulfide	2.898	76	103		N.D.	
15) Methylene chloride	0.000		0		N.D.	
17) Acetone	0.000		0		N.D.	
18) trans-1,2-Dichloroethene	0.000		0		N.D.	
21) Methyl tert-butyl ether	0.000		0		N.D.	
25) 1,1-Dichloroethane	0.000		0		N.D.	
27) Acrylonitrile	0.000		0		N.D.	
29) Vinyl acetate	0.000		0		N.D.	
30) cis-1,2-Dichloroethene	0.000		0		N.D.	
31) 2,2-Dichloropropane	0.000		0		N.D.	
32) Bromochloromethane	0.000		0		N.D.	
34) Chloroform	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A15.D
 Acq On : 25 Sep 2019 02:19 pm
 Operator : VOA122:PK
 Sample : l1943339-09,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 25 15:45:26 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	0.000		0		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	9.457	91	97		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A15.D
 Acq On : 25 Sep 2019 02:19 pm
 Operator : VOA122:PK
 Sample : l1943339-09,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 25 15:45:26 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	0.000		0		N.D.	
105)	1,4-Dichlorobenzene	0.000		0		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	0.000		0		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	0.000		0		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

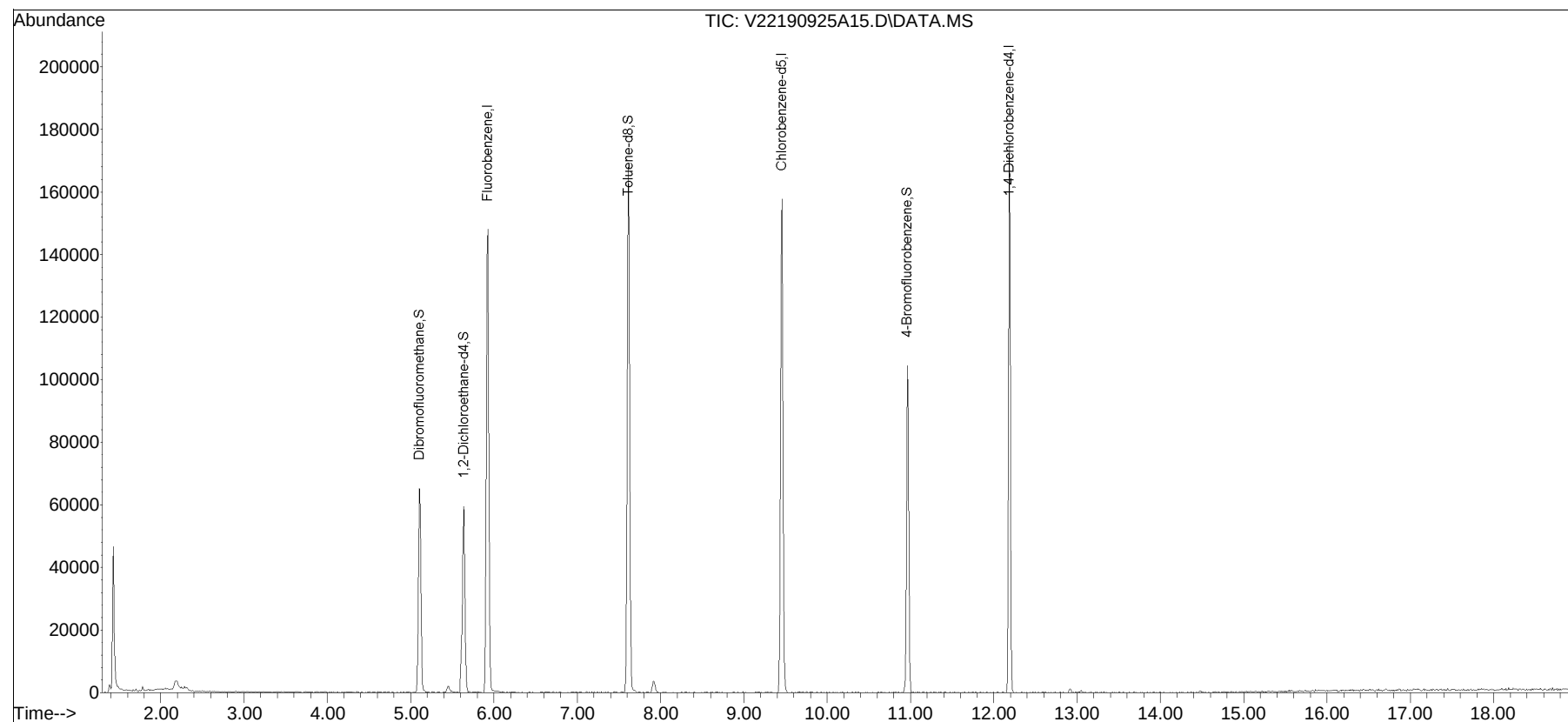
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A15.D
 Acq On : 25 Sep 2019 02:19 pm
 Operator : VOA122:PK
 Sample : l1943339-09,31,10,10,,a
 Misc : WG1288542,ICAL16065
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 25 15:45:26 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90925A\V22190925A02.D•



Manual Integration Report

Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190925A15.D Operator : VOA122:PK
Date Inj'd : 9/25/2019 2:19 pm Instrument : VOA122
Sample : l1943339-09,31,10,10,,a Quant Date : 9/25/2019 3:45 pm

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : VOA122
Calibration dates : 08/21/19 16:46 08/21/19 20:30
Lab Number : L1943339
Project Number : 170329301
Ical Ref : ICAL16065

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.179	0.203	0.197	0.209	0.185	0.204	0.192	0.196	5.58
3) TP Chloromethane		0.231	0.256	0.235	0.244	0.223	0.241	0.227	0.237	4.79
4) TC Vinyl chloride	0.260	0.304	0.343	0.350	0.351	0.329	0.365	0.348	0.331	10.28
5) TP Bromomethane		0.204	0.203	0.184	0.201	0.203	0.231	0.224	0.207	7.59
6) TP Chloroethane		0.263	0.265	0.265	0.267	0.241	0.255	0.238	0.256	4.76
7) TP Trichlorofluor		0.364	0.430	0.425	0.437	0.383	0.412	0.382	0.405	6.97
8) TP Ethyl ether		0.089	0.107	0.112	0.113	0.107	0.112	0.107	0.107	7.72
10) TC 1,1-Dichloroet		0.199	0.237	0.244	0.239	0.212	0.226	0.209	0.224	7.65
11) TP Carbon disulfide		0.536	0.621	0.626	0.640	0.572	0.614	0.581	0.599	6.14
12) TP Freon-113		0.225	0.259	0.246	0.252	0.216	0.232	0.216	0.235	7.45
13) TP Iodomethane		0.188	0.283	0.328	0.356	0.322	0.332	0.299	0.301	18.35
14) TP Acrolein			0.036	0.030	0.029	0.028	0.029	0.028	0.030#	9.36
15) TP Methylene chlo		0.261	0.273	0.252	0.247	0.227	0.243	0.230	0.248	6.56
17) TP Acetone		0.162	0.063	0.039	0.037	0.030	0.033	0.031	*L	0.9980
18) TP trans-1,2-Dich		0.232	0.271	0.268	0.264	0.236	0.251	0.233	0.251	6.86
19) TP Methyl acetate			0.107	0.093	0.085	0.077	0.080	0.072	0.086#	14.62
21) TP Methyl tert butyl ether		0.493	0.553	0.534	0.524	0.484	0.512	0.486	0.512	5.11
22) TP tert-Butyl alc		0.013	0.016	0.013	0.013	0.010	0.011	0.011	0.013#	17.24
24) TP Diisopropyl ether		0.599	0.642	0.649	0.646	0.600	0.638	0.609	0.626	3.59
25) TP 1,1-Dichloroet		0.373	0.470	0.478	0.470	0.429	0.458	0.433	0.444	8.27
26) TP Halothane		0.185	0.225	0.217	0.222	0.204	0.216	0.204	0.210	6.53
27) TP Acrylonitrile		0.039	0.051	0.047	0.046	0.041	0.044	0.042	0.044#	9.17
28) TP Ethyl tert-but		0.595	0.655	0.655	0.654	0.615	0.653	0.629	0.637	3.82
29) TP Vinyl acetate		0.298	0.299	0.371	0.341	0.359	0.393	0.390	0.350	11.28
30) TP cis-1,2-Dichlo		0.247	0.296	0.285	0.282	0.252	0.268	0.249	0.269	7.35
31) TP 2,2-Dichloropr		0.331	0.361	0.378	0.357	0.332	0.351	0.327	0.348	5.47
32) TP Bromochloromet		0.104	0.132	0.123	0.125	0.111	0.115	0.108	0.117	8.70
33) TP Cyclohexane		0.364	0.443	0.422	0.427	0.378	0.408	0.396	0.406	6.96
34) TC Chloroform		0.427	0.469	0.459	0.452	0.413	0.442	0.419	0.440	4.81
35) TP Ethyl acetate		0.166	0.146	0.134	0.127	0.117	0.125	0.120	0.134	12.96
36) TP Carbon tetrachloride	0.271	0.307	0.393	0.401	0.408	0.372	0.402	0.381	0.367	13.73
37) TP Tetrahydrofuran			0.063	0.046	0.045	0.039	0.041	0.040	*L	0.9989
38) S Dibromofluoromethane	0.266	0.267	0.273	0.266	0.268	0.255	0.259	0.256	0.264	2.40
39) TP 1,1,1-Trichlor		0.372	0.456	0.448	0.443	0.402	0.429	0.407	0.423	7.19
41) TP 2-Butanone			0.067	0.056	0.056	0.047	0.050	0.048	0.054#	13.69



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : VOA122
Calibration dates : 08/21/19 16:46 08/21/19 20:30
Lab Number : L1943339
Project Number : 170329301
Ical Ref : ICAL16065

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
42) TP 1,1-Dichloropr	0.323	0.372	0.371	0.374	0.334	0.363	0.345	0.354	5.82	
44) TP Benzene	0.820	0.916	1.055	1.162	1.149	1.063	1.141	1.081	1.048	11.53
45) TP Tertiary-Amyl Methyl Ether	0.460	0.482	0.446	0.446	0.411	0.449	0.437	0.447	4.80	
46) S 1,2-Dichloroethane-d4	0.282	0.288	0.291	0.299	0.300	0.300	0.304	0.301	0.296	2.63
47) T 1,2-Dichloroet	0.266	0.301	0.298	0.290	0.268	0.286	0.272	0.283	5.12	
50) TP Methyl cyclohe	0.368	0.457	0.450	0.473	0.428	0.463	0.458	0.442	8.03	
51) TP Trichloroethene	0.224	0.231	0.278	0.283	0.284	0.262	0.283	0.279	0.265	9.22
53) TP Dibromomethane	0.122	0.146	0.137	0.140	0.131	0.140	0.134	0.136	5.61	
54) TC 1,2-Dichloropr	0.214	0.233	0.243	0.249	0.231	0.248	0.235	0.236	5.09	
56) TP 2-Chloroethyl	0.111	0.119	0.148	0.147	0.140	0.148	0.141	0.136	11.16	
57) TP Bromodichlorom	0.278	0.318	0.327	0.339	0.324	0.351	0.336	0.325	7.16	
60) TP 1,4-Dioxane	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001#	19.28	
61) TP cis-1,3-Dichlo	0.187	0.214	0.213	0.212	0.198	0.208	0.194	0.204	5.24	
62) I Chlorobenzene-d5	-----ISTD-----									
63) S Toluene-d8	1.350	1.360	1.337	1.356	1.349	1.350	1.387	1.376	1.358	1.19
64) TC Toluene	0.782	0.883	0.888	0.884	0.838	0.904	0.871	0.864	4.83	
65) TP 4-Methyl-2-pen	0.055	0.068	0.071	0.069	0.066	0.071	0.070	0.067#	8.46	
66) TP Tetrachloroethene	0.330	0.405	0.402	0.400	0.369	0.399	0.374	0.383	7.09	
68) TP trans-1,3-Dich	0.375	0.425	0.453	0.456	0.436	0.467	0.442	0.436	6.91	
70) TP Ethyl methacry	0.285	0.289	0.296	0.299	0.290	0.311	0.298	0.295	2.88	
71) TP 1,1,2-Trichlor	0.189	0.206	0.210	0.209	0.200	0.213	0.203	0.204	3.95	
72) TP Chlorodibromom	0.235	0.272	0.295	0.318	0.308	0.332	0.316	0.297	11.24	
73) TP 1,3-Dichloropr	0.395	0.422	0.435	0.434	0.406	0.435	0.412	0.420	3.86	
74) TP 1,2-Dibromoethane	0.209	0.240	0.251	0.253	0.242	0.259	0.247	0.243	6.81	
76) TP 2-Hexanone	0.165	0.133	0.110	0.108	0.104	0.112	0.107	0.120	18.25	
77) TP Chlorobenzene	0.902	0.953	0.956	0.959	0.894	0.963	0.911	0.934	3.23	
78) TC Ethylbenzene	1.532	1.682	1.727	1.701	1.591	1.719	1.647	1.657	4.37	
79) TP 1,1,1,2-Tetrac	0.268	0.301	0.325	0.335	0.312	0.332	0.312	0.312	7.32	
80) TP p/m Xylene	0.606	0.680	0.695	0.679	0.626	0.693	0.689	0.667	5.38	
81) TP o Xylene	0.562	0.639	0.647	0.639	0.598	0.657	0.656	0.628	5.63	
82) TP Styrene	0.897	0.994	1.027	1.006	0.956	1.058	1.049	0.998	5.66	
83) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
84) TP Bromoform	0.259	0.285	0.313	0.339	0.355	0.388	0.389	0.333	14.94	
86) TP Isopropylbenzene	3.221	3.608	3.650	3.658	3.530	3.780	3.609	3.579	4.89	
87) S 4-Bromofluorobenzene	1.015	1.039	1.035	0.991	1.028	1.063	1.059	1.042	1.034	2.24
88) TP Bromobenzene	0.700	0.796	0.771	0.790	0.763	0.809	0.767	0.771	4.59	



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : VOA122
Calibration dates : 08/21/19 16:46 08/21/19 20:30
Lab Number : L1943339
Project Number : 170329301
Ical Ref : ICAL16065

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
89) TP n-Propylbenzene	3.760	4.129	4.202	4.202	4.066	4.404	4.278	4.149	4.88	
90) TP 1,4-Dichlorobu	0.688	0.749	0.718	0.722	0.721	0.784	0.789	0.739	5.01	
91) TP 1,1,2,2-Tetrac	0.614	0.592	0.529	0.545	0.531	0.559	0.524	0.556	6.27	
92) TP 4-Ethyltoluene	2.923	3.388	3.405	3.380	3.173	3.360	3.196	3.261	5.41	
93) TP 2-Chlorotoluene	2.157	2.414	2.338	2.318	2.229	2.415	2.183	2.293	4.61	
94) TP 1,3,5-Trimethy	2.520	2.909	2.933	2.888	2.783	2.979	2.906	2.845	5.46	
95) TP 1,2,3-Trichlor	0.472	0.505	0.446	0.433	0.439	0.480	0.483	0.466	5.70	
96) TP trans-1,4-Dich	0.121	0.135	0.134	0.137	0.137	0.146	0.135	0.135	5.45	
97) TP 4-Chlorotoluene	2.145	2.486	2.474	2.440	2.367	2.523	2.416	2.407	5.24	
98) TP tert-Butylbenzene	2.208	2.566	2.540	2.554	2.420	2.574	2.479	2.477	5.27	
101) TP 1,2,4-Trimethy	2.590	2.865	2.916	2.884	2.766	2.983	2.898	2.843	4.54	
102) TP sec-Butylbenzene	2.295	2.608	2.574	2.391	2.154	2.122	1.888	2.290	11.28	
103) TP p-Isopropyltol	2.701	3.116	3.120	3.170	2.959	3.125	3.017	3.030	5.35	
104) TP 1,3-Dichlorobe	1.380	1.561	1.575	1.539	1.462	1.559	1.470	1.506	4.76	
105) TP 1,4-Dichlorobe	1.433	1.585	1.525	1.520	1.439	1.538	1.466	1.501	3.76	
106) TP p-Diethylbenzene	1.463	1.704	1.725	1.771	1.678	1.830	1.762	1.705	6.89	
107) TP n-Butylbenzene	2.135	2.616	2.618	2.683	2.573	2.763	2.704	2.585	8.06	
108) TP 1,2-Dichlorobe	1.312	1.459	1.390	1.375	1.305	1.391	1.326	1.365	4.04	
109) TP 1,2,4,5-Tetram	2.174	2.524	2.475	2.557	2.443	2.649	2.573	2.485	6.14	
110) TP 1,2-Dibromo-3-	0.027	0.086	0.079	0.082	0.084	0.090	0.087	*L	0.9990	
111) TP 1,3,5-Trichlor	0.857	0.940	0.904	0.953	0.881	0.950	0.898	0.912	4.07	
112) TP Hexachlorobuta	0.268	0.281	0.280	0.310	0.290	0.313	0.295	0.291	5.66	
113) TP 1,2,4-Trichlor	0.779	0.881	0.808	0.838	0.803	0.851	0.810	0.825	4.18	
114) TP Naphthalene	1.993	2.119	1.853	1.899	1.855	1.962	1.828	1.930	5.33	
115) TP 1,2,3-Trichlor	0.737	0.785	0.706	0.737	0.710	0.745	0.706	0.732	3.88	

Response Factor Report VOA122

Method Path : I:\VOLATILES\VOA122\2019\190821A\
 Method File : V122_190821_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu Aug 22 14:26:00 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD

1) I	Fluorobenzene	-----ISTD-----									
2) TP	Dichlorodifluo...	0.179	0.203	0.197	0.209	0.185	0.204	0.192	0.196	5.58	
3) TP	Chloromethane	0.231	0.256	0.235	0.244	0.223	0.241	0.227	0.237	4.79	
4) TC	Vinyl chloride	0.260	0.304	0.343	0.350	0.351	0.329	0.365	0.348	0.331	10.28
5) TP	Bromomethane	0.204	0.203	0.184	0.201	0.203	0.231	0.224	0.207	7.59	
6) TP	Chloroethane	0.263	0.265	0.265	0.267	0.241	0.255	0.238	0.256	4.76	
7) TP	Trichlorofluor...	0.364	0.430	0.425	0.437	0.383	0.412	0.382	0.405	6.97	
8) TP	Ethyl ether	0.089	0.107	0.112	0.113	0.107	0.112	0.107	0.107	7.72	
10) TC	1,1-Dichloroet...	0.199	0.237	0.244	0.239	0.212	0.226	0.209	0.224	7.65	
11) TP	Carbon disulfide	0.536	0.621	0.626	0.640	0.572	0.614	0.581	0.599	6.14	
12) TP	Freon-113	0.225	0.259	0.246	0.252	0.216	0.232	0.216	0.235	7.45	
13) TP	Iodomethane	0.188	0.283	0.328	0.356	0.322	0.332	0.299	0.301	18.35	
14) TP	Acrolein		0.036	0.030	0.029	0.028	0.029	0.028	0.030#	9.36	
15) TP	Methylene chlo...	0.261	0.273	0.252	0.247	0.227	0.243	0.230	0.248	6.56	
17) TP	Acetone	0.162	0.063	0.039	0.037	0.030	0.033	0.031	*L	0.9980	
18) TP	trans-1,2-Dich...	0.232	0.271	0.268	0.264	0.236	0.251	0.233	0.251	6.86	
19) TP	Methyl acetate		0.107	0.093	0.085	0.077	0.080	0.072	0.086#	14.62	
21) TP	Methyl tert-bu...	0.493	0.553	0.534	0.524	0.484	0.512	0.486	0.512	5.11	
22) TP	tert-Butyl alc...	0.013	0.016	0.013	0.013	0.010	0.011	0.011	0.013#	17.24	
24) TP	Diisopropyl ether	0.599	0.642	0.649	0.646	0.600	0.638	0.609	0.626	3.59	
25) TP	1,1-Dichloroet...	0.373	0.470	0.478	0.470	0.429	0.458	0.433	0.444	8.27	
26) TP	Halothane	0.185	0.225	0.217	0.222	0.204	0.216	0.204	0.210	6.53	
27) TP	Acrylonitrile	0.039	0.051	0.047	0.046	0.041	0.044	0.042	0.044#	9.17	
28) TP	Ethyl tert-but...	0.595	0.655	0.655	0.654	0.615	0.653	0.629	0.637	3.82	
29) TP	Vinyl acetate	0.298	0.299	0.371	0.341	0.359	0.393	0.390	0.350	11.28	
30) TP	cis-1,2-Dichlo...	0.247	0.296	0.285	0.282	0.252	0.268	0.249	0.269	7.35	
31) TP	2,2-Dichloropr...	0.331	0.361	0.378	0.357	0.332	0.351	0.327	0.348	5.47	
32) TP	Bromochloromet...	0.104	0.132	0.123	0.125	0.111	0.115	0.108	0.117	8.70	
33) TP	Cyclohexane	0.364	0.443	0.422	0.427	0.378	0.408	0.396	0.406	6.96	
34) TC	Chloroform	0.427	0.469	0.459	0.452	0.413	0.442	0.419	0.440	4.81	
35) TP	Ethyl acetate	0.166	0.146	0.134	0.127	0.117	0.125	0.120	0.134	12.96	

Response Factor Report VOA122

Method Path : I:\VOLATILES\VOA122\2019\190821A\
 Method File : V122_190821_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu Aug 22 14:26:00 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
36)	TP Carbon tetrach...	0.271	0.307	0.393	0.401	0.408	0.372	0.402	0.381	0.367	13.73
37)	TP Tetrahydrofuran		0.063	0.046	0.045	0.039	0.041	0.040	*L		0.9989
38)	S Dibromofluorom...	0.266	0.267	0.273	0.266	0.268	0.255	0.259	0.256	0.264	2.40
39)	TP 1,1,1-Trichlor...		0.372	0.456	0.448	0.443	0.402	0.429	0.407	0.423	7.19
41)	TP 2-Butanone		0.067	0.056	0.056	0.047	0.050	0.048	0.054#		13.69
42)	TP 1,1-Dichloropr...		0.323	0.372	0.371	0.374	0.334	0.363	0.345	0.354	5.82
44)	TP Benzene	0.820	0.916	1.055	1.162	1.149	1.063	1.141	1.081	1.048	11.53
45)	TP tert-Amyl meth...		0.460	0.482	0.446	0.446	0.411	0.449	0.437	0.447	4.80
46)	S 1,2-Dichloroet...	0.282	0.288	0.291	0.299	0.300	0.300	0.304	0.301	0.296	2.63
47)	T 1,2-Dichloroet...		0.266	0.301	0.298	0.290	0.268	0.286	0.272	0.283	5.12
50)	TP Methyl cyclohe...		0.368	0.457	0.450	0.473	0.428	0.463	0.458	0.442	8.03
51)	TP Trichloroethene	0.224	0.231	0.278	0.283	0.284	0.262	0.283	0.279	0.265	9.22
53)	TP Dibromomethane		0.122	0.146	0.137	0.140	0.131	0.140	0.134	0.136	5.61
54)	TC 1,2-Dichloropr...		0.214	0.233	0.243	0.249	0.231	0.248	0.235	0.236	5.09
56)	TP 2-Chloroethyl ...		0.111	0.119	0.148	0.147	0.140	0.148	0.141	0.136	11.16
57)	TP Bromodichlorom...		0.278	0.318	0.327	0.339	0.324	0.351	0.336	0.325	7.16
60)	TP 1,4-Dioxane		0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001#	19.28
61)	TP cis-1,3-Dichlo...		0.187	0.214	0.213	0.212	0.198	0.208	0.194	0.204	5.24
62)	I Chlorobenzene-d5	-----ISTD-----									
63)	S Toluene-d8	1.350	1.360	1.337	1.356	1.349	1.350	1.387	1.376	1.358	1.19
64)	TC Toluene		0.782	0.883	0.888	0.884	0.838	0.904	0.871	0.864	4.83
65)	TP 4-Methyl-2-pen...		0.055	0.068	0.071	0.069	0.066	0.071	0.070	0.067#	8.46
66)	TP Tetrachloroethene		0.330	0.405	0.402	0.400	0.369	0.399	0.374	0.383	7.09
68)	TP trans-1,3-Dich...		0.375	0.425	0.453	0.456	0.436	0.467	0.442	0.436	6.91
70)	TP Ethyl methacry...		0.285	0.289	0.296	0.299	0.290	0.311	0.298	0.295	2.88
71)	TP 1,1,2-Trichlor...		0.189	0.206	0.210	0.209	0.200	0.213	0.203	0.204	3.95
72)	TP Chlorodibromom...		0.235	0.272	0.295	0.318	0.308	0.332	0.316	0.297	11.24
73)	TP 1,3-Dichloropr...		0.395	0.422	0.435	0.434	0.406	0.435	0.412	0.420	3.86
74)	TP 1,2-Dibromoethane		0.209	0.240	0.251	0.253	0.242	0.259	0.247	0.243	6.81
76)	TP 2-Hexanone		0.165	0.133	0.110	0.108	0.104	0.112	0.107	0.120	18.25
77)	TP Chlorobenzene		0.902	0.953	0.956	0.959	0.894	0.963	0.911	0.934	3.23

Response Factor Report VOA122

Method Path : I:\VOLATILES\VOA122\2019\190821A\
 Method File : V122_190821_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu Aug 22 14:26:00 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
 L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
78)	TC Ethylbenzene	1.532	1.682	1.727	1.701	1.591	1.719	1.647	1.657	4.37	
79)	TP 1,1,1,2-Tetrac...	0.268	0.301	0.325	0.335	0.312	0.332	0.312	0.312	7.32	
80)	TP p/m Xylene	0.606	0.680	0.695	0.679	0.626	0.693	0.689	0.667	5.38	
81)	TP o Xylene	0.562	0.639	0.647	0.639	0.598	0.657	0.656	0.628	5.63	
82)	TP Styrene	0.897	0.994	1.027	1.006	0.956	1.058	1.049	0.998	5.66	
83)	I 1,4-Dichlorobenzene-d4	-----ISTD-----									
84)	TP Bromoform	0.259	0.285	0.313	0.339	0.355	0.388	0.389	0.333	14.94	
86)	TP Isopropylbenzene	3.221	3.608	3.650	3.658	3.530	3.780	3.609	3.579	4.89	
87)	S 4-Bromofluorob...	1.015	1.039	1.035	0.991	1.028	1.063	1.059	1.042	1.034	2.24
88)	TP Bromobenzene	0.700	0.796	0.771	0.790	0.763	0.809	0.767	0.771	4.59	
89)	TP n-Propylbenzene	3.760	4.129	4.202	4.202	4.066	4.404	4.278	4.149	4.88	
90)	TP 1,4-Dichlorobu...	0.688	0.749	0.718	0.722	0.721	0.784	0.789	0.739	5.01	
91)	TP 1,1,2,2-Tetrac...	0.614	0.592	0.529	0.545	0.531	0.559	0.524	0.556	6.27	
92)	TP 4-Ethyltoluene	2.923	3.388	3.405	3.380	3.173	3.360	3.196	3.261	5.41	
93)	TP 2-Chlorotoluene	2.157	2.414	2.338	2.318	2.229	2.415	2.183	2.293	4.61	
94)	TP 1,3,5-Trimethy...	2.520	2.909	2.933	2.888	2.783	2.979	2.906	2.845	5.46	
95)	TP 1,2,3-Trichlor...	0.472	0.505	0.446	0.433	0.439	0.480	0.483	0.466	5.70	
96)	TP trans-1,4-Dich...	0.121	0.135	0.134	0.137	0.137	0.146	0.135	0.135	5.45	
97)	TP 4-Chlorotoluene	2.145	2.486	2.474	2.440	2.367	2.523	2.416	2.407	5.24	
98)	TP tert-Butylbenzene	2.208	2.566	2.540	2.554	2.420	2.574	2.479	2.477	5.27	
101)	TP 1,2,4-Trimethy...	2.590	2.865	2.916	2.884	2.766	2.983	2.898	2.843	4.54	
102)	TP sec-Butylbenzene	2.295	2.608	2.574	2.391	2.154	2.122	1.888	2.290	11.28	
103)	TP p-Isopropyltol...	2.701	3.116	3.120	3.170	2.959	3.125	3.017	3.030	5.35	
104)	TP 1,3-Dichlorobe...	1.380	1.561	1.575	1.539	1.462	1.559	1.470	1.506	4.76	
105)	TP 1,4-Dichlorobe...	1.433	1.585	1.525	1.520	1.439	1.538	1.466	1.501	3.76	
106)	TP p-Diethylbenzene	1.463	1.704	1.725	1.771	1.678	1.830	1.762	1.705	6.89	
107)	TP n-Butylbenzene	2.135	2.616	2.618	2.683	2.573	2.763	2.704	2.585	8.06	
108)	TP 1,2-Dichlorobe...	1.312	1.459	1.390	1.375	1.305	1.391	1.326	1.365	4.04	
109)	TP 1,2,4,5-Tetram...	2.174	2.524	2.475	2.557	2.443	2.649	2.573	2.485	6.14	
110)	TP 1,2-Dibromo-3-...	0.027	0.086	0.079	0.082	0.084	0.090	0.087	*L	0.9990	
111)	TP 1,3,5-Trichlor...	0.857	0.940	0.904	0.953	0.881	0.950	0.898	0.912	4.07	

Response Factor Report VOA122

Method Path : I:\VOLATILES\VOA122\2019\190821A\
Method File : V122_190821_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 22 14:26:00 2019
Response Via : Initial Calibration

Calibration Files

L11 =V22190821A05.D L1 =V22190821A07.D L2 =V22190821A09.D L3 =V22190821A10.D L4 =V22190821A11.D
L6 =V22190821A12.D L8 =V22190821A13.D L10 =V22190821A14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
112) TP Hexachlorobuta...	0.268	0.281	0.280	0.310	0.290	0.313	0.295	0.291	5.66	
113) TP 1,2,4-Trichlor...	0.779	0.881	0.808	0.838	0.803	0.851	0.810	0.825	4.18	
114) TP Naphthalene	1.993	2.119	1.853	1.899	1.855	1.962	1.828	1.930	5.33	
115) TP 1,2,3-Trichlor...	0.737	0.785	0.706	0.737	0.710	0.745	0.706	0.732	3.88	

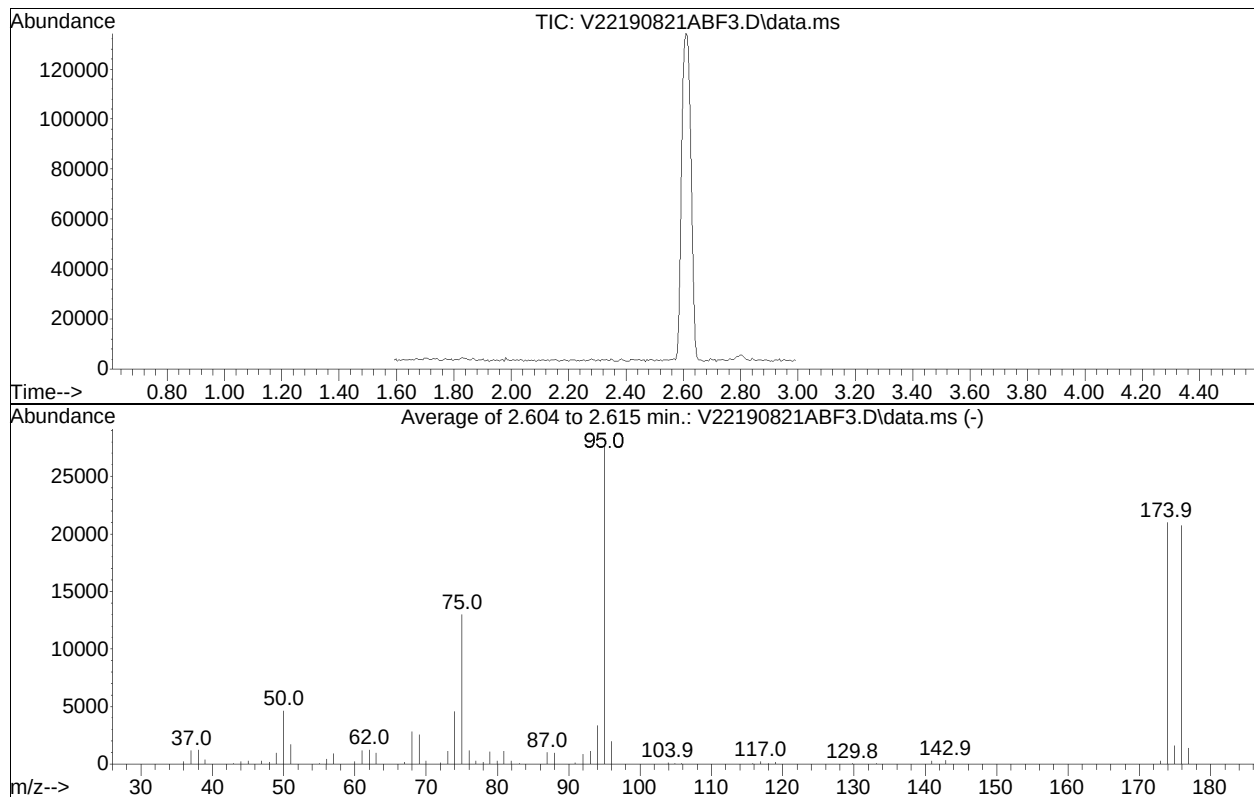
(#) = Out of Range

BFB

Data Path : I:\VOLATILES\VOA122\2019\190821A\
Data File : V22190821ABF3.D
Acq On : 21 Aug 2019 02:44 pm
Operator : VOA122:MAB
Sample : WG1275628-1
Misc : WG1275628
ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu Aug 22 14:26:00 2019



AutoFind: Scans 194, 195, 196; Background Corrected with Scan 186

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	4624	PASS
75	95	30	60	46.9	13010	PASS
95	95	100	100	100.0	27760	PASS
96	95	5	9	7.1	1972	PASS
173	174	0.00	2	1.3	271	PASS
174	95	50	100	75.6	20989	PASS
175	174	5	9	7.7	1614	PASS
176	174	95	101	98.7	20717	PASS
177	176	5	9	6.7	1393	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A05.D
 Acq On : 21 Aug 2019 04:46 pm
 Operator : VOA122:MAB
 Sample : I8260STD0.2PPB
 Misc : WG1275628
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 22 13:50:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-L11 - Level 11 for 8260-LRR product

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	190765	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery	=	103.15%	
62) Chlorobenzene-d5	9.457	117	143766	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery	=	103.39%	
83) 1,4-Dichlorobenzene-d4	12.186	152	70302	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery	=	101.54%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	50764	10.011	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.11%	
46) 1,2-Dichloroethane-d4	5.637	65	53758	9.420	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.20%	
63) Toluene-d8	7.610	98	194076	9.957	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.57%	
87) 4-Bromofluorobenzene	10.962	95	71340	10.237	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.37%	
Target Compounds						
4) Vinyl chloride	1.827	62	992	0.149	ug/L	96
36) Carbon tetrachloride	5.066	117	1034	0.135	ug/L #	77
44) Benzene	5.502	78	3130	0.141	ug/L #	88
51) Trichloroethene	6.091	95	856	0.158	ug/L	94

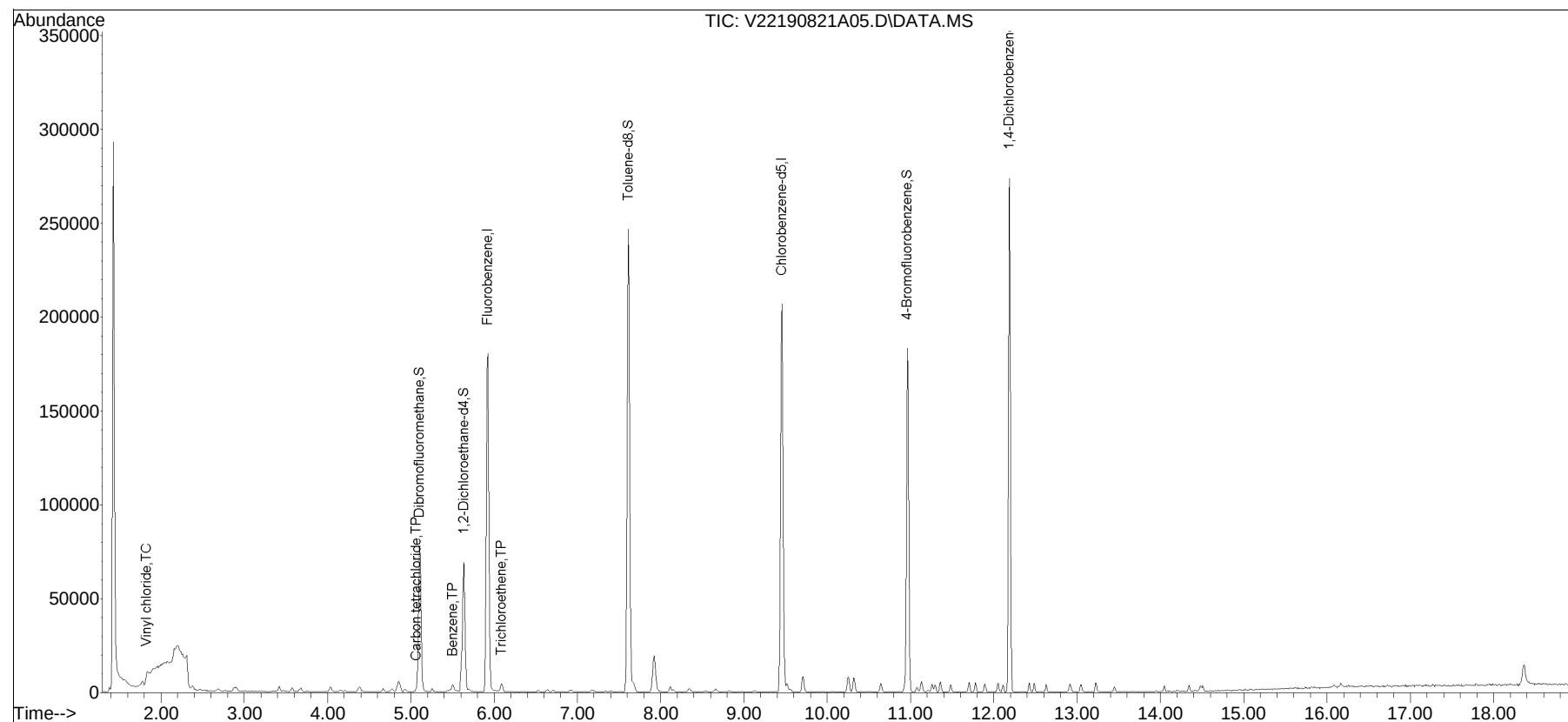
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A05.D
 Acq On : 21 Aug 2019 04:46 pm
 Operator : VOA122:MAB
 Sample : I8260STD0.2PPB
 Misc : WG1275628
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 22 13:50:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

Sub List : 8260-L11 - Level 11 for 8260-LRR product190821A10.D•



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\1Q	Method	: V122_190821_8260.m
Data File	: V22190821A05.D	Operator	: VOA122:MAB
Date Inj'd	: 8/21/2019 4:46 pm	Instrument	: VOA122
Sample	: I8260STD0.2PPB	Quant Date	: 8/22/2019 1:46 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A07.D
 Acq On : 21 Aug 2019 05:36 pm
 Operator : VOA122:MAB
 Sample : I8260STD0.5PPB
 Misc : WG1275628
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 22 14:24:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:23:14 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	182058	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	98.44%		
62) Chlorobenzene-d5	9.457	117	136046	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	97.84%		
83) 1,4-Dichlorobenzene-d4	12.186	152	66183	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	95.59%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	48582	10.118	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.18%		
46) 1,2-Dichloroethane-d4	5.637	65	52370	9.731	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.31%		
63) Toluene-d8	7.610	98	185000	10.014	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.14%		
87) 4-Bromofluorobenzene	10.962	95	68756	10.048	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.48%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	1631	0.458	ug/L	# 88
3) Chloromethane	1.761	50	2105	0.488	ug/L	# 88
4) Vinyl chloride	1.827	62	2764	0.459	ug/L	# 98
5) Bromomethane	2.130	94	1860	0.493	ug/L	# 89
6) Chloroethane	2.244	64	2397	0.514	ug/L	# 68
7) Trichlorofluoromethane	2.377	101	3316	0.450	ug/L	# 92
8) Ethyl ether	2.689	74	812	0.417	ug/L	# 1
10) 1,1-Dichloroethene	2.869	96	1816	0.446	ug/L	# 90
11) Carbon disulfide	2.898	76	4881	0.448	ug/L	# 97
12) Freon-113	2.917	101	2052	0.479	ug/L	# 92
13) Iodomethane	3.002	142	1709	0.312	ug/L	# 90
14) Acrolein	3.191	56	139	0.254	ug/L	# 90
15) Methylene chloride	3.419	84	2377	0.527	ug/L	# 92
17) Acetone	3.466	43	1472	0.464	ug/L	# 57
18) trans-1,2-Dichloroethene	3.580	96	2116	0.463	ug/L	# 95
19) Methyl acetate	3.589	43	1282	0.823	ug/L	# 50
21) Methyl tert-butyl ether	3.674	73	4492	0.482	ug/L	# 83
22) tert-Butyl alcohol	3.760	59	587	2.570	ug/L	# 44
24) Diisopropyl ether	4.034	45	5451	0.478	ug/L	# 90
25) 1,1-Dichloroethane	4.157	63	3392	0.419	ug/L	# 98
26) Halothane	4.214	117	1686	0.440	ug/L	# 90

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A07.D
 Acq On : 21 Aug 2019 05:36 pm
 Operator : VOA122:MAB
 Sample : I8260STD0.5PPB
 Misc : WG1275628
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 22 14:24:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:23:14 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	351	0.434	ug/L	# 49
28) Ethyl tert-butyl ether	4.385	59	5412	0.467	ug/L	93
29) Vinyl acetate	4.394	43	2712	0.425	ug/L	# 71
30) cis-1,2-Dichloroethene	4.669	96	2252	0.460	ug/L	90
31) 2,2-Dichloropropane	4.773	77	3015	0.475	ug/L	88
32) Bromochloromethane	4.858	128	950	0.446	ug/L	# 82
33) Cyclohexane	4.868	56	3310	0.448	ug/L	95
34) Chloroform	4.934	83	3890	0.486	ug/L	95
35) Ethyl acetate	5.057	43	1511	0.621	ug/L	# 65
36) Carbon tetrachloride	5.067	117	2792	0.418	ug/L	# 91
37) Tetrahydrofuran	5.085	42	613	0.278	ug/L	# 37
39) 1,1,1-Trichloroethane	5.133	97	3385	0.440	ug/L	95
41) 2-Butanone	5.237	43	796	0.812	ug/L	# 22
42) 1,1-Dichloropropene	5.256	75	2939	0.455	ug/L	94
44) Benzene	5.502	78	8342	0.437	ug/L	99
45) tert-Amyl methyl ether	5.617	73	4187	0.514	ug/L	91
47) 1,2-Dichloroethane	5.710	62	2420	0.470	ug/L	# 91
50) Methyl cyclohexane	6.091	83	3351	0.416	ug/L	84
51) Trichloroethene	6.091	95	2101	0.435	ug/L	97
53) Dibromomethane	6.535	93	1115	0.451	ug/L	# 78
54) 1,2-Dichloropropane	6.638	63	1949	0.454	ug/L	90
56) 2-Chloroethyl vinyl ether	7.339	63	1010	0.407	ug/L	# 69
57) Bromodichloromethane	6.710	83	2530	0.428	ug/L	# 90
60) 1,4-Dioxane	6.927	88	2735	113.643	ug/L	# 82
61) cis-1,3-Dichloropropene	7.391	75	1701	0.458	ug/L	# 91
64) Toluene	7.676	92	5316	0.452	ug/L	99
65) 4-Methyl-2-pentanone	8.103	58	374	0.410	ug/L	# 4
66) Tetrachloroethene	8.112	166	2247	0.431	ug/L	92
68) trans-1,3-Dichloropropene	8.150	75	2554	0.430	ug/L	90
70) Ethyl methacrylate	8.349	69	1937	0.482	ug/L	89
71) 1,1,2-Trichloroethane	8.339	83	1283	0.462	ug/L	94
72) Chlorodibromomethane	8.548	129	1596	0.396	ug/L	96
73) 1,3-Dichloropropane	8.661	76	2684	0.470	ug/L	98
74) 1,2-Dibromoethane	8.822	107	1419	0.429	ug/L	89
76) 2-Hexanone	9.125	43	1122	0.687	ug/L	# 49
77) Chlorobenzene	9.476	112	6137	0.483	ug/L	# 78
78) Ethylbenzene	9.523	91	10420	0.462	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.561	131	1824	0.429	ug/L	# 63
80) p/m Xylene	9.703	106	8239	0.908	ug/L	98
81) o Xylene	10.252	106	7641	0.894	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A07.D
 Acq On : 21 Aug 2019 05:36 pm
 Operator : VOA122:MAB
 Sample : I8260STD0.5PPB
 Misc : WG1275628
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 22 14:24:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:23:14 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.318	104	12204	0.899	ug/L	100
84)	Bromoform	10.328	173	856	0.389	ug/L #	68
86)	Isopropylbenzene	10.640	105	10659	0.450	ug/L	99
88)	Bromobenzene	11.076	156	2317	0.454	ug/L	97
89)	n-Propylbenzene	11.133	91	12442	0.453	ug/L	97
90)	1,4-Dichlorobutane	11.142	55	2277	0.466	ug/L	97
91)	1,1,2,2-Tetrachloroethane	11.209	83	2033	0.552	ug/L #	94
92)	4-Ethyltoluene	11.256	105	9674	0.448	ug/L	99
93)	2-Chlorotoluene	11.294	91	7138M1	0.470	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	8338	0.443	ug/L	95
95)	1,2,3-Trichloropropane	11.351	75	1563	0.507	ug/L	89
96)	trans-1,4-Dichloro-2-b...	11.408	53	401	0.449	ug/L #	65
97)	4-Chlorotoluene	11.483	91	7098	0.446	ug/L	99
98)	tert-Butylbenzene	11.701	119	7308	0.446	ug/L	98
101)	1,2,4-Trimethylbenzene	11.777	105	8571	0.456	ug/L	98
102)	sec-Butylbenzene	11.891	105	7593	0.501	ug/L	99
103)	p-Isopropyltoluene	12.048	119	8939	0.446	ug/L	96
104)	1,3-Dichlorobenzene	12.108	146	4566	0.458	ug/L	93
105)	1,4-Dichlorobenzene	12.203	146	4741	0.477	ug/L #	81
106)	p-Diethylbenzene	12.427	119	4842	0.429	ug/L	99
107)	n-Butylbenzene	12.479	91	7065	0.413	ug/L	98
108)	1,2-Dichlorobenzene	12.626	146	4340	0.480	ug/L	95
109)	1,2,4,5-Tetramethylben...	13.221	119	7195	0.437	ug/L	94
110)	1,2-Dibromo-3-chloropr...	13.411	155	90	0.479	ug/L #	1
111)	1,3,5-Trichlorobenzene	13.445	180	2835	0.470	ug/L	96
112)	Hexachlorobutadiene	14.024	225	886	0.460	ug/L #	81
113)	1,2,4-Trichlorobenzene	14.049	180	2579	0.473	ug/L	98
114)	Naphthalene	14.343	128	6594	0.516	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	2440	0.503	ug/L #	96

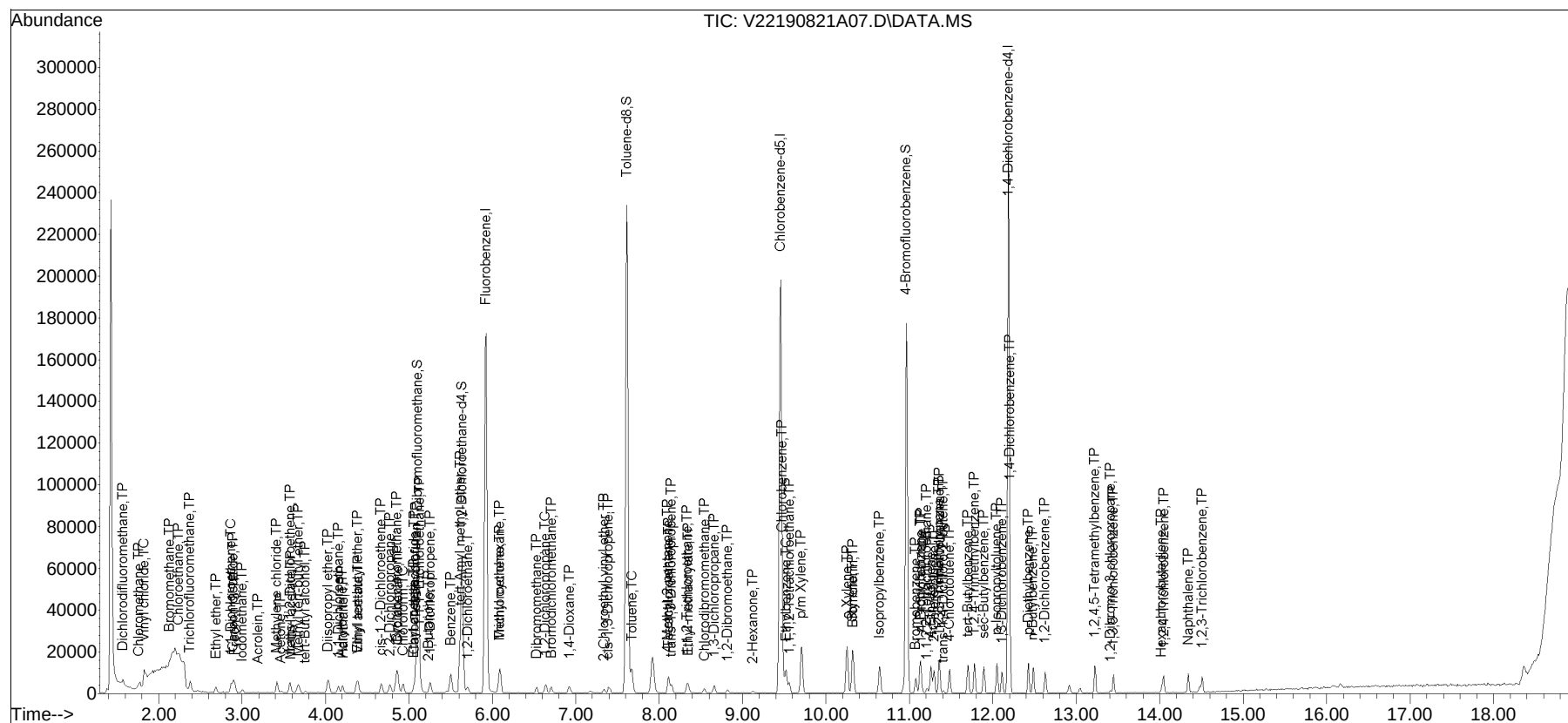
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
Data File : V22190821A07.D
Acq On : 21 Aug 2019 05:36 pm
Operator : VOA122:MAB
Sample : I8260STD0.5PPB
Misc : WG1275628
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 22 14:24:24 2019
Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 14:23:14 2019
Response via : Initial Calibration

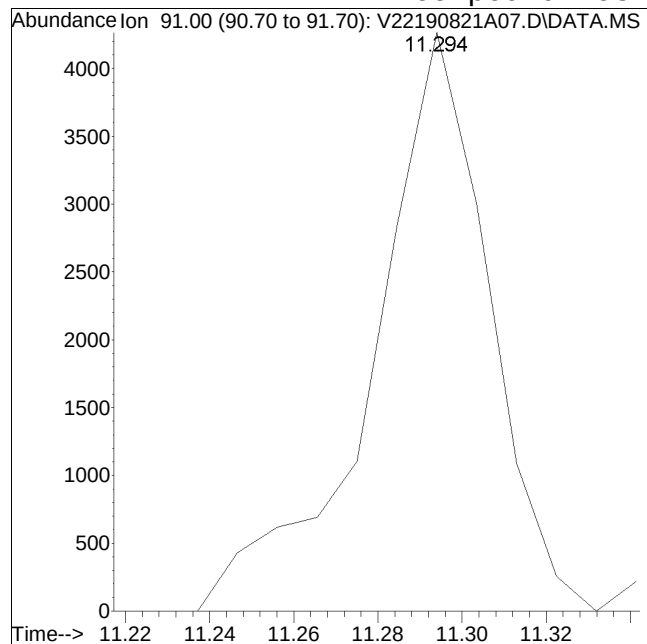
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

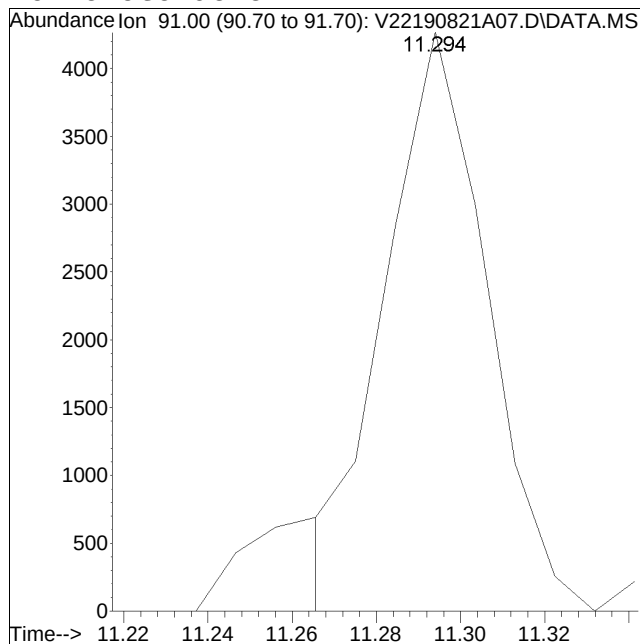
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A07.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 5:36 pm Instrument : VOA122
Sample : I8260STD0.5PPB Quant Date : 8/22/2019 2:24 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 8128

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 7138 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A09.D
 Acq On : 21 Aug 2019 06:25 pm
 Operator : VOA122:MAB
 Sample : I8260STD2PPB
 Misc : WG1275628
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 22 14:26:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	176702	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	95.55%		
62) Chlorobenzene-d5	9.457	117	136147	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	97.91%		
83) 1,4-Dichlorobenzene-d4	12.186	152	66361	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	95.84%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.105	113	48272	10.358	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.58%		
46) 1,2-Dichloroethane-d4	5.637	65	51504	9.860	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.60%		
63) Toluene-d8	7.610	98	181963	9.842	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.42%		
87) 4-Bromofluorobenzene	10.963	95	68661	10.007	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.07%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	7191	2.079	ug/L	98
3) Chloromethane	1.761	50	9054	2.164	ug/L	96
4) Vinyl chloride	1.828	62	12113	2.070	ug/L	99
5) Bromomethane	2.131	94	7166	1.957	ug/L	91
6) Chloroethane	2.244	64	9348	2.065	ug/L	84
7) Trichlorofluoromethane	2.377	101	15213	2.126	ug/L	99
8) Ethyl ether	2.689	74	3788	2.005	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	8377	2.119	ug/L	89
11) Carbon disulfide	2.898	76	21943	2.074	ug/L	98
12) Freon-113	2.917	101	9167	2.206	ug/L	94
13) Iodomethane	3.011	142	10018	1.882	ug/L	92
14) Acrolein	3.191	56	1255	2.366	ug/L #	80
15) Methylene chloride	3.419	84	9644	2.204	ug/L	94
17) Acetone	3.476	43	2217	1.895	ug/L #	87
18) trans-1,2-Dichloroethene	3.570	96	9568	2.159	ug/L	95
19) Methyl acetate	3.589	43	3770	2.492	ug/L #	92
21) Methyl tert-butyl ether	3.674	73	19547	2.159	ug/L	95
22) tert-Butyl alcohol	3.760	59	2898	13.073	ug/L #	68
24) Diisopropyl ether	4.034	45	22700	2.051	ug/L	97
25) 1,1-Dichloroethane	4.157	63	16602	2.115	ug/L	97
26) Halothane	4.205	117	7948	2.139	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A09.D
 Acq On : 21 Aug 2019 06:25 pm
 Operator : VOA122:MAB
 Sample : I8260STD2PPB
 Misc : WG1275628
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 22 14:26:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	1801	2.297	ug/L	91
28) Ethyl tert-butyl ether	4.385	59	23136	2.057	ug/L	89
29) Vinyl acetate	4.394	43	10568	1.708	ug/L #	94
30) cis-1,2-Dichloroethene	4.669	96	10473	2.206	ug/L	96
31) 2,2-Dichloropropane	4.773	77	12775	2.076	ug/L	96
32) Bromochloromethane	4.858	128	4671	2.260	ug/L	95
33) Cyclohexane	4.868	56	15673	2.187	ug/L	93
34) Chloroform	4.934	83	16573	2.132	ug/L	99
35) Ethyl acetate	5.057	43	5173	2.192	ug/L	96
36) Carbon tetrachloride	5.067	117	13878	2.141	ug/L #	95
37) Tetrahydrofuran	5.086	42	2237	1.848	ug/L #	81
39) 1,1,1-Trichloroethane	5.133	97	16130	2.160	ug/L	97
41) 2-Butanone	5.237	43	2361	2.481	ug/L	86
42) 1,1-Dichloropropene	5.256	75	13149	2.099	ug/L	96
44) Benzene	5.502	78	37272	2.012	ug/L	100
45) tert-Amyl methyl ether	5.617	73	17026	2.154	ug/L	96
47) 1,2-Dichloroethane	5.699	62	10634	2.126	ug/L	98
50) Methyl cyclohexane	6.091	83	16151	2.066	ug/L	95
51) Trichloroethene	6.091	95	9814	2.092	ug/L	97
53) Dibromomethane	6.535	93	5168	2.152	ug/L #	80
54) 1,2-Dichloropropane	6.638	63	8231	1.974	ug/L	96
56) 2-Chloroethyl vinyl ether	7.339	63	4192	1.740	ug/L #	88
57) Bromodichloromethane	6.710	83	11231	1.958	ug/L	100
60) 1,4-Dioxane	6.916	88	11699	500.844	ug/L #	87
61) cis-1,3-Dichloropropene	7.391	75	7560	2.099	ug/L	95
64) Toluene	7.677	92	24040	2.043	ug/L	97
65) 4-Methyl-2-pentanone	8.112	58	1838	2.012	ug/L	78
66) Tetrachloroethene	8.112	166	11035	2.117	ug/L	95
68) trans-1,3-Dichloropropene	8.150	75	11585	1.949	ug/L	98
70) Ethyl methacrylate	8.349	69	7864	1.955	ug/L	96
71) 1,1,2-Trichloroethane	8.339	83	5614	2.019	ug/L	98
72) Chlorodibromomethane	8.538	129	7415	1.836	ug/L	97
73) 1,3-Dichloropropane	8.661	76	11481	2.008	ug/L	100
74) 1,2-Dibromoethane	8.822	107	6535	1.976	ug/L	99
76) 2-Hexanone	9.116	43	3623	2.216	ug/L	89
77) Chlorobenzene	9.476	112	25942	2.040	ug/L	94
78) Ethylbenzene	9.523	91	45787	2.030	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.561	131	8204	1.930	ug/L	98
80) p/m Xylene	9.712	106	37018	4.078	ug/L	98
81) o Xylene	10.252	106	34774	4.066	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A09.D
 Acq On : 21 Aug 2019 06:25 pm
 Operator : VOA122:MAB
 Sample : I8260STD2PPB
 Misc : WG1275628
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 22 14:26:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.319	104	54130	3.983	ug/L	96
84)	Bromoform	10.328	173	3789	1.717	ug/L	98
86)	Isopropylbenzene	10.641	105	47889	2.016	ug/L	99
88)	Bromobenzene	11.076	156	10570	2.066	ug/L	97
89)	n-Propylbenzene	11.133	91	54801	1.991	ug/L	99
90)	1,4-Dichlorobutane	11.143	55	9946	2.029	ug/L	97
91)	1,1,2,2-Tetrachloroethane	11.209	83	7860	2.129	ug/L	97
92)	4-Ethyltoluene	11.256	105	44972	2.078	ug/L	100
93)	2-Chlorotoluene	11.294	91	32042M1	2.106	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	38613	2.045	ug/L	97
95)	1,2,3-Trichloropropane	11.351	75	6699	2.169	ug/L	96
96)	trans-1,4-Dichloro-2-b...	11.408	53	1787	1.993	ug/L	91
97)	4-Chlorotoluene	11.484	91	32993	2.065	ug/L	99
98)	tert-Butylbenzene	11.702	119	34052	2.071	ug/L	97
101)	1,2,4-Trimethylbenzene	11.777	105	38023	2.015	ug/L	97
102)	sec-Butylbenzene	11.891	105	34610	2.277	ug/L	98
103)	p-Isopropyltoluene	12.048	119	41359	2.057	ug/L	97
104)	1,3-Dichlorobenzene	12.108	146	20715	2.072	ug/L	96
105)	1,4-Dichlorobenzene	12.203	146	21035M3	2.112	ug/L	
106)	p-Diethylbenzene	12.428	119	22617	1.999	ug/L	98
107)	n-Butylbenzene	12.488	91	34717	2.024	ug/L	98
108)	1,2-Dichlorobenzene	12.626	146	19366	2.137	ug/L	97
109)	1,2,4,5-Tetramethylben...	13.221	119	33498	2.031	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.411	155	1148	2.307	ug/L	99
111)	1,3,5-Trichlorobenzene	13.446	180	12476	2.062	ug/L	96
112)	Hexachlorobutadiene	14.024	225	3732	1.933	ug/L	98
113)	1,2,4-Trichlorobenzene	14.050	180	11699	2.138	ug/L	94
114)	Naphthalene	14.343	128	28123	2.196	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	10417	2.144	ug/L	96

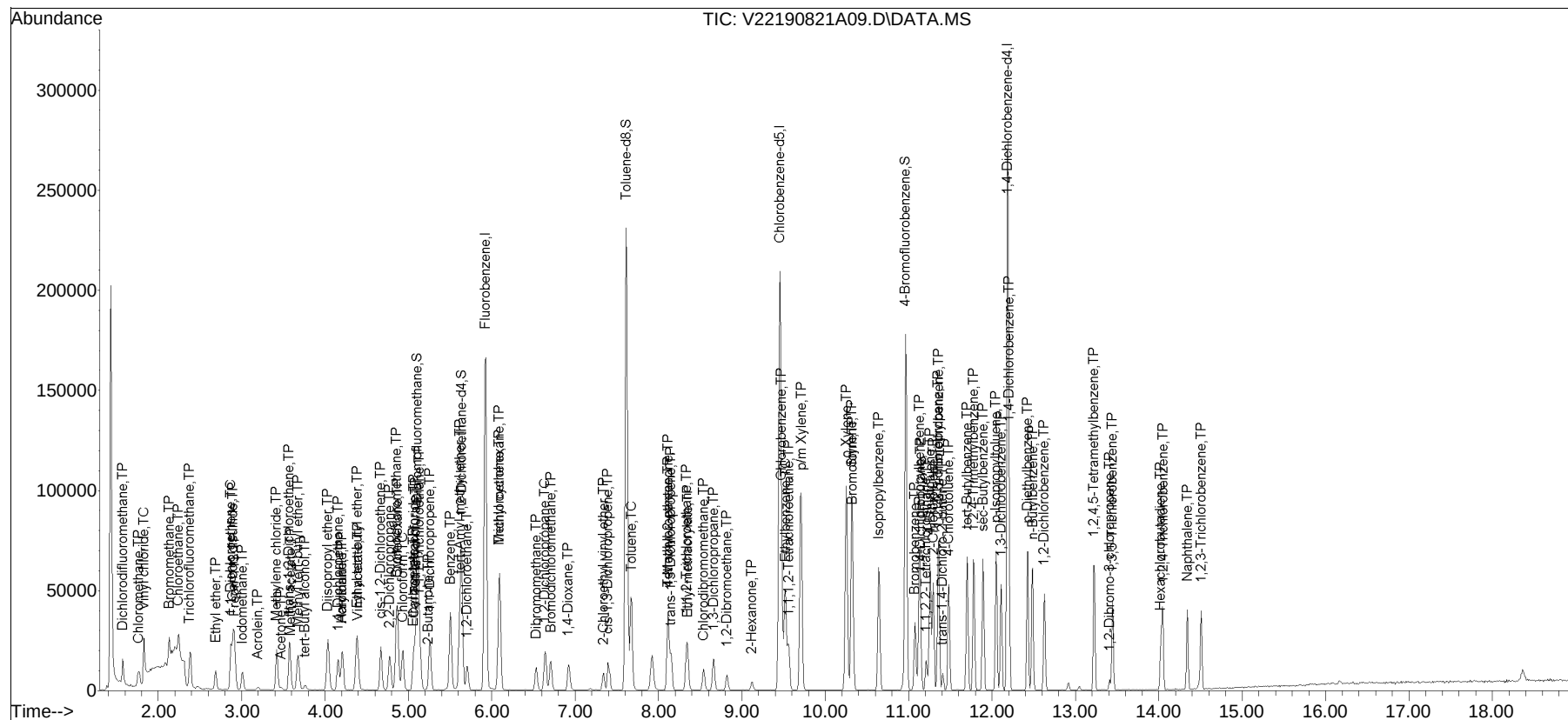
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A09.D
 Acq On : 21 Aug 2019 06:25 pm
 Operator : VOA122:MAB
 Sample : I8260STD2PPB
 Misc : WG1275628
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 22 14:26:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

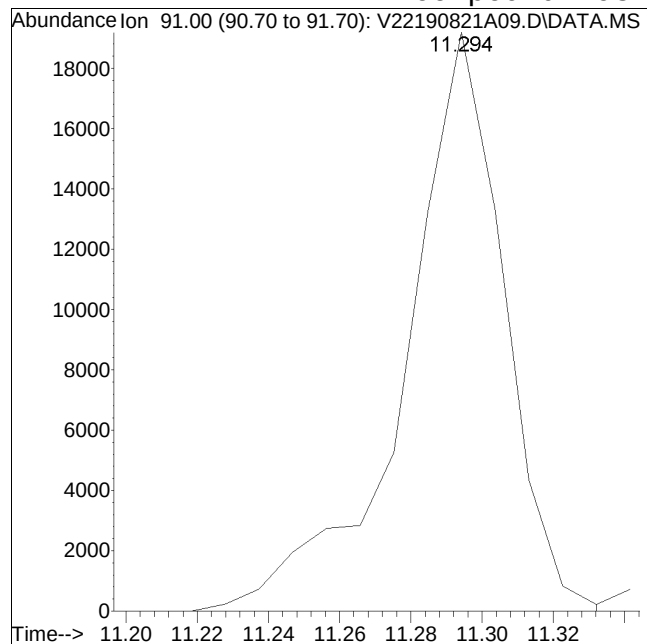
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

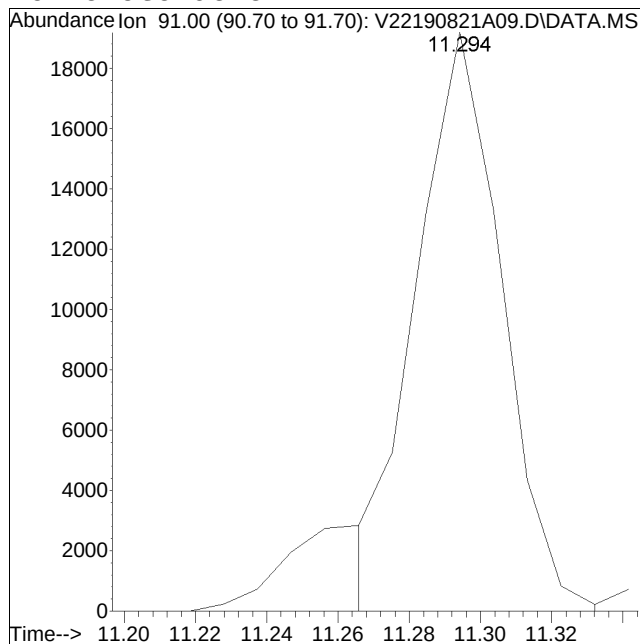
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A09.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 6:25 pm Instrument : VOA122
Sample : I8260STD2PPB Quant Date : 8/22/2019 2:26 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 36871

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

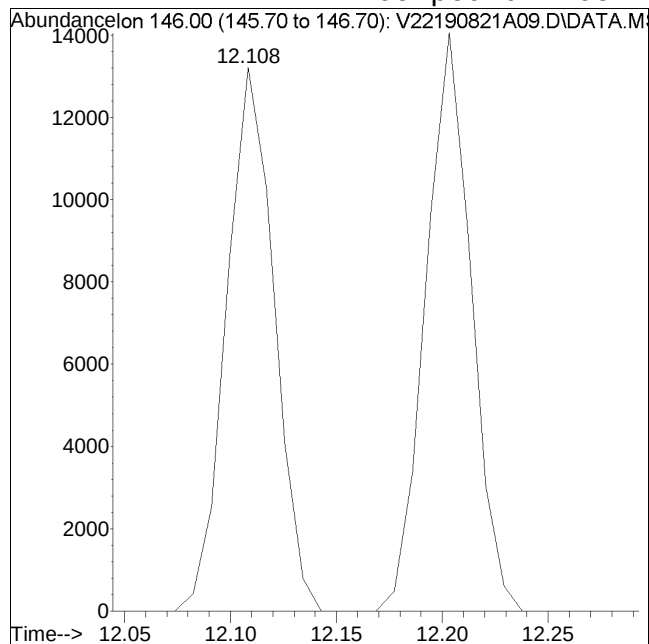


Manual Peak Response = 32042 M1

Manual Integration Report

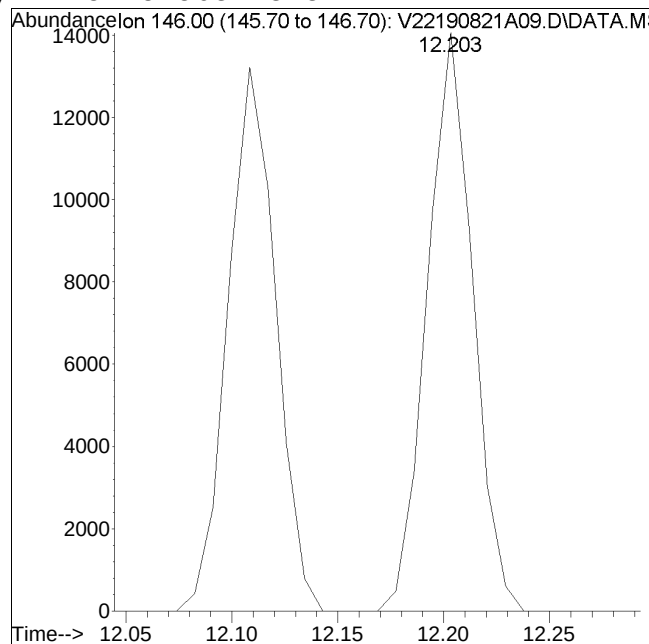
Data Path : I:\VOLATILES\VOA122\2019\10Method : V122_190821_8260.m
Data File : V22190821A09.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 6:25 pm Instrument : VOA122
Sample : I8260STD2PPB Quant Date : 8/22/2019 2:26 pm

Compound #105: 1,4-Dichlorobenzene



Original Peak Response = 20715

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.



Manual Peak Response = 21035 M3

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A10.D
 Acq On : 21 Aug 2019 06:50 pm
 Operator : VOA122:MAB
 Sample : I8260STD10PPB
 Misc : WG1275628
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 22 13:45:44 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	184935	10.000	ug/L	-0.03
Standard Area 1 = 184935			Recovery	=	100.00%	
62) Chlorobenzene-d5	9.457	117	139054	10.000	ug/L	-0.03
Standard Area 1 = 139054			Recovery	=	100.00%	
83) 1,4-Dichlorobenzene-d4	12.186	152	69238	10.000	ug/L	-0.03
Standard Area 1 = 69238			Recovery	=	100.00%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	49158	9.967	ug/L	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.67%	
46) 1,2-Dichloroethane-d4	5.637	65	55326	9.679	ug/L	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.79%	
63) Toluene-d8	7.610	98	188528	9.930	ug/L	-0.04
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.30%	
87) 4-Bromofluorobenzene	10.962	95	68636	9.805	ug/L	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.05%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	36354	6.501	ug/L	99
3) Chloromethane	1.761	50	43442	8.402	ug/L	97
4) Vinyl chloride	1.818	62	64652	9.226	ug/L	98
5) Bromomethane	2.130	94	34031	6.803	ug/L	98
6) Chloroethane	2.244	64	49041	9.031	ug/L	100
7) Trichlorofluoromethane	2.377	101	78594	9.289	ug/L	98
8) Ethyl ether	2.680	74	20796	9.240	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	45070	10.422	ug/L	95
11) Carbon disulfide	2.898	76	115789	9.189	ug/L	99
12) Freon-113	2.907	101	45547	9.100	ug/L	95
13) Iodomethane	3.002	142	60702	10.015	ug/L	94
14) Acrolein	3.191	56	5578	13.847	ug/L	91
15) Methylene chloride	3.419	84	46568	10.082	ug/L	95
17) Acetone	3.466	43	7265	9.605	ug/L	100
18) trans-1,2-Dichloroethene	3.570	96	49649	10.130	ug/L	96
19) Methyl acetate	3.589	43	17193	10.413	ug/L	97
21) Methyl tert-butyl ether	3.674	73	98743	9.240	ug/L	99
22) tert-Butyl alcohol	3.760	59	12468	45.421	ug/L #	90
24) Diisopropyl ether	4.034	45	119966	9.705	ug/L	98
25) 1,1-Dichloroethane	4.157	63	88343	10.206	ug/L	98
26) Halothane	4.205	117	40144	9.700	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A10.D
 Acq On : 21 Aug 2019 06:50 pm
 Operator : VOA122:MAB
 Sample : I8260STD10PPB
 Misc : WG1275628
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 22 13:45:44 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	8625	8.745	ug/L	97
28) Ethyl tert-butyl ether	4.375	59	121204	9.523	ug/L	96
29) Vinyl acetate	4.394	43	68569	9.566	ug/L	96
30) cis-1,2-Dichloroethene	4.669	96	52785	9.831	ug/L	93
31) 2,2-Dichloropropane	4.773	77	69995	12.159	ug/L	99
32) Bromochloromethane	4.858	128	22766	9.683	ug/L	91
33) Cyclohexane	4.868	56	78111	9.529	ug/L	92
34) Chloroform	4.934	83	84868	10.208	ug/L	98
35) Ethyl acetate	5.048	43	24741	10.083	ug/L	99
36) Carbon tetrachloride	5.067	117	74106	10.026	ug/L	99
37) Tetrahydrofuran	5.085	42	8447	8.967	ug/L	92
39) 1,1,1-Trichloroethane	5.133	97	82903	9.980	ug/L	99
41) 2-Butanone	5.237	43	10354	9.875	ug/L	99
42) 1,1-Dichloropropene	5.256	75	68649	9.777	ug/L	98
44) Benzene	5.502	78	214934	9.910	ug/L	99
45) tert-Amyl methyl ether	5.617	73	82484	9.175	ug/L	97
47) 1,2-Dichloroethane	5.699	62	55190	9.942	ug/L	99
50) Methyl cyclohexane	6.091	83	83262	10.015	ug/L	96
51) Trichloroethene	6.091	95	52404	9.986	ug/L	96
53) Dibromomethane	6.524	93	25295	10.068	ug/L #	83
54) 1,2-Dichloropropane	6.638	63	44881	9.775	ug/L	100
56) 2-Chloroethyl vinyl ether	7.339	63	27451	10.373	ug/L	97
57) Bromodichloromethane	6.710	83	60425	10.260	ug/L	99
60) 1,4-Dioxane	6.916	88	13193	527.330	ug/L #	88
61) cis-1,3-Dichloropropene	7.391	75	39443	11.034	ug/L	96
64) Toluene	7.667	92	123451	9.951	ug/L	98
65) 4-Methyl-2-pentanone	8.112	58	9822	9.892	ug/L	96
66) Tetrachloroethene	8.112	166	55865	10.087	ug/L	93
68) trans-1,3-Dichloropropene	8.150	75	62957	10.462	ug/L	99
70) Ethyl methacrylate	8.349	69	41229	8.443	ug/L	97
71) 1,1,2-Trichloroethane	8.330	83	29214	10.000	ug/L	98
72) Chlorodibromomethane	8.538	129	41003	9.629	ug/L	98
73) 1,3-Dichloropropane	8.661	76	60548	9.872	ug/L	99
74) 1,2-Dibromoethane	8.822	107	34914	9.837	ug/L	99
76) 2-Hexanone	9.116	43	15325	9.558	ug/L	98
77) Chlorobenzene	9.476	112	132967	10.030	ug/L	98
78) Ethylbenzene	9.523	91	240172	10.169	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.561	131	45226	10.035	ug/L	98
80) p/m Xylene	9.703	106	193208	20.294	ug/L	99
81) o Xylene	10.252	106	180028	19.246	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A10.D
 Acq On : 21 Aug 2019 06:50 pm
 Operator : VOA122:MAB
 Sample : I8260STD10PPB
 Misc : WG1275628
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 22 13:45:44 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.318	104	285643	18.569	ug/L	97
84)	Bromoform	10.328	173	21689	10.050	ug/L	98
86)	Isopropylbenzene	10.640	105	252708	10.248	ug/L	99
88)	Bromobenzene	11.076	156	53378	9.934	ug/L	98
89)	n-Propylbenzene	11.133	91	290939	10.209	ug/L	100
90)	1,4-Dichlorobutane	11.142	55	49721	7.850	ug/L	100
91)	1,1,2,2-Tetrachloroethane	11.209	83	36603	9.095	ug/L	99
92)	4-Ethyltoluene	11.256	105	235745	9.403	ug/L	99
93)	2-Chlorotoluene	11.294	91	161856M1	10.067	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	203070	10.180	ug/L	99
95)	1,2,3-Trichloropropane	11.351	75	30895	9.416	ug/L	96
96)	trans-1,4-Dichloro-2-b...	11.408	53	9285	8.979	ug/L	97
97)	4-Chlorotoluene	11.483	91	171281	10.417	ug/L	99
98)	tert-Butylbenzene	11.701	119	175871	10.059	ug/L	97
101)	1,2,4-Trimethylbenzene	11.777	105	201870	10.174	ug/L	98
102)	sec-Butylbenzene	11.891	105	178214	9.902	ug/L	97
103)	p-Isopropyltoluene	12.048	119	216009	10.188	ug/L	98
104)	1,3-Dichlorobenzene	12.108	146	109047	10.232	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	105622	10.110	ug/L	97
106)	p-Diethylbenzene	12.427	119	119437	9.760	ug/L	98
107)	n-Butylbenzene	12.479	91	181243	10.048	ug/L	99
108)	1,2-Dichlorobenzene	12.626	146	96217	10.143	ug/L	97
109)	1,2,4,5-Tetramethylben...	13.221	119	171374	9.483	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.411	155	5461	9.566	ug/L	98
111)	1,3,5-Trichlorobenzene	13.445	180	62567	9.656	ug/L	95
112)	Hexachlorobutadiene	14.024	225	19362	10.172	ug/L	100
113)	1,2,4-Trichlorobenzene	14.049	180	55919	10.081	ug/L	96
114)	Naphthalene	14.343	128	128320	9.514	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	48888	9.934	ug/L	97

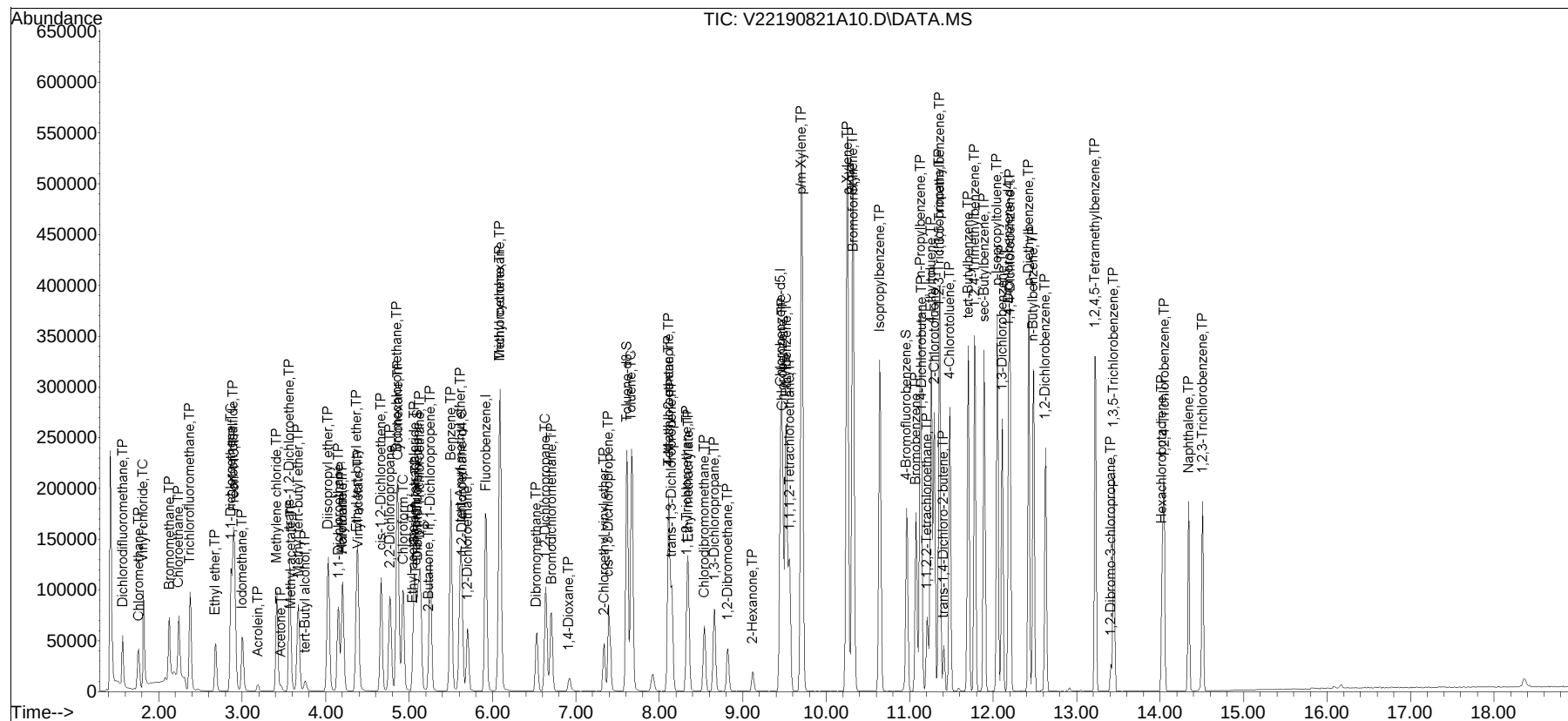
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : I:\VOLATILES\VOA122\2019\190821A\  
Data File  : V22190821A10.D  
Acq On     : 21 Aug 2019   06:50 pm  
Operator   : VOA122:MAB  
Sample     : I8260STD10PPB  
Misc       : WG1275628  
ALS Vial   : 10      Sample Multiplier: 1
```

Quant Time: Aug 22 13:45:44 2019
Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 13:41:53 2019
Response via : Initial Calibration

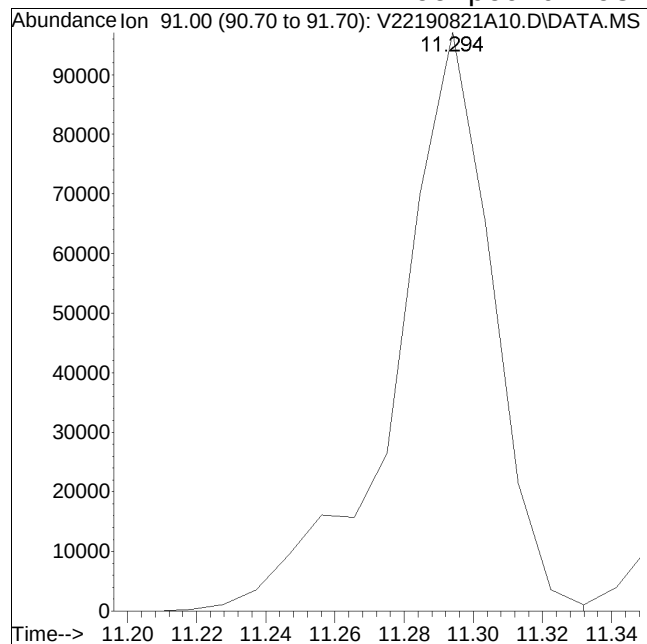
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

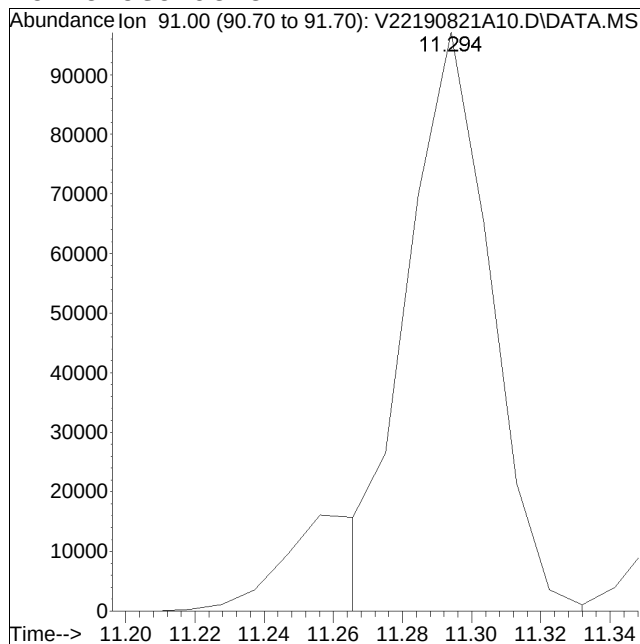
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A10.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 6:50 pm Instrument : VOA122
Sample : I8260STD10PPB Quant Date : 8/22/2019 1:44 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 188156

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 161856 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A11.D
 Acq On : 21 Aug 2019 07:15 pm
 Operator : VOA122:MAB
 Sample : I8260STD30PPB
 Misc : WG1275628
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 22 13:56:02 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	176107	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	95.23%		
62) Chlorobenzene-d5	9.457	117	134270	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	96.56%		
83) 1,4-Dichlorobenzene-d4	12.186	152	65557	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	94.68%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	47159	10.074	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.74%		
46) 1,2-Dichloroethane-d4	5.637	65	52819	10.025	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.25%		
63) Toluene-d8	7.610	98	181180	9.953	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.53%		
87) 4-Bromofluorobenzene	10.963	95	67396	10.371	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.71%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	110677	31.970	ug/L	99
3) Chloromethane	1.761	50	128850	31.147	ug/L	97
4) Vinyl chloride	1.827	62	185469	30.125	ug/L	99
5) Bromomethane	2.131	94	105937	32.690	ug/L	99
6) Chloroethane	2.244	64	140905	30.172	ug/L	99
7) Trichlorofluoromethane	2.377	101	230945	30.858	ug/L	100
8) Ethyl ether	2.689	74	59635	30.114	ug/L	# 1
10) 1,1-Dichloroethene	2.869	96	126308	29.430	ug/L	93
11) Carbon disulfide	2.898	76	338141	30.667	ug/L	99
12) Freon-113	2.907	101	132974	30.658	ug/L	95
13) Iodomethane	3.002	142	188327	32.580	ug/L	94
14) Acrolein	3.191	56	15284	28.774	ug/L	97
15) Methylene chloride	3.419	84	130531	29.435	ug/L	94
17) Acetone	3.466	43	19650	28.403	ug/L	96
18) trans-1,2-Dichloroethene	3.570	96	139718	29.552	ug/L	96
19) Methyl acetate	3.589	43	44857	27.398	ug/L	99
21) Methyl tert-butyl ether	3.674	73	276888	29.447	ug/L	99
22) tert-Butyl alcohol	3.760	59	35084	147.749	ug/L	98
24) Diisopropyl ether	4.034	45	341452	29.889	ug/L	99
25) 1,1-Dichloroethane	4.157	63	248073	29.488	ug/L	99
26) Halothane	4.205	117	117062	30.622	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A11.D
 Acq On : 21 Aug 2019 07:15 pm
 Operator : VOA122:MAB
 Sample : I8260STD30PPB
 Misc : WG1275628
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 22 13:56:02 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	24541	29.880	ug/L	97
28) Ethyl tert-butyl ether	4.375	59	345744	29.956	ug/L	94
29) Vinyl acetate	4.394	43	180309	27.614	ug/L	97
30) cis-1,2-Dichloroethene	4.669	96	149248	29.692	ug/L	96
31) 2,2-Dichloropropane	4.773	77	188619	28.298	ug/L	98
32) Bromochloromethane	4.858	128	66114	30.496	ug/L	95
33) Cyclohexane	4.868	56	225605	30.330	ug/L	96
34) Chloroform	4.934	83	238567	29.519	ug/L	99
35) Ethyl acetate	5.048	43	67053	28.461	ug/L	98
36) Carbon tetrachloride	5.067	117	215339	30.515	ug/L	99
37) Tetrahydrofuran	5.086	42	23850	29.650	ug/L	97
39) 1,1,1-Trichloroethane	5.133	97	234234	29.670	ug/L	99
41) 2-Butanone	5.228	43	29349	29.766	ug/L	98
42) 1,1-Dichloropropene	5.256	75	197361	30.190	ug/L	98
44) Benzene	5.502	78	606798	29.647	ug/L	99
45) tert-Amyl methyl ether	5.617	73	235454	29.976	ug/L	97
47) 1,2-Dichloroethane	5.699	62	153462	29.200	ug/L	99
50) Methyl cyclohexane	6.091	83	249681	31.491	ug/L	97
51) Trichloroethene	6.091	95	150003	30.059	ug/L	96
53) Dibromomethane	6.535	93	73821	30.647	ug/L #	84
54) 1,2-Dichloropropane	6.638	63	131626	30.798	ug/L	99
56) 2-Chloroethyl vinyl ether	7.339	63	77496	29.646	ug/L	99
57) Bromodichloromethane	6.710	83	179203	31.144	ug/L	99
60) 1,4-Dioxane	6.927	88	15668	623.566	ug/L #	90
61) cis-1,3-Dichloropropene	7.391	75	111889	29.789	ug/L	98
64) Toluene	7.667	92	356169	29.879	ug/L	97
65) 4-Methyl-2-pentanone	8.112	58	27730	29.238	ug/L	95
66) Tetrachloroethene	8.112	166	161148	29.874	ug/L	93
68) trans-1,3-Dichloropropene	8.150	75	183595	30.201	ug/L	99
70) Ethyl methacrylate	8.349	69	120340	30.228	ug/L	97
71) 1,1,2-Trichloroethane	8.330	83	84104	29.815	ug/L	99
72) Chlorodibromomethane	8.538	129	128018	32.334	ug/L	98
73) 1,3-Dichloropropane	8.661	76	174852	29.907	ug/L	99
74) 1,2-Dibromoethane	8.822	107	102060	30.273	ug/L	99
76) 2-Hexanone	9.116	43	43682	29.519	ug/L	100
77) Chlorobenzene	9.476	112	386101	30.072	ug/L	98
78) Ethylbenzene	9.523	91	685120	29.543	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.561	131	134929	30.897	ug/L	97
80) p/m Xylene	9.703	106	546937	58.634	ug/L	99
81) o Xylene	10.252	106	514573	59.203	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A11.D
 Acq On : 21 Aug 2019 07:15 pm
 Operator : VOA122:MAB
 Sample : I8260STD30PPB
 Misc : WG1275628
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 22 13:56:02 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.318	104	810357	58.761	ug/L	97
84)	Bromoform	10.337	173	66631	32.446	ug/L	99
86)	Isopropylbenzene	10.640	105	719354	30.064	ug/L	100
88)	Bromobenzene	11.076	156	155301	30.728	ug/L	100
89)	n-Propylbenzene	11.133	91	826436	30.001	ug/L	99
90)	1,4-Dichlorobutane	11.143	55	142087	30.181	ug/L	99
91)	1,1,2,2-Tetrachloroethane	11.209	83	107098	30.902	ug/L	99
92)	4-Ethyltoluene	11.256	105	664790	29.783	ug/L	100
93)	2-Chlorotoluene	11.294	91	455798M1	29.742	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	568002	29.541	ug/L	99
95)	1,2,3-Trichloropropane	11.351	75	85143	29.106	ug/L	99
96)	trans-1,4-Dichloro-2-b...	11.408	53	26955	30.661	ug/L	99
97)	4-Chlorotoluene	11.484	91	479969	29.596	ug/L	98
98)	tert-Butylbenzene	11.701	119	502258	30.162	ug/L	98
101)	1,2,4-Trimethylbenzene	11.777	105	567227	29.676	ug/L	98
102)	sec-Butylbenzene	11.891	105	470338	27.874	ug/L	100
103)	p-Isopropyltoluene	12.048	119	623504	30.485	ug/L	97
104)	1,3-Dichlorobenzene	12.108	146	302683	29.316	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	298951	29.893	ug/L	97
106)	p-Diethylbenzene	12.428	119	348260	30.796	ug/L	97
107)	n-Butylbenzene	12.488	91	527744	30.753	ug/L	99
108)	1,2-Dichlorobenzene	12.626	146	270403	29.681	ug/L	96
109)	1,2,4,5-Tetramethylben...	13.221	119	502825	30.988	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.411	155	16075	31.089	ug/L	100
111)	1,3,5-Trichlorobenzene	13.446	180	187519	31.654	ug/L	94
112)	Hexachlorobutadiene	14.024	225	60992	33.270	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	164883	31.142	ug/L	97
114)	Naphthalene	14.343	128	373550	30.745	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	144900	31.303	ug/L	97

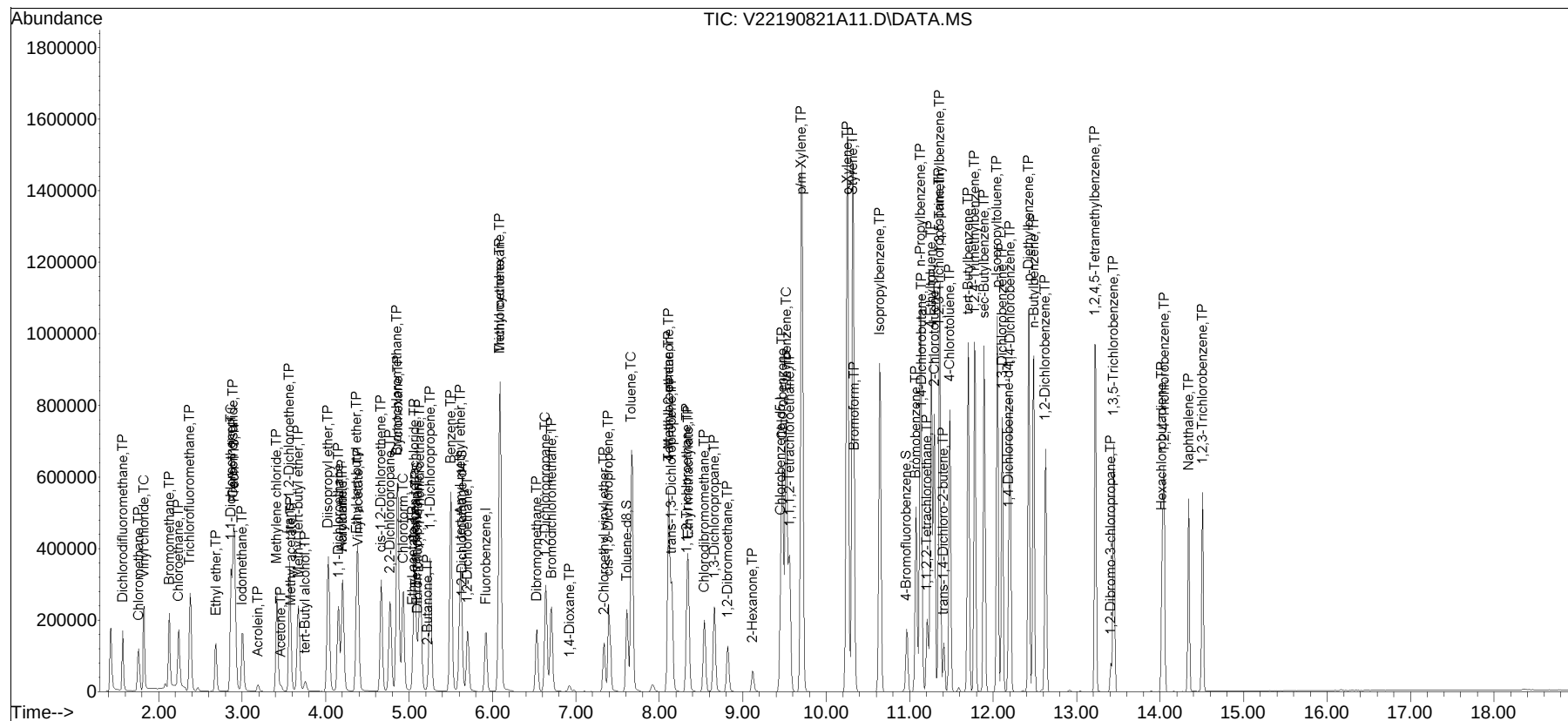
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A11.D
 Acq On : 21 Aug 2019 07:15 pm
 Operator : VOA122:MAB
 Sample : I8260STD30PPB
 Misc : WG1275628
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 22 13:56:02 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



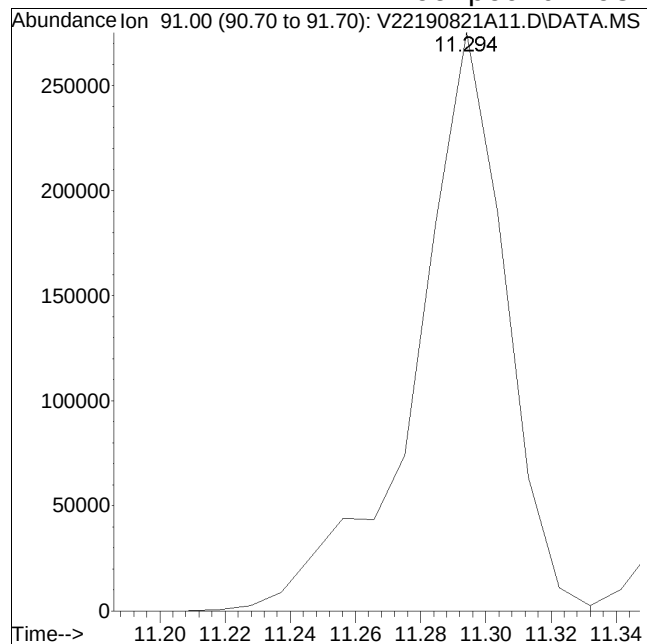
V122_190821_8260.m Thu Aug 22 14:32:12 2019

Page: 4

Manual Integration Report

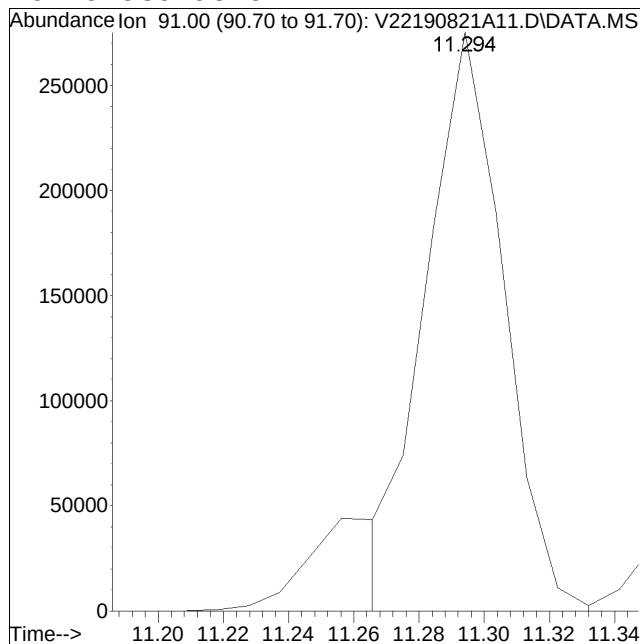
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A11.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 7:15 pm Instrument : VOA122
Sample : I8260STD30PPB Quant Date : 8/22/2019 1:47 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 527645

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 455798 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A12.D
 Acq On : 21 Aug 2019 07:40 pm
 Operator : VOA122:MAB
 Sample : I8260STD80PPB
 Misc : WG1275628
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 22 13:59:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.916	96	182763	10.000	ug/L	-0.01
Standard Area 1 = 184935			Recovery	=	98.83%	
62) Chlorobenzene-d5	9.457	117	138005	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery	=	99.25%	
83) 1,4-Dichlorobenzene-d4	12.186	152	64233	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery	=	92.77%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.105	113	46639	9.600	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.00%	
46) 1,2-Dichloroethane-d4	5.637	65	54818	10.026	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.26%	
63) Toluene-d8	7.610	98	186268	9.955	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.55%	
87) 4-Bromofluorobenzene	10.963	95	68248	10.718	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	107.18%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	271152	75.473	ug/L	99
3) Chloromethane	1.761	50	325560	75.832	ug/L	98
4) Vinyl chloride	1.818	62	481337	75.335	ug/L	100
5) Bromomethane	2.131	94	297466	88.449	ug/L	100
6) Chloroethane	2.244	64	352097	72.650	ug/L	99
7) Trichlorofluoromethane	2.377	101	560567	72.172	ug/L	99
8) Ethyl ether	2.680	74	156866	76.327	ug/L	# 1
10) 1,1-Dichloroethene	2.869	96	310515	69.715	ug/L	94
11) Carbon disulfide	2.898	76	837020	73.147	ug/L	99
12) Freon-113	2.907	101	315718	70.141	ug/L	93
13) Iodomethane	3.002	142	470488	78.429	ug/L	94
14) Acrolein	3.191	56	40781	73.979	ug/L	99
15) Methylene chloride	3.419	84	332339	72.215	ug/L	95
17) Acetone	3.466	43	44166	61.515	ug/L	92
18) trans-1,2-Dichloroethene	3.570	96	345348	70.385	ug/L	96
19) Methyl acetate	3.580	43	112056	65.950	ug/L	99
21) Methyl tert-butyl ether	3.674	73	707623	72.515	ug/L	99
22) tert-Butyl alcohol	3.760	59	75875	307.895	ug/L	95
24) Diisopropyl ether	4.034	45	877190	73.989	ug/L	99
25) 1,1-Dichloroethane	4.157	63	626673	71.779	ug/L	99
26) Halothane	4.205	117	297638	75.024	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A12.D
 Acq On : 21 Aug 2019 07:40 pm
 Operator : VOA122:MAB
 Sample : I8260STD80PPB
 Misc : WG1275628
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 22 13:59:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.195	53	60532	71.016	ug/L	93
28) Ethyl tert-butyl ether	4.375	59	899478	75.094	ug/L	97
29) Vinyl acetate	4.394	43	524217	77.360	ug/L	98
30) cis-1,2-Dichloroethene	4.669	96	368447	70.631	ug/L	94
31) 2,2-Dichloropropane	4.773	77	485714	70.217	ug/L	98
32) Bromochloromethane	4.858	128	162398	72.181	ug/L	94
33) Cyclohexane	4.868	56	552918	71.627	ug/L	96
34) Chloroform	4.925	83	603283	71.930	ug/L	99
35) Ethyl acetate	5.048	43	170374	69.681	ug/L	99
36) Carbon tetrachloride	5.067	117	544260	74.316	ug/L	100
37) Tetrahydrofuran	5.086	42	56631	67.839	ug/L	98
39) 1,1,1-Trichloroethane	5.133	97	587493	71.707	ug/L	99
41) 2-Butanone	5.228	43	69147	67.577	ug/L	96
42) 1,1-Dichloropropene	5.256	75	488123	71.949	ug/L	99
44) Benzene	5.502	78	1553832	73.153	ug/L	99
45) tert-Amyl methyl ether	5.617	73	601431	73.781	ug/L	98
47) 1,2-Dichloroethane	5.699	62	392249	71.917	ug/L	95
50) Methyl cyclohexane	6.091	83	625988	76.076	ug/L	98
51) Trichloroethene	6.091	95	383009	73.956	ug/L	96
53) Dibromomethane	6.535	93	191693	76.684	ug/L	# 84
54) 1,2-Dichloropropane	6.638	63	337767	76.153	ug/L	100
56) 2-Chloroethyl vinyl ether	7.339	63	205253	75.659	ug/L	98
57) Bromodichloromethane	6.710	83	473773	79.339	ug/L	100
60) 1,4-Dioxane	6.927	88	16495	632.571	ug/L	# 87
61) cis-1,3-Dichloropropene	7.391	75	289677	74.315	ug/L	99
64) Toluene	7.667	92	924991	75.497	ug/L	97
65) 4-Methyl-2-pentanone	8.112	58	72790	74.672	ug/L	98
66) Tetrachloroethene	8.112	166	407914	73.573	ug/L	94
68) trans-1,3-Dichloropropene	8.150	75	481659	77.088	ug/L	99
70) Ethyl methacrylate	8.349	69	320483	78.323	ug/L	98
71) 1,1,2-Trichloroethane	8.330	83	220959	76.210	ug/L	97
72) Chlorodibromomethane	8.538	129	339920	83.531	ug/L	98
73) 1,3-Dichloropropane	8.661	76	448285	74.601	ug/L	99
74) 1,2-Dibromoethane	8.822	107	266809	77.000	ug/L	99
76) 2-Hexanone	9.116	43	115153	75.712	ug/L	99
77) Chlorobenzene	9.476	112	986690	74.770	ug/L	99
78) Ethylbenzene	9.523	91	1756058	73.672	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.561	131	344420	76.734	ug/L	98
80) p/m Xylene	9.712	106	1381681	144.112	ug/L	98
81) o Xylene	10.252	106	1321263	147.900	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A12.D
 Acq On : 21 Aug 2019 07:40 pm
 Operator : VOA122:MAB
 Sample : I8260STD80PPB
 Misc : WG1275628
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 22 13:59:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.319	104	2110064	148.864	ug/L	96
84)	Bromoform	10.337	173	182557	90.729	ug/L	98
86)	Isopropylbenzene	10.641	105	1814082	77.379	ug/L	99
88)	Bromobenzene	11.076	156	392323	79.226	ug/L	99
89)	n-Propylbenzene	11.133	91	2089588	77.419	ug/L	99
90)	1,4-Dichlorobutane	11.143	55	370467	80.315	ug/L	99
91)	1,1,2,2-Tetrachloroethane	11.209	83	272621	80.284	ug/L	100
92)	4-Ethyltoluene	11.256	105	1630298	74.544	ug/L	100
93)	2-Chlorotoluene	11.294	91	1145231M1	76.269	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	1429875	75.899	ug/L	98
95)	1,2,3-Trichloropropane	11.351	75	225719	78.753	ug/L	98
96)	trans-1,4-Dichloro-2-b...	11.408	53	70608	81.971	ug/L	97
97)	4-Chlorotoluene	11.484	91	1216422	76.553	ug/L	98
98)	tert-Butylbenzene	11.702	119	1243755	76.230	ug/L	96
101)	1,2,4-Trimethylbenzene	11.777	105	1421411	75.899	ug/L	98
102)	sec-Butylbenzene	11.891	105	1106762	66.942	ug/L	99
103)	p-Isopropyltoluene	12.048	119	1520559	75.878	ug/L	97
104)	1,3-Dichlorobenzene	12.108	146	751193	74.255	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	739511	75.470	ug/L	97
106)	p-Diethylbenzene	12.428	119	862367	77.829	ug/L	97
107)	n-Butylbenzene	12.488	91	1322337	78.644	ug/L	98
108)	1,2-Dichlorobenzene	12.626	146	670441	75.110	ug/L	96
109)	1,2,4,5-Tetramethylben...	13.221	119	1255236	78.953	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.411	155	43113	85.099	ug/L	98
111)	1,3,5-Trichlorobenzene	13.446	180	452774	78.005	ug/L	94
112)	Hexachlorobutadiene	14.024	225	148943	82.919	ug/L	99
113)	1,2,4-Trichlorobenzene	14.050	180	412827	79.578	ug/L	97
114)	Naphthalene	14.343	128	953078	80.061	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	364646	80.400	ug/L	97

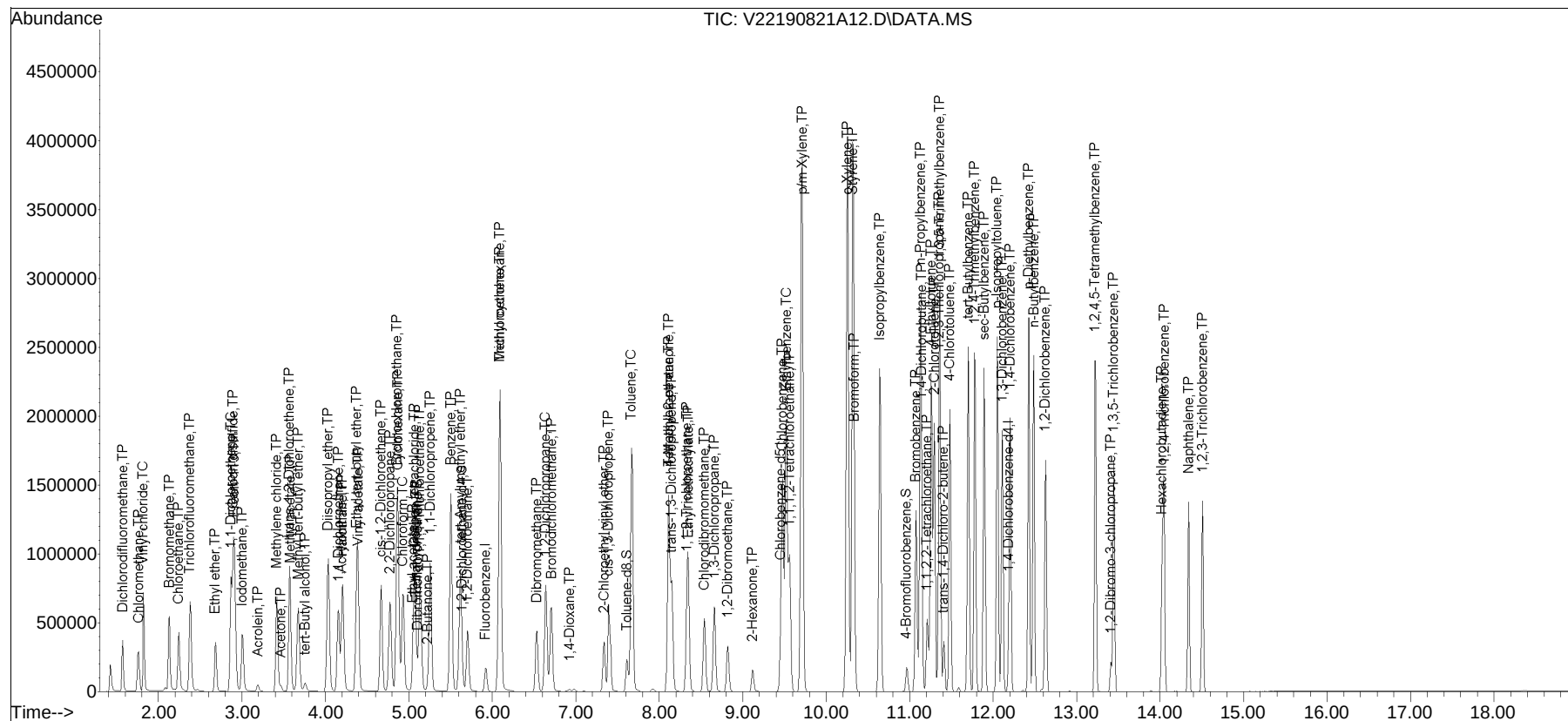
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A12.D
 Acq On : 21 Aug 2019 07:40 pm
 Operator : VOA122:MAB
 Sample : I8260STD80PPB
 Misc : WG1275628
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 22 13:59:24 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

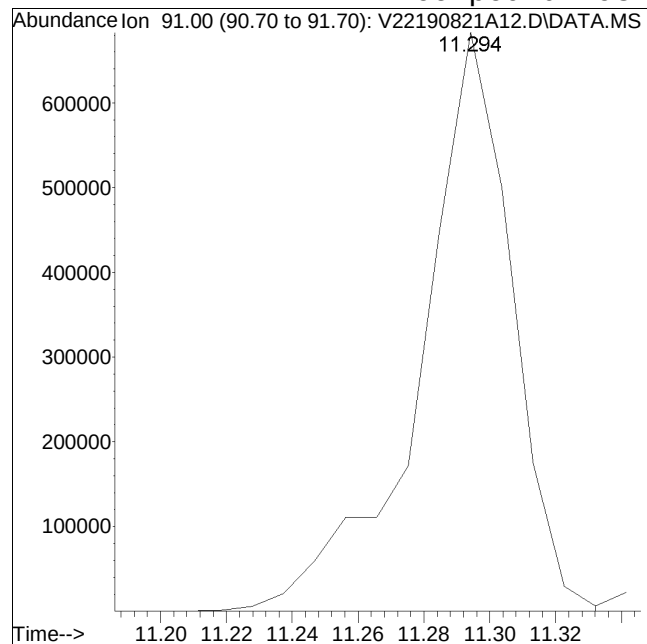
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

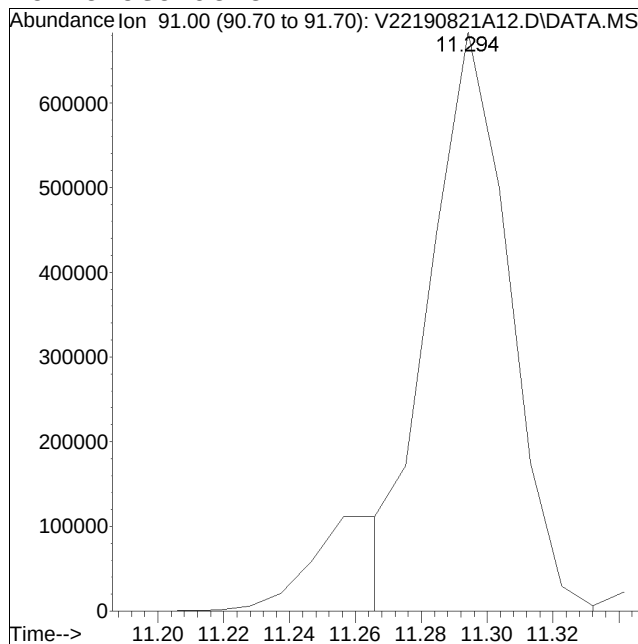
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A12.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 7:40 pm Instrument : VOA122
Sample : I8260STD80PPB Quant Date : 8/22/2019 1:47 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 1319632

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 1145231 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A13.D
 Acq On : 21 Aug 2019 08:05 pm
 Operator : VOA122:MAB
 Sample : I8260STD120PPB
 Misc : WG1275628
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 22 14:00:08 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	175508	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	94.90%		
62) Chlorobenzene-d5	9.457	117	132144	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	95.03%		
83) 1,4-Dichlorobenzene-d4	12.186	152	62088	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	89.67%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	45465	9.746	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.46%		
46) 1,2-Dichloroethane-d4	5.637	65	53414	10.173	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.73%		
63) Toluene-d8	7.610	98	183218	10.227	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.27%		
87) 4-Bromofluorobenzene	10.962	95	65763	10.685	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.85%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	430171	124.684	ug/L	99
3) Chloromethane	1.761	50	508543	123.350	ug/L	98
4) Vinyl chloride	1.818	62	768387	125.233	ug/L	100
5) Bromomethane	2.130	94	486985	150.787	ug/L	100
6) Chloroethane	2.244	64	536642	115.305	ug/L	100
7) Trichlorofluoromethane	2.377	101	867917	116.362	ug/L	99
8) Ethyl ether	2.680	74	236484	119.824	ug/L	# 1
10) 1,1-Dichloroethene	2.869	96	475535	111.178	ug/L	94
11) Carbon disulfide	2.898	76	1292979	117.665	ug/L	99
12) Freon-113	2.907	101	487743	112.838	ug/L	92
13) Iodomethane	3.002	142	699293	121.389	ug/L	93
14) Acrolein	3.191	56	61759	116.666	ug/L	98
15) Methylene chloride	3.418	84	512023	115.857	ug/L	95
17) Acetone	3.466	43	68466	99.303	ug/L	91
18) trans-1,2-Dichloroethene	3.570	96	528167	112.094	ug/L	96
19) Methyl acetate	3.589	43	168369	103.189	ug/L	98
21) Methyl tert-butyl ether	3.674	73	1077633	114.997	ug/L	99
22) tert-Butyl alcohol	3.759	59	114148	482.352	ug/L	97
24) Diisopropyl ether	4.034	45	1344573	118.100	ug/L	99
25) 1,1-Dichloroethane	4.157	63	964568	115.049	ug/L	99
26) Halothane	4.205	117	453893	119.139	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A13.D
 Acq On : 21 Aug 2019 08:05 pm
 Operator : VOA122:MAB
 Sample : I8260STD120PPB
 Misc : WG1275628
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 22 14:00:08 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	93064	113.696	ug/L	94
28) Ethyl tert-butyl ether	4.375	59	1375139	119.551	ug/L	98
29) Vinyl acetate	4.394	43	827357	127.141	ug/L	99
30) cis-1,2-Dichloroethene	4.669	96	563587	112.505	ug/L	95
31) 2,2-Dichloropropane	4.773	77	739059	111.259	ug/L	98
32) Bromochloromethane	4.858	128	242746	112.354	ug/L	93
33) Cyclohexane	4.868	56	859442	115.938	ug/L	96
34) Chloroform	4.934	83	930022	115.471	ug/L	99
35) Ethyl acetate	5.048	43	263119	112.062	ug/L	99
36) Carbon tetrachloride	5.066	117	846935	120.426	ug/L	99
37) Tetrahydrofuran	5.085	42	85883	107.134	ug/L	96
39) 1,1,1-Trichloroethane	5.133	97	904379	114.948	ug/L	99
41) 2-Butanone	5.227	43	104809	106.663	ug/L	93
42) 1,1-Dichloropropene	5.256	75	764970	117.417	ug/L	99
44) Benzene	5.502	78	2402250	117.770	ug/L	99
45) tert-Amyl methyl ether	5.617	73	946221	120.877	ug/L	98
47) 1,2-Dichloroethane	5.699	62	602489	115.030	ug/L	99
50) Methyl cyclohexane	6.091	83	975490	123.452	ug/L	97
51) Trichloroethene	6.091	95	596149	119.871	ug/L	95
53) Dibromomethane	6.535	93	295838	123.237	ug/L #	83
54) 1,2-Dichloropropane	6.638	63	521435	122.422	ug/L	100
56) 2-Chloroethyl vinyl ether	7.339	63	311574	119.598	ug/L	98
57) Bromodichloromethane	6.710	83	738346	128.755	ug/L	100
60) 1,4-Dioxane	6.926	88	21530	859.791	ug/L #	88
61) cis-1,3-Dichloropropene	7.391	75	438681	117.193	ug/L	99
64) Toluene	7.676	92	1433548	122.195	ug/L	97
65) 4-Methyl-2-pentanone	8.112	58	113212	121.291	ug/L	98
66) Tetrachloroethene	8.112	166	632693	119.176	ug/L	93
68) trans-1,3-Dichloropropene	8.150	75	740865	123.831	ug/L	99
70) Ethyl methacrylate	8.349	69	492428	125.683	ug/L	99
71) 1,1,2-Trichloroethane	8.339	83	337083	121.418	ug/L	98
72) Chlorodibromomethane	8.538	129	526582	135.141	ug/L	98
73) 1,3-Dichloropropane	8.661	76	690581	120.019	ug/L	99
74) 1,2-Dibromoethane	8.822	107	411117	123.909	ug/L	99
76) 2-Hexanone	9.116	43	178217	122.373	ug/L	99
77) Chlorobenzene	9.476	112	1527386	120.876	ug/L	98
78) Ethylbenzene	9.523	91	2726469	119.458	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.561	131	526248	122.444	ug/L	98
80) p/m Xylene	9.712	106	2199073	239.541	ug/L	98
81) o Xylene	10.252	106	2084566	243.692	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A13.D
 Acq On : 21 Aug 2019 08:05 pm
 Operator : VOA122:MAB
 Sample : I8260STD120PPB
 Misc : WG1275628
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 22 14:00:08 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.328	104	3356420	247.297	ug/L	94
84)	Bromoform	10.337	173	289022	148.603	ug/L	98
86)	Isopropylbenzene	10.640	105	2816391	124.283	ug/L	99
88)	Bromobenzene	11.076	156	602607	125.895	ug/L	99
89)	n-Propylbenzene	11.133	91	3280931	125.757	ug/L	99
90)	1,4-Dichlorobutane	11.142	55	584063	130.996	ug/L	100
91)	1,1,2,2-Tetrachloroethane	11.209	83	416855	127.000	ug/L	99
92)	4-Ethyltoluene	11.266	105	2503616	118.430	ug/L	100
93)	2-Chlorotoluene	11.294	91	1799265M1	123.966	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	2219152	121.865	ug/L	98
95)	1,2,3-Trichloropropane	11.351	75	357546	129.057	ug/L	97
96)	trans-1,4-Dichloro-2-b...	11.408	53	108855	130.738	ug/L	97
97)	4-Chlorotoluene	11.483	91	1879666	122.379	ug/L	98
98)	tert-Butylbenzene	11.701	119	1917422	121.579	ug/L	96
101)	1,2,4-Trimethylbenzene	11.787	105	2222298	122.763	ug/L	98
102)	sec-Butylbenzene	11.891	105	1580936	98.926	ug/L	99
103)	p-Isopropyltoluene	12.056	119	2328279	120.199	ug/L	97
104)	1,3-Dichlorobenzene	12.108	146	1161444	118.774	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	1145937	120.988	ug/L	97
106)	p-Diethylbenzene	12.427	119	1363211	127.280	ug/L	97
107)	n-Butylbenzene	12.488	91	2058832	126.677	ug/L	98
108)	1,2-Dichlorobenzene	12.634	146	1036604	120.143	ug/L	96
109)	1,2,4,5-Tetramethylben...	13.230	119	1973375	128.411	ug/L	97
110)	1,2-Dibromo-3-chloropr...	13.411	155	67156	137.135	ug/L	99
111)	1,3,5-Trichlorobenzene	13.445	180	708089	126.206	ug/L	94
112)	Hexachlorobutadiene	14.023	225	233063	134.233	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	634351	126.505	ug/L	97
114)	Naphthalene	14.343	128	1461647	127.024	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	554861	126.567	ug/L	97

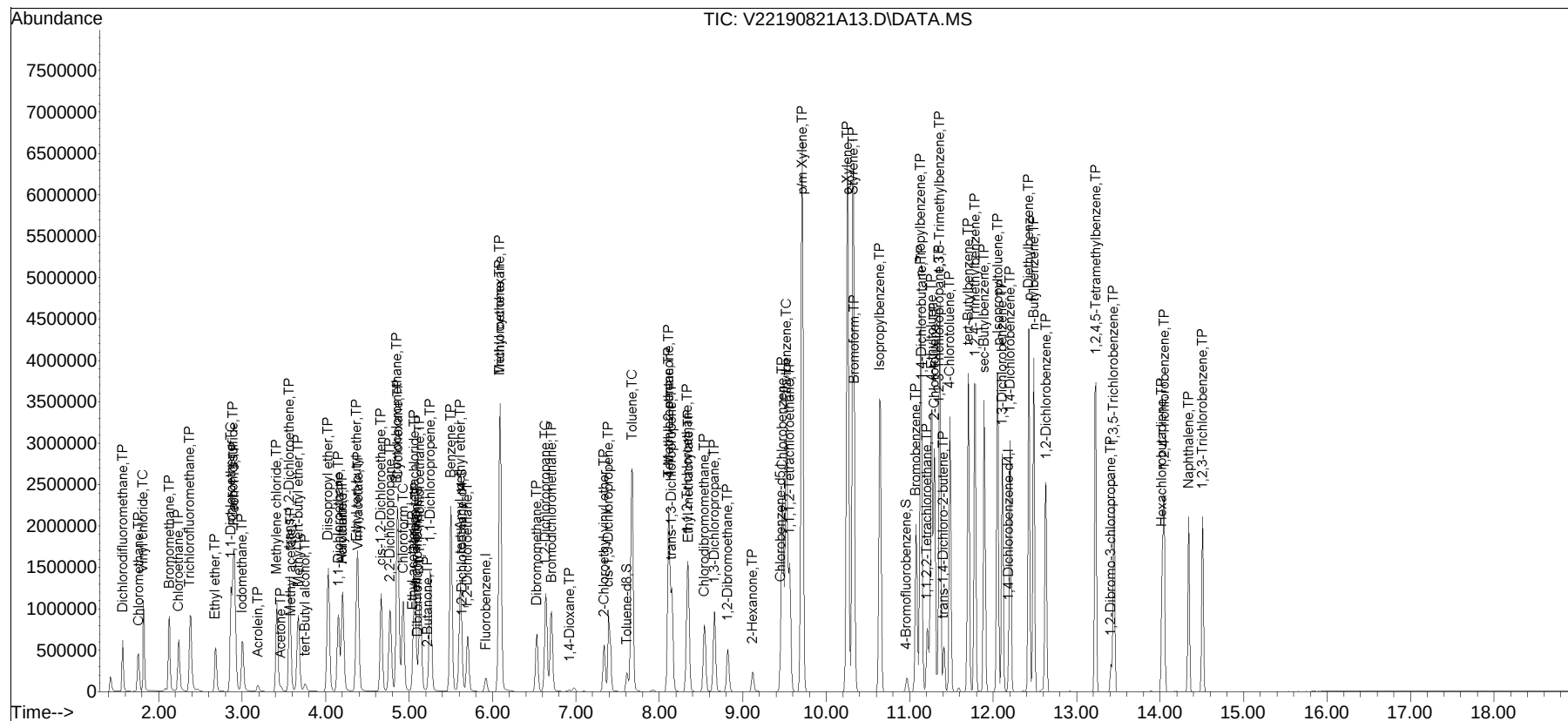
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
Data File : V22190821A13.D
Acq On : 21 Aug 2019 08:05 pm
Operator : VOA122:MAB
Sample : I8260STD120PPB
Misc : WG1275628
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 22 14:00:08 2019
Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 13:41:53 2019
Response via : Initial Calibration

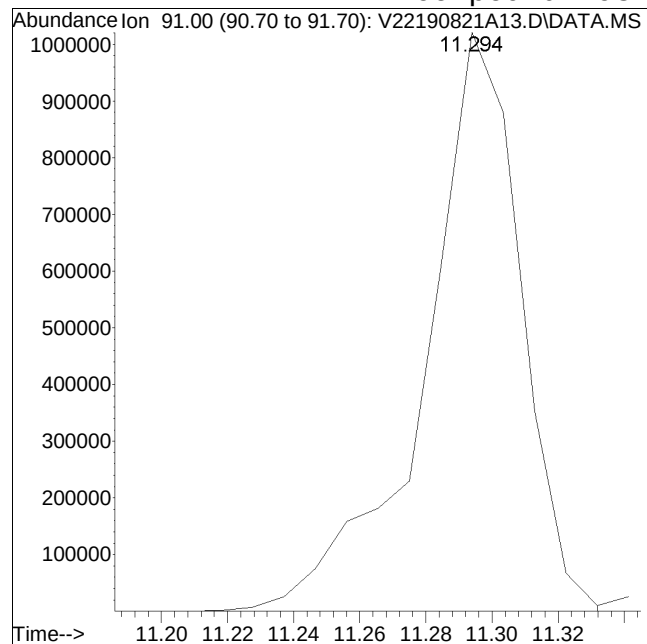
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

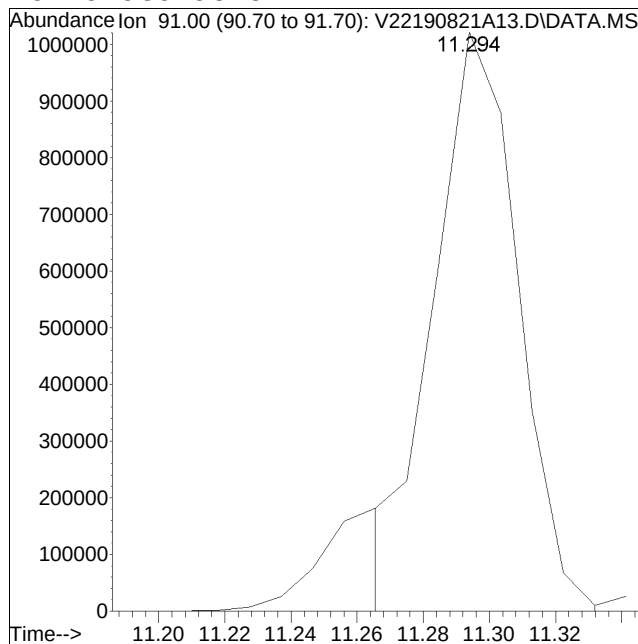
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A13.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 8:05 pm Instrument : VOA122
Sample : I8260STD120PPB Quant Date : 8/22/2019 1:47 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 2052527

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 1799265 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A14.D
 Acq On : 21 Aug 2019 08:30 pm
 Operator : VOA122:MAB
 Sample : I8260STD200PPB
 Misc : WG1275628
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 22 14:03:40 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	182387	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	98.62%		
62) Chlorobenzene-d5	9.457	117	137606	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	98.96%		
83) 1,4-Dichlorobenzene-d4	12.195	152	64539	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	93.21%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	46678	9.628	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.28%		
46) 1,2-Dichloroethane-d4	5.637	65	54814	10.046	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.46%		
63) Toluene-d8	7.610	98	189371	10.150	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.50%		
87) 4-Bromofluorobenzene	10.962	95	67254	10.512	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.12%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	700469	195.372	ug/L	98
3) Chloromethane	1.761	50	828985	193.492	ug/L	98
4) Vinyl chloride	1.818	62	1268643	198.968	ug/L	100
5) Bromomethane	2.131	94	816889	243.396	ug/L	99
6) Chloroethane	2.235	64	867006	179.262	ug/L	100
7) Trichlorofluoromethane	2.377	101	1394189	179.869	ug/L	99
8) Ethyl ether	2.680	74	390778	190.535	ug/L	# 1
10) 1,1-Dichloroethene	2.869	96	761525	171.325	ug/L	93
11) Carbon disulfide	2.898	76	2118907	185.554	ug/L	99
12) Freon-113	2.907	101	786557	175.104	ug/L	92
13) Iodomethane	3.002	142	1092192	182.440	ug/L	93
14) Acrolein	3.191	56	103087	187.392	ug/L	98
15) Methylene chloride	3.419	84	838721	182.623	ug/L	94
17) Acetone	3.466	43	113547	158.477	ug/L	92
18) trans-1,2-Dichloroethene	3.570	96	848620	173.312	ug/L	95
19) Methyl acetate	3.589	43	264428	155.948	ug/L	98
21) Methyl tert-butyl ether	3.674	73	1773145	182.080	ug/L	99
22) tert-Butyl alcohol	3.760	59	192152	781.346	ug/L	96
24) Diisopropyl ether	4.034	45	2223121	187.901	ug/L	98
25) 1,1-Dichloroethane	4.157	63	1579609	181.302	ug/L	99
26) Halothane	4.205	117	743634	187.830	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A14.D
 Acq On : 21 Aug 2019 08:30 pm
 Operator : VOA122:MAB
 Sample : I8260STD200PPB
 Misc : WG1275628
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 22 14:03:40 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	154722	181.894	ug/L	95
28) Ethyl tert-butyl ether	4.385	59	2294676	191.968	ug/L	99
29) Vinyl acetate	4.394	43	1423855	210.554	ug/L	98
30) cis-1,2-Dichloroethene	4.669	96	909975	174.801	ug/L	95
31) 2,2-Dichloropropane	4.773	77	1192521	172.752	ug/L	98
32) Bromochloromethane	4.858	128	392367	174.756	ug/L	91
33) Cyclohexane	4.868	56	1445242	187.609	ug/L	95
34) Chloroform	4.934	83	1527777	182.533	ug/L	99
35) Ethyl acetate	5.048	43	439308	180.043	ug/L	98
36) Carbon tetrachloride	5.067	117	1390811	190.301	ug/L	100
37) Tetrahydrofuran	5.085	42	144833	173.856	ug/L	96
39) 1,1,1-Trichloroethane	5.133	97	1483513	181.446	ug/L	99
41) 2-Butanone	5.228	43	174327	170.719	ug/L	93
42) 1,1-Dichloropropene	5.256	75	1256821	185.637	ug/L	99
44) Benzene	5.502	78	3942117	185.973	ug/L	99
45) tert-Amyl methyl ether	5.617	73	1593049	195.832	ug/L	99
47) 1,2-Dichloroethane	5.699	62	991208	182.108	ug/L	96
50) Methyl cyclohexane	6.091	83	1669402	203.301	ug/L	96
51) Trichloroethene	6.091	95	1016337	196.652	ug/L	94
53) Dibromomethane	6.535	93	489964	196.406	ug/L	# 83
54) 1,2-Dichloropropane	6.638	63	856056	193.404	ug/L	100
56) 2-Chloroethyl vinyl ether	7.339	63	515946	190.577	ug/L	98
57) Bromodichloromethane	6.710	83	1224294	205.444	ug/L	100
60) 1,4-Dioxane	6.927	88	37789	1452.169	ug/L	# 89
61) cis-1,3-Dichloropropene	7.391	75	708838	182.223	ug/L	99
64) Toluene	7.676	92	2396744	196.188	ug/L	96
65) 4-Methyl-2-pentanone	8.112	58	193758	199.345	ug/L	98
66) Tetrachloroethene	8.112	166	1030255	186.359	ug/L	93
68) trans-1,3-Dichloropropene	8.150	75	1217759	195.462	ug/L	100
70) Ethyl methacrylate	8.349	69	820932	201.210	ug/L	99
71) 1,1,2-Trichloroethane	8.339	83	558573	193.212	ug/L	97
72) Chlorodibromomethane	8.538	129	870935	214.643	ug/L	98
73) 1,3-Dichloropropane	8.661	76	1134899	189.410	ug/L	99
74) 1,2-Dibromoethane	8.822	107	678550	196.394	ug/L	100
76) 2-Hexanone	9.116	43	295667	194.961	ug/L	98
77) Chlorobenzene	9.476	112	2507288	190.549	ug/L	97
78) Ethylbenzene	9.523	91	4531907	190.680	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.561	131	858627	191.850	ug/L	98
80) p/m Xylene	9.712	106	3793058	396.772	ug/L	100
81) o Xylene	10.262	106	3609509	405.214	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A14.D
 Acq On : 21 Aug 2019 08:30 pm
 Operator : VOA122:MAB
 Sample : I8260STD200PPB
 Misc : WG1275628
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 22 14:03:40 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.328	104	5772671	408.441	ug/L	92
84)	Bromoform	10.337	173	501716	248.165	ug/L	99
86)	Isopropylbenzene	10.650	105	4658216	197.753	ug/L	100
88)	Bromobenzene	11.076	156	989468	198.867	ug/L	99
89)	n-Propylbenzene	11.133	91	5521743	203.609	ug/L	99
90)	1,4-Dichlorobutane	11.142	55	1017874	219.622	ug/L	99
91)	1,1,2,2-Tetrachloroethane	11.209	83	675909	198.104	ug/L	99
92)	4-Ethyltoluene	11.266	105	4125563	187.743	ug/L	100
93)	2-Chlorotoluene	11.294	91	2817209M1	186.729	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	3751295	198.179	ug/L	98
95)	1,2,3-Trichloropropane	11.360	75	623671	216.566	ug/L	97
96)	trans-1,4-Dichloro-2-b...	11.408	53	174463	201.578	ug/L	94
97)	4-Chlorotoluene	11.484	91	3118893	195.350	ug/L	98
98)	tert-Butylbenzene	11.701	119	3199632	195.177	ug/L	94
101)	1,2,4-Trimethylbenzene	11.787	105	3740246	198.770	ug/L	98
102)	sec-Butylbenzene	11.891	105	2436989	146.701	ug/L	99
103)	p-Isopropyltoluene	12.056	119	3894582	193.424	ug/L	96
104)	1,3-Dichlorobenzene	12.117	146	1897503	186.677	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	1892205	192.192	ug/L	97
106)	p-Diethylbenzene	12.427	119	2274804	204.328	ug/L	96
107)	n-Butylbenzene	12.488	91	3489687	206.561	ug/L	98
108)	1,2-Dichlorobenzene	12.635	146	1712178	190.906	ug/L	96
109)	1,2,4,5-Tetramethylben...	13.230	119	3321798	207.946	ug/L	97
110)	1,2-Dibromo-3-chloropr...	13.411	155	112472	220.950	ug/L	100
111)	1,3,5-Trichlorobenzene	13.446	180	1159187	198.761	ug/L	94
112)	Hexachlorobutadiene	14.024	225	381419	211.336	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	1045795	200.636	ug/L	97
114)	Naphthalene	14.343	128	2359777	197.287	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	911492	200.020	ug/L	97

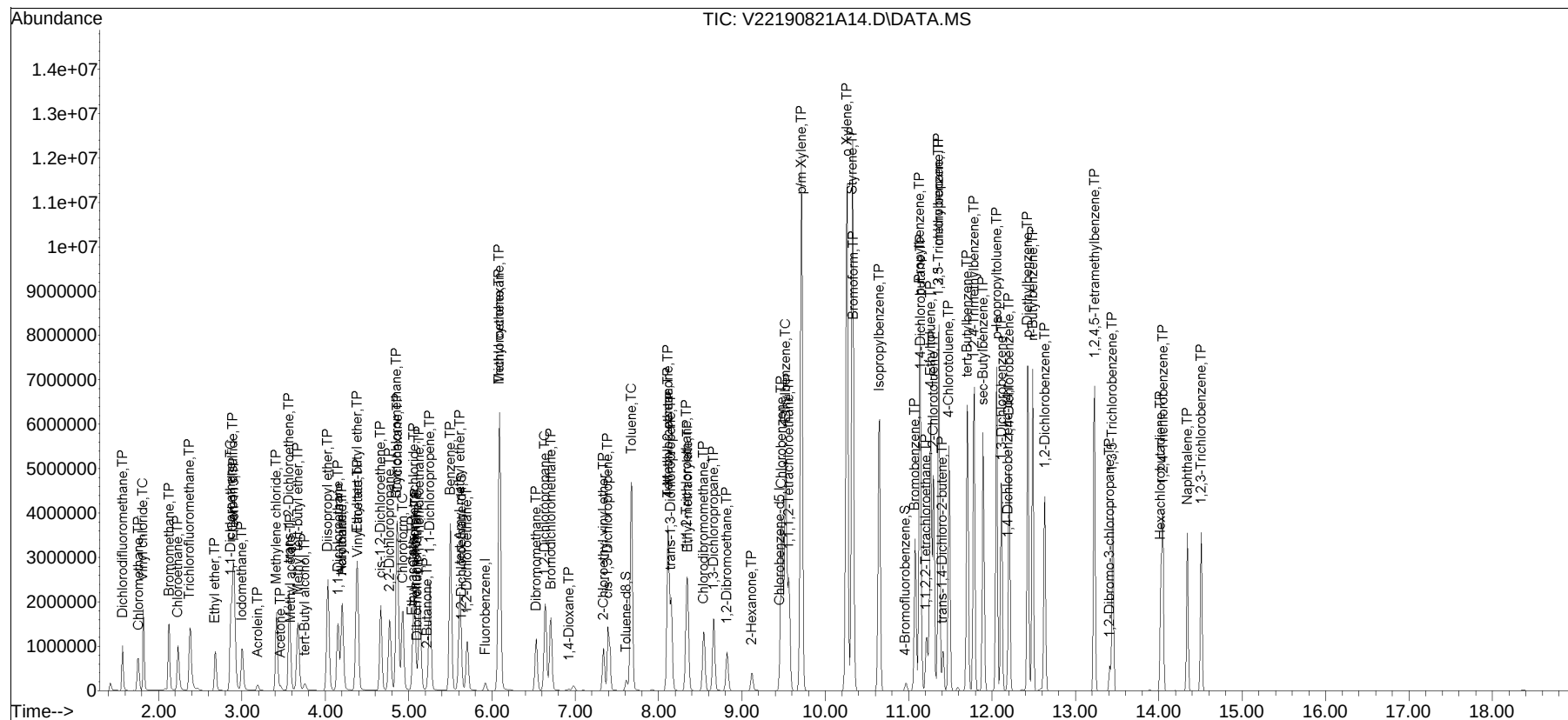
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A14.D
 Acq On : 21 Aug 2019 08:30 pm
 Operator : VOA122:MAB
 Sample : I8260STD200PPB
 Misc : WG1275628
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 22 14:03:40 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 13:41:53 2019
 Response via : Initial Calibration

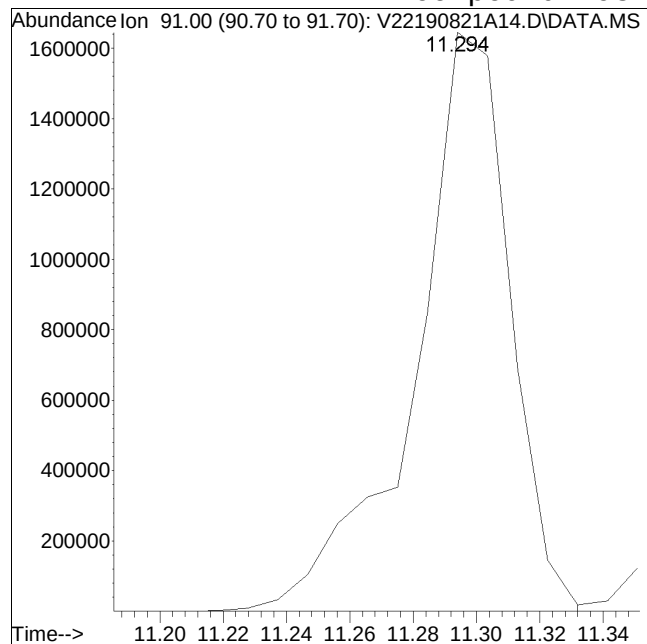
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

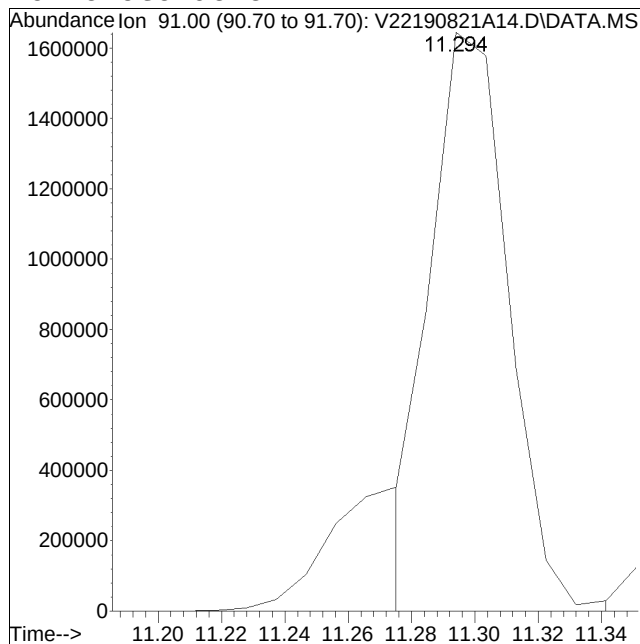
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A14.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 8:30 pm Instrument : VOA122
Sample : I8260STD200PPB Quant Date : 8/22/2019 1:47 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 3407590

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 2817209 M1

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	90	0.00
2 TP	Dichlorodifluoromethane	0.196	0.289	-47.4#	133	0.00
3 TP	Chloromethane	0.237	0.269	-13.5	104	0.00
4 TC	Vinyl chloride	0.331	0.365	-10.3	94	0.00
5 TP	Bromomethane	0.207	0.292	-41.1#	143	0.00
6 TP	Chloroethane	0.256	0.284	-10.9	97	0.00
7 TP	Trichlorofluoromethane	0.405	0.443	-9.4	94	0.00
8 TP	Ethyl ether	0.107	0.122	-14.0	98	0.00
10 TC	1,1-Dichloroethene	0.224	0.229	-2.2	85	0.00
11 TP	Carbon disulfide	0.599	0.645	-7.7	93	0.00
12 TP	Freon-113	0.235	0.260	-10.6	95	0.00
13 TP	Iodomethane	0.301	0.271	10.0	75	0.00
14 TP	Acrolein	0.030	0.020#	33.3#	60	0.00
15 TP	Methylene chloride	0.248	0.240	3.2	86	0.00
17 TP	Acetone	* 10.000	11.445	-14.5	97	0.00
18 TP	trans-1,2-Dichloroethene	0.251	0.252	-0.4	85	0.00
19 TP	Methyl acetate	0.086	0.095#	-10.5	93	0.00
21 TP	Methyl tert-butyl ether	0.512	0.583	-13.9	99	0.00
22 TP	tert-Butyl alcohol	0.013	0.015#	-15.4	102	0.00
24 TP	Diisopropyl ether	0.626	0.663	-5.9	92	0.00
25 TP	1,1-Dichloroethane	0.444	0.454	-2.3	86	0.00
26 TP	Halothane	0.210	0.216	-2.9	90	0.00
27 TP	Acrylonitrile	0.044	0.054	-22.7#	104	0.00
28 TP	Ethyl tert-butyl ether	0.637	0.688	-8.0	95	0.00
29 TP	Vinyl acetate	0.350	0.376	-7.4	92	0.00
30 TP	cis-1,2-Dichloroethene	0.269	0.287	-6.7	91	0.00
31 TP	2,2-Dichloropropane	0.348	0.296	14.9	71	0.00
32 TP	Bromochloromethane	0.117	0.127	-8.5	93	0.00
33 TP	Cyclohexane	0.406	0.424	-4.4	91	0.00
34 TC	Chloroform	0.440	0.437	0.7	86	0.00
35 TP	Ethyl acetate	0.134	0.135	-0.7	91	0.00
36 TP	Carbon tetrachloride	0.367	0.380	-3.5	86	0.00
37 TP	Tetrahydrofuran	* 10.000	11.272	-12.7	99	0.00
38 S	Dibromofluoromethane	0.264	0.269	-1.9	91	0.00
39 TP	1,1,1-Trichloroethane	0.423	0.433	-2.4	87	0.00
41 TP	2-Butanone	0.054	0.060#	-11.1	97	0.00
42 TP	1,1-Dichloropropene	0.354	0.366	-3.4	89	0.00
44 TP	Benzene	1.048	1.150	-9.7	89	0.00
45 TP	tert-Amyl methyl ether	0.447	0.495	-10.7	100	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46 S	1,2-Dichloroethane-d4	0.296	0.312	-5.4	94	0.00
47 T	1,2-Dichloroethane	0.283	0.300	-6.0	91	0.01
50 TP	Methyl cyclohexane	0.442	0.434	1.8	87	0.00
51 TP	Trichloroethene	0.265	0.273	-3.0	87	0.00
53 TP	Dibromomethane	0.136	0.135	0.7	89	0.01
54 TC	1,2-Dichloropropane	0.236	0.245	-3.8	91	0.00
56 TP	2-Chloroethyl vinyl ether	0.136	0.142	-4.4	86	0.00
57 TP	Bromodichloromethane	0.325	0.306	5.8	85	0.00
60 TP	1,4-Dioxane	0.00132	0.00117#	11.4	74	0.01
61 TP	cis-1,3-Dichloropropene	0.204	0.192#	5.9	81	0.00
62 I	Chlorobenzene-d5	1.000	1.000	0.0	91	0.00
63 S	Toluene-d8	1.358	1.364	-0.4	91	0.00
64 TC	Toluene	0.864	0.868	-0.5	89	0.00
65 TP	4-Methyl-2-pentanone	0.067	0.071#	-6.0	92	0.00
66 TP	Tetrachloroethene	0.383	0.384	-0.3	87	0.00
68 TP	trans-1,3-Dichloropropene	0.436	0.423	3.0	85	0.00
70 TP	Ethyl methacrylate	0.295	0.353	-19.7	108	0.00
71 TP	1,1,2-Trichloroethane	0.204	0.206	-1.0	89	0.00
72 TP	Chlorodibromomethane	0.297	0.302	-1.7	93	0.00
73 TP	1,3-Dichloropropane	0.420	0.428	-1.9	89	0.00
74 TP	1,2-Dibromoethane	0.243	0.255	-4.9	92	0.00
76 TP	2-Hexanone	0.120	0.115	4.2	95	0.00
77 TP	Chlorobenzene	0.934	0.938	-0.4	89	0.00
78 TC	Ethylbenzene	1.657	1.660	-0.2	87	0.00
79 TP	1,1,1,2-Tetrachloroethane	0.312	0.325	-4.2	90	0.00
80 TP	p/m Xylene	0.667	0.664	0.4	87	0.00
81 TP	o Xylene	0.628	0.655	-4.3	92	0.00
82 TP	Styrene	0.998	1.088	-9.0	96	0.00
83 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	0.00
84 TP	Bromoform	0.333	0.311	6.6	91	0.00
86 TP	Isopropylbenzene	3.579	3.404	4.9	85	0.00
87 S	4-Bromofluorobenzene	1.034	1.000	3.3	92	0.00
88 TP	Bromobenzene	0.771	0.754	2.2	89	0.00
89 TP	n-Propylbenzene	4.149	3.975	4.2	86	0.00
90 TP	1,4-Dichlorobutane	0.739	0.880	-19.1	112	0.00
91 TP	1,1,2,2-Tetrachloroethane	0.556	0.584	-5.0	101	0.00
92 TP	4-Ethyltoluene	3.261	3.535	-8.4	95	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 TP	2-Chlorotoluene	2.293	2.247	2.0	88	0.00
94 TP	1,3,5-Trimethylbenzene	2.845	2.813	1.1	88	0.00
95 TP	1,2,3-Trichloropropane	0.466	0.473	-1.5	97	0.00
96 TP	trans-1,4-Dichloro-2-butene	0.135	0.150	-11.1	102	0.00
97 TP	4-Chlorotoluene	2.407	2.313	3.9	85	0.00
98 TP	tert-Butylbenzene	2.477	2.429	1.9	87	0.00
101 TP	1,2,4-Trimethylbenzene	2.843	2.769	2.6	87	0.00
102 TP	sec-Butylbenzene	2.290	2.491	-8.8	88	0.00
103 TP	p-Isopropyltoluene	3.030	2.950	2.6	86	0.00
104 TP	1,3-Dichlorobenzene	1.506	1.489	1.1	86	0.00
105 TP	1,4-Dichlorobenzene	1.501	1.458	2.9	87	0.00
106 TP	p-Diethylbenzene	1.705	1.695	0.6	90	0.00
107 TP	n-Butylbenzene	2.585	2.512	2.8	88	0.00
108 TP	1,2-Dichlorobenzene	1.365	1.342	1.7	88	0.00
109 TP	1,2,4,5-Tetramethylbenzene	2.485	2.512	-1.1	93	0.00
110 TP	1,2-Dibromo-3-chloropropane *	10.000	9.626	3.7	94	0.00
111 TP	1,3,5-Trichlorobenzene	0.912	0.896	1.8	90	0.00
112 TP	Hexachlorobutadiene	0.291	0.257	11.7	84	0.00
113 TP	1,2,4-Trichlorobenzene	0.825	0.784	5.0	89	0.00
114 TP	Naphthalene	1.930	1.952	-1.1	96	0.00
115 TP	1,2,3-Trichlorobenzene	0.732	0.698	4.6	90	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 7 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	166964	10.000	ug/L	0.00
Standard Area 1 = 184935			Recovery =	90.28%		
62) Chlorobenzene-d5	9.457	117	126050	10.000	ug/L	0.00
Standard Area 1 = 139054			Recovery =	90.65%		
83) 1,4-Dichlorobenzene-d4	12.186	152	63160	10.000	ug/L	0.00
Standard Area 1 = 69238			Recovery =	91.22%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	44848	10.185	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.85%		
46) 1,2-Dichloroethane-d4	5.637	65	52122	10.561	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.61%		
63) Toluene-d8	7.610	98	171991	10.048	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.48%		
87) 4-Bromofluorobenzene	10.962	95	63170	9.673	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.73%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	48255	14.762	ug/L	100
3) Chloromethane	1.761	50	44966	11.373	ug/L	98
4) Vinyl chloride	1.827	62	60954	11.026	ug/L	100
5) Bromomethane	2.130	94	48717	14.084	ug/L	100
6) Chloroethane	2.244	64	47412	11.086	ug/L	98
7) Trichlorofluoromethane	2.377	101	73889	10.929	ug/L	99
8) Ethyl ether	2.689	74	20364	11.408	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	38306	10.254	ug/L	93
11) Carbon disulfide	2.898	76	107760	10.781	ug/L	99
12) Freon-113	2.907	101	43491	11.078	ug/L	93
13) Iodomethane	3.011	142	45233	8.991	ug/L	94
14) Acrolein	3.191	56	3333	6.651	ug/L	96
15) Methylene chloride	3.419	84	40077	9.694	ug/L	92
17) Acetone	3.466	43	7065	11.445	ug/L	98
18) trans-1,2-Dichloroethene	3.570	96	42143	10.063	ug/L	95
19) Methyl acetate	3.589	43	15930	11.145	ug/L	96
21) Methyl tert-butyl ether	3.674	73	97397	11.386	ug/L	99
22) tert-Butyl alcohol	3.759	59	12734	60.794	ug/L	97
24) Diisopropyl ether	4.034	45	110780	10.594	ug/L	98
25) 1,1-Dichloroethane	4.157	63	75795	10.220	ug/L	98
26) Halothane	4.205	117	36067	10.275	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Acrylonitrile	4.205	53	9008	12.159	ug/L	100
28) Ethyl tert-butyl ether	4.385	59	114858	10.806	ug/L	95
29) Vinyl acetate	4.394	43	62853	10.752	ug/L	98
30) cis-1,2-Dichloroethene	4.669	96	47908	10.680	ug/L	94
31) 2,2-Dichloropropane	4.773	77	49421	8.498	ug/L	99
32) Bromochloromethane	4.858	128	21215	10.864	ug/L	94
33) Cyclohexane	4.868	56	70846	10.462	ug/L	96
34) Chloroform	4.934	83	73000	9.938	ug/L	98
35) Ethyl acetate	5.048	43	22552	10.113	ug/L	100
36) Carbon tetrachloride	5.067	117	63373	10.348	ug/L	99
37) Tetrahydrofuran	5.085	42	8362	11.272	ug/L	99
39) 1,1,1-Trichloroethane	5.133	97	72259	10.242	ug/L	98
41) 2-Butanone	5.237	43	10028	11.150	ug/L	95
42) 1,1-Dichloropropene	5.256	75	61074	10.319	ug/L	98
44) Benzene	5.502	78	191965	10.968	ug/L	98
45) tert-Amyl methyl ether	5.617	73	82612	11.063	ug/L	96
47) 1,2-Dichloroethane	5.710	62	50060	10.591	ug/L	98
50) Methyl cyclohexane	6.091	83	72479	9.812	ug/L	97
51) Trichloroethene	6.091	95	45600	10.288	ug/L	95
53) Dibromomethane	6.535	93	22527	9.930	ug/L	# 83
54) 1,2-Dichloropropane	6.638	63	40914	10.383	ug/L	99
56) 2-Chloroethyl vinyl ether	7.339	63	23668	10.396	ug/L	# 87
57) Bromodichloromethane	6.710	83	51147	9.439	ug/L	99
60) 1,4-Dioxane	6.927	88	9799	443.970	ug/L	# 86
61) cis-1,3-Dichloropropene	7.391	75	32106	9.435	ug/L	96
64) Toluene	7.667	92	109416	10.045	ug/L	97
65) 4-Methyl-2-pentanone	8.112	58	9012	10.655	ug/L	93
66) Tetrachloroethene	8.112	166	48385	10.025	ug/L	92
68) trans-1,3-Dichloropropene	8.150	75	53376	9.701	ug/L	99
70) Ethyl methacrylate	8.349	69	44550	11.964	ug/L	96
71) 1,1,2-Trichloroethane	8.330	83	25943	10.080	ug/L	100
72) Chlorodibromomethane	8.538	129	38013	10.168	ug/L	98
73) 1,3-Dichloropropane	8.661	76	53977	10.197	ug/L	100
74) 1,2-Dibromoethane	8.822	107	32118	10.489	ug/L	100
76) 2-Hexanone	9.125	43	14487	9.569	ug/L	98
77) Chlorobenzene	9.476	112	118248	10.045	ug/L	97
78) Ethylbenzene	9.523	91	209246	10.019	ug/L	100
79) 1,1,1,2-Tetrachloroethane	9.561	131	40908	10.395	ug/L	98
80) p/m Xylene	9.712	106	167327	19.910	ug/L	100
81) o Xylene	10.252	106	165043	20.841	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
 Data File : V22190821A20.D
 Acq On : 21 Aug 2019 11:00 pm
 Operator : VOA122:MAB
 Sample : C8260STD10PPB
 Misc : WG1275628
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190821A\V22190821A10.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Styrene	10.318	104	274275	21.801	ug/L	97
84)	Bromoform	10.337	173	19634	9.347	ug/L	98
86)	Isopropylbenzene	10.640	105	214989	9.510	ug/L	100
88)	Bromobenzene	11.076	156	47599	9.776	ug/L	100
89)	n-Propylbenzene	11.133	91	251074	9.582	ug/L	99
90)	1,4-Dichlorobutane	11.142	55	55568	11.909	ug/L	99
91)	1,1,2,2-Tetrachloroethane	11.209	83	36861	10.493	ug/L	99
92)	4-Ethyltoluene	11.256	105	223259	10.840	ug/L	100
93)	2-Chlorotoluene	11.294	91	141950M1	9.800	ug/L	
94)	1,3,5-Trimethylbenzene	11.360	105	177698	9.888	ug/L	98
95)	1,2,3-Trichloropropane	11.351	75	29898	10.169	ug/L	98
96)	trans-1,4-Dichloro-2-b...	11.408	53	9450	11.075	ug/L	89
97)	4-Chlorotoluene	11.483	91	146079	9.607	ug/L	98
98)	tert-Butylbenzene	11.701	119	153397	9.804	ug/L	96
101)	1,2,4-Trimethylbenzene	11.777	105	174913	9.741	ug/L	98
102)	sec-Butylbenzene	11.891	105	157347	10.878	ug/L	98
103)	p-Isopropyltoluene	12.048	119	186320	9.736	ug/L	97
104)	1,3-Dichlorobenzene	12.108	146	94027	9.882	ug/L	97
105)	1,4-Dichlorobenzene	12.203	146	92106	9.716	ug/L	96
106)	p-Diethylbenzene	12.427	119	107027	9.940	ug/L	98
107)	n-Butylbenzene	12.488	91	158670	9.720	ug/L	98
108)	1,2-Dichlorobenzene	12.626	146	84783	9.831	ug/L	96
109)	1,2,4,5-Tetramethylben...	13.221	119	158670	10.109	ug/L	97
110)	1,2-Dibromo-3-chloropr...	13.411	155	5123	9.626	ug/L	98
111)	1,3,5-Trichlorobenzene	13.445	180	56617	9.830	ug/L #	94
112)	Hexachlorobutadiene	14.024	225	16250	8.842	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	49504	9.506	ug/L	96
114)	Naphthalene	14.343	128	123305	10.116	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	44060	9.527	ug/L	97

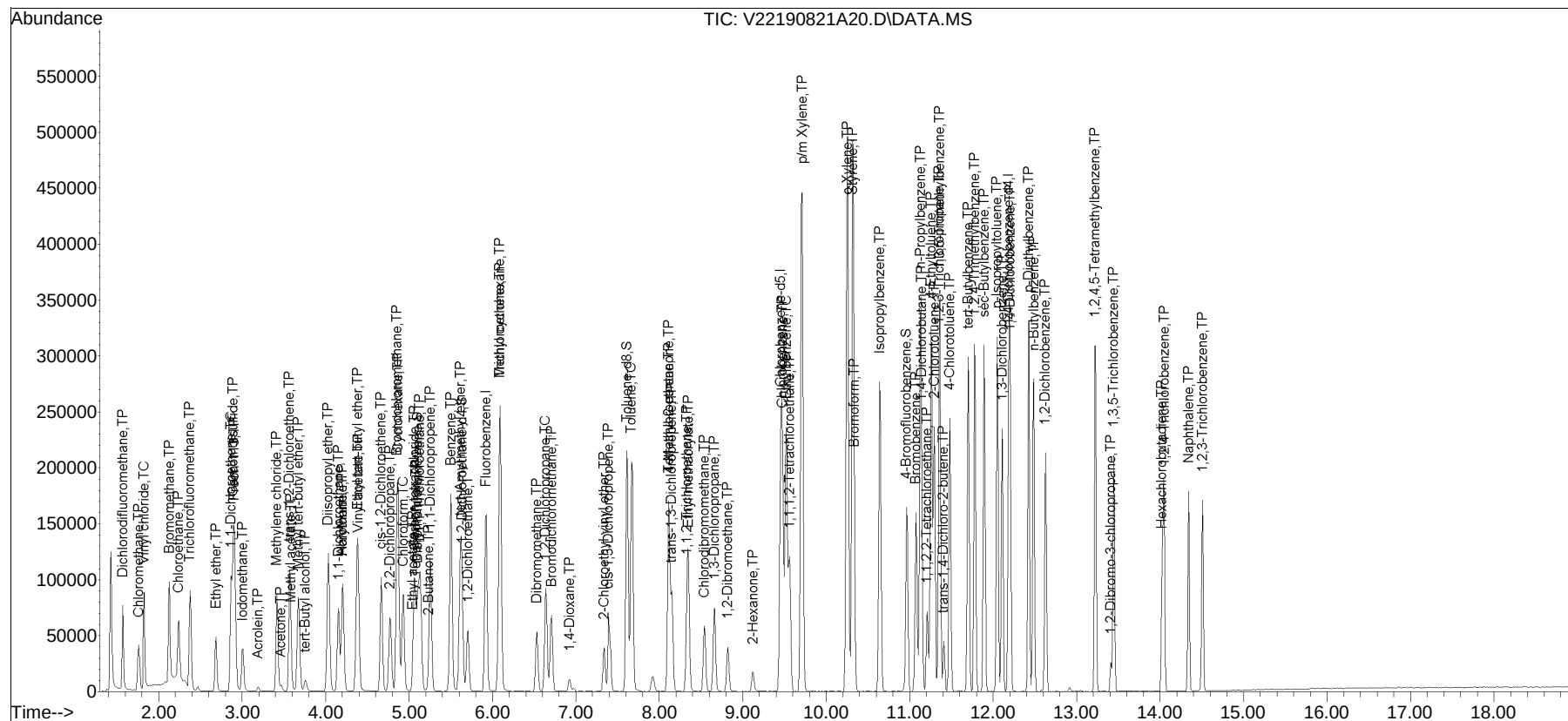
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190821A\
Data File : V22190821A20.D
Acq On : 21 Aug 2019 11:00 pm
Operator : VOA122:MAB
Sample : C8260STD10PPB
Misc : WG1275628
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 22 14:28:35 2019
Quant Method : I:\VOLATILES\VOA122\2019\190821A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 14:26:00 2019
Response via : Initial Calibration

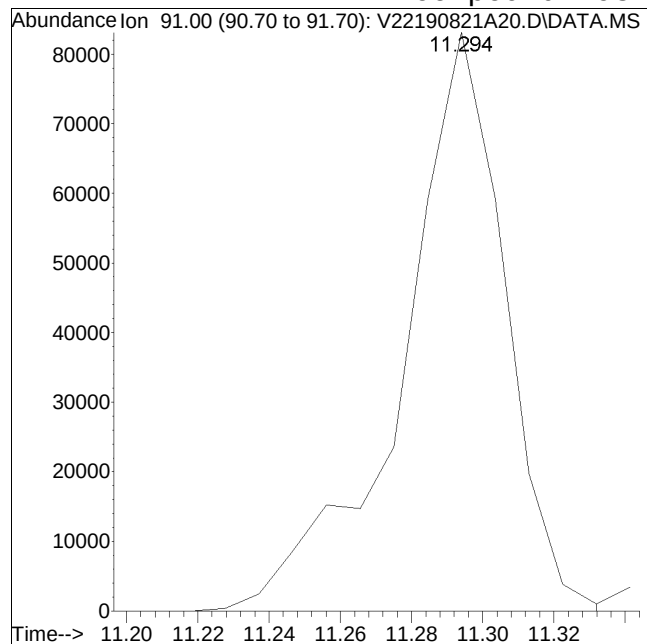
Sub List : 8260-Curve - Megamix plus Diox90821A\V22190821A10.D•



Manual Integration Report

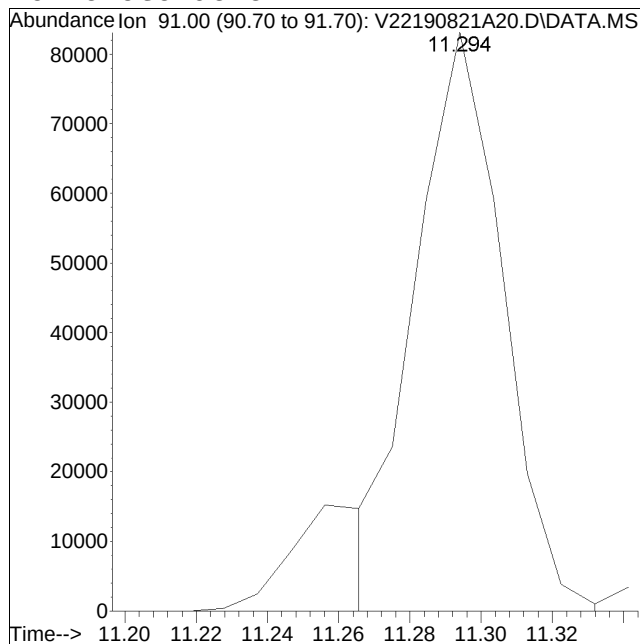
Data Path : I:\VOLATILES\VOA122\2019\1QMethod : V122_190821_8260.m
Data File : V22190821A20.D Operator : VOA122:MAB
Date Inj'd : 8/21/2019 11:00 pm Instrument : VOA122
Sample : C8260STD10PPB Quant Date : 8/22/2019 2:27 pm

Compound #93: 2-Chlorotoluene



Original Peak Response = 165541

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 141950 M1

Continuing Calibration

Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : VOA122
 Lab File ID : V22190925A02
 Sample No : WG1288542-2
 Channel :

Lab Number : L1943339
 Project Number : 170329301
 Calibration Date : 09/25/19 08:45
 Init. Calib. Date(s) : 08/21/19 08/21/19
 Init. Calib. Times : 16:46 20:30

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	98	0
Dichlorodifluoromethane	0.196	0.219	-	-11.7	20	110	0
Chloromethane	0.237	0.328	-	-38.4*	20	137	0
Vinyl chloride	0.331	0.27	-	18.4	20	76	0
Bromomethane	0.207	0.066*	-	68.1*	20	35	0
Chloroethane	0.256	0.162	-	36.7*	20	60	0
Trichlorofluoromethane	0.405	0.393	-	3	20	91	0
Ethyl ether	0.107	0.103	-	3.7	20	90	0
1,1-Dichloroethene	0.224	0.224	-	0	20	90	0
Carbon disulfide	0.599	0.687	-	-14.7	20	108	0
Freon-113	0.235	0.247	-	-5.1	20	98	0
Acrolein	0.03	0.026*	-	13.3	20	85	0
Methylene chloride	0.248	0.257	-	-3.6	20	100	0
Acetone	10	14.144	-	-41.4*	20	127	0
trans-1,2-Dichloroethene	0.251	0.247	-	1.6	20	90	0
Methyl acetate	0.086	0.115	-	-33.7*	20	121	0
Methyl tert-butyl ether	0.512	0.379	-	26*	20	70	0
tert-Butyl alcohol	0.01255	0.00563*	-	55.1*	20	41	0
Diisopropyl ether	0.626	0.678	-	-8.3	20	103	0
1,1-Dichloroethane	0.444	0.477	-	-7.4	20	98	0
Halothane	0.21	0.204	-	2.9	20	92	0
Acrylonitrile	0.044	0.051	-	-15.9	20	107	0
Ethyl tert-butyl ether	0.637	0.529	-	17	20	79	0
Vinyl acetate	0.35	0.46	-	-31.4*	20	122	0
cis-1,2-Dichloroethene	0.269	0.262	-	2.6	20	90	0
2,2-Dichloropropane	0.348	0.323	-	7.2	20	84	0
Bromochloromethane	0.117	0.119	-	-1.7	20	95	0
Cyclohexane	0.406	0.414	-	-2	20	96	0
Chloroform	0.44	0.449	-	-2	20	96	0
Ethyl acetate	0.134	0.166	-	-23.9*	20	122	0
Carbon tetrachloride	0.367	0.37	-	-0.8	20	91	0
Tetrahydrofuran	10	11.558	-	-15.6	20	110	0
Dibromofluoromethane	0.264	0.248	-	6.1	20	92	0
1,1,1-Trichloroethane	0.423	0.401	-	5.2	20	88	0
2-Butanone	0.054	0.071*	-	-31.5*	20	124	0
1,1-Dichloropropene	0.354	0.326	-	7.9	20	86	0
Benzene	1.048	1.112	-	-6.1	20	94	0
tert-Amyl methyl ether	0.447	0.344	-	23*	20	76	0
1,2-Dichloroethane-d4	0.296	0.298	-	-0.7	20	98	0
1,2-Dichloroethane	0.283	0.286	-	-1.1	20	94	0
Methyl cyclohexane	0.442	0.386	-	12.7	20	84	0
Trichloroethene	0.265	0.264	-	0.4	20	92	0
Dibromomethane	0.136	0.13	-	4.4	20	94	.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : VOA122
 Lab File ID : V22190925A02
 Sample No : WG1288542-2
 Channel :

Lab Number : L1943339
 Project Number : 170329301
 Calibration Date : 09/25/19 08:45
 Init. Calib. Date(s) : 08/21/19 08/21/19
 Init. Calib. Times : 16:46 20:30

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.236	0.242	-	-2.5	20	98	0
Bromodichloromethane	0.325	0.322	-	0.9	20	97	0
1,4-Dioxane	0.00132	0.00102*	-	22.7*	20	70	0
cis-1,3-Dichloropropene	0.204	0.176*	-	13.7	20	81	0
Chlorobenzene-d5	1	1	-	0	20	95	0
Toluene-d8	1.358	1.194	-	12.1	20	84	0
Toluene	0.864	0.823	-	4.7	20	88	0
4-Methyl-2-pentanone	0.067	0.061*	-	9	20	83	0
Tetrachloroethene	0.383	0.361	-	5.7	20	86	0
trans-1,3-Dichloropropene	0.436	0.407	-	6.7	20	86	0
Ethyl methacrylate	0.295	0.232	-	21.4*	20	75	0
1,1,2-Trichloroethane	0.204	0.214	-	-4.9	20	97	0
Chlorodibromomethane	0.297	0.292	-	1.7	20	95	0
1,3-Dichloropropane	0.42	0.417	-	0.7	20	91	0
1,2-Dibromoethane	0.243	0.23	-	5.3	20	87	0
2-Hexanone	0.12	0.105	-	12.5	20	91	0
Chlorobenzene	0.934	0.879	-	5.9	20	88	0
Ethylbenzene	1.657	1.545	-	6.8	20	85	0
1,1,1,2-Tetrachloroethane	0.312	0.322	-	-3.2	20	94	0
p/m Xylene	0.667	0.609	-	8.7	20	84	0
o Xylene	0.628	0.558	-	11.1	20	82	0
Styrene	0.998	0.942	-	5.6	20	87	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	99	0
Bromoform	0.333	0.353	-	-6	20	111	0
Isopropylbenzene	3.579	3.039	-	15.1	20	82	0
4-Bromofluorobenzene	1.034	0.798	-	22.8*	20	79	0
Bromobenzene	0.771	0.693	-	10.1	20	89	0
n-Propylbenzene	4.149	3.785	-	8.8	20	89	0
1,4-Dichlorobutane	0.739	0.742	-	-0.4	20	102	0
1,1,2,2-Tetrachloroethane	0.556	0.558	-	-0.4	20	104	0
4-Ethyltoluene	3.261	2.844	-	12.8	20	82	0
2-Chlorotoluene	2.293	2.492	-	-8.7	20	105	0
1,3,5-Trimethylbenzene	2.845	2.515	-	11.6	20	85	0
1,2,3-Trichloropropane	0.466	0.44	-	5.6	20	97	0
trans-1,4-Dichloro-2-buten	0.135	0.124	-	8.1	20	91	0
4-Chlorotoluene	2.407	2.206	-	8.4	20	88	0
tert-Butylbenzene	2.477	2.137	-	13.7	20	83	0
1,2,4-Trimethylbenzene	2.843	2.493	-	12.3	20	84	0
sec-Butylbenzene	2.29	2.256	-	1.5	20	87	0
p-Isopropyltoluene	3.03	2.623	-	13.4	20	83	0
1,3-Dichlorobenzene	1.506	1.491	-	1	20	93	0
1,4-Dichlorobenzene	1.501	1.436	-	4.3	20	93	0
p-Diethylbenzene	1.705	1.432	-	16	20	82	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : VOA122
Lab File ID : V22190925A02
Sample No : WG1288542-2
Channel :

Lab Number : L1943339
Project Number : 170329301
Calibration Date : 09/25/19 08:45
Init. Calib. Date(s) : 08/21/19 08/21/19
Init. Calib. Times : 16:46 20:30

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	2.585	2.503	-	3.2	20	94	0
1,2-Dichlorobenzene	1.365	1.303	-	4.5	20	93	0
1,2,4,5-Tetramethylbenzene	2.485	1.948	-	21.6*	20	78	0
1,2-Dibromo-3-chloropropan	10	9.15	-	8.5	20	96	0
1,3,5-Trichlorobenzene	0.912	0.881	-	3.4	20	96	0
Hexachlorobutadiene	0.291	0.315	-	-8.2	20	111	0
1,2,4-Trichlorobenzene	0.825	0.742	-	10.1	20	91	0
Naphthalene	1.93	1.579	-	18.2	20	84	0
1,2,3-Trichlorobenzene	0.732	0.682	-	6.8	20	95	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	98	0.00
2 TP	Dichlorodifluoromethane	0.196	0.219	-11.7	110	0.00
3 TP	Chloromethane	0.237	0.328	-38.4#	137	0.00
4 TC	Vinyl chloride	0.331	0.270	18.4	76	0.00
5 TP	Bromomethane	0.207	0.066#	68.1#	35#	0.00
6 TP	Chloroethane	0.256	0.162	36.7#	60	0.00
7 TP	Trichlorofluoromethane	0.405	0.393	3.0	91	0.00
8 TP	Ethyl ether	0.107	0.103	3.7	90	0.00
10 TC	1,1-Dichloroethene	0.224	0.224	0.0	90	0.00
11 TP	Carbon disulfide	0.599	0.687	-14.7	108	0.00
12 TP	Freon-113	0.235	0.247	-5.1	98	0.00
14 TP	Acrolein	0.030	0.026#	13.3	85	0.00
15 TP	Methylene chloride	0.248	0.257	-3.6	100	0.00
17 TP	Acetone	* 10.000	14.144	-41.4#	127	0.00
18 TP	trans-1,2-Dichloroethene	0.251	0.247	1.6	90	0.00
19 TP	Methyl acetate	0.086	0.115	-33.7#	121	0.00
21 TP	Methyl tert-butyl ether	0.512	0.379	26.0#	70	0.00
22 TP	tert-Butyl alcohol	0.01255	0.00563#	55.1#	41#	0.00
24 TP	Diisopropyl ether	0.626	0.678	-8.3	103	0.00
25 TP	1,1-Dichloroethane	0.444	0.477	-7.4	98	0.00
26 TP	Halothane	0.210	0.204	2.9	92	0.00
27 TP	Acrylonitrile	0.044	0.051	-15.9	107	0.00
28 TP	Ethyl tert-butyl ether	0.637	0.529	17.0	79	0.00
29 TP	Vinyl acetate	0.350	0.460	-31.4#	122	0.00
30 TP	cis-1,2-Dichloroethene	0.269	0.262	2.6	90	0.00
31 TP	2,2-Dichloropropane	0.348	0.323	7.2	84	0.00
32 TP	Bromochloromethane	0.117	0.119	-1.7	95	0.00
33 TP	Cyclohexane	0.406	0.414	-2.0	96	0.00
34 TC	Chloroform	0.440	0.449	-2.0	96	0.00
35 TP	Ethyl acetate	0.134	0.166	-23.9#	122	0.00
36 TP	Carbon tetrachloride	0.367	0.370	-0.8	91	0.00
37 TP	Tetrahydrofuran	* 10.000	11.558	-15.6	110	0.00
38 S	Dibromofluoromethane	0.264	0.248	6.1	92	0.00
39 TP	1,1,1-Trichloroethane	0.423	0.401	5.2	88	0.00
41 TP	2-Butanone	0.054	0.071#	-31.5#	124	0.00
42 TP	1,1-Dichloropropene	0.354	0.326	7.9	86	0.00
44 TP	Benzene	1.048	1.112	-6.1	94	0.00
45 TP	tert-Amyl methyl ether	0.447	0.344	23.0#	76	0.00
46 S	1,2-Dichloroethane-d4	0.296	0.298	-0.7	98	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47 T	1,2-Dichloroethane	0.283	0.286	-1.1	94	0.00
50 TP	Methyl cyclohexane	0.442	0.386	12.7	84	0.00
51 TP	Trichloroethene	0.265	0.264	0.4	92	0.00
53 TP	Dibromomethane	0.136	0.130	4.4	94	0.01
54 TC	1,2-Dichloropropane	0.236	0.242	-2.5	98	0.00
57 TP	Bromodichloromethane	0.325	0.322	0.9	97	0.00
60 TP	1,4-Dioxane	0.00132	0.00102#	22.7#	70	0.00
61 TP	cis-1,3-Dichloropropene	0.204	0.176#	13.7	81	0.00
62 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00
63 S	Toluene-d8	1.358	1.194	12.1	84	0.00
64 TC	Toluene	0.864	0.823	4.7	88	0.00
65 TP	4-Methyl-2-pentanone	0.067	0.061#	9.0	83	0.00
66 TP	Tetrachloroethene	0.383	0.361	5.7	86	0.00
68 TP	trans-1,3-Dichloropropene	0.436	0.407	6.7	86	0.00
70 TP	Ethyl methacrylate	0.295	0.232	21.4#	75	0.00
71 TP	1,1,2-Trichloroethane	0.204	0.214	-4.9	97	0.00
72 TP	Chlorodibromomethane	0.297	0.292	1.7	95	0.00
73 TP	1,3-Dichloropropane	0.420	0.417	0.7	91	0.00
74 TP	1,2-Dibromoethane	0.243	0.230	5.3	87	0.00
76 TP	2-Hexanone	0.120	0.105	12.5	91	0.00
77 TP	Chlorobenzene	0.934	0.879	5.9	88	0.00
78 TC	Ethylbenzene	1.657	1.545	6.8	85	0.00
79 TP	1,1,1,2-Tetrachloroethane	0.312	0.322	-3.2	94	0.00
80 TP	p/m Xylene	0.667	0.609	8.7	84	0.00
81 TP	o Xylene	0.628	0.558	11.1	82	0.00
82 TP	Styrene	0.998	0.942	5.6	87	0.00
83 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00
84 TP	Bromoform	0.333	0.353	-6.0	111	0.00
86 TP	Isopropylbenzene	3.579	3.039	15.1	82	0.00
87 S	4-Bromofluorobenzene	1.034	0.798	22.8#	79	0.00
88 TP	Bromobenzene	0.771	0.693	10.1	89	0.00
89 TP	n-Propylbenzene	4.149	3.785	8.8	89	0.00
90 TP	1,4-Dichlorobutane	0.739	0.742	-0.4	102	0.00
91 TP	1,1,2,2-Tetrachloroethane	0.556	0.558	-0.4	104	0.00
92 TP	4-Ethyltoluene	3.261	2.844	12.8	82	0.00
93 TP	2-Chlorotoluene	2.293	2.492	-8.7	105	0.00
94 TP	1,3,5-Trimethylbenzene	2.845	2.515	11.6	85	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
95 TP	1,2,3-Trichloropropane	0.466	0.440	5.6	97	0.00
96 TP	trans-1,4-Dichloro-2-butene	0.135	0.124	8.1	91	0.00
97 TP	4-Chlorotoluene	2.407	2.206	8.4	88	0.00
98 TP	tert-Butylbenzene	2.477	2.137	13.7	83	0.00
101 TP	1,2,4-Trimethylbenzene	2.843	2.493	12.3	84	0.00
102 TP	sec-Butylbenzene	2.290	2.256	1.5	87	0.00
103 TP	p-Isopropyltoluene	3.030	2.623	13.4	83	0.00
104 TP	1,3-Dichlorobenzene	1.506	1.491	1.0	93	0.00
105 TP	1,4-Dichlorobenzene	1.501	1.436	4.3	93	0.00
106 TP	p-Diethylbenzene	1.705	1.432	16.0	82	0.00
107 TP	n-Butylbenzene	2.585	2.503	3.2	94	0.00
108 TP	1,2-Dichlorobenzene	1.365	1.303	4.5	93	0.00
109 TP	1,2,4,5-Tetramethylbenzene	2.485	1.948	21.6#	78	0.00
110 TP	1,2-Dibromo-3-chloropropane *	10.000	9.150	8.5	96	0.00
111 TP	1,3,5-Trichlorobenzene	0.912	0.881	3.4	96	0.00
112 TP	Hexachlorobutadiene	0.291	0.315	-8.2	111	0.00
113 TP	1,2,4-Trichlorobenzene	0.825	0.742	10.1	91	0.00
114 TP	Naphthalene	1.930	1.579	18.2	84	0.00
115 TP	1,2,3-Trichlorobenzene	0.732	0.682	6.8	95	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 7 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	181577	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery	=	100.00%	
62) Chlorobenzene-d5	9.457	117	132701	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery	=	100.00%	
83) 1,4-Dichlorobenzene-d4	12.186	152	68356	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery	=	100.00%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	45093	9.416	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.16%	
46) 1,2-Dichloroethane-d4	5.637	65	54150	10.088	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.88%	
63) Toluene-d8	7.610	98	158486	8.795	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	87.95%	
87) 4-Bromofluorobenzene	10.962	95	54558	7.720	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	77.20%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	39855	11.211	ug/L	99
3) Chloromethane	1.761	50	59608	13.863	ug/L	96
4) Vinyl chloride	1.827	62	49089	8.165	ug/L	100
5) Bromomethane	2.130	94	12005	3.191	ug/L	97
6) Chloroethane	2.244	64	29416	6.325	ug/L	100
7) Trichlorofluoromethane	2.377	101	71401	9.711	ug/L	100
8) Ethyl ether	2.689	74	18758	9.662	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	40586	9.990	ug/L	86
11) Carbon disulfide	2.898	76	124671	11.469	ug/L	99
12) Freon-113	2.916	101	44807	10.495	ug/L	94
14) Acrolein	3.191	56	4738	8.694	ug/L	100
15) Methylene chloride	3.418	84	46687	10.384	ug/L	85
17) Acetone	3.466	43	9211	14.144	ug/L	96
18) trans-1,2-Dichloroethene	3.570	96	44901	9.859	ug/L	92
19) Methyl acetate	3.589	43	20848	13.412	ug/L #	87
21) Methyl tert-butyl ether	3.674	73	68798	7.395	ug/L #	90
22) tert-Butyl alcohol	3.759	59	5115	22.455	ug/L #	82
24) Diisopropyl ether	4.034	45	123182	10.832	ug/L	93
25) 1,1-Dichloroethane	4.157	63	86560	10.732	ug/L	98
26) Halothane	4.205	117	37062	9.708	ug/L	98
27) Acrylonitrile	4.205	53	9242	11.470	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Ethyl tert-butyl ether	4.384	59	96097	8.313	ug/L	# 82
29) Vinyl acetate	4.394	43	83576	13.147	ug/L	# 93
30) cis-1,2-Dichloroethene	4.669	96	47568	9.751	ug/L	90
31) 2,2-Dichloropropane	4.773	77	58562	9.259	ug/L	96
32) Bromochloromethane	4.858	128	21531	10.139	ug/L	# 79
33) Cyclohexane	4.867	56	75104	10.199	ug/L	82
34) Chloroform	4.934	83	81567	10.210	ug/L	98
35) Ethyl acetate	5.047	43	30149	12.431	ug/L	# 95
36) Carbon tetrachloride	5.066	117	67193	10.089	ug/L	99
37) Tetrahydrofuran	5.085	42	9300	11.558	ug/L	# 83
39) 1,1,1-Trichloroethane	5.133	97	72804	9.489	ug/L	96
41) 2-Butanone	5.227	43	12810	13.097	ug/L	# 80
42) 1,1-Dichloropropene	5.256	75	59141	9.188	ug/L	97
44) Benzene	5.502	78	201924	10.608	ug/L	97
45) tert-Amyl methyl ether	5.617	73	62405	7.684	ug/L	# 91
47) 1,2-Dichloroethane	5.699	62	51871	10.091	ug/L	99
50) Methyl cyclohexane	6.091	83	70004	8.714	ug/L	83
51) Trichloroethene	6.091	95	48002	9.958	ug/L	94
53) Dibromomethane	6.534	93	23687	9.601	ug/L	# 80
54) 1,2-Dichloropropane	6.638	63	43952	10.256	ug/L	98
57) Bromodichloromethane	6.710	83	58557	9.936	ug/L	99
60) 1,4-Dioxane	6.916	88	9232	384.618	ug/L	# 72
61) cis-1,3-Dichloropropene	7.391	75	31920	8.626	ug/L	92
64) Toluene	7.667	92	109159	9.519	ug/L	100
65) 4-Methyl-2-pentanone	8.112	58	8136	9.137	ug/L	# 75
66) Tetrachloroethene	8.112	166	47971	9.441	ug/L	94
68) trans-1,3-Dichloropropene	8.150	75	53957	9.315	ug/L	94
70) Ethyl methacrylate	8.349	69	30745	7.843	ug/L	87
71) 1,1,2-Trichloroethane	8.330	83	28437	10.495	ug/L	94
72) Chlorodibromomethane	8.538	129	38804	9.860	ug/L	99
73) 1,3-Dichloropropane	8.661	76	55337	9.930	ug/L	100
74) 1,2-Dibromoethane	8.822	107	30511	9.464	ug/L	99
76) 2-Hexanone	9.116	43	13874	8.705	ug/L	# 87
77) Chlorobenzene	9.475	112	116604	9.408	ug/L	96
78) Ethylbenzene	9.523	91	205039	9.326	ug/L	97
79) 1,1,1,2-Tetrachloroethane	9.561	131	42698	10.306	ug/L	98
80) p/m Xylene	9.703	106	161622	18.267	ug/L	96
81) o Xylene	10.252	106	148104	17.765	ug/L	95
82) Styrene	10.318	104	249883	18.866	ug/L	98
84) Bromoform	10.328	173	24136	10.617	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542, ICAL16065 (Sig #1); WG, ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86)	Isopropylbenzene	10.640	105	207742	8.491	ug/L	97
88)	Bromobenzene	11.076	156	47366	8.989	ug/L	99
89)	n-Propylbenzene	11.133	91	258741	9.124	ug/L	96
90)	1,4-Dichlorobutane	11.142	55	50698	10.039	ug/L	97
91)	1,1,2,2-Tetrachloroethane	11.209	83	38150	10.034	ug/L	98
92)	4-Ethyltoluene	11.256	105	194401	8.721	ug/L	99
93)	2-Chlorotoluene	11.294	91	170332	10.866	ug/L	100
94)	1,3,5-Trimethylbenzene	11.360	105	171912	8.839	ug/L	98
95)	1,2,3-Trichloropropane	11.351	75	30095	9.458	ug/L	94
96)	trans-1,4-Dichloro-2-b...	11.408	53	8495	9.199	ug/L	91
97)	4-Chlorotoluene	11.483	91	150798	9.164	ug/L	100
98)	tert-Butylbenzene	11.701	119	146098	8.628	ug/L	98
101)	1,2,4-Trimethylbenzene	11.777	105	170393	8.768	ug/L	96
102)	sec-Butylbenzene	11.891	105	154217	9.851	ug/L	98
103)	p-Isopropyltoluene	12.048	119	179282	8.656	ug/L	98
104)	1,3-Dichlorobenzene	12.108	146	101943	9.900	ug/L	98
105)	1,4-Dichlorobenzene	12.203	146	98162	9.568	ug/L	98
106)	p-Diethylbenzene	12.427	119	97871	8.399	ug/L	97
107)	n-Butylbenzene	12.479	91	171066	9.683	ug/L	97
108)	1,2-Dichlorobenzene	12.626	146	89078	9.544	ug/L	98
109)	1,2,4,5-Tetramethylben...	13.221	119	133160	7.839	ug/L	99
110)	1,2-Dibromo-3-chloropr...	13.411	155	5261	9.150	ug/L	97
111)	1,3,5-Trichlorobenzene	13.445	180	60254	9.666	ug/L	97
112)	Hexachlorobutadiene	14.023	225	21515	10.817	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	50720	8.999	ug/L	97
114)	Naphthalene	14.343	128	107948	8.183	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	46628	9.316	ug/L	99

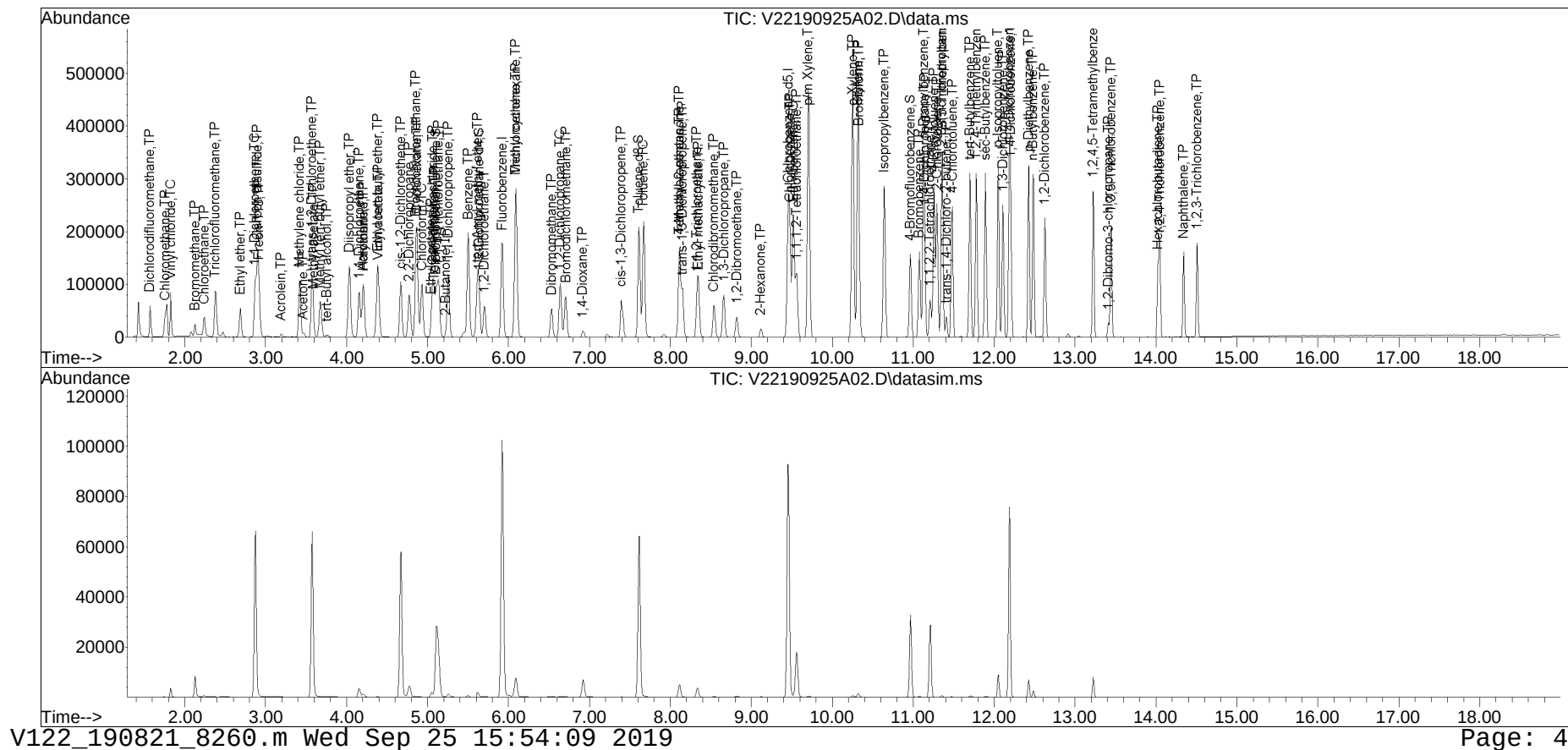
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : I:\VOLATILES\VOA122\2019\190925A\  
Data File : V22190925A02.D  
Acq On    : 25 Sep 2019  08:45 am  
Operator  : VOA122:PD  
Sample    : WG1288542-2 (Sig #1); 8260 CCAL (Sig #2)  
Misc      : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)  
ALS Vial  : 2      Sample Multiplier: 1
```

Quant Time: Sep 25 09:14:33 2019
Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 14:26:00 2019
Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\1Q	Method	: V122_190821_8260.m
Data File	: V22190925A02.D	Operator	: VOA122:PD
Date Inj'd	: 9/25/2019 8:45 am	Instrument	: VOA122
Sample	: WG1288542-2	Quant Date	: 9/25/2019 9:14 am

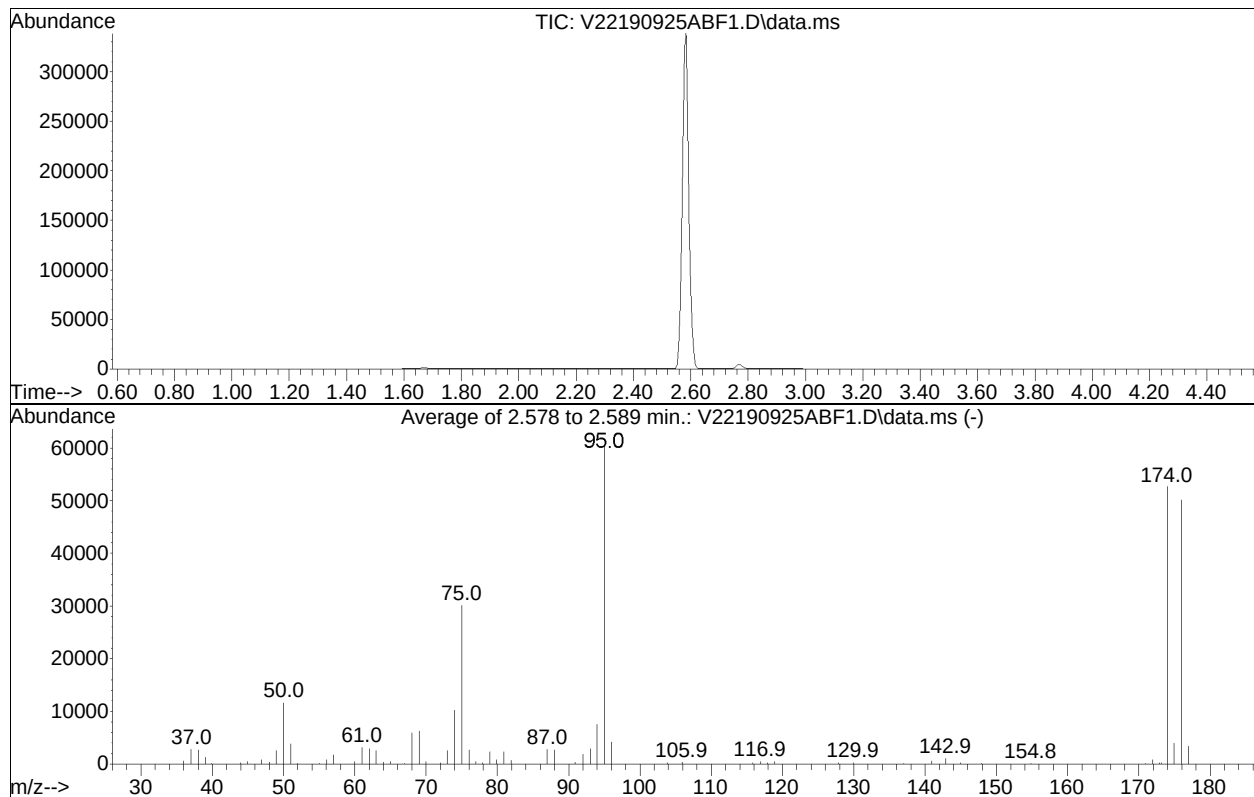
There are no manual integrations or false positives in this file.

BFB

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925ABF1.D
 Acq On : 25 Sep 2019 08:11 am
 Operator : VOA122:PD
 Sample : WG1288542-1
 Misc : WG1288542,ICAL16065
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu Aug 22 14:26:00 2019



AutoFind: Scans 189, 190, 191; Background Corrected with Scan 180

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	11582	PASS
75	95	30	60	49.7	30147	PASS
95	95	100	100	100.0	60627	PASS
96	95	5	9	6.9	4170	PASS
173	174	0.00	2	0.6	291	PASS
174	95	50	100	86.9	52672	PASS
175	174	5	9	7.5	3937	PASS
176	174	95	101	95.3	50195	PASS
177	176	5	9	6.7	3344	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A05.D
 Acq On : 25 Sep 2019 10:02 am
 Operator : VOA122:PD
 Sample : WG1288542-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 25 10:23:32 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	169054	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery =	93.10%		
62) Chlorobenzene-d5	9.457	117	122298	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery =	92.16%		
83) 1,4-Dichlorobenzene-d4	12.186	152	52322	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery =	76.54%		
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	45294	10.159	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.59%		
46) 1,2-Dichloroethane-d4	5.637	65	50279	10.061	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.61%		
63) Toluene-d8	7.610	98	148422	8.937	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.37%		
87) 4-Bromofluorobenzene	10.962	95	44421	8.211	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	82.11%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.771	50	93	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	2.898	76	486	N.D.		
15) Methylene chloride	3.428	84	185	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
21) Methyl tert-butyl ether	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
27) Acrylonitrile	0.000		0	N.D.		
29) Vinyl acetate	0.000		0	N.D.		
30) cis-1,2-Dichloroethene	0.000		0	N.D.		
31) 2,2-Dichloropropane	0.000		0	N.D.		
32) Bromochloromethane	0.000		0	N.D.		
34) Chloroform	4.924	83	885	0.119	ug/L	# 75

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A05.D
 Acq On : 25 Sep 2019 10:02 am
 Operator : VOA122:PD
 Sample : WG1288542-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 25 10:23:32 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	0.000		0		N.D.	
39) 1,1,1-Trichloroethane	0.000		0		N.D.	
41) 2-Butanone	0.000		0		N.D.	
42) 1,1-Dichloropropene	0.000		0		N.D.	
44) Benzene	5.455	78	90		N.D.	
47) 1,2-Dichloroethane	0.000		0		N.D.	
51) Trichloroethene	0.000		0		N.D.	
53) Dibromomethane	0.000		0		N.D.	
54) 1,2-Dichloropropane	0.000		0		N.D.	
57) Bromodichloromethane	0.000		0		N.D.	
60) 1,4-Dioxane	0.000		0		N.D.	
61) cis-1,3-Dichloropropene	0.000		0		N.D.	
64) Toluene	0.000		0		N.D.	
65) 4-Methyl-2-pentanone	0.000		0		N.D.	
66) Tetrachloroethene	0.000		0		N.D.	
68) trans-1,3-Dichloropropene	0.000		0		N.D.	
71) 1,1,2-Trichloroethane	0.000		0		N.D.	
72) Chlorodibromomethane	0.000		0		N.D.	
73) 1,3-Dichloropropane	0.000		0		N.D.	
74) 1,2-Dibromoethane	0.000		0		N.D.	
76) 2-Hexanone	0.000		0		N.D.	
77) Chlorobenzene	0.000		0		N.D.	
78) Ethylbenzene	0.000		0		N.D.	
79) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
80) p/m Xylene	0.000		0		N.D.	
81) o Xylene	0.000		0		N.D.	
82) Styrene	0.000		0		N.D.	
84) Bromoform	0.000		0		N.D.	
86) Isopropylbenzene	0.000		0		N.D.	
88) Bromobenzene	0.000		0		N.D.	
89) n-Propylbenzene	0.000		0		N.D.	
91) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
92) 4-Ethyltoluene	0.000		0		N.D.	
93) 2-Chlorotoluene	0.000		0		N.D.	
94) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
95) 1,2,3-Trichloropropane	0.000		0		N.D.	
96) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
97) 4-Chlorotoluene	0.000		0		N.D.	
98) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A05.D
 Acq On : 25 Sep 2019 10:02 am
 Operator : VOA122:PD
 Sample : WG1288542-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 25 10:23:32 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
102)	sec-Butylbenzene	0.000		0		N.D.	
103)	p-Isopropyltoluene	0.000		0		N.D.	
104)	1,3-Dichlorobenzene	12.108	146	79		N.D.	
105)	1,4-Dichlorobenzene	12.203	146	107		N.D.	
106)	p-Diethylbenzene	0.000		0		N.D.	
107)	n-Butylbenzene	12.488	91	78		N.D.	
108)	1,2-Dichlorobenzene	0.000		0		N.D.	
109)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
110)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
112)	Hexachlorobutadiene	0.000		0		N.D.	
113)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
114)	Naphthalene	14.343	128	227		N.D.	
115)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

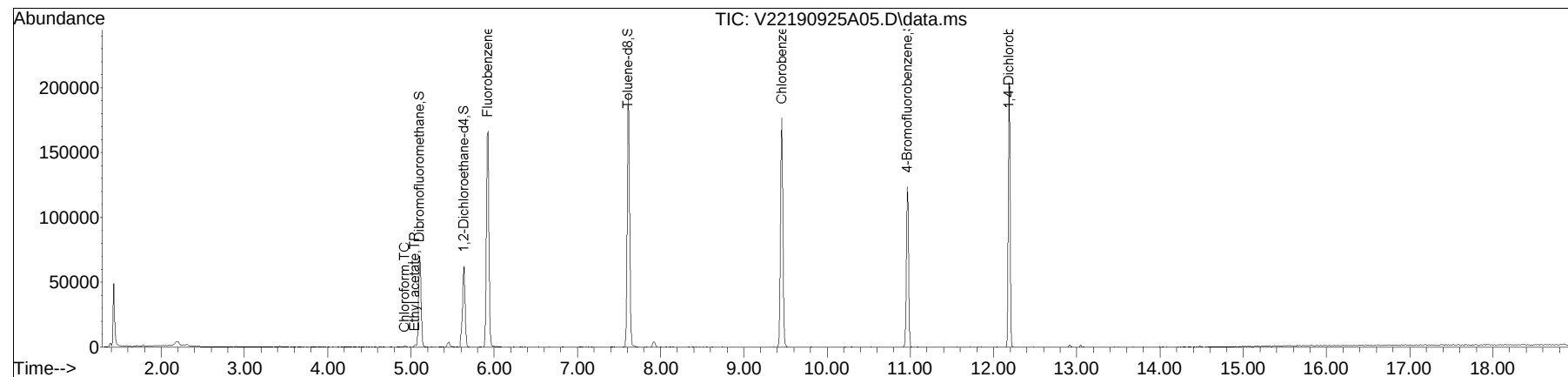
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A05.D
 Acq On : 25 Sep 2019 10:02 am
 Operator : VOA122:PD
 Sample : WG1288542-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

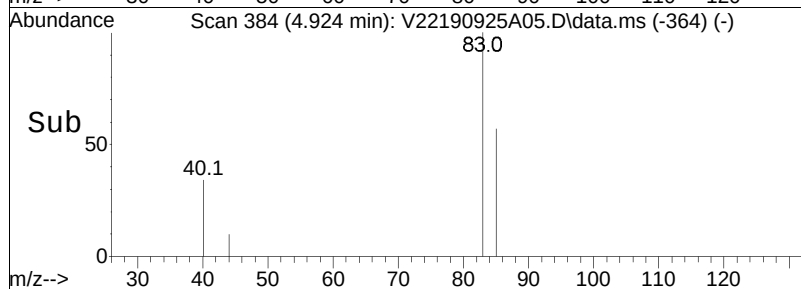
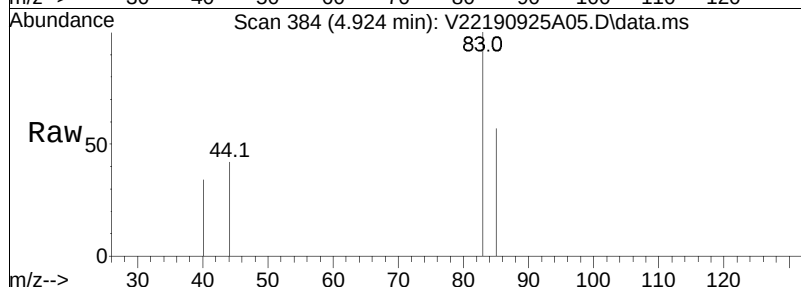
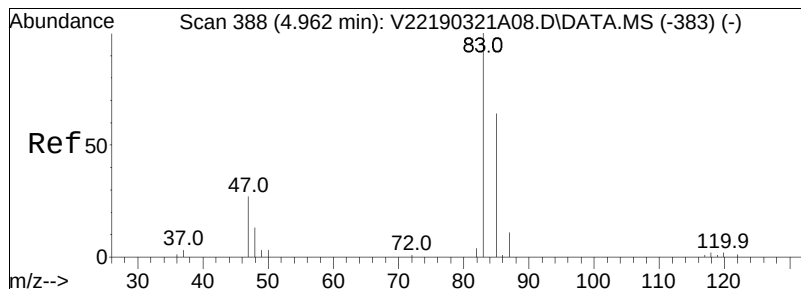
Quant Time: Sep 25 10:23:32 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•



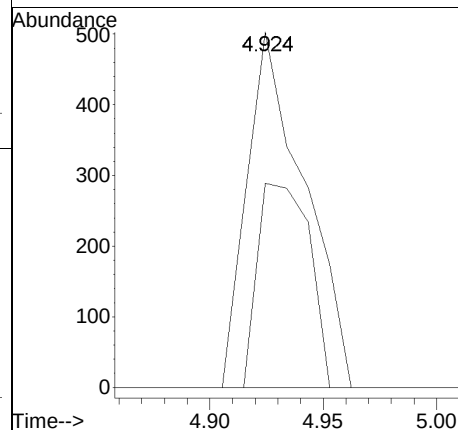
V122_190821_8260.m Wed Sep 25 15:55:38 2019

Page 4 : 4



#34
 Chloroform
 Concen: 0.12 ug/L
 RT: 4.924 min Scan# 384
 Delta R.T. -0.010 min
 Lab File: V22190925A05.D
 Acq: 25 Sep 2019 10:02 am

Tgt Ion:	83	Resp:	885
Ion Ratio	Lower	Upper	
83	100		
85	51.6	42.4	88.2
47	0.0	14.0	29.0#
48	0.0	6.9	14.3#



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\10	Method	: V122_190821_8260.m
Data File	: V22190925A05.D	Operator	: VOA122:PD
Date Inj'd	: 9/25/2019 10:02 am	Instrument	: VOA122
Sample	: WG1288542-5,31,10,10	Quant Date	: 9/25/2019 10:23 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	181577	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery	=	100.00%	
62) Chlorobenzene-d5	9.457	117	132701	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery	=	100.00%	
83) 1,4-Dichlorobenzene-d4	12.186	152	68356	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery	=	100.00%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	45093	9.416	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.16%	
46) 1,2-Dichloroethane-d4	5.637	65	54150	10.088	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.88%	
63) Toluene-d8	7.610	98	158486	8.795	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	87.95%	
87) 4-Bromofluorobenzene	10.962	95	54558	7.720	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	77.20%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	39855	11.211	ug/L	99
3) Chloromethane	1.761	50	59608	13.863	ug/L	96
4) Vinyl chloride	1.827	62	49089	8.165	ug/L	100
5) Bromomethane	2.130	94	12005	3.191	ug/L	97
6) Chloroethane	2.244	64	29416	6.325	ug/L	100
7) Trichlorofluoromethane	2.377	101	71401	9.711	ug/L	100
8) Ethyl ether	2.689	74	18758	9.662	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	40586	9.990	ug/L	86
11) Carbon disulfide	2.898	76	124671	11.469	ug/L	99
15) Methylene chloride	3.418	84	46687	10.384	ug/L	85
17) Acetone	3.466	43	9211	14.144	ug/L	96
18) trans-1,2-Dichloroethene	3.570	96	44901	9.859	ug/L	92
21) Methyl tert-butyl ether	3.674	73	68798	7.395	ug/L #	90
25) 1,1-Dichloroethane	4.157	63	86560	10.732	ug/L	98
27) Acrylonitrile	4.205	53	9242	11.470	ug/L	97
29) Vinyl acetate	4.394	43	83576	13.147	ug/L #	93
30) cis-1,2-Dichloroethene	4.669	96	47568	9.751	ug/L	90
31) 2,2-Dichloropropane	4.773	77	58562	9.259	ug/L	96
32) Bromochloromethane	4.858	128	21531	10.139	ug/L #	79
34) Chloroform	4.934	83	81567	10.210	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	5.066	117	67193	10.089	ug/L	99
39) 1,1,1-Trichloroethane	5.133	97	72804	9.489	ug/L	96
41) 2-Butanone	5.227	43	12810	13.097	ug/L #	80
42) 1,1-Dichloropropene	5.256	75	59141	9.188	ug/L	97
44) Benzene	5.502	78	201924	10.608	ug/L	97
47) 1,2-Dichloroethane	5.699	62	51871	10.091	ug/L	99
51) Trichloroethene	6.091	95	48002	9.958	ug/L	94
53) Dibromomethane	6.534	93	23687	9.601	ug/L #	80
54) 1,2-Dichloropropane	6.638	63	43952	10.256	ug/L	98
57) Bromodichloromethane	6.710	83	58557	9.936	ug/L	99
60) 1,4-Dioxane	6.916	88	9232	384.618	ug/L #	72
61) cis-1,3-Dichloropropene	7.391	75	31920	8.626	ug/L	92
64) Toluene	7.667	92	109159	9.519	ug/L	100
65) 4-Methyl-2-pentanone	8.112	58	8136	9.137	ug/L #	75
66) Tetrachloroethene	8.112	166	47971	9.441	ug/L	94
68) trans-1,3-Dichloropropene	8.150	75	53957	9.315	ug/L	94
71) 1,1,2-Trichloroethane	8.330	83	28437	10.495	ug/L	94
72) Chlorodibromomethane	8.538	129	38804	9.860	ug/L	99
73) 1,3-Dichloropropane	8.661	76	55337	9.930	ug/L	100
74) 1,2-Dibromoethane	8.822	107	30511	9.464	ug/L	99
76) 2-Hexanone	9.116	43	13874	8.705	ug/L #	87
77) Chlorobenzene	9.475	112	116604	9.408	ug/L	96
78) Ethylbenzene	9.523	91	205039	9.326	ug/L	97
79) 1,1,1,2-Tetrachloroethane	9.561	131	42698	10.306	ug/L	98
80) p/m Xylene	9.703	106	161622	18.267	ug/L	96
81) o Xylene	10.252	106	148104	17.765	ug/L	95
82) Styrene	10.318	104	249883	18.866	ug/L	98
84) Bromoform	10.328	173	24136	10.617	ug/L	96
86) Isopropylbenzene	10.640	105	207742	8.491	ug/L	97
88) Bromobenzene	11.076	156	47366	8.989	ug/L	99
89) n-Propylbenzene	11.133	91	258741	9.124	ug/L	96
91) 1,1,2,2-Tetrachloroethane	11.209	83	38150	10.034	ug/L	98
92) 4-Ethyltoluene	11.256	105	194401	8.721	ug/L	99
93) 2-Chlorotoluene	11.294	91	170332	10.866	ug/L	100
94) 1,3,5-Trimethylbenzene	11.360	105	171912	8.839	ug/L	98
95) 1,2,3-Trichloropropane	11.351	75	30095	9.458	ug/L	94
96) trans-1,4-Dichloro-2-b...	11.408	53	8495	9.199	ug/L	91
97) 4-Chlorotoluene	11.483	91	150798	9.164	ug/L	100
98) tert-Butylbenzene	11.701	119	146098	8.628	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A02.D
 Acq On : 25 Sep 2019 08:45 am
 Operator : VOA122:PD
 Sample : WG1288542-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

101)	1,2,4-Trimethylbenzene	11.777	105	170393	8.768	ug/L	96
102)	sec-Butylbenzene	11.891	105	154217	9.851	ug/L	98
103)	p-Isopropyltoluene	12.048	119	179282	8.656	ug/L	98
104)	1,3-Dichlorobenzene	12.108	146	101943	9.900	ug/L	98
105)	1,4-Dichlorobenzene	12.203	146	98162	9.568	ug/L	98
106)	p-Diethylbenzene	12.427	119	97871	8.399	ug/L	97
107)	n-Butylbenzene	12.479	91	171066	9.683	ug/L	97
108)	1,2-Dichlorobenzene	12.626	146	89078	9.544	ug/L	98
109)	1,2,4,5-Tetramethylben...	13.221	119	133160	7.839	ug/L	99
110)	1,2-Dibromo-3-chloropr...	13.411	155	5261	9.150	ug/L	97
112)	Hexachlorobutadiene	14.023	225	21515	10.817	ug/L	98
113)	1,2,4-Trichlorobenzene	14.049	180	50720	8.999	ug/L	97
114)	Naphthalene	14.343	128	107948	8.183	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	46628	9.316	ug/L	99

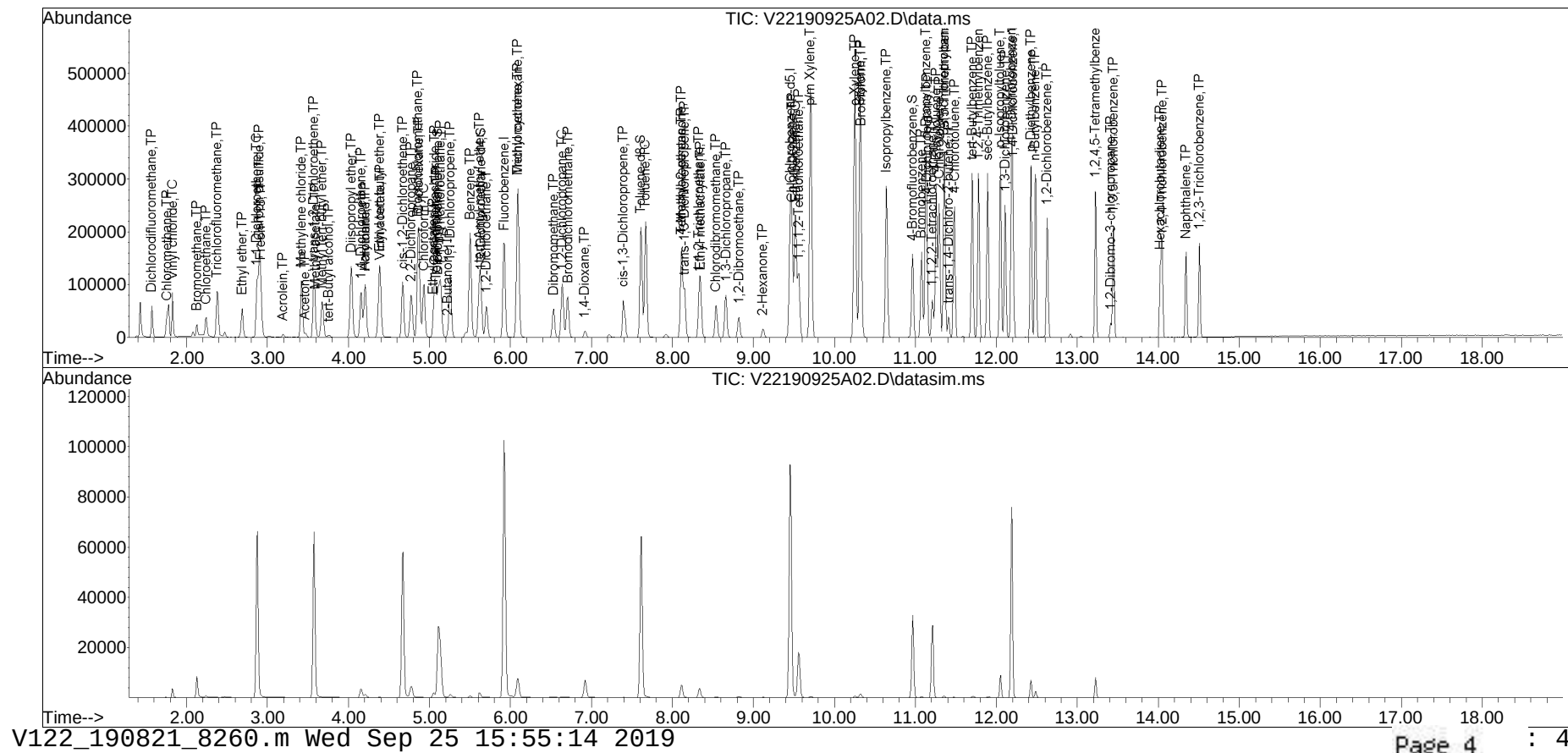
(#) = qualifier out of range (m) = manual integration (+) = signals summed

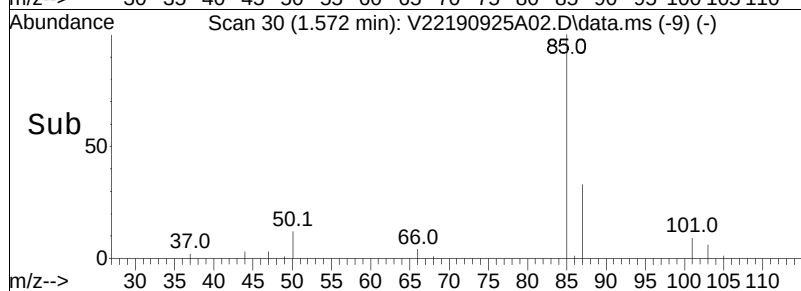
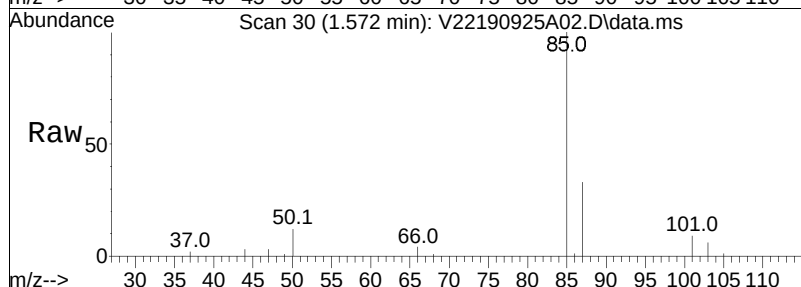
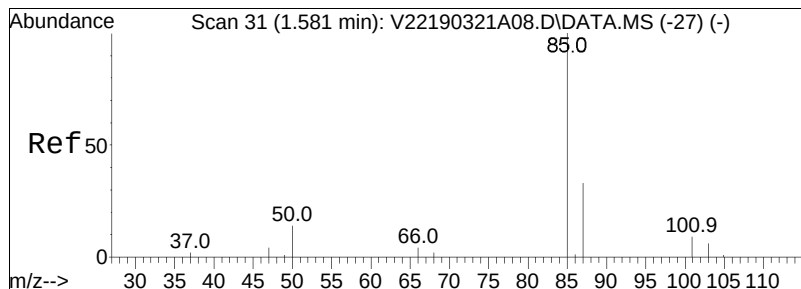
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
Data File : V22190925A02.D
Acq On : 25 Sep 2019 08:45 am
Operator : VOA122:PD
Sample : WG1288542-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 09:14:33 2019
Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu Aug 22 14:26:00 2019
Response via : Initial Calibration

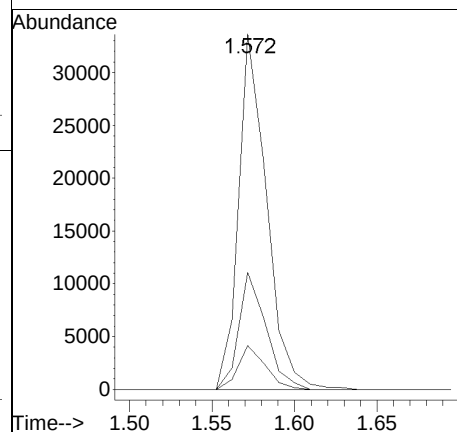
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•

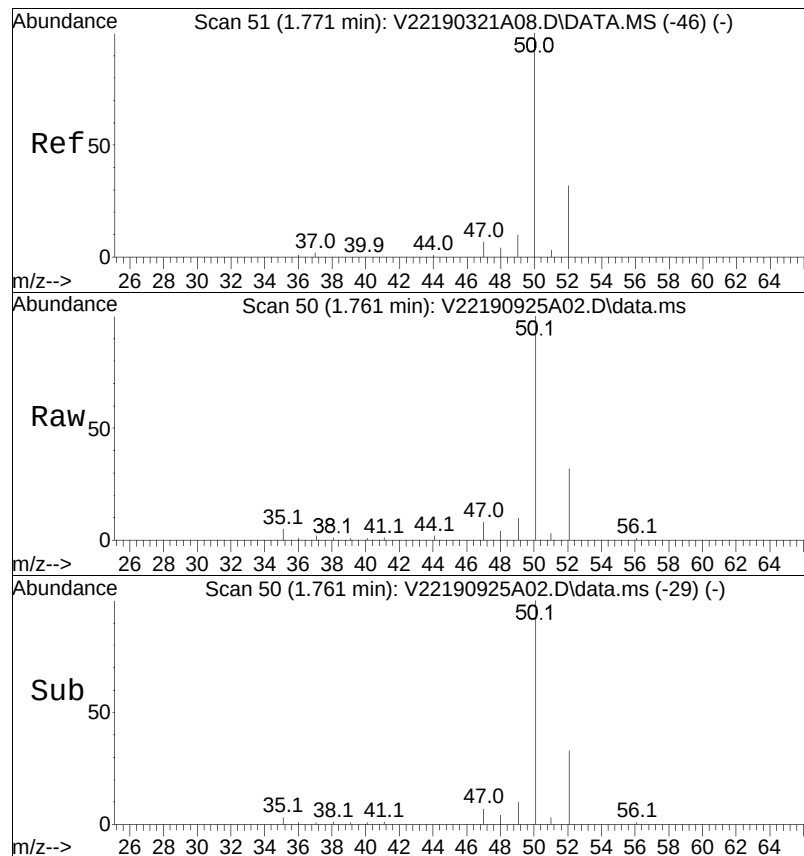




#2
 Dichlorodifluoromethane
 Concen: 11.21 ug/L
 RT: 1.572 min Scan# 30
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

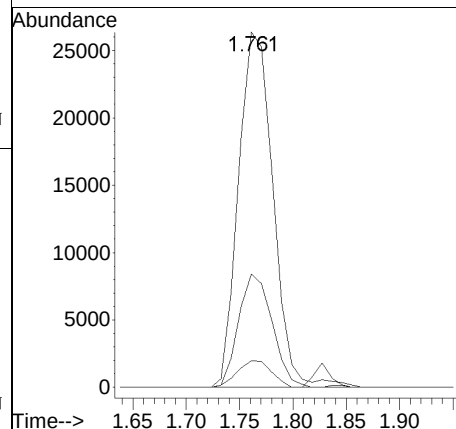
Tgt Ion:	85	Resp:	39855
Ion Ratio	Lower	Upper	
85	100		
87	31.9	20.7	42.9
50	12.0	6.8	14.2

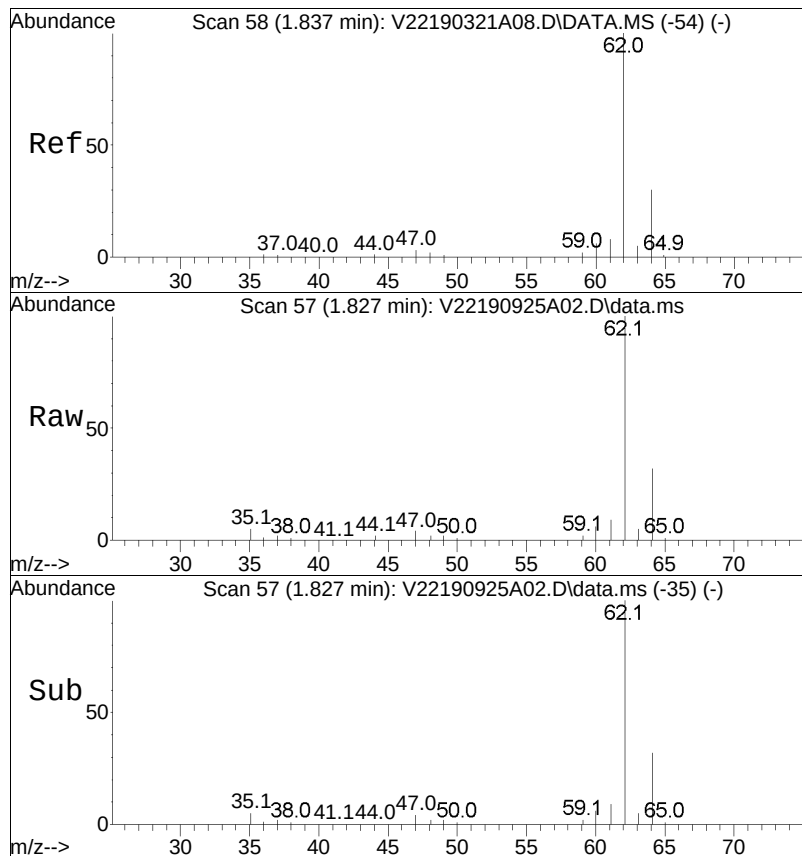




#3
 Chloromethane
 Concen: 13.86 ug/L
 RT: 1.761 min Scan# 50
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

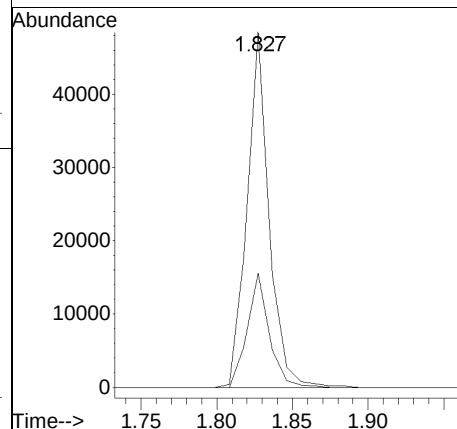
Tgt Ion:	50	Resp:	59608
Ion Ratio	Lower	Upper	
50	100		
52	30.9	12.8	52.8
47	7.5	0.0	30.0

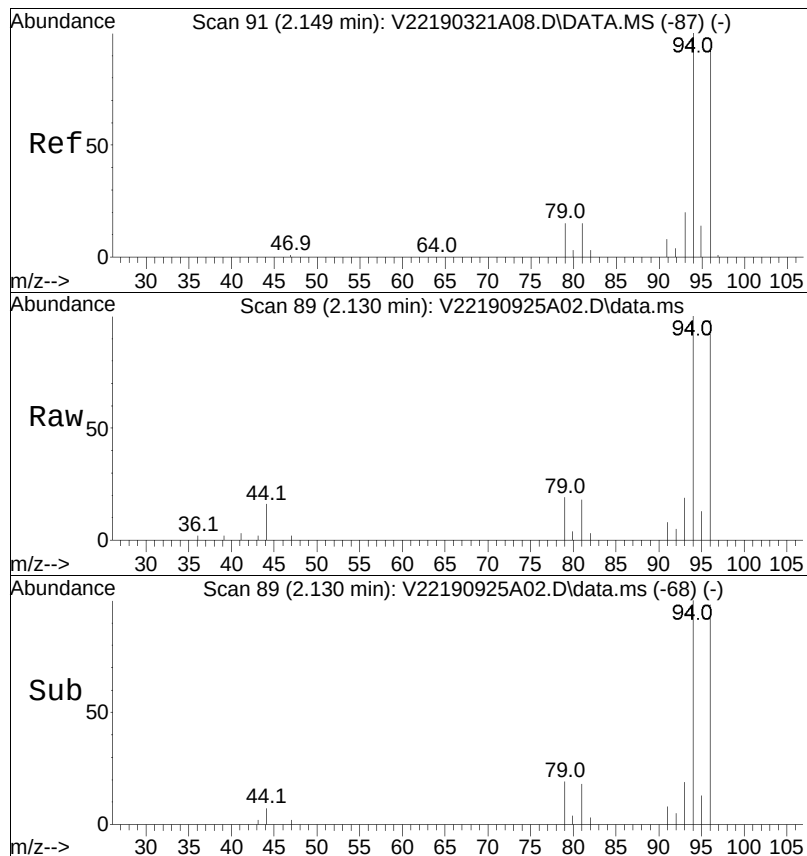




#4
 Vinyl chloride
 Concen: 8.16 ug/L
 RT: 1.827 min Scan# 57
 Delta R.T. 0.009 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

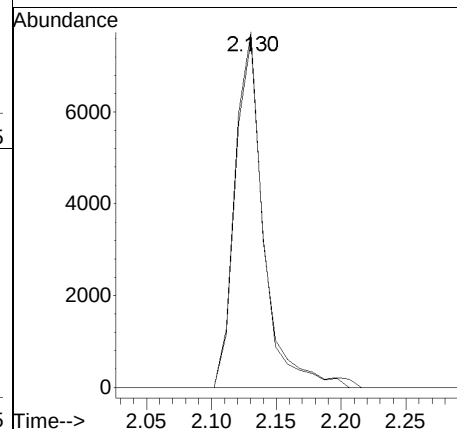
Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.0	12.0	52.0

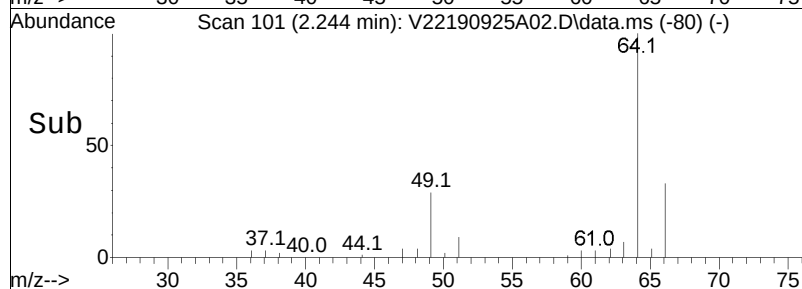
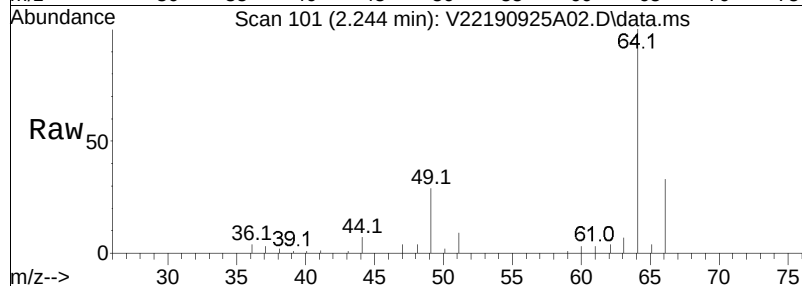
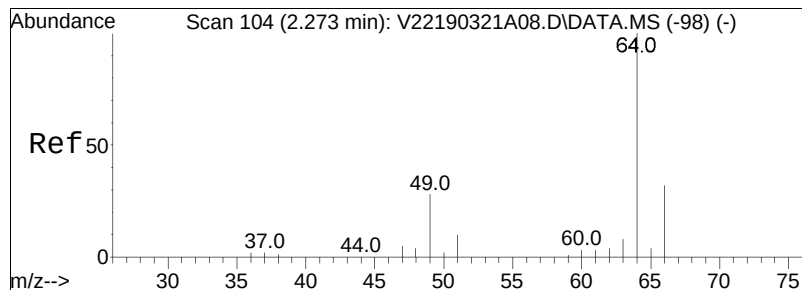




#5
 Bromomethane
 Concen: 3.19 ug/L
 RT: 2.130 min Scan# 89
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

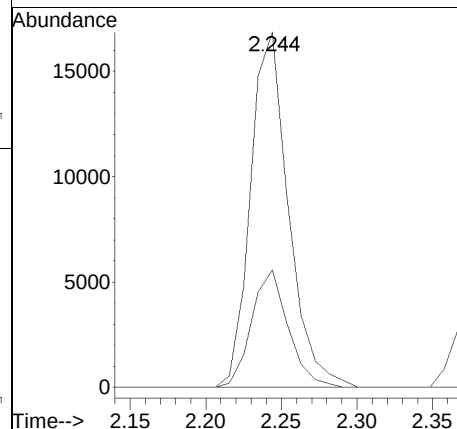
Tgt Ion: 94 Resp: 12005
 Ion Ratio Lower Upper
 94 100
 96 95.6 72.8 112.8

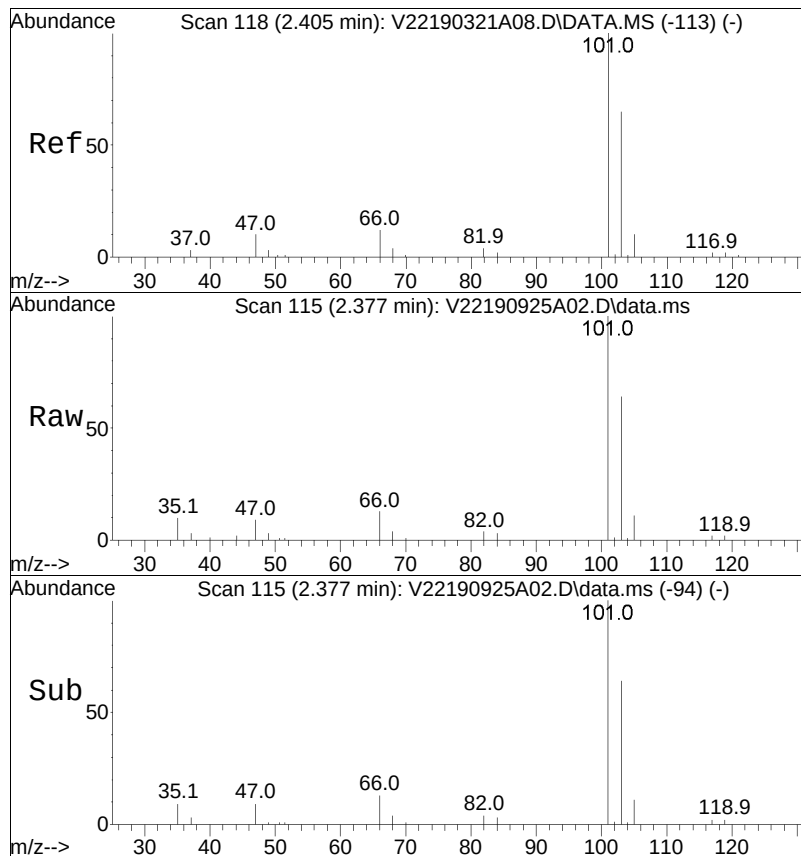




#6
Chloroethane
Concen: 6.32 ug/L
RT: 2.244 min Scan# 101
Delta R.T. -0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

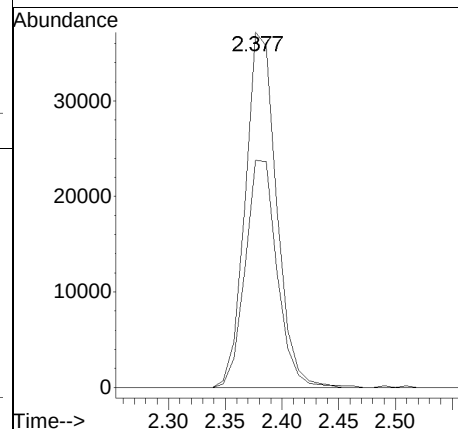
Tgt Ion	Ratio	Lower	Upper
64	100		
66	32.0	12.2	52.2

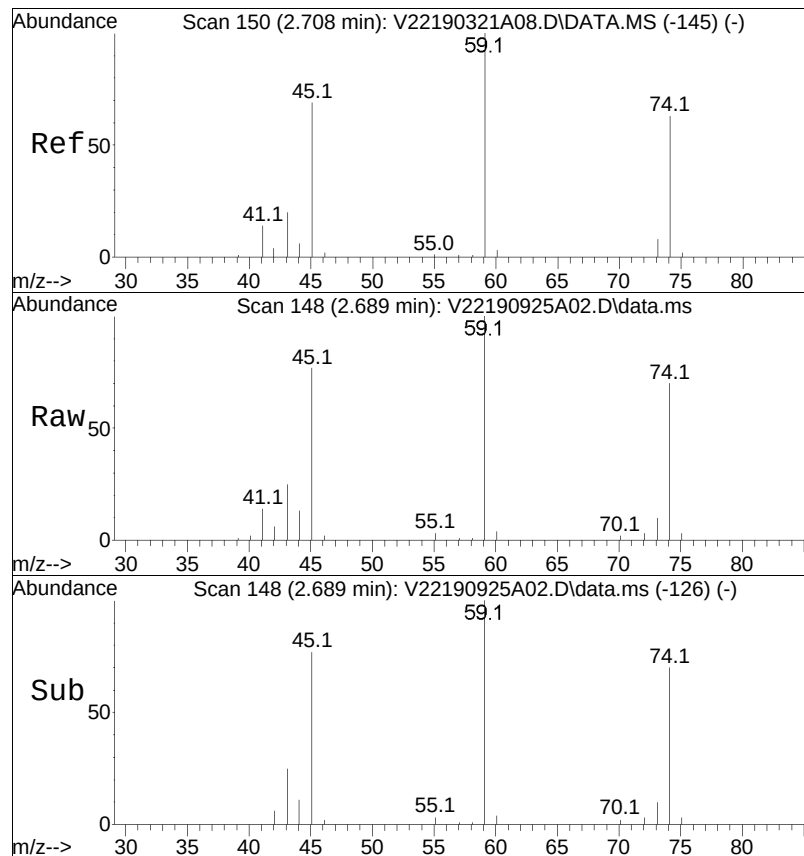




#7
 Trichlorofluoromethane
 Concen: 9.71 ug/L
 RT: 2.377 min Scan# 115
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

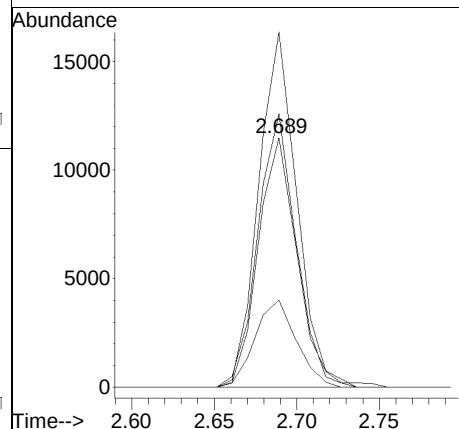
Tgt Ion	101	103	Ratio	Lower	Upper
Resp	71401				
Ion	100	64.9		51.6	77.4

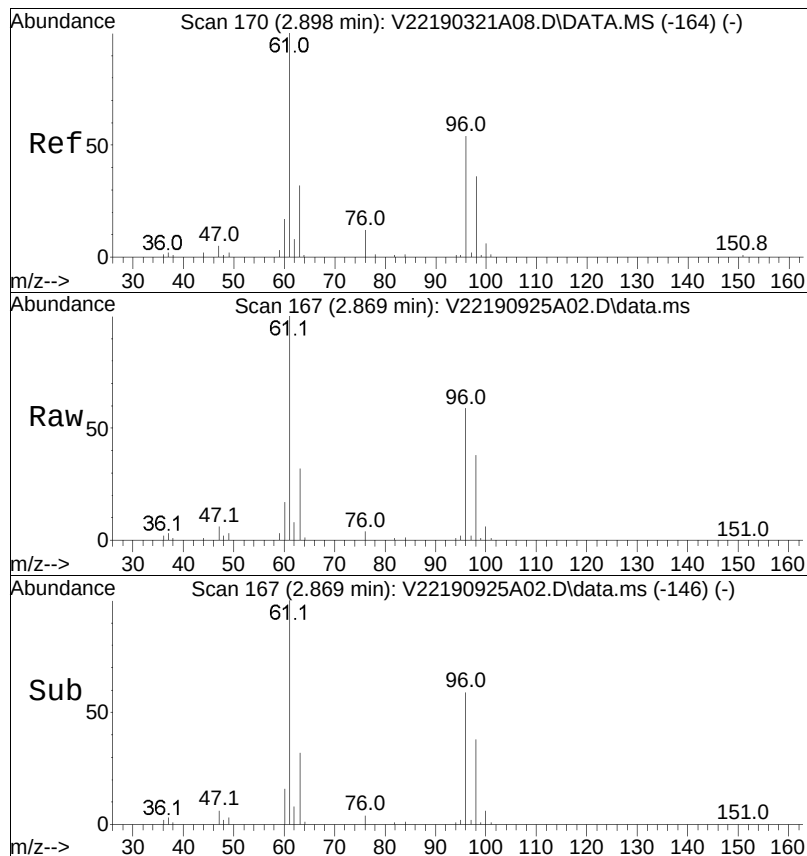




#8
 Ethyl ether
 Concen: 9.66 ug/L
 RT: 2.689 min Scan# 148
 Delta R.T. 0.009 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

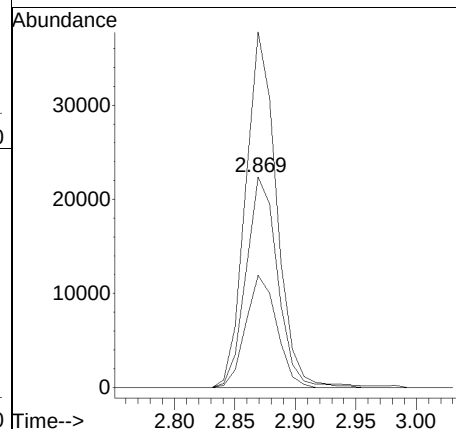
Tgt Ion:	74	Resp:	18758
Ion Ratio	Lower	Upper	
74	100		
59	140.4	2122.4	4408.0#
45	109.9	1435.1	2980.5#
43	37.7	407.9	847.3#

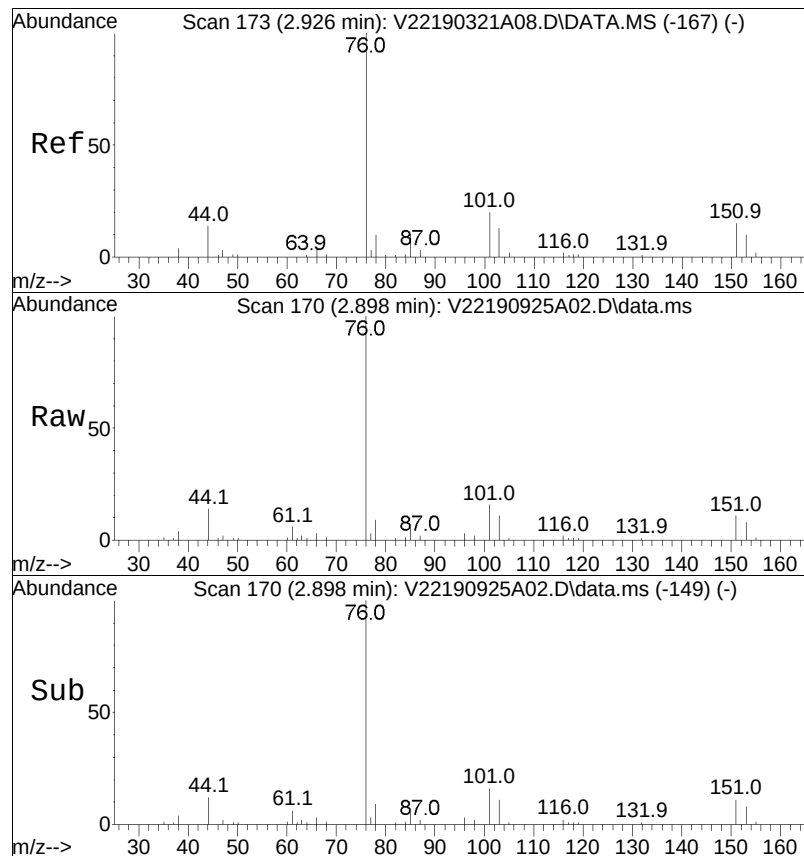




#10
 1,1-Dichloroethene
 Concen: 9.99 ug/L
 RT: 2.869 min Scan# 167
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

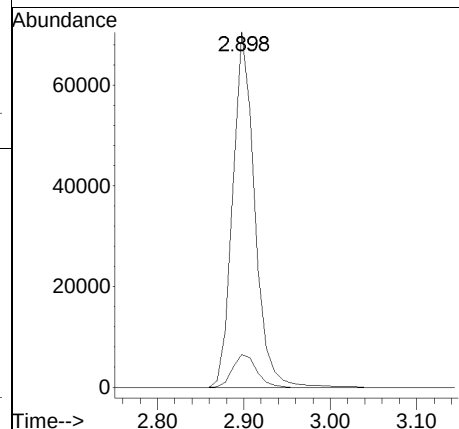
Tgt Ion	Ratio	Lower	Upper
96	100		
61	166.7	117.0	175.4
63	52.3	37.8	56.6

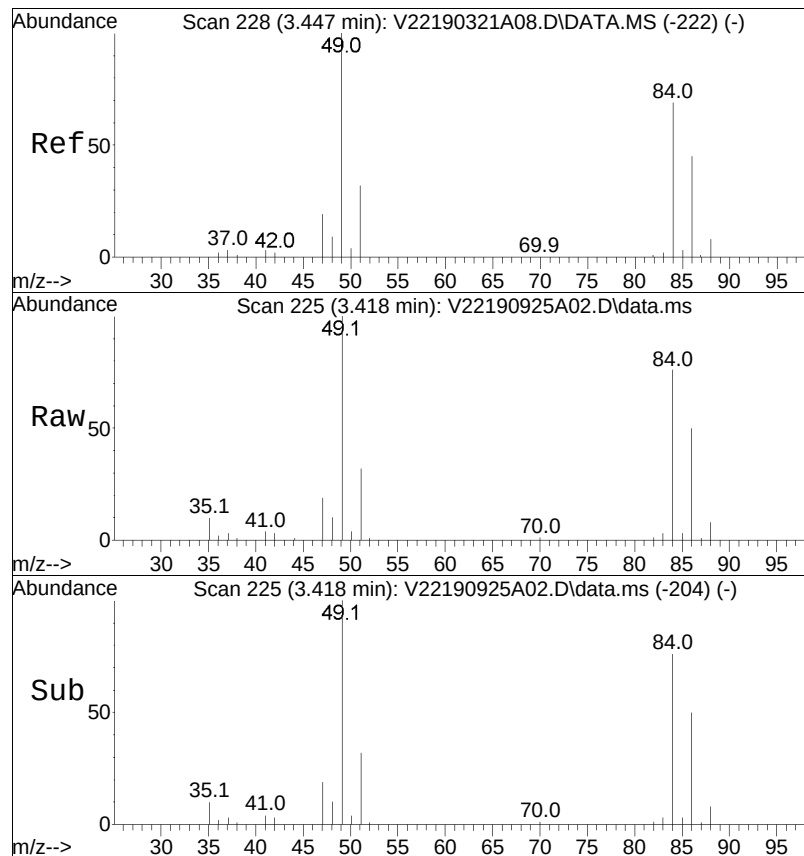




#11
Carbon disulfide
Concen: 11.47 ug/L
RT: 2.898 min Scan# 170
Delta R.T. -0.001 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

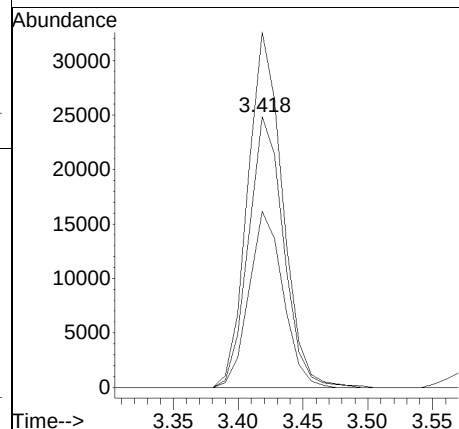
Tgt Ion:	76	Resp:	124671
Ion Ratio	Lower	Upper	
76	100		
78	10.1	6.4	13.4

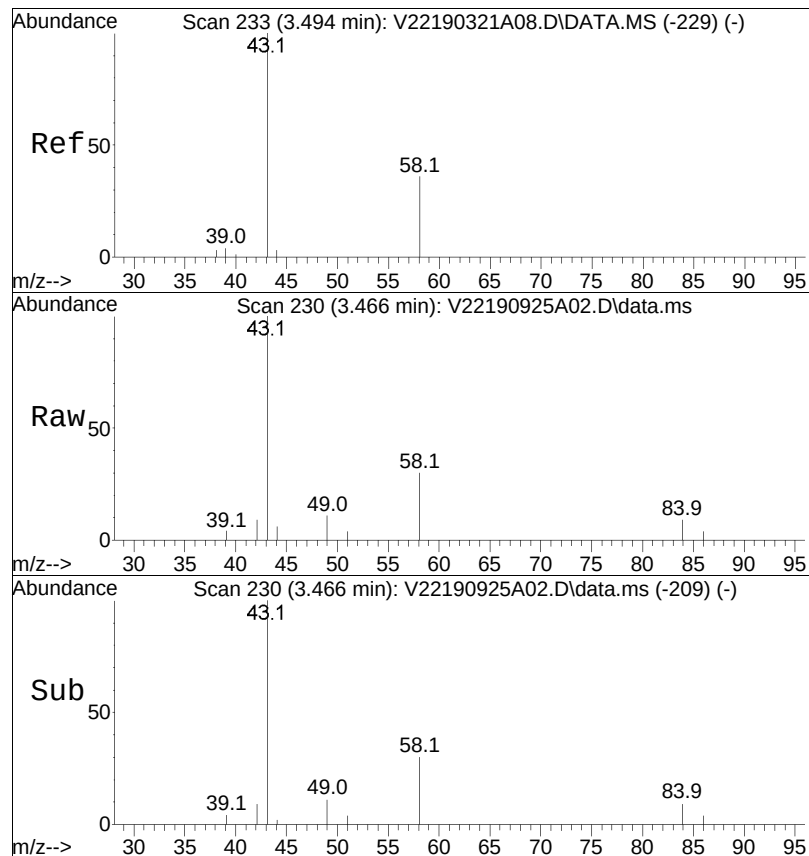




#15
Methylene chloride
Concen: 10.38 ug/L
RT: 3.418 min Scan# 225
Delta R.T. -0.001 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

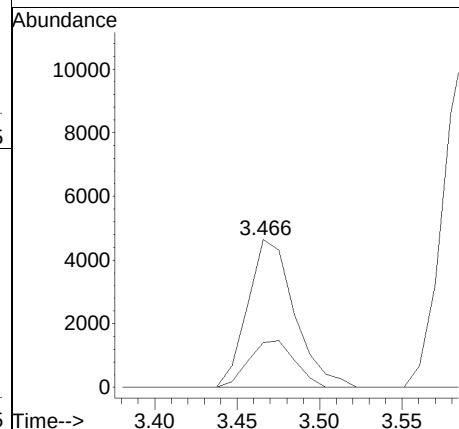
Tgt Ion:	84	Resp:	46687
Ion Ratio	Lower	Upper	
84	100		
86	63.4	41.5	86.3
49	130.7	68.8	143.0

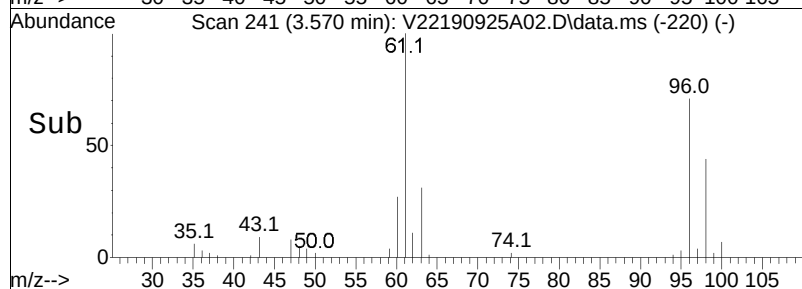
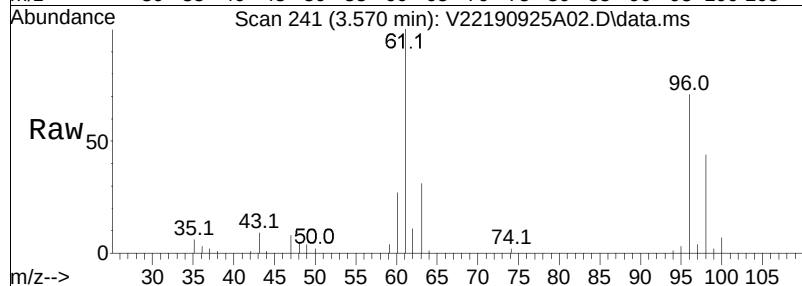
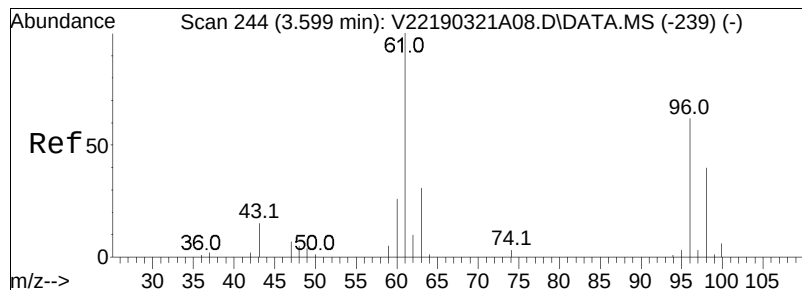




#17
Acetone
Concen: 14.14 ug/L
RT: 3.466 min Scan# 230
Delta R.T. -0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

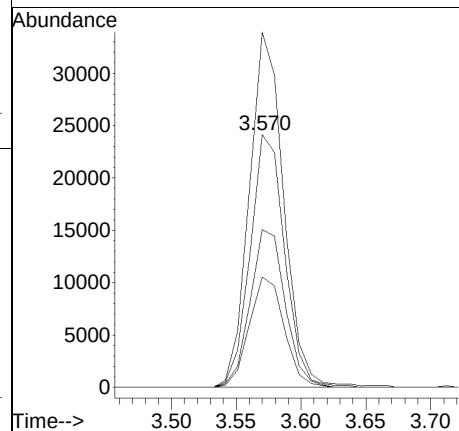
Tgt Ion: 43 Resp: 9211
Ion Ratio Lower Upper
43 100
58 31.0 23.1 34.7

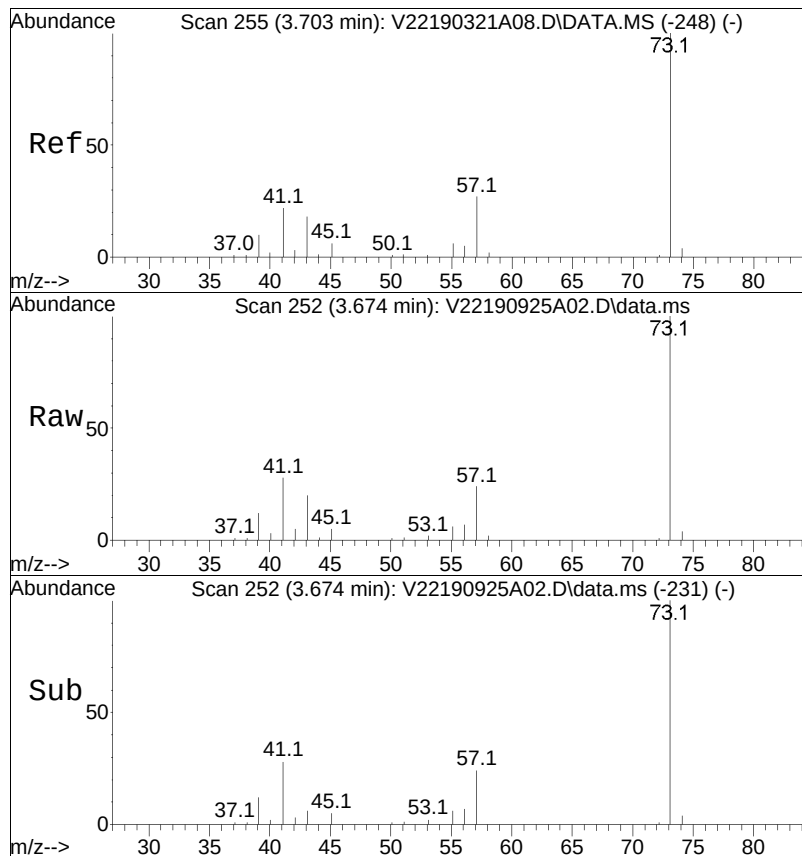




#18
 trans-1,2-Dichloroethene
 Concen: 9.86 ug/L
 RT: 3.570 min Scan# 241
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

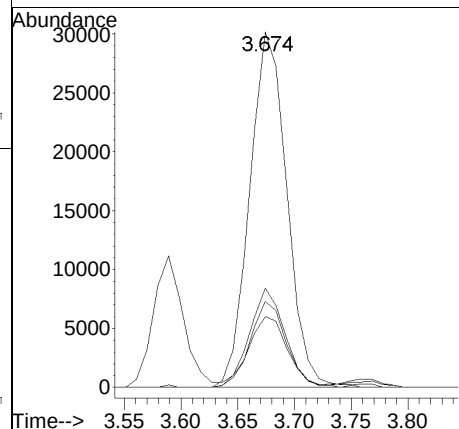
Tgt Ion: 96	Resp: 44901
Ion Ratio	Lower Upper
96 100	
61 140.0	81.6 169.6
98 63.2	41.8 86.8
63 44.1	26.3 54.7

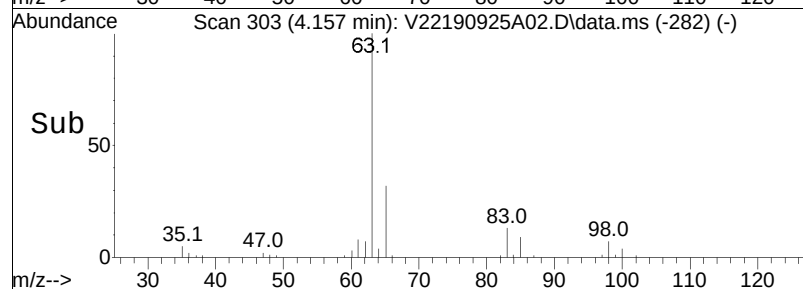
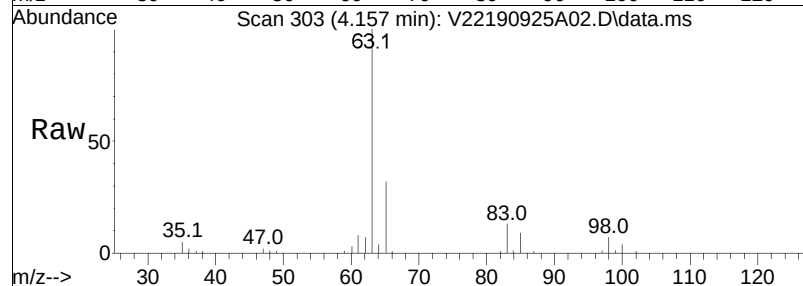
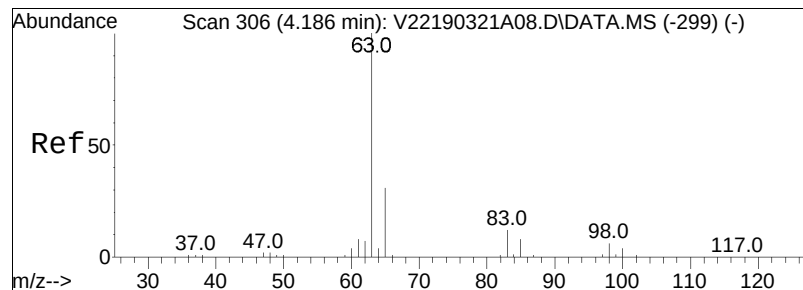




#21
Methyl tert-butyl ether
Concen: 7.40 ug/L
RT: 3.674 min Scan# 252
Delta R.T. 0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

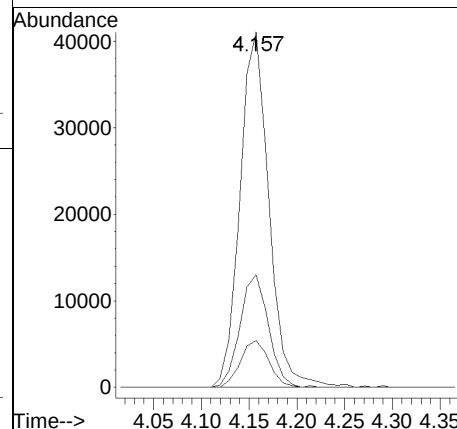
Tgt Ion: 73	Resp: 68798
Ion Ratio	Lower Upper
73 100	
57 23.5	13.6 28.2
43 21.3	12.7 26.5
41 26.7	11.4 23.8#

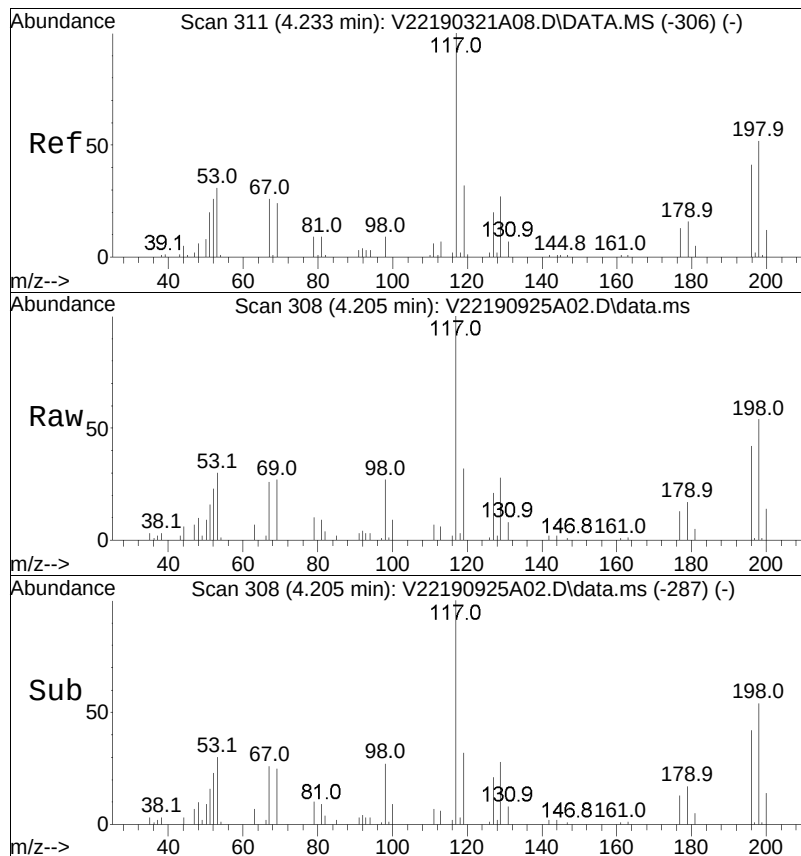




#25
 1,1-Dichloroethane
 Concen: 10.73 ug/L
 RT: 4.157 min Scan# 303
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.3	11.9	51.9
83	13.0	0.0	34.2





#27

Acrylonitrile

Concen: 11.47 ug/L

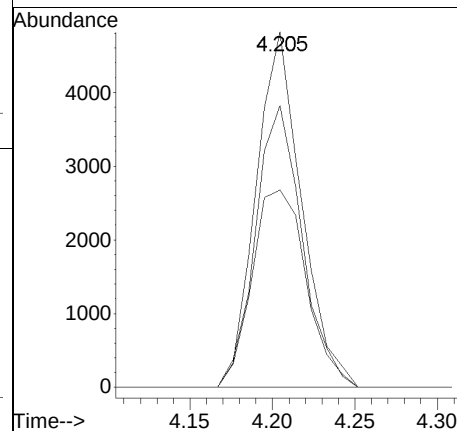
RT: 4.205 min Scan# 308

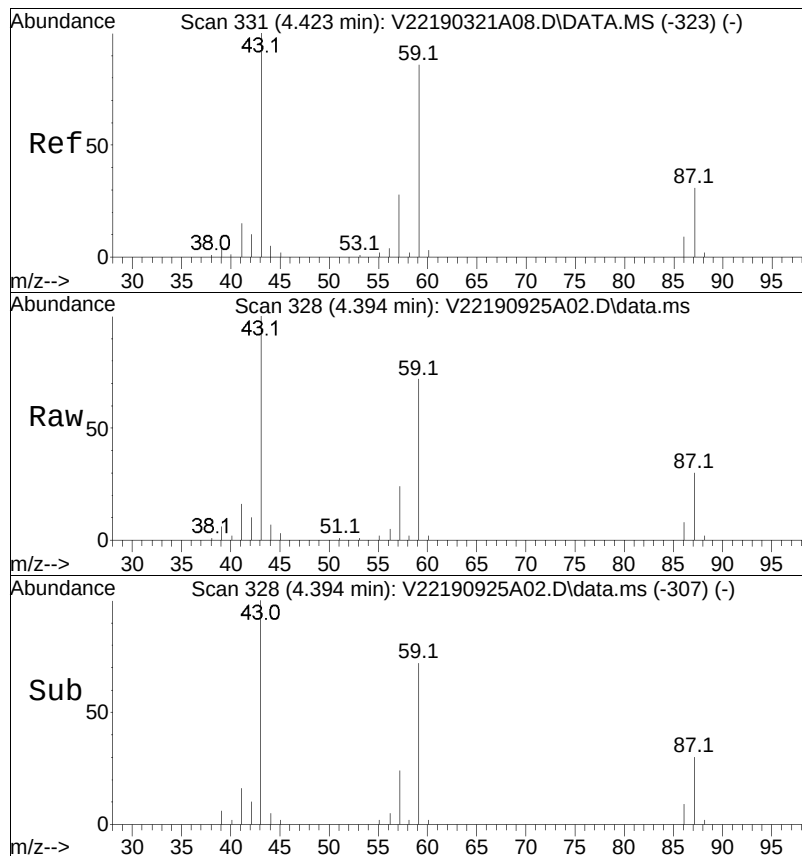
Delta R.T. -0.000 min

Lab File: V22190925A02.D

Acq: 25 Sep 2019 08:45 am

Tgt	Ion: 53	Resp:	9242
Ion	Ratio	Lower	Upper
53	100		
52	81.2	63.8	95.8
51	66.4	50.2	75.4





#29

Vinyl acetate

Concen: 13.15 ug/L

RT: 4.394 min Scan# 328

Delta R.T. -0.000 min

Lab File: V22190925A02.D

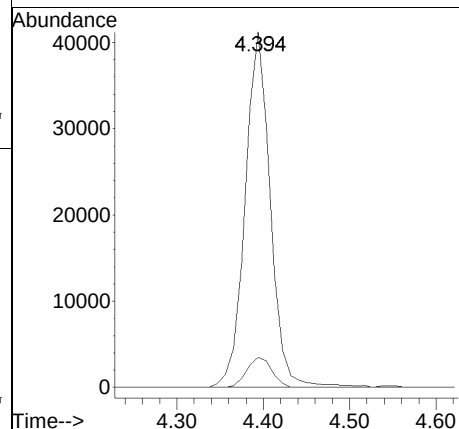
Acq: 25 Sep 2019 08:45 am

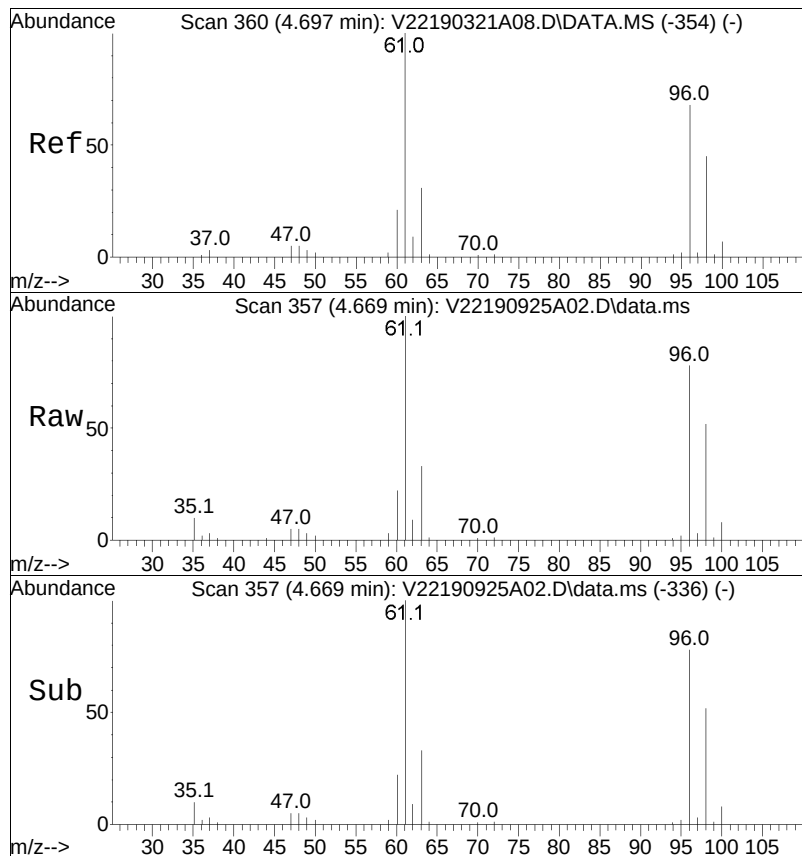
Tgt Ion: 43 Resp: 83576

Ion Ratio Lower Upper

43 100

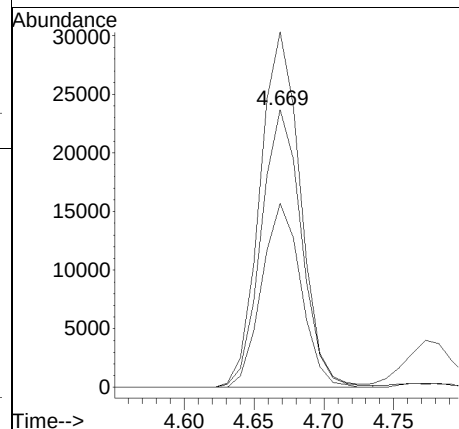
86 8.4 8.9 13.3#

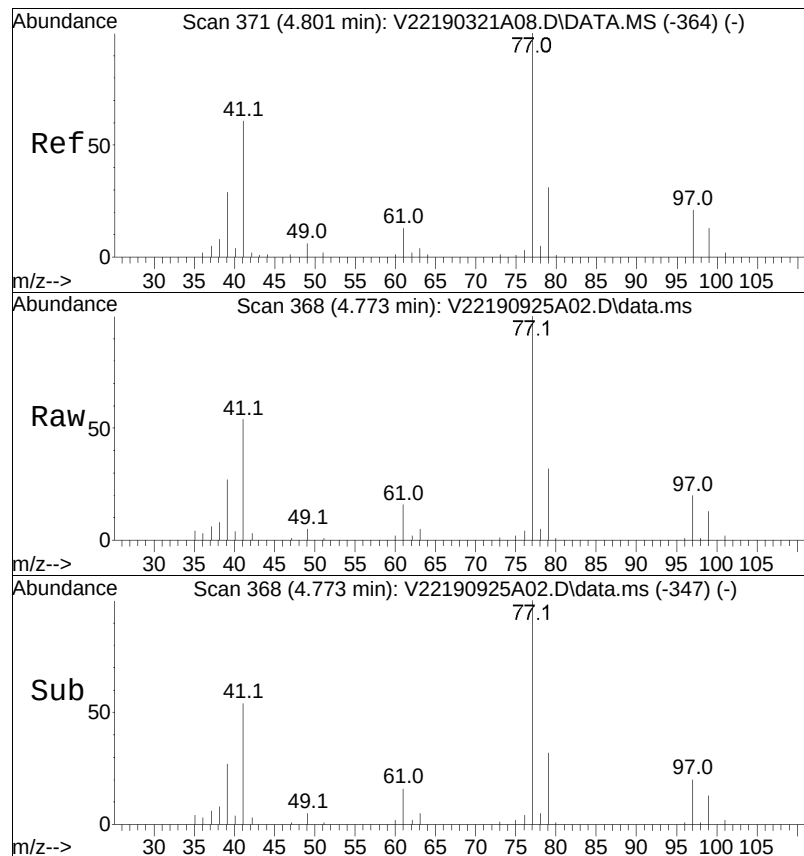




#30
 cis-1,2-Dichloroethene
 Concen: 9.75 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

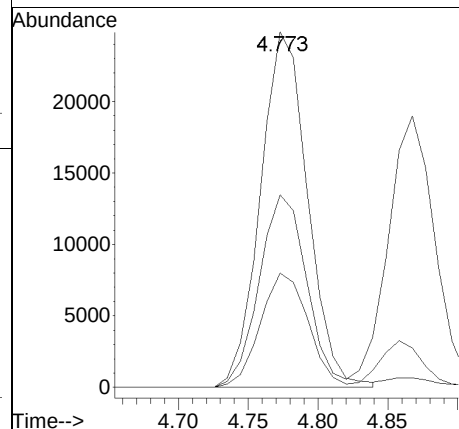
Tgt Ion:	96	Resp:	47568
Ion Ratio	Lower	Upper	
96	100		
61	128.3	90.3	135.5
98	64.7	50.8	76.2

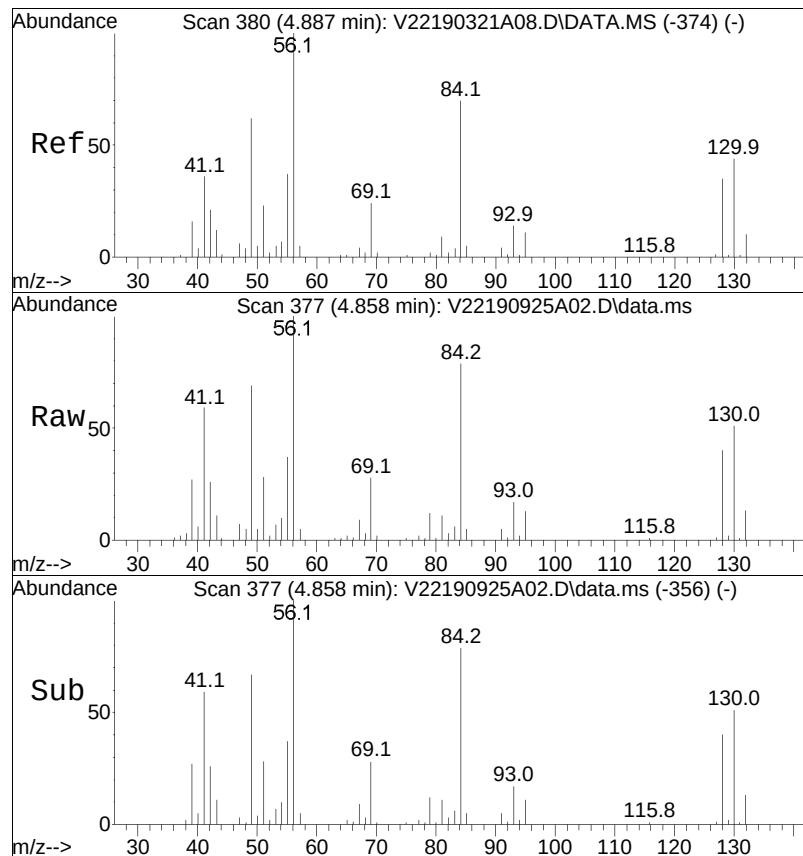




#31
 2,2-Dichloropropane
 Concen: 9.26 ug/L
 RT: 4.773 min Scan# 368
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion:	77	Resp:	58562
Ion Ratio	Lower	Upper	
77	100		
41	54.4	32.3	67.1
79	32.6	21.1	43.7





#32

Bromochloromethane

Concen: 10.14 ug/L

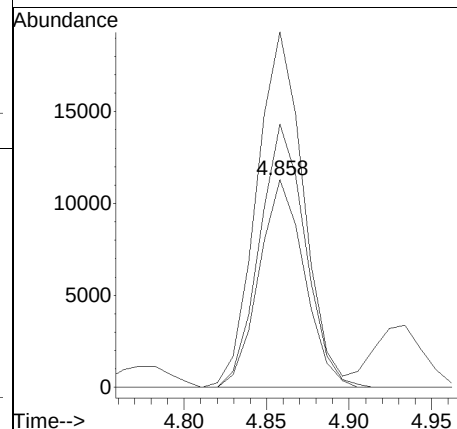
RT: 4.858 min Scan# 377

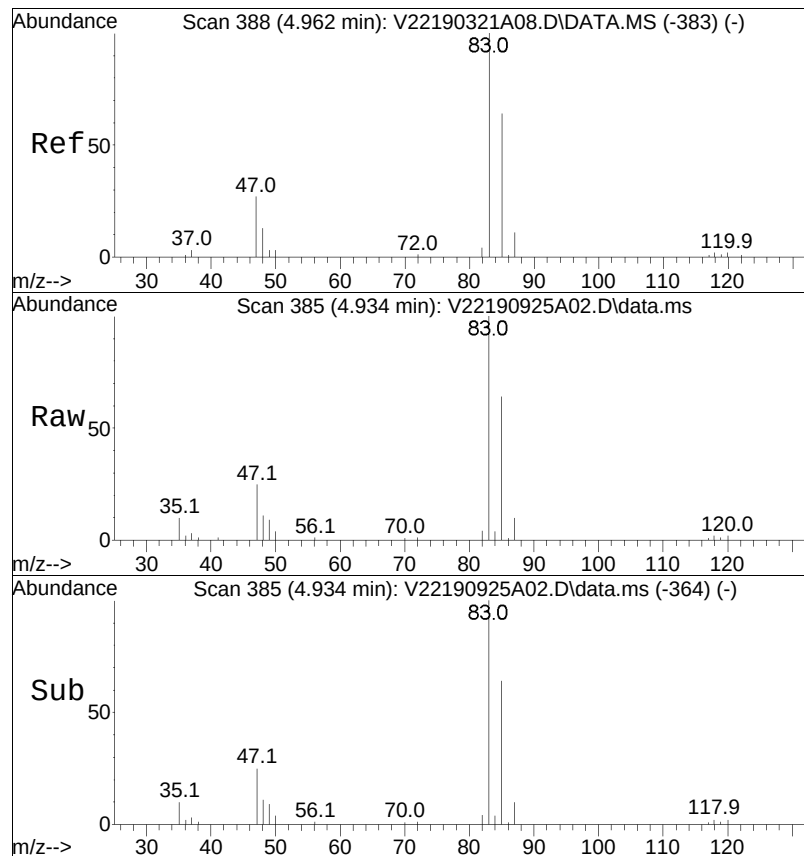
Delta R.T. 0.000 min

Lab File: V22190925A02.D

Acq: 25 Sep 2019 08:45 am

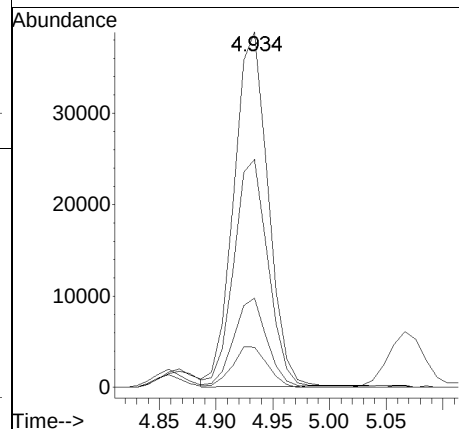
Tgt	Ion:128	Resp:	21531
Ion	Ratio	Lower	Upper
128	100		
49	176.8	104.4	156.6#
130	128.0	103.9	155.9

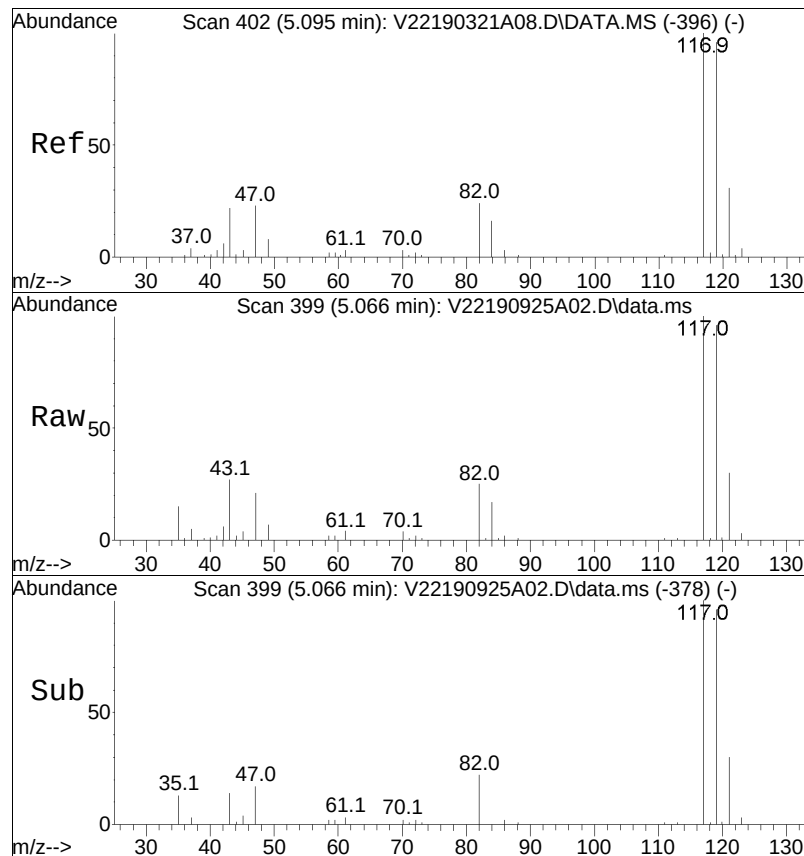




#34
 Chloroform
 Concen: 10.21 ug/L
 RT: 4.934 min Scan# 385
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

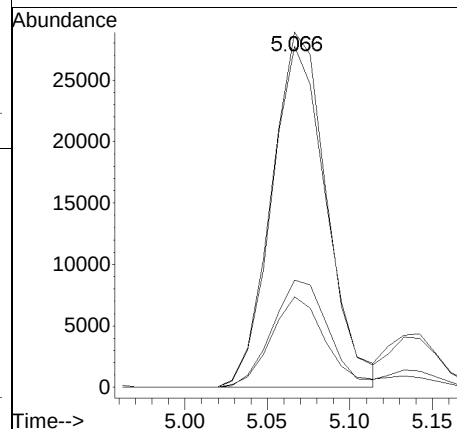
Tgt Ion:	83	Resp:	81567
Ion Ratio	Lower	Upper	
83	100		
85	65.1	42.4	88.2
47	24.6	14.0	29.0
48	11.8	6.9	14.3

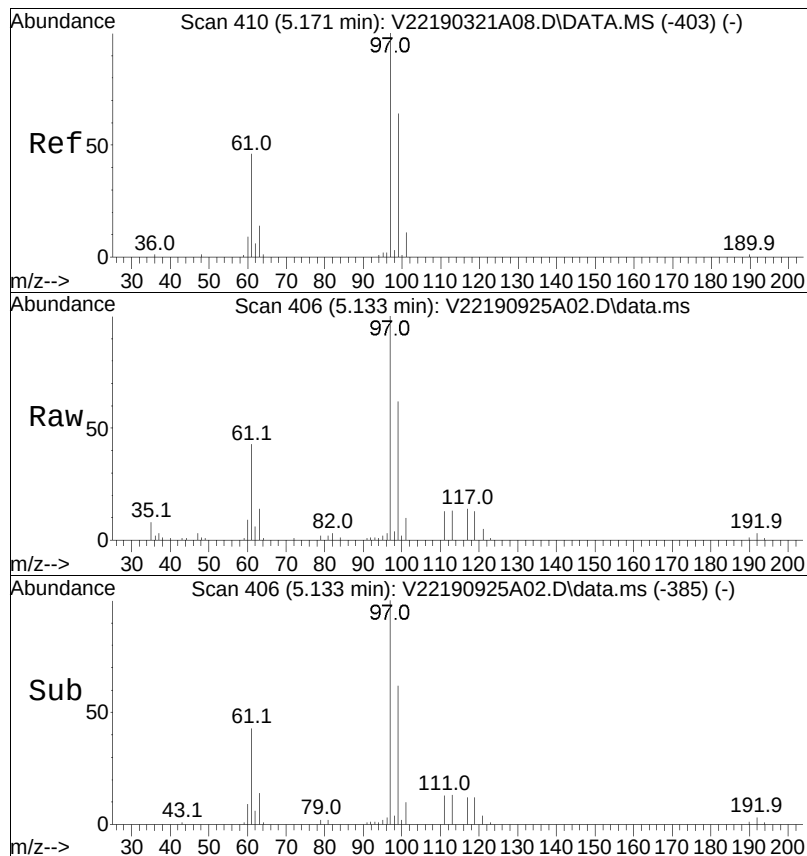




#36
 Carbon tetrachloride
 Concen: 10.09 ug/L
 RT: 5.066 min Scan# 399
 Delta R.T. -0.001 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

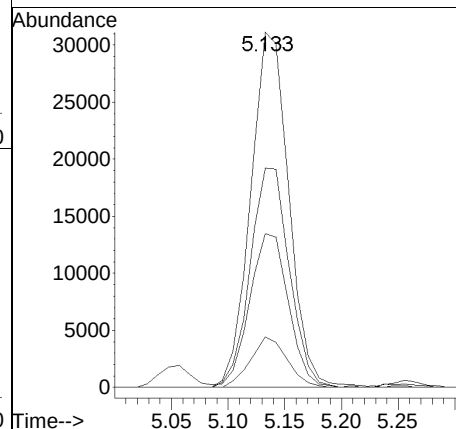
Tgt Ion:	117	Resp:	67193
Ion Ratio	Lower	Upper	
117	100		
119	95.5	62.1	129.1
121	30.7	20.3	42.3
82	25.4	15.4	32.0

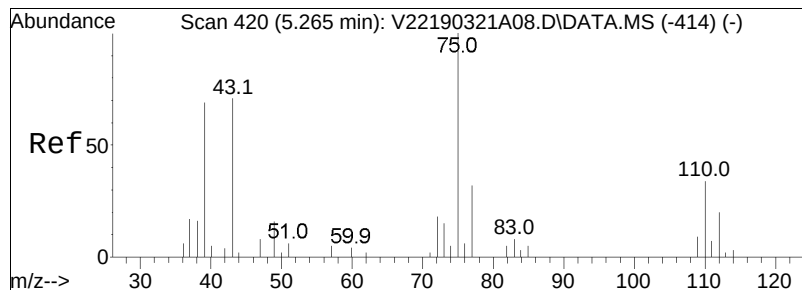




#39
 1,1,1-Trichloroethane
 Concen: 9.49 ug/L
 RT: 5.133 min Scan# 406
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion:	97	Resp:	72804
Ion Ratio	Lower	Upper	
97	100		
99	63.3	42.4	88.0
61	44.2	26.0	54.0
63	13.7	8.3	17.3





#41

2-Butanone

Concen: 13.10 ug/L

RT: 5.227 min Scan# 416

Delta R.T. -0.010 min

Lab File: V22190925A02.D

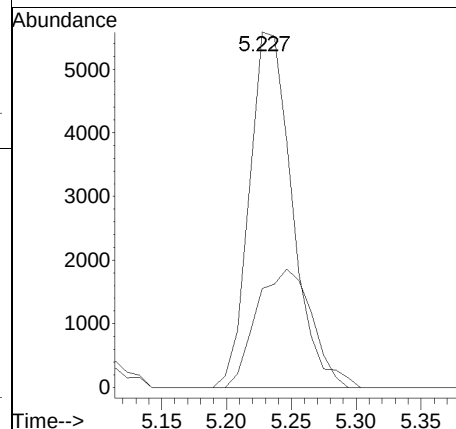
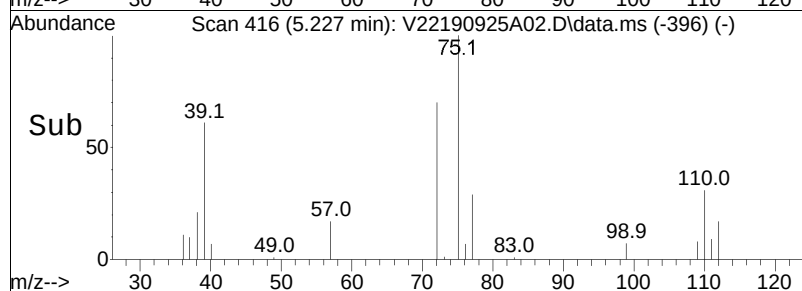
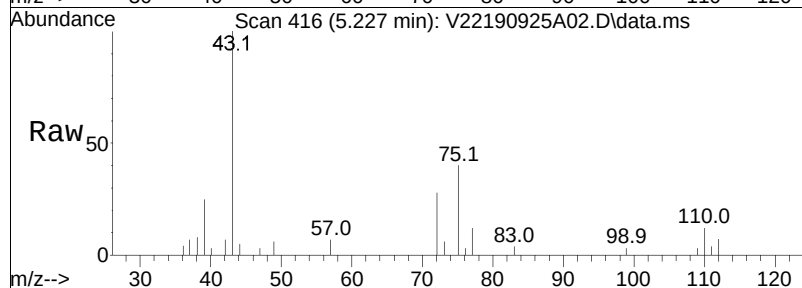
Acq: 25 Sep 2019 08:45 am

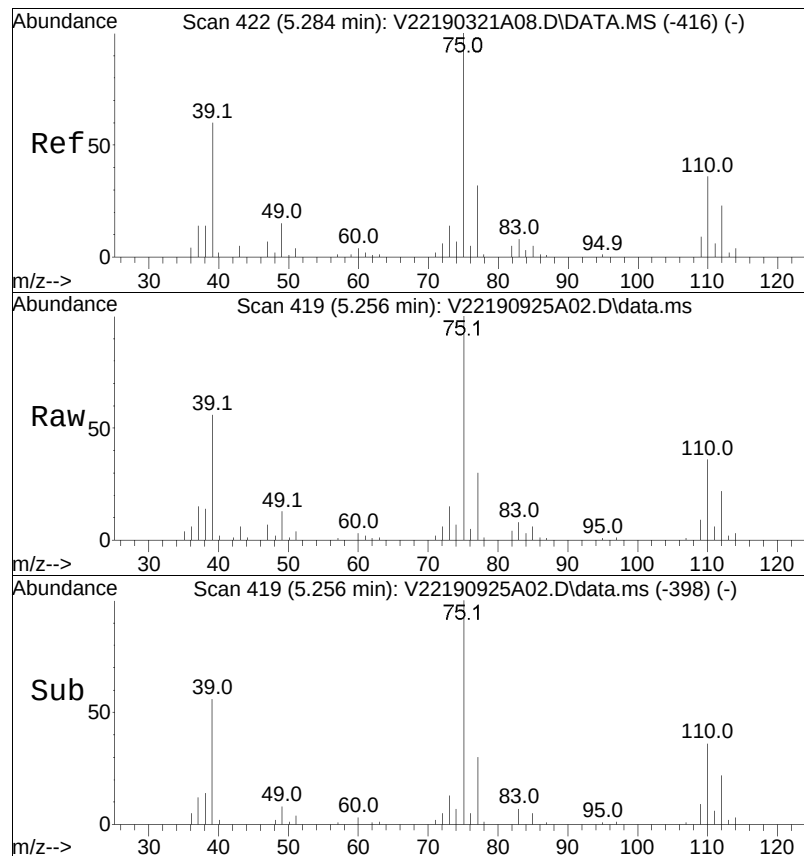
Tgt Ion: 43 Resp: 12810

Ion Ratio Lower Upper

43 100

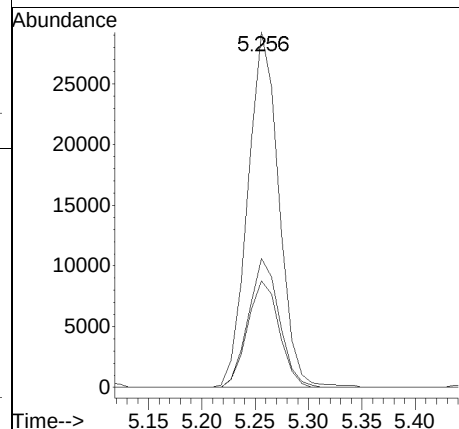
72 42.7 45.8 68.8#

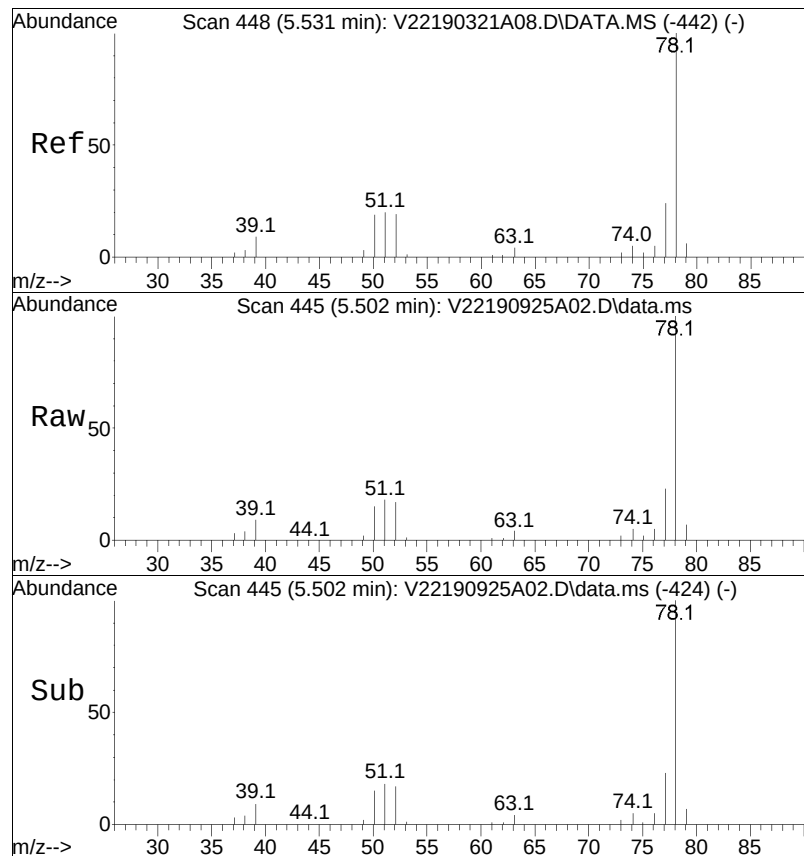




#42
 1,1-Dichloropropene
 Concen: 9.19 ug/L
 RT: 5.256 min Scan# 419
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

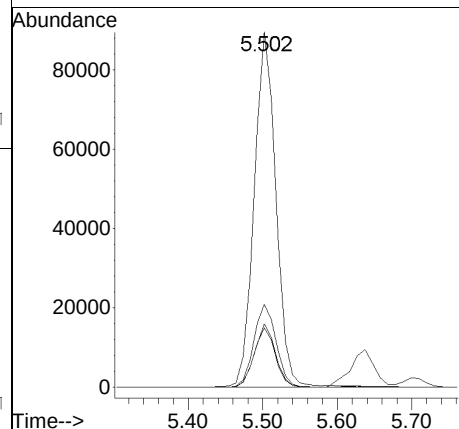
Tgt Ion:	75	Resp:	59141
Ion Ratio	Lower	Upper	
75	100		
110	36.0	25.4	52.8
77	30.5	20.3	42.1

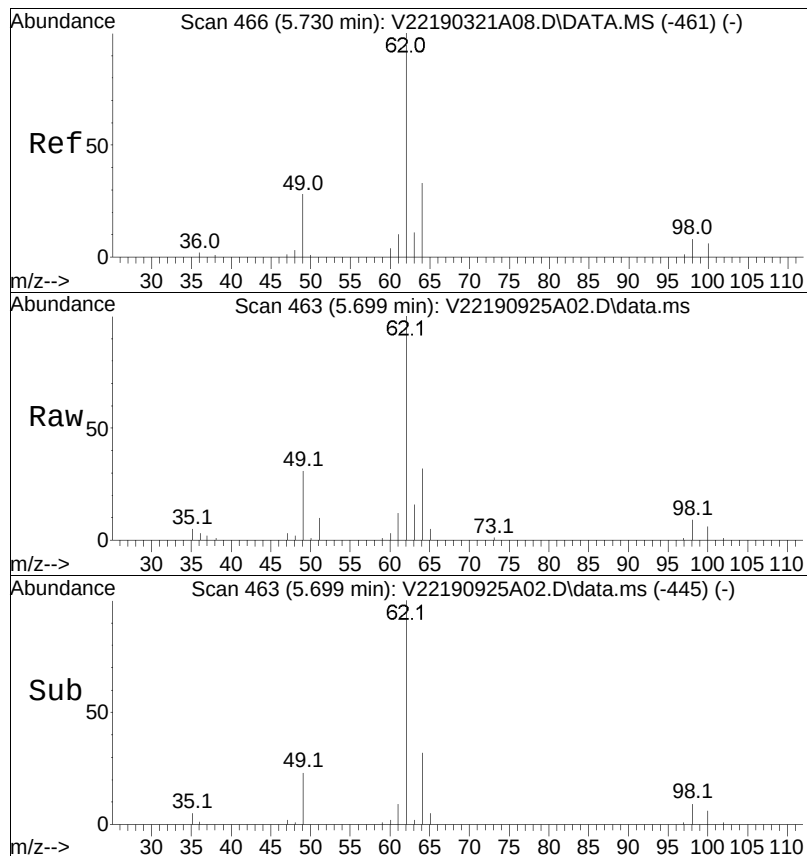




#44
Benzene
Concen: 10.61 ug/L
RT: 5.502 min Scan# 445
Delta R.T. 0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

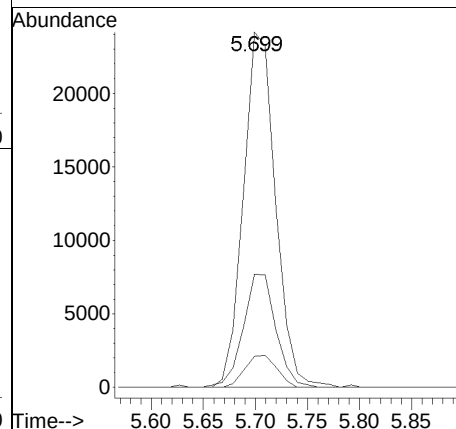
Tgt	Ion: 78	Resp:	201924
Ion	Ratio	Lower	Upper
78	100		
77	21.7	15.4	32.0
51	15.6	9.8	20.4
52	14.9	9.2	19.2

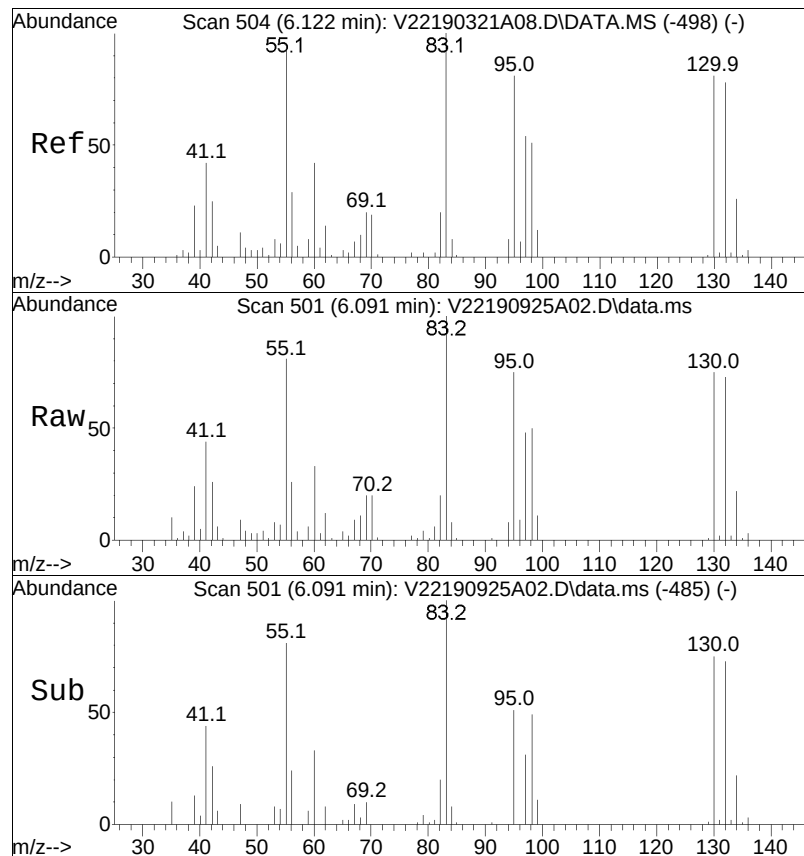




#47
 1,2-Dichloroethane
 Concen: 10.09 ug/L
 RT: 5.699 min Scan# 463
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

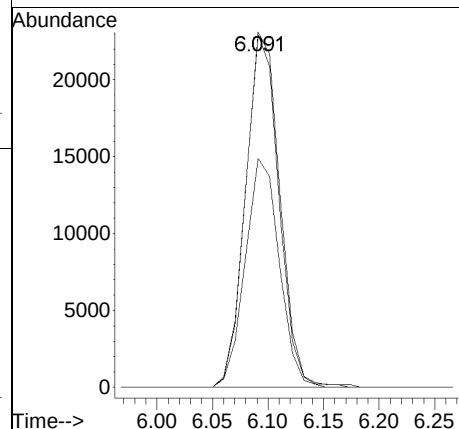
Tgt Ion:	62	Resp:	51871
Ion Ratio	Lower	Upper	
62	100		
64	32.4	12.3	52.3
98	9.0	0.0	30.3

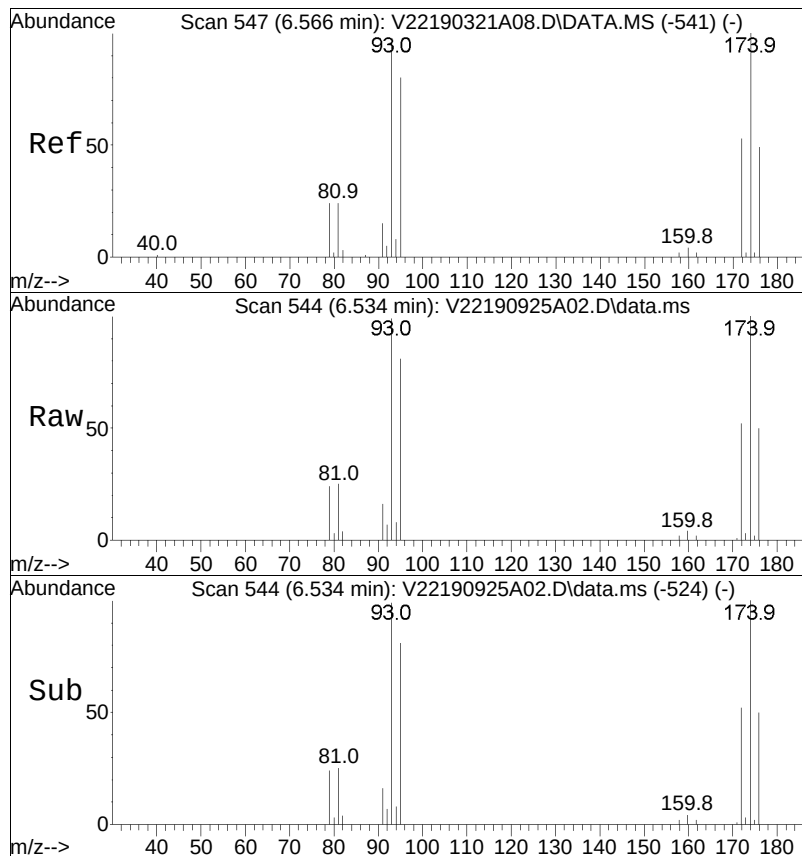




#51
 Trichloroethene
 Concen: 9.96 ug/L
 RT: 6.091 min Scan# 501
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

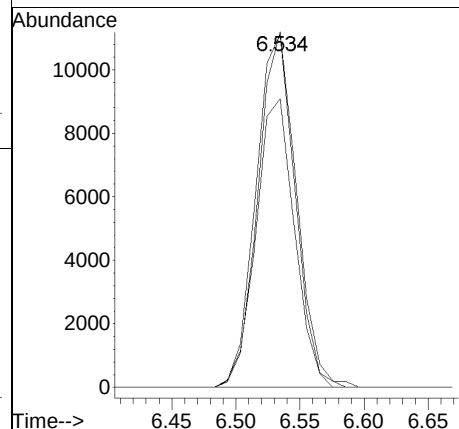
Tgt Ion:	95	Resp:	48002
Ion Ratio	Lower	Upper	
95	100		
97	66.1	55.0	82.4
130	103.0	89.2	133.8

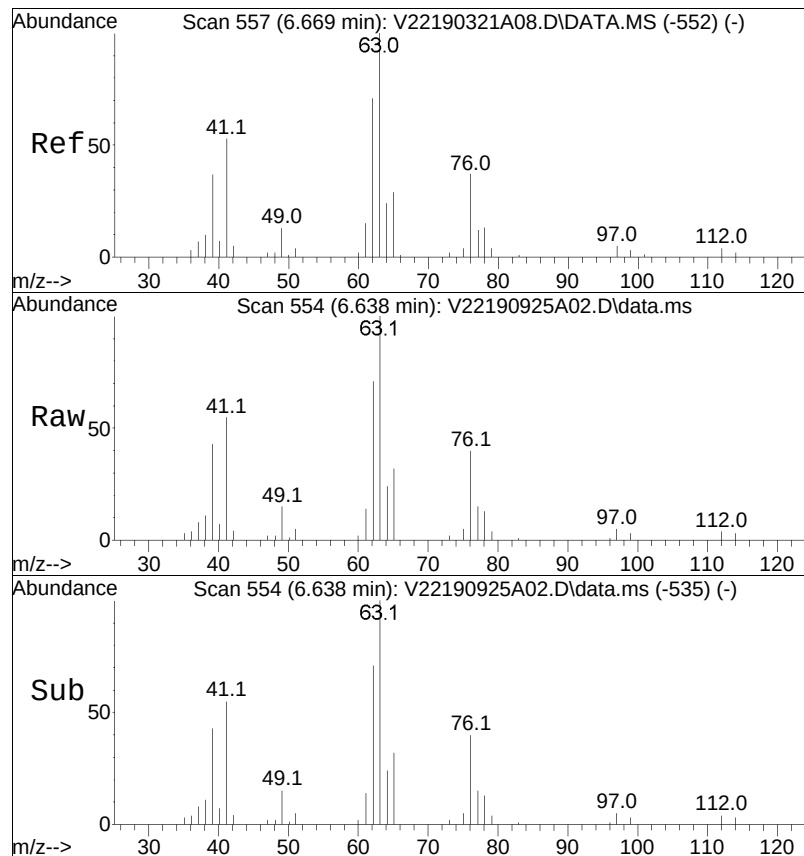




#53
 Dibromomethane
 Concen: 9.60 ug/L
 RT: 6.534 min Scan# 544
 Delta R.T. 0.010 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

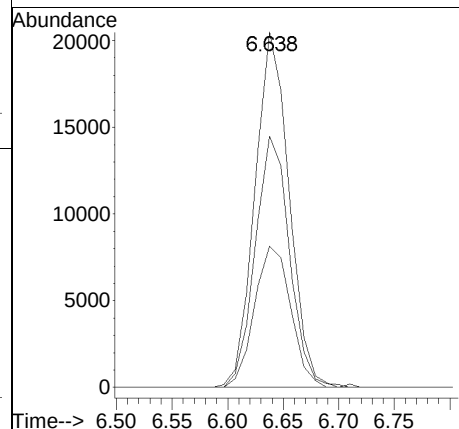
Tgt Ion:	93	Resp:	23687
Ion Ratio	Lower	Upper	
93	100		
95	80.4	68.0	102.0
174	98.1	106.1	159.1#

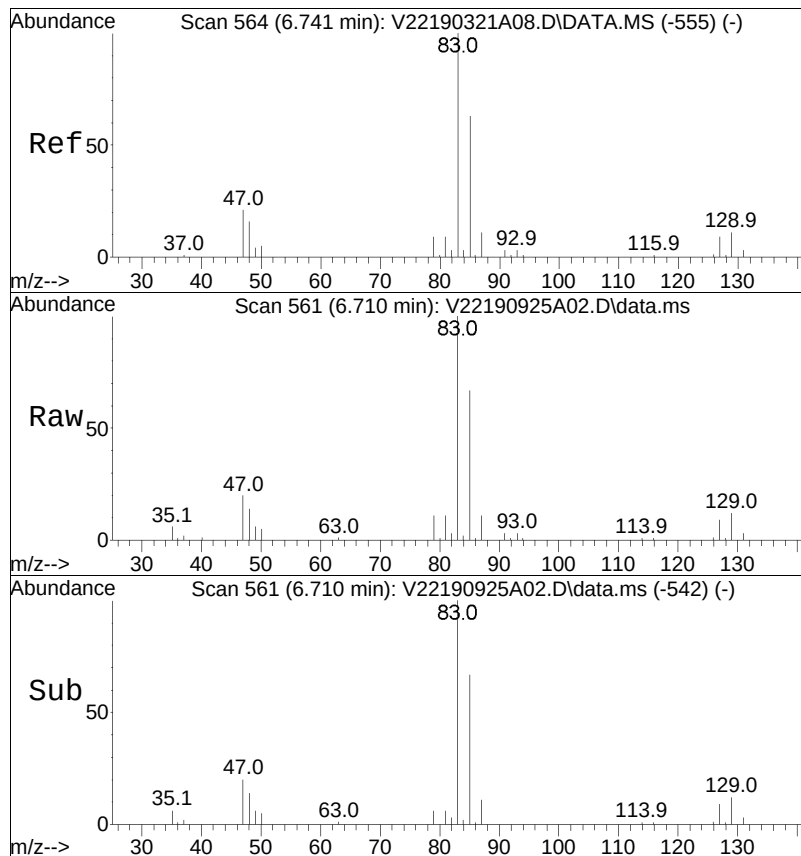




#54
 1,2-Dichloropropane
 Concen: 10.26 ug/L
 RT: 6.638 min Scan# 554
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

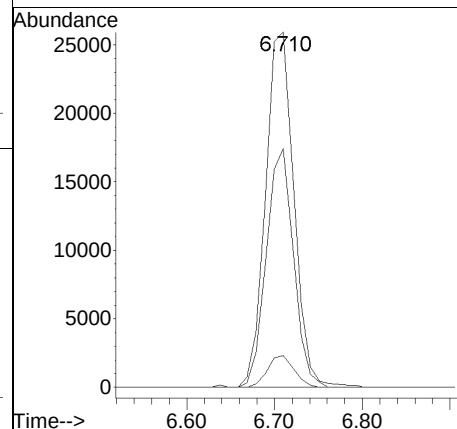
Tgt Ion:	63	Resp:	43952
Ion Ratio	Lower	Upper	
63	100		
62	71.0	56.9	85.3
76	42.1	35.8	53.8

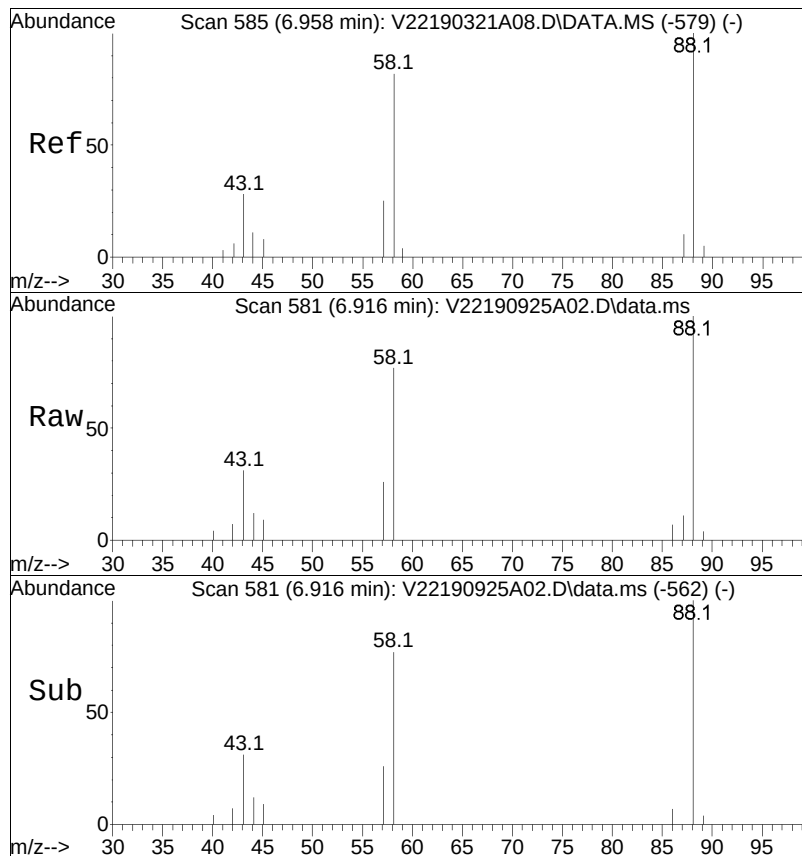




#57
 Bromodichloromethane
 Concen: 9.94 ug/L
 RT: 6.710 min Scan# 561
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

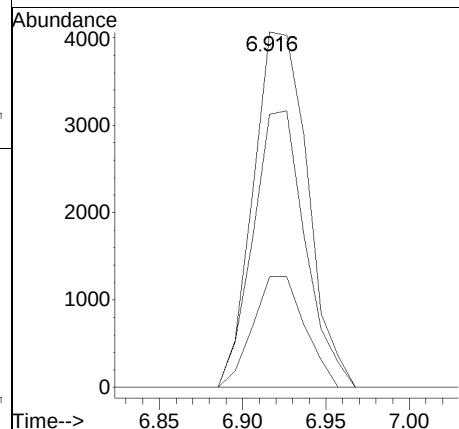
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	58557		
85	64.3		51.6	77.4
127	8.4		7.4	11.0

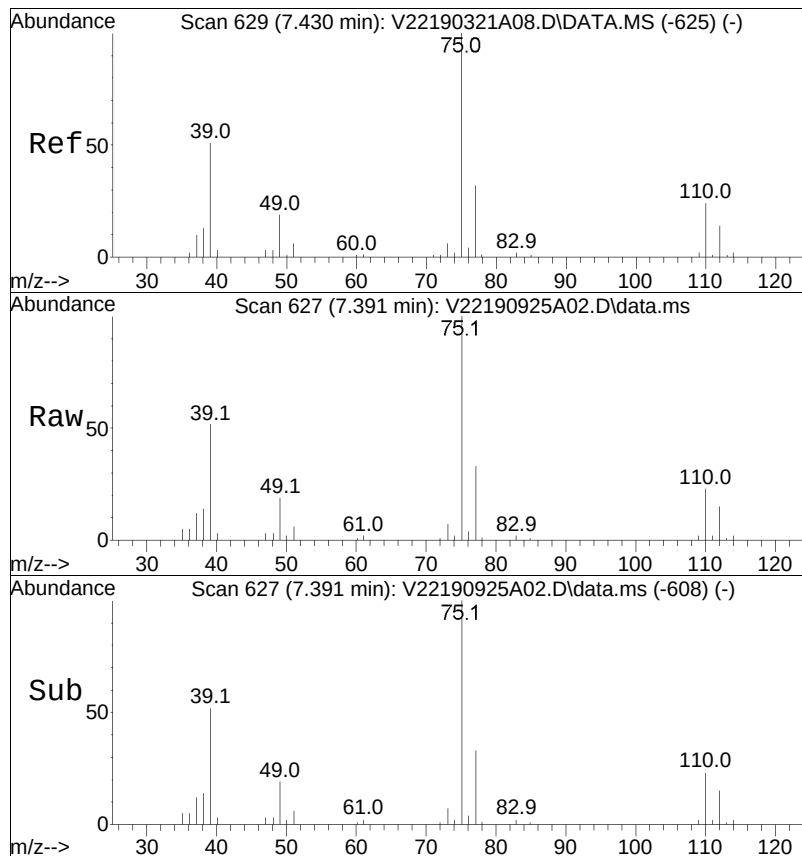




#60
 1,4-Dioxane
 Concen: 384.62 ug/L
 RT: 6.916 min Scan# 581
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

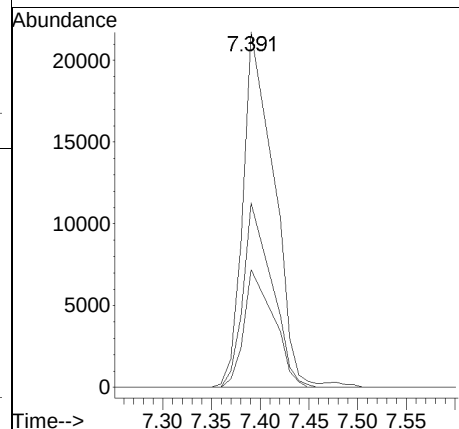
Tgt Ion	Ratio	Lower	Upper
88	100		
58	75.0	43.3	64.9#
43	29.8	15.1	22.7#

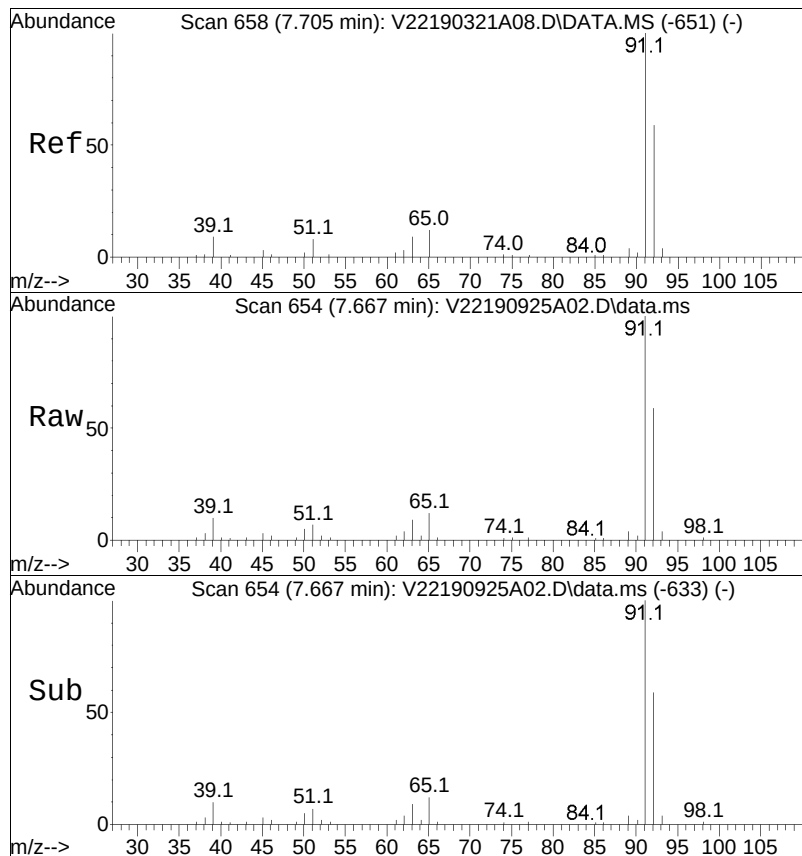




#61
 cis-1,3-Dichloropropene
 Concen: 8.63 ug/L
 RT: 7.391 min Scan# 627
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

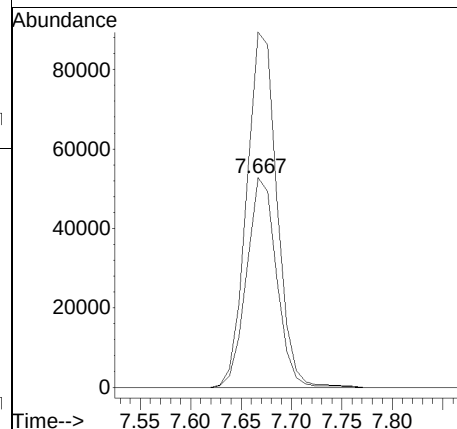
Tgt Ion:	75	Resp:	31920
Ion Ratio	Lower	Upper	
75	100		
77	34.0	25.6	38.4
39	51.1	35.4	53.0

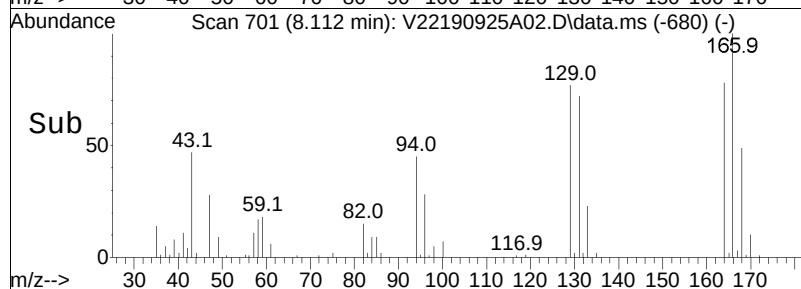
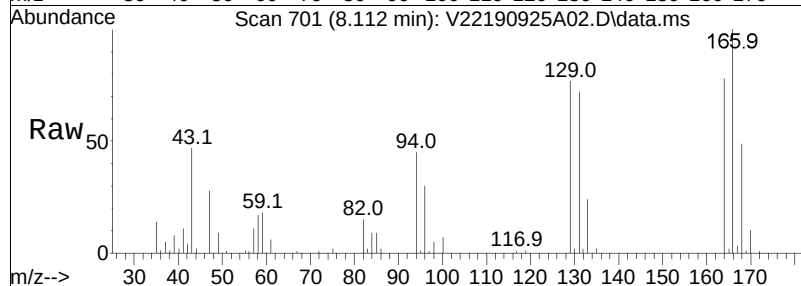
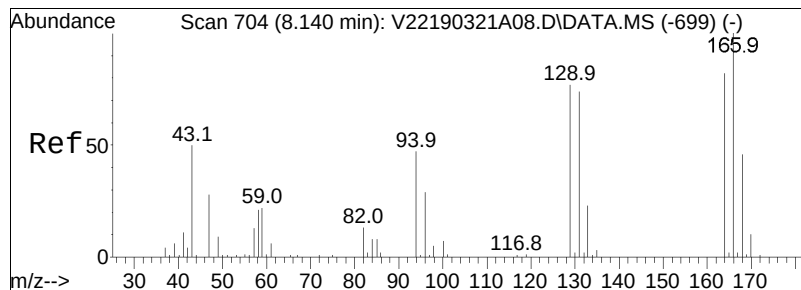




#64
 Toluene
 Concen: 9.52 ug/L
 RT: 7.667 min Scan# 654
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

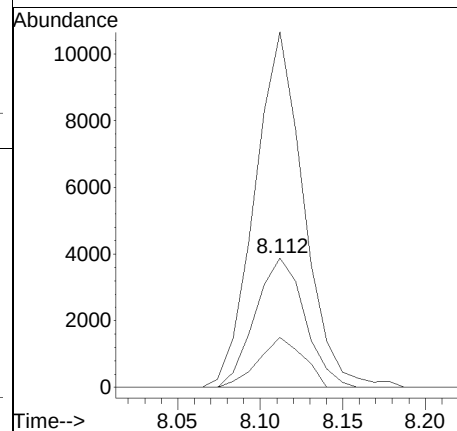
Tgt Ion	Ratio	Lower	Upper
92	100		
91	171.0	137.0	205.6

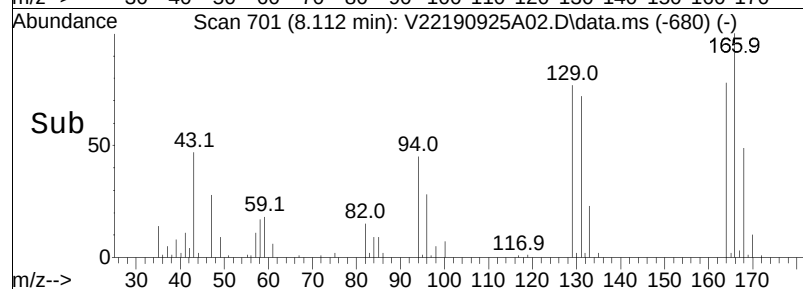
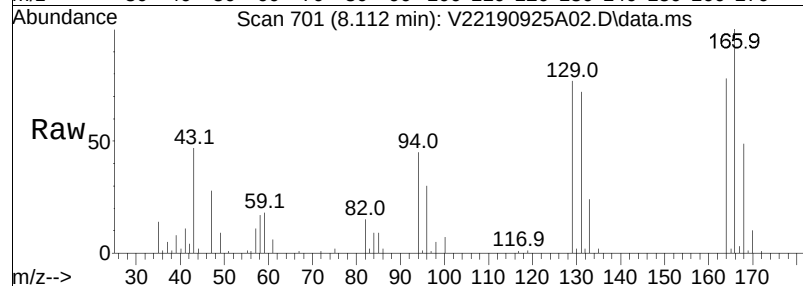
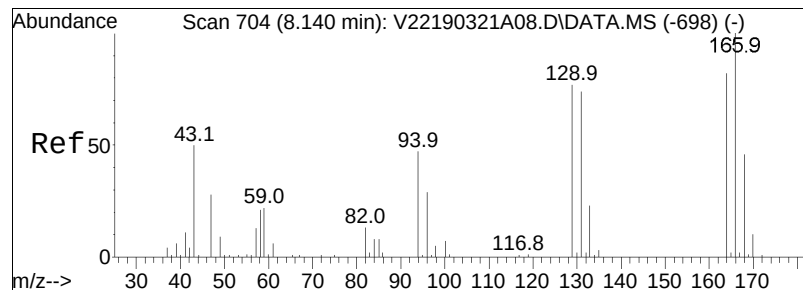




#65
 4-Methyl-2-pentanone
 Concen: 9.14 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt	Ion	Resp	Lower	Upper
58	100			
100	35.0	36.2	54.4#	
43	271.7	181.8	272.8	





#66

Tetrachloroethene

Concen: 9.44 ug/L

RT: 8.112 min Scan# 701

Delta R.T. -0.000 min

Lab File: V22190925A02.D

Acq: 25 Sep 2019 08:45 am

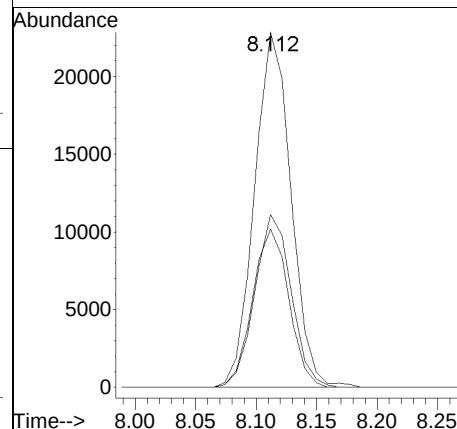
Tgt Ion:166 Resp: 47971

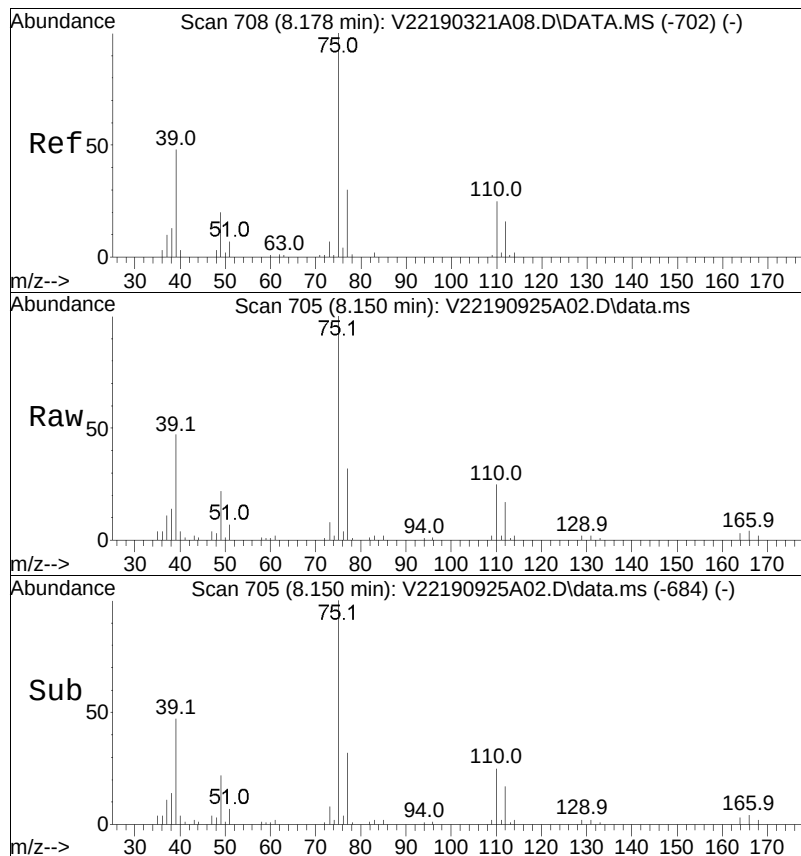
Ion Ratio Lower Upper

166 100

168 48.5 27.8 67.8

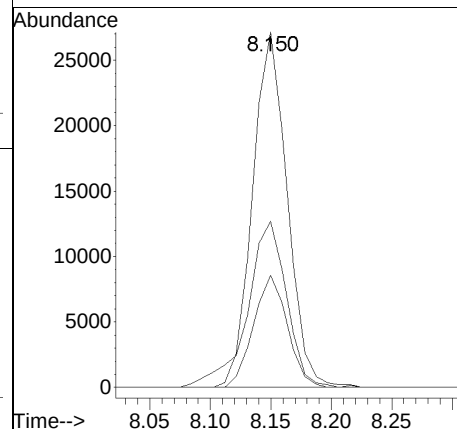
94 44.2 16.7 56.7

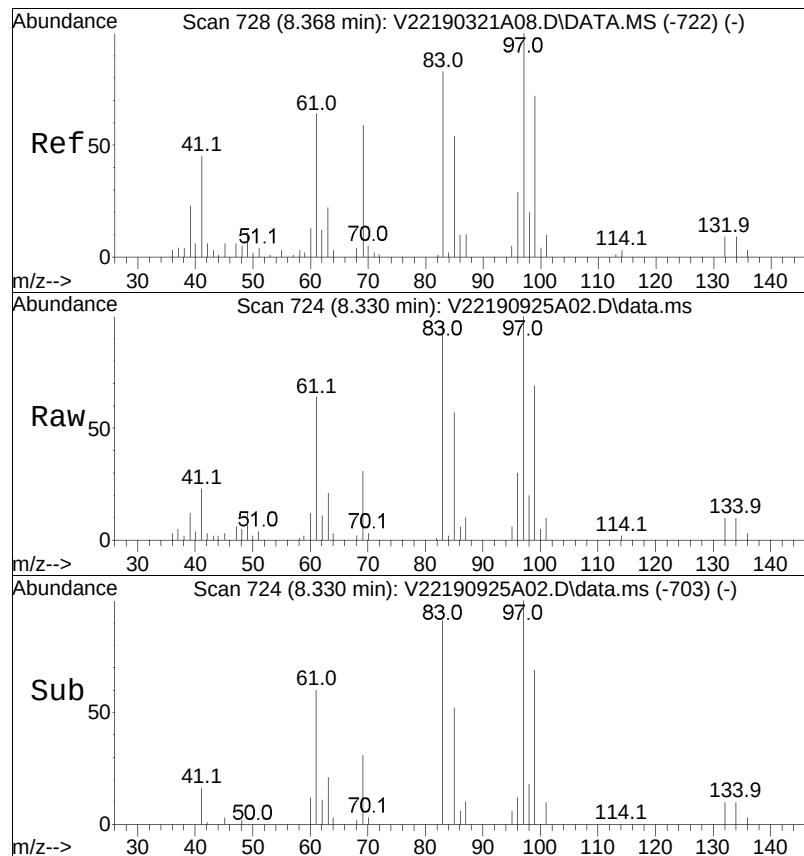




#68
 trans-1,3-Dichloropropene
 Concen: 9.32 ug/L
 RT: 8.150 min Scan# 705
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

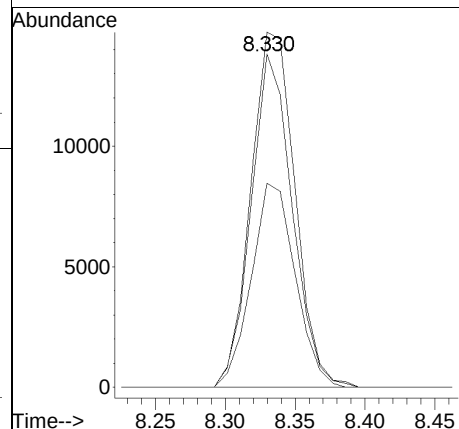
Tgt Ion:	75	Resp:	53957
Ion Ratio	Lower	Upper	
75	100		
77	30.9	11.9	51.9
39	53.1	27.4	67.4

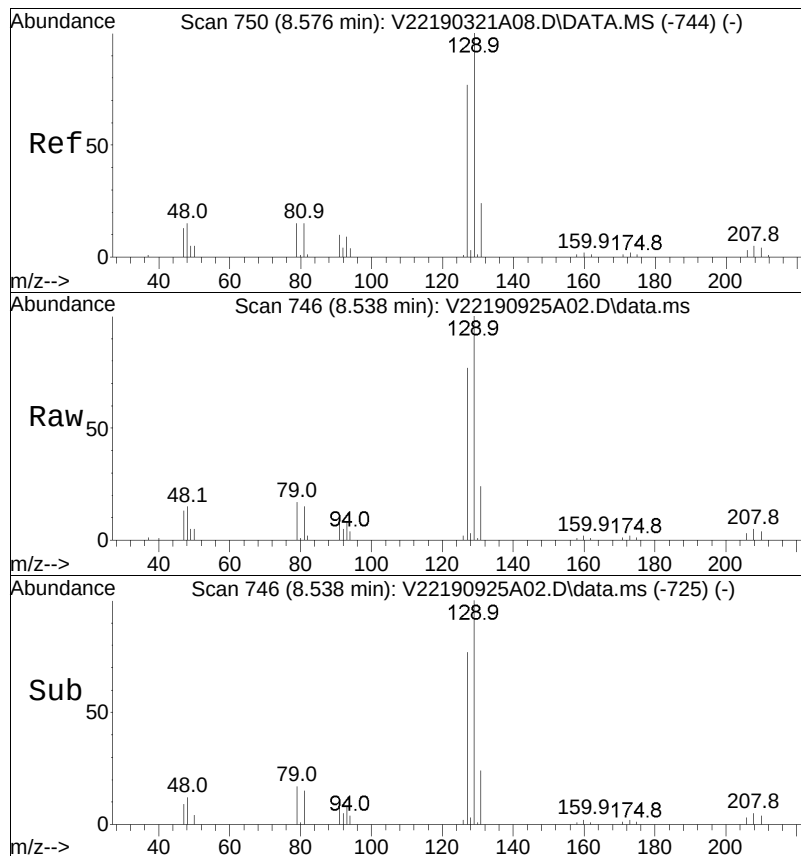




#71
 1,1,2-Trichloroethane
 Concen: 10.49 ug/L
 RT: 8.330 min Scan# 724
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

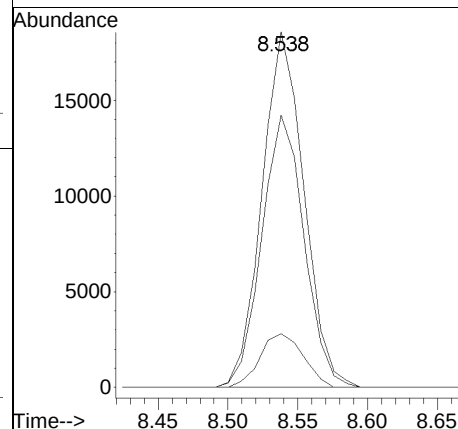
Tgt Ion:	83	Resp:	28437
Ion Ratio	Lower	Upper	
83	100		
97	114.1	103.4	143.4
85	65.3	47.9	87.9

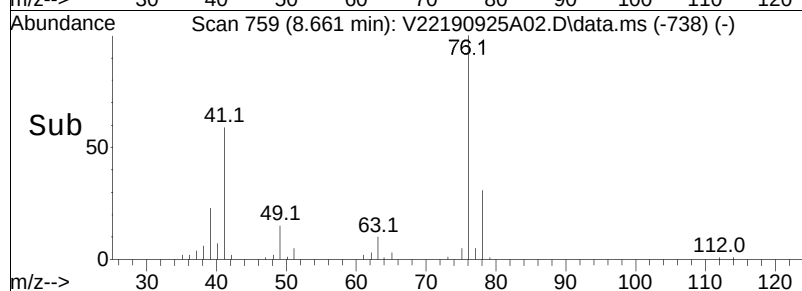
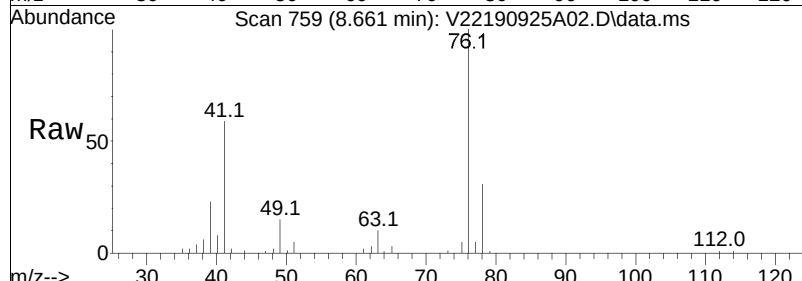
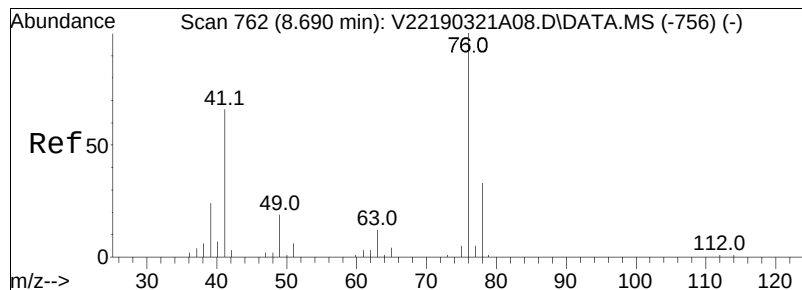




#72
 Chlorodibromomethane
 Concen: 9.86 ug/L
 RT: 8.538 min Scan# 746
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt	Ion:129	Resp:	38804
Ion	Ratio	Lower	Upper
129	100		
81	15.6	0.0	33.8
127	77.3	57.1	97.1





#73

1,3-Dichloropropane

Concen: 9.93 ug/L

RT: 8.661 min Scan# 759

Delta R.T. 0.000 min

Lab File: V22190925A02.D

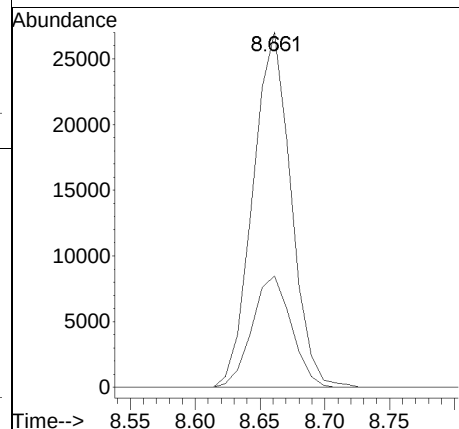
Acq: 25 Sep 2019 08:45 am

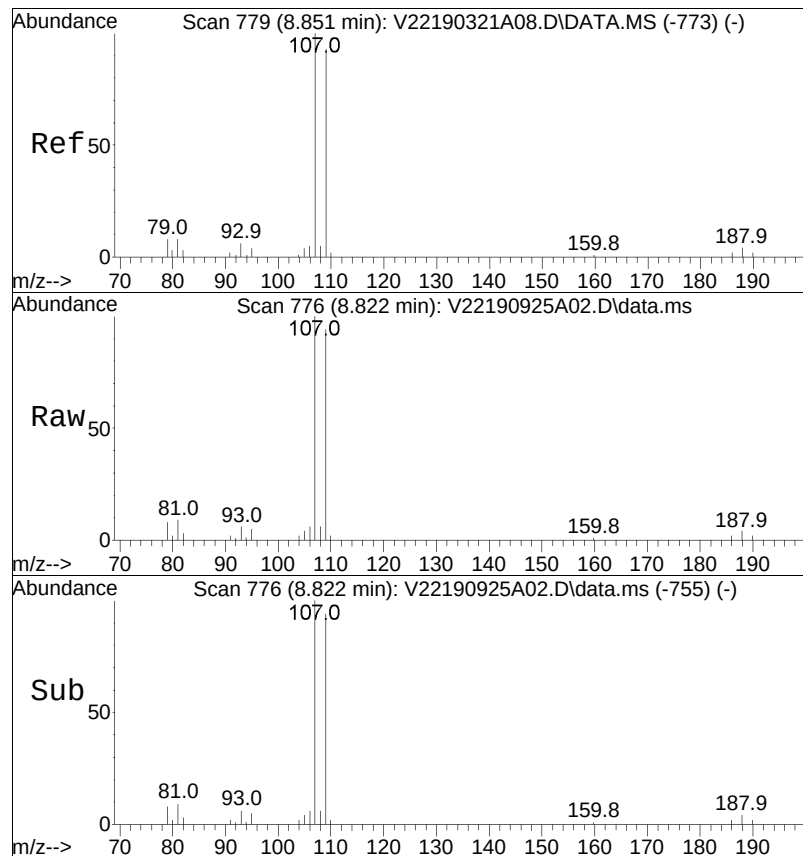
Tgt Ion: 76 Resp: 55337

Ion Ratio Lower Upper

76 100

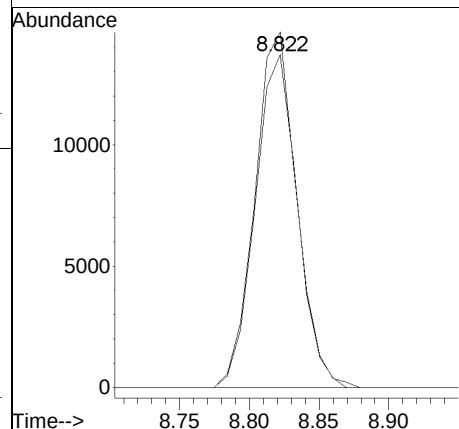
78 32.3 25.7 38.5

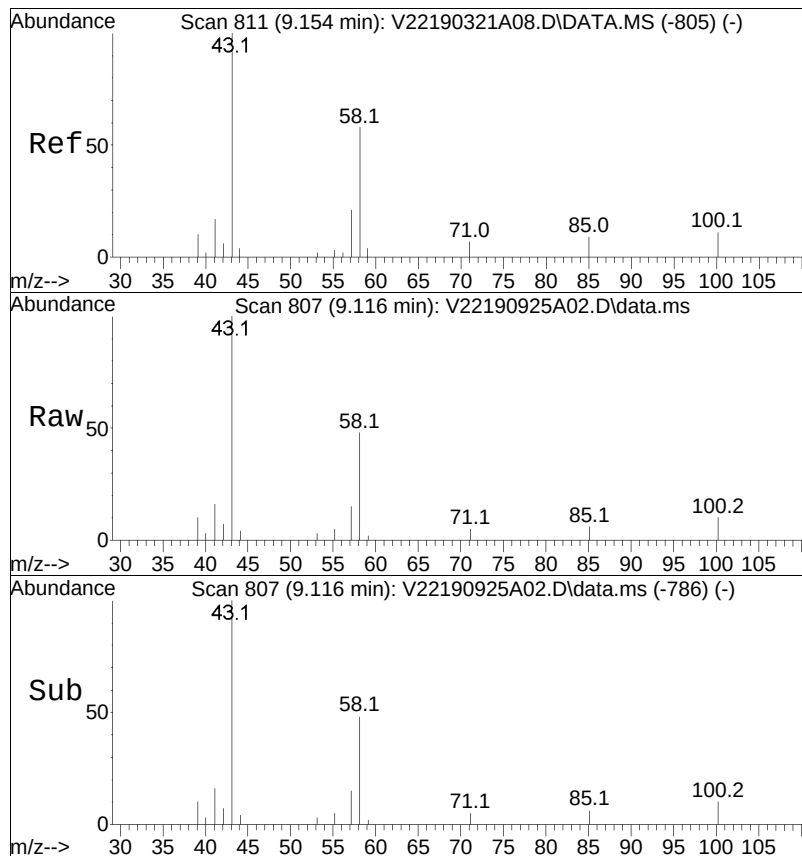




#74
 1,2-Dibromoethane
 Concen: 9.46 ug/L
 RT: 8.822 min Scan# 776
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

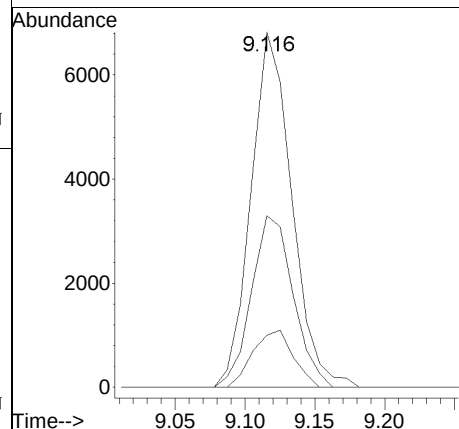
Tgt Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.1	112.7

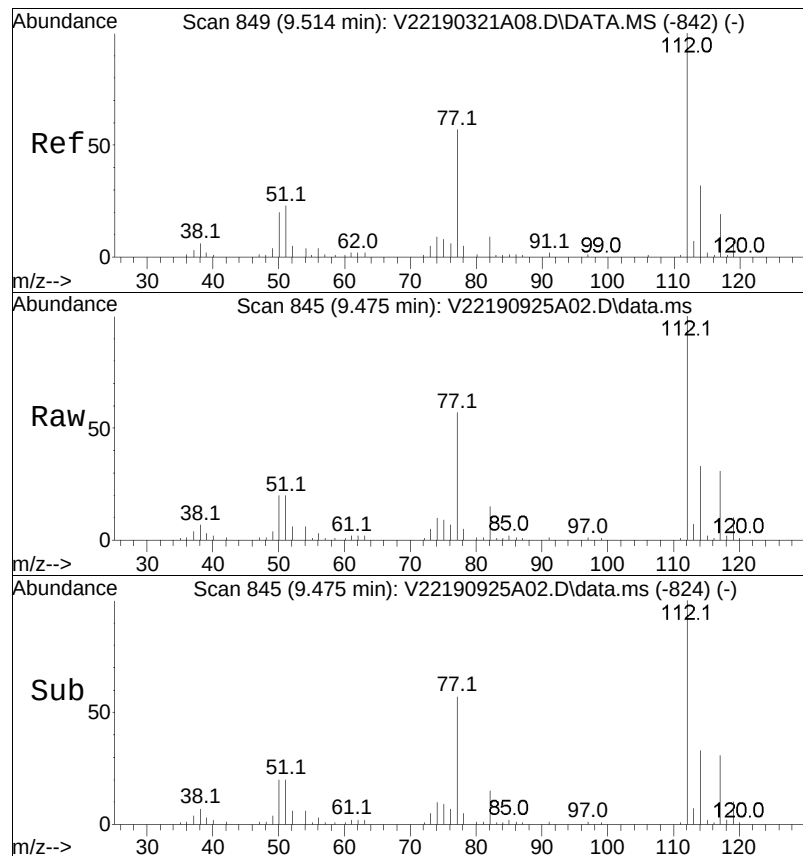




#76
 2-Hexanone
 Concen: 8.70 ug/L
 RT: 9.116 min Scan# 807
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

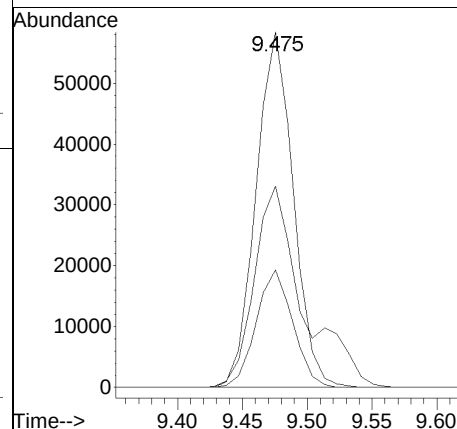
Tgt Ion:	43	58	57	Ratio	100	49.5	15.9	Resp:	13874	Lower	Upper

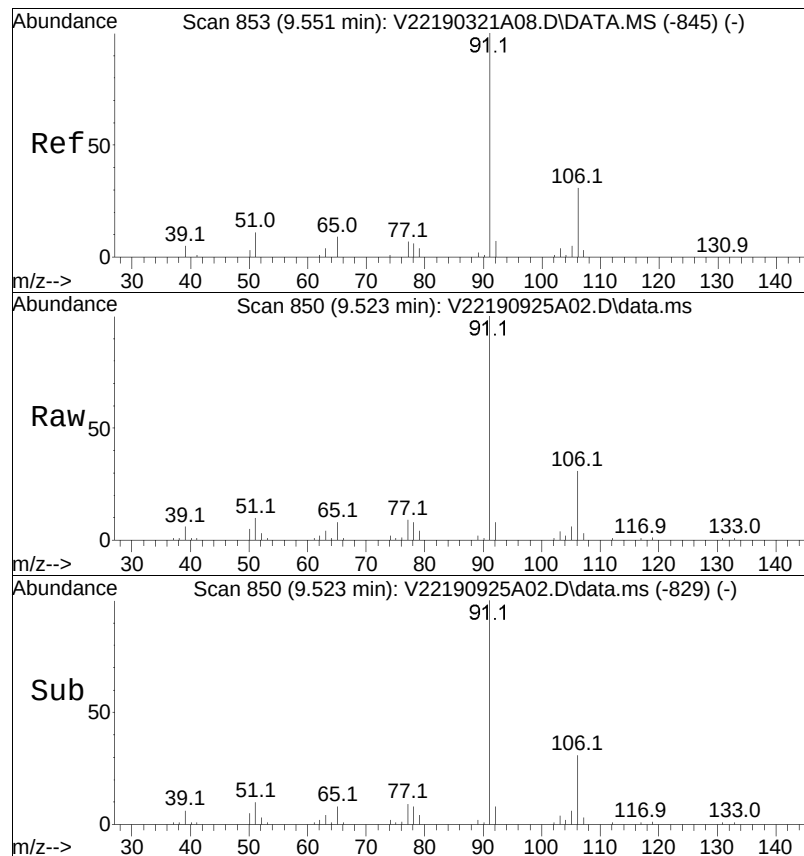




#77
 Chlorobenzene
 Concen: 9.41 ug/L
 RT: 9.475 min Scan# 845
 Delta R.T. -0.001 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

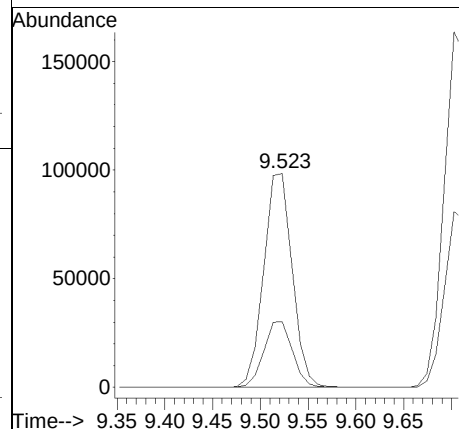
Tgt	Ion:112	Resp:	116604
Ion	Ratio	Lower	Upper
112	100		
77	74.1	55.4	83.0
114	32.6	26.2	39.4

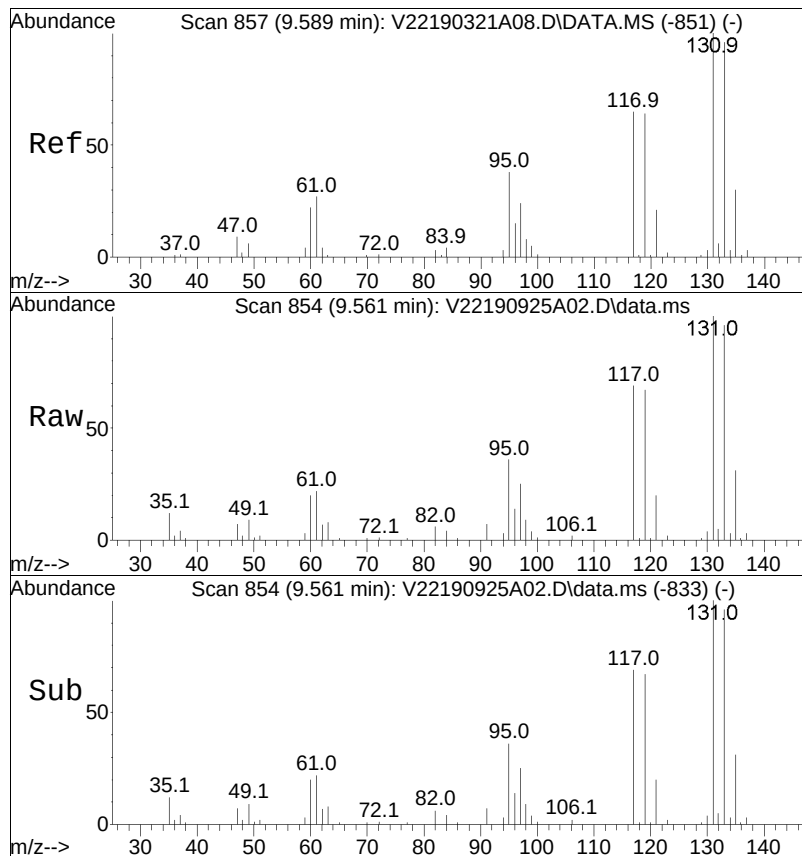




#78
 Ethylbenzene
 Concen: 9.33 ug/L
 RT: 9.523 min Scan# 850
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

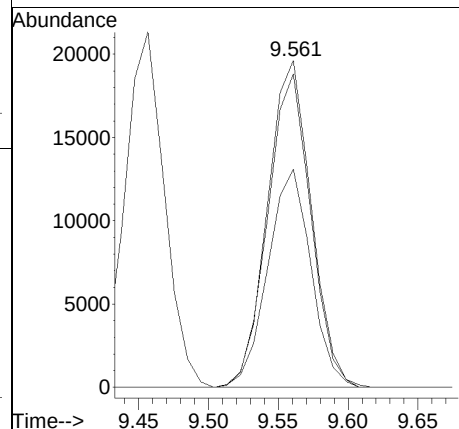
Tgt	Ion	Resp	Lower	Upper
91	100	205039		
106	30.8	25.8	38.6	

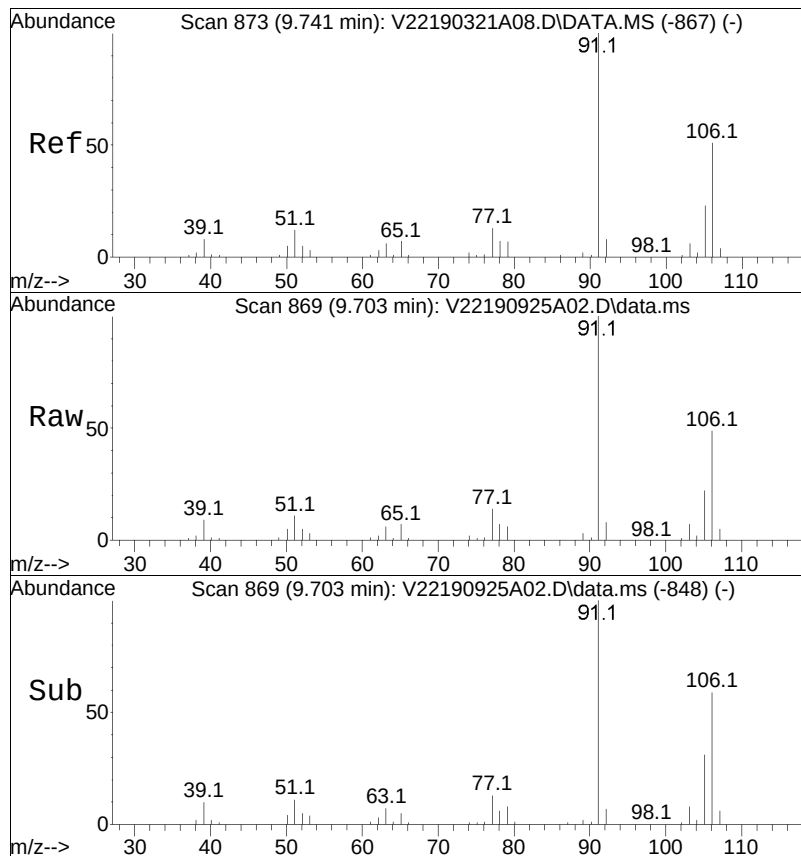




#79
 1,1,1,2-Tetrachloroethane
 Concen: 10.31 ug/L
 RT: 9.561 min Scan# 854
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

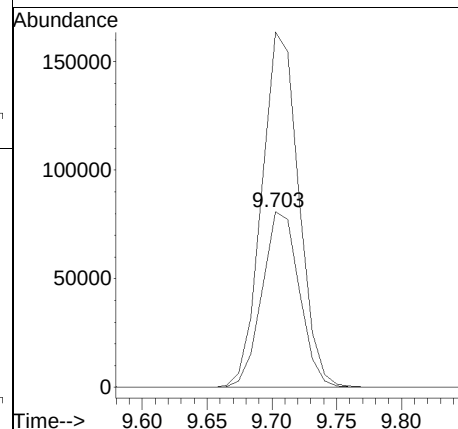
Tgt Ion:	131	Resp:	42698
Ion Ratio	Lower	Upper	
131	100		
133	94.9	75.3	115.3
119	66.0	49.3	89.3

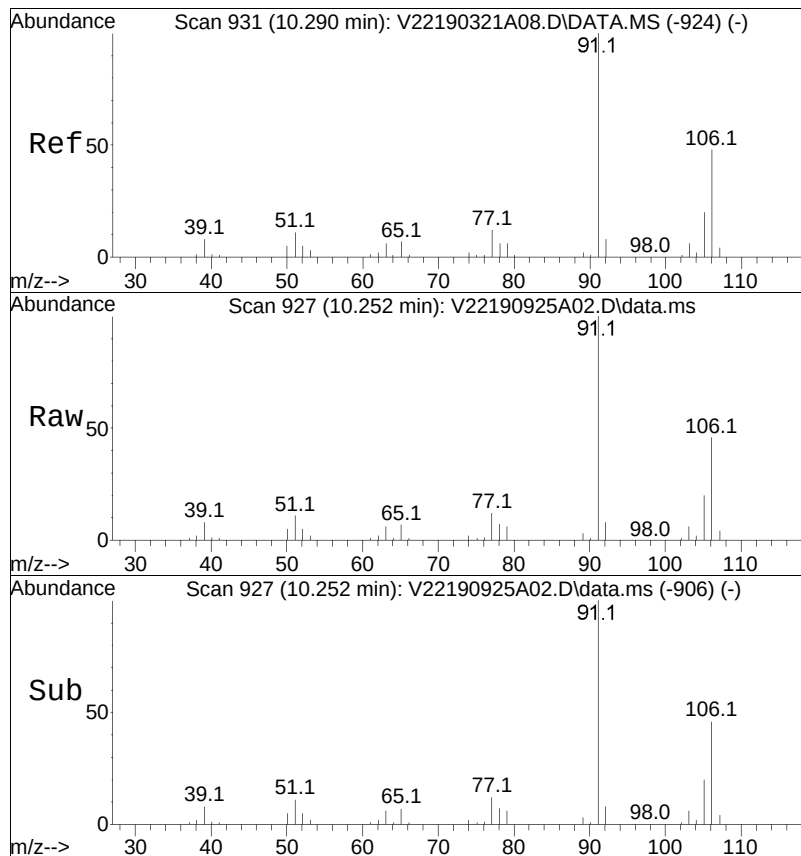




#80
 p/m Xylene
 Concen: 18.27 ug/L
 RT: 9.703 min Scan# 869
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

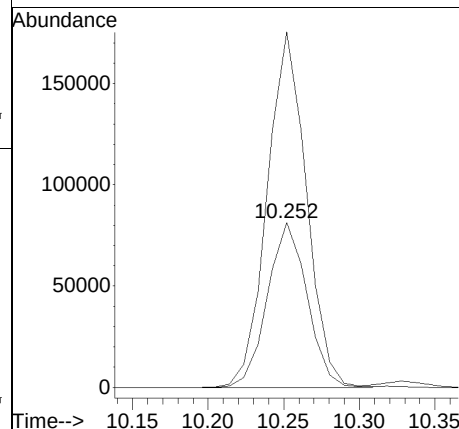
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	201.2	156.0	234.0	

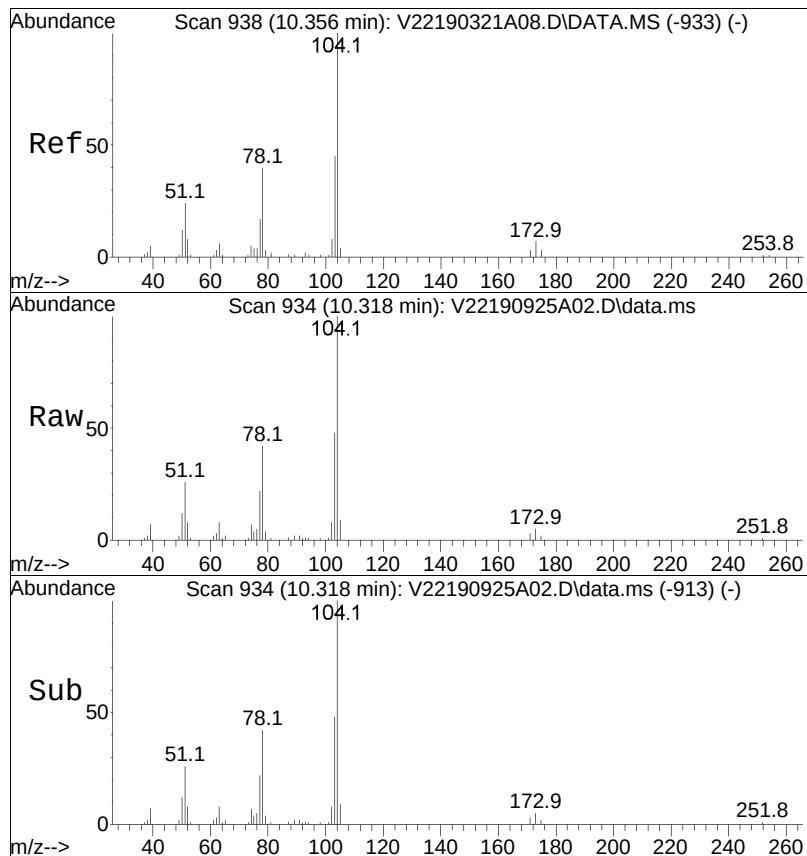




#81
 o Xylene
 Concen: 17.77 ug/L
 RT: 10.252 min Scan# 927
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

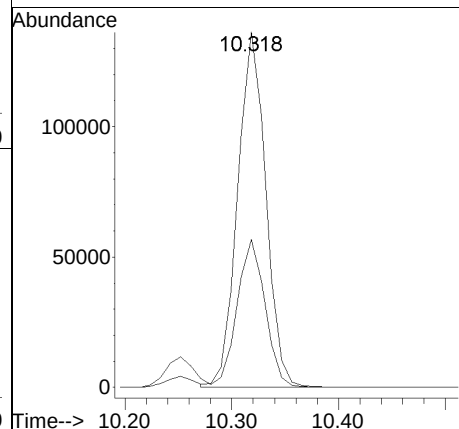
Tgt Ion	Ratio	Lower	Upper
106	100		
91	213.0	164.0	246.0

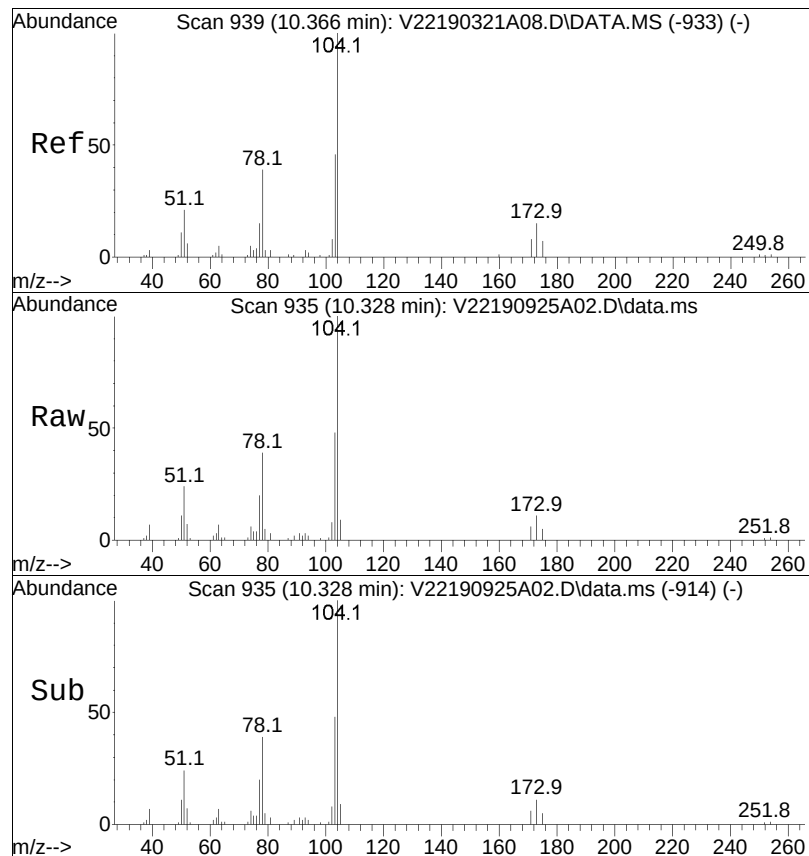




#82
 Styrene
 Concen: 18.87 ug/L
 RT: 10.318 min Scan# 934
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion	Ratio	Lower	Upper
104	100		
78	41.4	32.1	48.1





#84

Bromoform

Concen: 10.62 ug/L

RT: 10.328 min Scan# 935

Delta R.T. -0.000 min

Lab File: V22190925A02.D

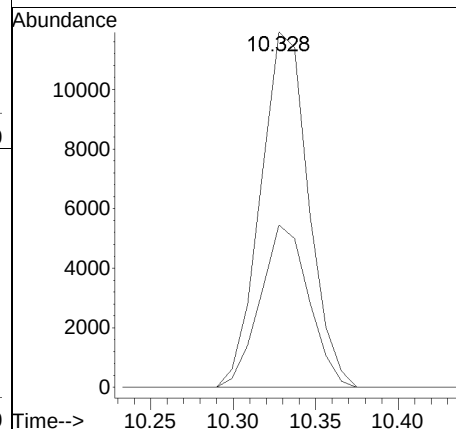
Acq: 25 Sep 2019 08:45 am

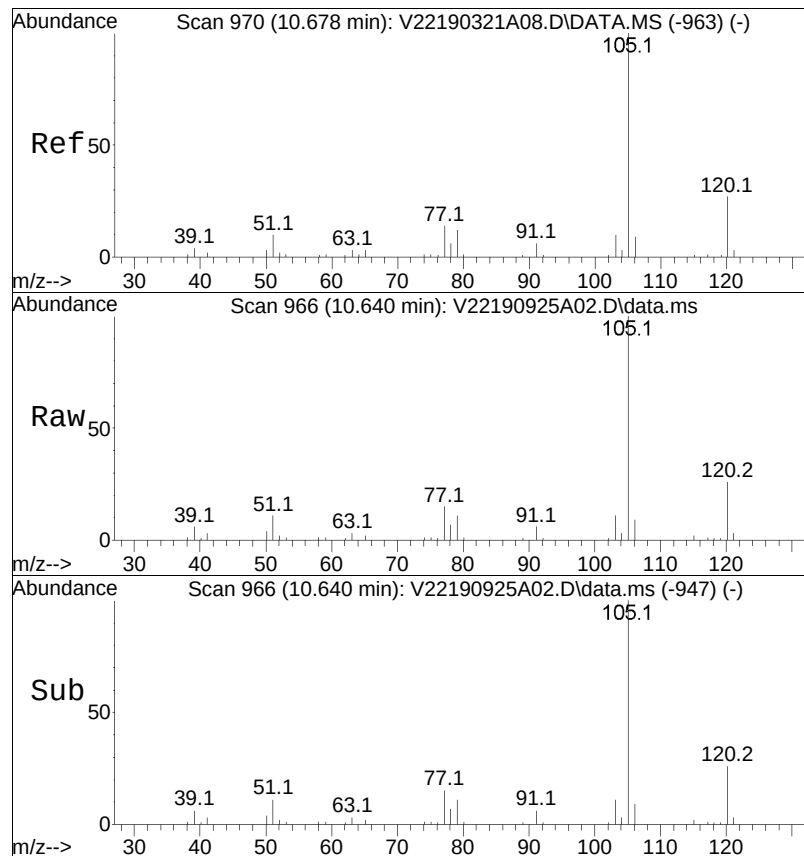
Tgt Ion:173 Resp: 24136

Ion Ratio Lower Upper

173 100

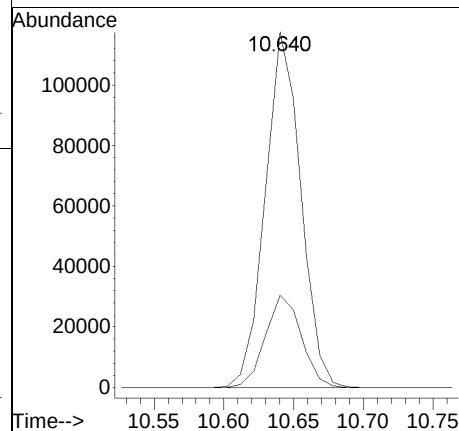
175 46.3 29.3 69.3

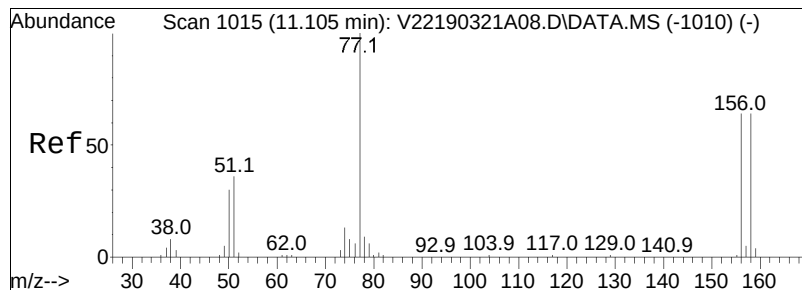




#86
Isopropylbenzene
Concen: 8.49 ug/L
RT: 10.640 min Scan# 966
Delta R.T. 0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

Tgt Ion	105	120	Ratio	Lower	Upper
105	100				
120	26.2		7.7		47.7





#88

Bromobenzene

Concen: 8.99 ug/L

RT: 11.076 min Scan# 1012

Delta R.T. -0.000 min

Lab File: V22190925A02.D

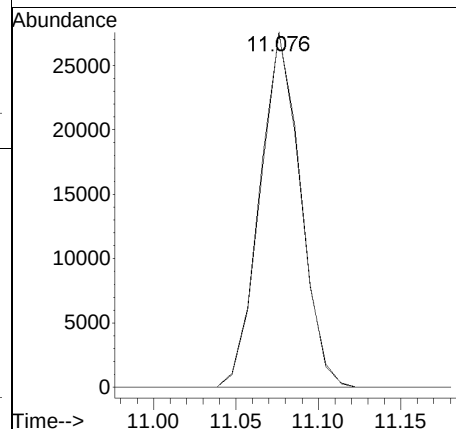
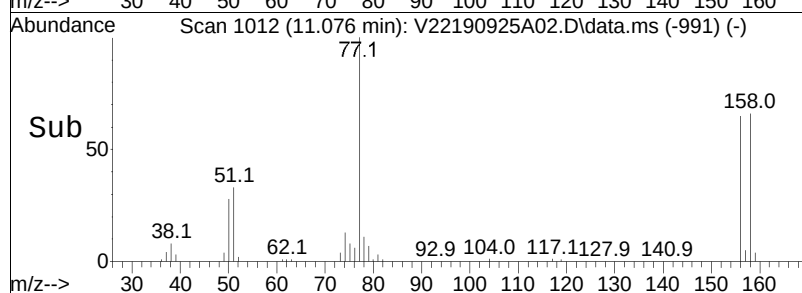
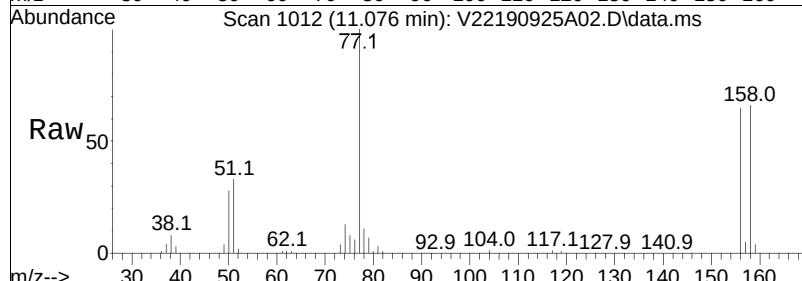
Acq: 25 Sep 2019 08:45 am

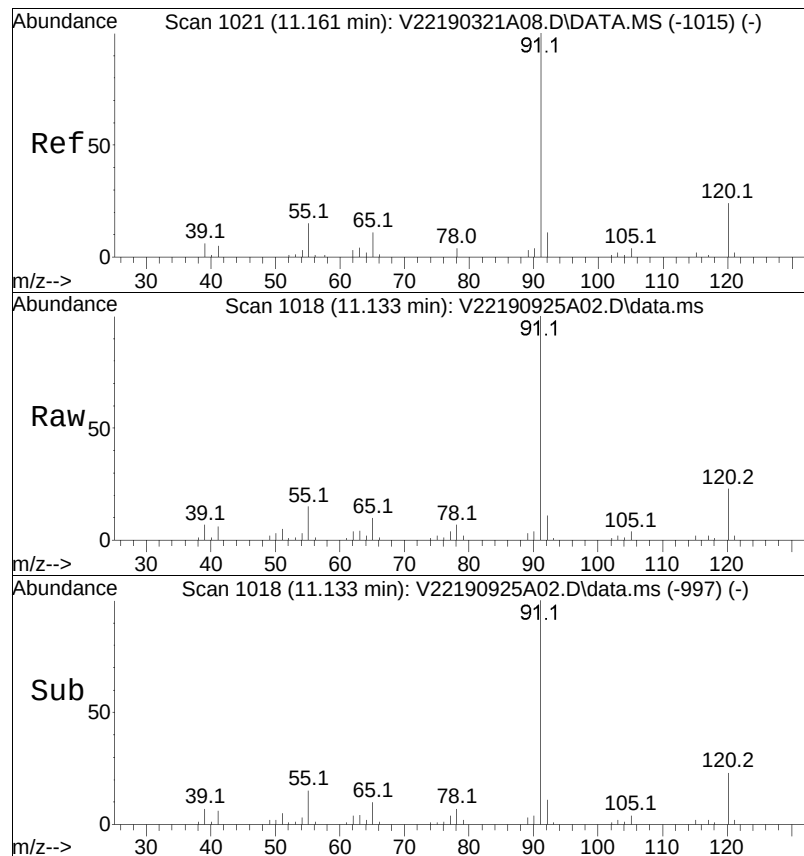
Tgt Ion:156 Resp: 47366

Ion Ratio Lower Upper

156 100

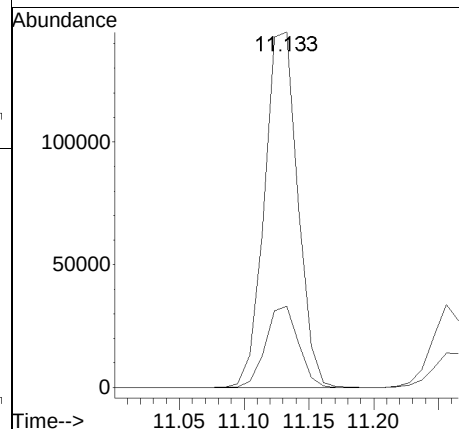
158 98.4 77.9 116.9

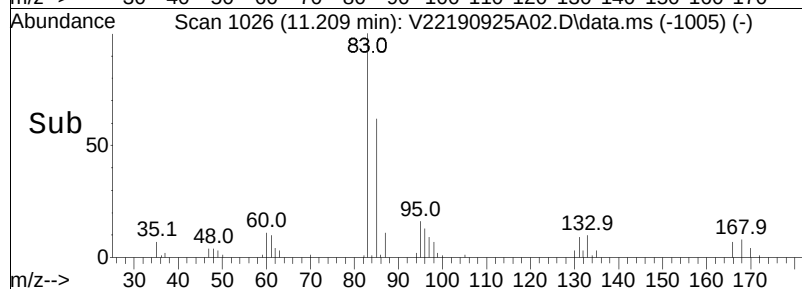
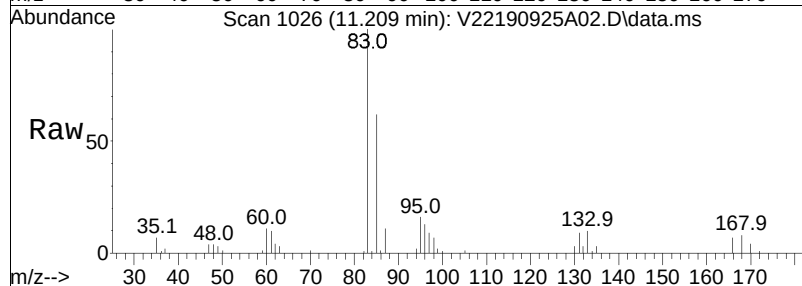
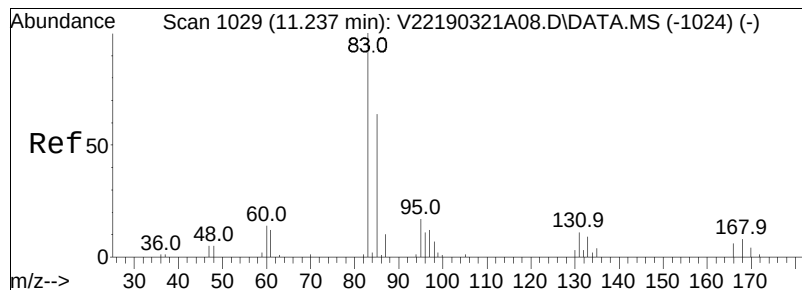




#89
 n-Propylbenzene
 Concen: 9.12 ug/L
 RT: 11.133 min Scan# 1018
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion	Ratio	Lower	Upper
91	100		
120	22.4	19.5	29.3





#91

1,1,2,2-Tetrachloroethane

Concen: 10.03 ug/L

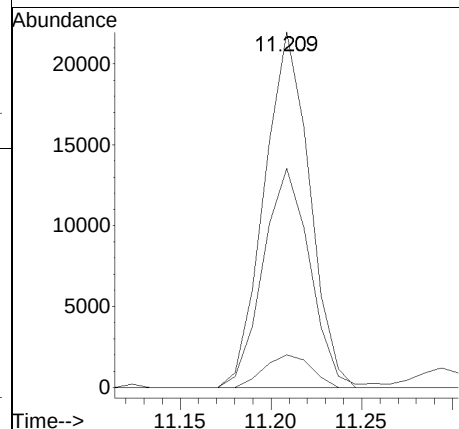
RT: 11.209 min Scan# 1026

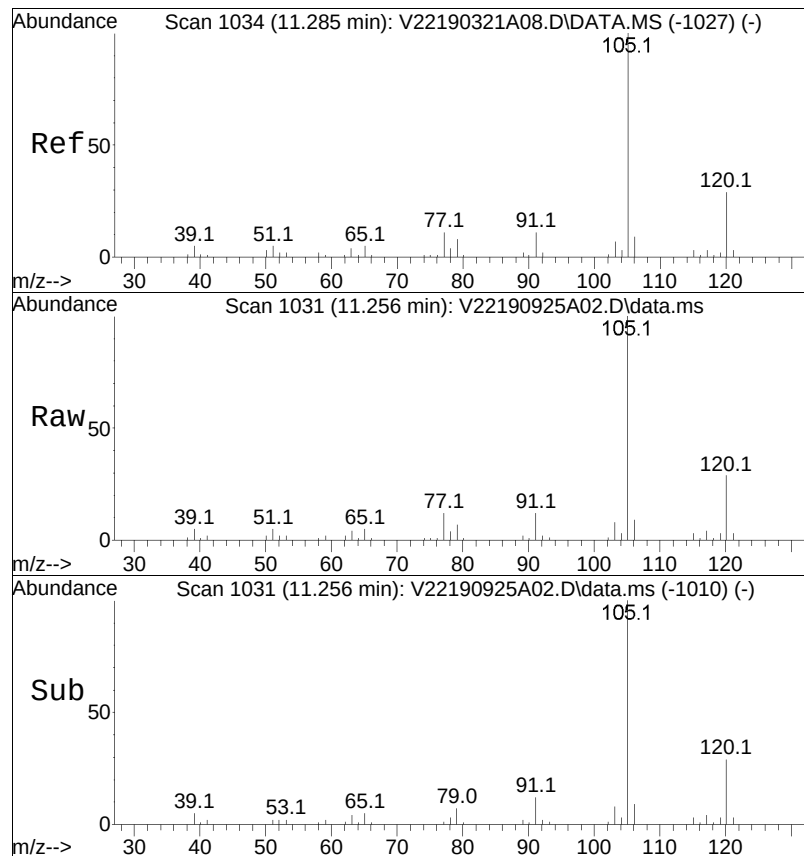
Delta R.T. -0.000 min

Lab File: V22190925A02.D

Acq: 25 Sep 2019 08:45 am

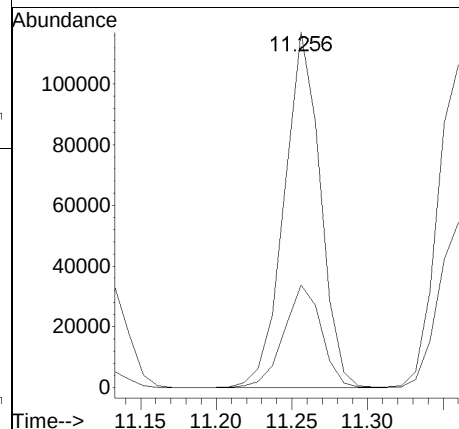
Tgt Ion:	83	Resp:	38150
Ion Ratio	Lower	Upper	
83	100		
131	9.5	0.0	30.8
85	64.2	45.4	85.4

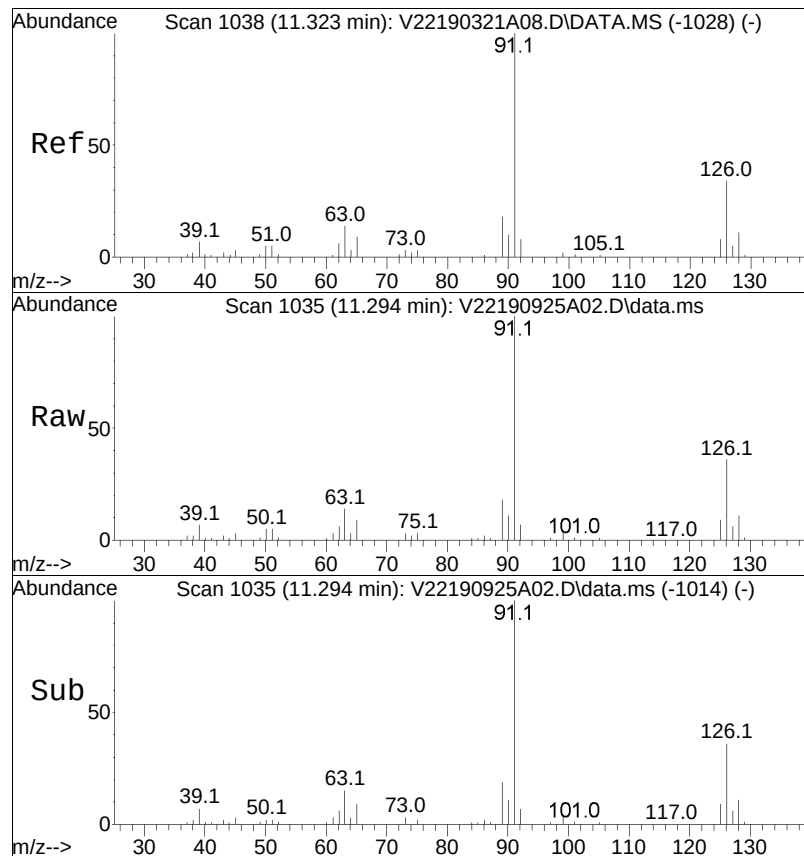




#92
 4-Ethyltoluene
 Concen: 8.72 ug/L
 RT: 11.256 min Scan# 1031
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

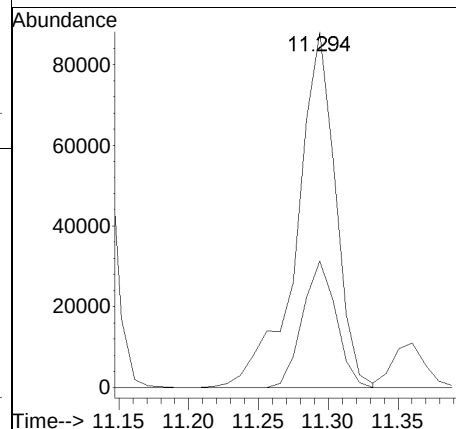
Tgt Ion	Ratio	Lower	Upper
105	100		
120	29.8	19.8	41.0

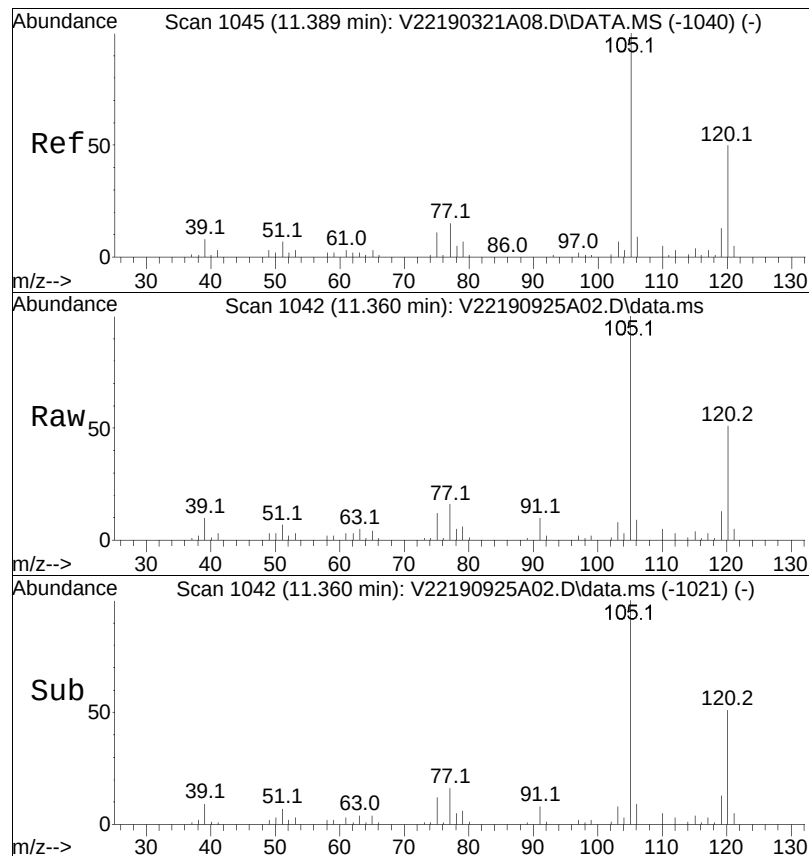




#93
 2-Chlorotoluene
 Concen: 10.87 ug/L
 RT: 11.294 min Scan# 1035
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion:	91	Resp:	170332
Ion Ratio	100	Lower	Upper
126	30.6	24.6	37.0





#94

1,3,5-Trimethylbenzene

Concen: 8.84 ug/L

RT: 11.360 min Scan# 1042

Delta R.T. 0.000 min

Lab File: V22190925A02.D

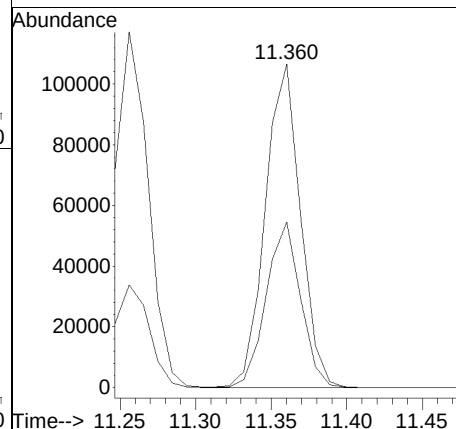
Acq: 25 Sep 2019 08:45 am

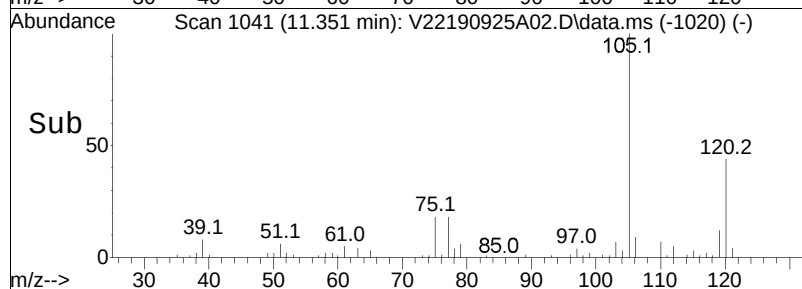
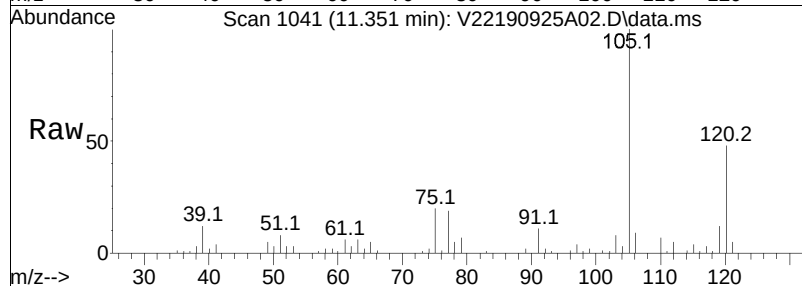
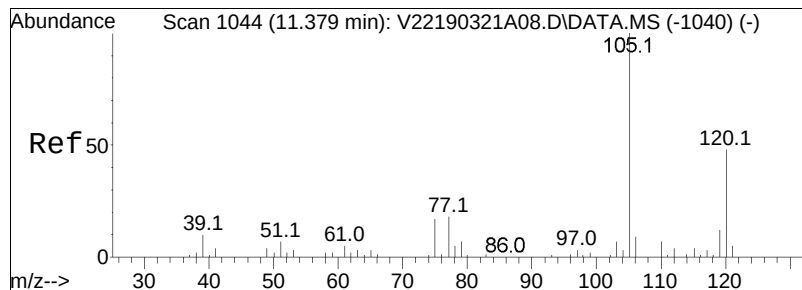
Tgt Ion:105 Resp: 171912

Ion Ratio Lower Upper

105 100

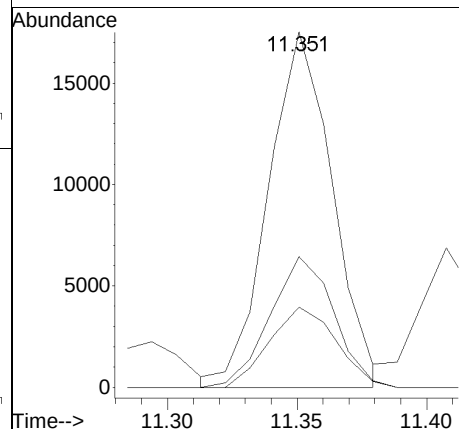
120 50.1 40.9 61.3

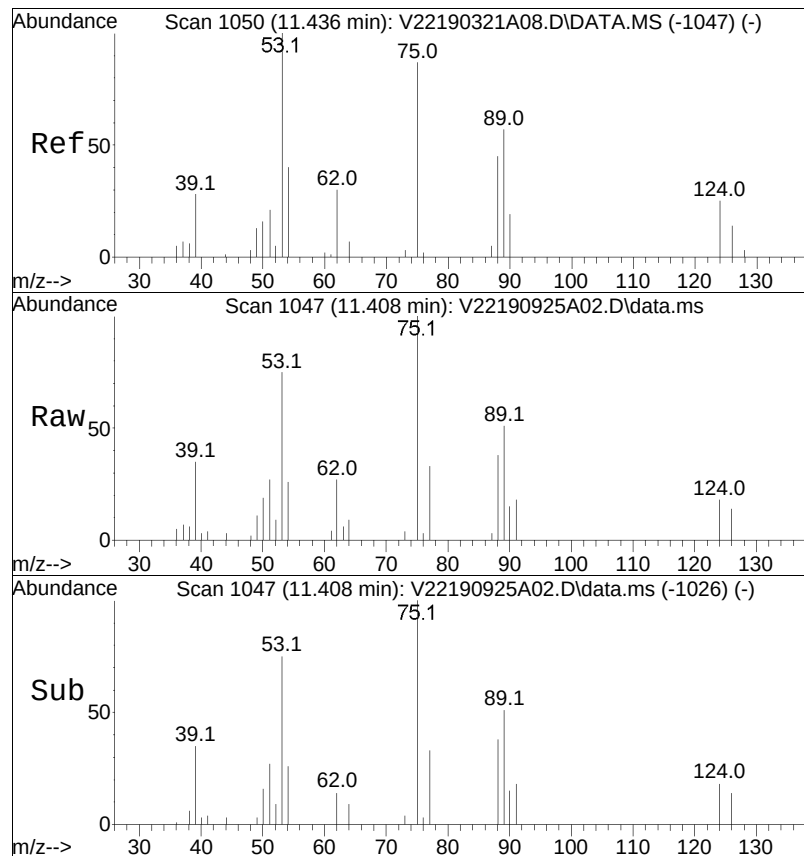




#95
 1,2,3-Trichloropropane
 Concen: 9.46 ug/L
 RT: 11.351 min Scan# 1041
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

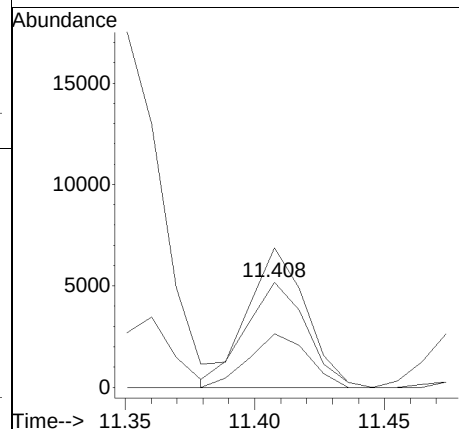
Tgt Ion	Ratio	Lower	Upper
75	100		
110	36.6	26.3	54.7
112	23.6	16.8	35.0

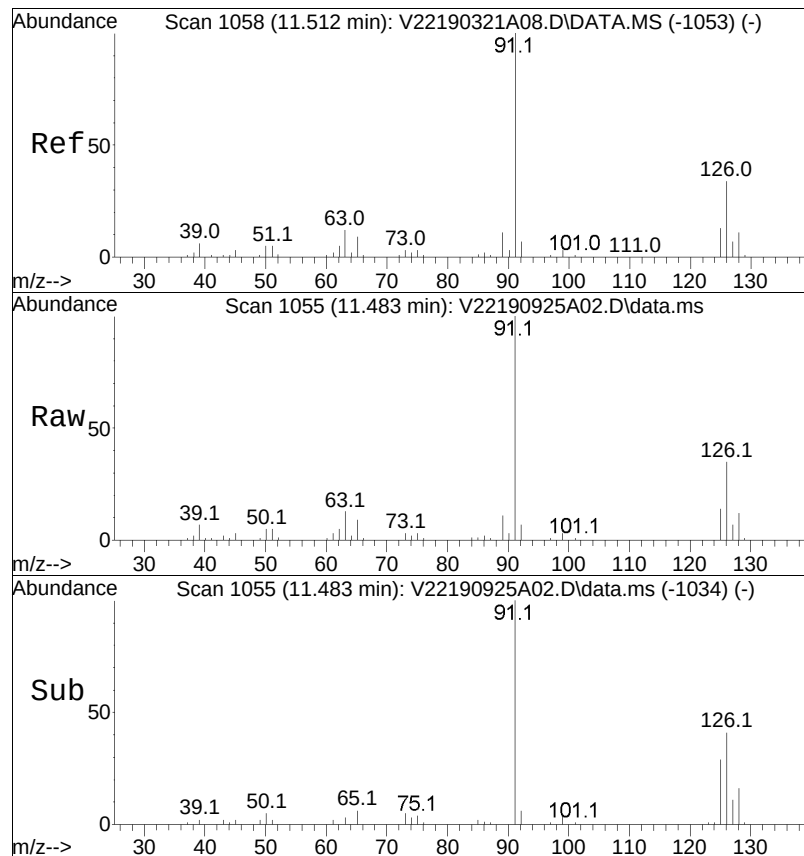




#96
trans-1,4-Dichloro-2-butene
Concen: 9.20 ug/L
RT: 11.408 min Scan# 1047
Delta R.T. -0.000 min
Lab File: V22190925A02.D
Acq: 25 Sep 2019 08:45 am

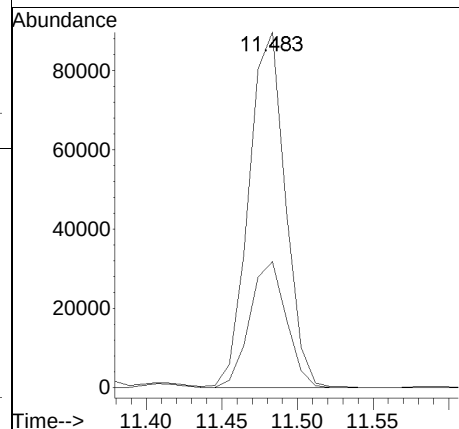
Tgt	Ion: 53	Resp:	8495
Ion	Ratio	Lower	Upper
53	100		
88	49.1	46.3	69.5
75	126.8	109.0	163.4

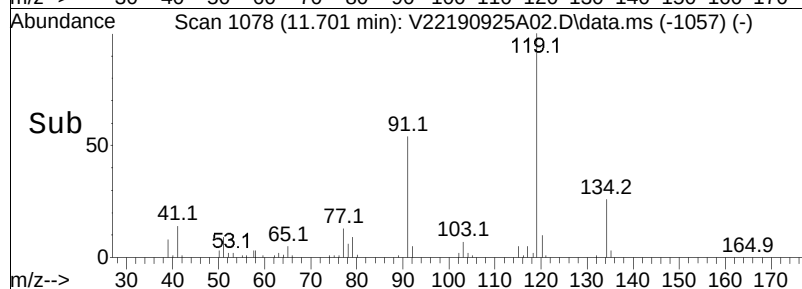
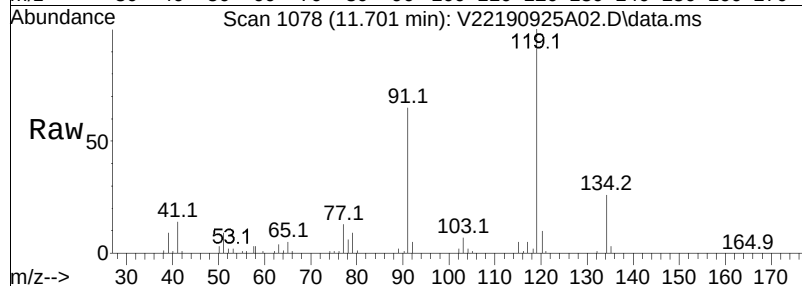
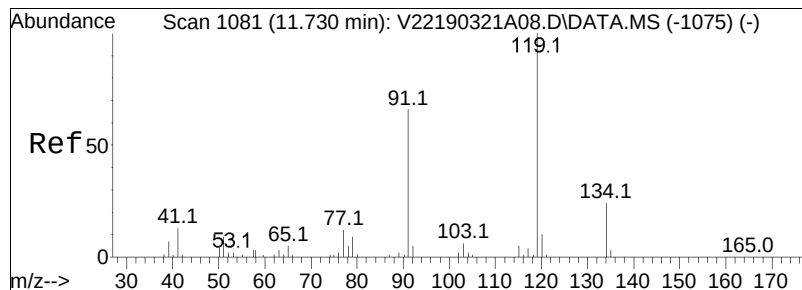




#97
 4-Chlorotoluene
 Concen: 9.16 ug/L
 RT: 11.483 min Scan# 1055
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

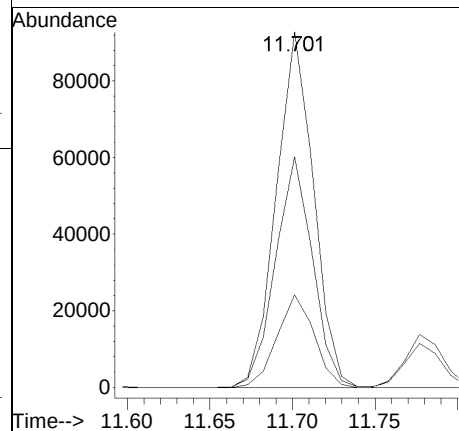
Tgt Ion	Ratio	Lower	Upper
91	100		
126	35.3	28.5	42.7

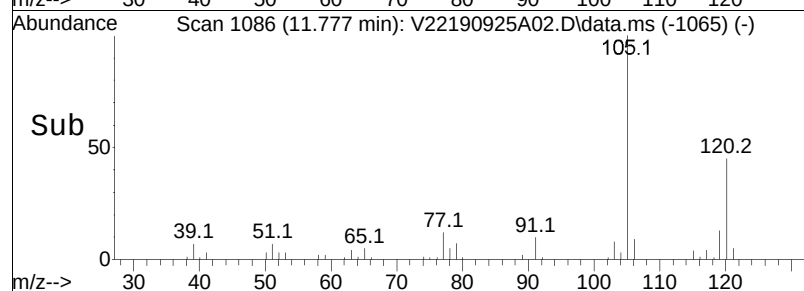
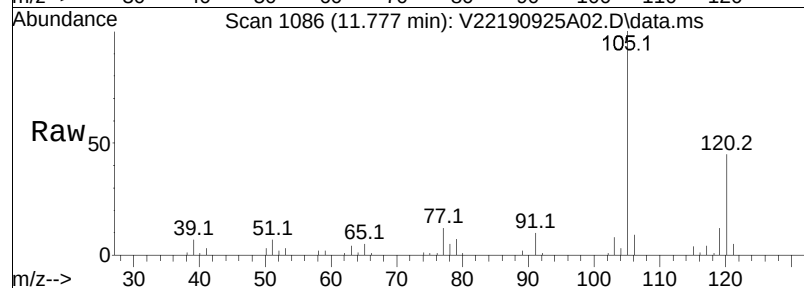
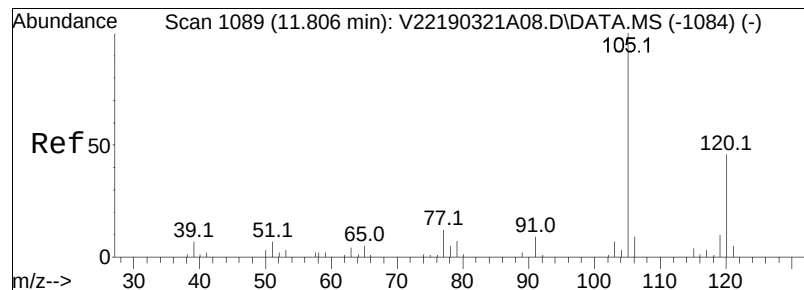




#98
 tert-Butylbenzene
 Concen: 8.63 ug/L
 RT: 11.701 min Scan# 1078
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

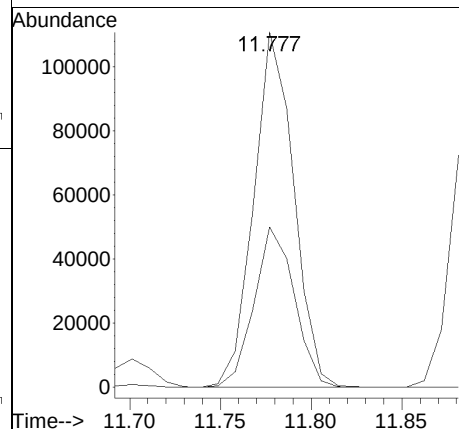
Tgt	Ion:119	Resp:	146098
Ion	Ratio	Lower	Upper
119	100		
91	64.7	50.2	75.4
134	25.9	20.8	31.2

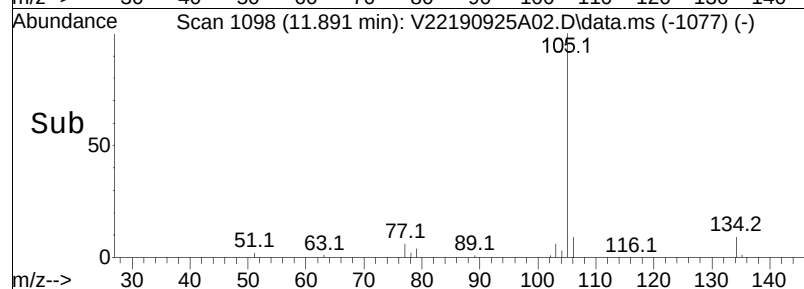
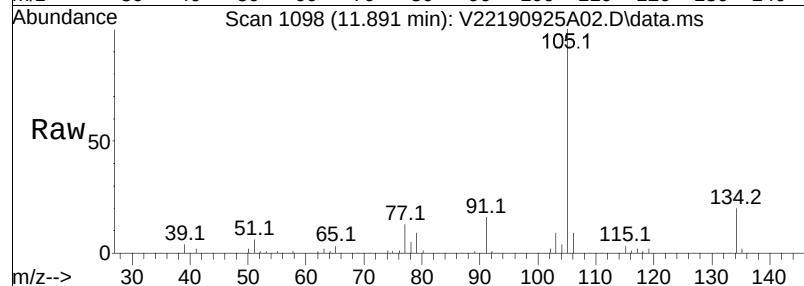
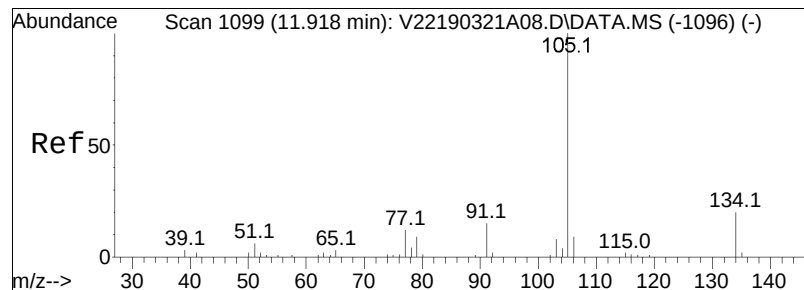




#101
 1,2,4-Trimethylbenzene
 Concen: 8.77 ug/L
 RT: 11.777 min Scan# 1086
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

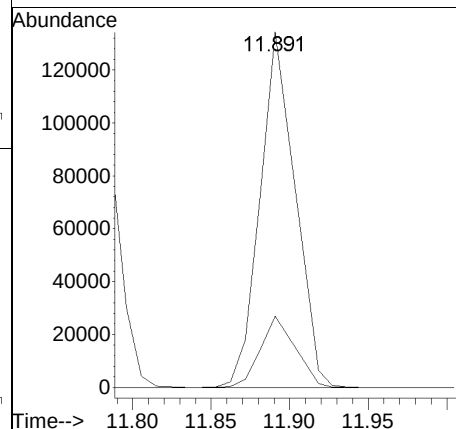
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.5	38.5	57.7

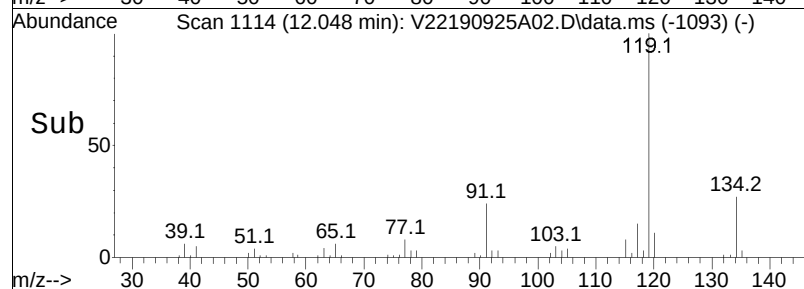
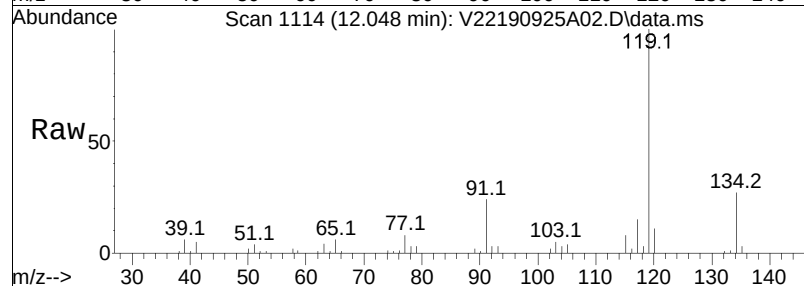
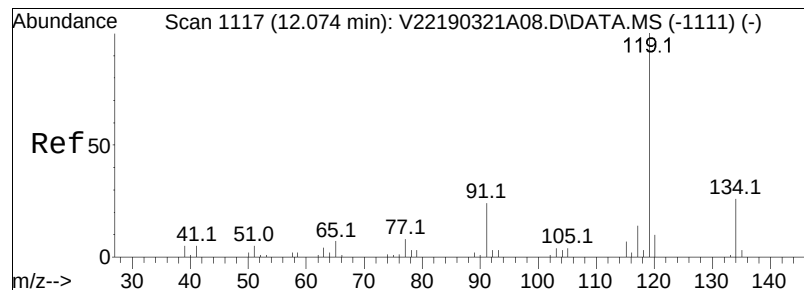




#102
 sec-Butylbenzene
 Concen: 9.85 ug/L
 RT: 11.891 min Scan# 1098
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

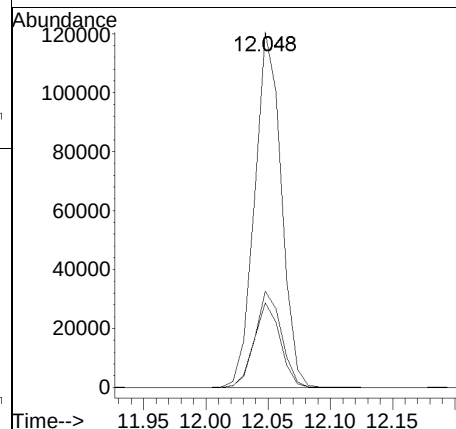
Tgt Ion	Ratio	Lower	Upper
105	100		
134	20.3	13.9	28.9

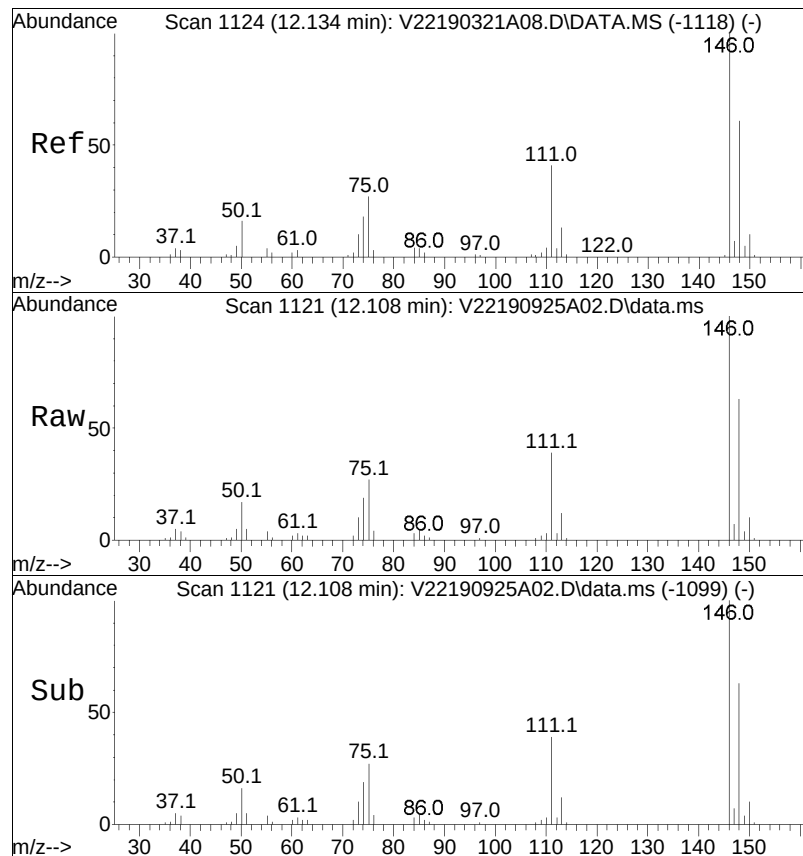




#103
 p-Isopropyltoluene
 Concen: 8.66 ug/L
 RT: 12.048 min Scan# 1114
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

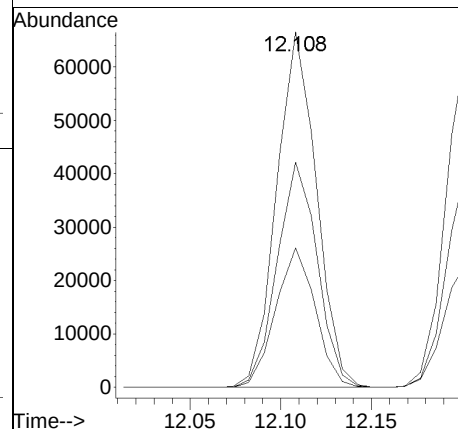
Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.6	17.7	36.7
91	23.4	14.1	29.3

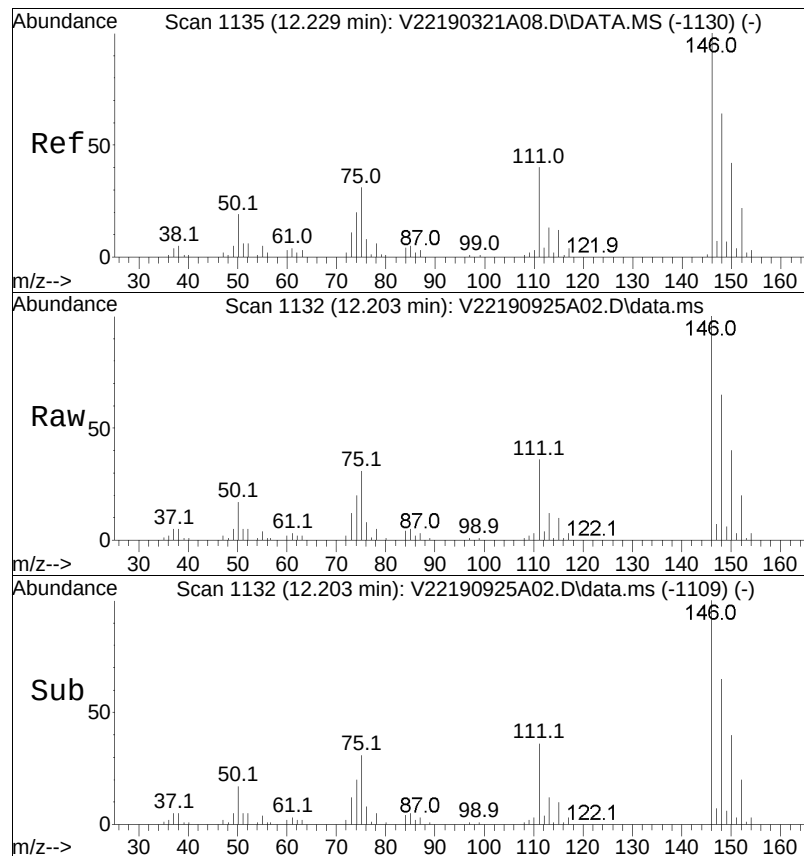




#104
 1,3-Dichlorobenzene
 Concen: 9.90 ug/L
 RT: 12.108 min Scan# 1121
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

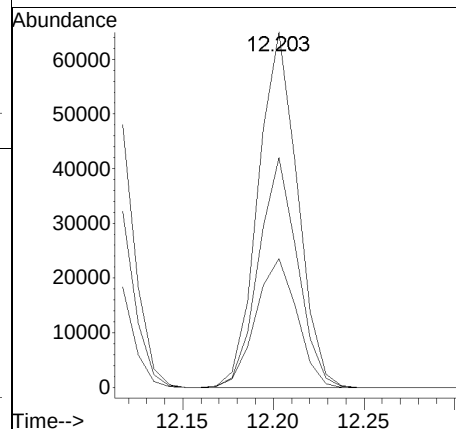
Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.1	24.0	49.8
148	63.8	41.8	86.8

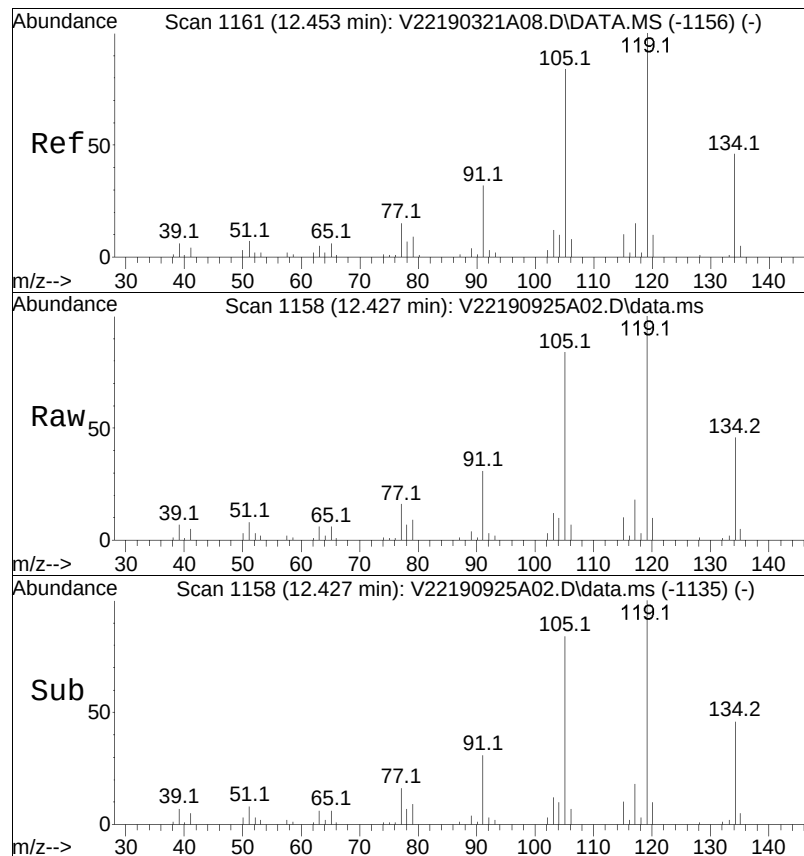




#105
 1,4-Dichlorobenzene
 Concen: 9.57 ug/L
 RT: 12.203 min Scan# 1132
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

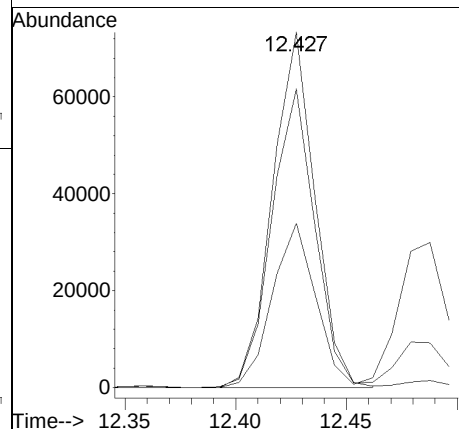
Tgt Ion	Ratio	Lower	Upper
146	100		
111	38.0	28.9	43.3
148	63.8	51.4	77.2

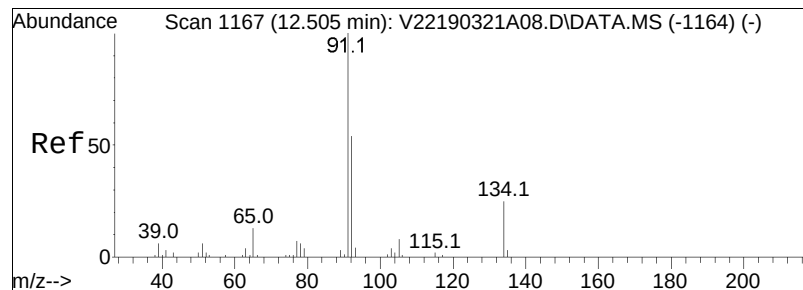




#106
 p-Diethylbenzene
 Concen: 8.40 ug/L
 RT: 12.427 min Scan# 1158
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

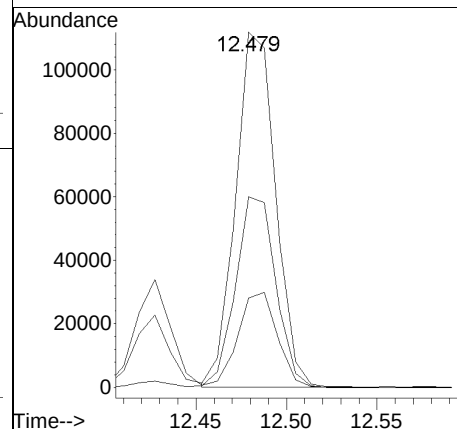
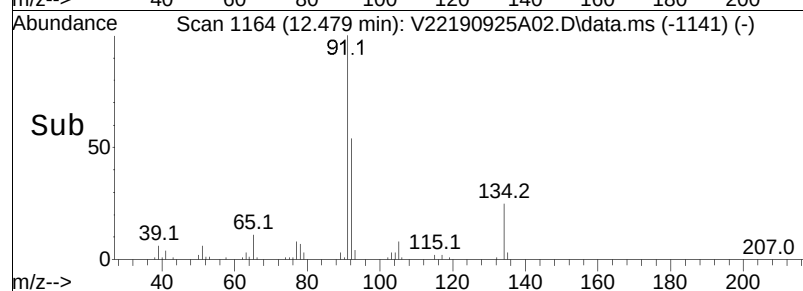
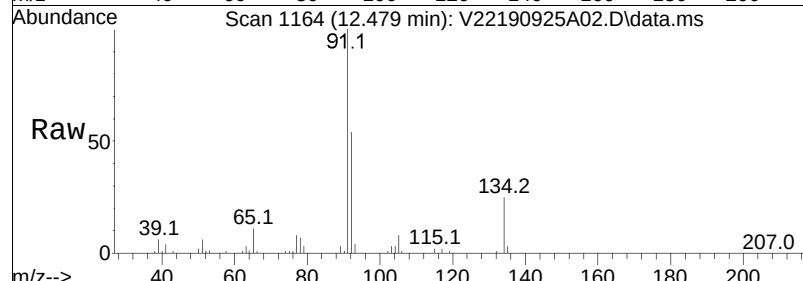
Tgt	Ion:119	Resp:	97871
Ion	Ratio	Lower	Upper
119	100		
105	85.5	53.4	110.8
134	47.4	30.9	64.1

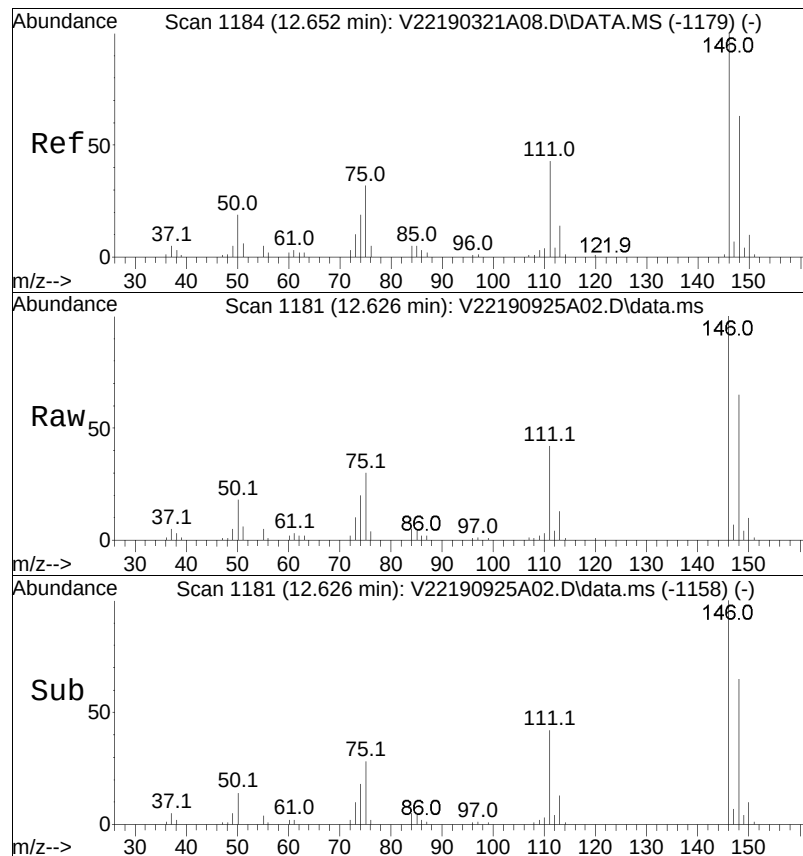




#107
 n-Butylbenzene
 Concen: 9.68 ug/L
 RT: 12.479 min Scan# 1164
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

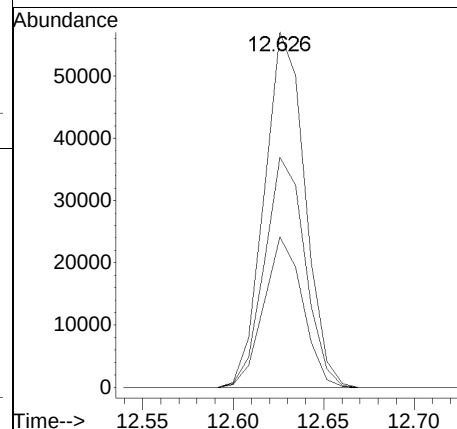
Tgt Ion	Ratio	Lower	Upper
91	100		
92	54.3	44.6	66.8
134	26.5	22.9	34.3

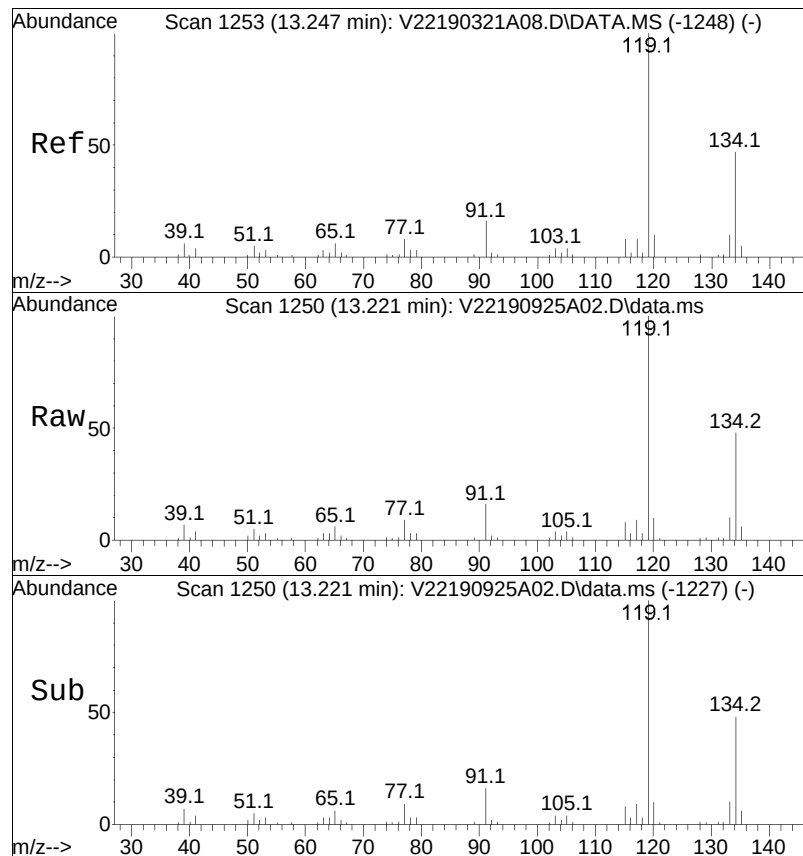




#108
 1,2-Dichlorobenzene
 Concen: 9.54 ug/L
 RT: 12.626 min Scan# 1181
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

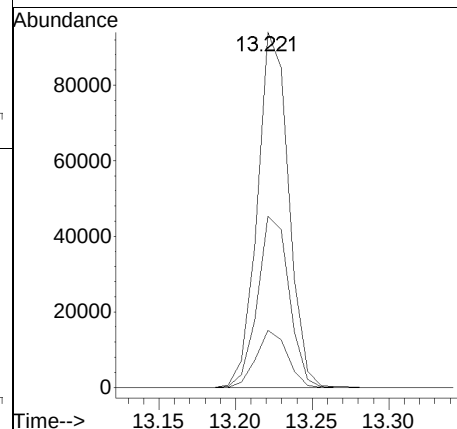
Tgt Ion	Ratio	Lower	Upper
146	100		
111	40.6	24.8	51.6
148	64.6	42.2	87.6

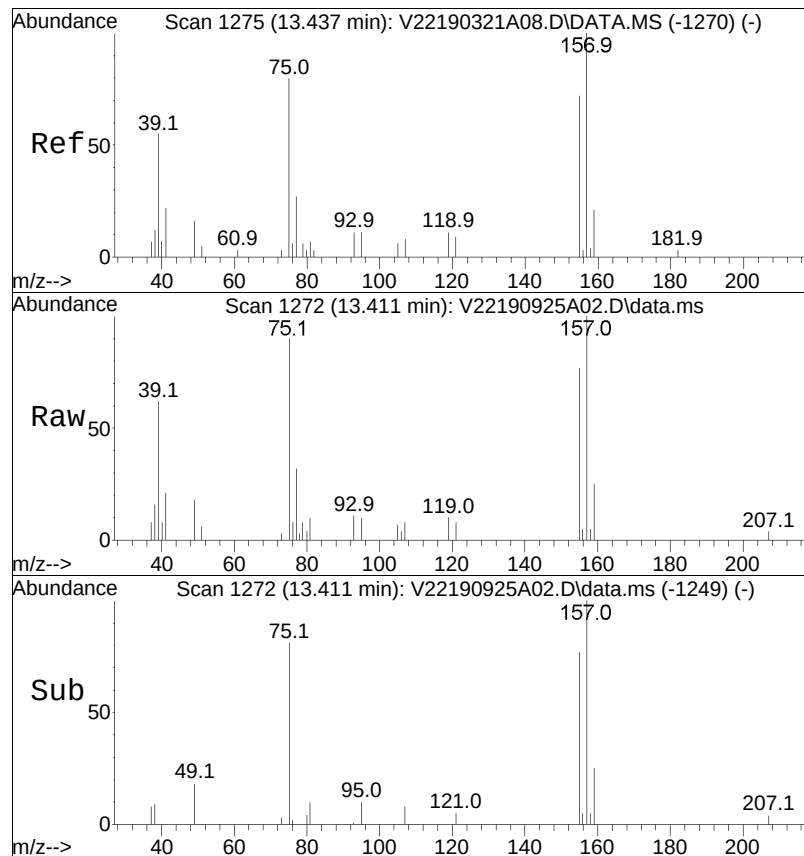




#109
 1,2,4,5-Tetramethylbenzene
 Concen: 7.84 ug/L
 RT: 13.221 min Scan# 1250
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

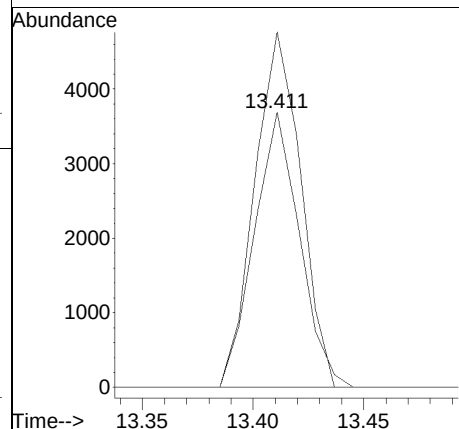
Tgt Ion	Ratio	Lower	Upper
119	100		
134	48.8	31.9	66.1
91	16.0	9.8	20.3

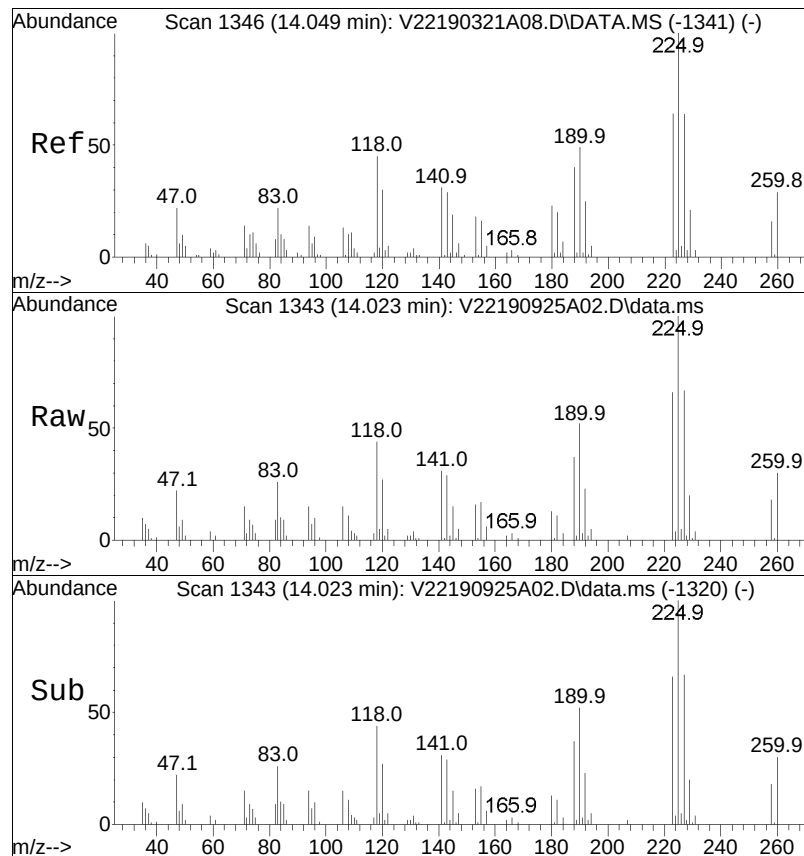




#110
 1,2-Dibromo-3-chloropropane
 Concen: 9.15 ug/L
 RT: 13.411 min Scan# 1272
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

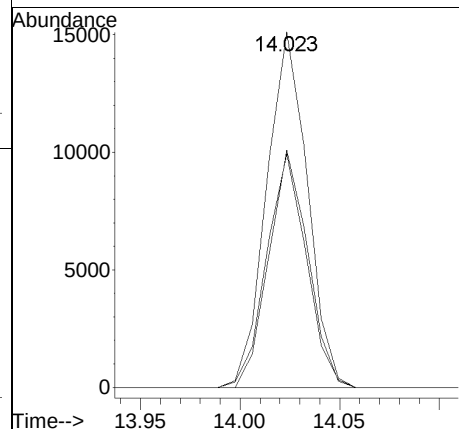
Tgt Ion	Ratio	Lower	Upper
155	100		
157	130.8	102.3	153.5

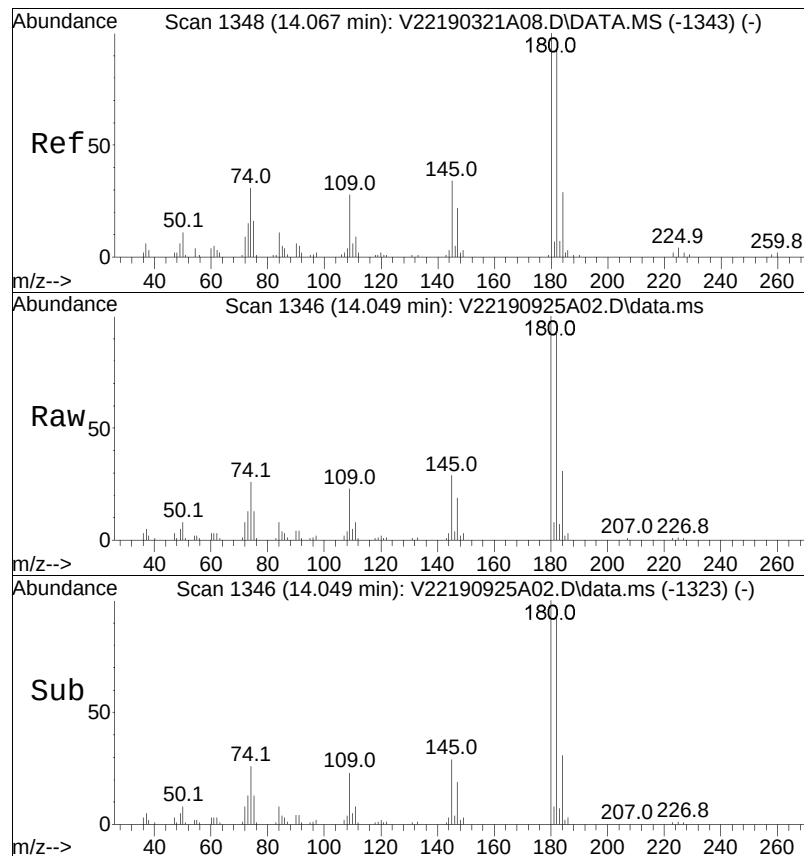




#112
 Hexachlorobutadiene
 Concen: 10.82 ug/L
 RT: 14.023 min Scan# 1343
 Delta R.T. -0.001 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

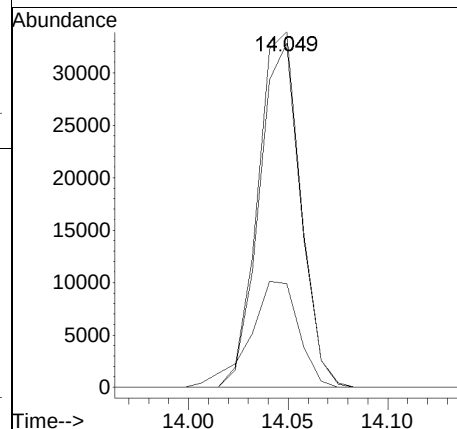
Tgt	Ion:225	Resp:	21515
Ion	Ratio	Lower	Upper
225	100		
223	64.2	49.8	74.8
227	64.0	52.2	78.4

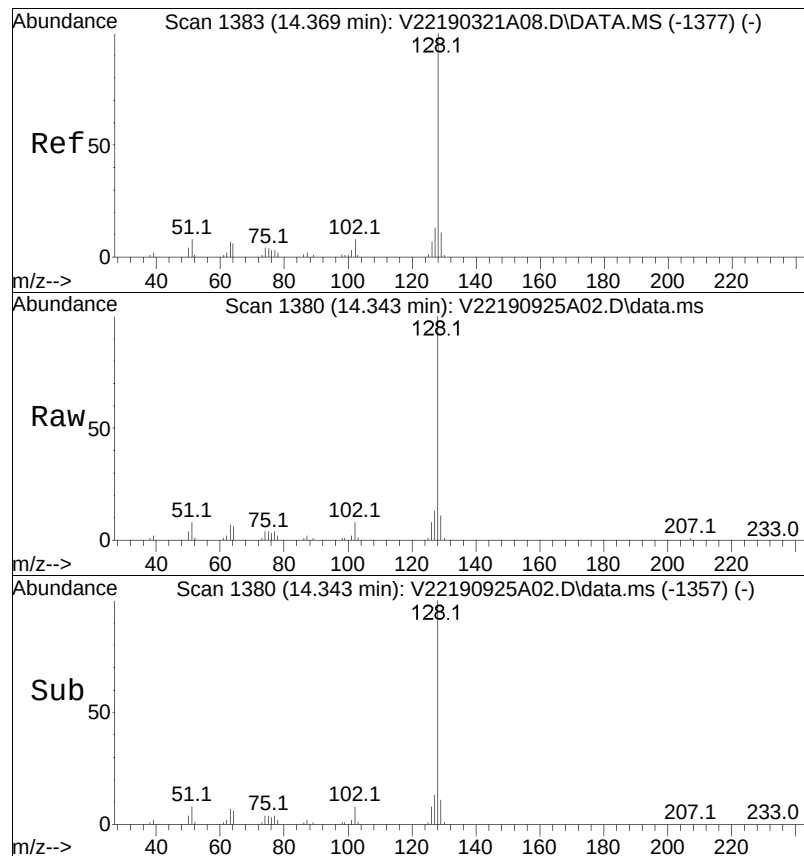




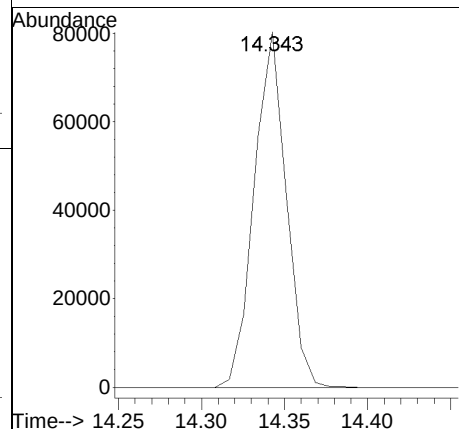
#113
 1,2,4-Trichlorobenzene
 Concen: 9.00 ug/L
 RT: 14.049 min Scan# 1346
 Delta R.T. 0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

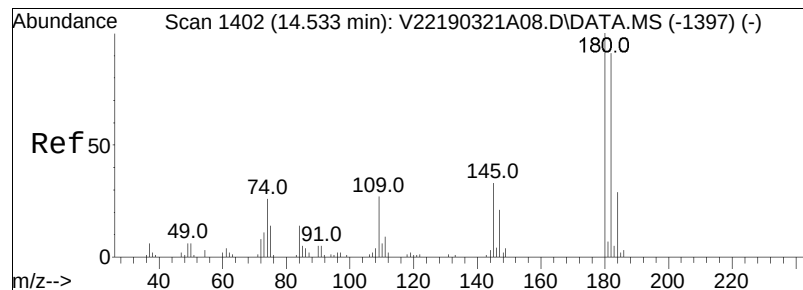
Tgt Ion	Ratio	Lower	Upper
180	100		
182	93.6	76.6	114.8
145	34.2	25.5	38.3





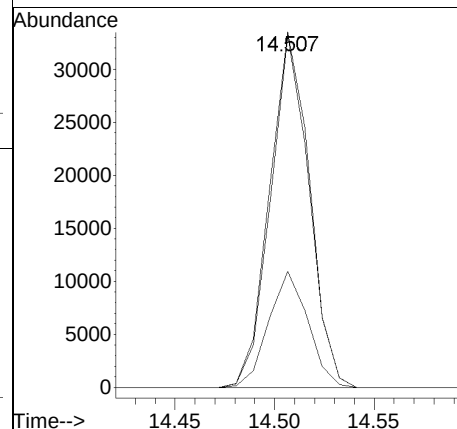
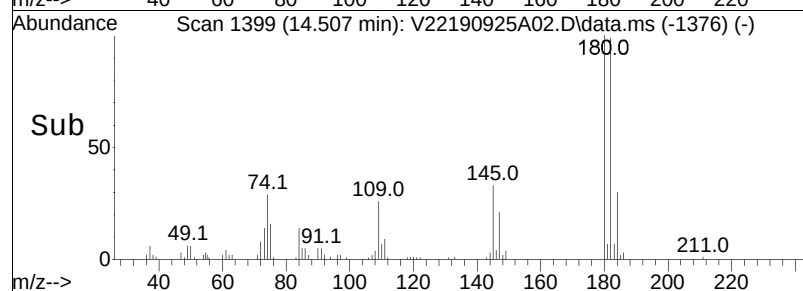
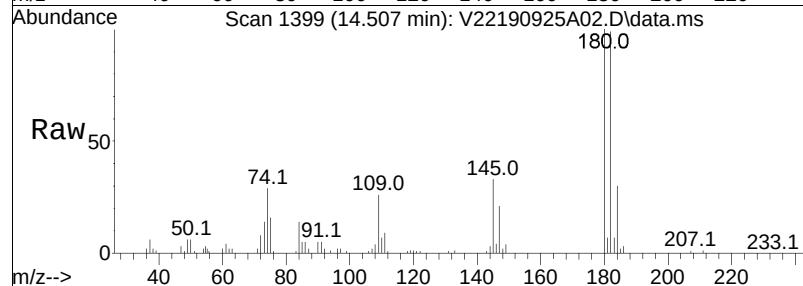
#114
 Naphthalene
 Concen: 8.18 ug/L
 RT: 14.343 min Scan# 1380
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am
 Tgt Ion:128 Resp: 107948





#115
 1,2,3-Trichlorobenzene
 Concen: 9.32 ug/L
 RT: 14.507 min Scan# 1399
 Delta R.T. -0.000 min
 Lab File: V22190925A02.D
 Acq: 25 Sep 2019 08:45 am

Tgt Ion	Ratio	Lower	Upper
180	100		
182	95.4	76.0	114.0
145	32.2	23.8	35.8



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\10	Method	: V122_190821_8260.m
Data File	: V22190925A02.D	Operator	: VOA122:PD
Date Inj'd	: 9/25/2019 8:45 am	Instrument	: VOA122
Sample	: WG1288542-3,31,10,10	Quant Date	: 9/25/2019 9:14 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A03.D
 Acq On : 25 Sep 2019 09:11 am
 Operator : VOA122:PD
 Sample : WG1288542-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 25 09:51:09 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	5.926	96	188777	10.000	ug/L	0.00
Standard Area 1 = 181577			Recovery	=	103.97%	
62) Chlorobenzene-d5	9.457	117	137369	10.000	ug/L	0.00
Standard Area 1 = 132701			Recovery	=	103.52%	
83) 1,4-Dichlorobenzene-d4	12.186	152	70645	10.000	ug/L	0.00
Standard Area 1 = 68356			Recovery	=	103.35%	
System Monitoring Compounds						
38) Dibromofluoromethane	5.104	113	46928	9.426	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.26%	
46) 1,2-Dichloroethane-d4	5.637	65	56855	10.188	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.88%	
63) Toluene-d8	7.610	98	165744	8.885	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	88.85%	
87) 4-Bromofluorobenzene	10.963	95	57072	7.814	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	78.14%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.572	85	39894	10.794	ug/L	99
3) Chloromethane	1.771	50	57498	12.862	ug/L	97
4) Vinyl chloride	1.827	62	48663	7.785	ug/L	98
5) Bromomethane	2.131	94	10492	2.683	ug/L	98
6) Chloroethane	2.244	64	29436	6.088	ug/L	99
7) Trichlorofluoromethane	2.377	101	71659	9.374	ug/L	99
8) Ethyl ether	2.689	74	18866	9.347	ug/L #	1
10) 1,1-Dichloroethene	2.869	96	41979	9.938	ug/L	89
11) Carbon disulfide	2.898	76	124034	10.975	ug/L	100
15) Methylene chloride	3.419	84	46685	9.988	ug/L	83
17) Acetone	3.466	43	10309	15.389	ug/L	99
18) trans-1,2-Dichloroethene	3.570	96	45321	9.572	ug/L	92
21) Methyl tert-butyl ether	3.674	73	70224	7.261	ug/L #	91
25) 1,1-Dichloroethane	4.157	63	85567	10.205	ug/L	98
27) Acrylonitrile	4.205	53	9568	11.422	ug/L	98
29) Vinyl acetate	4.394	43	83074	12.569	ug/L #	93
30) cis-1,2-Dichloroethene	4.669	96	48189	9.501	ug/L	90
31) 2,2-Dichloropropane	4.773	77	52278	7.950	ug/L	95
32) Bromochloromethane	4.858	128	21615	9.790	ug/L #	79
34) Chloroform	4.934	83	81382	9.798	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A03.D
 Acq On : 25 Sep 2019 09:11 am
 Operator : VOA122:PD
 Sample : WG1288542-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 25 09:51:09 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Carbon tetrachloride	5.067	117	65700	9.488	ug/L	99
39) 1,1,1-Trichloroethane	5.133	97	73996	9.276	ug/L	97
41) 2-Butanone	5.237	43	13376	13.154	ug/L #	78
42) 1,1-Dichloropropene	5.256	75	59427	8.881	ug/L	96
44) Benzene	5.502	78	201739	10.194	ug/L	98
47) 1,2-Dichloroethane	5.699	62	51920	9.715	ug/L	99
51) Trichloroethene	6.091	95	47612	9.500	ug/L	96
53) Dibromomethane	6.535	93	23785	9.273	ug/L #	81
54) 1,2-Dichloropropane	6.638	63	44660	10.024	ug/L	97
57) Bromodichloromethane	6.710	83	59054	9.638	ug/L	99
60) 1,4-Dioxane	6.916	88	10433	418.076	ug/L #	73
61) cis-1,3-Dichloropropene	7.391	75	33899	8.811	ug/L	94
64) Toluene	7.667	92	108924	9.176	ug/L	98
65) 4-Methyl-2-pentanone	8.112	58	8701	9.440	ug/L #	77
66) Tetrachloroethene	8.112	166	49462	9.404	ug/L	94
68) trans-1,3-Dichloropropene	8.150	75	54026	9.010	ug/L	94
71) 1,1,2-Trichloroethane	8.330	83	28125	10.027	ug/L	96
72) Chlorodibromomethane	8.538	129	39968	9.810	ug/L	98
73) 1,3-Dichloropropane	8.661	76	56164	9.736	ug/L	99
74) 1,2-Dibromoethane	8.822	107	30877	9.252	ug/L	100
76) 2-Hexanone	9.116	43	14317	8.677	ug/L #	87
77) Chlorobenzene	9.476	112	117275	9.141	ug/L	95
78) Ethylbenzene	9.523	91	206142	9.057	ug/L	99
79) 1,1,1,2-Tetrachloroethane	9.561	131	42925	10.009	ug/L	97
80) p/m Xylene	9.703	106	162068	17.695	ug/L	96
81) o Xylene	10.252	106	149990	17.380	ug/L	95
82) Styrene	10.318	104	253727	18.506	ug/L	99
84) Bromoform	10.328	173	23848	10.150	ug/L	99
86) Isopropylbenzene	10.640	105	208276	8.237	ug/L	98
88) Bromobenzene	11.076	156	50102	9.200	ug/L	97
89) n-Propylbenzene	11.124	91	261129	8.910	ug/L	96
91) 1,1,2,2-Tetrachloroethane	11.209	83	38296	9.746	ug/L	98
92) 4-Ethyltoluene	11.256	105	199095	8.643	ug/L	99
93) 2-Chlorotoluene	11.294	91	172745	10.663	ug/L	99
94) 1,3,5-Trimethylbenzene	11.360	105	175599	8.736	ug/L	97
95) 1,2,3-Trichloropropane	11.351	75	30017	9.128	ug/L	97
96) trans-1,4-Dichloro-2-b...	11.408	53	8180	8.571	ug/L	91
97) 4-Chlorotoluene	11.484	91	151471	8.907	ug/L	99
98) tert-Butylbenzene	11.701	119	143863	8.220	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A03.D
 Acq On : 25 Sep 2019 09:11 am
 Operator : VOA122:PD
 Sample : WG1288542-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 25 09:51:09 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA122\2019\190925A\V22190925A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101)	1,2,4-Trimethylbenzene	11.777	105	170737	8.501	ug/L	98
102)	sec-Butylbenzene	11.891	105	152224	9.409	ug/L	98
103)	p-Isopropyltoluene	12.048	119	180207	8.419	ug/L	99
104)	1,3-Dichlorobenzene	12.108	146	102106	9.594	ug/L	99
105)	1,4-Dichlorobenzene	12.203	146	99573	9.391	ug/L	99
106)	p-Diethylbenzene	12.427	119	98829	8.206	ug/L	97
107)	n-Butylbenzene	12.488	91	172741	9.461	ug/L	97
108)	1,2-Dichlorobenzene	12.626	146	89649	9.294	ug/L	98
109)	1,2,4,5-Tetramethylben...	13.221	119	133148	7.585	ug/L	98
110)	1,2-Dibromo-3-chloropr...	13.411	155	5623	9.452	ug/L	100
112)	Hexachlorobutadiene	14.024	225	20732	10.086	ug/L	99
113)	1,2,4-Trichlorobenzene	14.049	180	51457	8.834	ug/L	98
114)	Naphthalene	14.343	128	106630	7.821	ug/L	100
115)	1,2,3-Trichlorobenzene	14.507	180	46713	9.031	ug/L	98

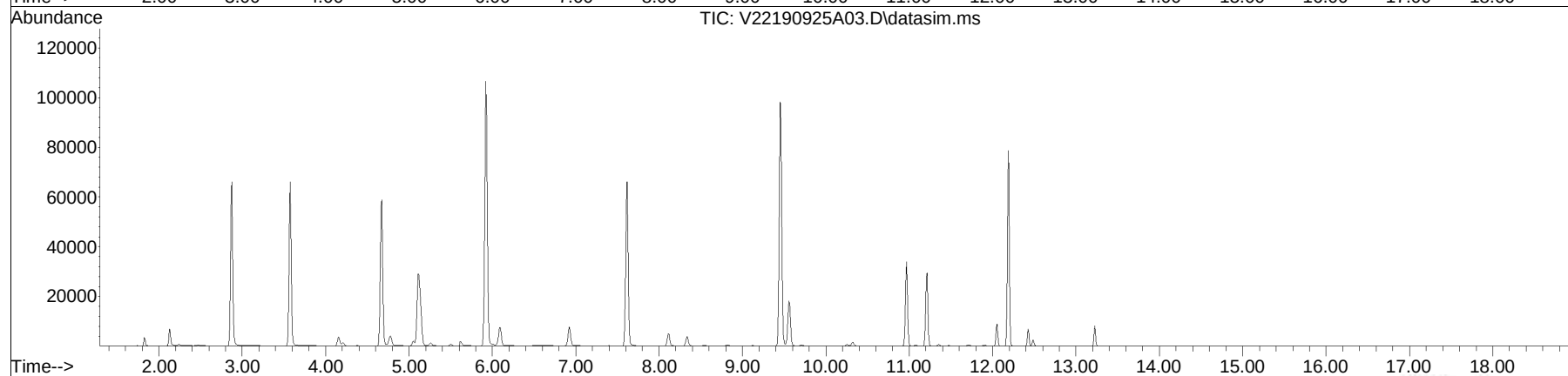
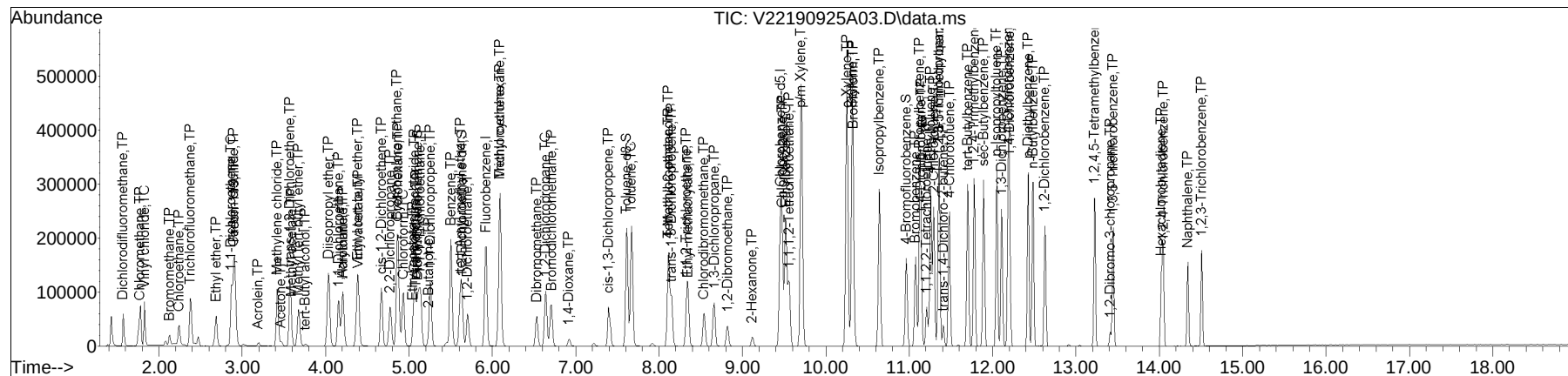
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA122\2019\190925A\
 Data File : V22190925A03.D
 Acq On : 25 Sep 2019 09:11 am
 Operator : VOA122:PD
 Sample : WG1288542-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1288542,ICAL16065 (Sig #1); WG,ICAL16065 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

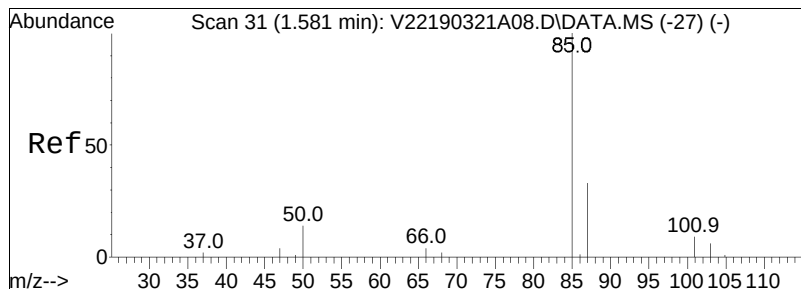
Quant Time: Sep 25 09:51:09 2019
 Quant Method : I:\VOLATILES\VOA122\2019\190925A\V122_190821_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu Aug 22 14:26:00 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•



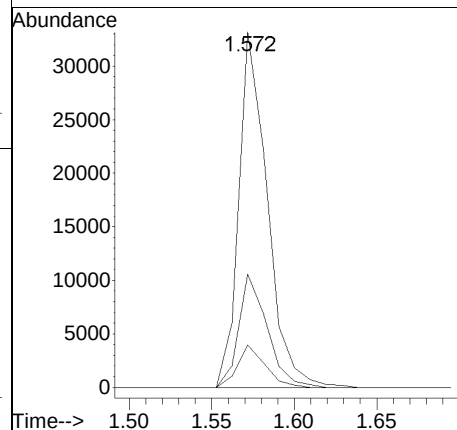
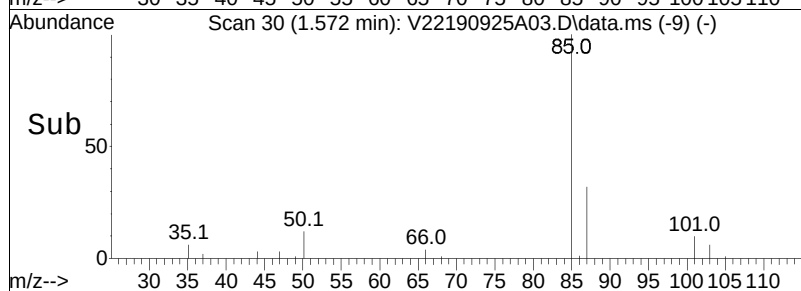
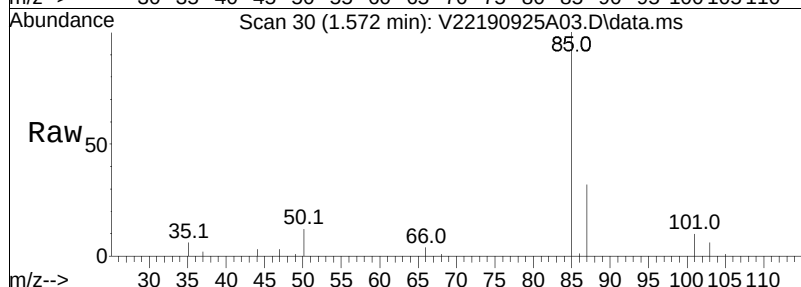
V122_190821_8260.m Wed Sep 25 15:55:26 2019

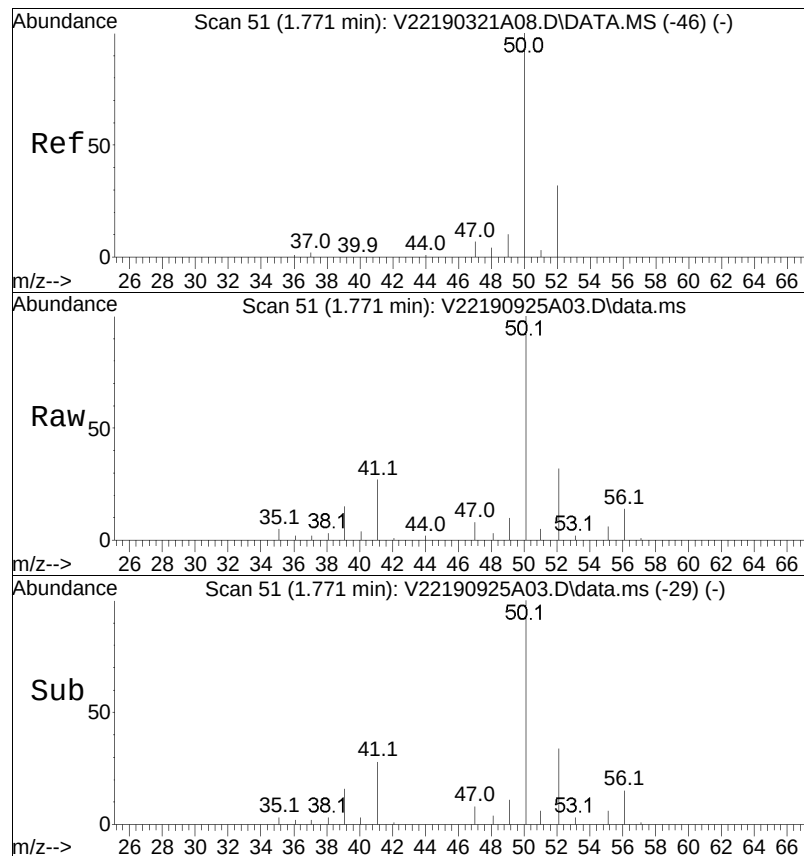
Page 4 : 4



#2
 Dichlorodifluoromethane
 Concen: 10.79 ug/L
 RT: 1.572 min Scan# 30
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

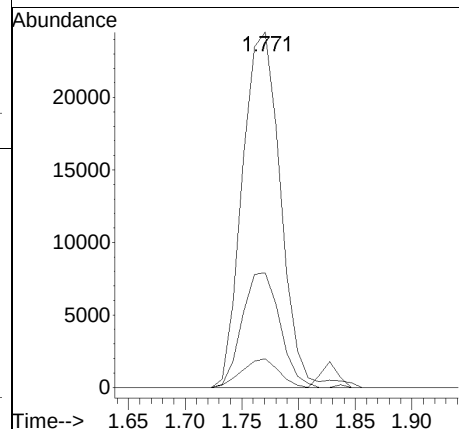
Tgt Ion	85	Resp	39894
Ion Ratio	100	Lower	Upper
85	100		
87	31.8	20.7	42.9
50	11.6	6.8	14.2

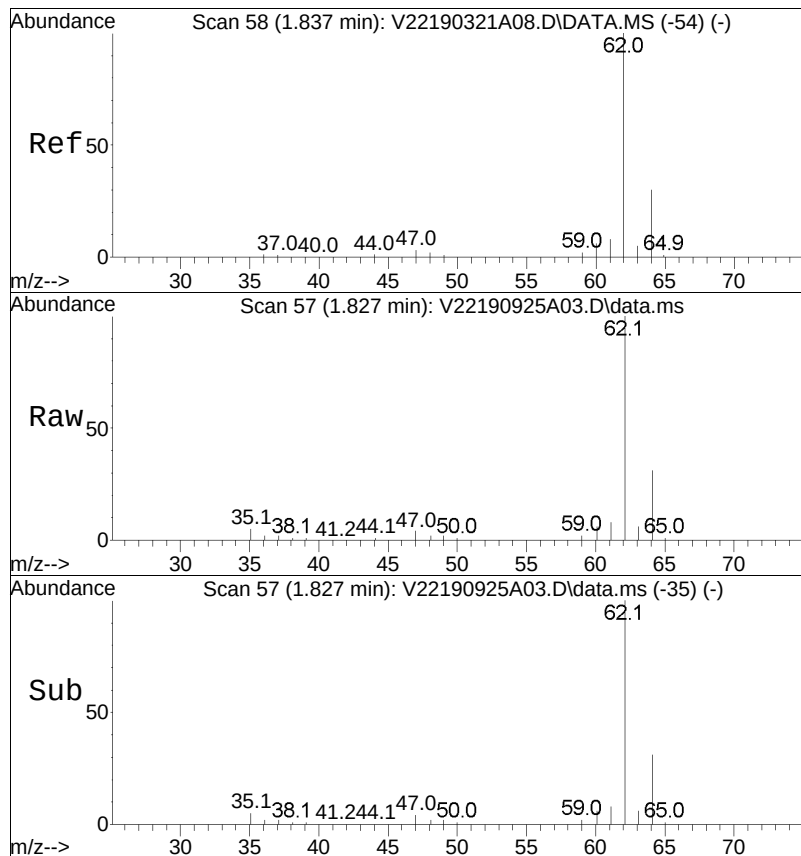




#3
 Chloromethane
 Concen: 12.86 ug/L
 RT: 1.771 min Scan# 51
 Delta R.T. 0.010 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

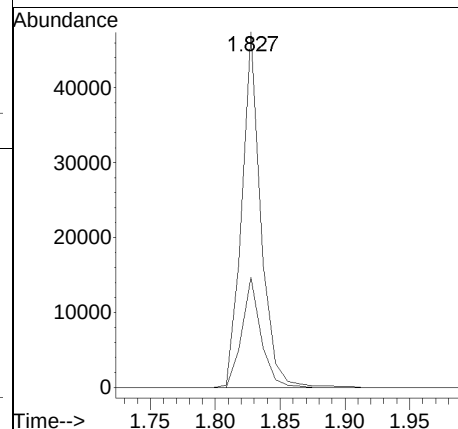
Tgt Ion:	50	Resp:	57498
Ion Ratio	Lower	Upper	
50	100		
52	31.8	12.8	52.8
47	7.8	0.0	30.0

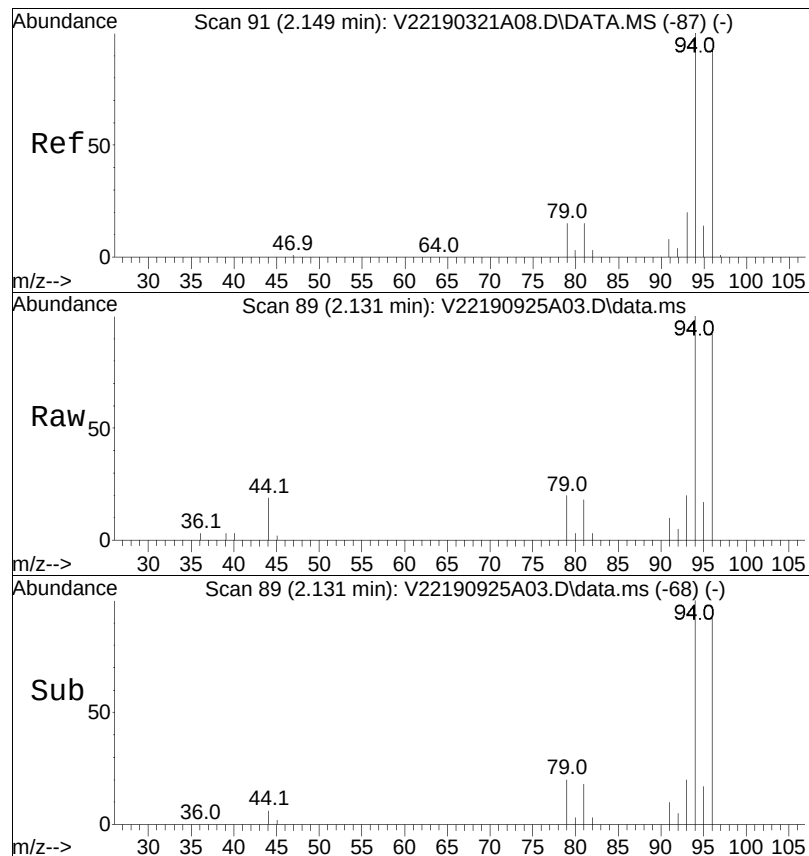




#4
 Vinyl chloride
 Concen: 7.79 ug/L
 RT: 1.827 min Scan# 57
 Delta R.T. 0.009 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

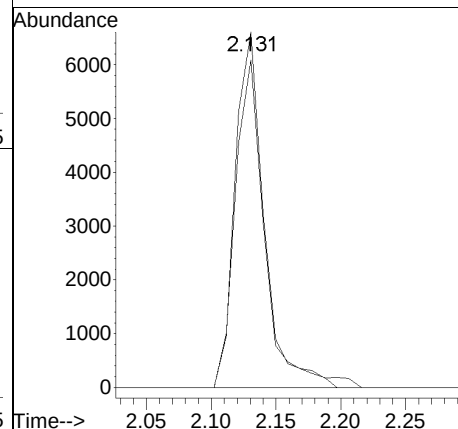
Tgt Ion	Ratio	Lower	Upper
62	100		
64	30.8	12.0	52.0

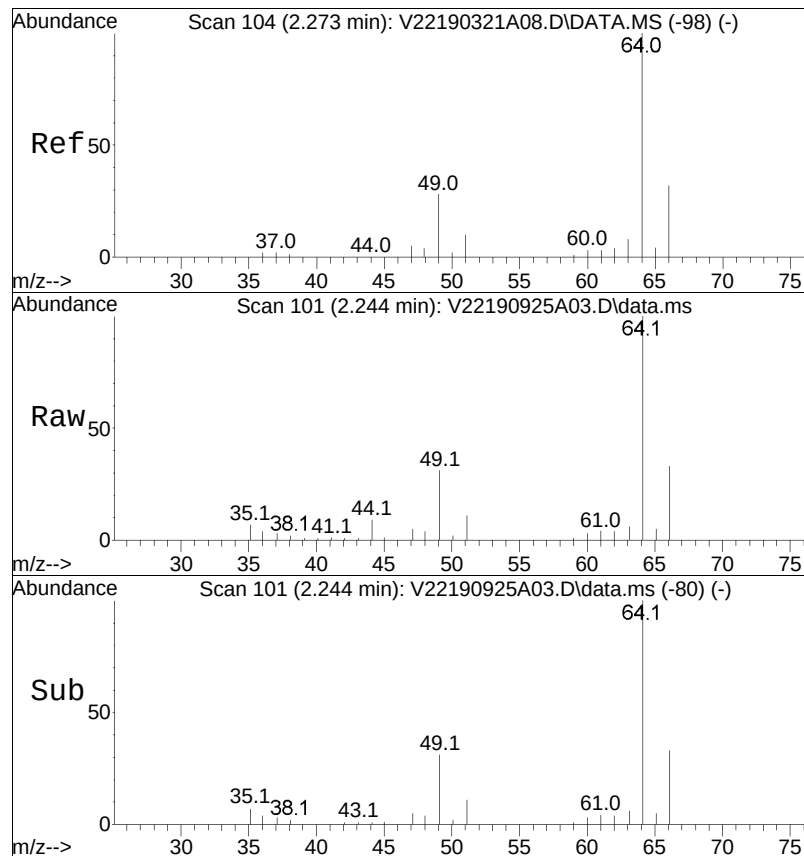




#5
 Bromomethane
 Concen: 2.68 ug/L
 RT: 2.131 min Scan# 89
 Delta R.T. 0.001 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

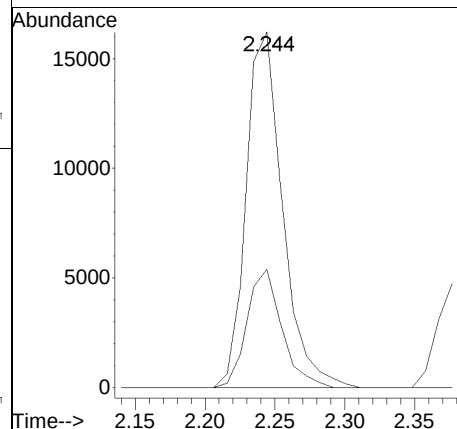
Tgt Ion	Ratio	Lower	Upper
94	100		
96	90.9	72.8	112.8

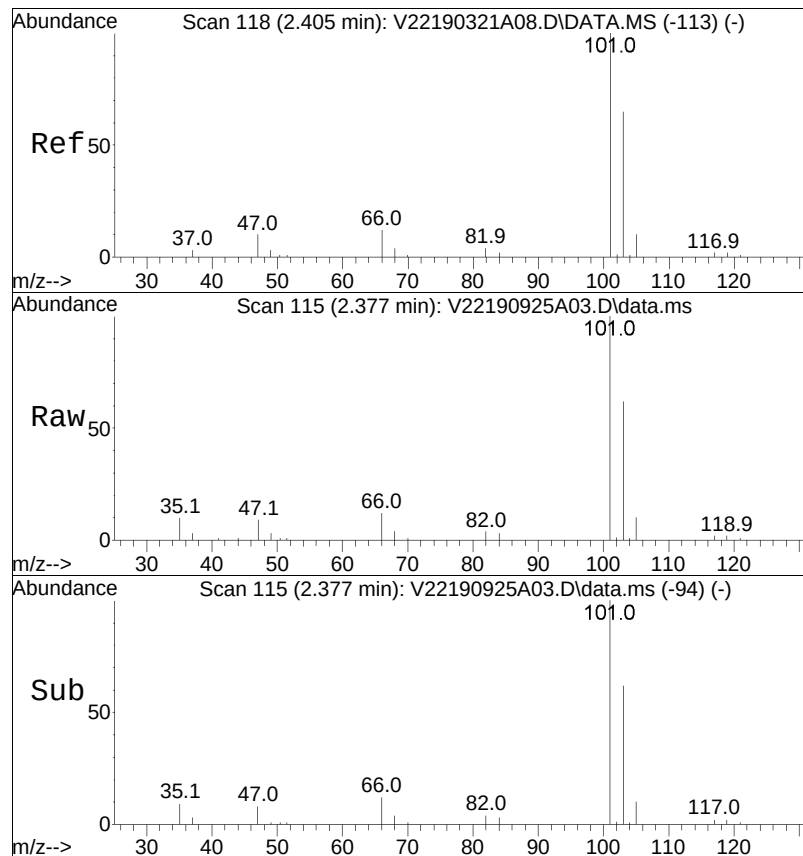




#6
 Chloroethane
 Concen: 6.09 ug/L
 RT: 2.244 min Scan# 101
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

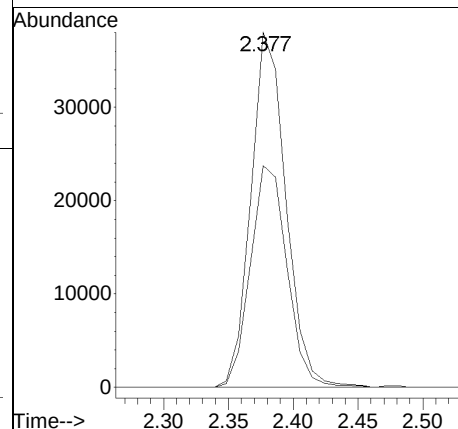
Tgt Ion	Ratio	Lower	Upper
64	100		
66	31.7	12.2	52.2

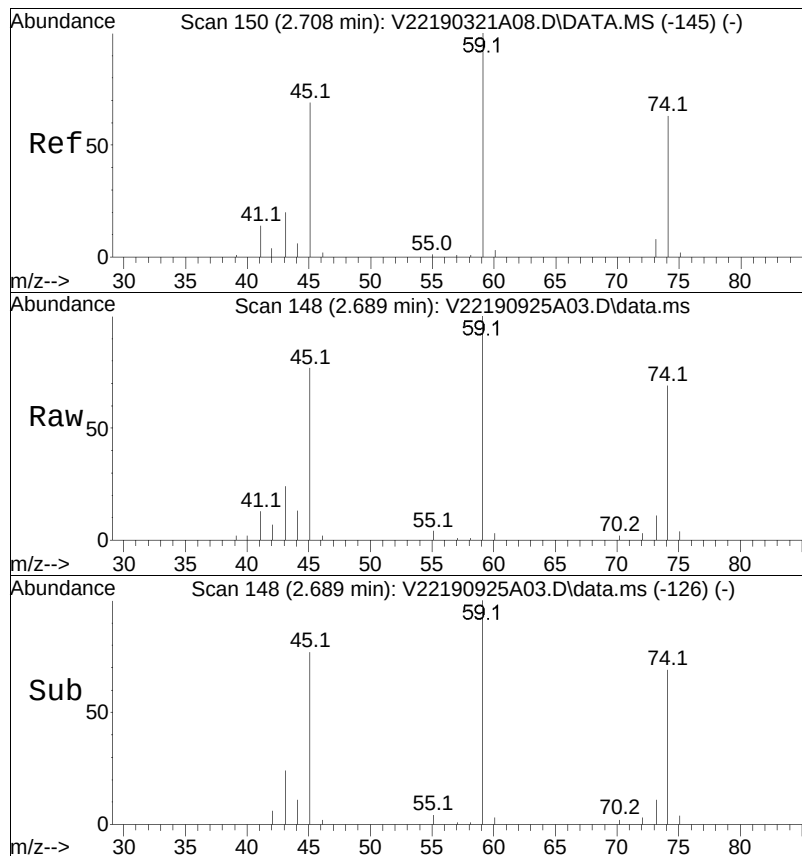




#7
 Trichlorofluoromethane
 Concen: 9.37 ug/L
 RT: 2.377 min Scan# 115
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

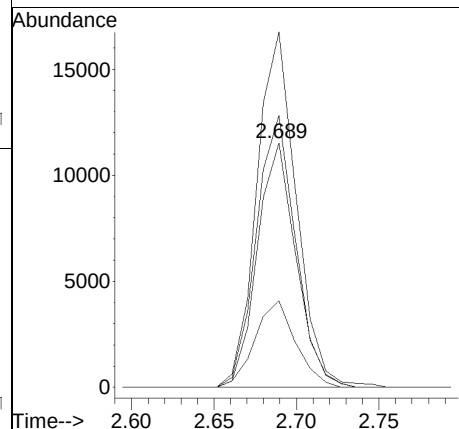
Tgt Ion	101	Resp	71659
Ion Ratio	Lower	Upper	
101	100		
103	65.4	51.6	77.4

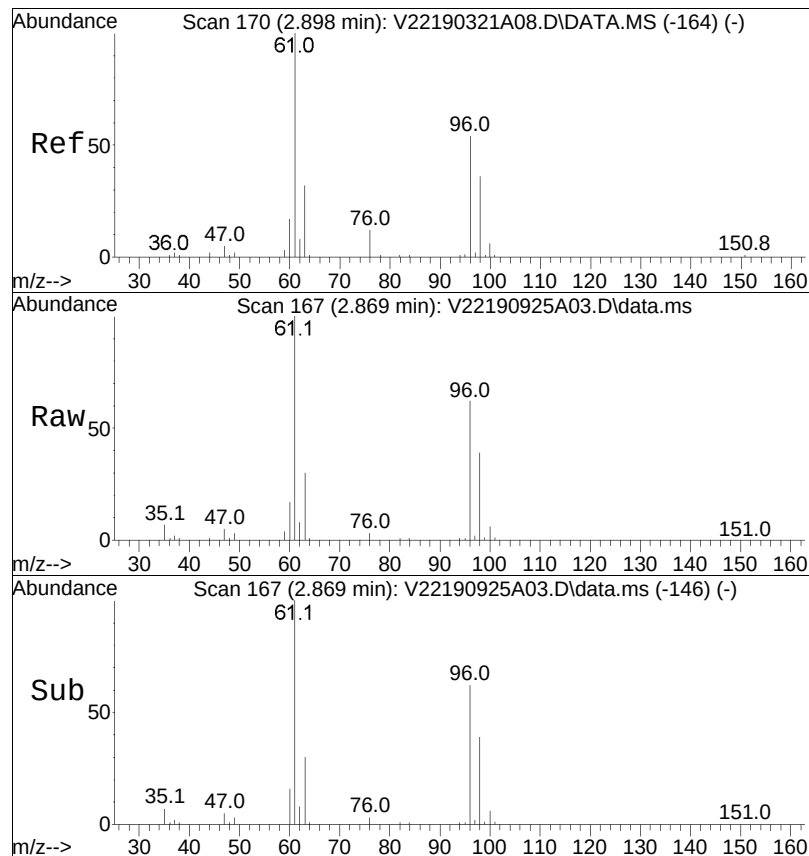




#8
 Ethyl ether
 Concen: 9.35 ug/L
 RT: 2.689 min Scan# 148
 Delta R.T. 0.009 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

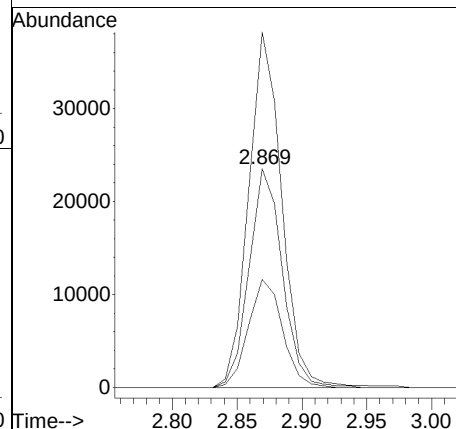
Tgt Ion:	74	Resp:	18866
Ion Ratio	Lower	Upper	
74	100		
59	148.3	2122.4	4408.0#
45	112.7	1435.1	2980.5#
43	37.4	407.9	847.3#

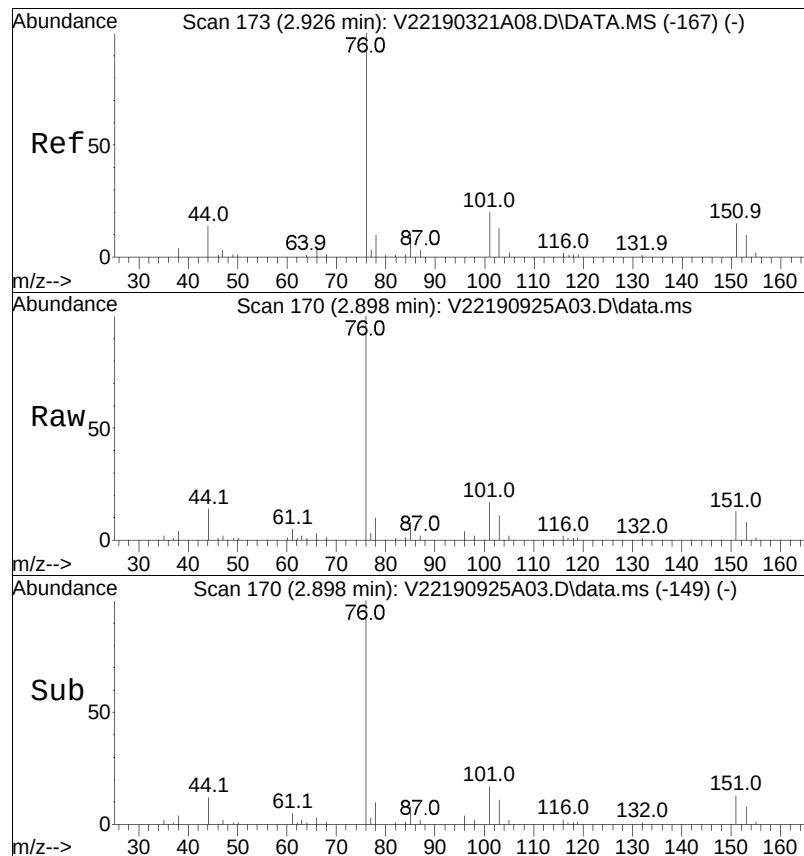




#10
 1,1-Dichloroethene
 Concen: 9.94 ug/L
 RT: 2.869 min Scan# 167
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

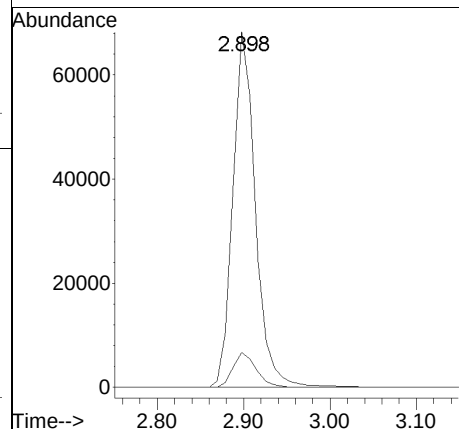
Tgt Ion:	96	Resp:	41979
Ion Ratio	100	Lower	Upper
61	161.9	117.0	175.4
63	50.6	37.8	56.6

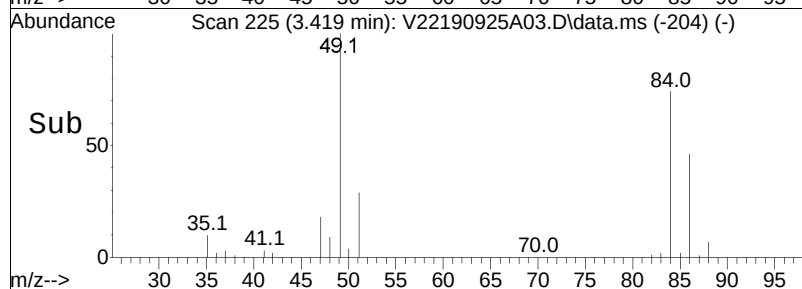
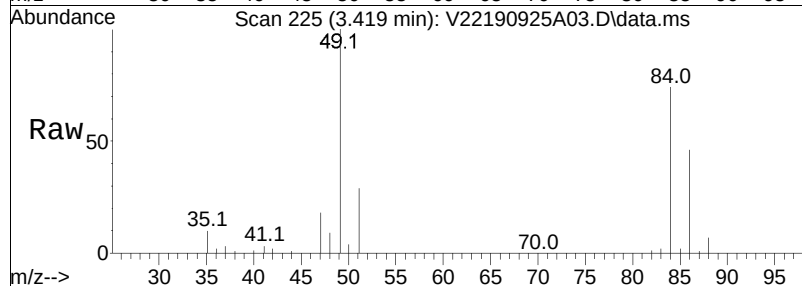
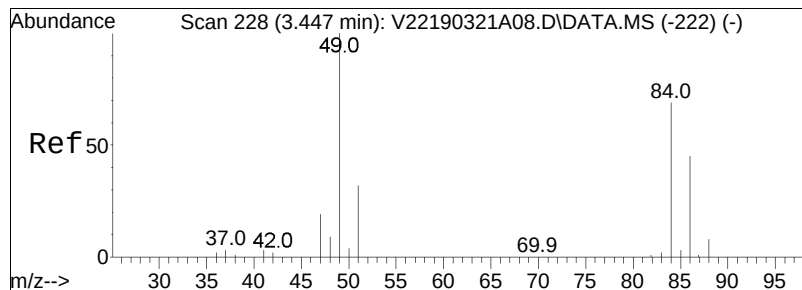




#11
 Carbon disulfide
 Concen: 10.98 ug/L
 RT: 2.898 min Scan# 170
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	76	78	Ratio	100	10.1	Resp:	124034
Ion	76	78	Ratio	100	10.1	Lower	Upper
						6.4	13.4





#15

Methylene chloride

Concen: 9.99 ug/L

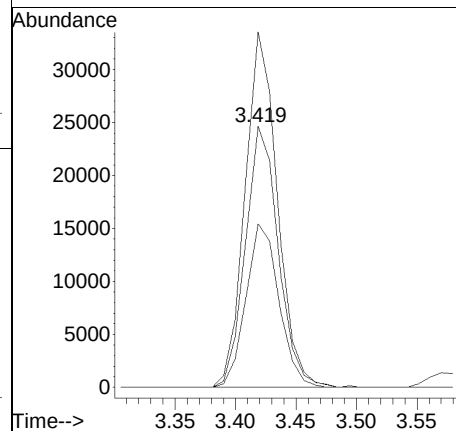
RT: 3.419 min Scan# 225

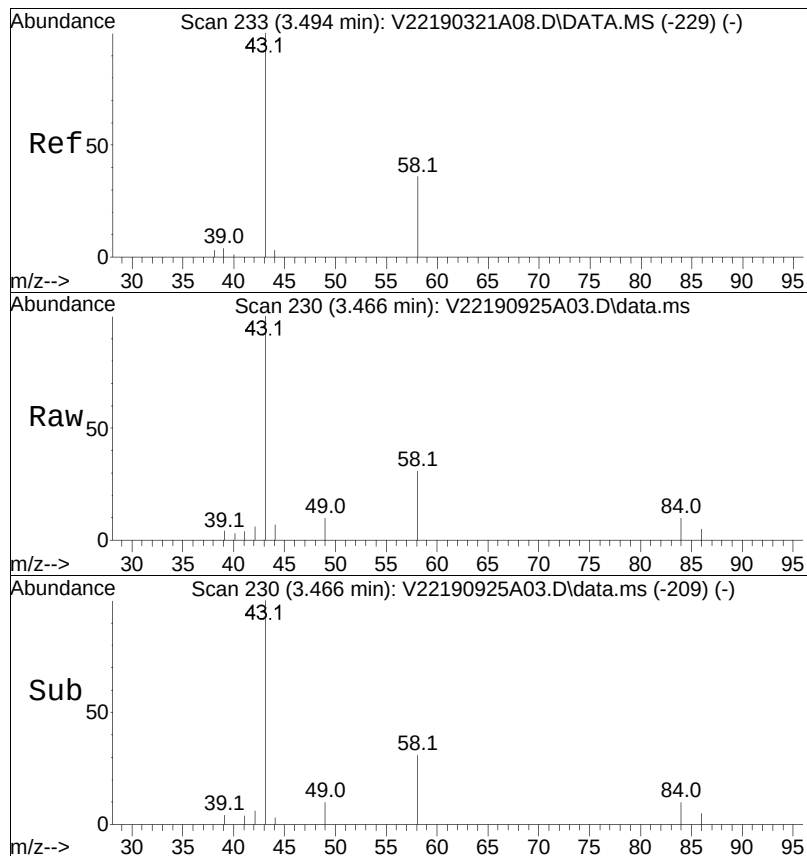
Delta R.T. -0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

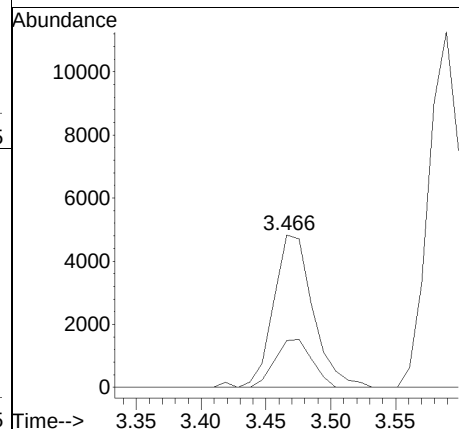
Tgt	Ion: 84	Resp:	46685
Ion	Ratio	Lower	Upper
84	100		
86	62.8	41.5	86.3
49	133.4	68.8	143.0

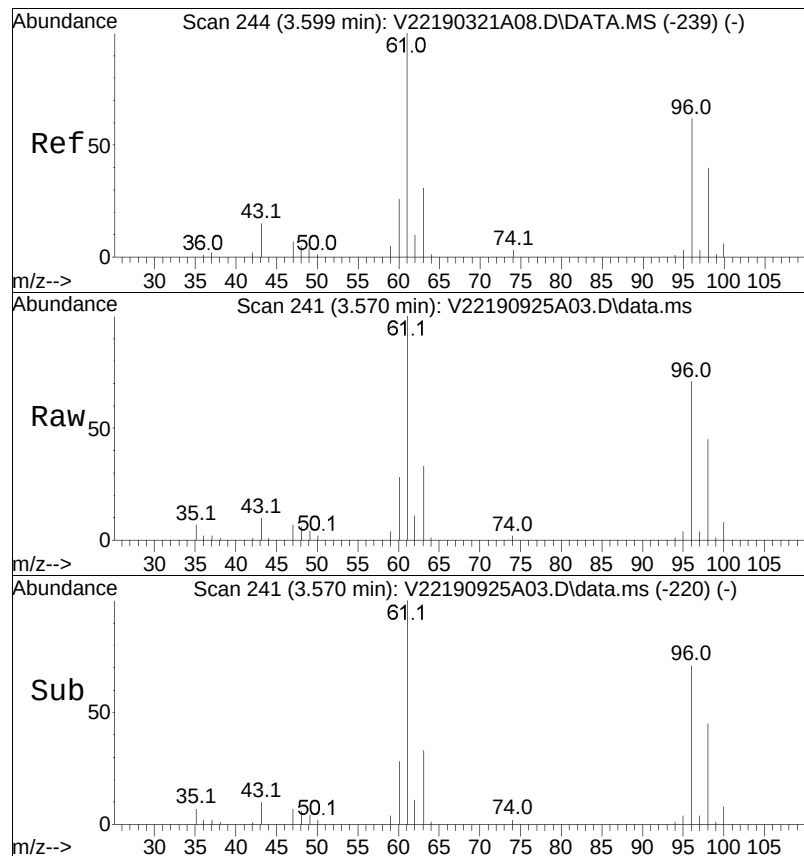




#17
 Acetone
 Concen: 15.39 ug/L
 RT: 3.466 min Scan# 230
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

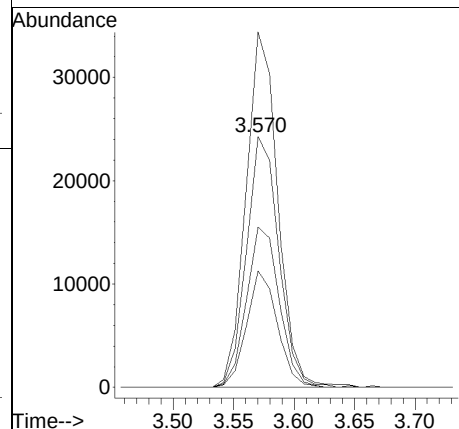
Tgt Ion:	43	58	Ratio	100	29.4	Resp:	10309	Lower	Upper
								23.1	34.7

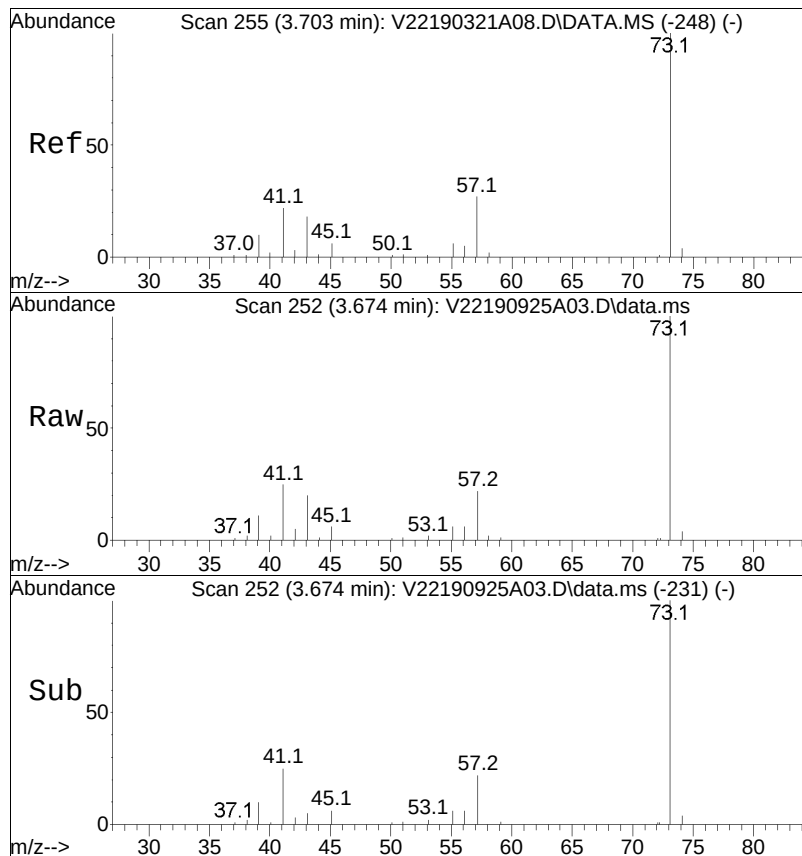




#18
 trans-1,2-Dichloroethene
 Concen: 9.57 ug/L
 RT: 3.570 min Scan# 241
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	96	Resp:	45321
Ion Ratio	Lower	Upper	
96	100		
61	139.4	81.6	169.6
98	64.6	41.8	86.8
63	44.1	26.3	54.7





#21

Methyl tert-butyl ether

Concen: 7.26 ug/L

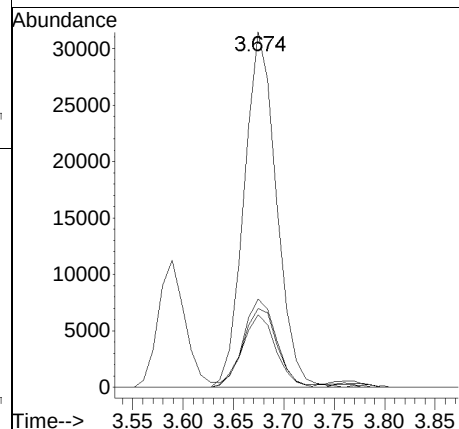
RT: 3.674 min Scan# 252

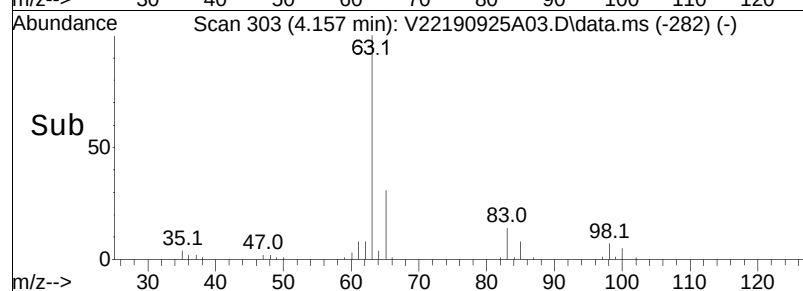
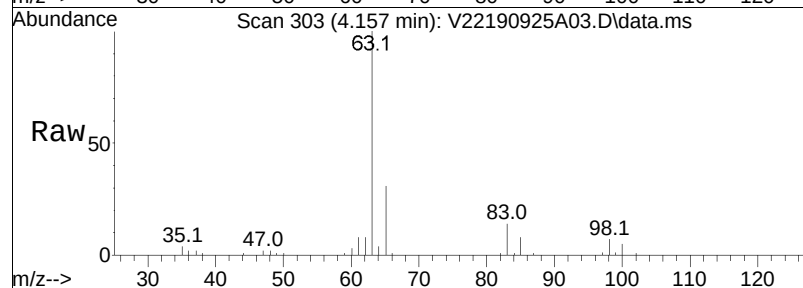
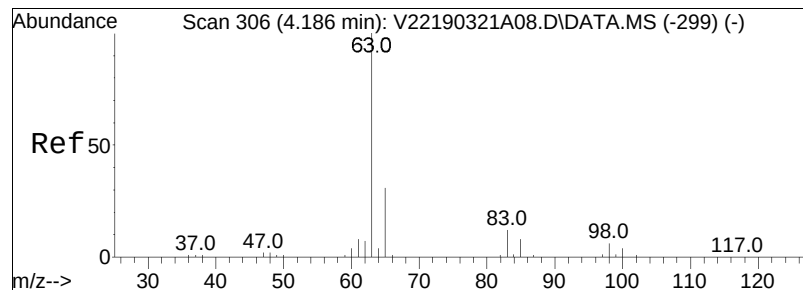
Delta R.T. 0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

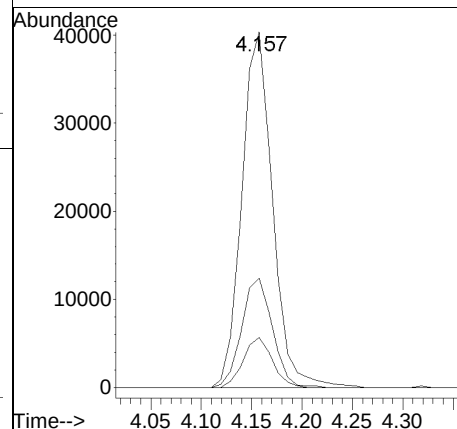
Tgt Ion:	73	Resp:	70224
Ion	Ratio	Lower	Upper
73	100		
57	23.6	13.6	28.2
43	21.1	12.7	26.5
41	25.8	11.4	23.8#

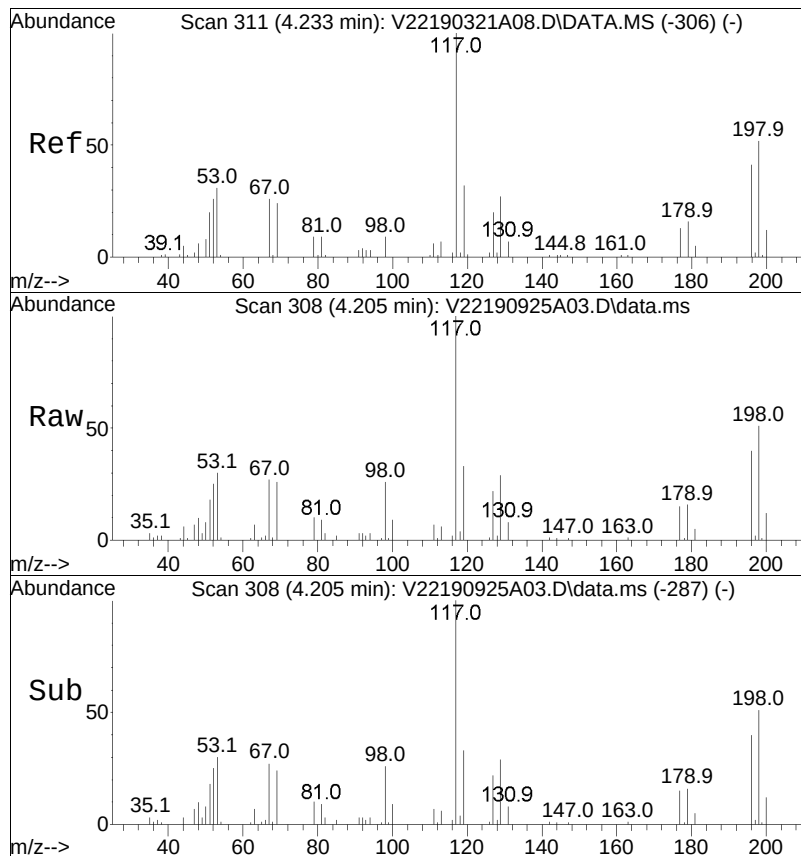




#25
 1,1-Dichloroethane
 Concen: 10.20 ug/L
 RT: 4.157 min Scan# 303
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion	Ratio	Resp	Lower	Upper
63	100	85567		
65	30.6		11.9	51.9
83	13.2		0.0	34.2





#27

Acrylonitrile

Concen: 11.42 ug/L

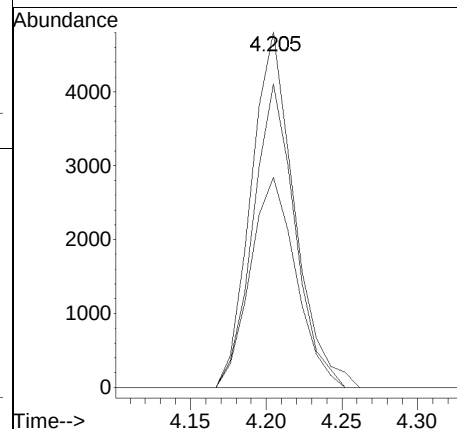
RT: 4.205 min Scan# 308

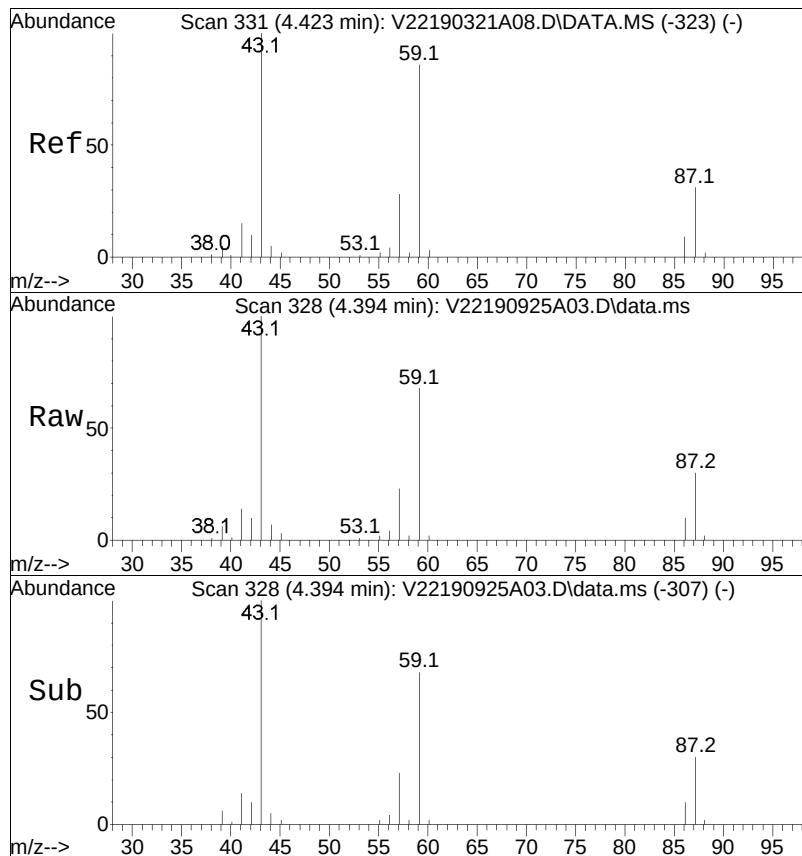
Delta R.T. -0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

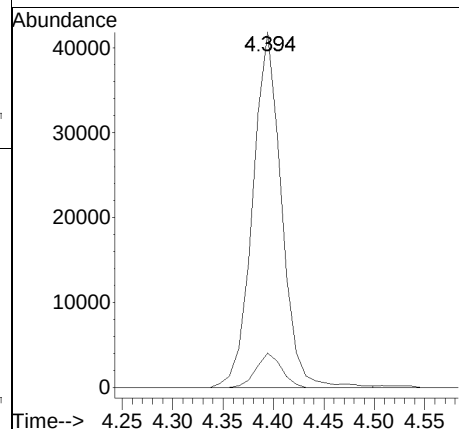
Tgt	Ion: 53	Resp:	9568
Ion	Ratio	Lower	Upper
53	100		
52	82.5	63.8	95.8
51	62.4	50.2	75.4

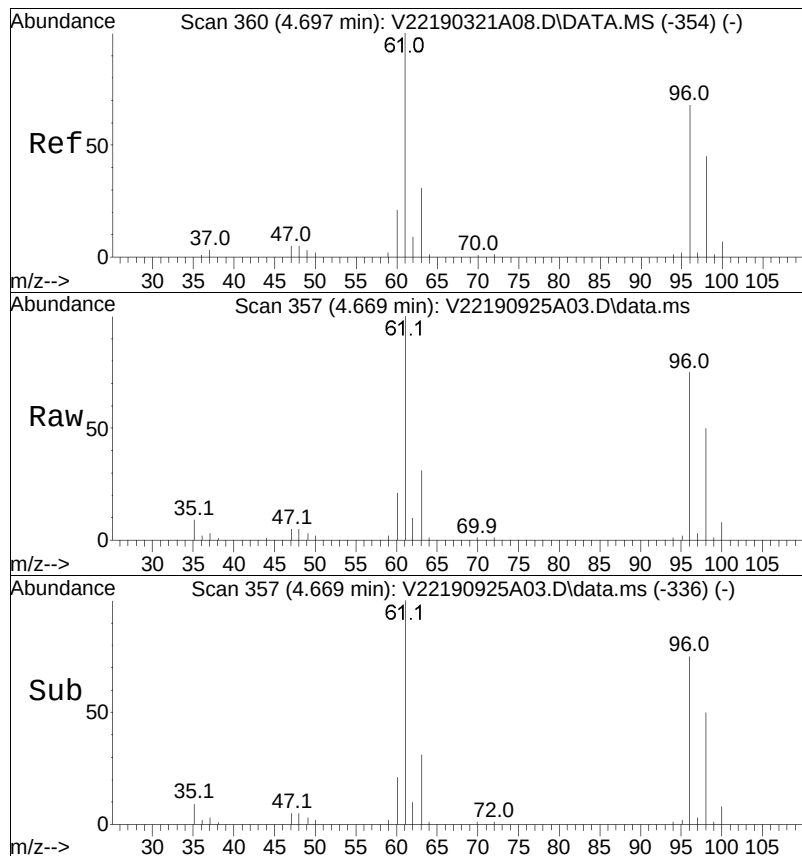




#29
 Vinyl acetate
 Concen: 12.57 ug/L
 RT: 4.394 min Scan# 328
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

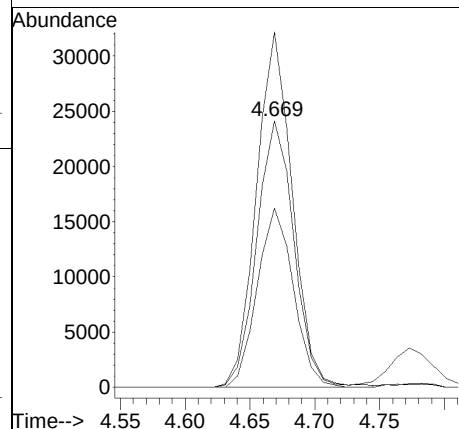
Tgt Ion:	43	86	Ratio	100	8.5	Resp:	83074	Lower	Upper

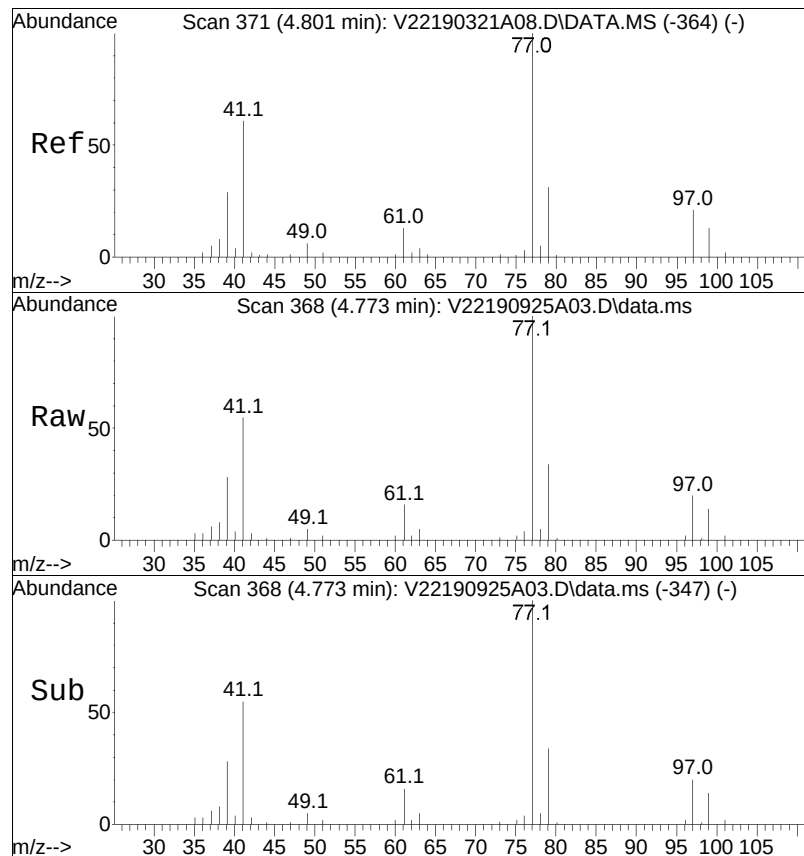




#30
 cis-1,2-Dichloroethene
 Concen: 9.50 ug/L
 RT: 4.669 min Scan# 357
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

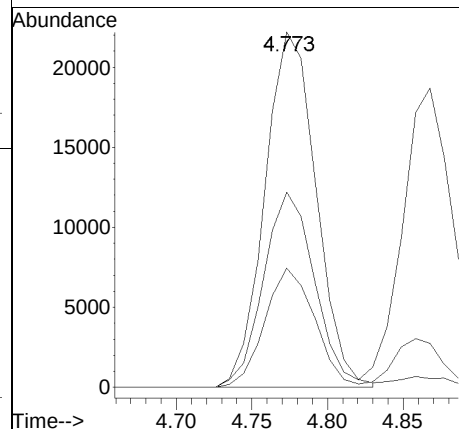
Tgt Ion:	96	Resp:	48189
Ion Ratio	Lower	Upper	
96	100		
61	128.3	90.3	135.5
98	65.6	50.8	76.2

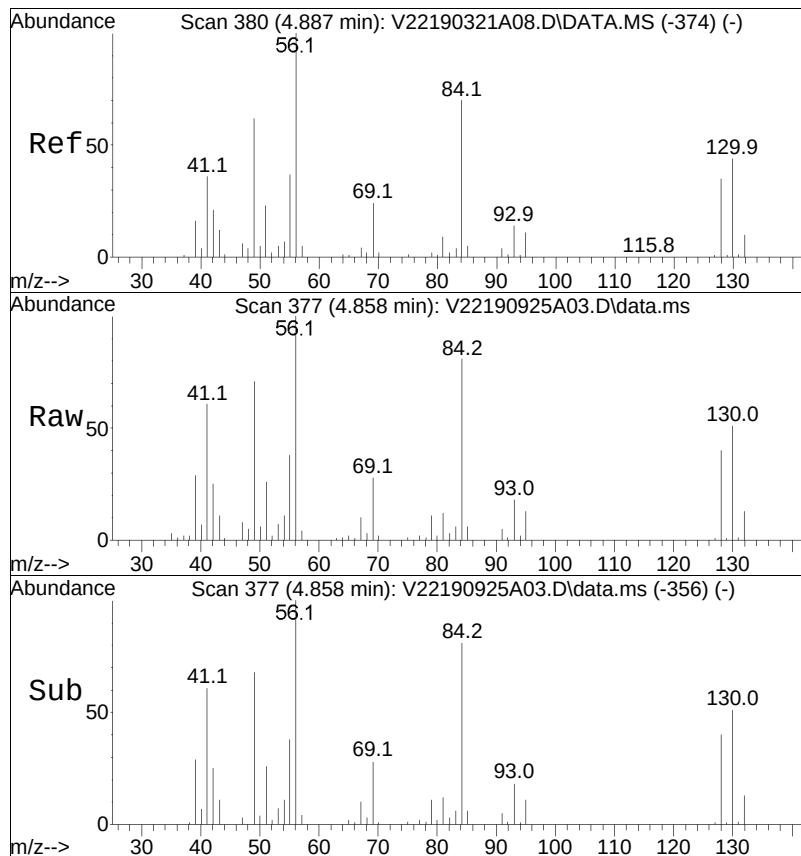




#31
 2,2-Dichloropropane
 Concen: 7.95 ug/L
 RT: 4.773 min Scan# 368
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

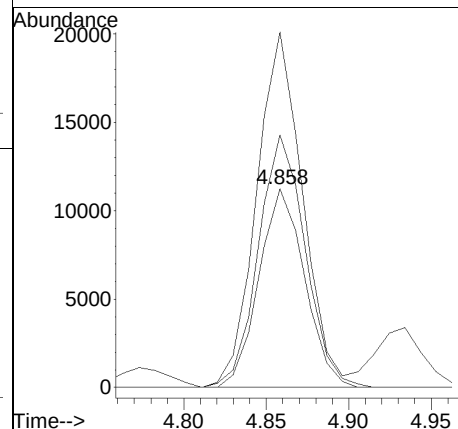
Tgt Ion:	77	Resp:	52278
Ion Ratio	Lower	Upper	
77	100		
41	54.8	32.3	67.1
79	32.7	21.1	43.7

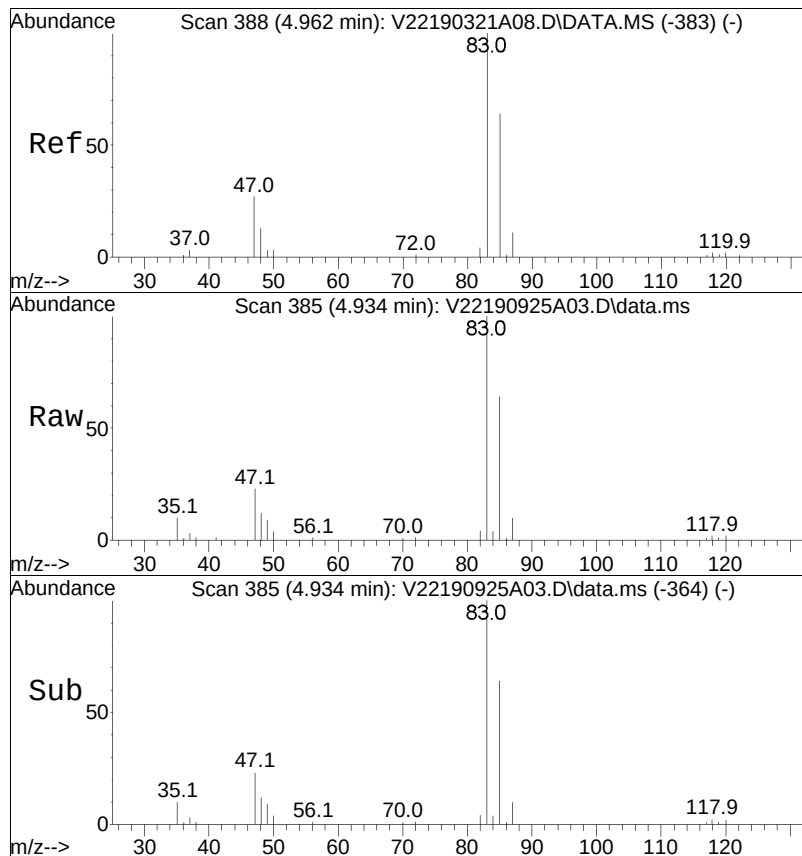




#32
 Bromochloromethane
 Concen: 9.79 ug/L
 RT: 4.858 min Scan# 377
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

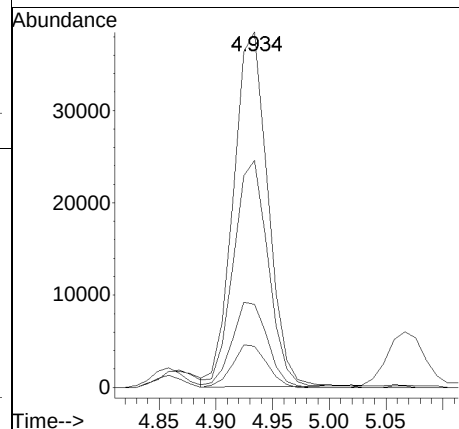
Tgt Ion	Ratio	Lower	Upper
128	100		
49	179.4	104.4	156.6#
130	130.3	103.9	155.9

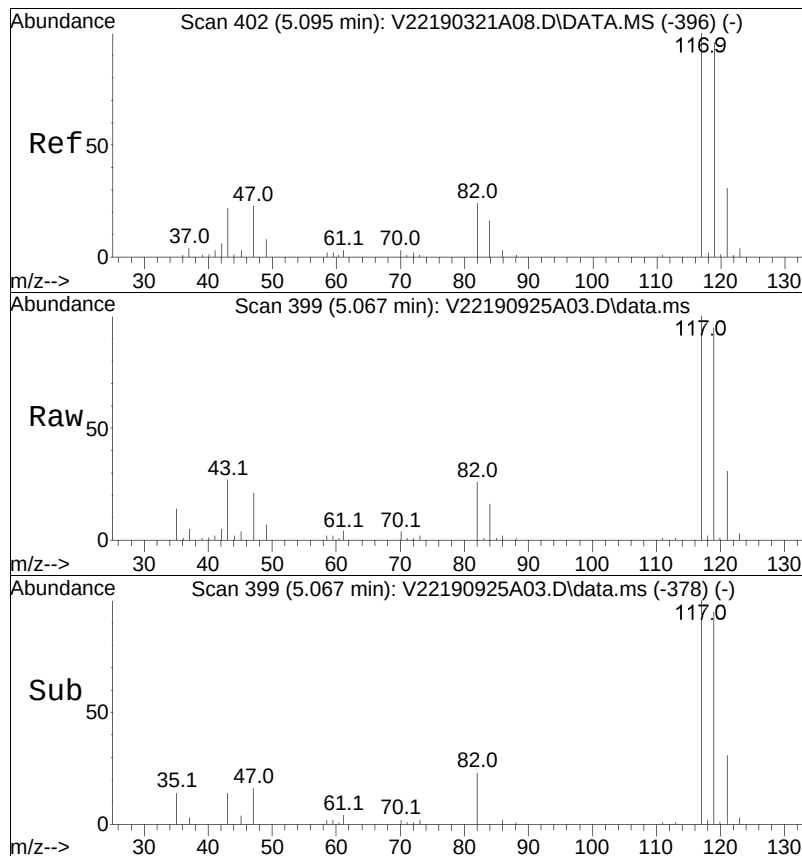




#34
 Chloroform
 Concen: 9.80 ug/L
 RT: 4.934 min Scan# 385
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

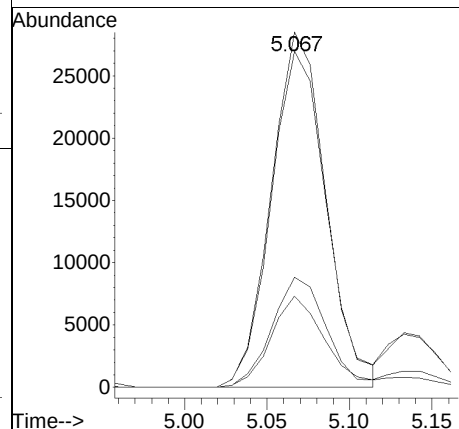
Tgt Ion:	83	Resp:	81382
Ion Ratio	Lower	Upper	
83	100		
85	65.2	42.4	88.2
47	24.6	14.0	29.0
48	11.9	6.9	14.3

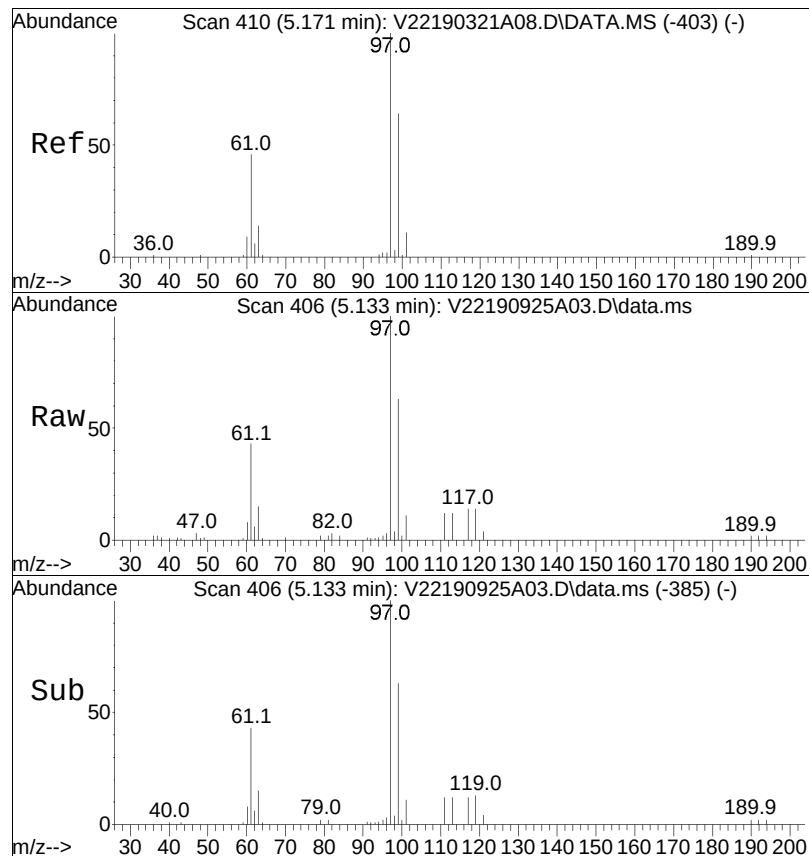




#36
 Carbon tetrachloride
 Concen: 9.49 ug/L
 RT: 5.067 min Scan# 399
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	117	Resp:	65700
Ion Ratio	Lower	Upper	
117	100		
119	95.9	62.1	129.1
121	31.0	20.3	42.3
82	25.4	15.4	32.0





#39

1,1,1-Trichloroethane

Concen: 9.28 ug/L

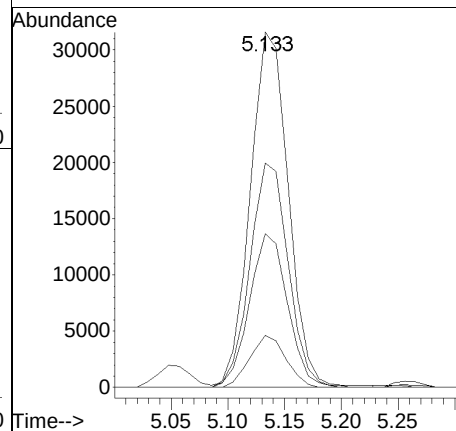
RT: 5.133 min Scan# 406

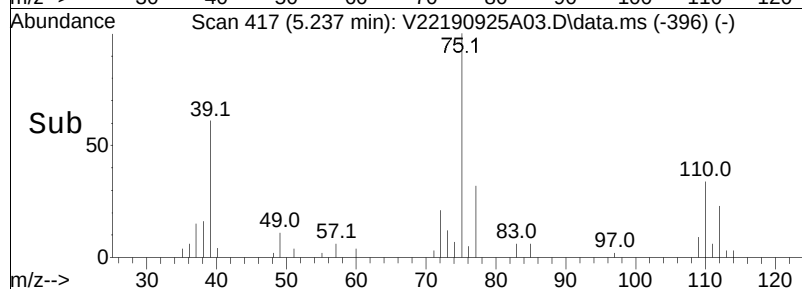
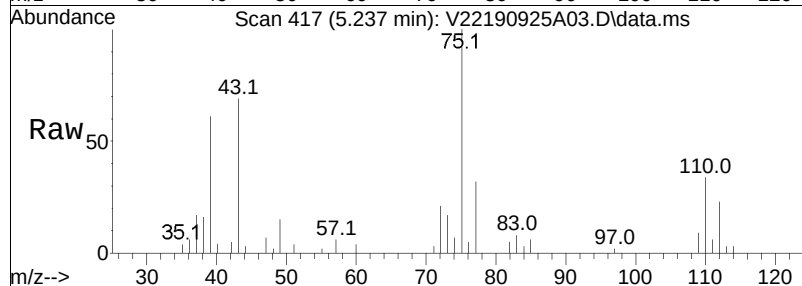
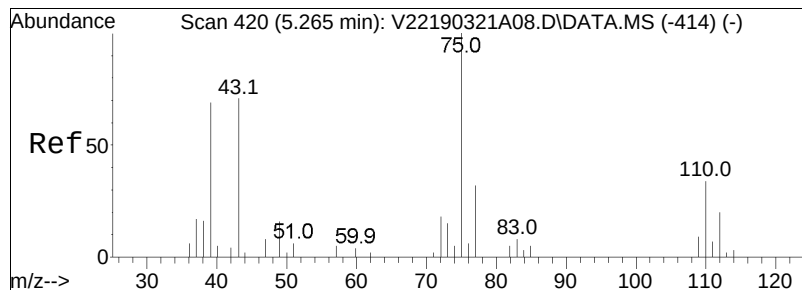
Delta R.T. -0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

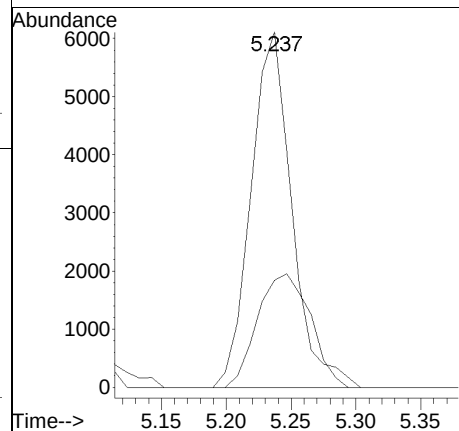
Tgt Ion:	97	Resp:	73996
Ion Ratio	Lower	Upper	
97	100		
99	63.3	42.4	88.0
61	43.3	26.0	54.0
63	13.9	8.3	17.3

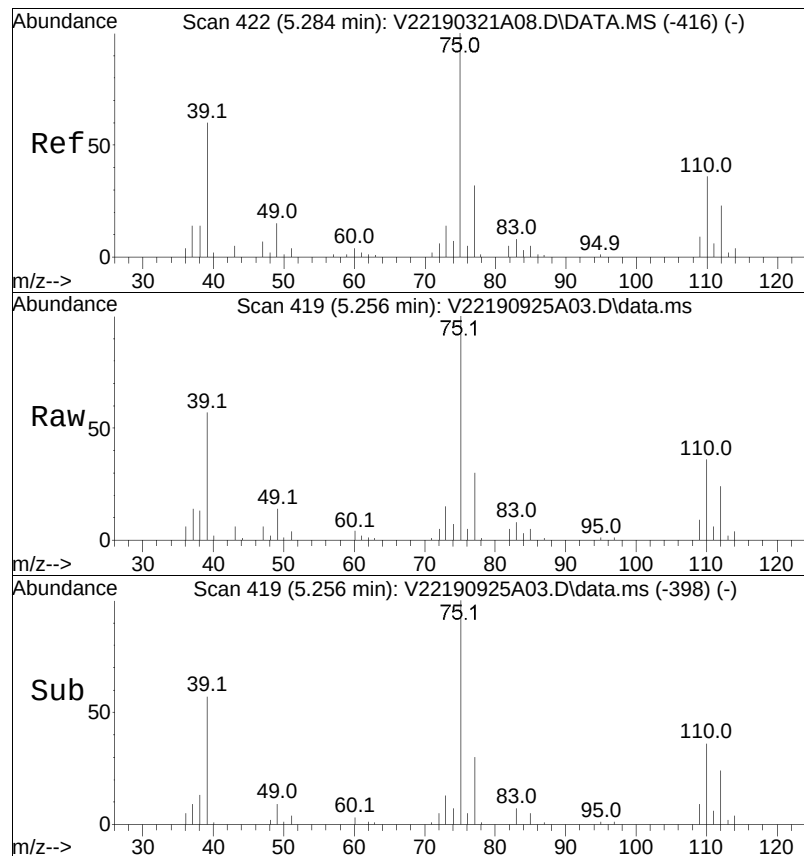




#41
 2-Butanone
 Concen: 13.15 ug/L
 RT: 5.237 min Scan# 417
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

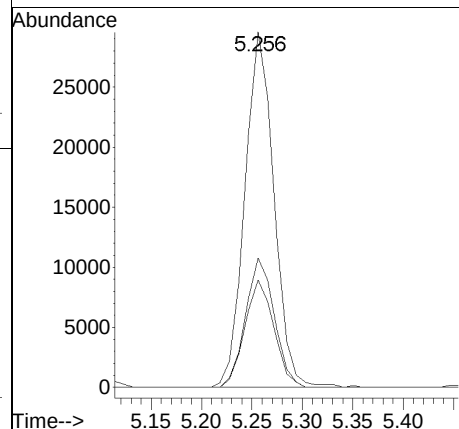
Tgt Ion:	43	72	Ion Ratio	100	41.4	Resp:	13376	Lower	Upper
								45.8	68.8#

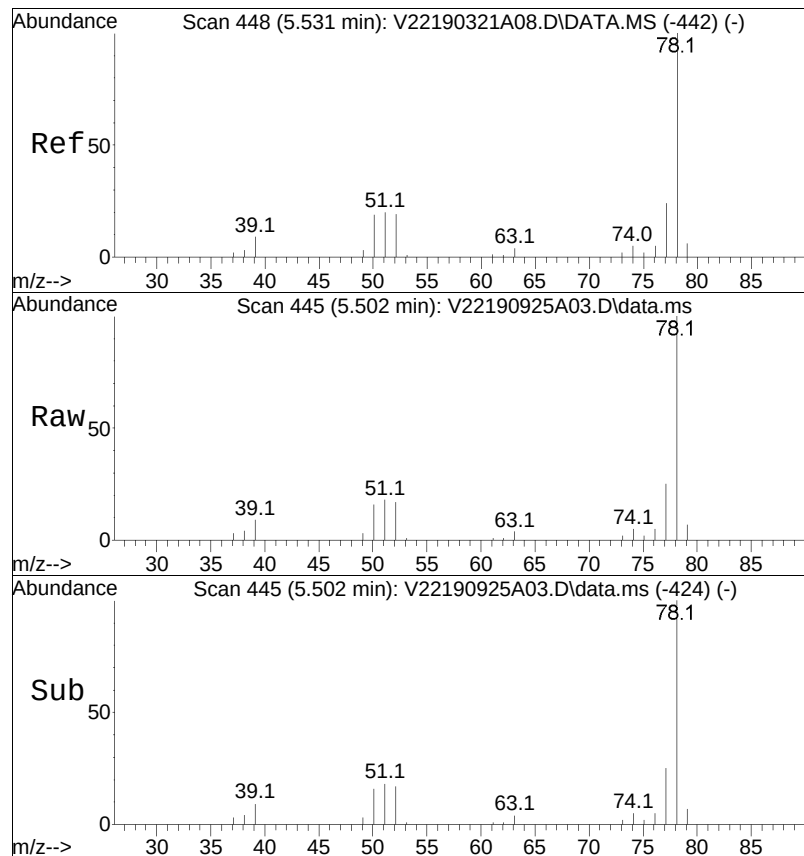




#42
 1,1-Dichloropropene
 Concen: 8.88 ug/L
 RT: 5.256 min Scan# 419
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

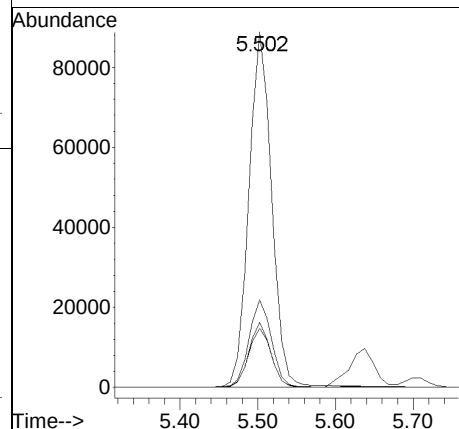
Tgt Ion:	75	Resp:	59427
Ion Ratio	Lower	Upper	
75	100		
110	35.9	25.4	52.8
77	30.2	20.3	42.1

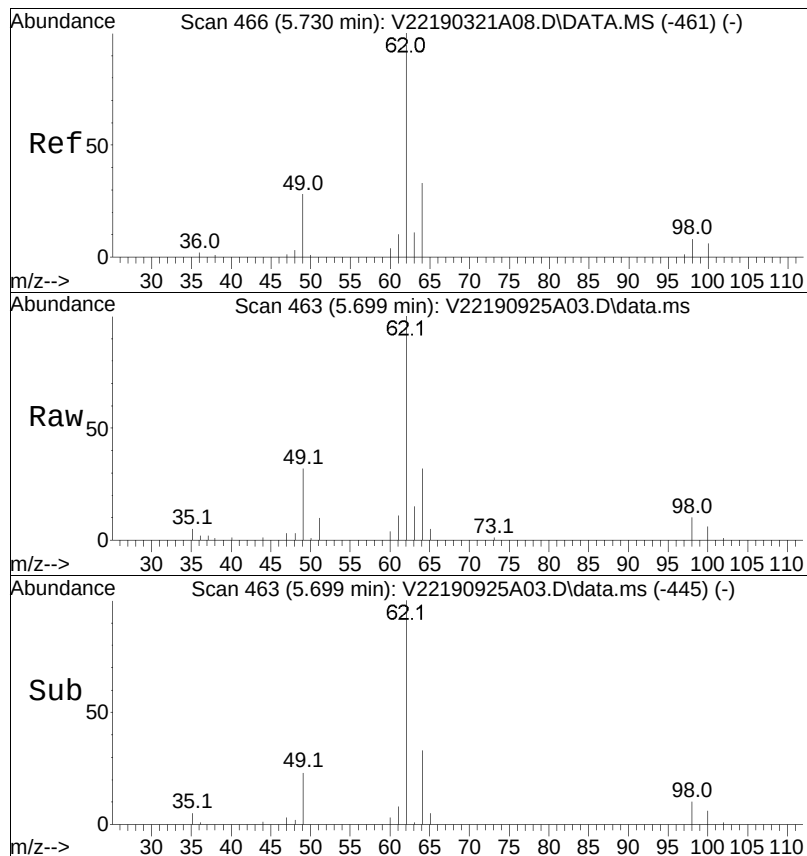




#44
Benzene
Concen: 10.19 ug/L
RT: 5.502 min Scan# 445
Delta R.T. 0.000 min
Lab File: V22190925A03.D
Acq: 25 Sep 2019 09:11 am

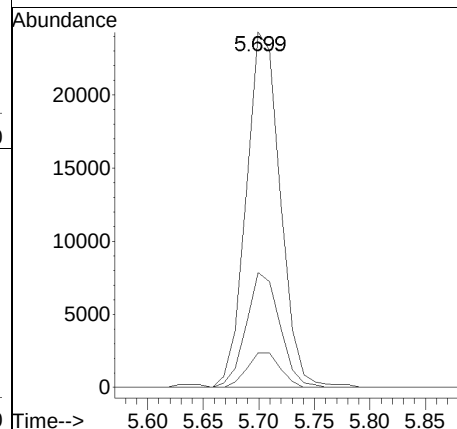
Tgt Ion:	78	Resp:	201739
Ion	Ratio	Lower	Upper
78	100		
77	21.9	15.4	32.0
51	15.7	9.8	20.4
52	14.9	9.2	19.2

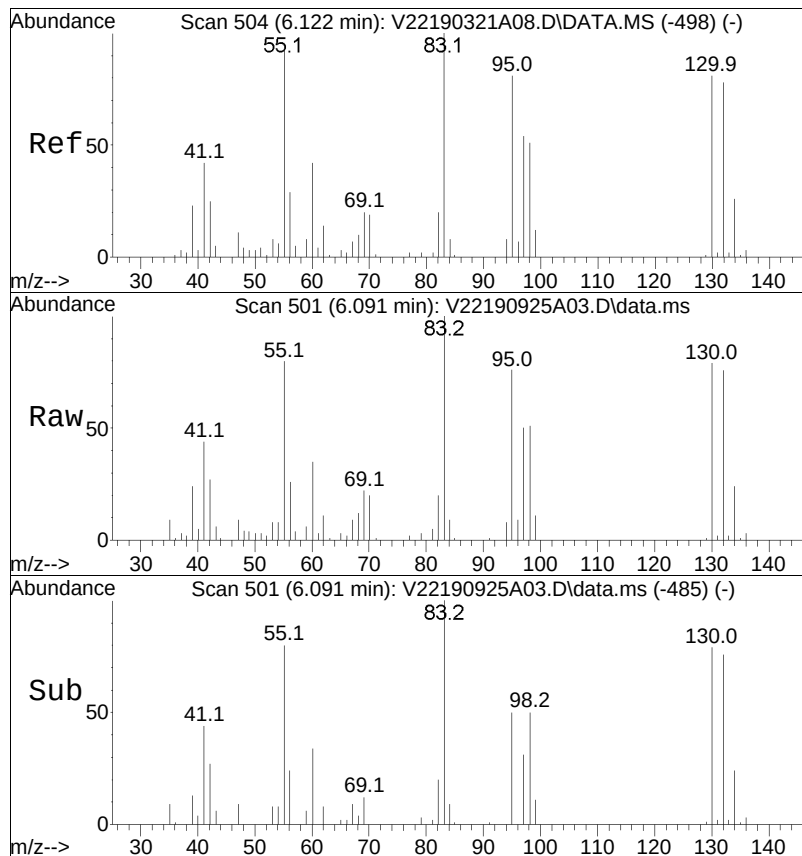




#47
 1,2-Dichloroethane
 Concen: 9.71 ug/L
 RT: 5.699 min Scan# 463
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

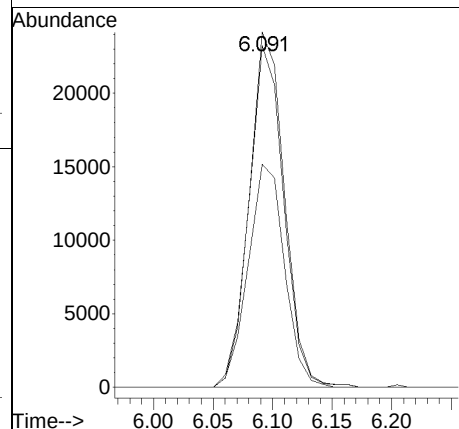
Tgt Ion:	62	Resp:	51920
Ion Ratio	Lower	Upper	
62	100		
64	31.9	12.3	52.3
98	9.6	0.0	30.3

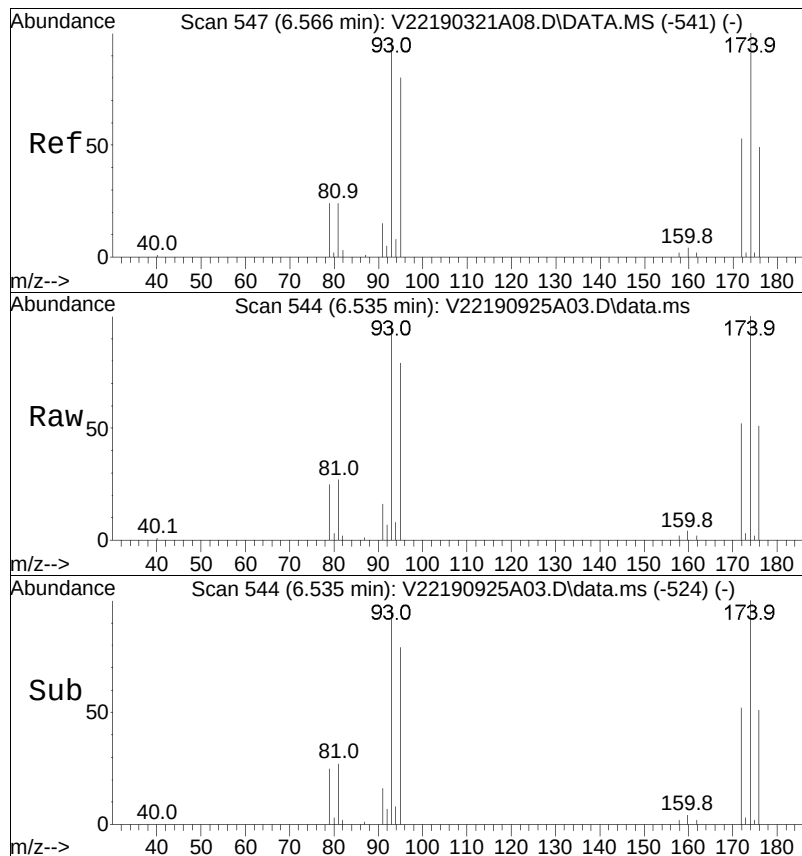




#51
 Trichloroethene
 Concen: 9.50 ug/L
 RT: 6.091 min Scan# 501
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

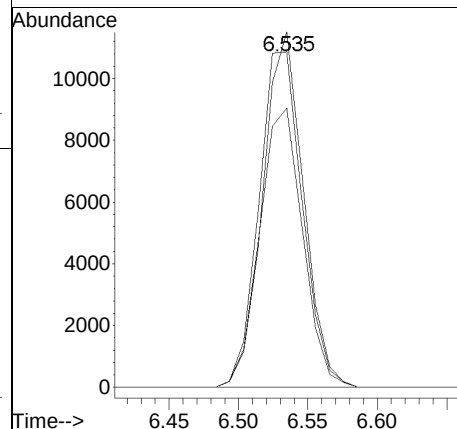
Tgt Ion	Ratio	Lower	Upper
95	100		
97	68.0	55.0	82.4
130	104.4	89.2	133.8

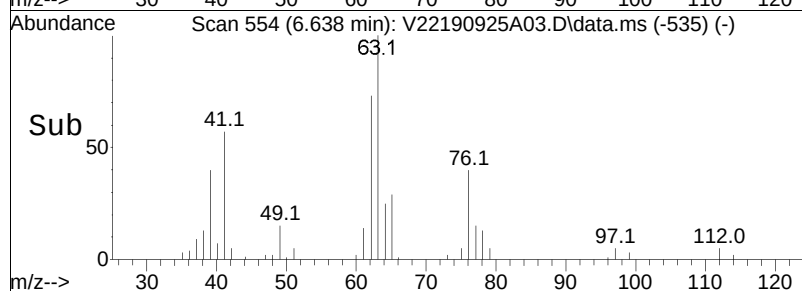
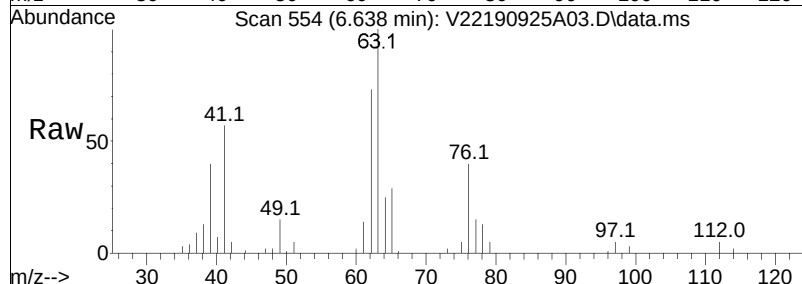
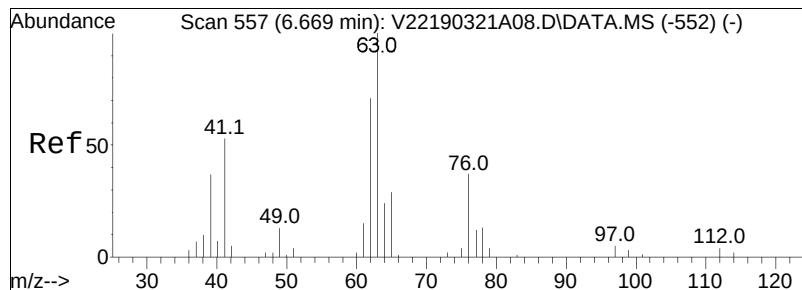




#53
 Dibromomethane
 Concen: 9.27 ug/L
 RT: 6.535 min Scan# 544
 Delta R.T. 0.011 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	93	Resp:	23785
Ion Ratio	Lower	Upper	
93	100		
95	82.2	68.0	102.0
174	98.6	106.1	159.1#





#54

1,2-Dichloropropane

Concen: 10.02 ug/L

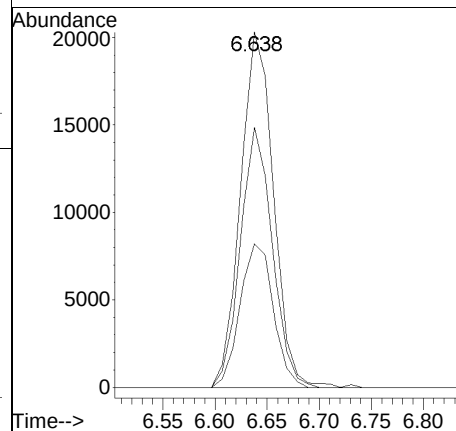
RT: 6.638 min Scan# 554

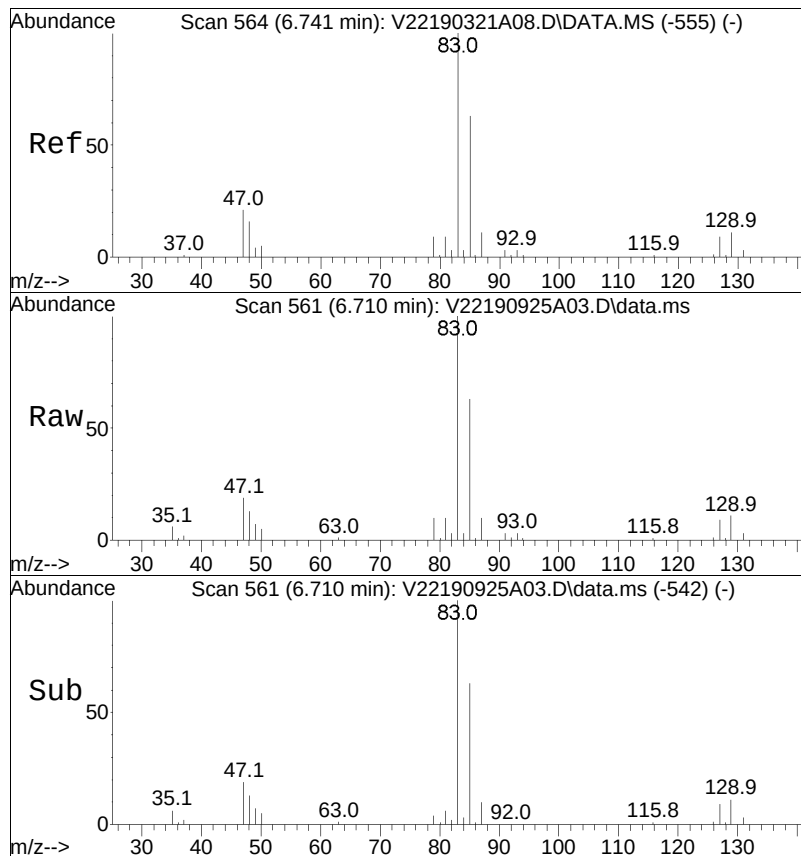
Delta R.T. -0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

Tgt Ion:	63	Resp:	44660
Ion Ratio	Lower	Upper	
63	100		
62	70.8	56.9	85.3
76	40.9	35.8	53.8





#57

Bromodichloromethane

Concen: 9.64 ug/L

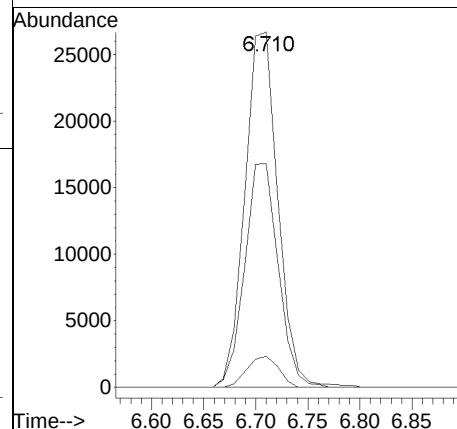
RT: 6.710 min Scan# 561

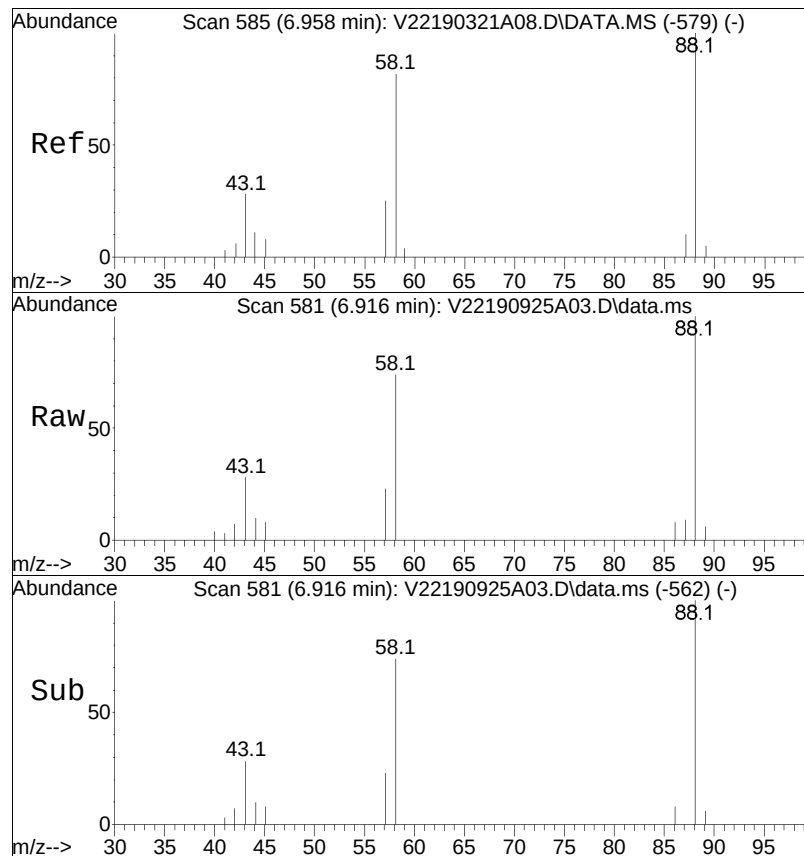
Delta R.T. 0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

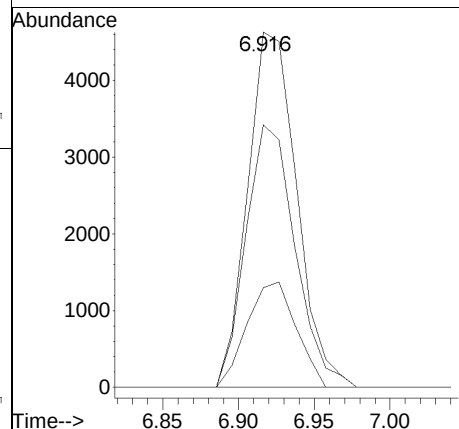
Tgt	Ion: 83	Resp:	59054
Ion	Ratio	Lower	Upper
83	100		
85	63.9	51.6	77.4
127	8.4	7.4	11.0

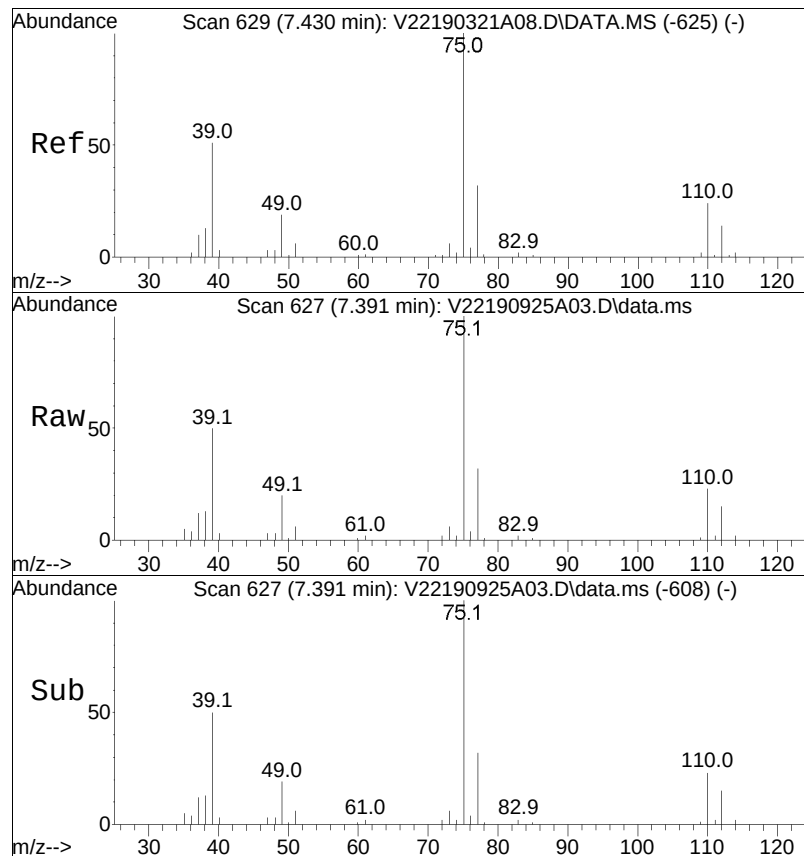




#60
 1,4-Dioxane
 Concen: 418.08 ug/L
 RT: 6.916 min Scan# 581
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

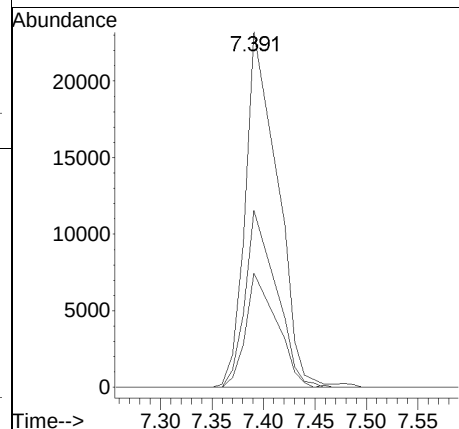
Tgt Ion:	88	Resp:	10433
Ion Ratio	Lower	Upper	
88	100		
58	74.4	43.3	64.9#
43	29.7	15.1	22.7#

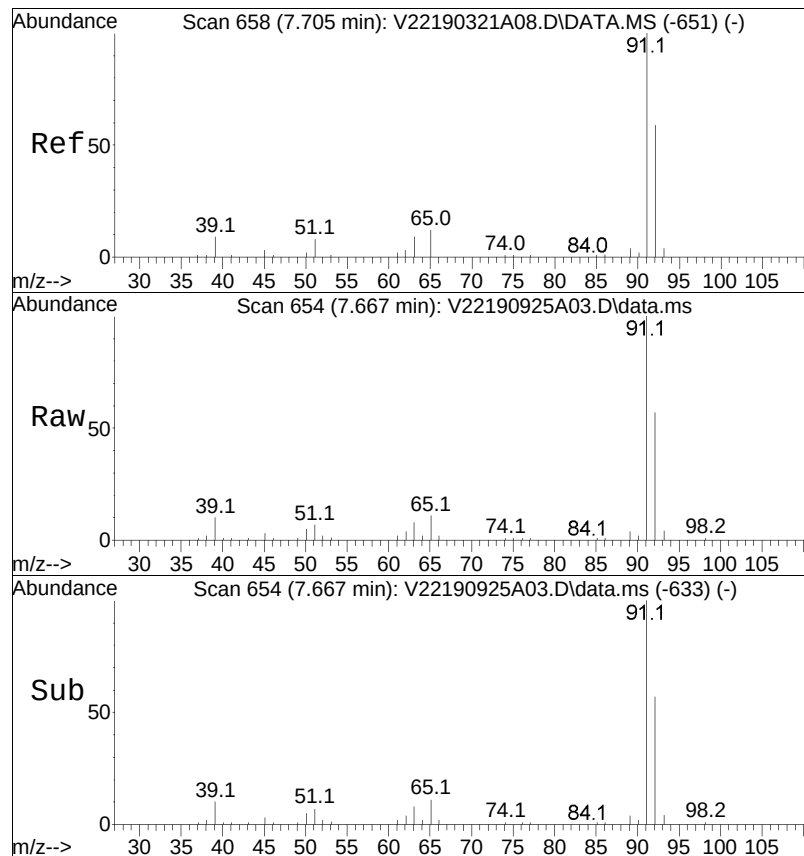




#61
 cis-1,3-Dichloropropene
 Concen: 8.81 ug/L
 RT: 7.391 min Scan# 627
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

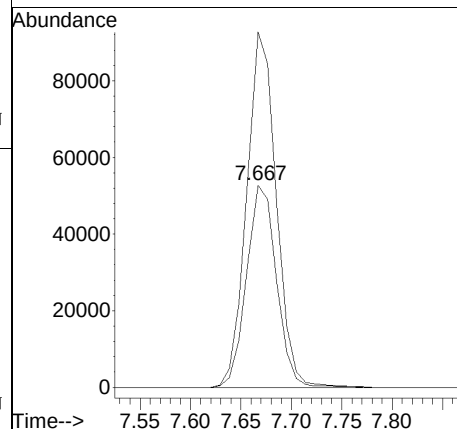
Tgt Ion:	75	Resp:	33899
Ion Ratio	Lower	Upper	
75	100		
77	32.1	25.6	38.4
39	50.5	35.4	53.0

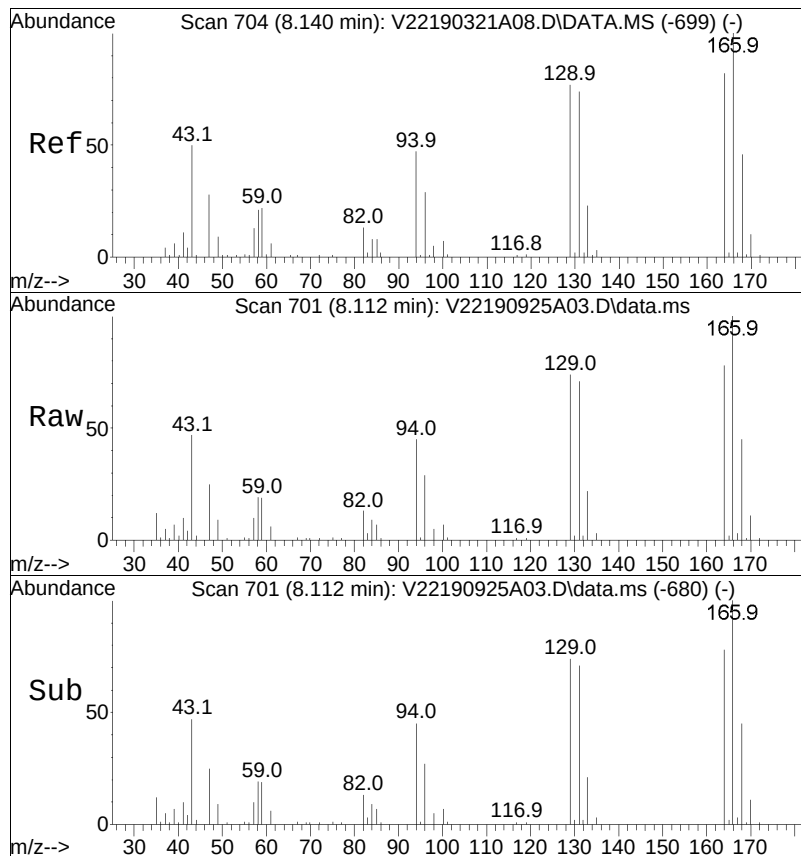




#64
 Toluene
 Concen: 9.18 ug/L
 RT: 7.667 min Scan# 654
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

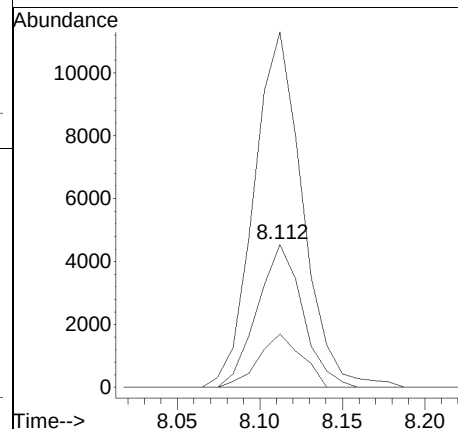
Tgt Ion	Ratio	Lower	Upper
92	100		
91	173.6	137.0	205.6

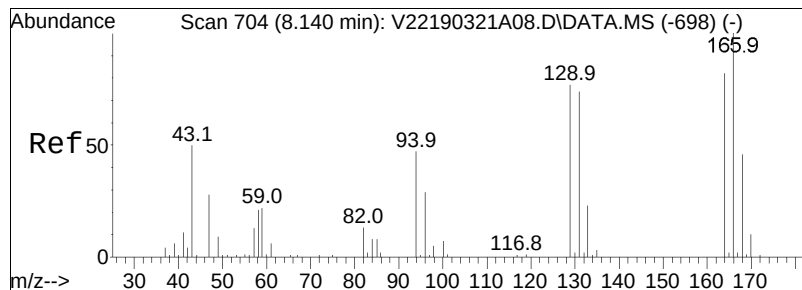




#65
 4-Methyl-2-pentanone
 Concen: 9.44 ug/L
 RT: 8.112 min Scan# 701
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	58	Resp:	8701
Ion Ratio	Lower	Upper	
58	100		
100	35.6	36.2	54.4#
43	267.3	181.8	272.8





#66

Tetrachloroethene

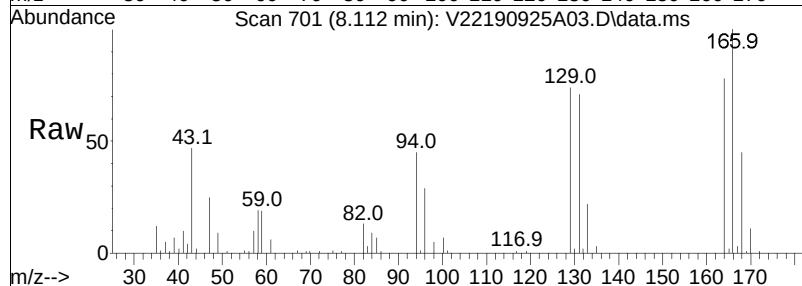
Concen: 9.40 ug/L

RT: 8.112 min Scan# 701

Delta R.T. 0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am



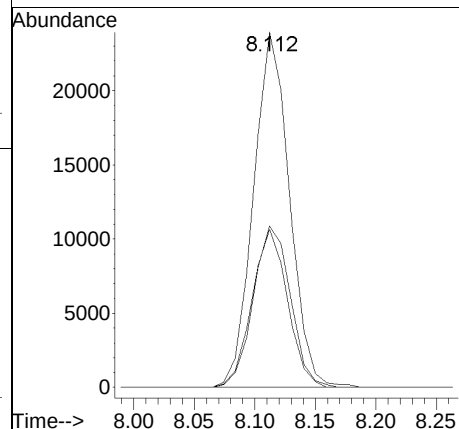
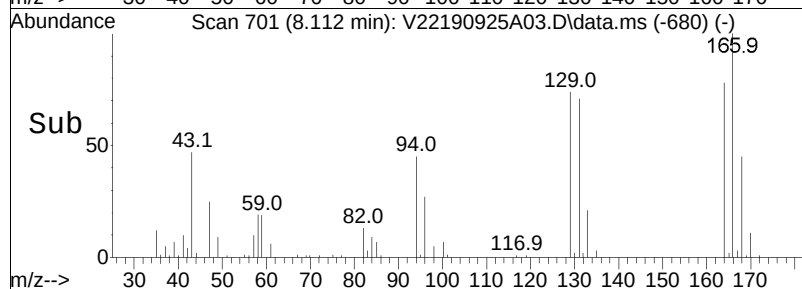
Tgt Ion:166 Resp: 49462

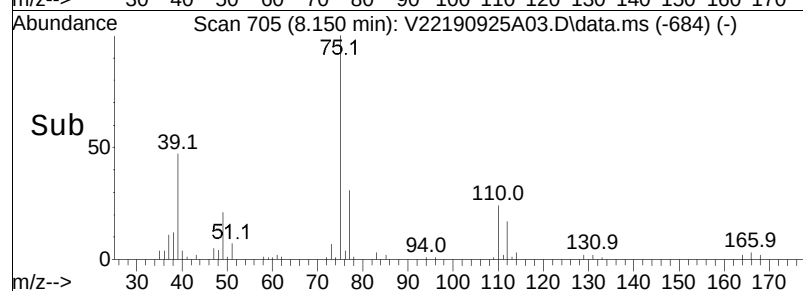
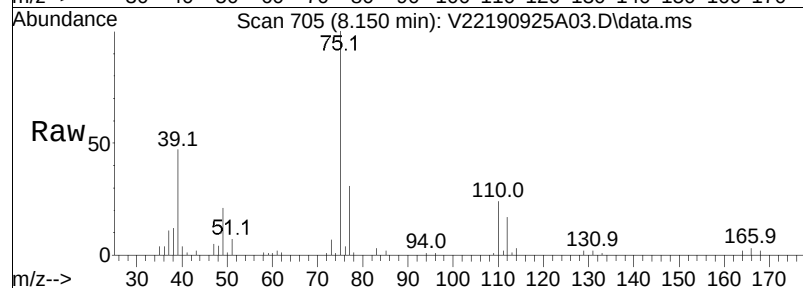
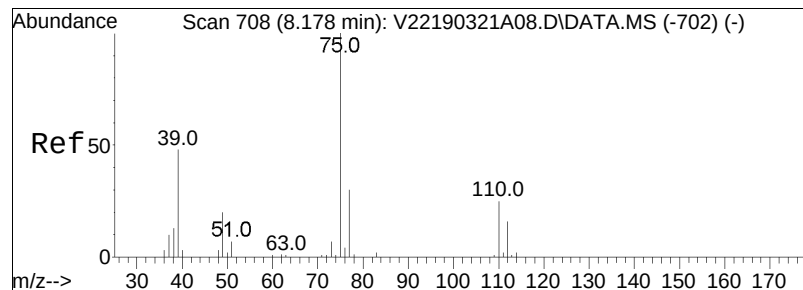
Ion Ratio Lower Upper

166 100

168 46.8 27.8 67.8

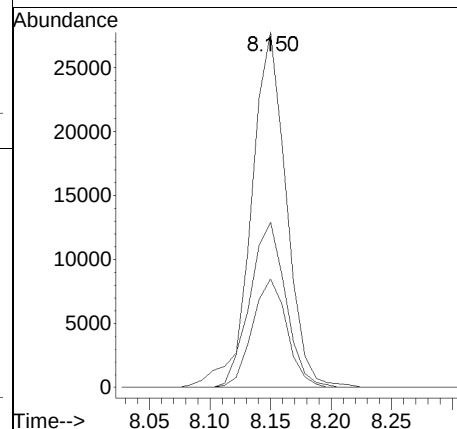
94 43.9 16.7 56.7

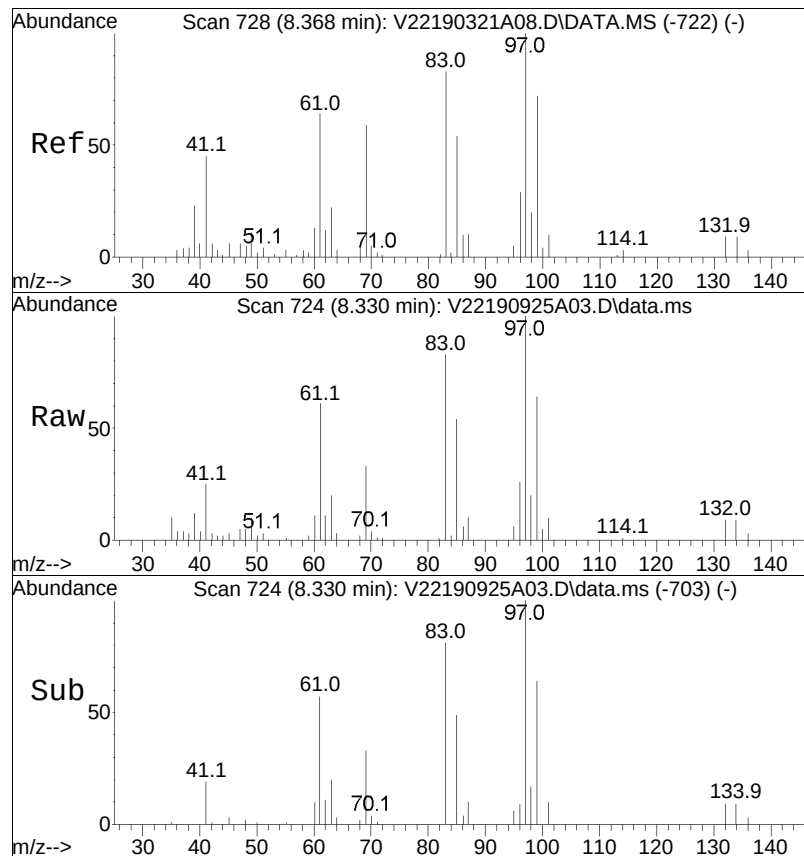




#68
 trans-1,3-Dichloropropene
 Concen: 9.01 ug/L
 RT: 8.150 min Scan# 705
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

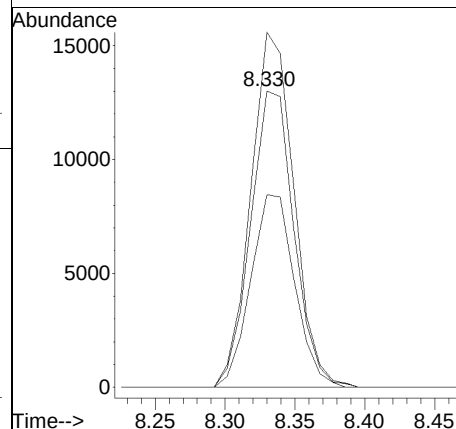
Tgt Ion:	75	Resp:	54026
Ion Ratio	100	Lower	Upper
77	31.1	11.9	51.9
39	53.0	27.4	67.4

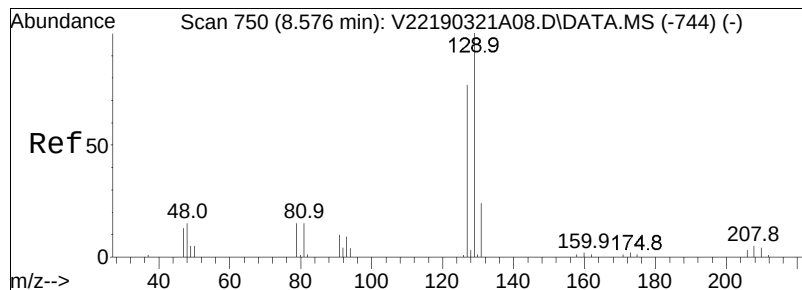




#71
 1,1,2-Trichloroethane
 Concen: 10.03 ug/L
 RT: 8.330 min Scan# 724
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	83	Resp:	28125
Ion Ratio	Lower	Upper	
83	100		
97	118.7	103.4	143.4
85	66.0	47.9	87.9





#72

Chlorodibromomethane

Concen: 9.81 ug/L

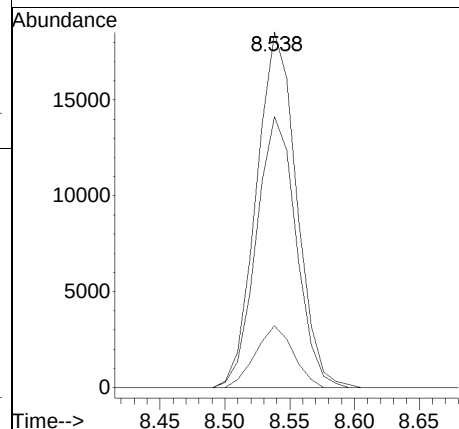
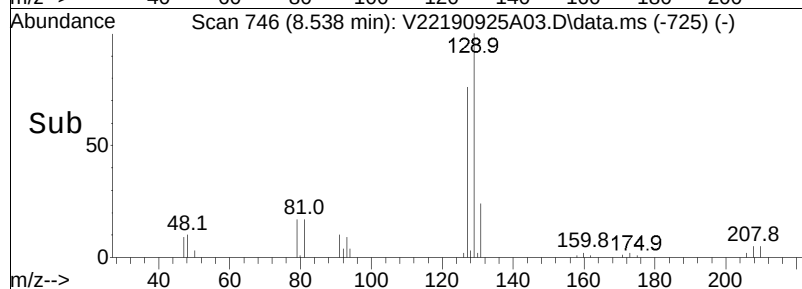
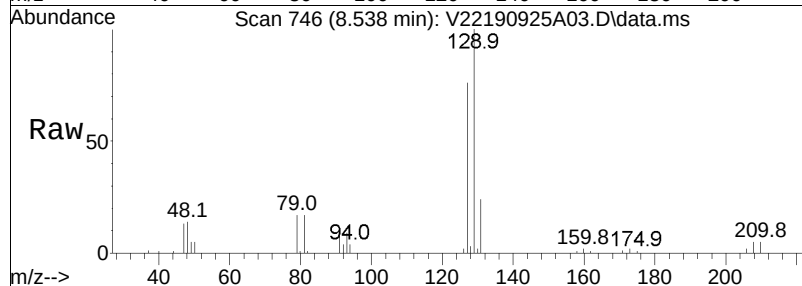
RT: 8.538 min Scan# 746

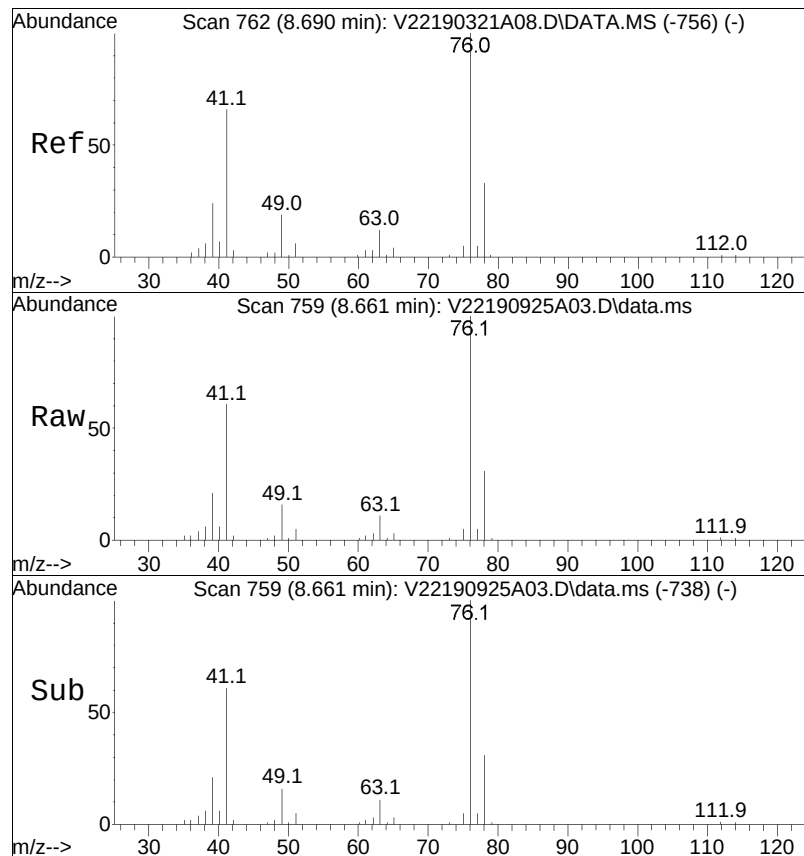
Delta R.T. 0.000 min

Lab File: V22190925A03.D

Acq: 25 Sep 2019 09:11 am

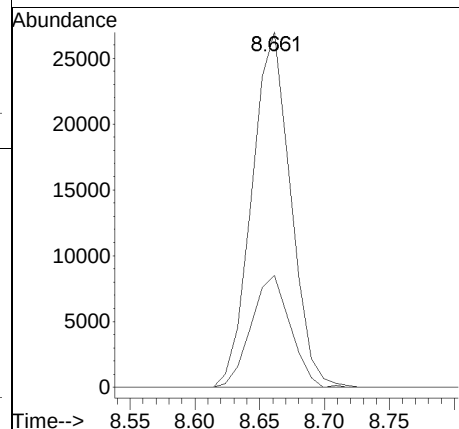
Tgt	Ion:129	Resp:	39968
Ion	Ratio	Lower	Upper
129	100		
81	16.3	0.0	33.8
127	75.7	57.1	97.1

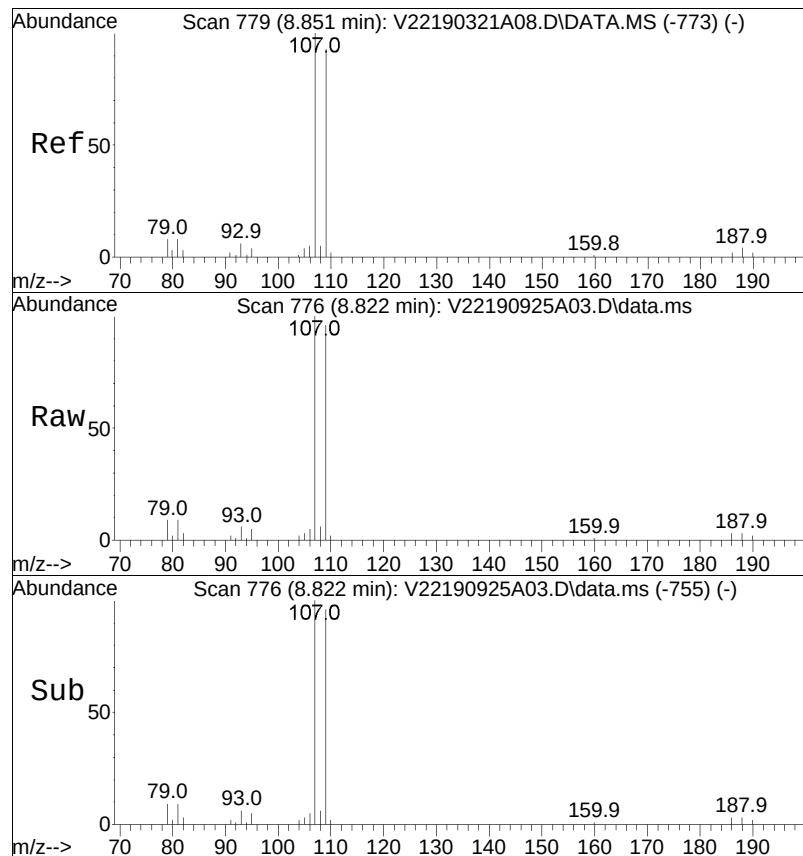




#73
 1,3-Dichloropropane
 Concen: 9.74 ug/L
 RT: 8.661 min Scan# 759
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

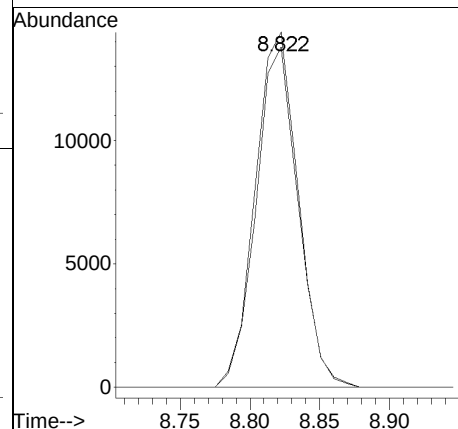
Tgt Ion:	76	78	Ratio	100	31.8	Resp:	56164	Lower	Upper
								25.7	38.5

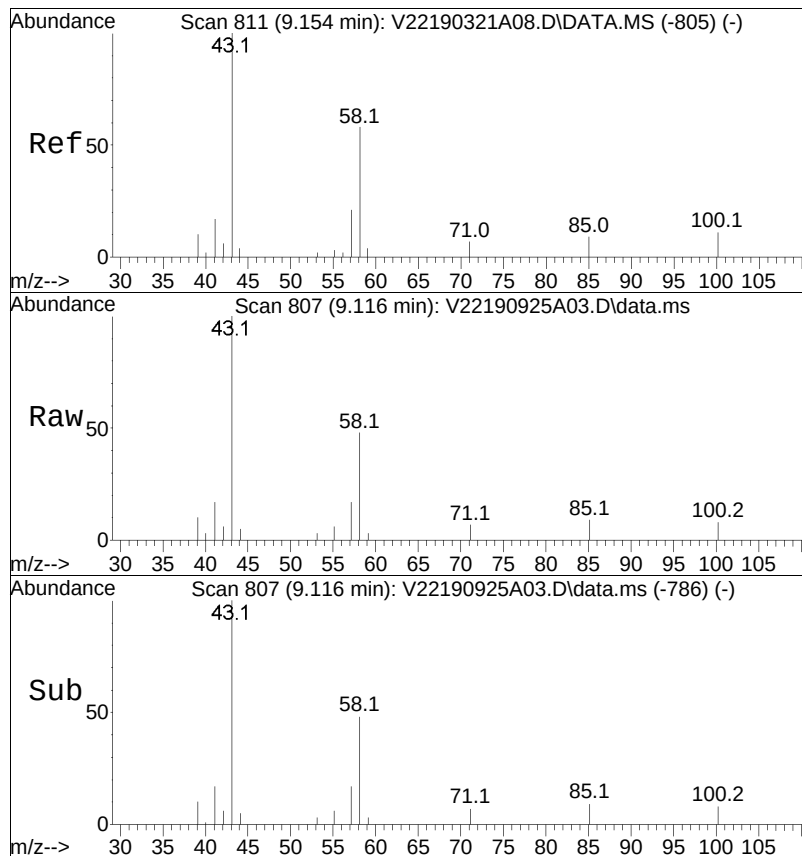




#74
 1,2-Dibromoethane
 Concen: 9.25 ug/L
 RT: 8.822 min Scan# 776
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

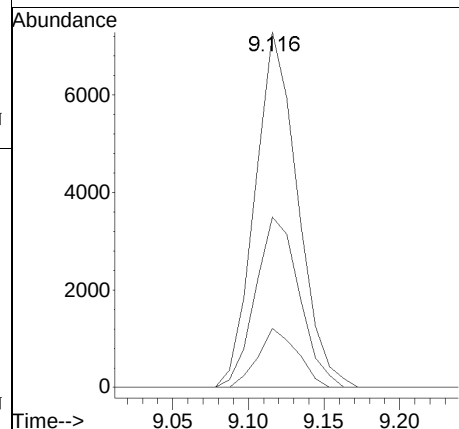
Tgt Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.1	112.7

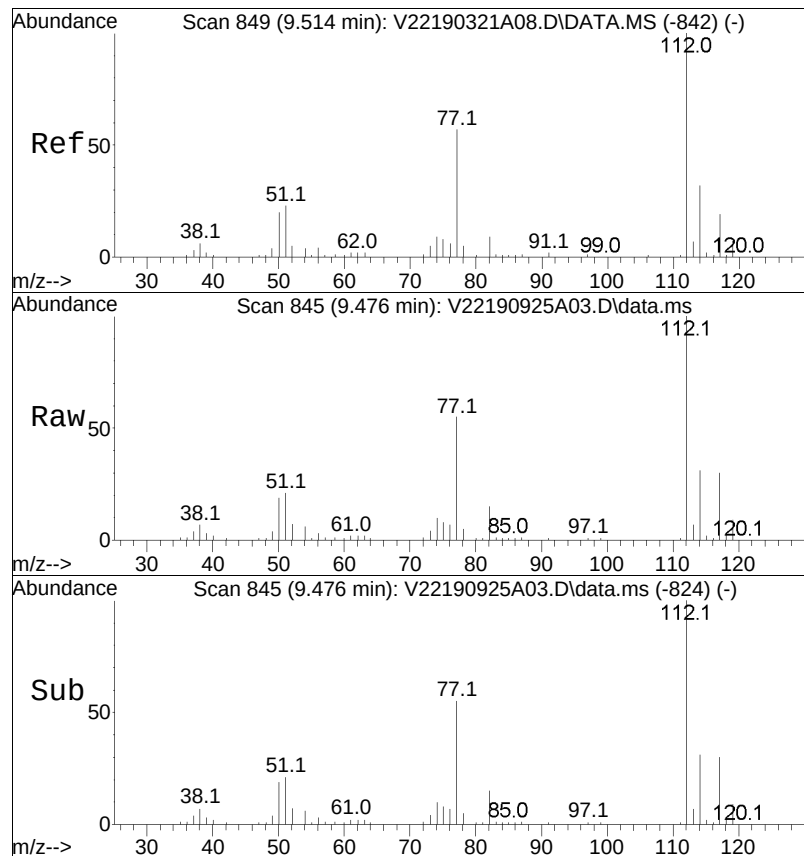




#76
 2-Hexanone
 Concen: 8.68 ug/L
 RT: 9.116 min Scan# 807
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

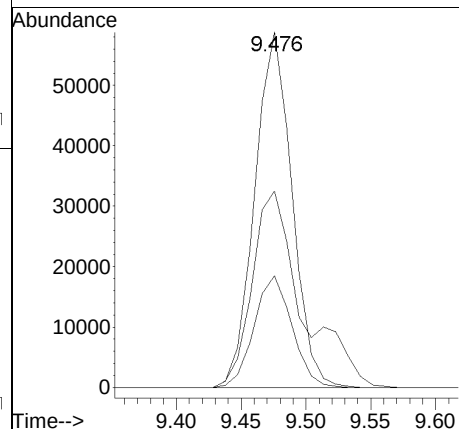
Tgt Ion:	43	Resp:	14317
Ion Ratio	Lower	Upper	
43	100		
58	49.4	47.6	71.4
57	15.3	16.6	24.8#

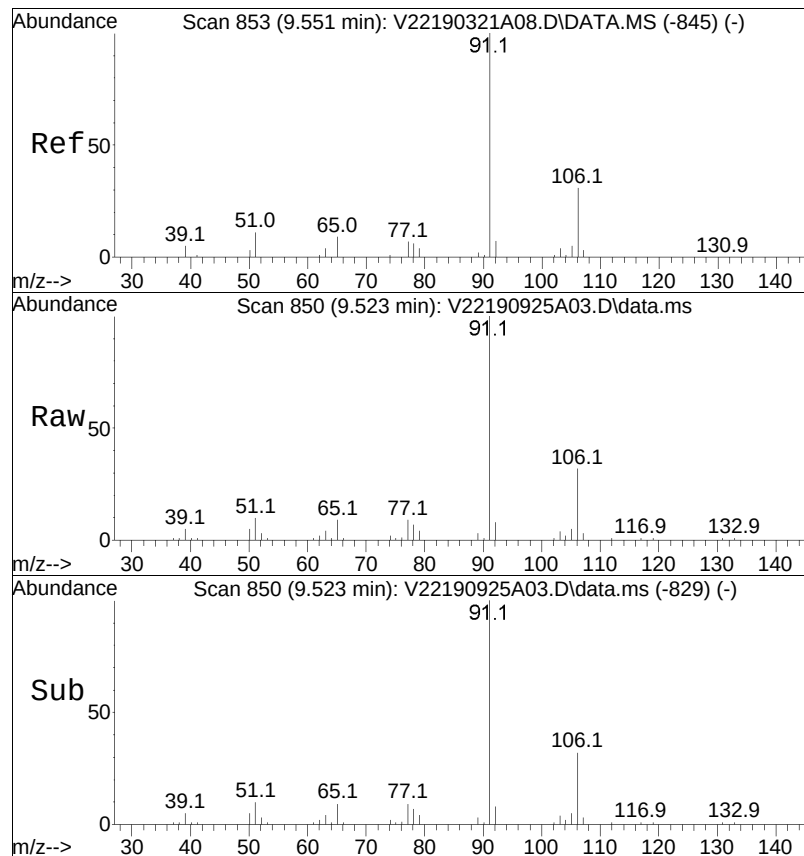




#77
 Chlorobenzene
 Concen: 9.14 ug/L
 RT: 9.476 min Scan# 845
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

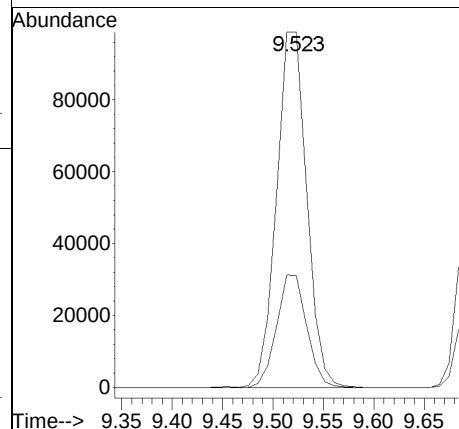
Tgt	Ion:112	Resp:	117275
Ion	Ratio	Lower	Upper
112	100		
77	74.3	55.4	83.0
114	31.9	26.2	39.4

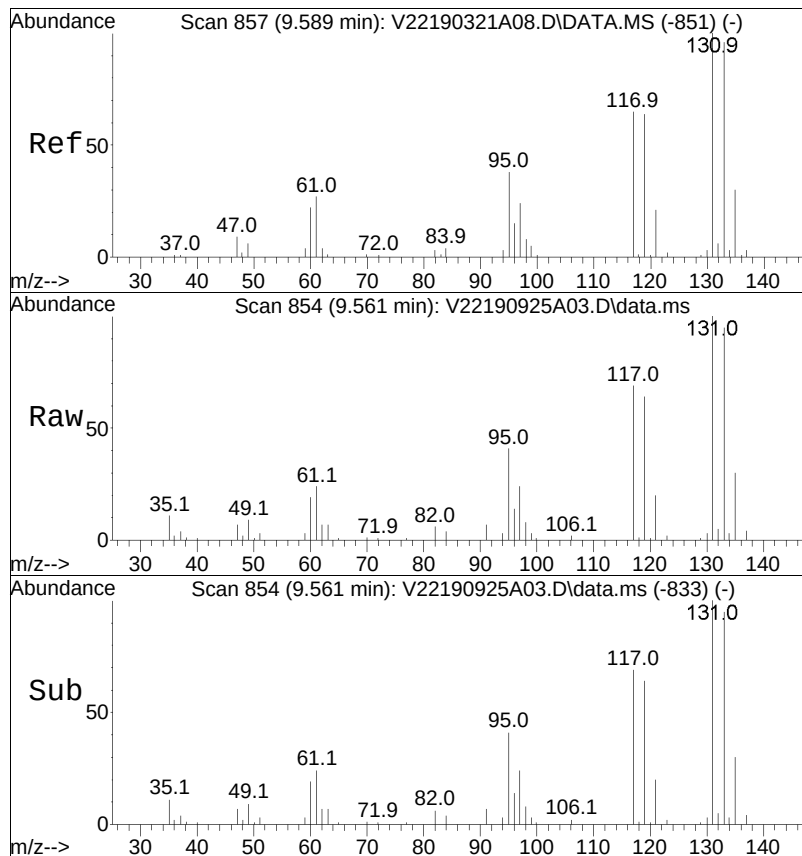




#78
 Ethylbenzene
 Concen: 9.06 ug/L
 RT: 9.523 min Scan# 850
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

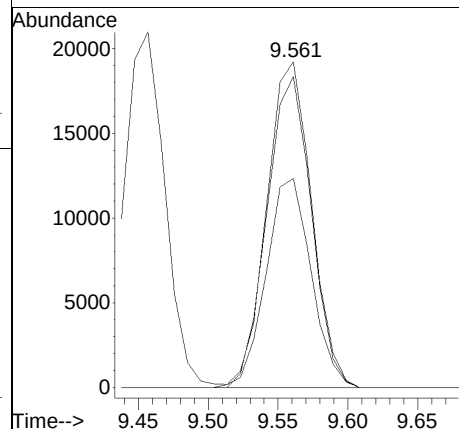
Tgt Ion:	91	Resp:	206142
Ion Ratio	Lower	Upper	
91	100		
106	31.5	25.8	38.6

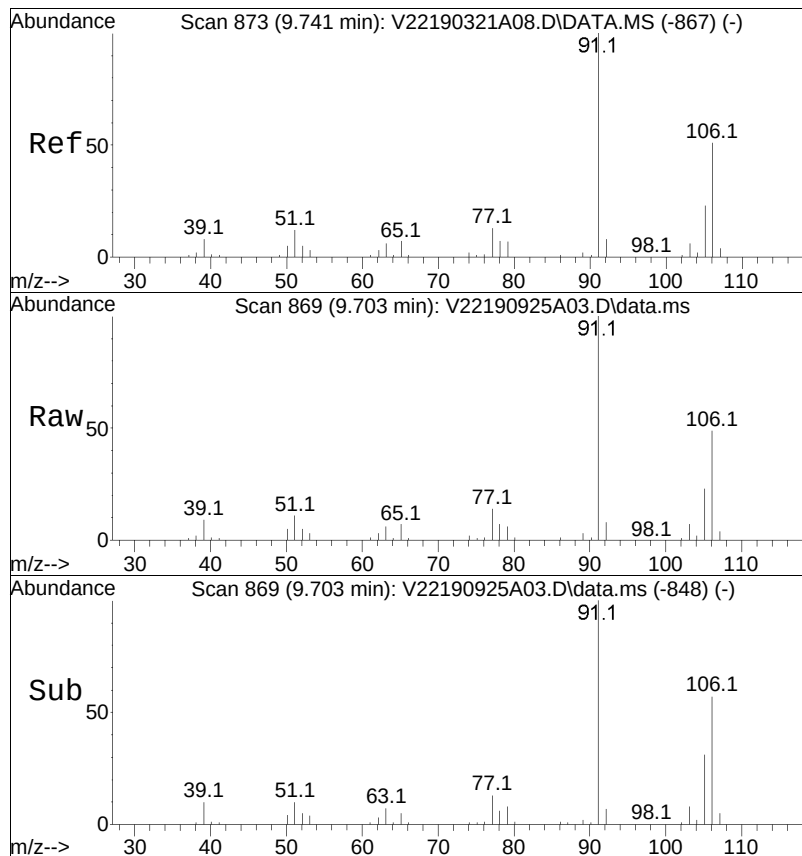




#79
 1,1,1,2-Tetrachloroethane
 Concen: 10.01 ug/L
 RT: 9.561 min Scan# 854
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

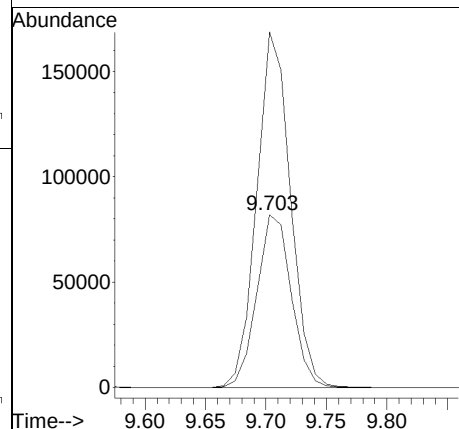
Tgt Ion:	131	Resp:	42925
Ion Ratio	Lower	Upper	
131	100		
133	94.7	75.3	115.3
119	64.2	49.3	89.3

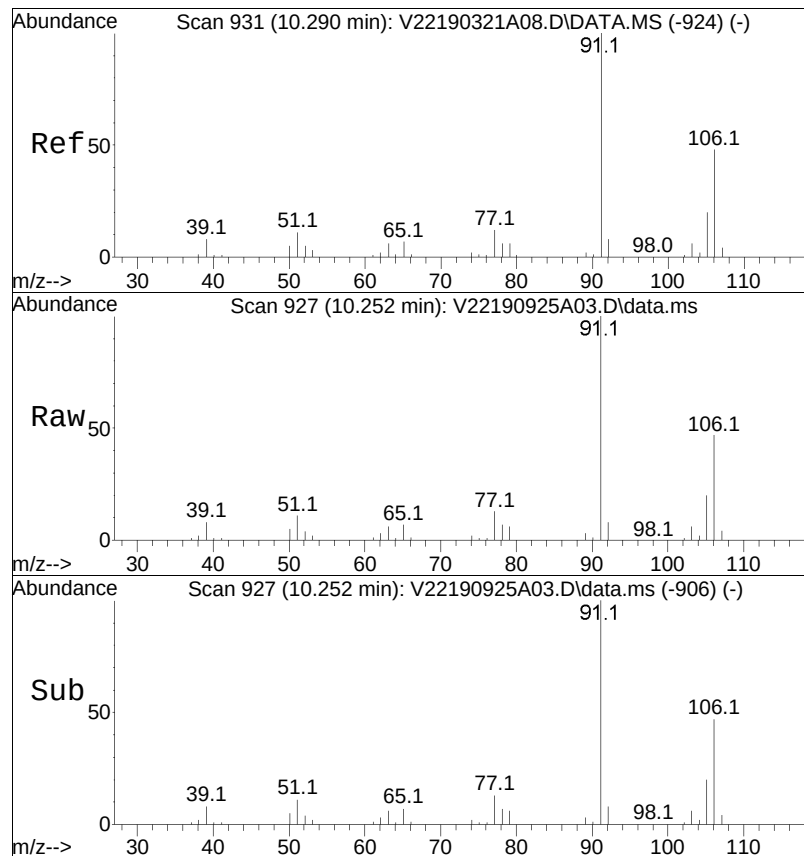




#80
 p/m Xylene
 Concen: 17.69 ug/L
 RT: 9.703 min Scan# 869
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

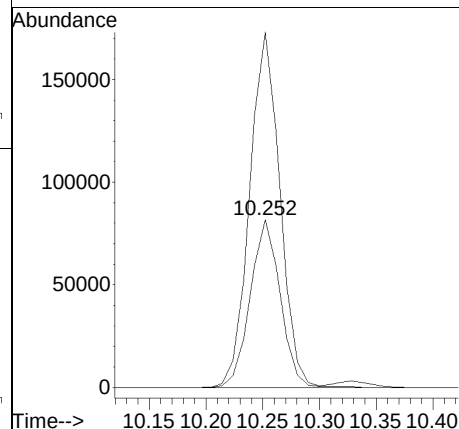
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	201.2	156.0	234.0	

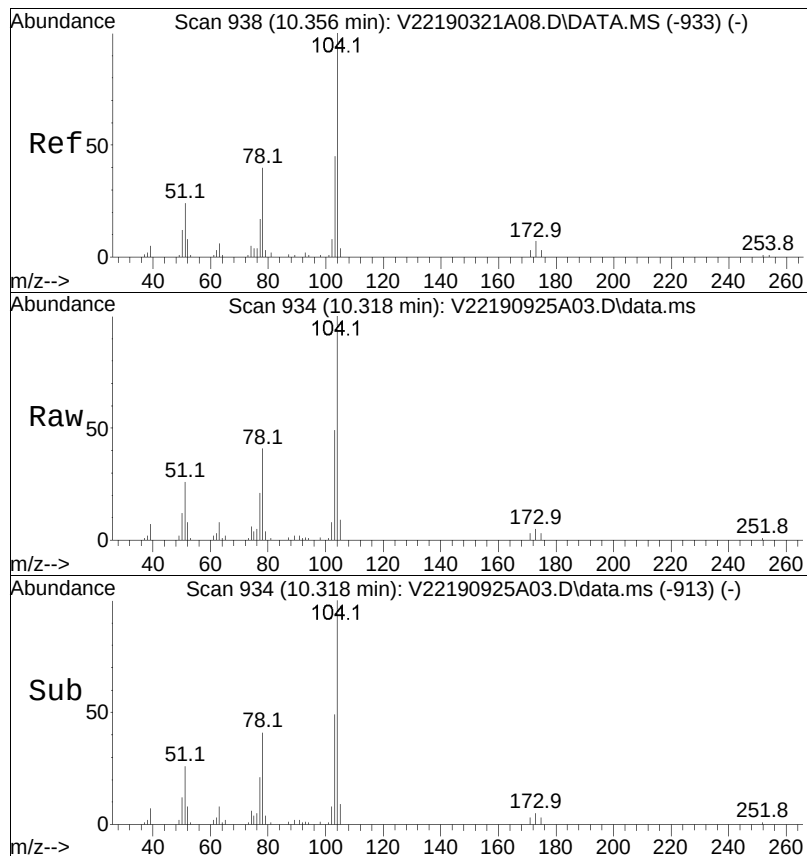




#81
 o Xylene
 Concen: 17.38 ug/L
 RT: 10.252 min Scan# 927
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

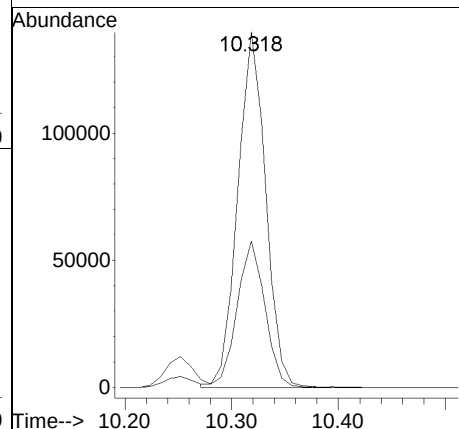
Tgt Ion	Ratio	Lower	Upper
106	100		
91	213.4	164.0	246.0

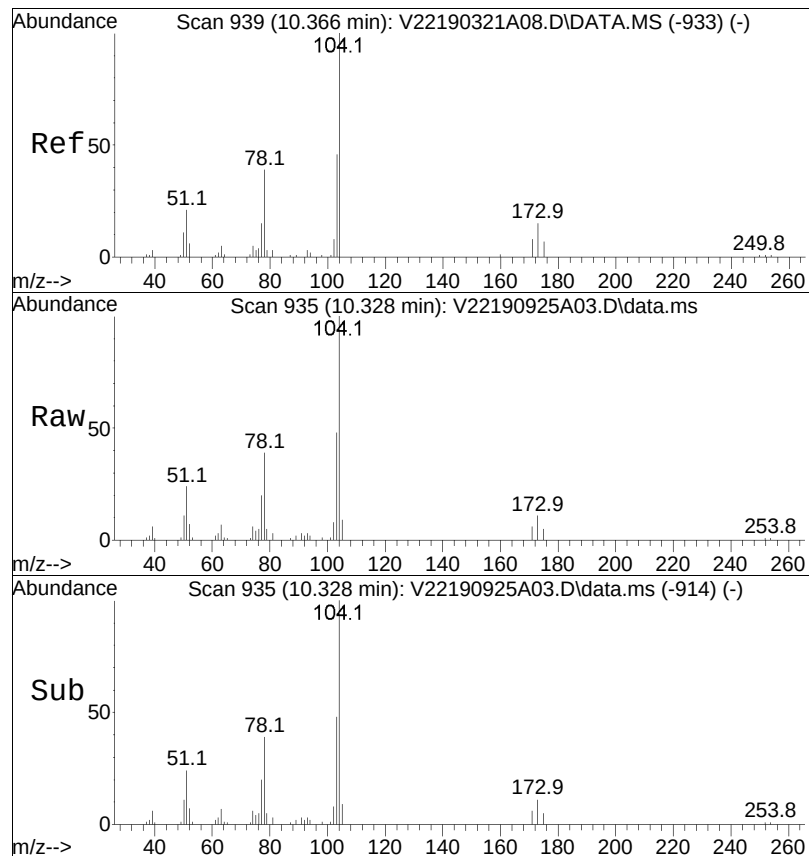




#82
 Styrene
 Concen: 18.51 ug/L
 RT: 10.318 min Scan# 934
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

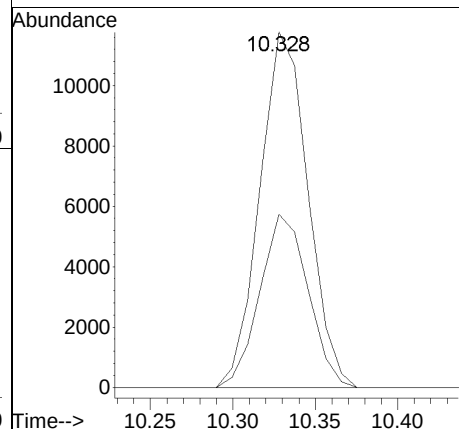
Tgt	Ion	Ratio	Lower	Upper
104	104	100		
78	78	40.8	32.1	48.1

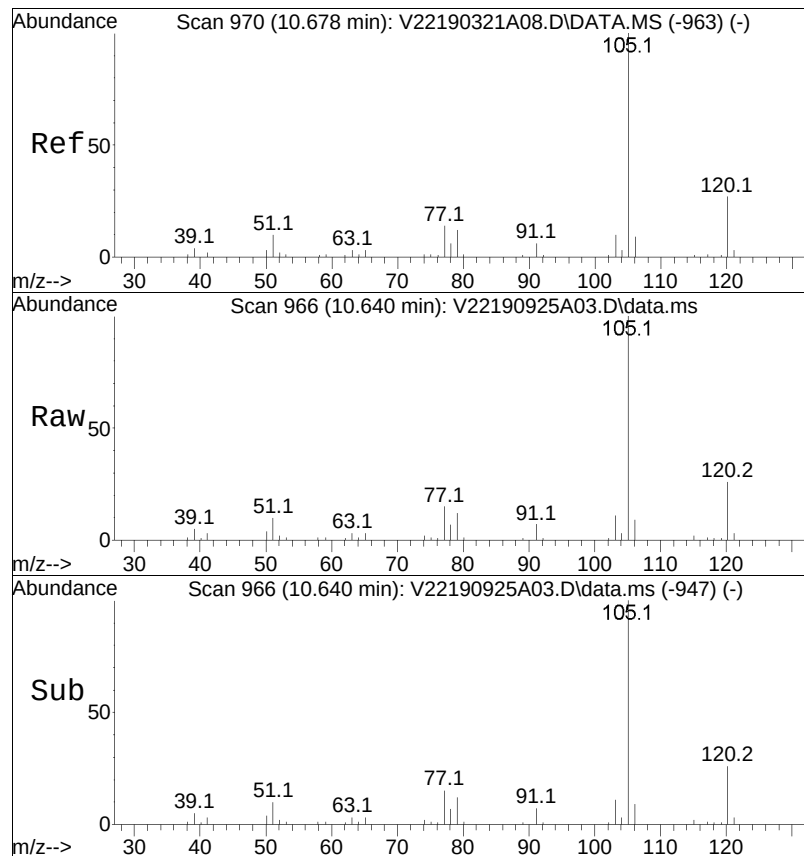




#84
 Bromoform
 Concen: 10.15 ug/L
 RT: 10.328 min Scan# 935
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

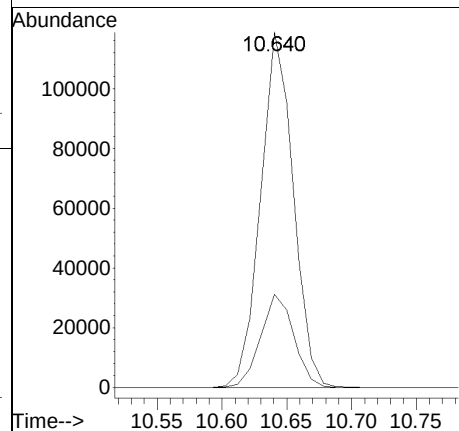
Tgt Ion	Ratio	Lower	Upper
173	100		
175	48.8	29.3	69.3

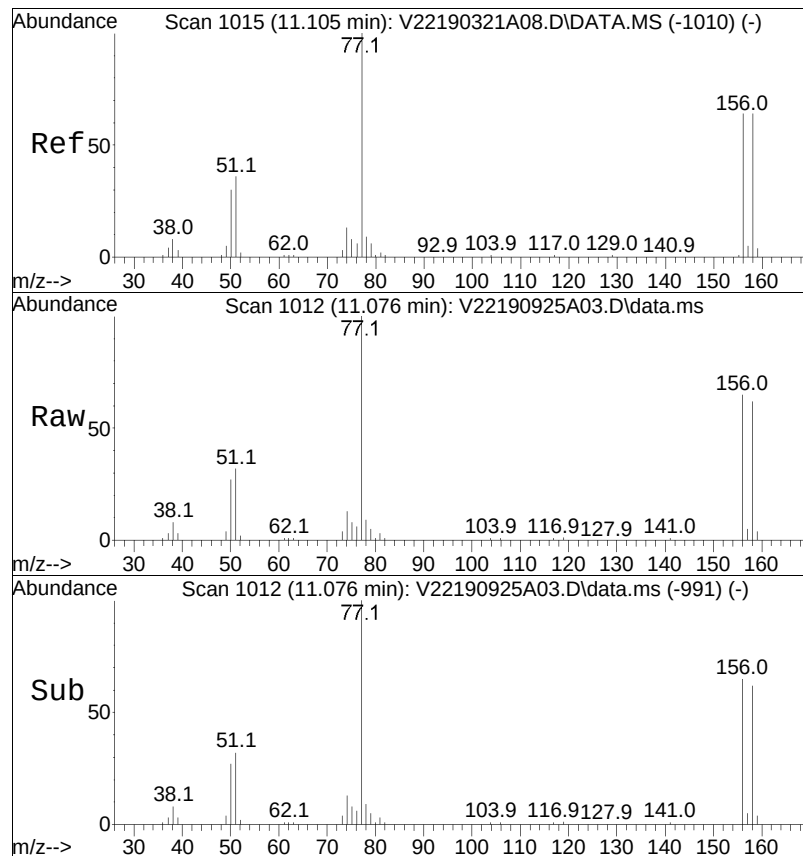




#86
 Isopropylbenzene
 Concen: 8.24 ug/L
 RT: 10.640 min Scan# 966
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

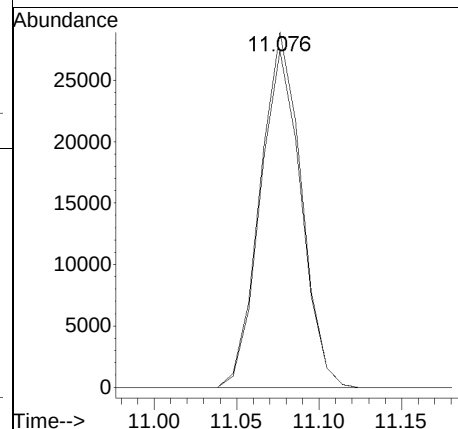
Tgt Ion	105	120	Ratio	Lower	Upper
105	100				
120	26.6		7.7		47.7

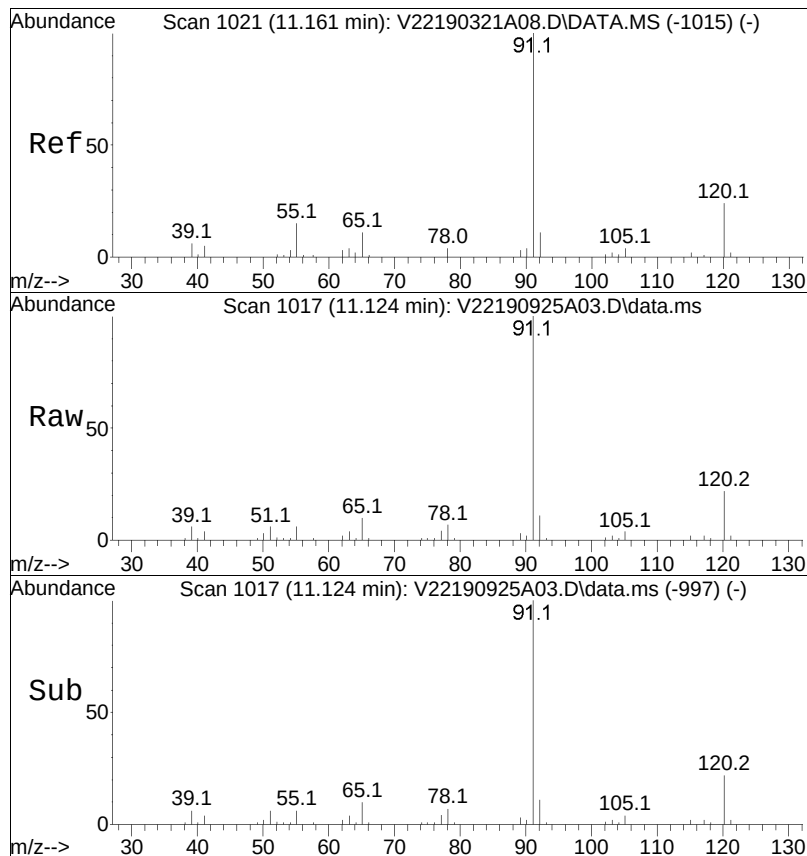




#88
 Bromobenzene
 Concen: 9.20 ug/L
 RT: 11.076 min Scan# 1012
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

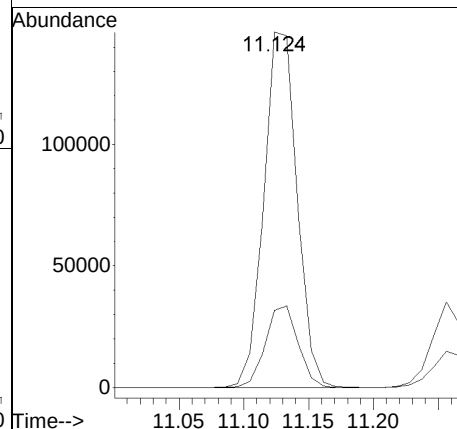
Tgt Ion	Ratio	Lower	Upper
156	100		
158	94.2	77.9	116.9

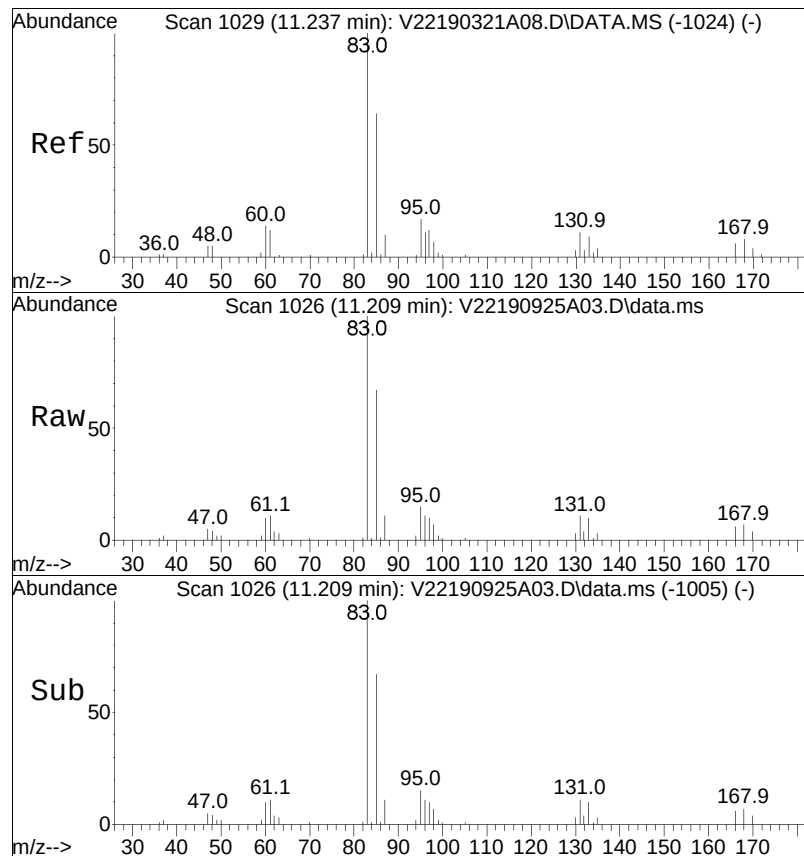




#89
 n-Propylbenzene
 Concen: 8.91 ug/L
 RT: 11.124 min Scan# 1017
 Delta R.T. -0.009 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

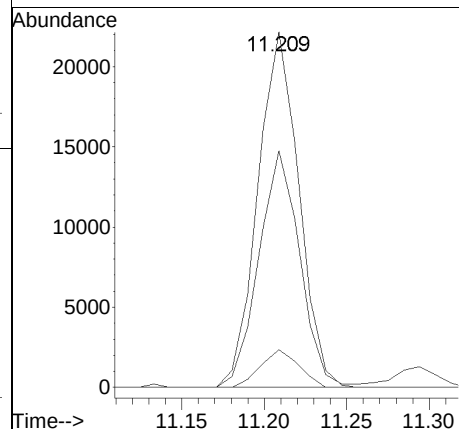
Tgt	Ion	Resp	Lower	Upper
91	100	261129		
120	22.5	19.5	29.3	

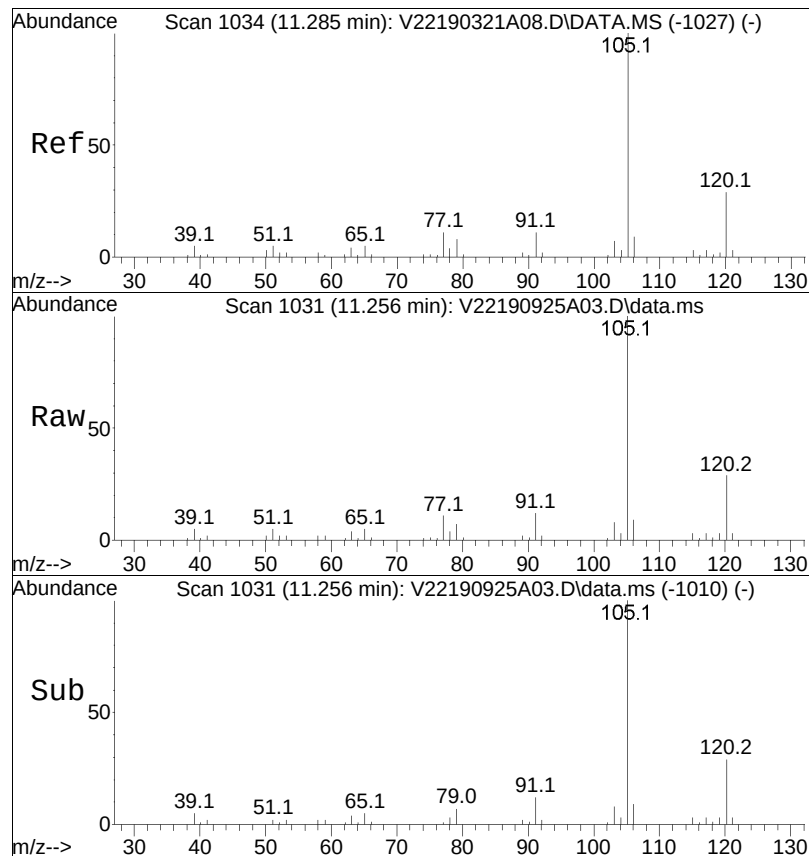




#91
 1,1,2,2-Tetrachloroethane
 Concen: 9.75 ug/L
 RT: 11.209 min Scan# 1026
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

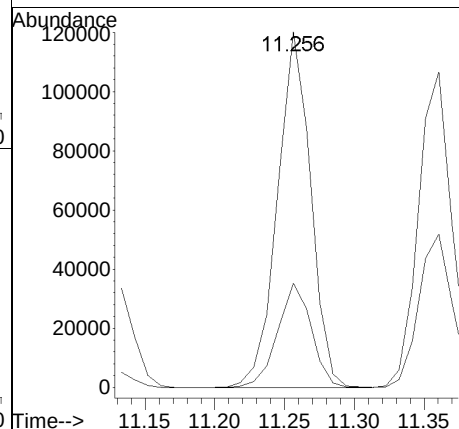
Tgt Ion:	83	Resp:	38296
Ion Ratio	Lower	Upper	
83	100		
131	9.9	0.0	30.8
85	66.7	45.4	85.4

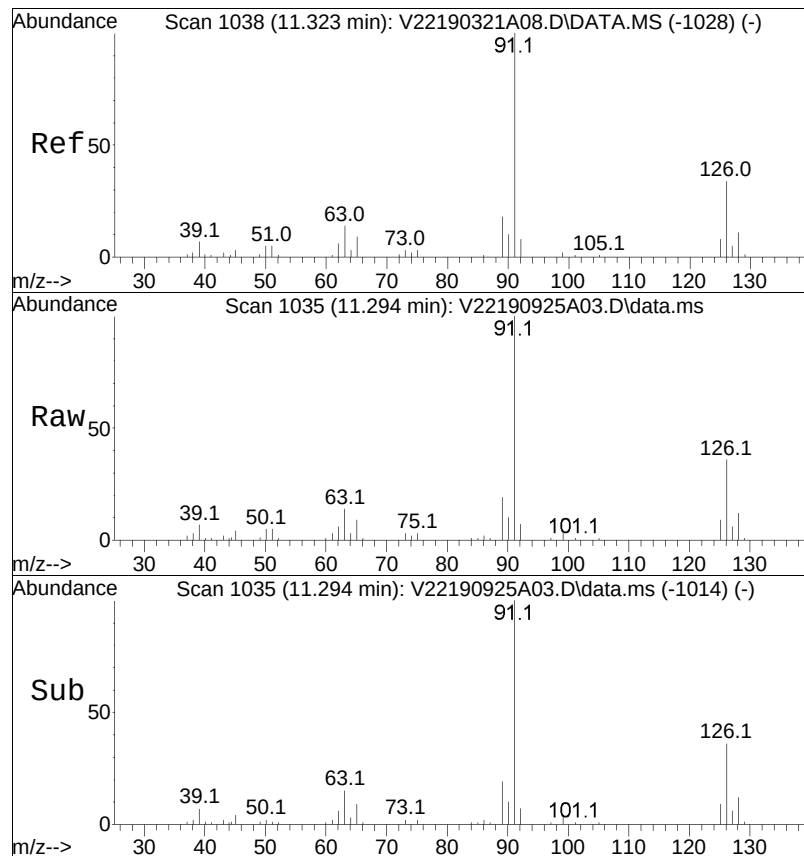




#92
 4-Ethyltoluene
 Concen: 8.64 ug/L
 RT: 11.256 min Scan# 1031
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

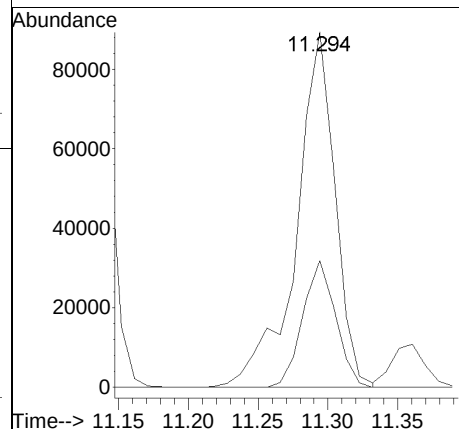
Tgt Ion	Ratio	Lower	Upper
105	100		
120	29.7	19.8	41.0

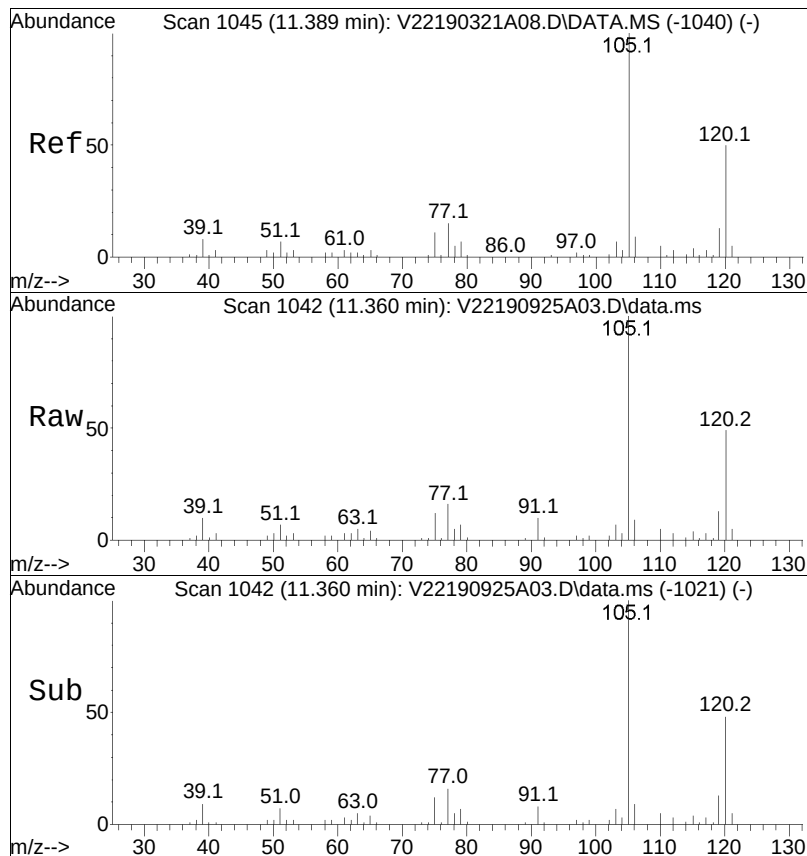




#93
 2-Chlorotoluene
 Concen: 10.66 ug/L
 RT: 11.294 min Scan# 1035
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

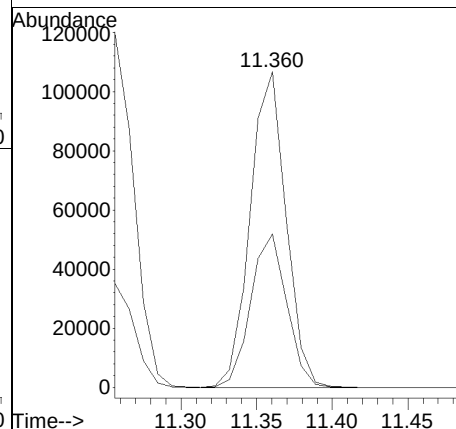
Tgt Ion:	91	126	Resp:	172745
Ion Ratio	100	30.4	Lower	Upper
			24.6	37.0

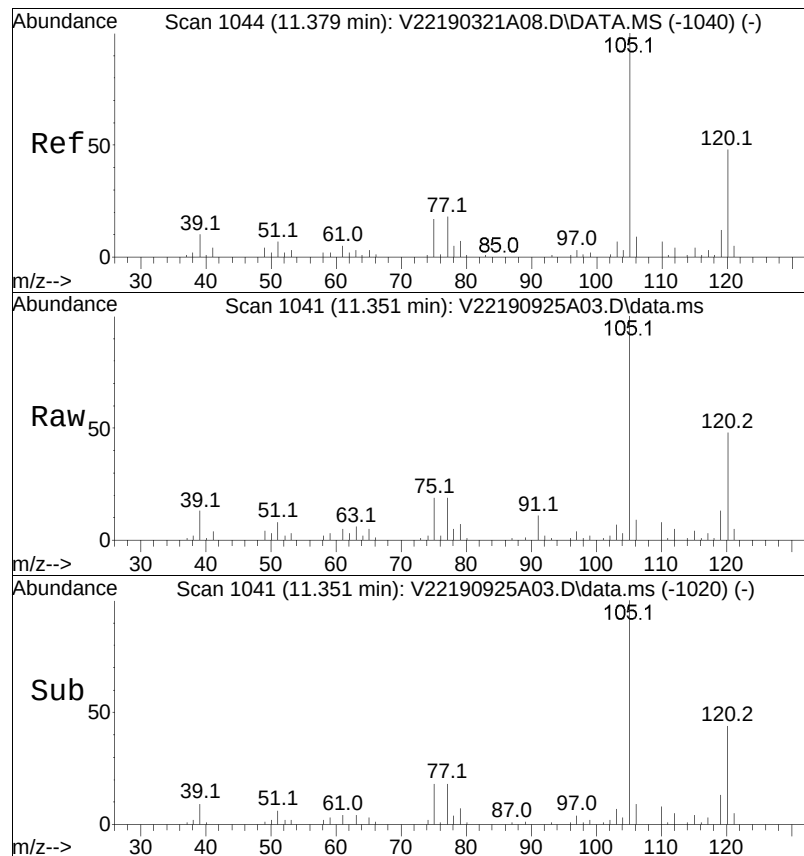




#94
 1,3,5-Trimethylbenzene
 Concen: 8.74 ug/L
 RT: 11.360 min Scan# 1042
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

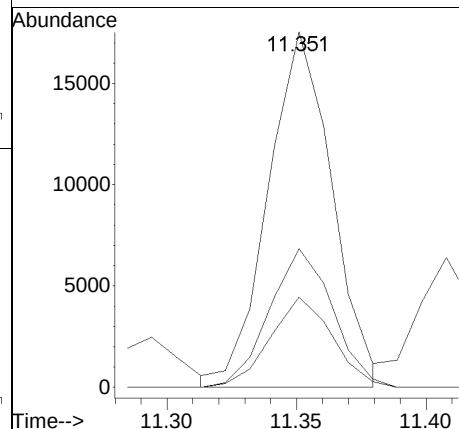
Tgt Ion	105	Ratio	Lower	Upper
105	100			
120	48.9	40.9	61.3	

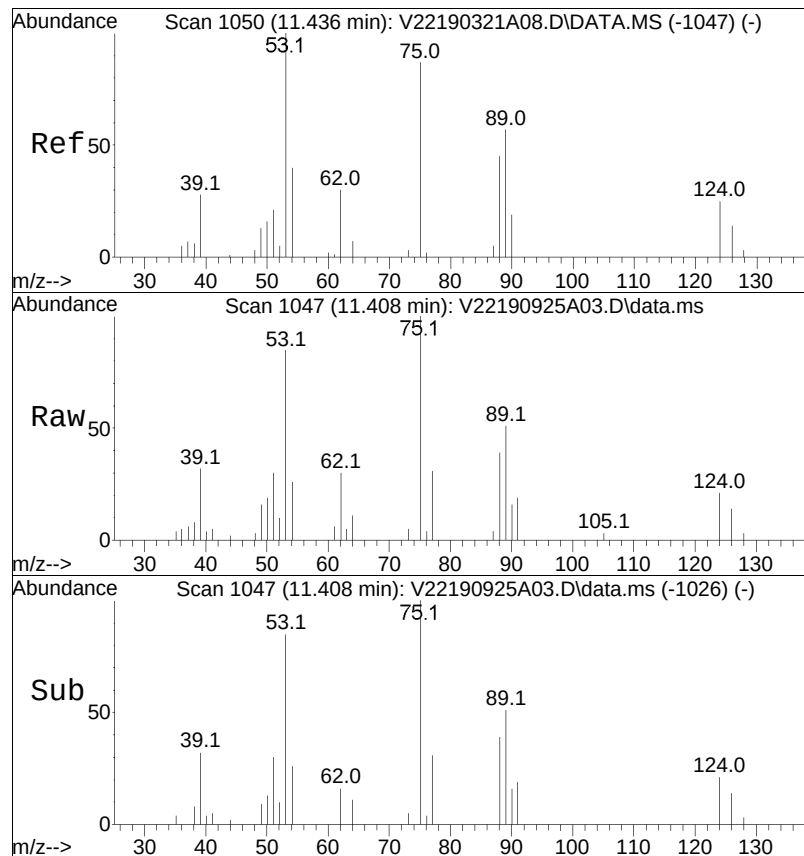




#95
 1,2,3-Trichloropropane
 Concen: 9.13 ug/L
 RT: 11.351 min Scan# 1041
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

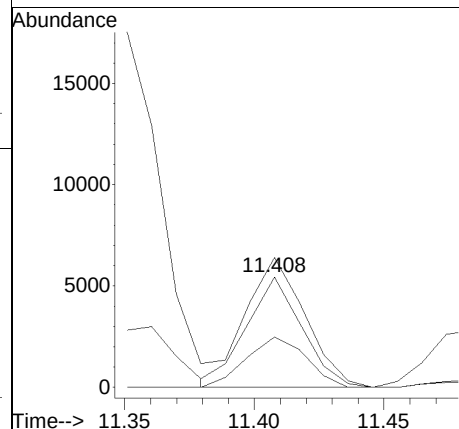
Tgt Ion:	75	Resp:	30017
Ion Ratio	Lower	Upper	
75	100		
110	38.7	26.3	54.7
112	24.9	16.8	35.0

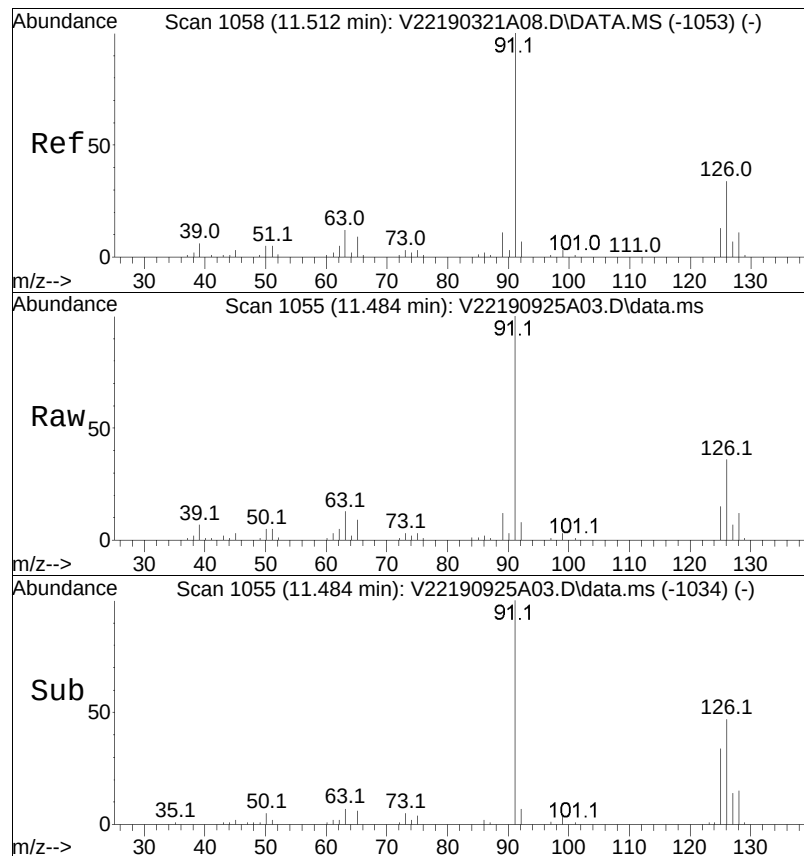




#96
 trans-1,4-Dichloro-2-butene
 Concen: 8.57 ug/L
 RT: 11.408 min Scan# 1047
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

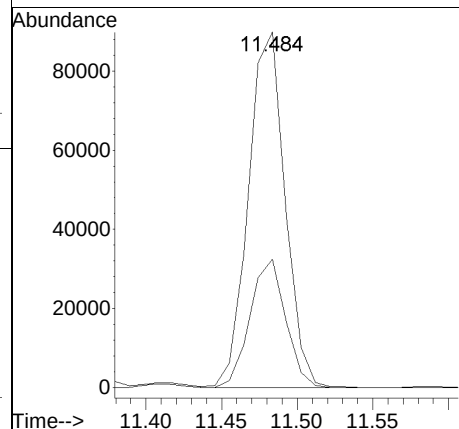
Tgt Ion:	53	Resp:	8180
Ion Ratio	Lower	Upper	
53	100		
88	48.9	46.3	69.5
75	126.2	109.0	163.4

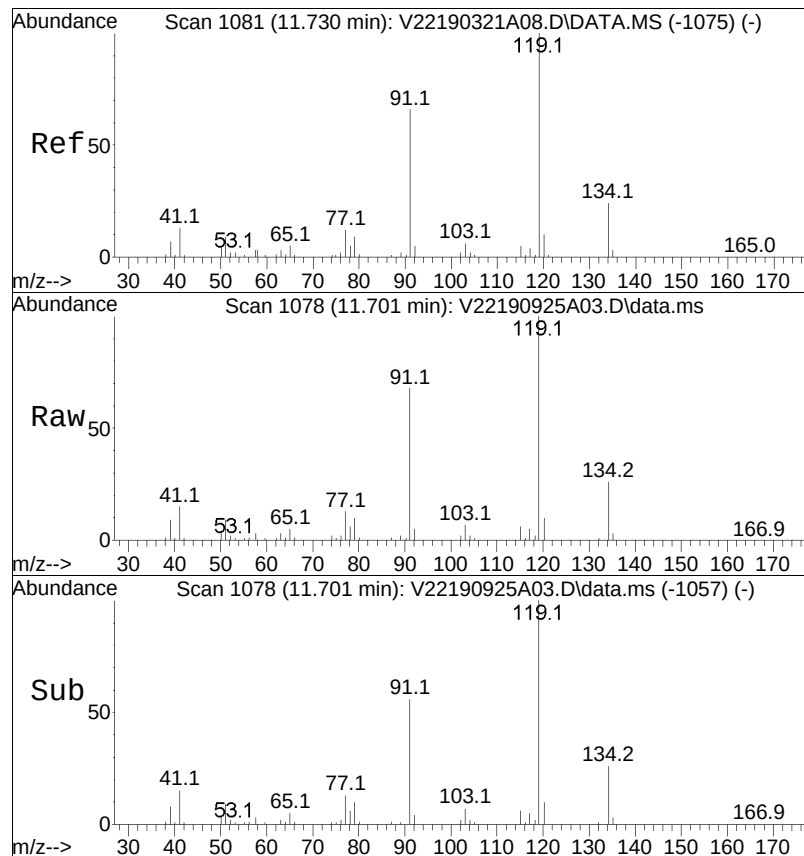




#97
 4-Chlorotoluene
 Concen: 8.91 ug/L
 RT: 11.484 min Scan# 1055
 Delta R.T. 0.001 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

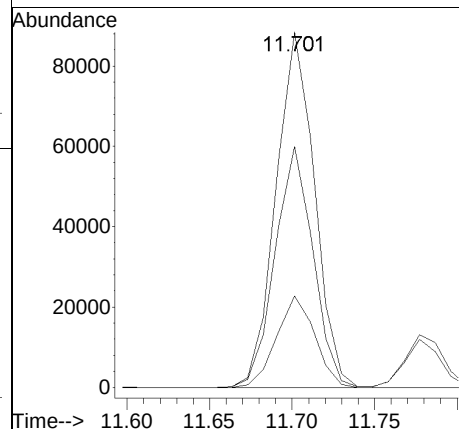
Tgt Ion	Ratio	Lower	Upper
91	100		
126	35.0	28.5	42.7

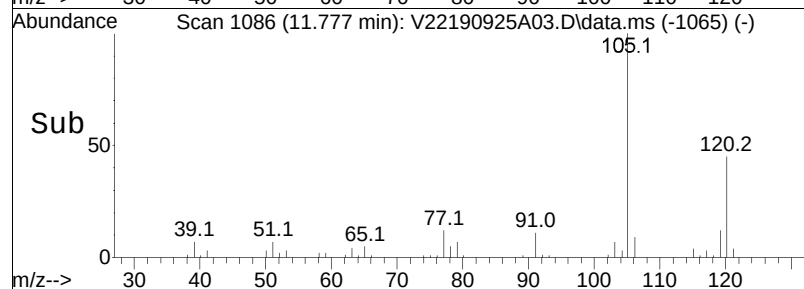
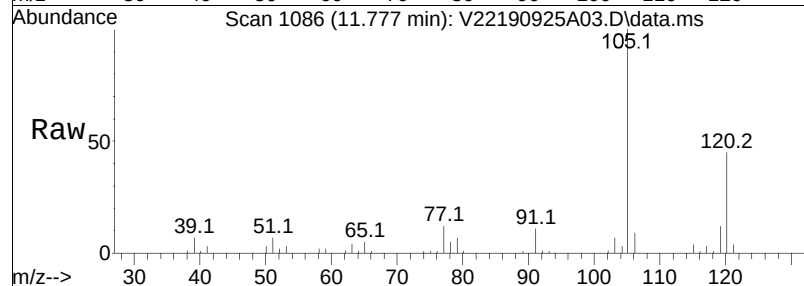
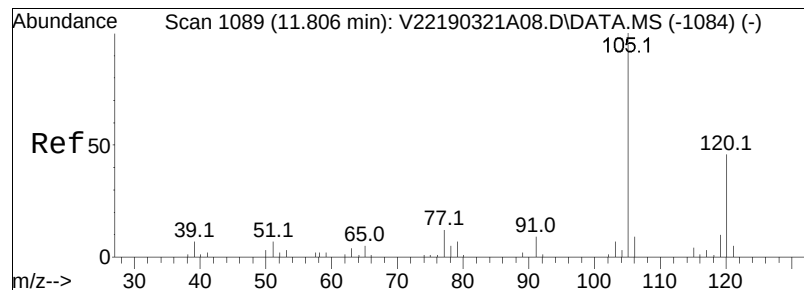




#98
 tert-Butylbenzene
 Concen: 8.22 ug/L
 RT: 11.701 min Scan# 1078
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

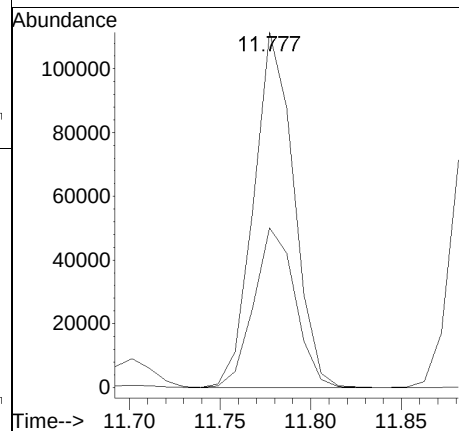
Tgt	Ion	Ratio	Resp	Lower	Upper
119	100		143863		
91	66.8	50.2		75.4	
134	25.5	20.8		31.2	

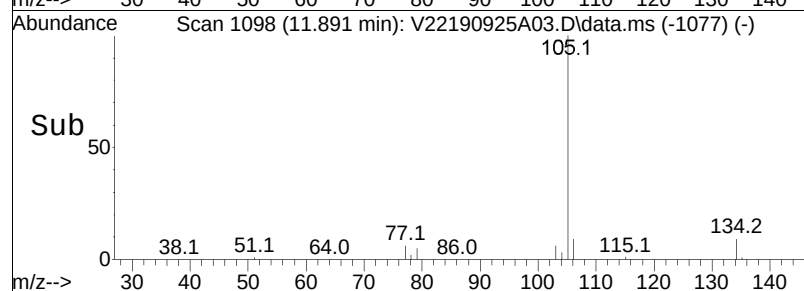
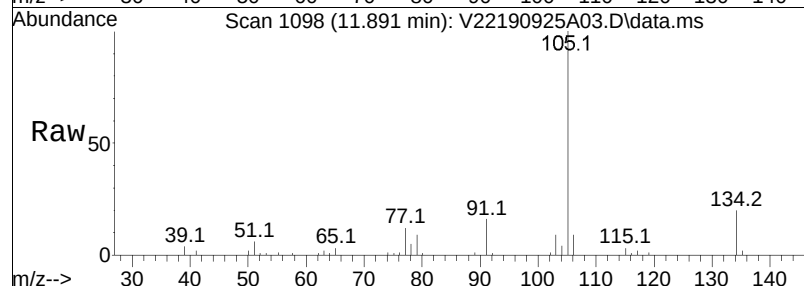
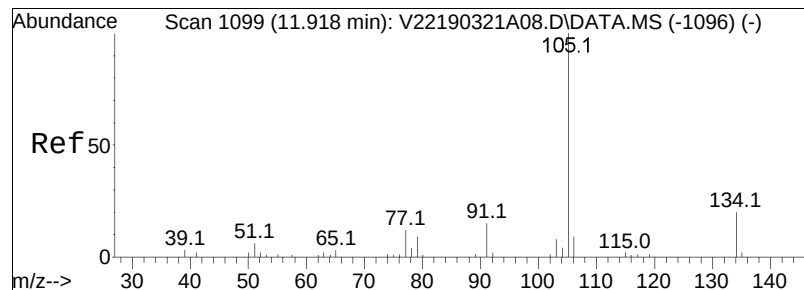




#101
 1,2,4-Trimethylbenzene
 Concen: 8.50 ug/L
 RT: 11.777 min Scan# 1086
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

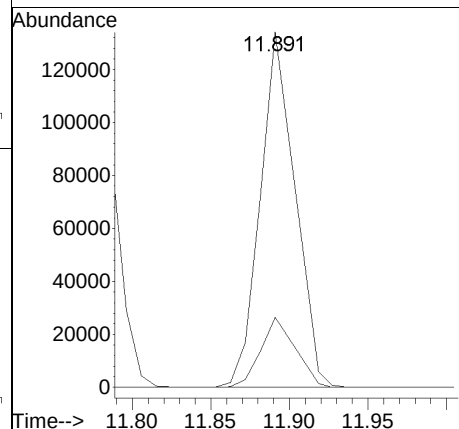
Tgt Ion	105	120	Ratio	Lower	Upper
105	100				
120	46.5		38.5	57.7	

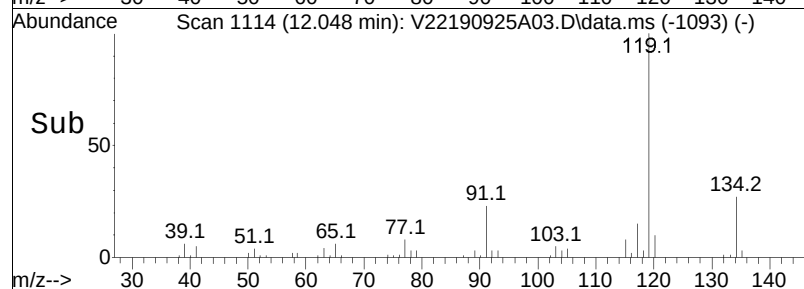
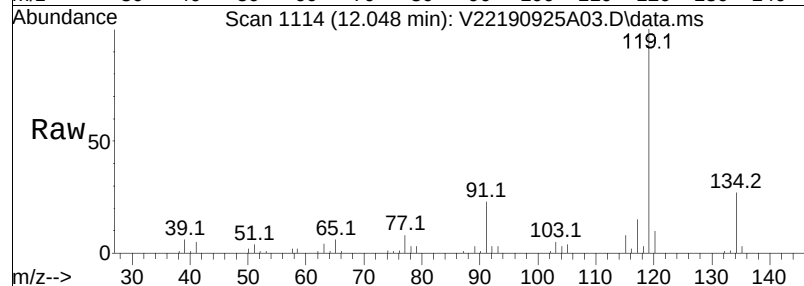
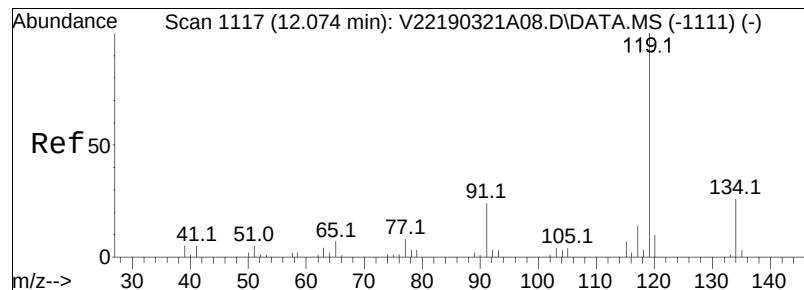




#102
 sec-Butylbenzene
 Concen: 9.41 ug/L
 RT: 11.891 min Scan# 1098
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

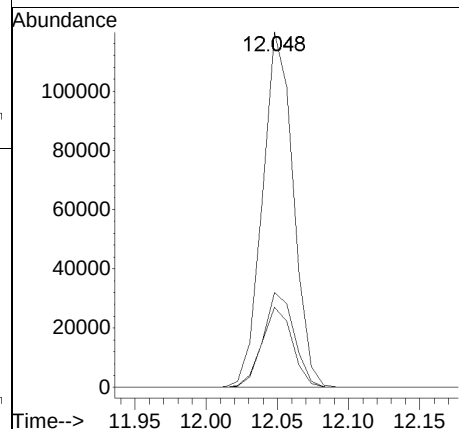
Tgt Ion	105	134	Ratio	100	20.4	Resp	152224	Lower	13.9	Upper	28.9
105	100										
134		20.4									

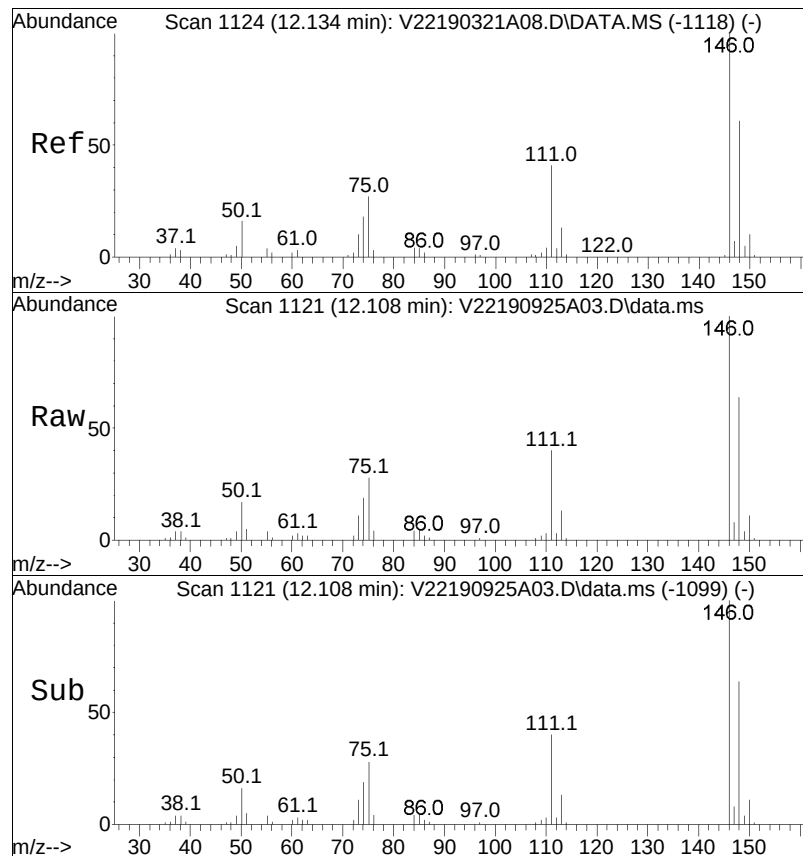




#103
 p-Isopropyltoluene
 Concen: 8.42 ug/L
 RT: 12.048 min Scan# 1114
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

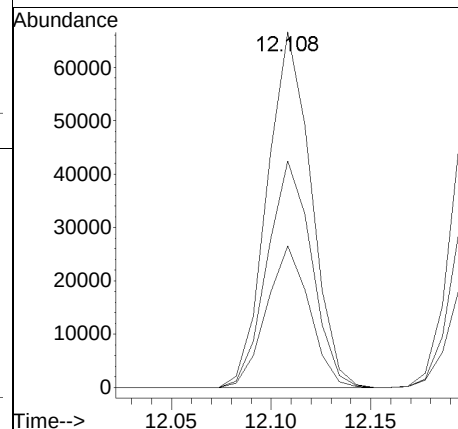
Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.8	17.7	36.7
91	22.6	14.1	29.3

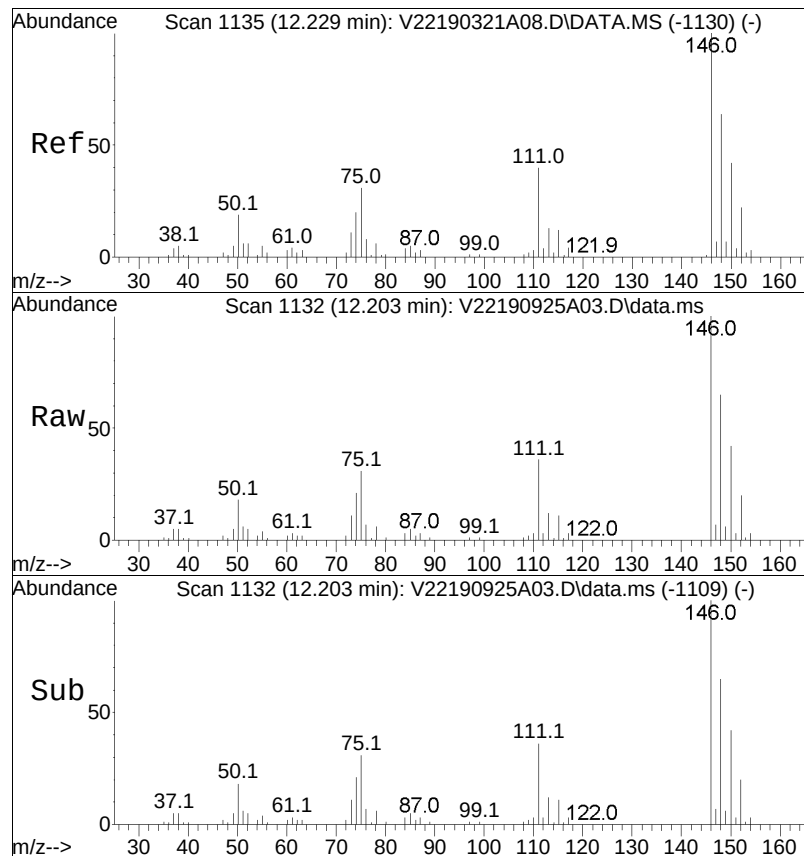




#104
 1,3-Dichlorobenzene
 Concen: 9.59 ug/L
 RT: 12.108 min Scan# 1121
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

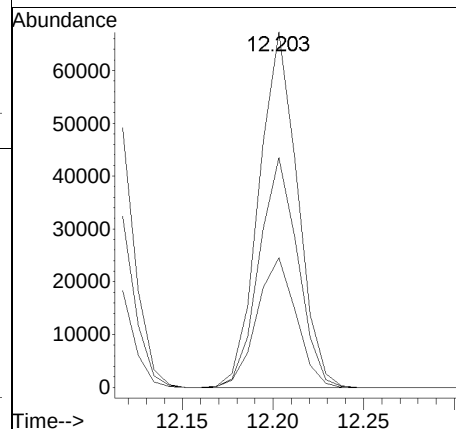
Tgt Ion	Ratio	Lower	Upper
146	100		
111	38.9	24.0	49.8
148	64.2	41.8	86.8

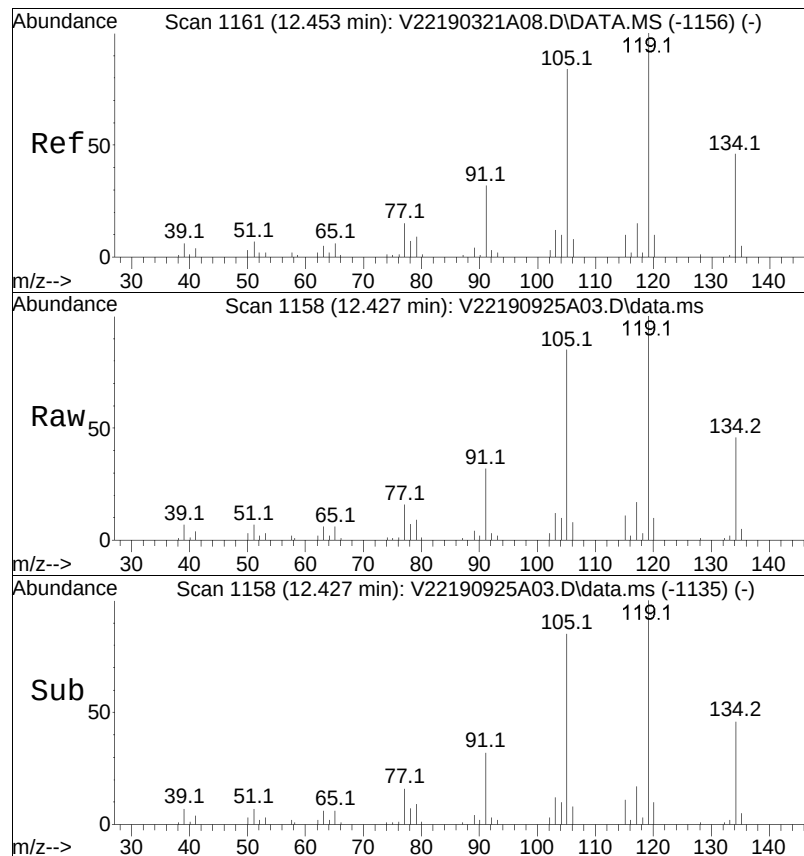




#105
 1,4-Dichlorobenzene
 Concen: 9.39 ug/L
 RT: 12.203 min Scan# 1132
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

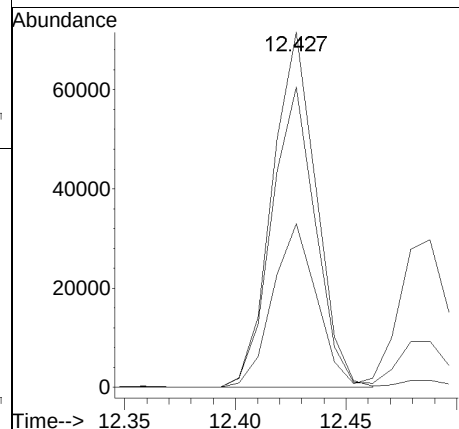
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.2	28.9	43.3
148	64.9	51.4	77.2

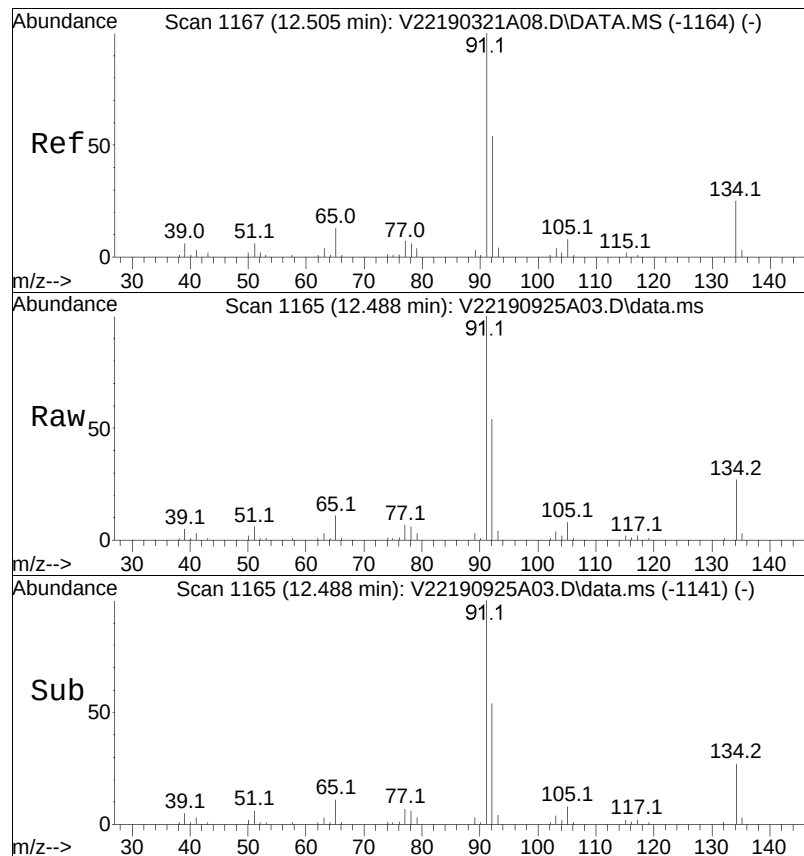




#106
 p-Diethylbenzene
 Concen: 8.21 ug/L
 RT: 12.427 min Scan# 1158
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

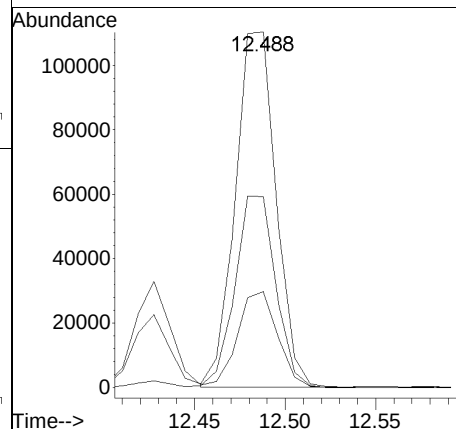
Tgt	Ion:119	Resp:	98829
Ion	Ratio	Lower	Upper
119	100		
105	84.8	53.4	110.8
134	46.2	30.9	64.1

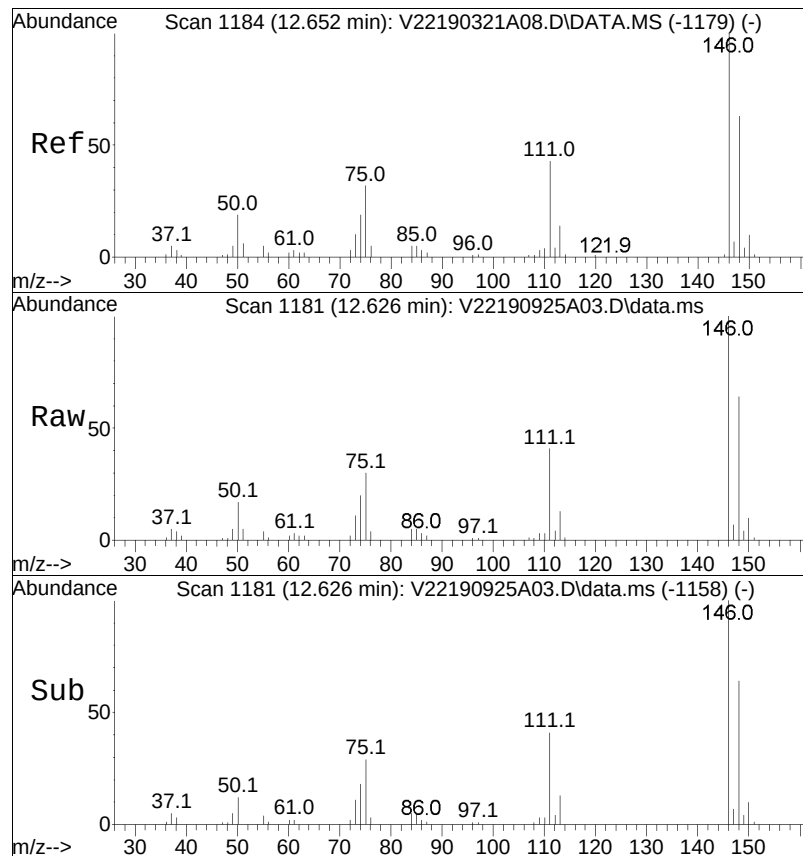




#107
 n-Butylbenzene
 Concen: 9.46 ug/L
 RT: 12.488 min Scan# 1165
 Delta R.T. 0.009 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

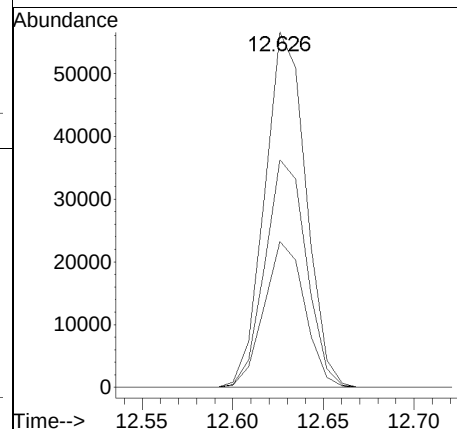
Tgt Ion:	91	Resp:	172741
Ion Ratio	Lower	Upper	
91	100		
92	54.0	44.6	66.8
134	26.4	22.9	34.3

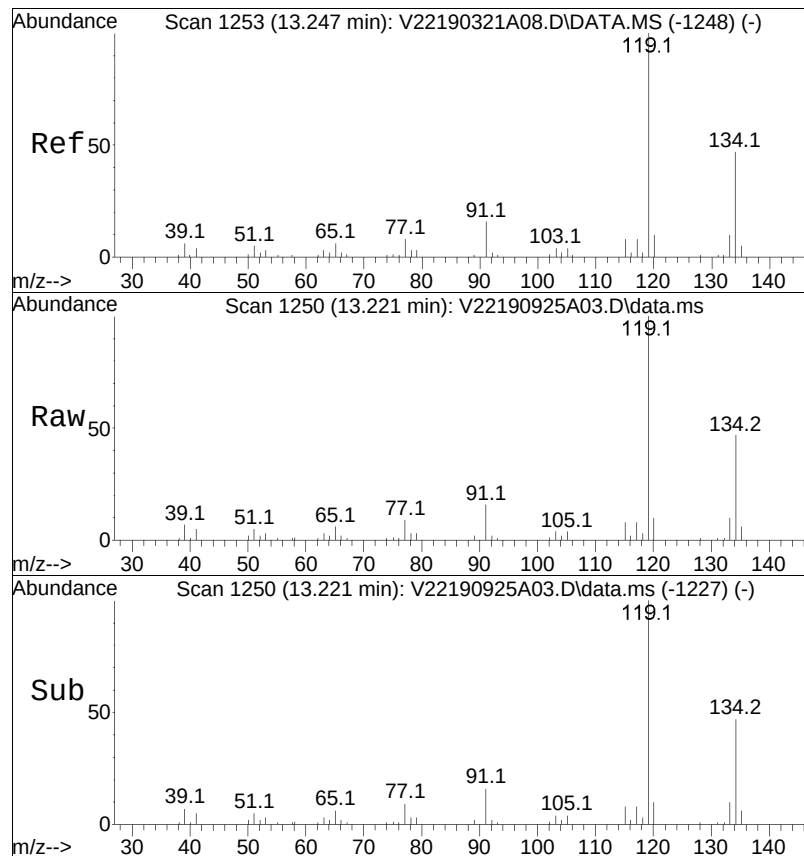




#108
 1,2-Dichlorobenzene
 Concen: 9.29 ug/L
 RT: 12.626 min Scan# 1181
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

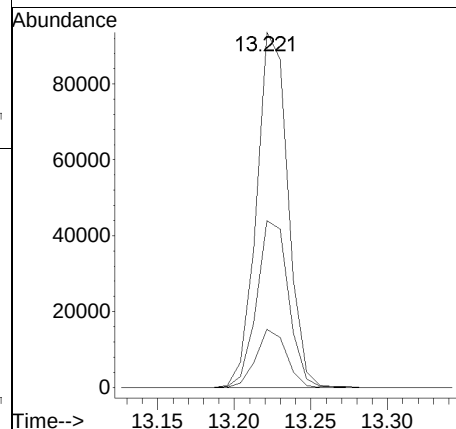
Tgt Ion	Ratio	Lower	Upper
146	100		
111	40.5	24.8	51.6
148	64.3	42.2	87.6

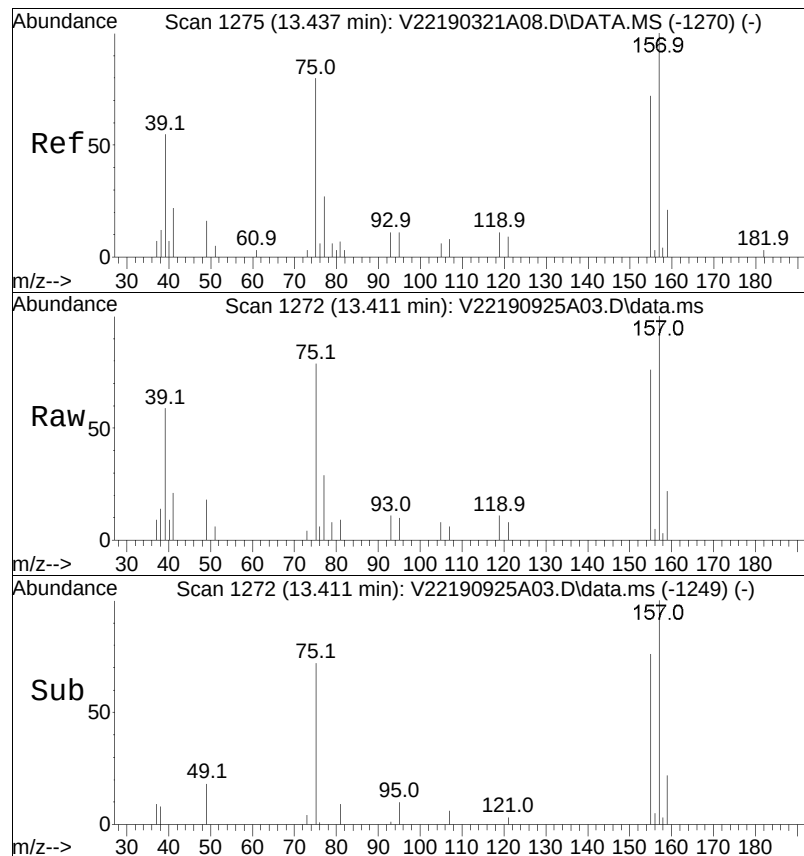




#109
 1,2,4,5-Tetramethylbenzene
 Concen: 7.58 ug/L
 RT: 13.221 min Scan# 1250
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

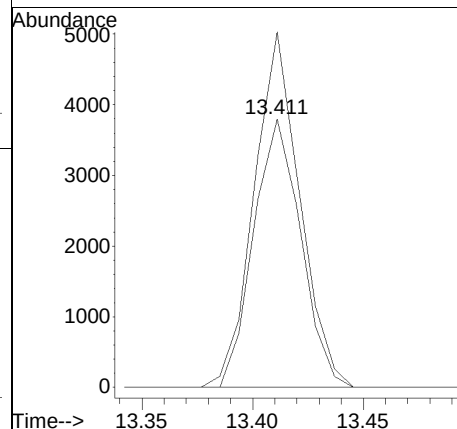
Tgt Ion	Ratio	Lower	Upper
119	100		
134	47.8	31.9	66.1
91	15.8	9.8	20.3

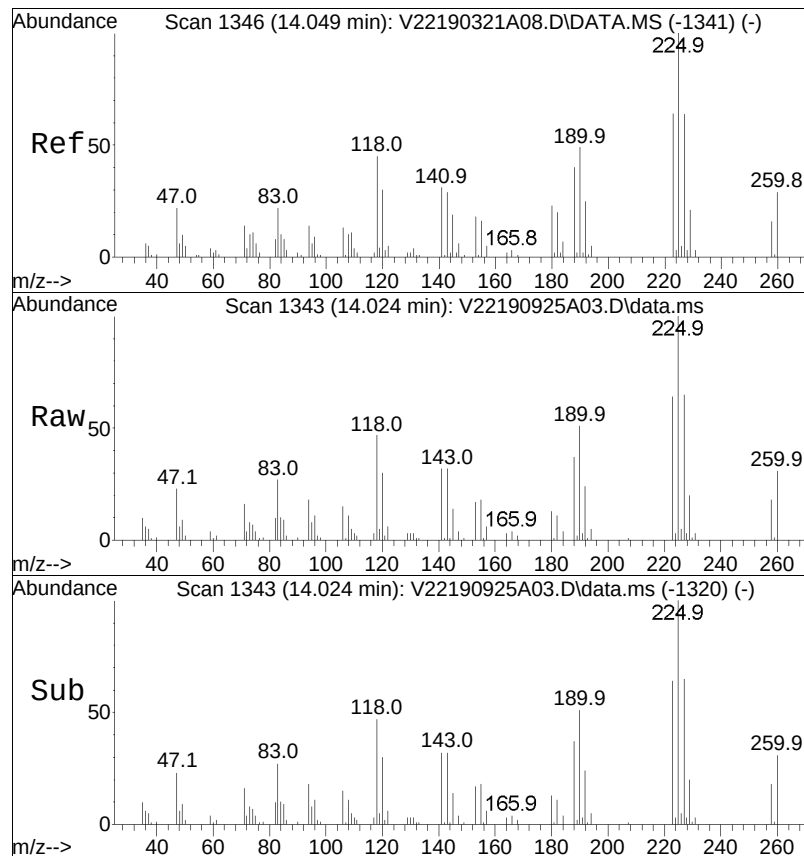




#110
 1,2-Dibromo-3-chloropropane
 Concen: 9.45 ug/L
 RT: 13.411 min Scan# 1272
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

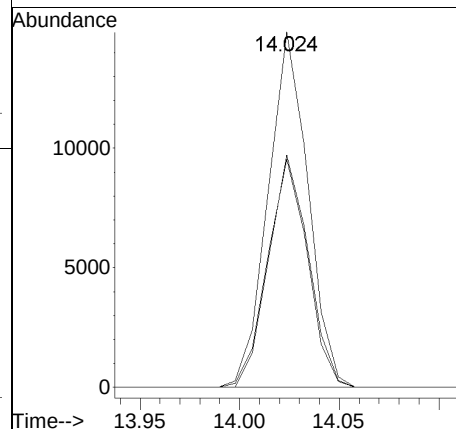
Tgt Ion	Ratio	Lower	Upper
155	100		
157	128.2	102.3	153.5

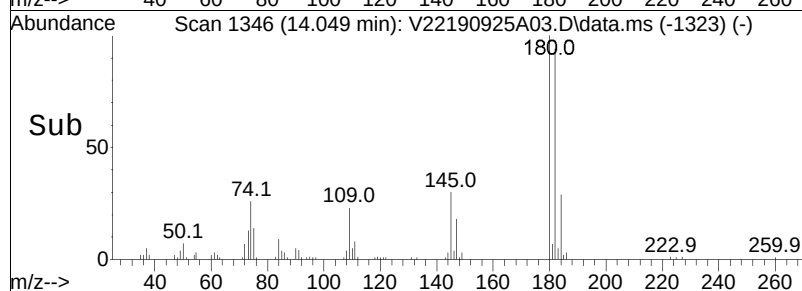
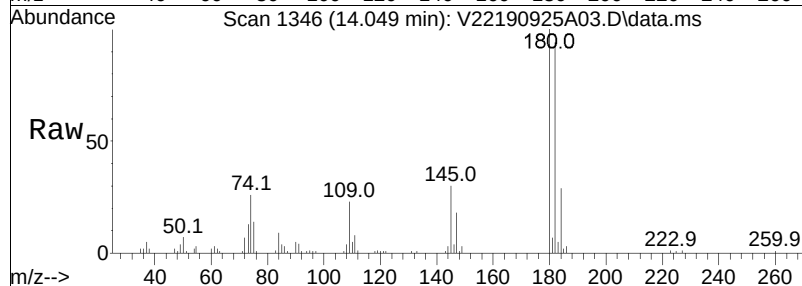
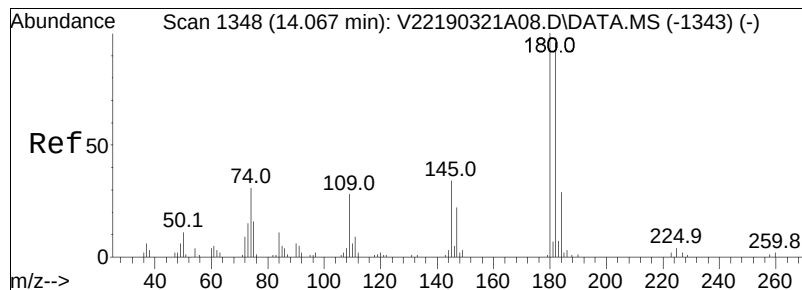




#112
 Hexachlorobutadiene
 Concen: 10.09 ug/L
 RT: 14.024 min Scan# 1343
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

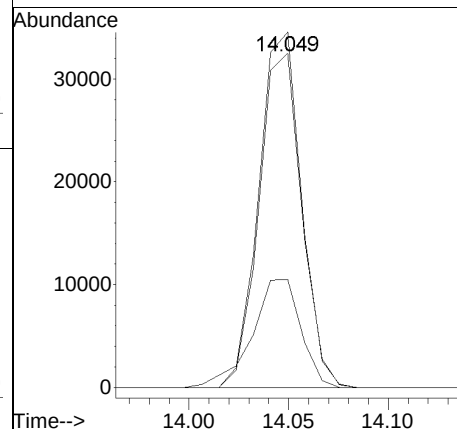
Tgt	Ion:225	Resp:	20732
Ion	Ratio	Lower	Upper
225	100		
223	64.4	49.8	74.8
227	65.2	52.2	78.4

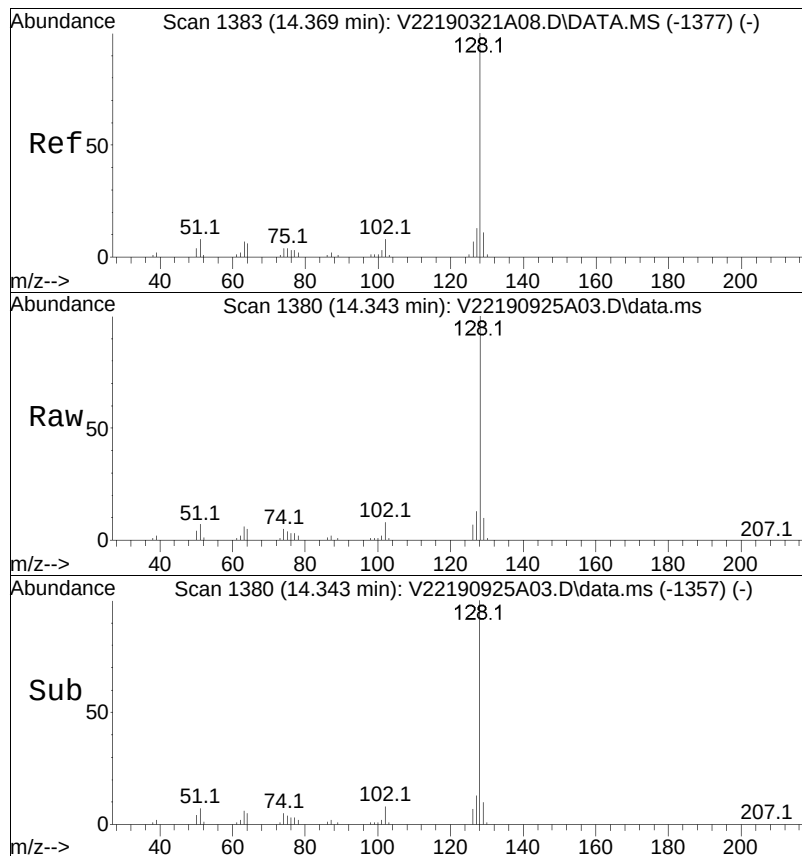




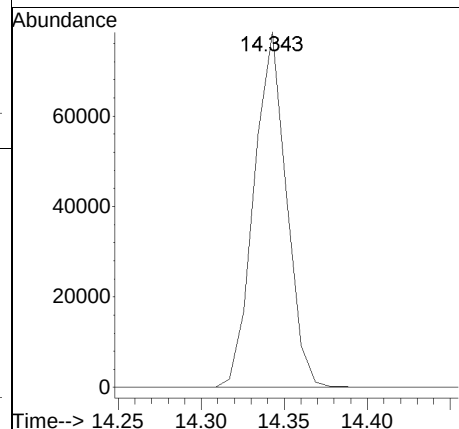
#113
 1,2,4-Trichlorobenzene
 Concen: 8.83 ug/L
 RT: 14.049 min Scan# 1346
 Delta R.T. 0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

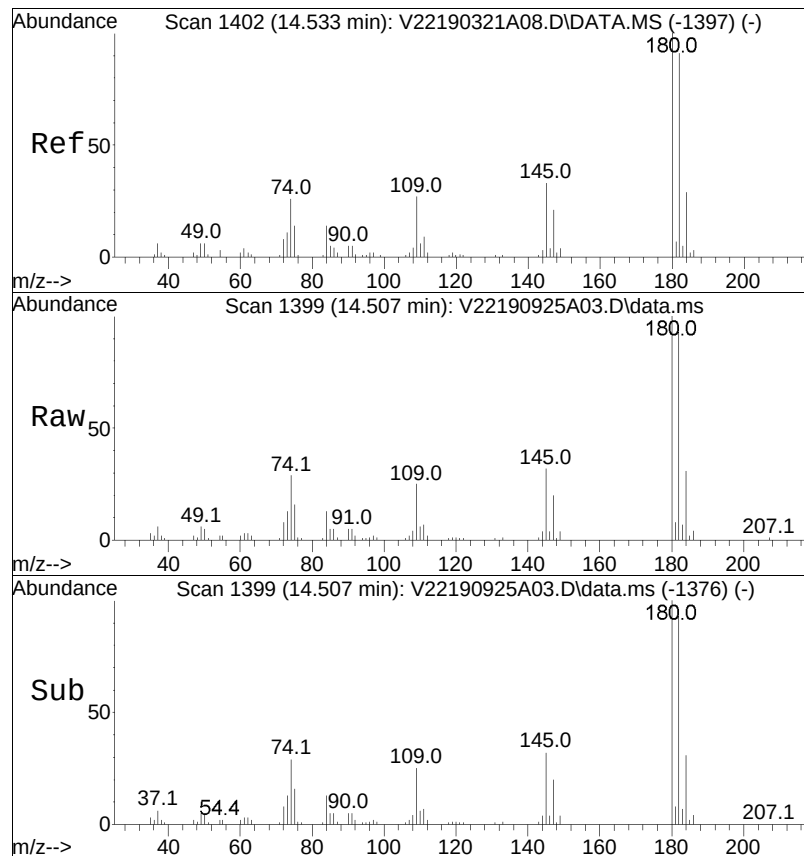
Tgt Ion	Ratio	Lower	Upper
180	100		
182	94.4	76.6	114.8
145	34.8	25.5	38.3





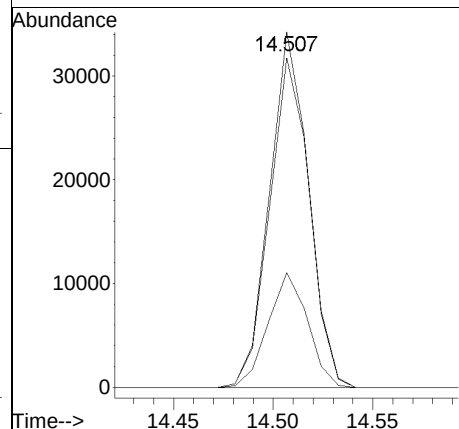
#114
 Naphthalene
 Concen: 7.82 ug/L
 RT: 14.343 min Scan# 1380
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am
 Tgt Ion:128 Resp: 106630





#115
 1,2,3-Trichlorobenzene
 Concen: 9.03 ug/L
 RT: 14.507 min Scan# 1399
 Delta R.T. -0.000 min
 Lab File: V22190925A03.D
 Acq: 25 Sep 2019 09:11 am

Tgt Ion:	180	Resp:	46713
Ion Ratio	Lower	Upper	
180	100		
182	94.5	76.0	114.0
145	32.7	23.8	35.8



Manual Integration Report

Data Path	: I:\VOLATILES\VOA122\2019\10	Method	: V122_190821_8260.m
Data File	: V22190925A03.D	Operator	: VOA122:PD
Date Inj'd	: 9/25/2019 9:11 am	Instrument	: VOA122
Sample	: WG1288542-4,31,10,10	Quant Date	: 9/25/2019 9:51 am

There are no manual integrations or false positives in this file.



Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: $Amt * DF * Uf * (1/Vo)$

Where:

DF = Dilution Factor

Vo = Sample Volume Purged (mL)

Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: $Amt * DF * (1/Wt)$

Where:

DF = Dilution Factor

Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 26 2019, 10:55 am

Work Group: WG1288542 for Department: 31 GC/MS - Volatiles

Created: 25-SEP-19 Due: Operator: PK

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1942858-05	MW-10B	S NYTCL-8260	WATER	DONE	U	1001	0925	S0	Vial-B
L1943332-04	TB-1	S NYTCL-8260	WATER	SEC	U	1002	0926	S0	Vial-B
L1943339-01	MW-1_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-02	MW-2_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-03	MW-3AS_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-04	MW-9_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-05	PZ-2_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-06	MW-16_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-07	GWDUP01_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-08	GWFB01_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
L1943339-09	GWTB01_091919	S NYTCL-8260	WATER	DONE	U	1003	0926	S0	Vial-B
WG1288542-1	MS BFB Tune Standard	S NYTCL-8260	WATER	DONE	U				
WG1288542-2	Continuing Calibrati	S NYTCL-8260	WATER	DONE	U				
WG1288542-3	Laboratory Control S	S NYTCL-8260	WATER	DONE	U				
WG1288542-4	LCS Duplicate	S NYTCL-8260	WATER	DONE	U				
WG1288542-5	Laboratory Method BL	S NYTCL-8260	WATER	DONE	U				
Comments:									
WG1288542-4	WG1288542-3								

Inst: VOA122
Initials: AD
Date: 08/21/19
Run: A

BFB: V7408
IS/SS: V7462
ICAL: V7496, V7440F
ICV: V7429, V7424, V7465, V7423, V7475, V7412

Method
GC: 8260_WATER
Autosampler: 8260WATER
Concentrator: 8260



QC: _____ Seq: _____

Vial	Data File	Sample
1	V22190821ABF1	BFB TUNE
1	V22190821ABF2	BFB TUNE
1	V22190821ABF3	BFB TUNE
1	V22190821A01	BLK
2	V22190821A02	BLK
3	V22190821A03	BLK
4	V22190821A04	BLK
5	V22190821A05	I8260STD0.2PPB
6	V22190821A06	I8260STD0.5PPB
7	V22190821A07	I8260STD0.5PPB
8	V22190821A08	I8260STD2PPB
9	V22190821A09	I8260STD2PPB
10	V22190821A10	I8260STD10PPB
11	V22190821A11	I8260STD30PPB
12	V22190821A12	I8260STD80PPB
13	V22190821A13	I8260STD120PPB
14	V22190821A14	I8260STD200PPB
15	V22190821A15	BLK
16	V22190821A16	BLK
17	V22190821A17	BLK
18	V22190821A18	BLK
19	V22190821A19	BLK
20	V22190821A20	C8260STD10PPB
21	V22190821A21	C8260STD10PPB
22	V22190821A22	BLK

Inst: VOA122

BFB: V7498

Initials: PD

IS/SS: V7539

Date: 09/25/19

ICAL: V7506D, V7538

Run: A

ICV: V7429, V7424, V7465, V7423, V7475, V7412

Method

GC: 8260_WATER

Autosampler: 8260WATER

Concentrator: 8260



QC: _____ Seq: _____

Vial	Data File	Sample	
1	V22190925ABF1	BFB TUNE	08:11
1	V22190925A01	8260 CCAL	
2	V22190925A02	8260 CCAL	LCS
3	V22190925A03	8260 CCAL	LCSD
4	V22190925A04	BLK	
5	V22190925A05	METHOD BLK	
6	V22190925A06	I1943332-04,31,10,10,,a	NYTCL pH<2
7	V22190925A07	I1943339-01,31,10,10,,a	NYTCL pH<2
8	V22190925A08	I1943339-02,31,10,10,,a	NYTCL pH<2
9	V22190925A09	I1943339-03,31,10,10,,a	NYTCL pH<2
10	V22190925A10	I1943339-04,31,10,10,,a	NYTCL pH<2
11	V22190925A11	I1943339-05,31,10,10,,a	NYTCL pH<2
12	V22190925A12	I1943339-06,31,10,10,,a	NYTCL pH<2
13	V22190925A13	I1943339-07,31,10,10,,a	NYTCL pH<2
14	V22190925A14	I1943339-08,31,10,10,,a	NYTCL pH<2
15	V22190925A15	I1943339-09,31,10,10,,a	NYTCL pH<2
16	V22190925A16	I1942858-05D,31,5,10,,c	NYTCL pH<2
17	V22190925A17	I1943483-01,31,10,10,,a	NJ/15 pH<2
18	V22190925A18	I1943483-02,31,10,10,,a	NJ/15 pH<2
19	V22190925A19	I1943483-03,31,10,10,,a	NJ/15 pH<2
20	V22190925A20	I1943885-01,31,10,10,,a	NJ/15/TBA pH<2
21	V22190925A21	I1943885-02D,31,0.1,10,,a	NJ/15/TBA pH<2
22	V22190925A22	I1943885-03D,31,1,10,,a	NJ/15/TBA pH<2
23	V22190925A23	I1943885-04D,31,0.05,10,,a	NJ/15/TBA pH<2
24	V22190925A24	I1943885-04DUP,31,0.05,10,,a	NJ/15/TBA pH<2
25	V22190925A25	I1943142-02,31,10,10,,a	NJ/15 pH<2
26	V22190925A26	I1943142-03D,31,2.5,10,,a	NJ/15 pH<2
27	V22190925A27	I1943885-04MS,31,0.05,10,,a	NJ/15/TBA pH<2



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1943646

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Table of Contents

New York ASP Category B Data Deliverable Package.....	1
Table of Contents	2
Sample ID Cross Reference	4
SDG Narrative	5
Data Qualifier Definitions	7
Instrument Information	9
Sample Log-in Sheet	12
Lims COC (LN01)	13
External Chain of Custody	15
Organics Analysis	16
GCMS 8260 Analysis	17
Volatiles QC Summary	18
Form 2 - Organics	19
Form 3 - Organics	20
Form 4 - Organics	23
Form 5 - Organics	24
Form 8 - Organics	26
MDL Study - Volatile Organics 8260	27
Volatiles Sample Data	36
Form 1 - Organics	37
MW-19_092019 (L1943646-01D) Analyzed: 09/26/19 13:12	77
MW-6_092019 (L1943646-02D) Analyzed: 09/26/19 13:49	87
MW-17_092019 (L1943646-03) Analyzed: 09/26/19 14:26	99
MW-7_092019 (L1943646-04) Analyzed: 09/26/19 15:04	113
MW-10_092019 (L1943646-05) Analyzed: 09/26/19 15:41	121
MW-11_092019 (L1943646-06) Analyzed: 09/26/19 16:18	132
MW-18M_092019 (L1943646-07) Analyzed: 09/26/19 16:55	142
MW-18S_092019 (L1943646-08) Analyzed: 09/26/19 17:32	155
GWTB02_092019 (L1943646-09) Analyzed: 09/26/19 18:09	167
Volatile Standards Data	172
Initial Calibration	173
Form 6 - Organics	174
ICAL for ELAINE on 05/02/19 ICAL15755	177
Initial Calibration Summary - Cal Date: 05/02/19 00:00	177
BFB TUNE Injected on: 05/01/19 21:04	181
STD11 Injected on: 05/01/19 22:38	182
STD11 Injected on: 05/01/19 23:50	185
STD12 Injected on: 05/02/19 01:03	191
STD13 Injected on: 05/02/19 01:38	200
STD14 Injected on: 05/02/19 02:14	205
STD16 Injected on: 05/02/19 02:51	212
STD18 Injected on: 05/02/19 03:27	217
STD110 Injected on: 05/02/19 04:03	222
ICV Summary Form Injected on: 05/02/19 08:16	227
ICV Quant Report Injected on: 05/02/19 08:16	230
Continuing Calibration	239
Form 7 - Organics	240
CC Summary - ELAINE Run: 09/26/19 07:43	243
CC Quant - ELAINE Run: 09/26/19 07:43	246
bfb tune - Inst. ELAINE 09/26/19 06:53	256

Table of Contents

Volatiles Raw QC Data	257
Laboratory Method BI (WG1288977-5) Analyzed: 09/26/19 09:33	258
Laboratory Control S (WG1288977-3) Analyzed: 09/26/19 07:43	268
LCS Duplicate (WG1288977-4) Analyzed: 09/26/19 08:20	349
Volatiles Calculations	433
QC Batch WG1288977	434
ICAL Sequence for ELAINE on 02-MAY-2019 00:00 ICAL15755	435
Sequence Log	436

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943646
Report Date: 09/27/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1943646-01	MW-19_092019	WATER	BROOKLYN, NY	09/20/19 10:00	09/20/19
L1943646-02	MW-6_092019	WATER	BROOKLYN, NY	09/20/19 10:45	09/20/19
L1943646-03	MW-17_092019	WATER	BROOKLYN, NY	09/20/19 11:30	09/20/19
L1943646-04	MW-7_092019	WATER	BROOKLYN, NY	09/20/19 12:20	09/20/19
L1943646-05	MW-10_092019	WATER	BROOKLYN, NY	09/20/19 13:25	09/20/19
L1943646-06	MW-11_092019	WATER	BROOKLYN, NY	09/20/19 14:20	09/20/19
L1943646-07	MW-18M_092019	WATER	BROOKLYN, NY	09/20/19 15:15	09/20/19
L1943646-08	MW-18S_092019	WATER	BROOKLYN, NY	09/20/19 16:00	09/20/19
L1943646-09	GWTB02_092019	WATER	BROOKLYN, NY	09/20/19 00:00	09/20/19

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943646
Report Date: 09/27/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943646
Report Date: 09/27/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: *Siffani Morrissey*

Report Date: 09/27/19

Title: Technical Director/Representative



GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 491 WORTMAN AVENUE
Project Number: 170329301

Lab Number: L1943646
Report Date: 09/27/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.32 μ m
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.25 μ m
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1 μ L
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLP Pesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1 μ L
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



Sample Delivery Group Summary

Alpha Job Number : L1943646

Received : 20-SEP-2019

Reviewer : Alex Murphy

Account Name : Langan Engineering & Environmental

Project Number : 170329301

Project Name : 491 WORTMAN AVENUE

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.0	

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	NA

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NO

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 27 2019, 02:40 pm

Login Number: L1943646

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 20SEP19 Due Date: 27SEP19

Sample #	Client ID	Mat	PR	Collected
L1943646-01 MW-19_092019		1	S0	20SEP19 10:00
ASP-B Package Due Date: 09/27/19				
ASP-B, NYTCL-8260				
L1943646-02 MW-6_092019		1	S0	20SEP19 10:45
Package Due Date: 09/27/19				
NYTCL-8260				
L1943646-03 MW-17_092019		1	S0	20SEP19 11:30
Package Due Date: 09/27/19				
NYTCL-8260				
L1943646-04 MW-7_092019		1	S0	20SEP19 12:20
Package Due Date: 09/27/19				
NYTCL-8260				
L1943646-05 MW-10_092019		1	S0	20SEP19 13:25
Package Due Date: 09/27/19				
NYTCL-8260				
L1943646-06 MW-11_092019		1	S0	20SEP19 14:20
Package Due Date: 09/27/19				
NYTCL-8260				
L1943646-07 MW-18M_092019		1	S0	20SEP19 15:15
Package Due Date: 09/27/19				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 27 2019, 02:40 pm

Login Number: L1943646

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 20SEP19 Due Date: 27SEP19

Sample # Client ID Mat PR Collected

NYTCL-8260

L1943646-08 MW-18S_092019

1 S0 20SEP19 16:00

| Package Due Date: 09/27/19

NYTCL-8260

L1943646-09 GWTB02_092019

1 S0 20SEP19 00:00

| Package Due Date: 09/27/19

NYTCL-8260

Page 2

Logged By: Ben Rao

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab 9/21/19		ALPHA Job # L1943646																																																																																																																																																																																																													
		Project Information Project Name: 491 Wortman Avenue Project Location: Brooklyn, NY Project # 170329301 (Use Project name as Project #) ☐		Deliverables ☐ ASP-A ☒ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other		Billing Information ☒ Same as Client Info PO #																																																																																																																																																																																																															
Client Information Client: Langan Engineering Address: 360 W 3rd St 8th Fl New York, NY 10001 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: gnicholls@langan.com		Project Manager: Gerry Nicholls ALPHAQuote #:		Regulatory Requirement ☐ NY TOGS ☒ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:																																																																																																																																																																																																															
Turn-Around Time Standard ☒ Due Date: Rush (only if pre approved) ☐ # of Days:		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)		Total Bottles																																																																																																																																																																																																															
These samples have been previously analyzed by Alpha ☐		Other project specific requirements/comments: Please also email results to datamanagement@langan.com (and wkim@langan.com) Please specify Metals or TAL.		Sample Specific Comments																																																																																																																																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">TEL</th> <th rowspan="2">VOCs</th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr><td>43646-01</td><td>MW-19-092019</td><td>9-20-19</td><td>1000</td><td>GW</td><td>EW</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>02</td><td>MW-6-092019</td><td></td><td>1045</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>03</td><td>MW-17-092019</td><td></td><td>1130</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>04</td><td>MW-7-092019</td><td></td><td>1220</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>05</td><td>MW-10-092019</td><td></td><td>1325</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>06</td><td>MW-11-092019</td><td></td><td>1420</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>07</td><td>MW-184-092019</td><td></td><td>1515</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>08</td><td>MW-185-092019</td><td></td><td>1600</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>09</td><td>GW-TB02-092019</td><td></td><td>-</td><td></td><td></td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	TEL	VOCs													Date	Time	43646-01	MW-19-092019	9-20-19	1000	GW	EW	X														02	MW-6-092019		1045			X														03	MW-17-092019		1130			X														04	MW-7-092019		1220			X														05	MW-10-092019		1325			X														06	MW-11-092019		1420			X														07	MW-184-092019		1515			X														08	MW-185-092019		1600			X														09	GW-TB02-092019		-			X														Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: 40 mL Vials (3) Preservative: HCl		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection																		Sample Matrix	Sampler's Initials	TEL	VOCs																																																																																																																																																																																												
		Date	Time																																																																																																																																																																																																																		
43646-01	MW-19-092019	9-20-19	1000	GW	EW	X																																																																																																																																																																																																															
02	MW-6-092019		1045			X																																																																																																																																																																																																															
03	MW-17-092019		1130			X																																																																																																																																																																																																															
04	MW-7-092019		1220			X																																																																																																																																																																																																															
05	MW-10-092019		1325			X																																																																																																																																																																																																															
06	MW-11-092019		1420			X																																																																																																																																																																																																															
07	MW-184-092019		1515			X																																																																																																																																																																																																															
08	MW-185-092019		1600			X																																																																																																																																																																																																															
09	GW-TB02-092019		-			X																																																																																																																																																																																																															
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By: [Signature] Date/Time: 9/20/19 1610		Received By: [Signature] Date/Time: 9/20/19 2030		9/21/19 0115																																																																																																																																																																																																															

Organics

GC/MS 8260

Analysis

Volatiles QC Summary

Surrogate Recovery Summary

Form 2

Volatiles

Client: Langan Engineering & Environmental
Project Name: 491 WORTMAN AVENUE

Lab Number: L1943646
Project Number: 170329301
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
MW-19_092019 (L1943646-01D)	97	94	76	96	0
MW-6_092019 (L1943646-02D)	100	91	76	97	0
MW-17_092019 (L1943646-03)	98	92	74	96	0
MW-7_092019 (L1943646-04)	100	90	77	98	0
MW-10_092019 (L1943646-05)	102	90	79	101	0
MW-11_092019 (L1943646-06)	100	94	77	97	0
MW-18M_092019 (L1943646-07)	100	94	77	98	0
MW-18S_092019 (L1943646-08)	100	89	78	98	0
GWTB02_092019 (L1943646-09)	100	91	76	99	0
WG1288977-3LCS	92	92	80	95	0
WG1288977-4LCSD	92	93	79	97	0
WG1288977-5BLANK	94	92	76	93	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

* Values outside of QC limits

FORM II NYTCL-8260



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943646
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288977-3 Analysis Date : 09/26/19 07:43 File ID : VE190926A02
 LCSD Sample ID : WG1288977-4 Analysis Date : 09/26/19 08:20 File ID : VE190926A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	8.4	84	10	8.2	82	2	70-130	20
1,1-Dichloroethane	10	9.1	91	10	9.0	90	1	70-130	20
Chloroform	10	8.7	87	10	8.5	85	2	70-130	20
Carbon tetrachloride	10	11	110	10	10	100	10	63-132	20
1,2-Dichloropropane	10	8.3	83	10	8.0	80	4	70-130	20
Dibromochloromethane	10	11	110	10	11	110	0	63-130	20
1,1,2-Trichloroethane	10	8.1	81	10	8.1	81	0	70-130	20
Tetrachloroethene	10	11	110	10	10	100	10	70-130	20
Chlorobenzene	10	9.6	96	10	9.7	97	1	75-130	20
Trichlorofluoromethane	10	8.2	82	10	7.8	78	5	62-150	20
1,2-Dichloroethane	10	9.6	96	10	9.5	95	1	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	8.7	87	10	8.5	85	2	67-130	20
trans-1,3-Dichloropropene	10	8.5	85	10	8.2	82	4	70-130	20
cis-1,3-Dichloropropene	10	8.3	83	10	8.0	80	4	70-130	20
1,1-Dichloropropene	10	7.7	77	10	7.4	74	4	70-130	20
Bromoform	10	8.8	88	10	8.8	88	0	54-136	20
1,1,2,2-Tetrachloroethane	10	7.3	73	10	7.3	73	0	67-130	20
Benzene	10	7.3	73	10	7.0	70	4	70-130	20
Toluene	10	8.6	86	10	8.3	83	4	70-130	20
Ethylbenzene	10	9.0	90	10	8.8	88	2	70-130	20
Chloromethane	10	9.2	92	10	9.2	92	0	64-130	20
Bromomethane	10	5.5	55	10	5.4	54	2	39-139	20
Vinyl chloride	10	8.9	89	10	8.5	85	5	55-140	20
Chloroethane	10	8.3	83	10	8.1	81	2	55-138	20
1,1-Dichloroethene	10	8.9	89	10	8.4	84	6	61-145	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943646
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288977-3 Analysis Date : 09/26/19 07:43 File ID : VE190926A02
 LCSD Sample ID : WG1288977-4 Analysis Date : 09/26/19 08:20 File ID : VE190926A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
trans-1,2-Dichloroethene	10	9.0	90	10	8.7	87	3	70-130	20
Trichloroethene	10	9.1	91	10	8.8	88	3	70-130	20
1,2-Dichlorobenzene	10	10	100	10	9.9	99	1	70-130	20
1,3-Dichlorobenzene	10	9.7	97	10	9.7	97	0	70-130	20
1,4-Dichlorobenzene	10	9.8	98	10	9.7	97	1	70-130	20
Methyl tert butyl ether	10	8.2	82	10	8.0	80	2	63-130	20
p/m-Xylene	20	20	100	20	19	95	5	70-130	20
o-Xylene	20	20	100	20	19	95	5	70-130	20
cis-1,2-Dichloroethene	10	9.2	92	10	9.1	91	1	70-130	20
Dibromomethane	10	8.0	80	10	8.3	83	4	70-130	20
1,2,3-Trichloropropane	10	6.9	69	10	7.0	70	1	64-130	20
Acrylonitrile	10	9.9	99	10	10	100	1	70-130	20
Styrene	20	19	95	20	19	95	0	70-130	20
Dichlorodifluoromethane	10	6.3	63	10	5.7	57	10	36-147	20
Acetone	10	9.2	92	10	9.1	91	1	58-148	20
Carbon disulfide	10	6.2	62	10	5.9	59	5	51-130	20
2-Butanone	10	10	100	10	10	100	0	63-138	20
Vinyl acetate	10	11	110	10	11	110	0	70-130	20
4-Methyl-2-pentanone	10	9.1	91	10	8.8	88	3	59-130	20
2-Hexanone	10	9.9	99	10	9.5	95	4	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
2,2-Dichloropropane	10	12	120	10	11	110	9	63-133	20
1,2-Dibromoethane	10	9.7	97	10	9.6	96	1	70-130	20
1,3-Dichloropropane	10	7.7	77	10	7.9	79	3	70-130	20
1,1,1,2-Tetrachloroethane	10	12	120	10	12	120	0	64-130	20
Bromobenzene	10	9.7	97	10	9.6	96	1	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1943646
 Project Name : 491 WORTMAN AVENUE Project Number : 170329301
 Matrix : WATER
 LCS Sample ID : WG1288977-3 Analysis Date : 09/26/19 07:43 File ID : VE190926A02
 LCSD Sample ID : WG1288977-4 Analysis Date : 09/26/19 08:20 File ID : VE190926A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
n-Butylbenzene	10	8.2	82	10	8.0	80	2	53-136	20
sec-Butylbenzene	10	8.3	83	10	8.1	81	2	70-130	20
tert-Butylbenzene	10	9.7	97	10	9.6	96	1	70-130	20
o-Chlorotoluene	10	8.0	80	10	7.9	79	1	70-130	20
p-Chlorotoluene	10	8.3	83	10	8.1	81	2	70-130	20
1,2-Dibromo-3-chloropropane	10	9.5	95	10	9.7	97	2	41-144	20
Hexachlorobutadiene	10	9.5	95	10	9.3	93	2	63-130	20
Isopropylbenzene	10	8.4	84	10	8.3	83	1	70-130	20
p-Isopropyltoluene	10	10	100	10	9.7	97	3	70-130	20
Naphthalene	10	10	100	10	10	100	0	70-130	20
n-Propylbenzene	10	8.1	81	10	8.0	80	1	69-130	20
1,2,3-Trichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
1,2,4-Trichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3,5-Trimethylbenzene	10	8.3	83	10	8.2	82	1	64-130	20
1,2,4-Trimethylbenzene	10	8.4	84	10	8.4	84	0	70-130	20
1,4-Dioxane	500	400	80	500	440	88	10	56-162	20
p-Diethylbenzene	10	9.9	99	10	9.7	97	2	70-130	20
p-Ethyltoluene	10	8.4	84	10	8.3	83	1	70-130	20
1,2,4,5-Tetramethylbenzene	10	10	100	10	10	100	0	70-130	20
Ethyl ether	10	7.3	73	10	7.2	72	1	59-134	20
trans-1,4-Dichloro-2-butene	10	7.6	76	10	7.7	77	1	70-130	20



**Method Blank Summary
Form 4
Volatiles**

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab Sample ID	: WG1288977-5	Lab File ID	: VE190926A05
Instrument ID	: ELAINE		
Matrix	: WATER	Analysis Date	: 09/26/19 09:33

Client Sample No.	Lab Sample ID	Analysis Date
WG1288977-3LCS	WG1288977-3	09/26/19 07:43
WG1288977-4LCSD	WG1288977-4	09/26/19 08:20
MW-19_092019	L1943646-01D	09/26/19 13:12
MW-6_092019	L1943646-02D	09/26/19 13:49
MW-17_092019	L1943646-03	09/26/19 14:26
MW-7_092019	L1943646-04	09/26/19 15:04
MW-10_092019	L1943646-05	09/26/19 15:41
MW-11_092019	L1943646-06	09/26/19 16:18
MW-18M_092019	L1943646-07	09/26/19 16:55
MW-18S_092019	L1943646-08	09/26/19 17:32
GWTB02_092019	L1943646-09	09/26/19 18:09

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Instrument ID	: ELAINE	Analysis Date	: 05/01/19 21:04
Tune Standard	: WG1232921-1	Tune File ID	: VE190501NBF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.2
75	30.0 - 60.0% of mass 95	47.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 (.4)1
174	Greater than 50.0 of mass 95	78.8
175	5.0 - 9.0% of mass 174	5.7 (7.3)1
176	95.0 - 101% of mass 174	75.8 (96.2)1
177	5.0 - 9.0% of mass 176	5 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD11	R1182583-1	VE190501N03	05/01/19 22:38
STD1	R1182583-2	VE190501N05	05/01/19 23:50
STD2	R1182583-3	VE190501N07	05/02/19 01:03
STD3	R1182583-5	VE190501N08	05/02/19 01:38
STD4	R1182583-4	VE190501N09	05/02/19 02:14
STD6	R1182583-6	VE190501N10	05/02/19 02:51
STD8	R1182583-7	VE190501N11	05/02/19 03:27
STD10	R1182583-8	VE190501N12	05/02/19 04:03
ICV Quant Report	R1182583-9	VE190501N19	05/02/19 08:16

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Instrument ID	: ELAINE	Analysis Date	: 09/26/19 06:53
Tune Standard	: WG1288977-1	Tune File ID	: VE190926ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.1
75	30.0 - 60.0% of mass 95	41.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.2 (.2)1
174	Greater than 50.0 of mass 95	87.3
175	5.0 - 9.0% of mass 174	6.6 (7.6)1
176	95.0 - 101% of mass 174	83.7 (95.8)1
177	5.0 - 9.0% of mass 176	5.6 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1288977-2CCAL	WG1288977-2	VE190926A02	09/26/19 07:43
WG1288977-3LCS	WG1288977-3	VE190926A02	09/26/19 07:43
WG1288977-4LCSD	WG1288977-4	VE190926A03	09/26/19 08:20
WG1288977-5BLANK	WG1288977-5	VE190926A05	09/26/19 09:33
MW-19_092019	L1943646-01D	VE190926A11	09/26/19 13:12
MW-6_092019	L1943646-02D	VE190926A12	09/26/19 13:49
MW-17_092019	L1943646-03	VE190926A13	09/26/19 14:26
MW-7_092019	L1943646-04	VE190926A14	09/26/19 15:04
MW-10_092019	L1943646-05	VE190926A15	09/26/19 15:41
MW-11_092019	L1943646-06	VE190926A16	09/26/19 16:18
MW-18M_092019	L1943646-07	VE190926A17	09/26/19 16:55
MW-18S_092019	L1943646-08	VE190926A18	09/26/19 17:32
GWTB02_092019	L1943646-09	VE190926A19	09/26/19 18:09

Internal Standard Area and RT Summary

Form 8a

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : ELAINE
 Sample No : WG1288977-2

Lab Number : L1943646
 Project Number : 170329301
 Analysis Date : 09/26/19 07:43
 Lab File ID : VE190926A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1288977-2	260092	9.73	234931	14.85	160613	19.14
Upper Limit	520184	10.23	469862	15.35	321226	19.64
Lower Limit	130046	9.23	117466	14.35	80307	18.64
Sample ID						
WG1288977-3 LCS	260092	9.73	234931	14.85	160613	19.14
WG1288977-4 LCSD	256301	9.73	229924	14.85	157573	19.14
WG1288977-5 BLANK	247865	9.73	226871	14.85	154936	19.14
MW-19_092019	229993	9.73	206908	14.85	145034	19.14
MW-6_092019	234211	9.73	212348	14.85	143994	19.14
MW-17_092019	236952	9.73	210815	14.85	145515	19.14
MW-7_092019	229428	9.73	211009	14.85	146088	19.14
MW-10_092019	224788	9.73	207884	14.85	139273	19.14
MW-11_092019	223559	9.73	201056	14.85	139164	19.14
MW-18M_092019	227990	9.73	206240	14.85	143229	19.14
MW-18S_092019	223206	9.73	204319	14.85	138121	19.14
GWTB02_092019	215489	9.73	200298	14.85	139906	19.14

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
Page: 1

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.210	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.240	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.200	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
Page: 2

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.430	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.220	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,3,5-Trichlorobenzene	108-70-3	2	0.141	ug/l	70-130	20	70-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
Methyl Acetate	79-20-9	10	0.234	ug/l	70-130	20	70-130	20	20			
Ethyl Acetate	141-78-6	10	0.716	ug/l	70-130	20	70-130	20	20			
Isopropyl Ether	108-20-3	2	0.425	ug/l	70-130	20	70-130	20	20			
Cyclohexane	110-82-7	10	0.271	ug/l	70-130	20	70-130	20	20			
Ethyl-Tert-Butyl-Ether	637-92-3	2	0.179	ug/l	70-130	20	70-130	20	20			

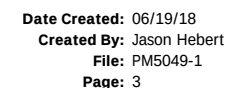
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 1

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.140	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.230	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.140	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.560	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 2

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	10	4.81	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	2	0.173	ug/kg	70-139	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.650	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
iso-Propyl Alcohol	67-63-0	100	100	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	4	0.950	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	10	1.21	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	2	0.213	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	10	0.544	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5047-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days

Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 1

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	250	115	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	50	7.25	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	75	7.00	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	50	11.5	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	50	6.25	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	50	7.00	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	50	13.4	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	25	9.80	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	25	6.35	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	200	34.8	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	50	12.9	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	25	8.35	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	25	5.45	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	50	13.7	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	25	7.90	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	25	7.95	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	200	12.3	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	25	8.30	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	25	8.30	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	50	27.2	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	50	7.05	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	200	46.6	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	100	29.1	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	50	16.8	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	100	22.6	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	50	11.9	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	75	6.85	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	25	6.85	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	100	7.20	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	100	7.40	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	100	8.55	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	100	10.1	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	100	28.0	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	50	14.6	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	50	8.75	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
Dibromomethane	74-95-3	100	11.9	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 2

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	500	11.3	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	100	6.35	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	50	9.80	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	500	45.8	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	500	241	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	500	228	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	500	111	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	500	108	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	500	64.0	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	500	59.0	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	500	79.0	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	200	57.5	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	100	10.3	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	200	79.5	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	100	10.1	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	50	14.0	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	100	8.35	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	25	6.60	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	100	7.25	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	50	8.35	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	50	7.30	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	100	5.90	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	100	8.65	ug/kg	70-139	30	70-130	30	30			
o-Chlorotoluene	95-49-8	100	9.55	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	100	5.40	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	150	49.9	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	200	8.45	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	50	5.45	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	50	5.45	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	200	32.5	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	50	8.55	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	100	16.1	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	100	13.6	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	100	9.65	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	100	16.7	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	250	71.0	ug/kg	70-130	30	70-130	30	30			
iso-Propyl Alcohol	67-63-0	5000	5000	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	100	17.1	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	200	47.5	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	500	60.5	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	100	10.7	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	500	27.2	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days

Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



Volatiles Sample Data

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-01D
 Client ID : MW-19_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A11
 Sample Amount : 0.5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:12
 Dilution Factor : 20
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	50	14.	U
75-34-3	1,1-Dichloroethane	ND	50	14.	U
67-66-3	Chloroform	ND	50	14.	U
56-23-5	Carbon tetrachloride	ND	10	2.7	U
78-87-5	1,2-Dichloropropane	ND	20	2.7	U
124-48-1	Dibromochloromethane	ND	10	3.0	U
79-00-5	1,1,2-Trichloroethane	ND	30	10.	U
127-18-4	Tetrachloroethene	2600	10	3.6	
108-90-7	Chlorobenzene	ND	50	14.	U
75-69-4	Trichlorofluoromethane	ND	50	14.	U
107-06-2	1,2-Dichloroethane	ND	10	2.6	U
71-55-6	1,1,1-Trichloroethane	ND	50	14.	U
75-27-4	Bromodichloromethane	ND	10	3.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.3	U
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.9	U
542-75-6	1,3-Dichloropropene, Total	ND	10	2.9	U
563-58-6	1,1-Dichloropropene	ND	50	14.	U
75-25-2	Bromoform	ND	40	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.3	U
71-43-2	Benzene	ND	10	3.2	U
108-88-3	Toluene	ND	50	14.	U
100-41-4	Ethylbenzene	ND	50	14.	U
74-87-3	Chloromethane	ND	50	14.	U
74-83-9	Bromomethane	ND	50	14.	U
75-01-4	Vinyl chloride	ND	20	1.4	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-01D
 Client ID : MW-19_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A11
 Sample Amount : 0.5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:12
 Dilution Factor : 20
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	50	14.	U
75-35-4	1,1-Dichloroethene	ND	10	3.4	U
156-60-5	trans-1,2-Dichloroethene	ND	50	14.	U
79-01-6	Trichloroethene	1800	10	3.5	
95-50-1	1,2-Dichlorobenzene	ND	50	14.	U
541-73-1	1,3-Dichlorobenzene	ND	50	14.	U
106-46-7	1,4-Dichlorobenzene	ND	50	14.	U
1634-04-4	Methyl tert butyl ether	ND	50	14.	U
179601-23-1	p/m-Xylene	ND	50	14.	U
95-47-6	o-Xylene	ND	50	14.	U
1330-20-7	Xylenes, Total	ND	50	14.	U
156-59-2	cis-1,2-Dichloroethene	36	50	14.	J
540-59-0	1,2-Dichloroethene, Total	36	50	14.	J
74-95-3	Dibromomethane	ND	100	20.	U
96-18-4	1,2,3-Trichloropropane	ND	50	14.	U
107-13-1	Acrylonitrile	ND	100	30.	U
100-42-5	Styrene	ND	50	14.	U
75-71-8	Dichlorodifluoromethane	ND	100	20.	U
67-64-1	Acetone	ND	100	29.	U
75-15-0	Carbon disulfide	ND	100	20.	U
78-93-3	2-Butanone	ND	100	39.	U
108-05-4	Vinyl acetate	ND	100	20.	U
108-10-1	4-Methyl-2-pentanone	ND	100	20.	U
591-78-6	2-Hexanone	ND	100	20.	U
74-97-5	Bromochloromethane	ND	50	14.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-01D
 Client ID : MW-19_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A11
 Sample Amount : 0.5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:12
 Dilution Factor : 20
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	50	14.	U
106-93-4	1,2-Dibromoethane	ND	40	13.	U
142-28-9	1,3-Dichloropropane	ND	50	14.	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	14.	U
108-86-1	Bromobenzene	ND	50	14.	U
104-51-8	n-Butylbenzene	ND	50	14.	U
135-98-8	sec-Butylbenzene	ND	50	14.	U
98-06-6	tert-Butylbenzene	ND	50	14.	U
95-49-8	o-Chlorotoluene	ND	50	14.	U
106-43-4	p-Chlorotoluene	ND	50	14.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	14.	U
87-68-3	Hexachlorobutadiene	ND	50	14.	U
98-82-8	Isopropylbenzene	ND	50	14.	U
99-87-6	p-Isopropyltoluene	ND	50	14.	U
91-20-3	Naphthalene	ND	50	14.	U
103-65-1	n-Propylbenzene	ND	50	14.	U
87-61-6	1,2,3-Trichlorobenzene	ND	50	14.	U
120-82-1	1,2,4-Trichlorobenzene	ND	50	14.	U
108-67-8	1,3,5-Trimethylbenzene	ND	50	14.	U
95-63-6	1,2,4-Trimethylbenzene	ND	50	14.	U
123-91-1	1,4-Dioxane	ND	5000	1200	U
105-05-5	p-Diethylbenzene	ND	40	14.	U
622-96-8	p-Ethyltoluene	ND	40	14.	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	40	11.	U
60-29-7	Ethyl ether	ND	50	14.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-01D
 Client ID : MW-19_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A11
 Sample Amount : 0.5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:12
 Dilution Factor : 20
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	50	14.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-02D
 Client ID : MW-6_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A12
 Sample Amount : 5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:45
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:49
 Dilution Factor : 2
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	5.0	1.4	U
75-34-3	1,1-Dichloroethane	ND	5.0	1.4	U
67-66-3	Chloroform	ND	5.0	1.4	U
56-23-5	Carbon tetrachloride	ND	1.0	0.27	U
78-87-5	1,2-Dichloropropane	ND	2.0	0.27	U
124-48-1	Dibromochloromethane	ND	1.0	0.30	U
79-00-5	1,1,2-Trichloroethane	ND	3.0	1.0	U
127-18-4	Tetrachloroethene	210	1.0	0.36	
108-90-7	Chlorobenzene	ND	5.0	1.4	U
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	U
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	U
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.4	U
75-27-4	Bromodichloromethane	ND	1.0	0.38	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.33	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	U
542-75-6	1,3-Dichloropropene, Total	ND	1.0	0.29	U
563-58-6	1,1-Dichloropropene	ND	5.0	1.4	U
75-25-2	Bromoform	ND	4.0	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	U
71-43-2	Benzene	ND	1.0	0.32	U
108-88-3	Toluene	ND	5.0	1.4	U
100-41-4	Ethylbenzene	ND	5.0	1.4	U
74-87-3	Chloromethane	ND	5.0	1.4	U
74-83-9	Bromomethane	ND	5.0	1.4	U
75-01-4	Vinyl chloride	0.21	2.0	0.14	J



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-02D
 Client ID : MW-6_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A12
 Sample Amount : 5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:45
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:49
 Dilution Factor : 2
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	5.0	1.4	U
75-35-4	1,1-Dichloroethene	0.52	1.0	0.34	J
156-60-5	trans-1,2-Dichloroethene	2.1	5.0	1.4	J
79-01-6	Trichloroethene	110	1.0	0.35	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.4	U
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.4	U
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	U
1634-04-4	Methyl tert butyl ether	ND	5.0	1.4	U
179601-23-1	p/m-Xylene	ND	5.0	1.4	U
95-47-6	o-Xylene	ND	5.0	1.4	U
1330-20-7	Xylenes, Total	ND	5.0	1.4	U
156-59-2	cis-1,2-Dichloroethene	10	5.0	1.4	
540-59-0	1,2-Dichloroethene, Total	12	5.0	1.4	J
74-95-3	Dibromomethane	ND	10	2.0	U
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.4	U
107-13-1	Acrylonitrile	ND	10	3.0	U
100-42-5	Styrene	ND	5.0	1.4	U
75-71-8	Dichlorodifluoromethane	ND	10	2.0	U
67-64-1	Acetone	ND	10	2.9	U
75-15-0	Carbon disulfide	ND	10	2.0	U
78-93-3	2-Butanone	ND	10	3.9	U
108-05-4	Vinyl acetate	ND	10	2.0	U
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	U
591-78-6	2-Hexanone	ND	10	2.0	U
74-97-5	Bromochloromethane	ND	5.0	1.4	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-02D
 Client ID : MW-6_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A12
 Sample Amount : 5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:45
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:49
 Dilution Factor : 2
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	U
106-93-4	1,2-Dibromoethane	ND	4.0	1.3	U
142-28-9	1,3-Dichloropropane	ND	5.0	1.4	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.4	U
108-86-1	Bromobenzene	ND	5.0	1.4	U
104-51-8	n-Butylbenzene	ND	5.0	1.4	U
135-98-8	sec-Butylbenzene	ND	5.0	1.4	U
98-06-6	tert-Butylbenzene	ND	5.0	1.4	U
95-49-8	o-Chlorotoluene	ND	5.0	1.4	U
106-43-4	p-Chlorotoluene	ND	5.0	1.4	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	U
87-68-3	Hexachlorobutadiene	ND	5.0	1.4	U
98-82-8	Isopropylbenzene	ND	5.0	1.4	U
99-87-6	p-Isopropyltoluene	ND	5.0	1.4	U
91-20-3	Naphthalene	ND	5.0	1.4	U
103-65-1	n-Propylbenzene	ND	5.0	1.4	U
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.4	U
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.4	U
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.4	U
123-91-1	1,4-Dioxane	ND	500	120	U
105-05-5	p-Diethylbenzene	ND	4.0	1.4	U
622-96-8	p-Ethyltoluene	ND	4.0	1.4	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	4.0	1.1	U
60-29-7	Ethyl ether	ND	5.0	1.4	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-02D
 Client ID : MW-6_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A12
 Sample Amount : 5 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 10:45
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 13:49
 Dilution Factor : 2
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	1.4	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-03
 Client ID : MW-17_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 11:30
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 14:26
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	96	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-03
 Client ID : MW-17_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 11:30
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 14:26
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	0.39	0.50	0.17	J
156-60-5	trans-1,2-Dichloroethene	1.6	2.5	0.70	J
79-01-6	Trichloroethene	50	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	5.8	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	7.4	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-03
 Client ID : MW-17_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 11:30
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 14:26
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-03
 Client ID : MW-17_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 11:30
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 14:26
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-04
 Client ID : MW-7_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 12:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:04
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.96	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-04
 Client ID : MW-7_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 12:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:04
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	1.5	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	1.8	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-04
 Client ID : MW-7_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 12:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:04
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab ID	: L1943646-04	Date Collected	: 09/20/19 12:20
Client ID	: MW-7_092019	Date Received	: 09/20/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 09/26/19 15:04
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PK
Lab File ID	: VE190926A14	Instrument ID	: ELAINE
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-05
 Client ID : MW-10_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 13:25
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:41
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	47	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.96	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	3.2	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-05
 Client ID : MW-10_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 13:25
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:41
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-05
 Client ID : MW-10_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 13:25
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:41
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-05
 Client ID : MW-10_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 13:25
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 15:41
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-06
 Client ID : MW-11_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 14:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:18
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	9.7	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	14	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	0.66	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-06
 Client ID : MW-11_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 14:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:18
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	8.2	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	0.71	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	0.71	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-06
 Client ID : MW-11_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 14:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:18
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-06
 Client ID : MW-11_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 14:20
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:18
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-07
 Client ID : MW-18M_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 15:15
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:55
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	25	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-07
 Client ID : MW-18M_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 15:15
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:55
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	0.17	0.50	0.17	J
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	47	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.8	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.8	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-07
 Client ID : MW-18M_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 15:15
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:55
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-07
 Client ID : MW-18M_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 15:15
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 16:55
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-08
 Client ID : MW-18S_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 16:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 17:32
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	21	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.28	1.0	0.07	J



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-08
 Client ID : MW-18S_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 16:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 17:32
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	34	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	7.7	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	7.7	2.5	0.70	
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-08
 Client ID : MW-18S_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 16:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 17:32
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-08
 Client ID : MW-18S_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 16:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 17:32
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-09
 Client ID : GWTB02_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 00:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 18:09
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-09
 Client ID : GWTB02_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 00:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 18:09
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : L1943646-09
 Client ID : GWTB02_092019
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : 09/20/19 00:00
 Date Received : 09/20/19
 Date Analyzed : 09/26/19 18:09
 Dilution Factor : 1
 Analyst : PK
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab ID	: L1943646-09	Date Collected	: 09/20/19 00:00
Client ID	: GWTB02_092019	Date Received	: 09/20/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 09/26/19 18:09
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PK
Lab File ID	: VE190926A19	Instrument ID	: ELAINE
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288977-5
 Client ID : WG1288977-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/26/19 09:33
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288977-5
 Client ID : WG1288977-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/26/19 09:33
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Lab ID : WG1288977-5
 Client ID : WG1288977-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : VE190926A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1943646
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 09/26/19 09:33
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : ELAINE
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1943646
Project Name	: 491 WORTMAN AVENUE	Project Number	: 170329301
Lab ID	: WG1288977-5	Date Collected	: NA
Client ID	: WG1288977-5BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 09/26/19 09:33
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: VE190926A05	Instrument ID	: ELAINE
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A11.D
 Acq On : 26 Sep 2019 1:12 pm
 Operator : ELAINE:PK
 Sample : l1943646-01D, 31, 0.5, 10,, a
 Misc : WG1288977, ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:13:43 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	229993	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery =	88.43%		
59) Chlorobenzene-d5	14.848	117	206908	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery =	88.07%		
79) 1,4-Dichlorobenzene-d4	19.143	152	145034	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery =	90.30%		
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	56704	9.621	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.21%		
43) 1,2-Dichloroethane-d4	9.242	65	60703	9.712	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.12%		
60) Toluene-d8	12.285	98	225243	9.385	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.85%		
83) 4-Bromofluorobenzene	16.988	95	94642	7.627	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	76.27%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.845	50	84	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	4.195	101	72	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	5.132	96	168	N.D.		
11) Carbon disulfide	5.888	76	187	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	6.324	96	2023	0.359	ug/L	82
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	6.972	63	333	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.902	96	11090	1.810	ug/L	96
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.137	83	979	0.101	ug/L #	68

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A11.D
 Acq On : 26 Sep 2019 1:12 pm
 Operator : ELAINE:PK
 Sample : l1943646-01D, 31, 0.5, 10,, a
 Misc : WG1288977, ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:13:43 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.358	95	526009	90.307	ug/L #	86
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	862466	127.938	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	13.700	129	74		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	14.925	112	75		N.D.	
74) Ethylbenzene	14.843	91	84		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A11.D
 Acq On : 26 Sep 2019 1:12 pm
 Operator : ELAINE:PK
 Sample : l1943646-01D, 31, 0.5, 10, , a
 Misc : WG1288977, ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:13:43 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	18.588	105	75		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	19.024	146	95		N.D.	
101)	1,4-Dichlorobenzene	19.192	146	361		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	19.916	146	81		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	23.302	128	73		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

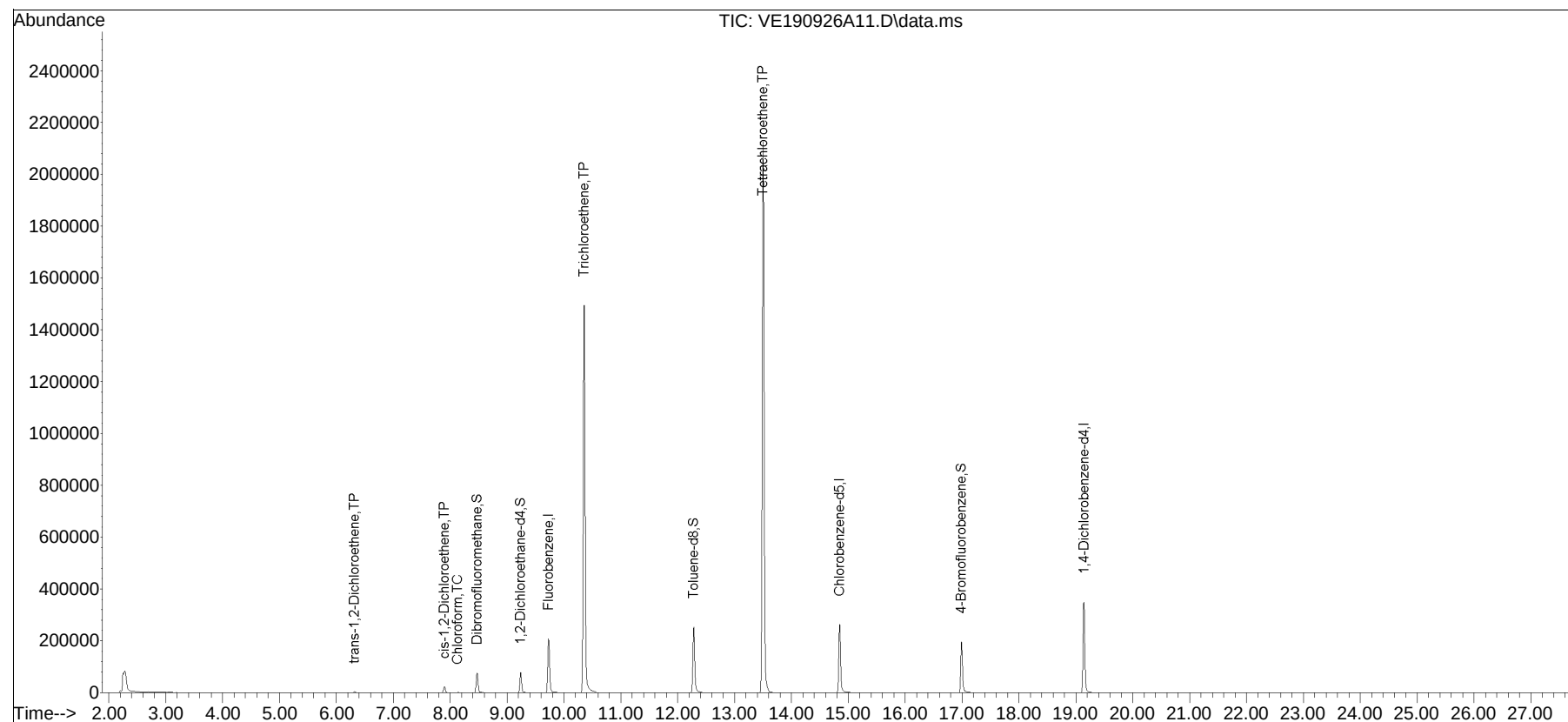
(#) = qualifier out of range (m) = manual integration (+) = signals summed

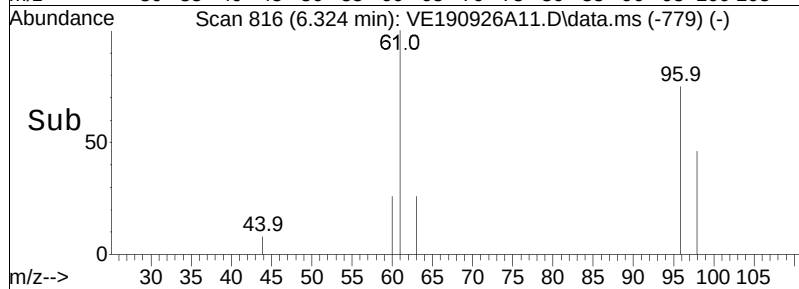
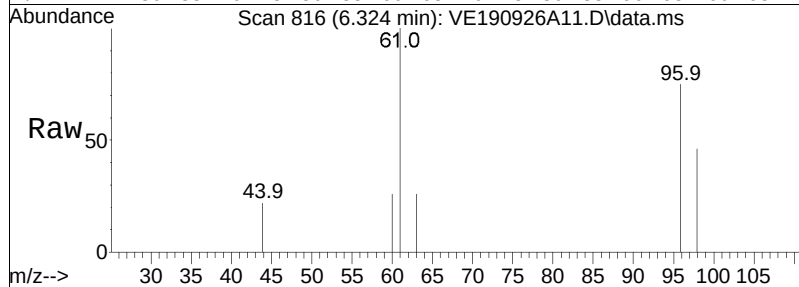
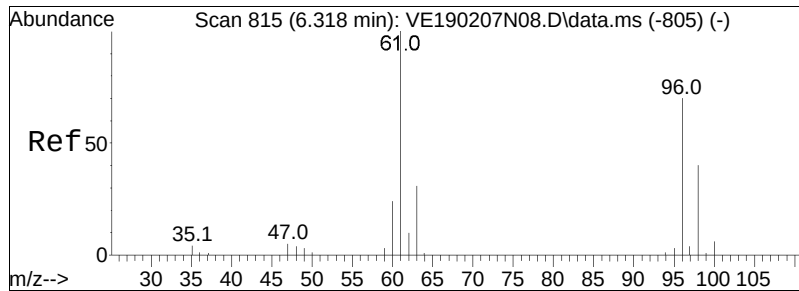
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A11.D
 Acq On : 26 Sep 2019 1:12 pm
 Operator : ELAINE:PK
 Sample : l1943646-01D,31,0.5,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:13:43 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

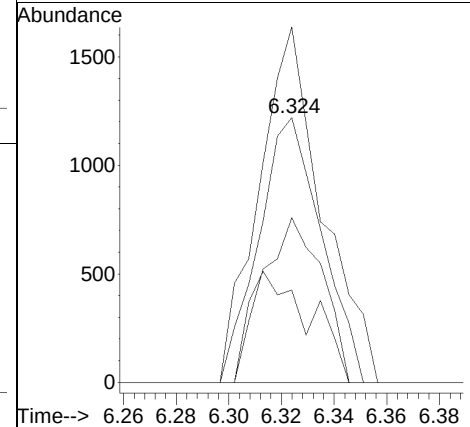
Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•

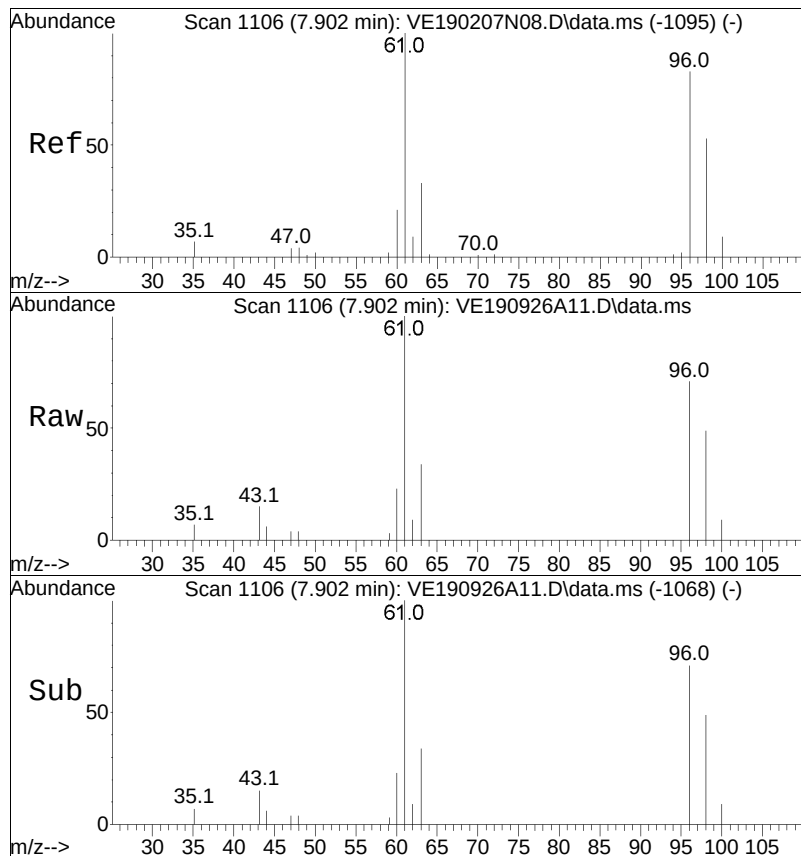




#18
 trans-1,2-Dichloroethene
 Concen: 0.36 ug/L
 RT: 6.324 min Scan# 816
 Delta R.T. -0.000 min
 Lab File: VE190926A11.D
 Acq: 26 Sep 2019 1:12 pm

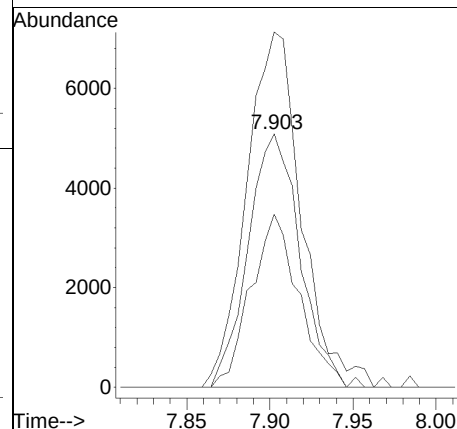
Tgt Ion:	96	Resp:	2023
Ion Ratio	Lower	Upper	
96	100		
61	135.8	109.8	228.0
98	58.7	41.1	85.3
63	40.5	31.0	64.4

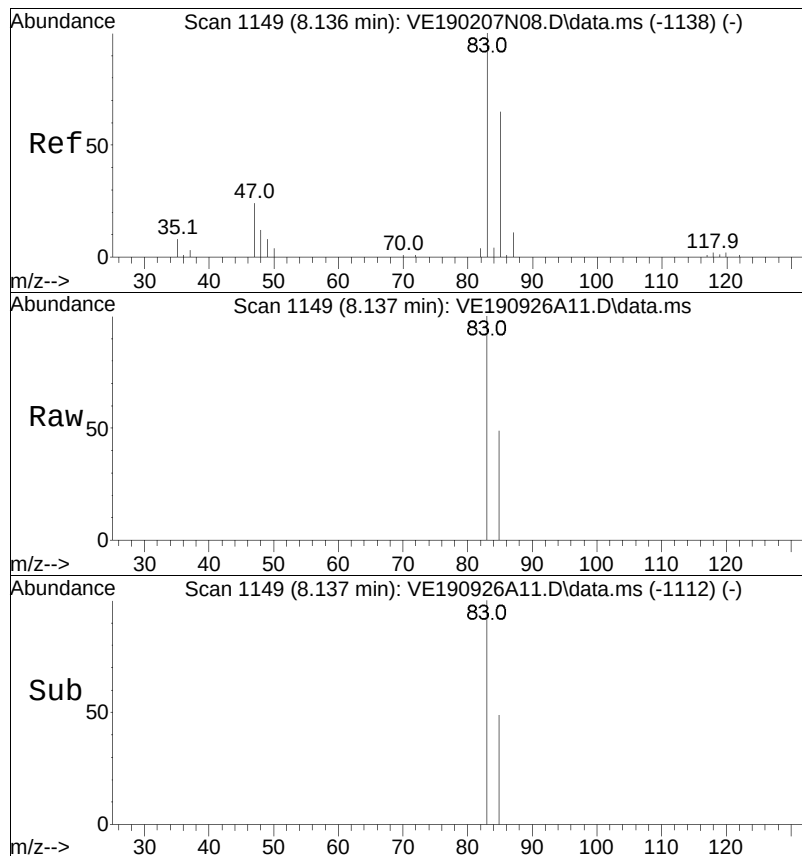




#28
 cis-1,2-Dichloroethene
 Concen: 1.81 ug/L
 RT: 7.902 min Scan# 1106
 Delta R.T. 0.005 min
 Lab File: VE190926A11.D
 Acq: 26 Sep 2019 1:12 pm

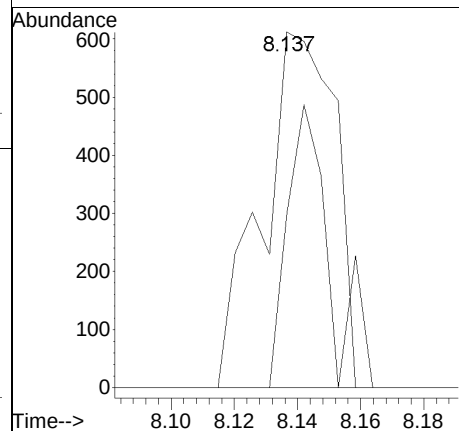
Tgt Ion	Ratio	Lower	Upper
96	100		
61	148.1	123.2	184.8
98	63.0	51.2	76.8

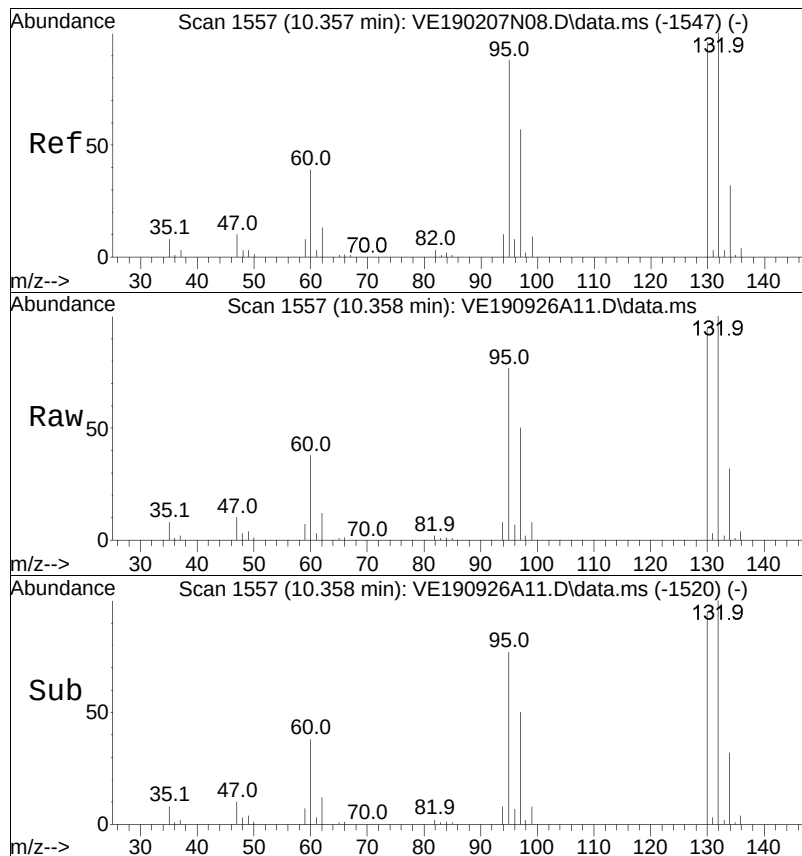




#32
 Chloroform
 Concen: 0.10 ug/L
 RT: 8.137 min Scan# 1149
 Delta R.T. 0.001 min
 Lab File: VE190926A11.D
 Acq: 26 Sep 2019 1:12 pm

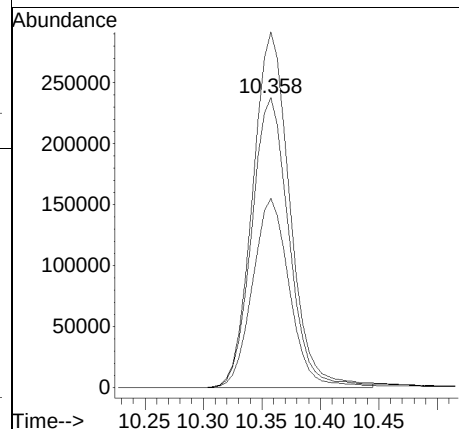
Tgt Ion:	83	Resp:	979
Ion	Ratio	Lower	Upper
83	100		
85	46.0	43.0	89.2
47	0.0	16.4	34.0#
48	0.0	8.3	17.3#

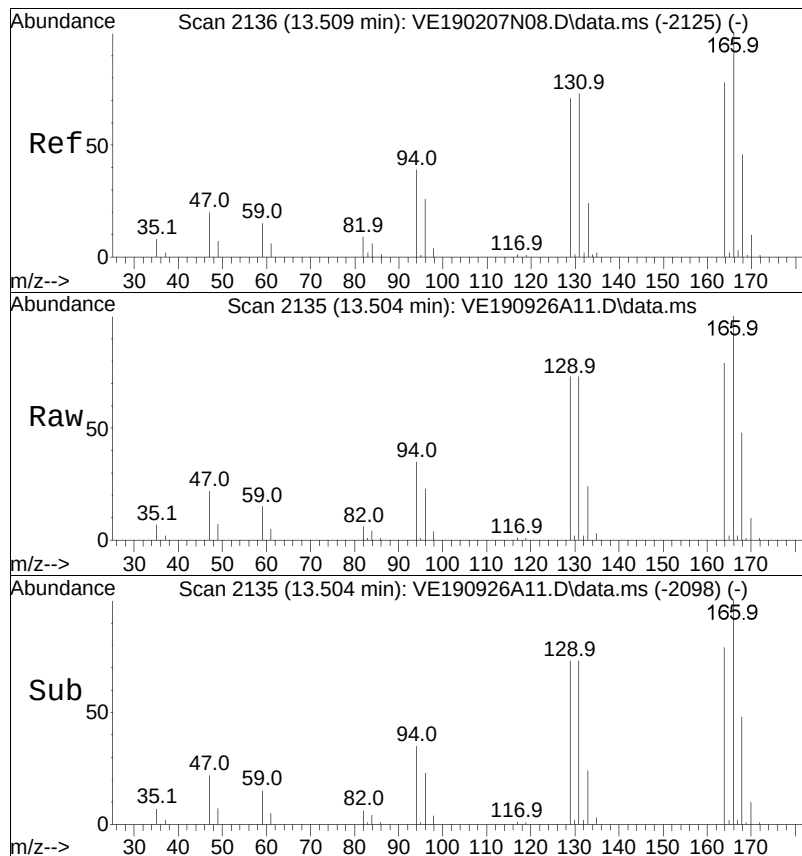




#48
 Trichloroethene
 Concen: 90.31 ug/L
 RT: 10.358 min Scan# 1557
 Delta R.T. 0.001 min
 Lab File: VE190926A11.D
 Acq: 26 Sep 2019 1:12 pm

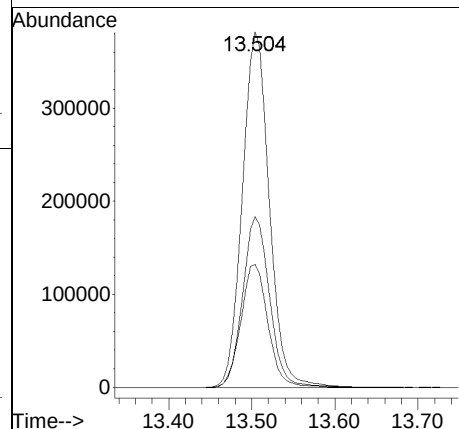
Tgt Ion	Ratio	Lower	Upper
95	100		
97	65.6	51.8	77.6
130	124.7	81.4	122.2#





#63
 Tetrachloroethene
 Concen: 127.94 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A11.D
 Acq: 26 Sep 2019 1:12 pm

Tgt	Ion:166	Resp:	862466
Ion	Ratio	Lower	Upper
166	100		
168	48.1	26.7	66.7
94	34.8	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A11.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 1:12 pm Instrument : Elaine
Sample : l1943646-01D,31,0.5,10,,a Quant Date : 9/26/2019 4:13 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A12.D
 Acq On : 26 Sep 2019 1:49 pm
 Operator : ELAINE:PK
 Sample : l1943646-02D, 31, 5, 10, , a
 Misc : WG1288977, ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:36 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	234211	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery	=	90.05%	
59) Chlorobenzene-d5	14.849	117	212348	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery	=	90.39%	
79) 1,4-Dichlorobenzene-d4	19.143	152	143994	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery	=	89.65%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	58404	9.731	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.31%	
43) 1,2-Dichloroethane-d4	9.242	65	63379	9.958	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.58%	
60) Toluene-d8	12.285	98	223110	9.058	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	90.58%	
83) 4-Bromofluorobenzene	16.988	95	93955	7.626	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	76.26%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	3.009	62	626	0.104	ug/L #	43
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	5.126	96	1355	0.260	ug/L	90
11) Carbon disulfide	5.888	76	159	N.D.		
15) Methylene chloride	5.883	84	93	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	6.318	96	6143	1.071	ug/L	93
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	6.972	63	1115	0.101	ug/L #	53
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.897	96	31698	5.082	ug/L	92
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.131	83	674	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A12.D
 Acq On : 26 Sep 2019 1:49 pm
 Operator : ELAINE:PK
 Sample : l1943646-02D,31,5,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:36 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	9.427	78	73		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.358	95	321545	54.210	ug/L #	86
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	d
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	736230	106.415	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	14.908	112	73		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A12.D
 Acq On : 26 Sep 2019 1:49 pm
 Operator : ELAINE:PK
 Sample : l1943646-02D,31,5,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:36 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	18.822	119	90		N.D.	
100)	1,3-Dichlorobenzene	19.029	146	135		N.D.	
101)	1,4-Dichlorobenzene	19.203	146	764		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	19.944	146	75		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	22.894	180	67		N.D.	
110)	Naphthalene	23.291	128	66		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

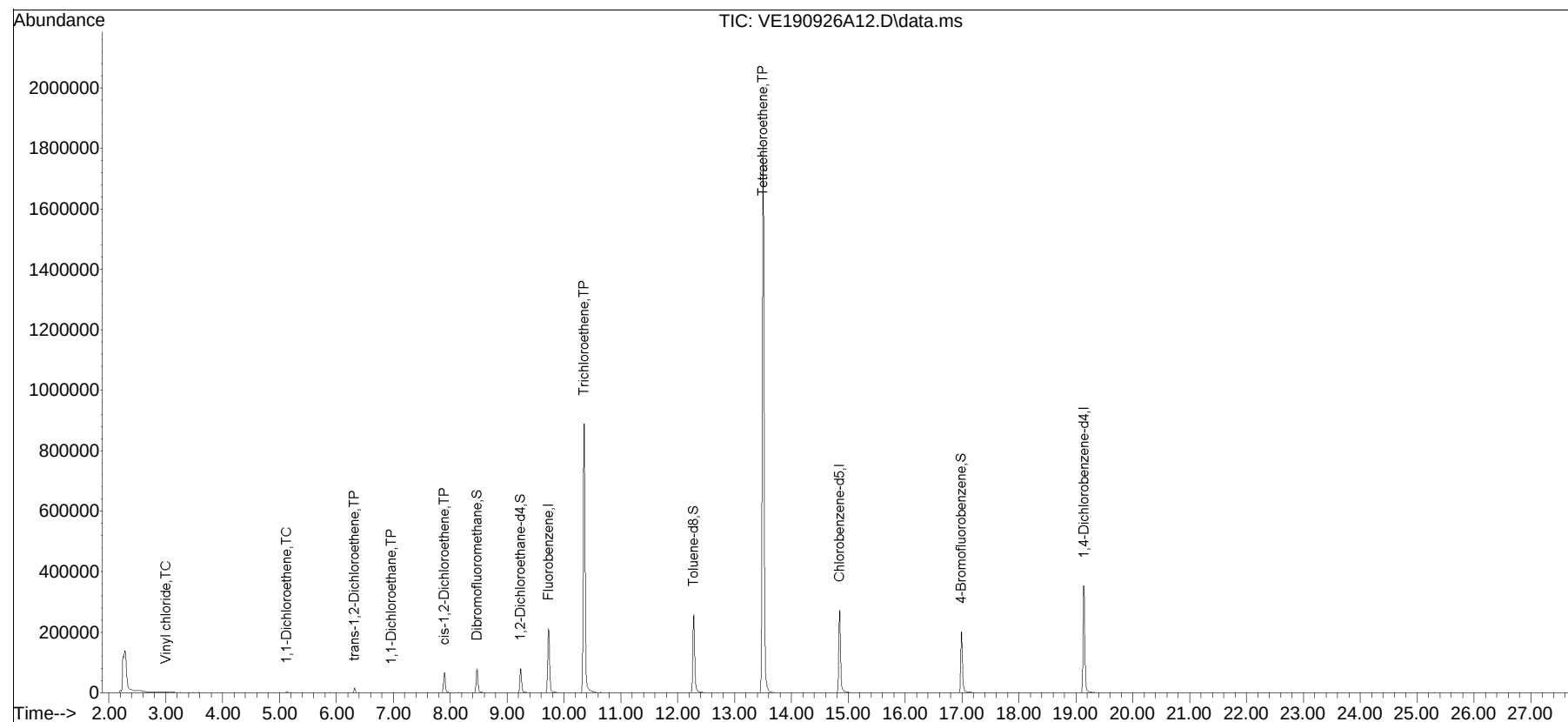
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A12.D
 Acq On : 26 Sep 2019 1:49 pm
 Operator : ELAINE:PK
 Sample : l1943646-02D,31,5,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

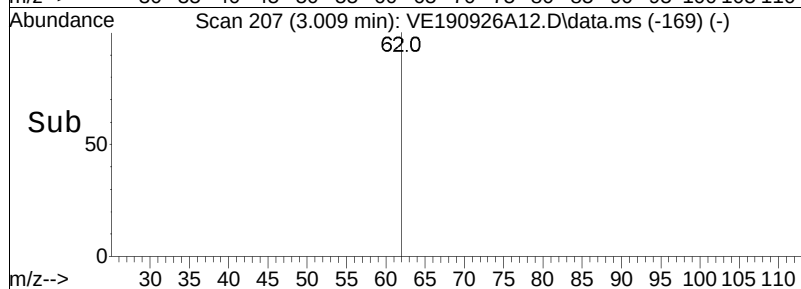
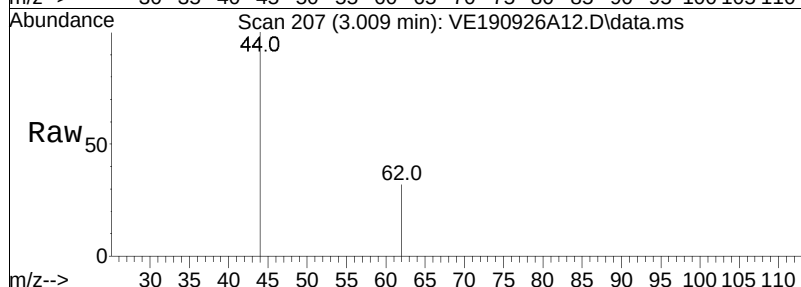
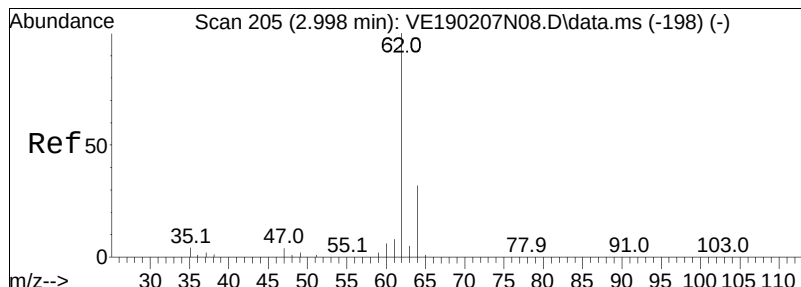
Quant Time: Sep 26 16:19:36 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•



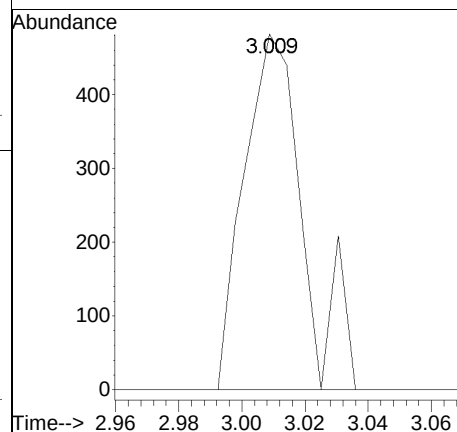
Elaine_190501N_8260.m Thu Sep 26 16:25:28 2019

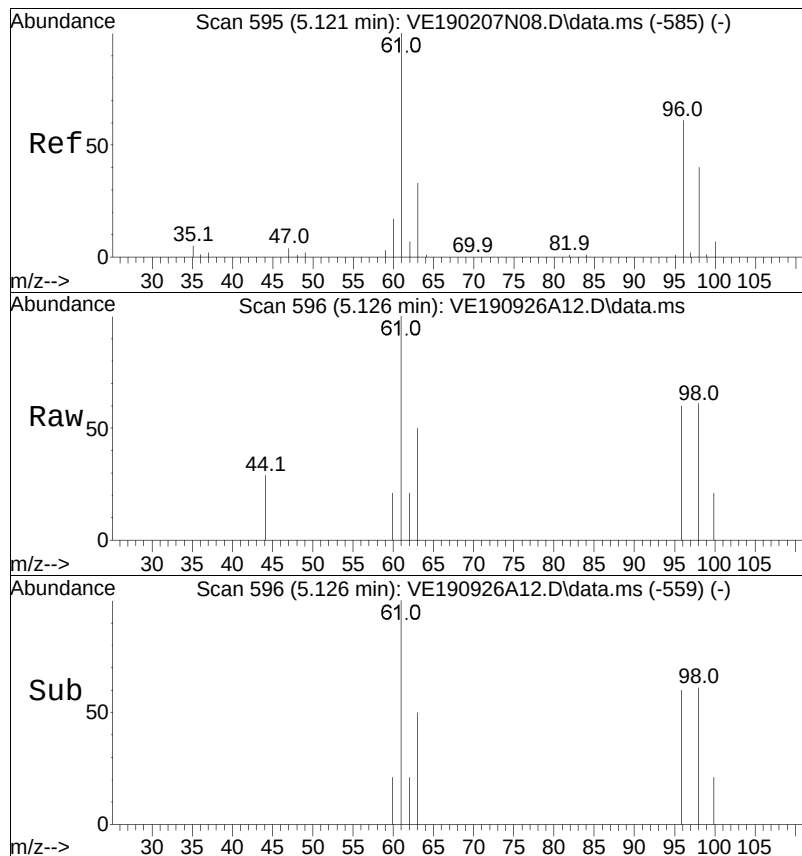
Page 4 : 4



#4
 Vinyl chloride
 Concen: 0.10 ug/L
 RT: 3.009 min Scan# 207
 Delta R.T. 0.006 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

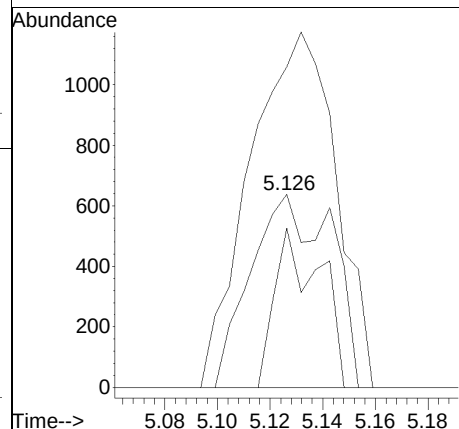
Tgt Ion: 62 Resp: 626
 Ion Ratio Lower Upper
 62 100
 64 0.0 11.3 51.3#

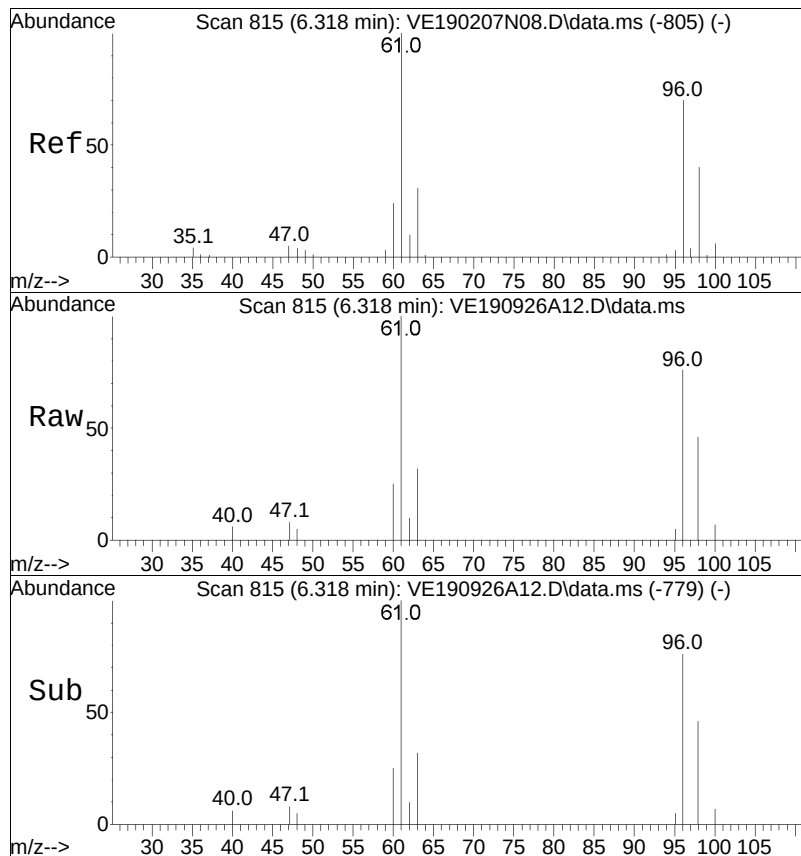




#10
 1,1-Dichloroethene
 Concen: 0.26 ug/L
 RT: 5.126 min Scan# 596
 Delta R.T. 0.000 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

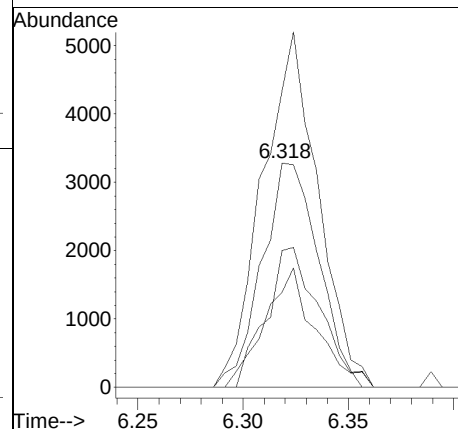
Tgt Ion:	96	Resp:	1355
Ion Ratio	Lower	Upper	
96	100		
61	196.3	146.5	219.7
63	46.5	43.6	65.4

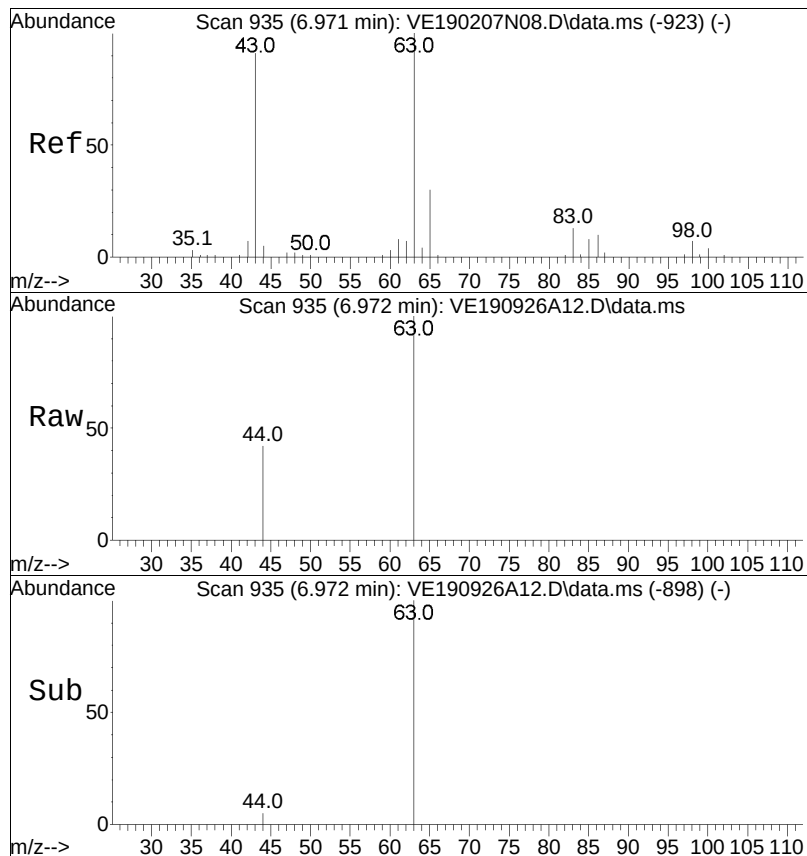




#18
 trans-1,2-Dichloroethene
 Concen: 1.07 ug/L
 RT: 6.318 min Scan# 815
 Delta R.T. -0.006 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

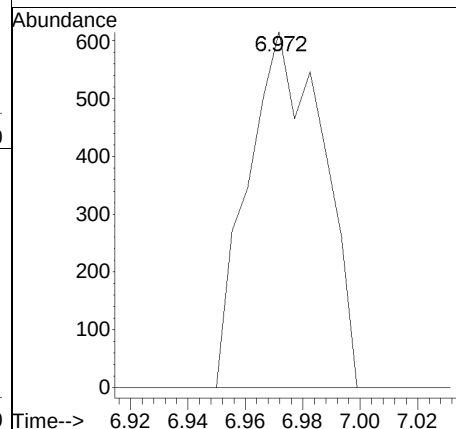
Tgt Ion:	96	Resp:	6143
Ion Ratio	Lower	Upper	
96	100		
61	155.6	109.8	228.0
98	59.2	41.1	85.3
63	48.1	31.0	64.4

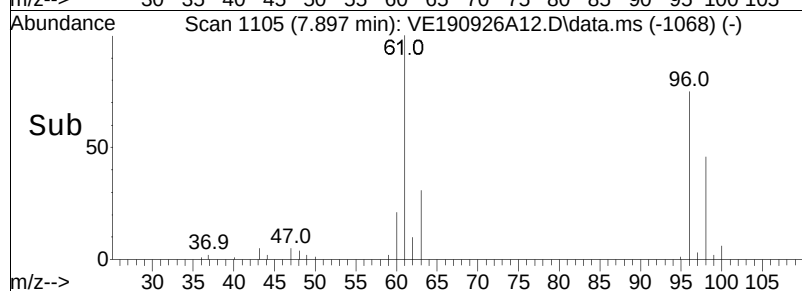
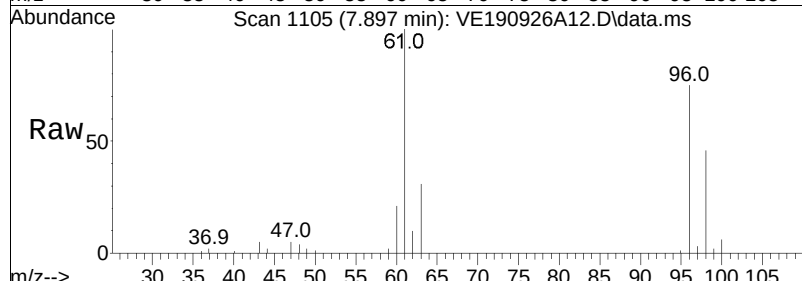
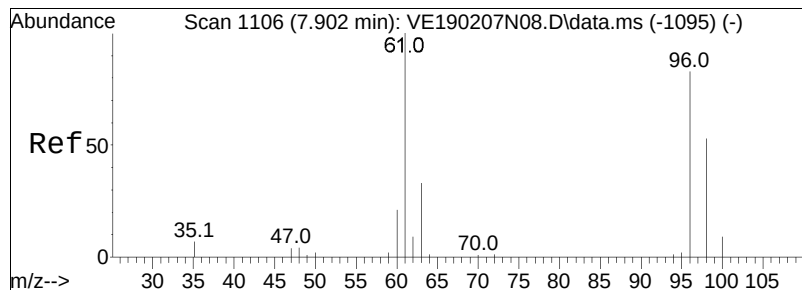




#23
 1,1-Dichloroethane
 Concen: 0.10 ug/L
 RT: 6.972 min Scan# 935
 Delta R.T. -0.000 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

Tgt Ion	Ratio	Resp	Lower	Upper
63	100	1115		
65	0.0		8.6	48.6#
83	0.0		0.0	30.4





#28

cis-1,2-Dichloroethene

Concen: 5.08 ug/L

RT: 7.897 min Scan# 1105

Delta R.T. 0.000 min

Lab File: VE190926A12.D

Acq: 26 Sep 2019 1:49 pm

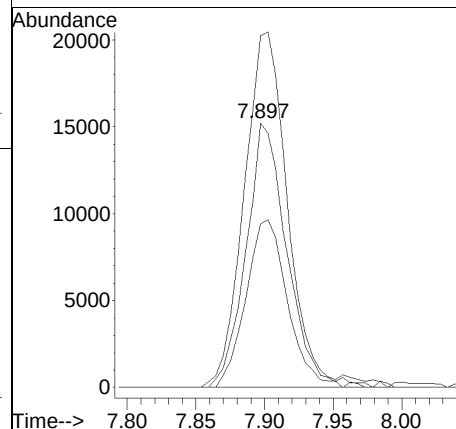
Tgt Ion: 96 Resp: 31698

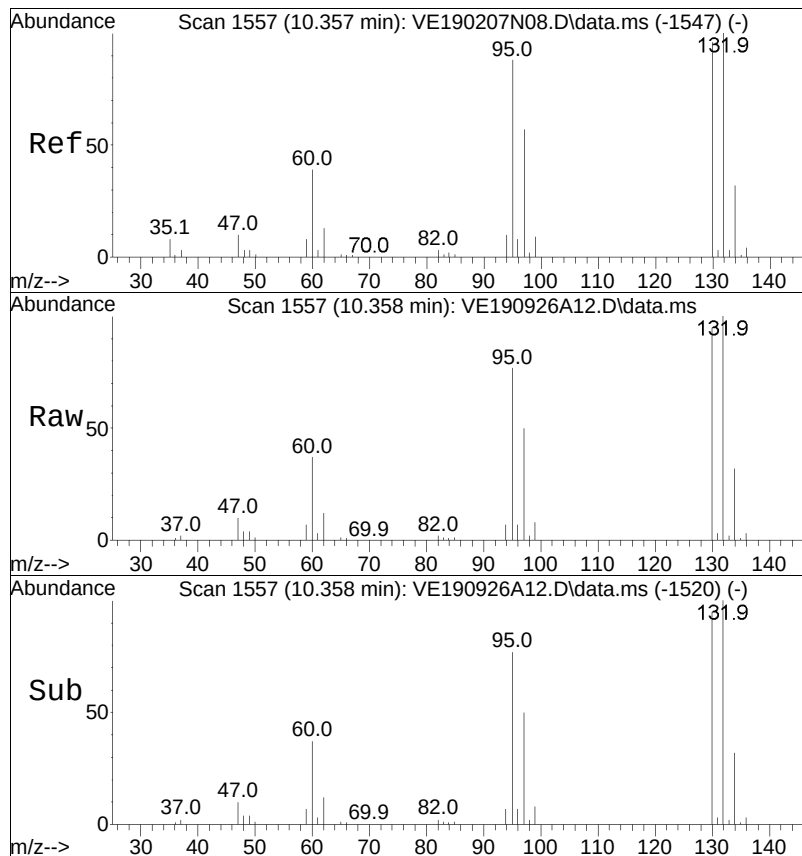
Ion Ratio Lower Upper

96 100

61 140.2 123.2 184.8

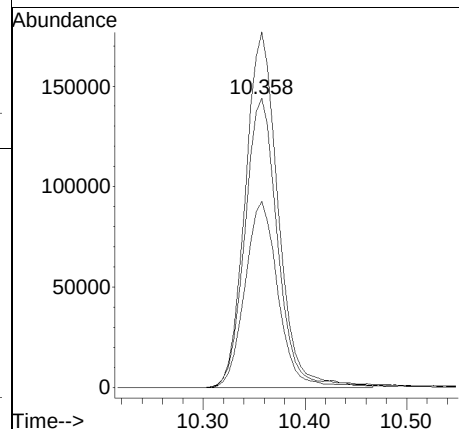
98 64.0 51.2 76.8

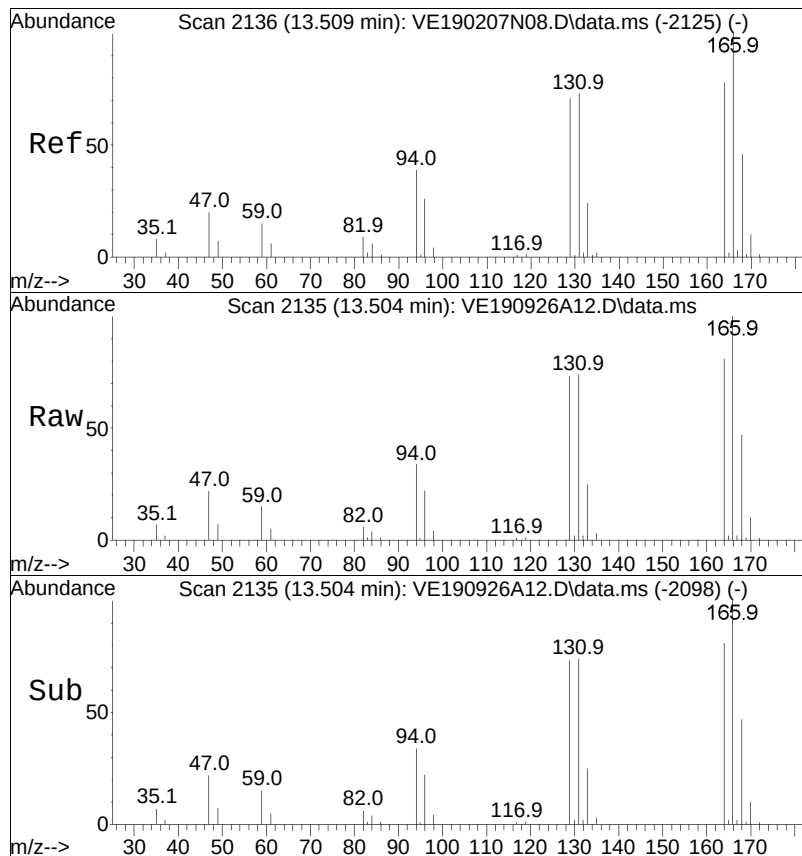




#48
 Trichloroethene
 Concen: 54.21 ug/L
 RT: 10.358 min Scan# 1557
 Delta R.T. 0.001 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

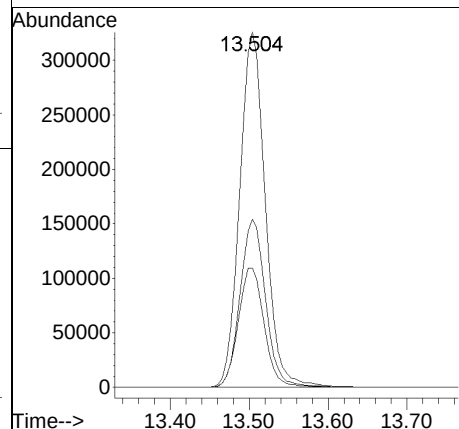
Tgt Ion	Ratio	Lower	Upper
95	100		
97	65.3	51.8	77.6
130	124.2	81.4	122.2#





#63
 Tetrachloroethene
 Concen: 106.41 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A12.D
 Acq: 26 Sep 2019 1:49 pm

Tgt	Ion:166	Resp:	736230
Ion	Ratio	Lower	Upper
166	100		
168	47.2	26.7	66.7
94	34.0	26.8	66.8



Manual Integration Report

Data Path	: I:\VOLATILES\Elaine\2019\10	Method	: Elaine_190501N_8260.m
Data File	: VE190926A12.D	Operator	: ELAINE:PK
Date Inj'd	: 9/26/2019 1:49 pm	Instrument	: Elaine
Sample	: l1943646-02D,31,5,10,,a	Quant Date	: 9/26/2019 4:13 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A13.D
 Acq On : 26 Sep 2019 2:26 pm
 Operator : ELAINE:PK
 Sample : l1943646-03,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:51 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	236952	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery	=	91.10%	
59) Chlorobenzene-d5	14.848	117	210815	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery	=	89.73%	
79) 1,4-Dichlorobenzene-d4	19.138	152	145515	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery	=	90.60%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	58086	9.566	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	95.66%	
43) 1,2-Dichloroethane-d4	9.242	65	63027	9.788	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.88%	
60) Toluene-d8	12.284	98	225526	9.222	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	92.22%	
83) 4-Bromofluorobenzene	16.988	95	92135	7.400	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	74.00%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.845	50	102	N.D.		
4) Vinyl chloride	0.000		0	N.D. d		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	5.126	96	2058	0.390	ug/L	95
11) Carbon disulfide	5.888	76	425	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	4.957	43	1670	1.308	ug/L #	45
18) trans-1,2-Dichloroethene	6.324	96	9326	1.607	ug/L	94
20) Methyl tert-butyl ether	6.095	73	780	N.D.		
23) 1,1-Dichloroethane	6.977	63	1056	0.095	ug/L #	73
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.902	96	36825	5.835	ug/L	93
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.131	83	775	0.078	ug/L #	55

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A13.D
 Acq On : 26 Sep 2019 2:26 pm
 Operator : ELAINE:PK
 Sample : l1943646-03,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:51 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	8.752	97	265		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	9.416	78	89		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.357	95	297508	49.577	ug/L #	87
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	656875	95.635	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	13.683	129	142		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	14.919	112	1034		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A13.D
 Acq On : 26 Sep 2019 2:26 pm
 Operator : ELAINE:PK
 Sample : l1943646-03,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:19:51 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	19.029	146	157		N.D.	
101)	1,4-Dichlorobenzene	19.198	146	1267	0.072	ug/L	86
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	19.922	146	455		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	22.894	180	66		N.D.	
110)	Naphthalene	23.313	128	71		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

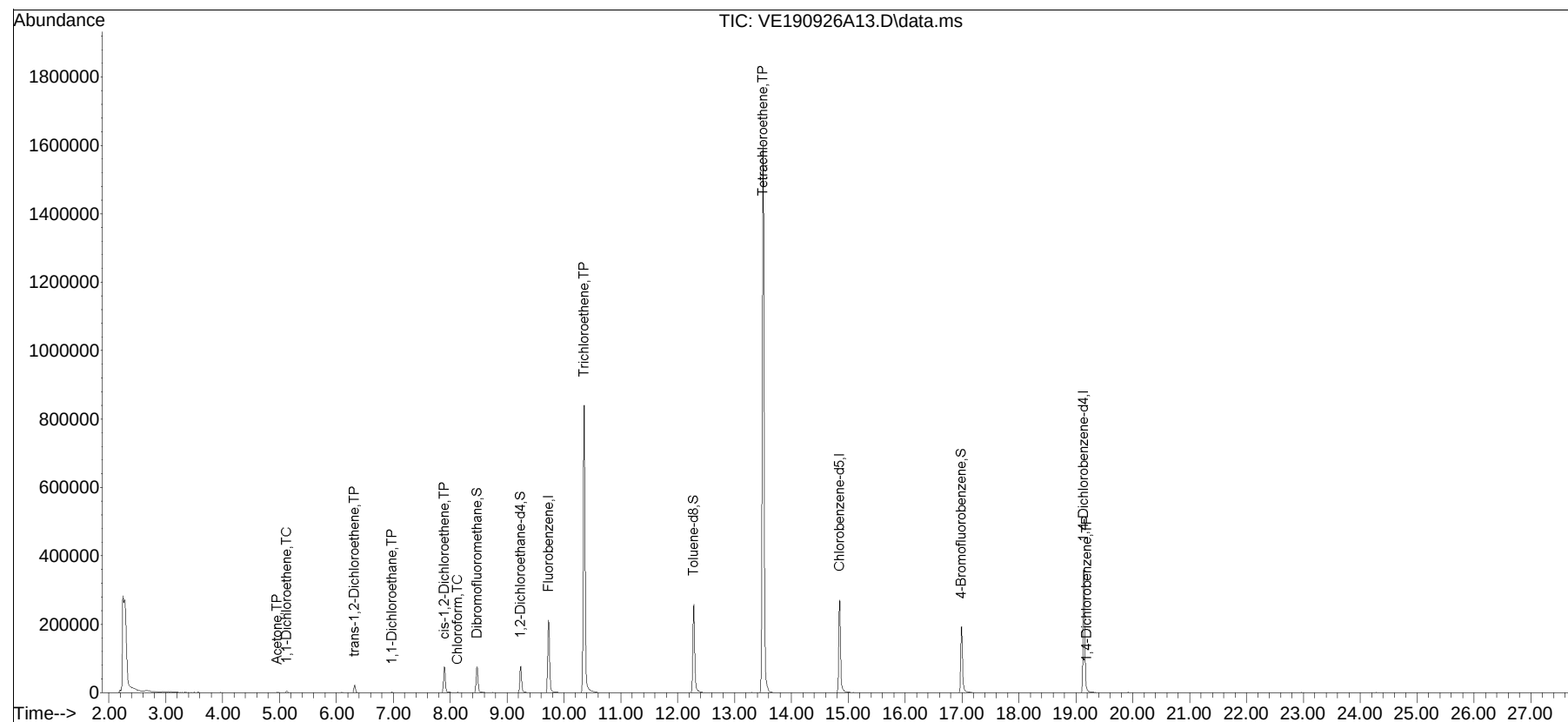
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A13.D
 Acq On : 26 Sep 2019 2:26 pm
 Operator : ELAINE:PK
 Sample : l1943646-03,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

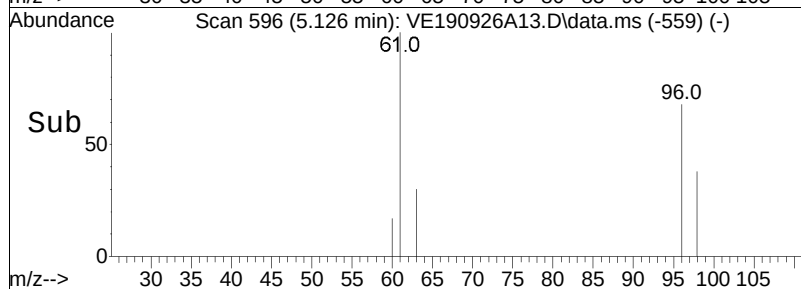
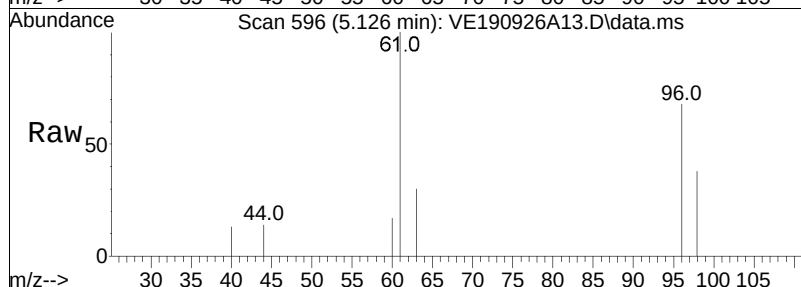
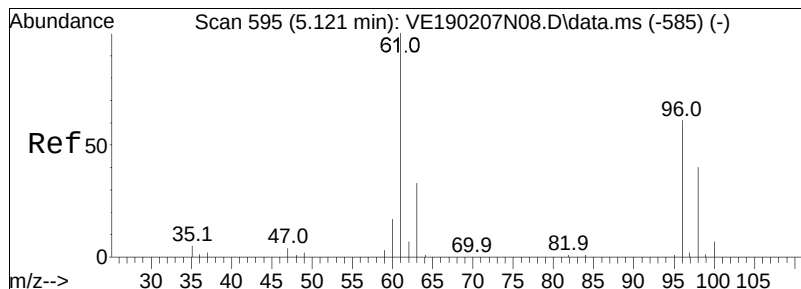
Quant Time: Sep 26 16:19:51 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•



Elaine_190501N_8260.m Thu Sep 26 16:25:34 2019

Page 4 : 4



#10

1,1-Dichloroethene

Concen: 0.39 ug/L

RT: 5.126 min Scan# 596

Delta R.T. 0.000 min

Lab File: VE190926A13.D

Acq: 26 Sep 2019 2:26 pm

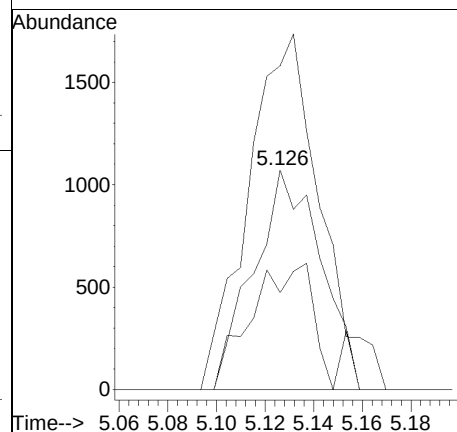
Tgt Ion: 96 Resp: 2058

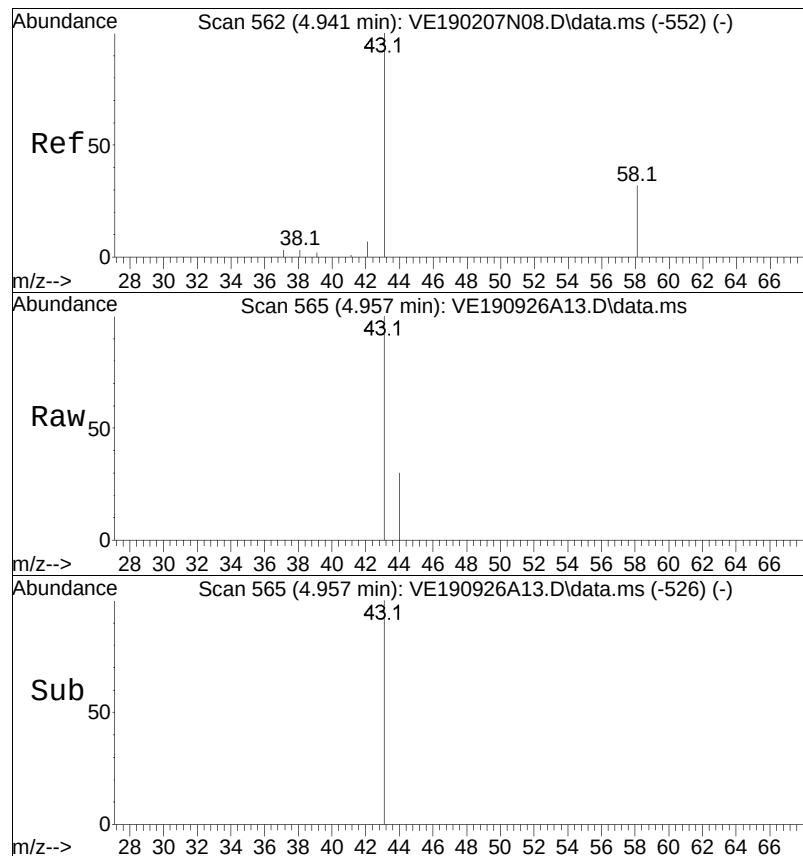
Ion Ratio Lower Upper

96 100

61 175.4 146.5 219.7

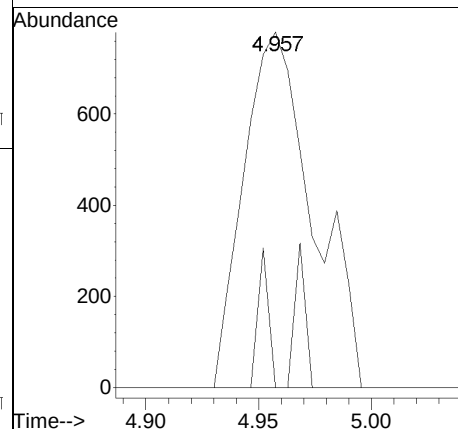
63 52.8 43.6 65.4

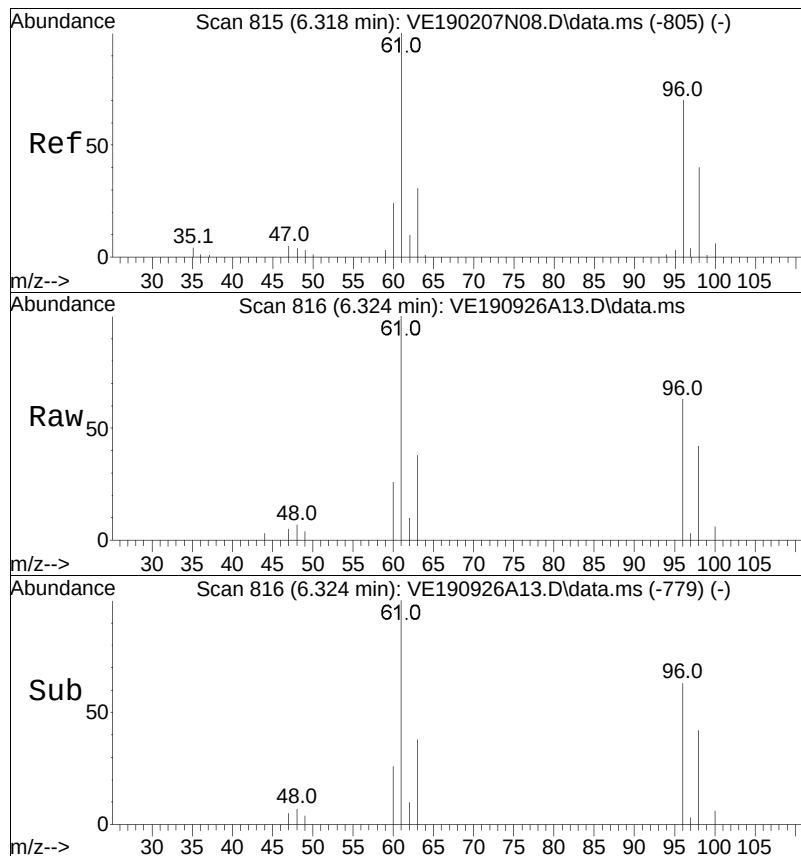




#17
 Acetone
 Concen: 1.31 ug/L
 RT: 4.957 min Scan# 565
 Delta R.T. 0.010 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

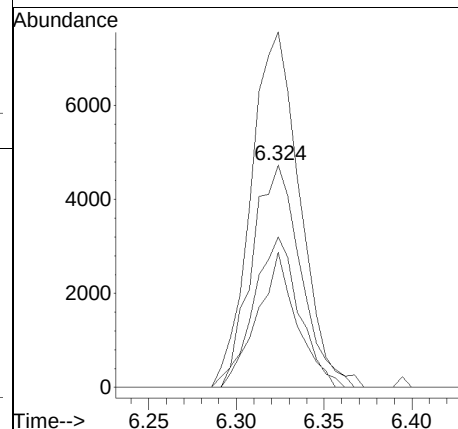
Tgt Ion	Ratio	Lower	Upper
43	100		
58	6.0	32.1	48.1#

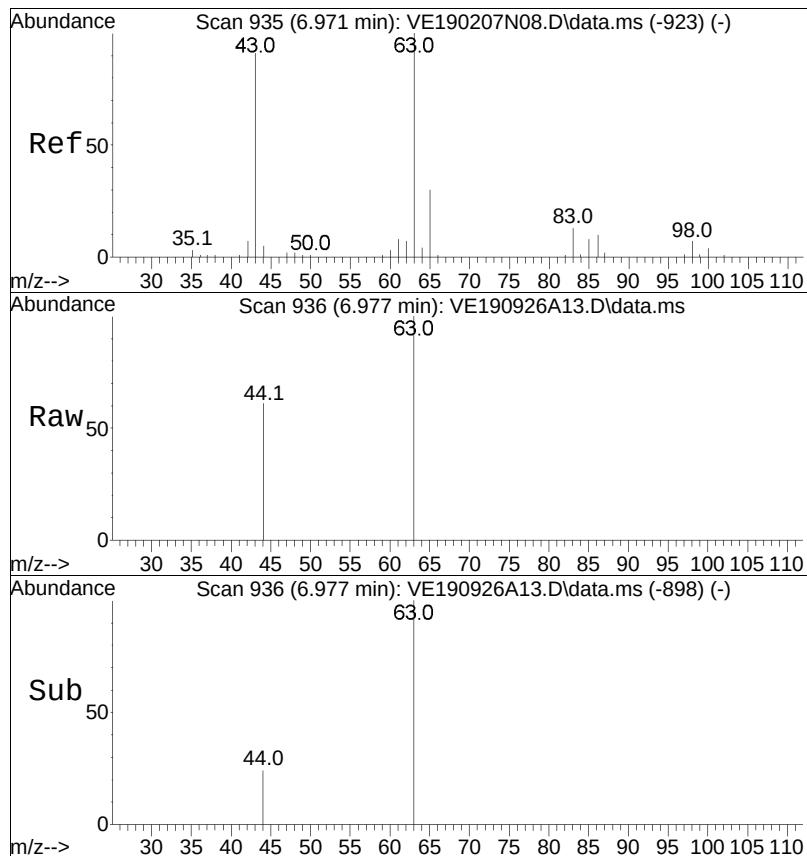




#18
 trans-1,2-Dichloroethene
 Concen: 1.61 ug/L
 RT: 6.324 min Scan# 816
 Delta R.T. -0.000 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

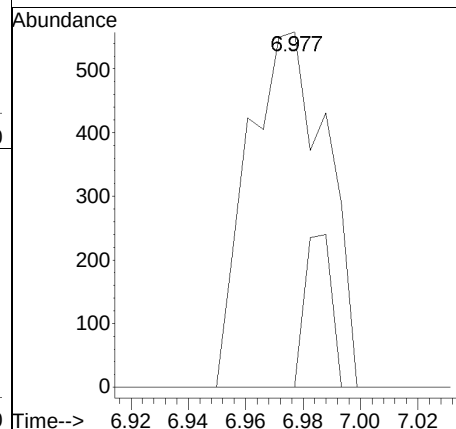
Tgt Ion:	96	Resp:	9326
Ion Ratio	Lower	Upper	
96	100		
61	156.7	109.8	228.0
98	61.7	41.1	85.3
63	48.1	31.0	64.4

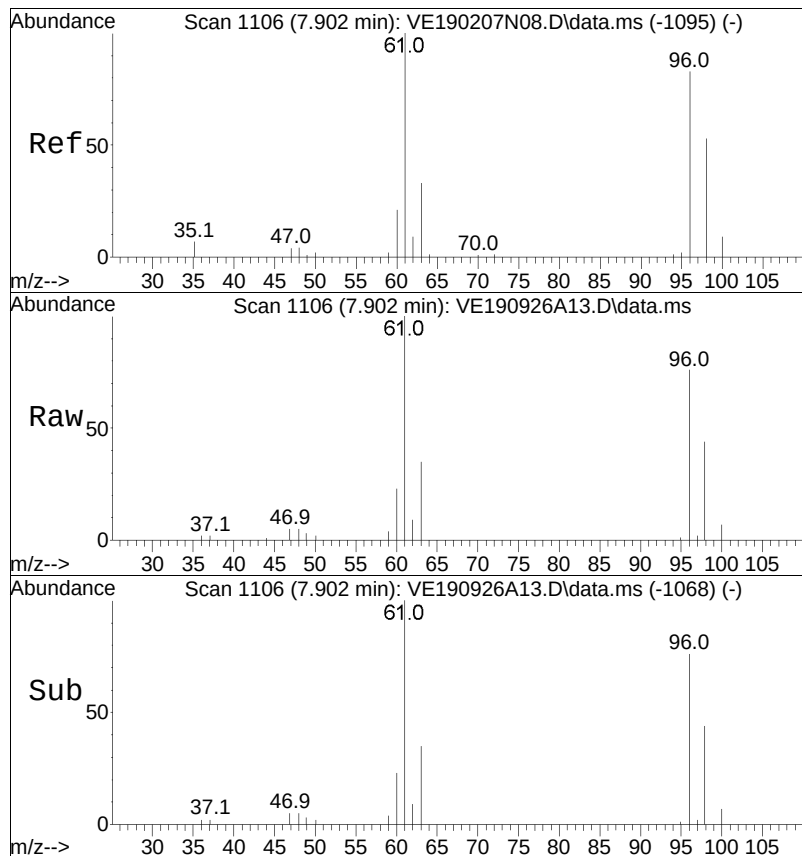




#23
 1,1-Dichloroethane
 Concen: 0.09 ug/L
 RT: 6.977 min Scan# 936
 Delta R.T. 0.005 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

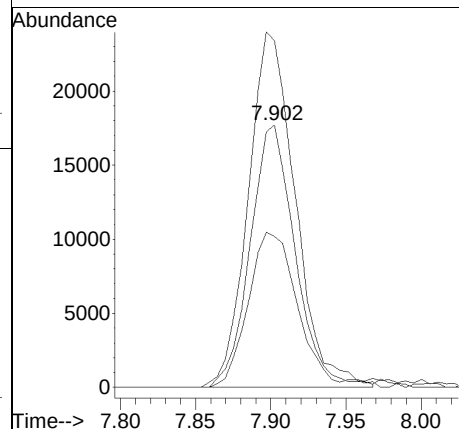
Tgt Ion	Ratio	Lower	Upper
63	100		
65	14.7	8.6	48.6
83	0.0	0.0	30.4

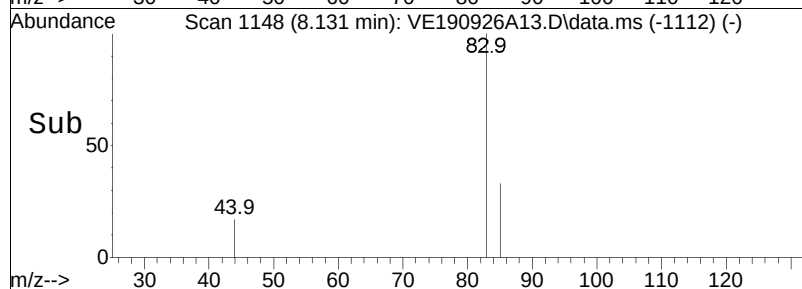
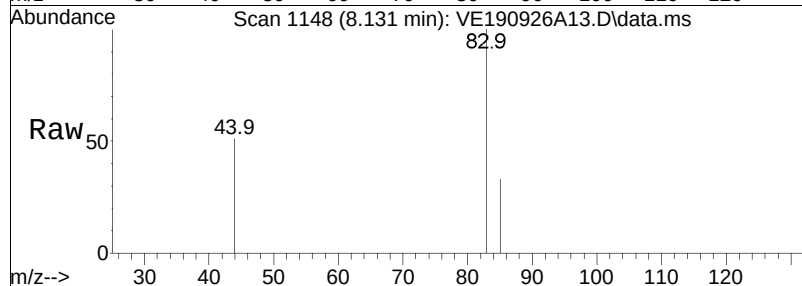
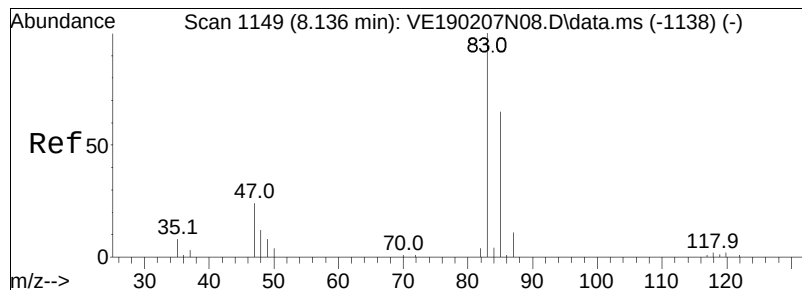




#28
 cis-1,2-Dichloroethene
 Concen: 5.84 ug/L
 RT: 7.902 min Scan# 1106
 Delta R.T. 0.005 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

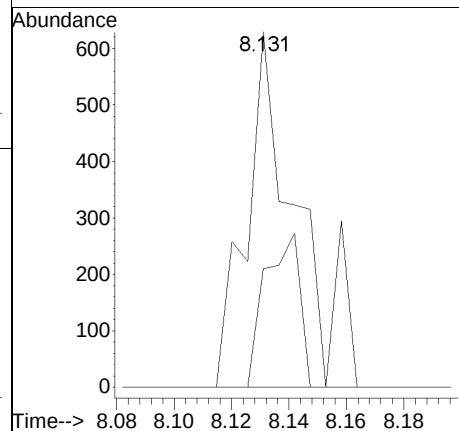
Tgt Ion	Ratio	Lower	Upper
96	100		
61	141.5	123.2	184.8
98	64.1	51.2	76.8

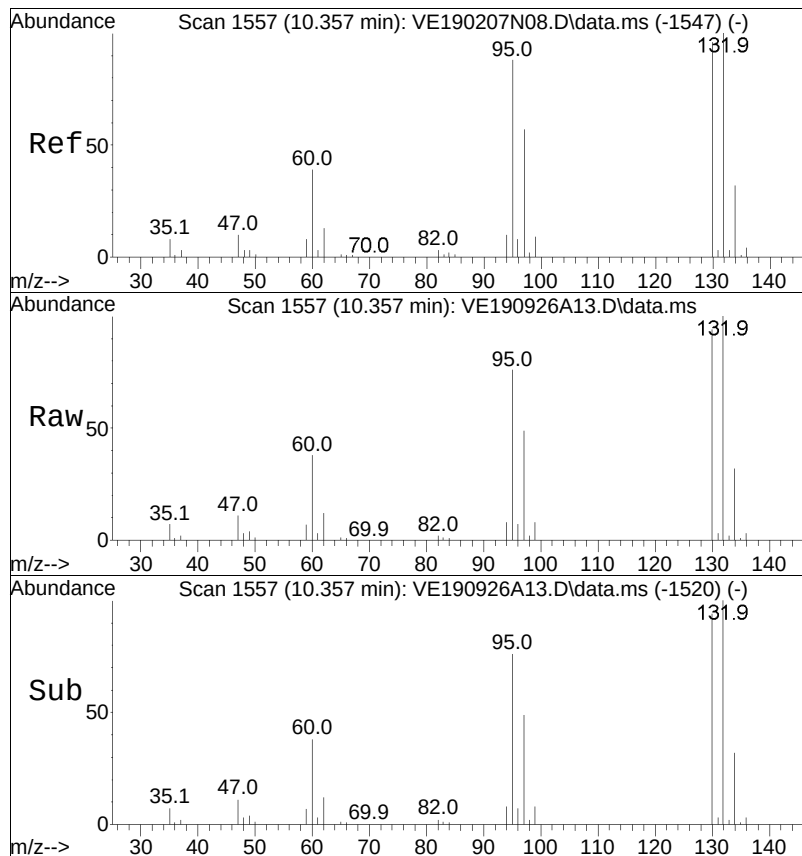




#32
 Chloroform
 Concen: 0.08 ug/L
 RT: 8.131 min Scan# 1148
 Delta R.T. -0.005 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

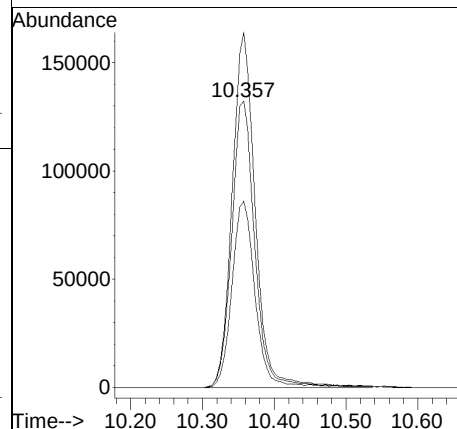
Tgt Ion:	83	Resp:	775
Ion Ratio	Lower	Upper	
83	100		
85	29.4	43.0	89.2#
47	0.0	16.4	34.0#
48	0.0	8.3	17.3#

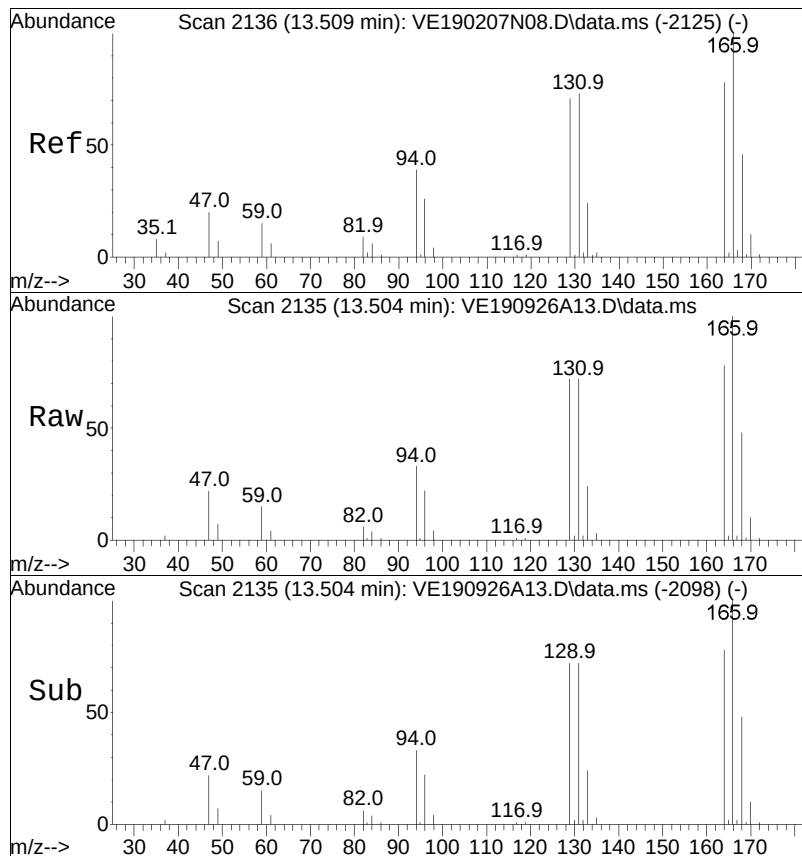




#48
 Trichloroethene
 Concen: 49.58 ug/L
 RT: 10.357 min Scan# 1557
 Delta R.T. 0.000 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

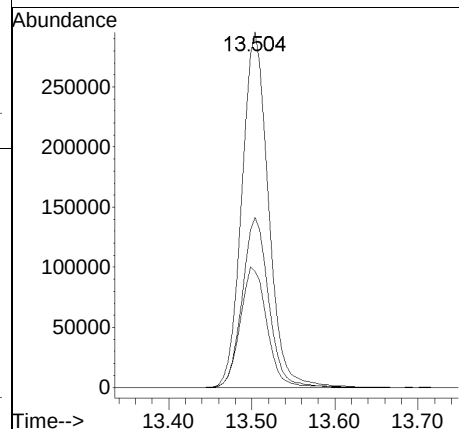
Tgt Ion:	95	Resp:	297508
Ion Ratio	Lower	Upper	
95	100		
97	64.8	51.8	77.6
130	122.9	81.4	122.2#

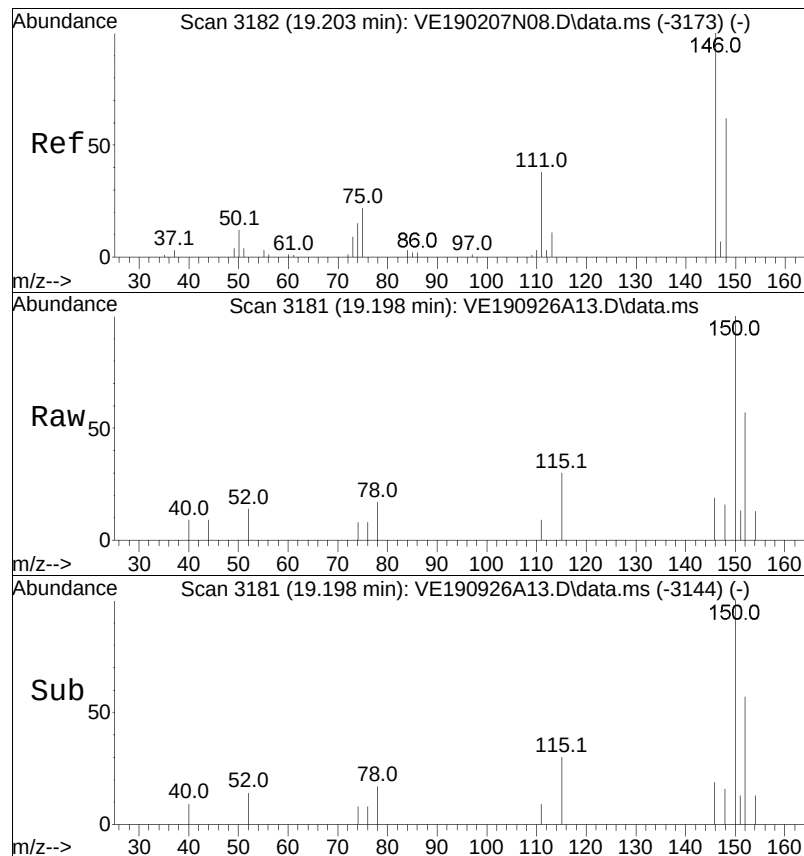




#63
 Tetrachloroethene
 Concen: 95.64 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

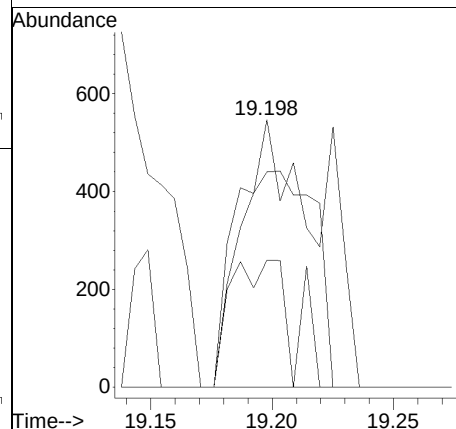
Tgt Ion:	166	Resp:	656875
Ion Ratio	Lower	Upper	
166	100		
168	47.6	26.7	66.7
94	34.2	26.8	66.8





#101
 1,4-Dichlorobenzene
 Concen: 0.07 ug/L
 RT: 19.198 min Scan# 3181
 Delta R.T. -0.000 min
 Lab File: VE190926A13.D
 Acq: 26 Sep 2019 2:26 pm

Tgt Ion:	146	Resp:	1267
Ion Ratio	Lower	Upper	
146	100		
111	36.8	34.6	52.0
148	76.9	51.5	77.3



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10 Method : Elaine_190501N_8260.m
Data File : VE190926A13.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 2:26 pm Instrument : Elaine
Sample : l1943646-03,31,10,10,,a Quant Date : 9/26/2019 4:13 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A14.D
 Acq On : 26 Sep 2019 3:04 pm
 Operator : ELAINE:PK
 Sample : l1943646-04,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:14:01 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	229428	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery =	88.21%		
59) Chlorobenzene-d5	14.848	117	211009	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery =	89.82%		
79) 1,4-Dichlorobenzene-d4	19.143	152	146088	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery =	90.96%		
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	57789	9.829	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.29%		
43) 1,2-Dichloroethane-d4	9.242	65	62622	10.044	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.44%		
60) Toluene-d8	12.285	98	220969	9.028	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	90.28%		
83) 4-Bromofluorobenzene	16.993	95	95775	7.662	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	76.62%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	5.883	76	285	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	4.952	43	2167	1.753	ug/L	# 71
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A14.D
 Acq On : 26 Sep 2019 3:04 pm
 Operator : ELAINE:PK
 Sample : l1943646-04,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:14:01 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.363	95	8911	1.534	ug/L	88
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	6587	0.958	ug/L	88
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	14.848	91	91		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A14.D
 Acq On : 26 Sep 2019 3:04 pm
 Operator : ELAINE:PK
 Sample : l1943646-04,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:14:01 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	18.817	119	71		N.D.	
100)	1,3-Dichlorobenzene	19.024	146	266		N.D.	
101)	1,4-Dichlorobenzene	19.198	146	442		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	23.297	128	77		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

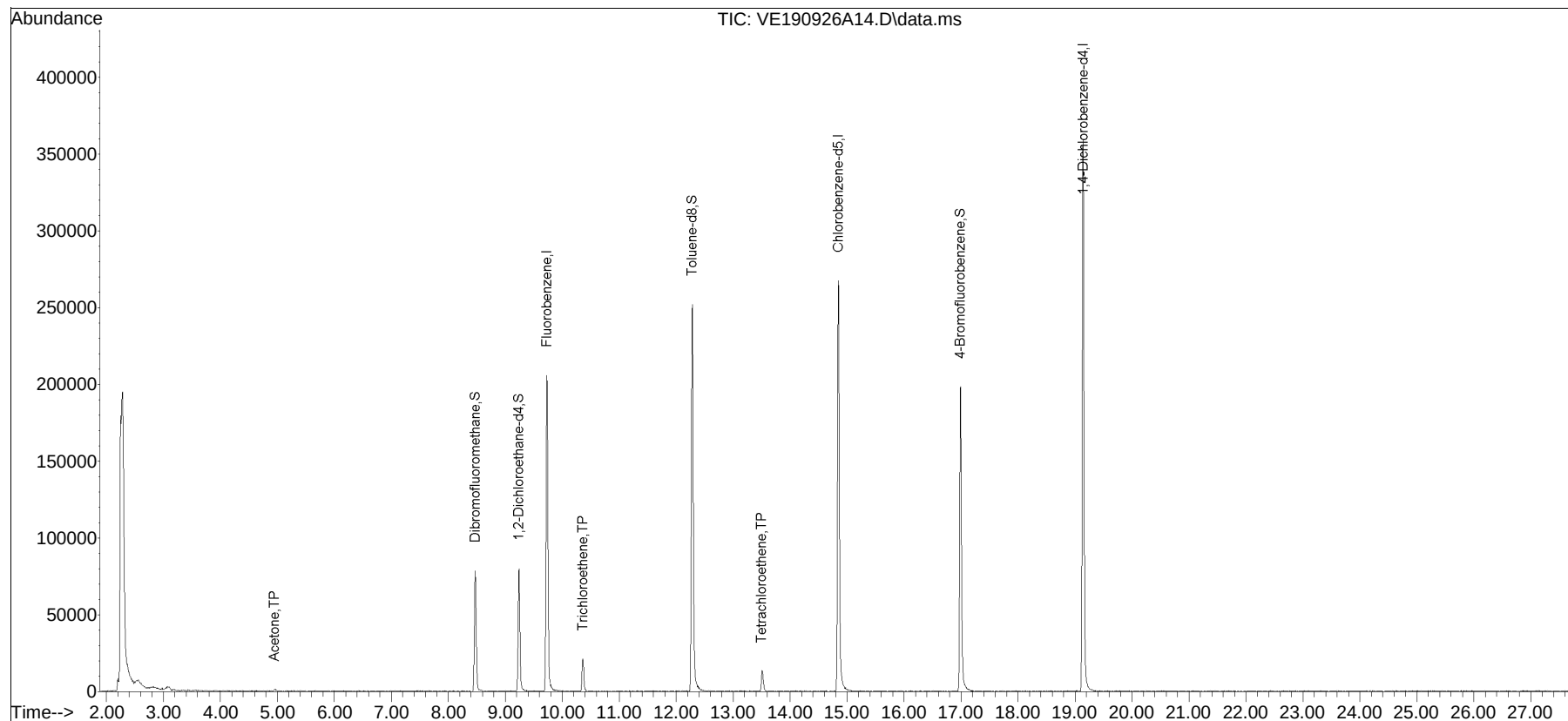
(#) = qualifier out of range (m) = manual integration (+) = signals summed

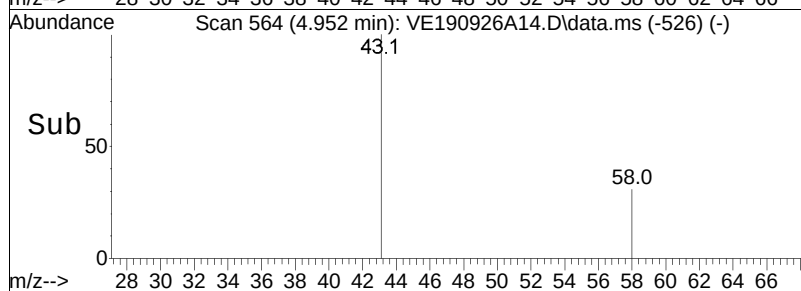
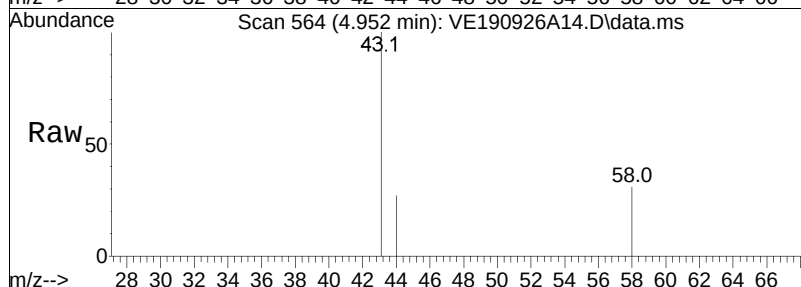
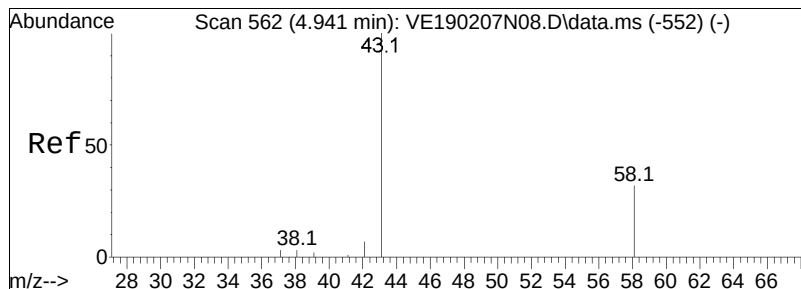
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A14.D
 Acq On : 26 Sep 2019 3:04 pm
 Operator : ELAINE:PK
 Sample : l1943646-04,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:14:01 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

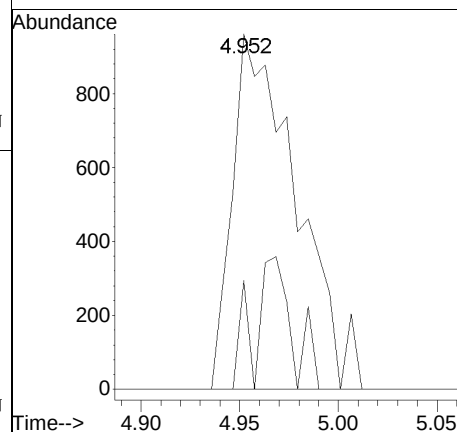
Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•

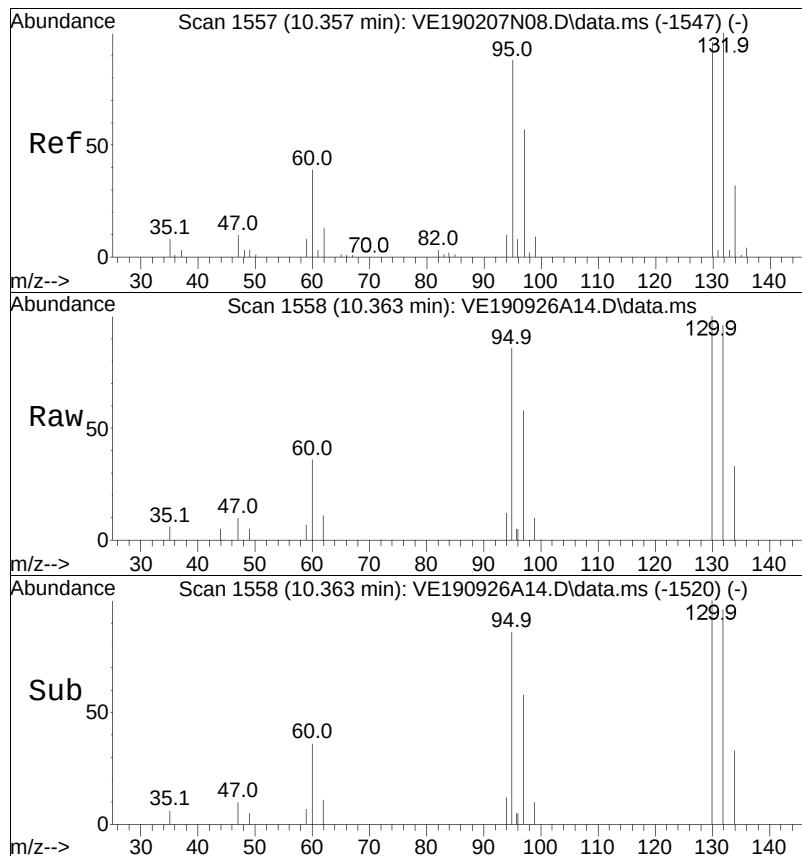




#17
 Acetone
 Concen: 1.75 ug/L
 RT: 4.952 min Scan# 564
 Delta R.T. 0.005 min
 Lab File: VE190926A14.D
 Acq: 26 Sep 2019 3:04 pm

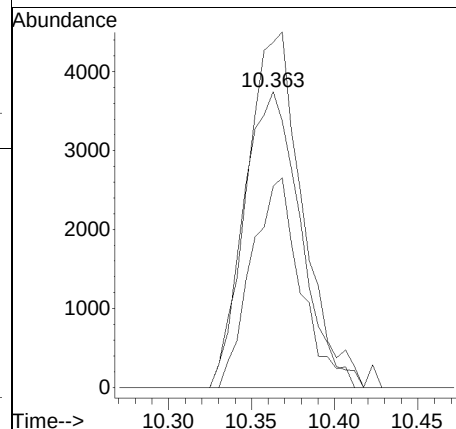
Tgt Ion: 43 Resp: 2167
 Ion Ratio Lower Upper
 43 100
 58 22.0 32.1 48.1#

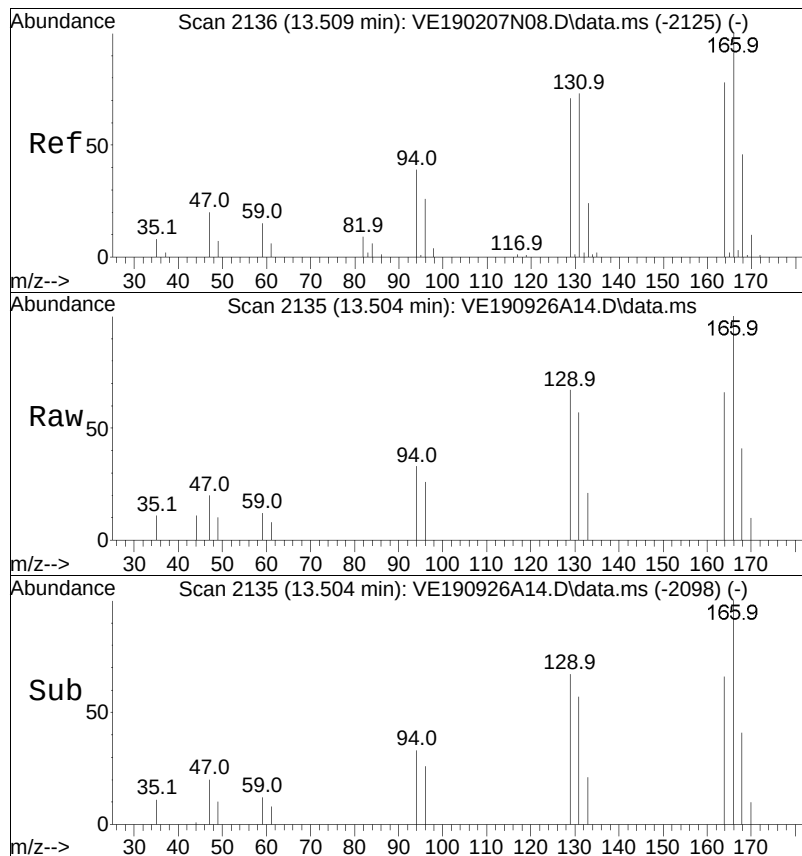




#48
 Trichloroethene
 Concen: 1.53 ug/L
 RT: 10.363 min Scan# 1558
 Delta R.T. 0.006 min
 Lab File: VE190926A14.D
 Acq: 26 Sep 2019 3:04 pm

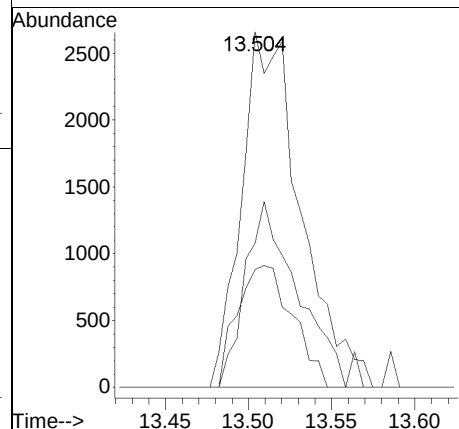
Tgt Ion	Ratio	Lower	Upper
95	100		
97	61.6	51.8	77.6
130	118.3	81.4	122.2





#63
Tetrachloroethene
Concen: 0.96 ug/L
RT: 13.504 min Scan# 2135
Delta R.T. -0.000 min
Lab File: VE190926A14.D
Acq: 26 Sep 2019 3:04 pm

Tgt Ion:	166	Resp:	6587
Ion Ratio	Lower	Upper	
166	100		
168	47.3	26.7	66.7
94	32.0	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A14.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 3:04 pm Instrument : Elaine
Sample : l1943646-04,31,10,10,,a Quant Date : 9/26/2019 4:13 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A15.D
 Acq On : 26 Sep 2019 3:41 pm
 Operator : ELAINE:PK
 Sample : l1943646-05,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:20:35 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	224788	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery = 86.43%			
59) Chlorobenzene-d5	14.848	117	207884	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery = 88.49%			
79) 1,4-Dichlorobenzene-d4	19.143	152	139273	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery = 86.71%			
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	58069	10.081	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.81%			
43) 1,2-Dichloroethane-d4	9.242	65	62032	10.155	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.55%			
60) Toluene-d8	12.285	98	217798	9.032	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.32%			
83) 4-Bromofluorobenzene	16.988	95	94004	7.889	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 78.89%			
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0		N.D.	
3) Chloromethane	0.000		0		N.D.	
4) Vinyl chloride	0.000		0		N.D.	
5) Bromomethane	0.000		0		N.D.	
6) Chloroethane	0.000		0		N.D.	
7) Trichlorofluoromethane	0.000		0		N.D.	
8) Ethyl ether	0.000		0		N.D.	
10) 1,1-Dichloroethene	0.000		0		N.D.	
11) Carbon disulfide	5.888	76	366		N.D.	
15) Methylene chloride	5.872	84	691	0.117	ug/L #	54
17) Acetone	4.968	43	1148	0.948	ug/L #	45
18) trans-1,2-Dichloroethene	0.000		0		N.D.	
20) Methyl tert-butyl ether	0.000		0		N.D.	
23) 1,1-Dichloroethane	0.000		0		N.D.	
25) Acrylonitrile	0.000		0		N.D.	
27) Vinyl acetate	0.000		0		N.D.	
28) cis-1,2-Dichloroethene	0.000		0		N.D.	
29) 2,2-Dichloropropane	0.000		0		N.D.	
30) Bromochloromethane	0.000		0		N.D.	
32) Chloroform	8.137	83	441412	46.732	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A15.D
 Acq On : 26 Sep 2019 3:41 pm
 Operator : ELAINE:PK
 Sample : l1943646-05,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:20:35 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.368	95	992	0.174	ug/L #	75
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	11.016	83	21085	3.182	ug/L #	99
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.515	166	6474	0.956	ug/L	87
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	13.874	129	74		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A15.D
 Acq On : 26 Sep 2019 3:41 pm
 Operator : ELAINE:PK
 Sample : l1943646-05,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:20:35 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	18.833	119	68		N.D.	
100)	1,3-Dichlorobenzene	19.018	146	78		N.D.	
101)	1,4-Dichlorobenzene	19.209	146	140		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	23.335	128	79		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

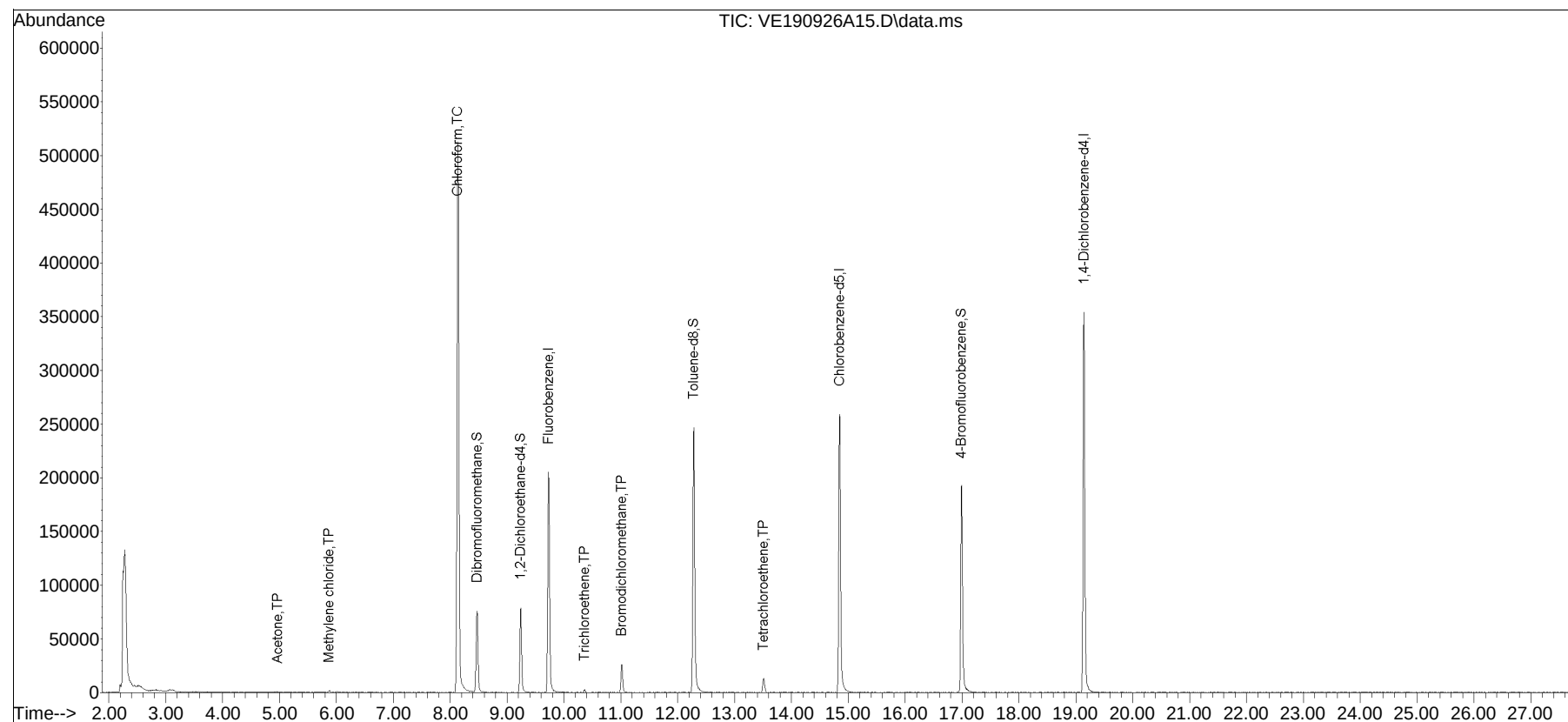
(#) = qualifier out of range (m) = manual integration (+) = signals summed

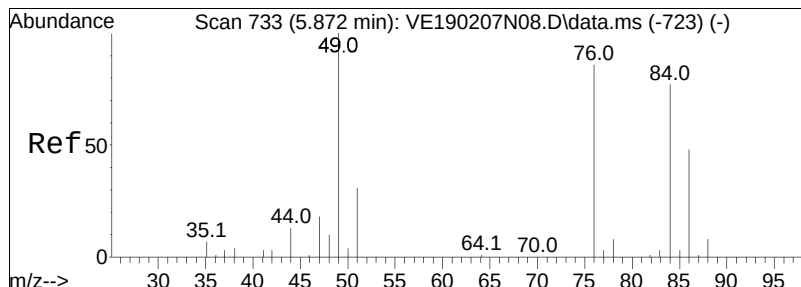
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A15.D
 Acq On : 26 Sep 2019 3:41 pm
 Operator : ELAINE:PK
 Sample : l1943646-05,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 16:20:35 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

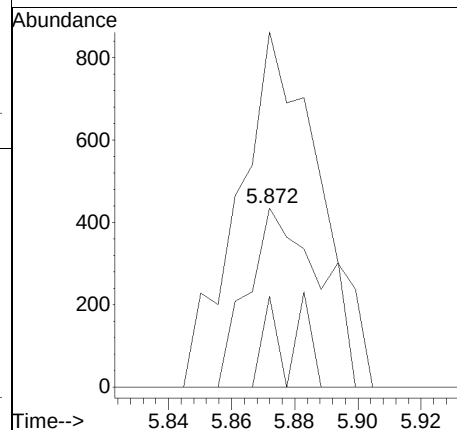
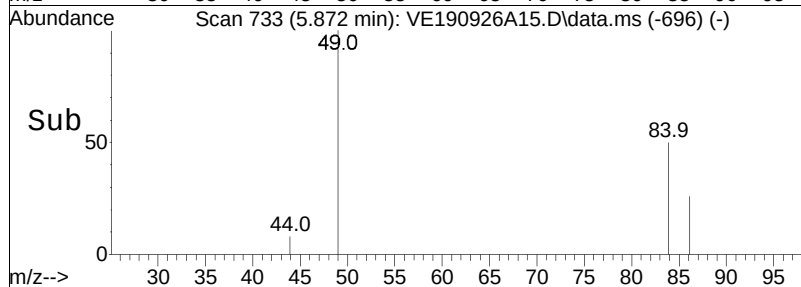
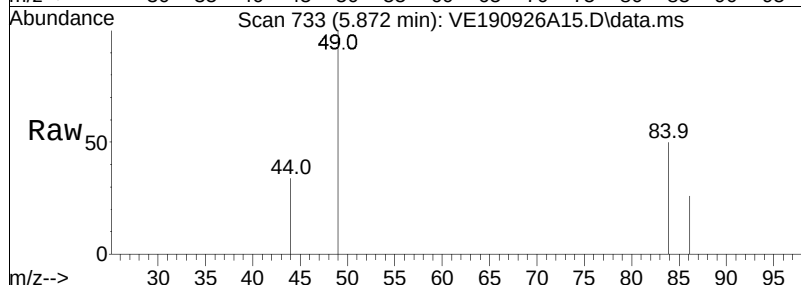
Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•

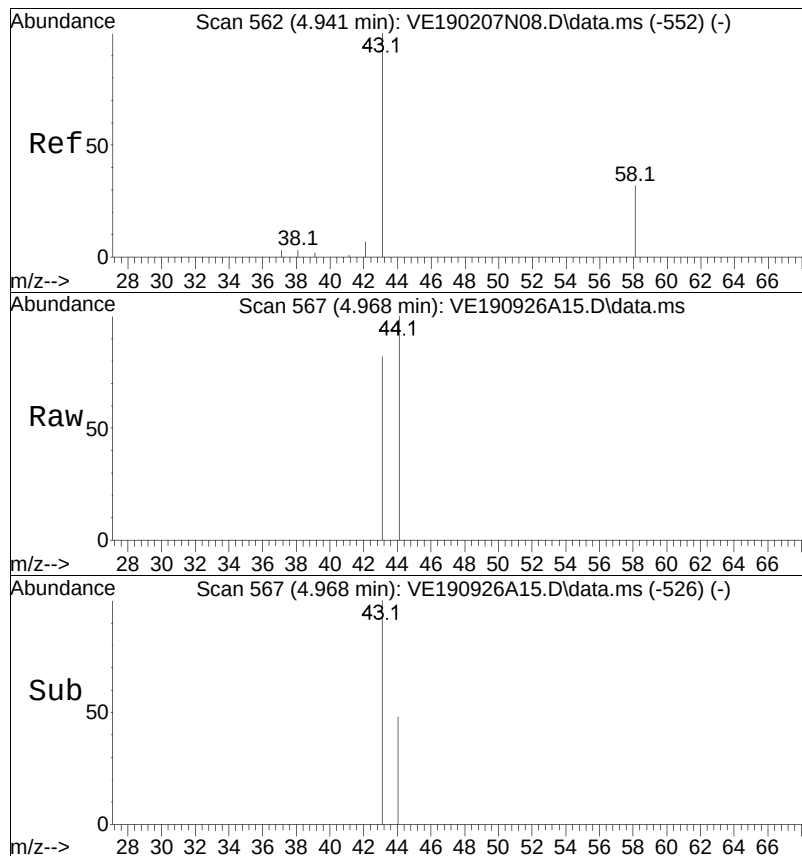




#15
Methylene chloride
Concen: 0.12 ug/L
RT: 5.872 min Scan# 733
Delta R.T. -0.000 min
Lab File: VE190926A15.D
Acq: 26 Sep 2019 3:41 pm

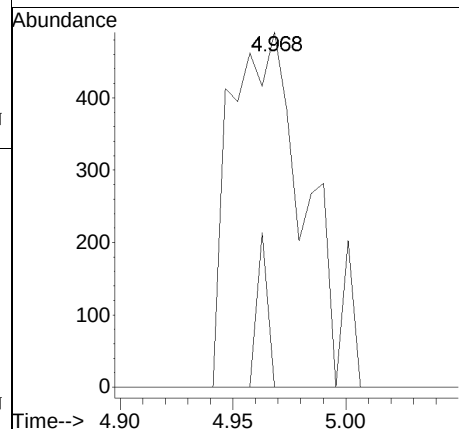
Tgt Ion:	84	Resp:	691
Ion Ratio	Lower	Upper	
84	100		
86	21.4	42.4	88.2#
49	223.6	107.7	223.7

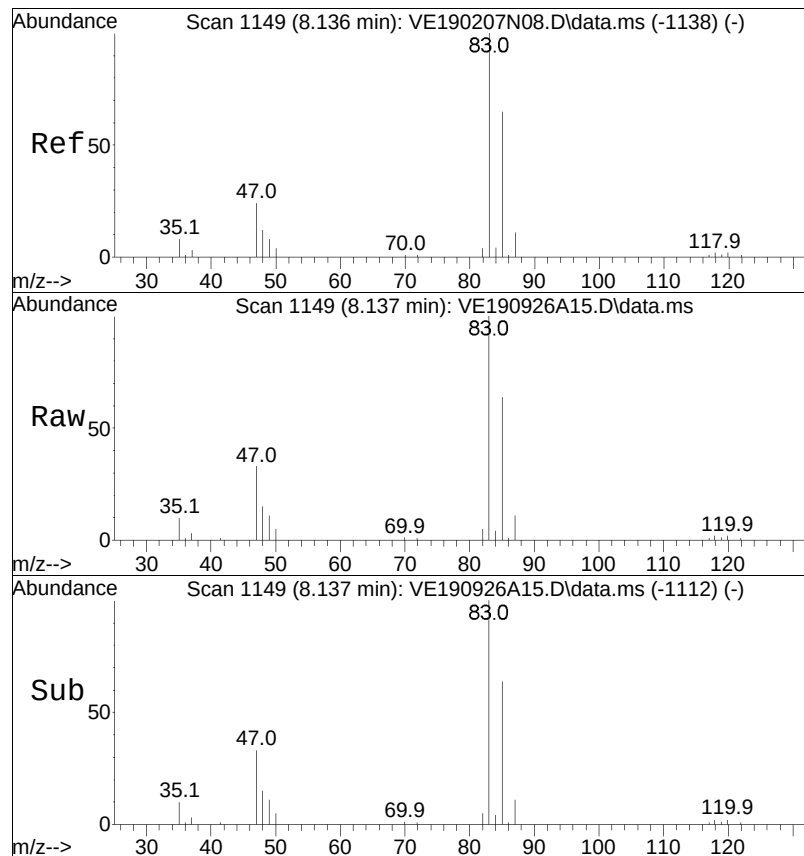




#17
 Acetone
 Concen: 0.95 ug/L
 RT: 4.968 min Scan# 567
 Delta R.T. 0.021 min
 Lab File: VE190926A15.D
 Acq: 26 Sep 2019 3:41 pm

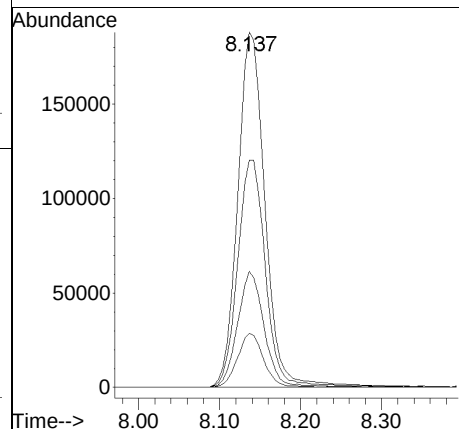
Tgt	Ion	Ratio	Lower	Upper
43	100			
58	6.1	32.1	48.1#	

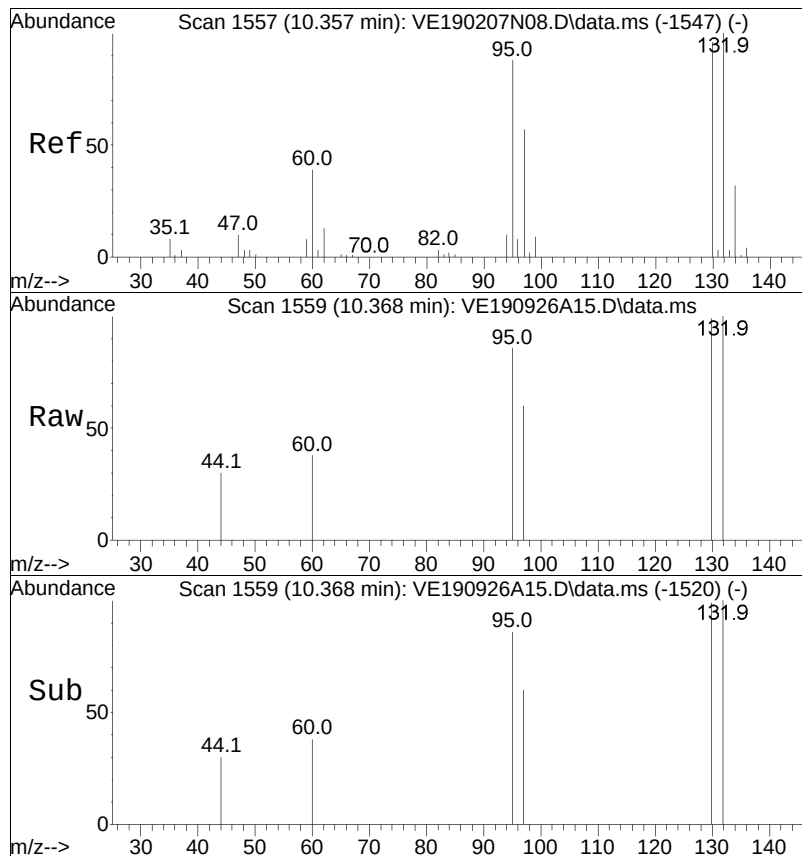




#32
 Chloroform
 Concen: 46.73 ug/L
 RT: 8.137 min Scan# 1149
 Delta R.T. 0.001 min
 Lab File: VE190926A15.D
 Acq: 26 Sep 2019 3:41 pm

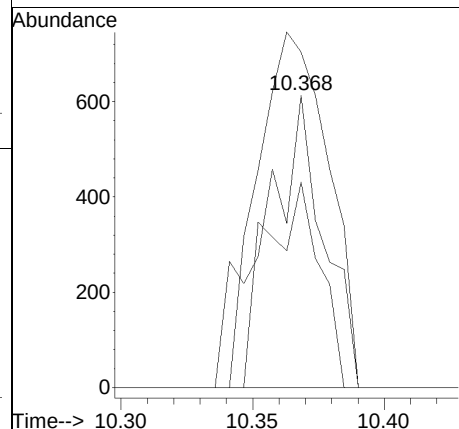
Tgt	Ion: 83	Resp:	441412
Ion	Ratio	Lower	Upper
83	100		
85	65.6	43.0	89.2
47	32.3	16.4	34.0
48	14.6	8.3	17.3

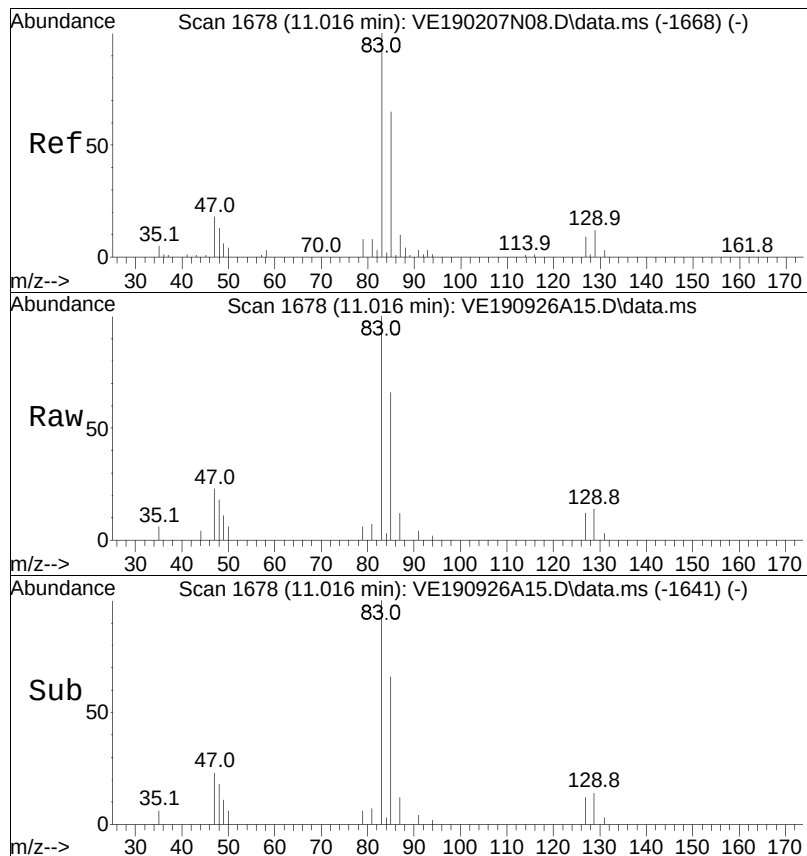




#48
 Trichloroethene
 Concen: 0.17 ug/L
 RT: 10.368 min Scan# 1559
 Delta R.T. 0.011 min
 Lab File: VE190926A15.D
 Acq: 26 Sep 2019 3:41 pm

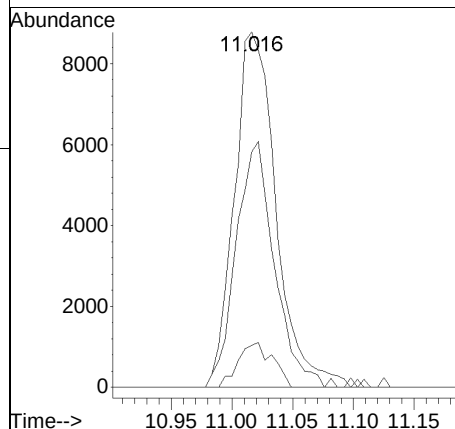
Tgt Ion	Ratio	Lower	Upper
95	100		
97	61.5	51.8	77.6
130	140.1	81.4	122.2#

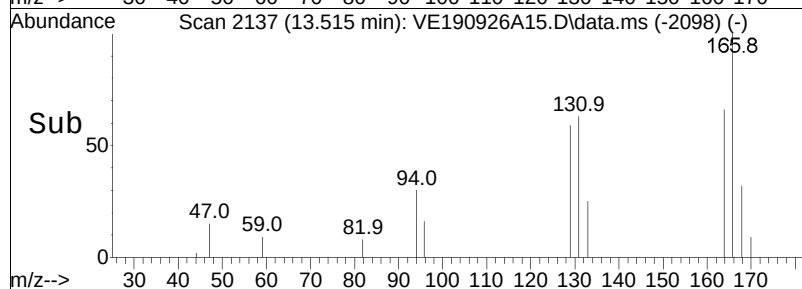
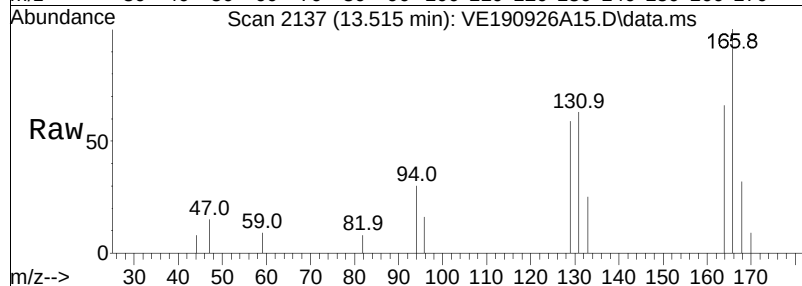
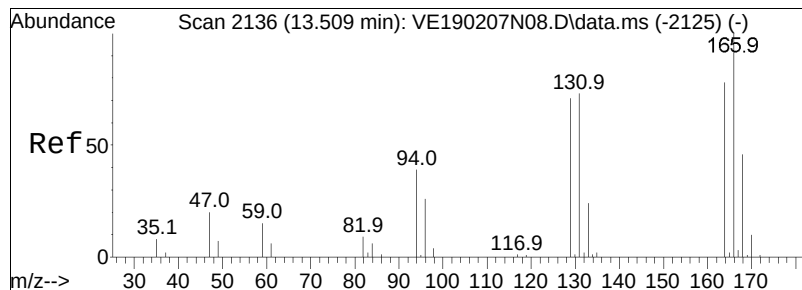




#54
 Bromodichloromethane
 Concen: 3.18 ug/L
 RT: 11.016 min Scan# 1678
 Delta R.T. 0.000 min
 Lab File: VE190926A15.D
 Acq: 26 Sep 2019 3:41 pm

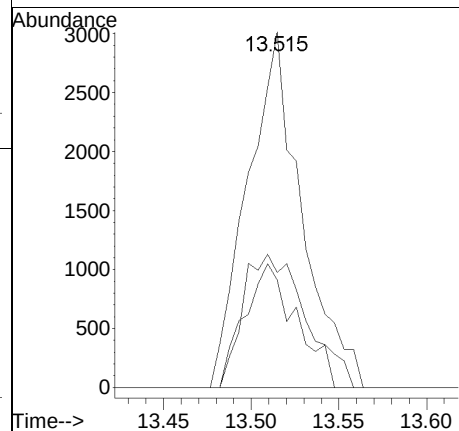
Tgt Ion	83	85	127	Ratio	100	63.7	10.4	Resp:	21085	Lower	Upper
83	100										
85		63.7				50.7					
127			10.4			6.5					9.7#





#63
 Tetrachloroethene
 Concen: 0.96 ug/L
 RT: 13.515 min Scan# 2137
 Delta R.T. 0.011 min
 Lab File: VE190926A15.D
 Acq: 26 Sep 2019 3:41 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
168	43.3	26.7	66.7
94	33.5	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A15.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 3:41 pm Instrument : Elaine
Sample : l1943646-05,31,10,10,,a Quant Date : 9/26/2019 4:14 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A16.D
 Acq On : 26 Sep 2019 4:18 pm
 Operator : ELAINE:PK
 Sample : l1943646-06,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:24 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	223559	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery = 85.95%			
59) Chlorobenzene-d5	14.848	117	201056	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery = 85.58%			
79) 1,4-Dichlorobenzene-d4	19.143	152	139164	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery = 86.65%			
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	55838	9.747	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.47%			
43) 1,2-Dichloroethane-d4	9.241	65	60988	10.039	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.39%			
60) Toluene-d8	12.284	98	219786	9.424	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.24%			
83) 4-Bromofluorobenzene	16.988	95	92148	7.739	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 77.39%			
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.840	50	139	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	5.894	76	177	N.D.		
15) Methylene chloride	5.877	84	247	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	6.318	96	77	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.902	96	4245	0.713	ug/L	97
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.136	83	90797	9.665	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A16.D
 Acq On : 26 Sep 2019 4:18 pm
 Operator : ELAINE:PK
 Sample : l1943646-06,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:24 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.357	95	46511	8.215	ug/L #	86
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	10.640	63	67		N.D.	
54) Bromodichloromethane	11.021	83	4318	0.655	ug/L #	94
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	94286	14.393	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	14.837	91	72		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A16.D
 Acq On : 26 Sep 2019 4:18 pm
 Operator : ELAINE:PK
 Sample : l1943646-06,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:24 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	18.327	105	69		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	19.024	146	103		N.D.	
101)	1,4-Dichlorobenzene	19.203	146	517		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	19.933	146	296		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	0.000		0		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

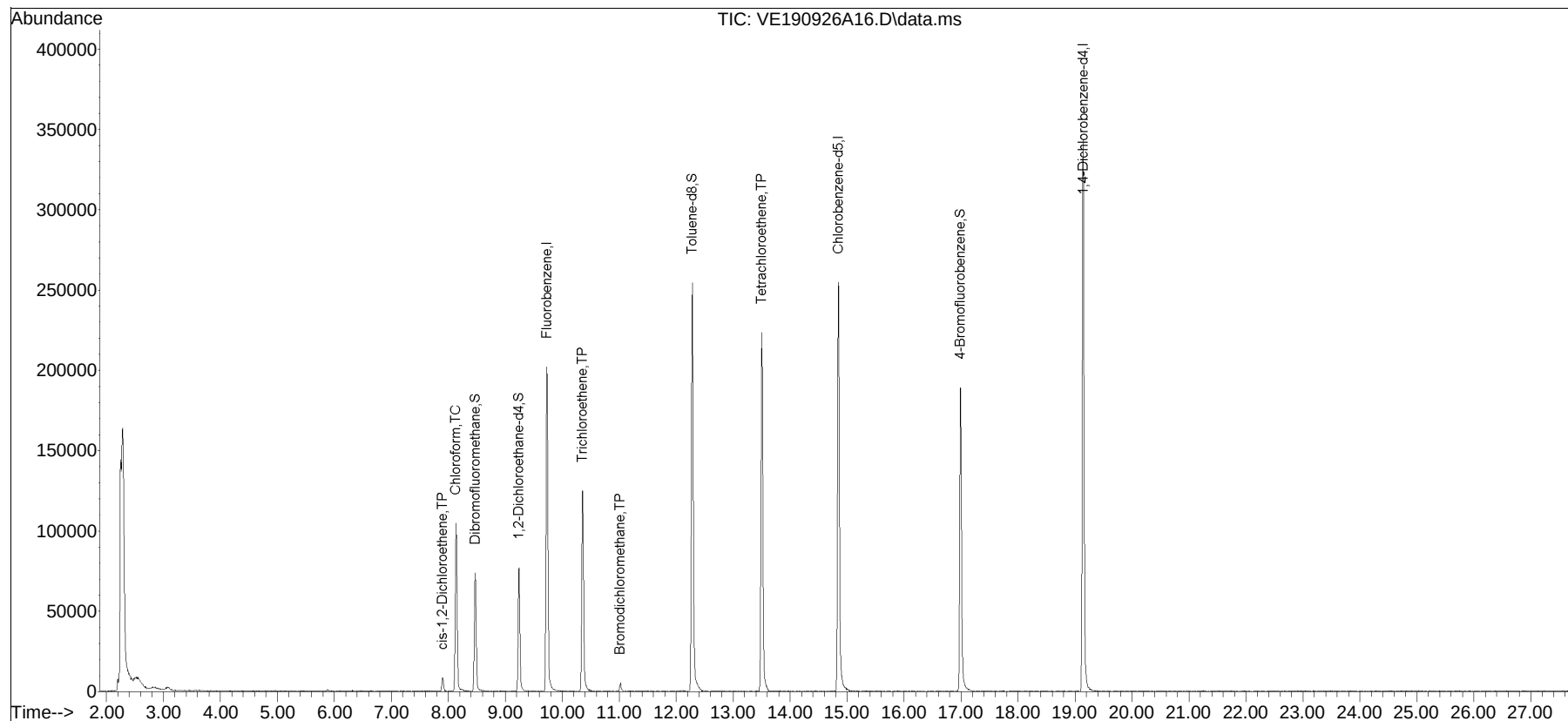
(#) = qualifier out of range (m) = manual integration (+) = signals summed

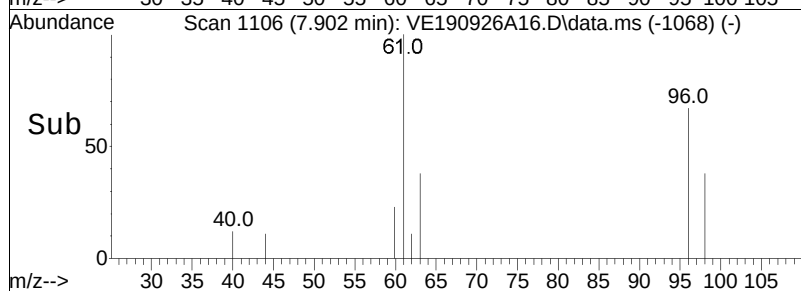
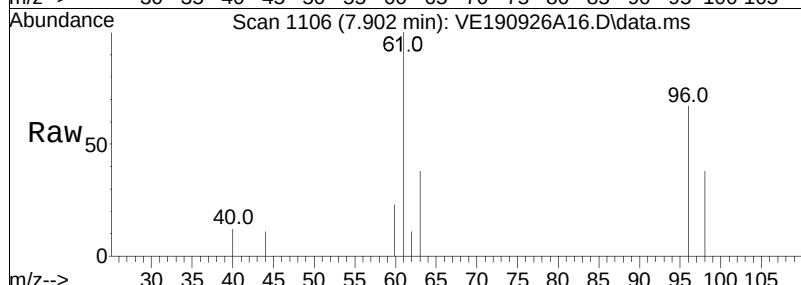
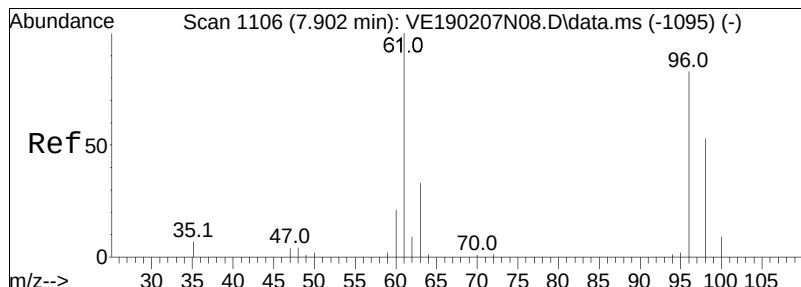
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A16.D
 Acq On : 26 Sep 2019 4:18 pm
 Operator : ELAINE:PK
 Sample : l1943646-06,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:24 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•





#28

cis-1,2-Dichloroethene

Concen: 0.71 ug/L

RT: 7.902 min Scan# 1106

Delta R.T. 0.005 min

Lab File: VE190926A16.D

Acq: 26 Sep 2019 4:18 pm

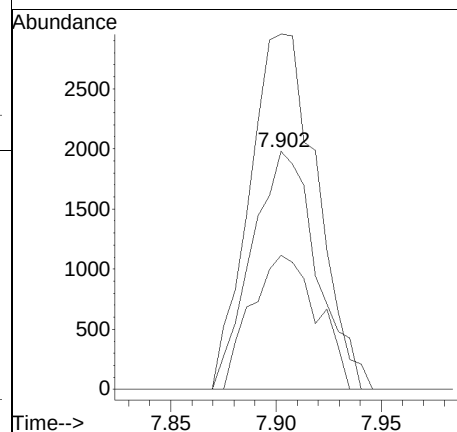
Tgt Ion: 96 Resp: 4245

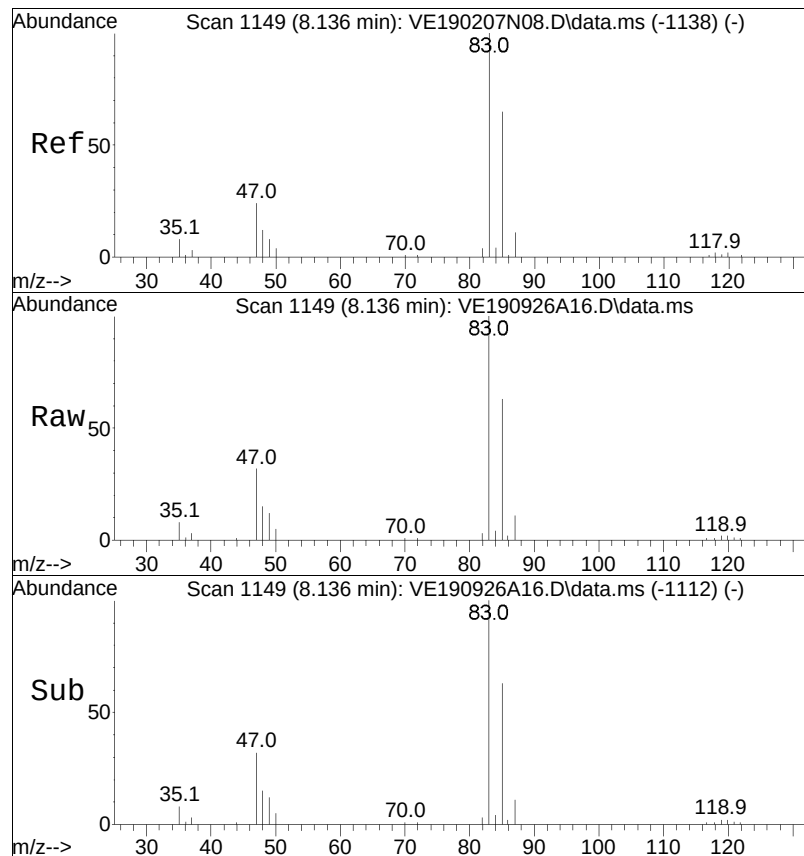
Ion Ratio Lower Upper

96 100

61 155.0 123.2 184.8

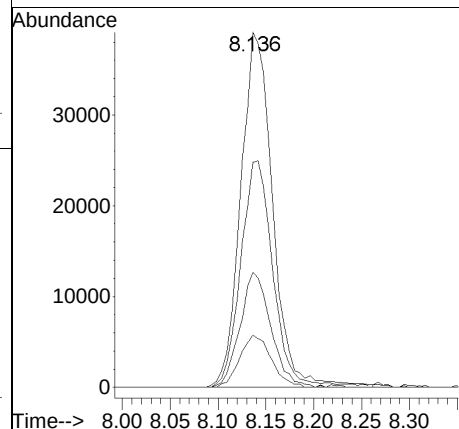
98 57.5 51.2 76.8

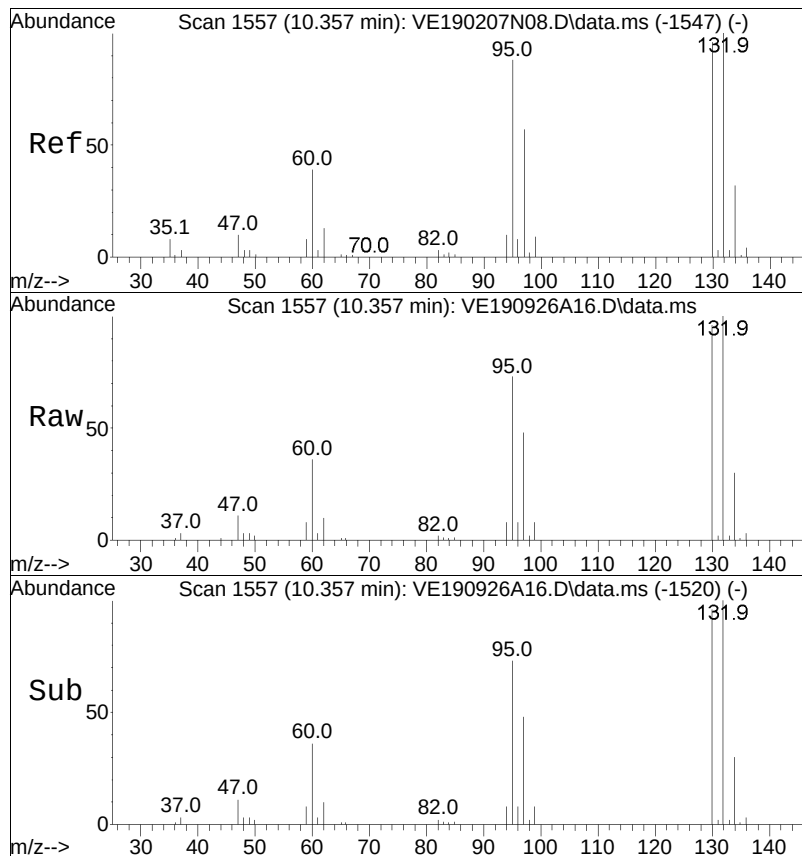




#32
 Chloroform
 Concen: 9.67 ug/L
 RT: 8.136 min Scan# 1149
 Delta R.T. 0.000 min
 Lab File: VE190926A16.D
 Acq: 26 Sep 2019 4:18 pm

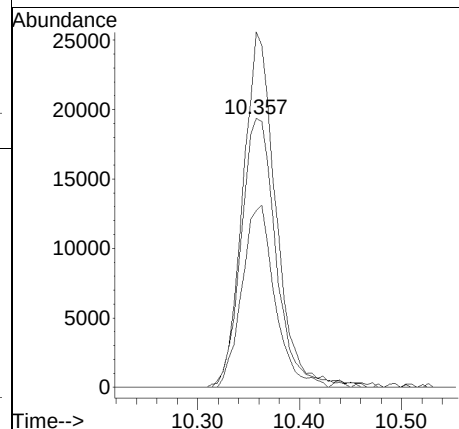
Tgt Ion:	83	Resp:	90797
Ion Ratio	Lower	Upper	
83	100		
85	64.7	43.0	89.2
47	31.3	16.4	34.0
48	14.6	8.3	17.3

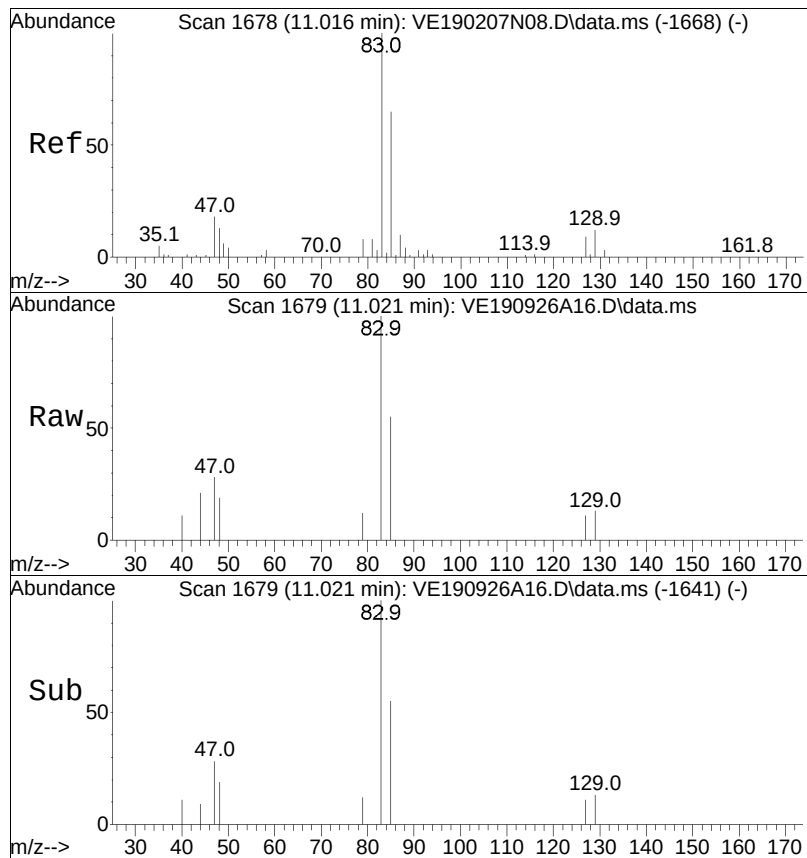




#48
 Trichloroethene
 Concen: 8.22 ug/L
 RT: 10.357 min Scan# 1557
 Delta R.T. 0.000 min
 Lab File: VE190926A16.D
 Acq: 26 Sep 2019 4:18 pm

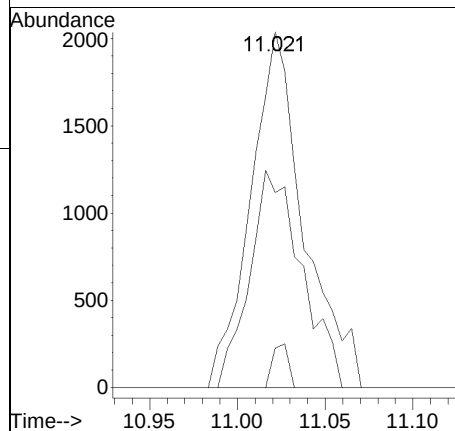
Tgt Ion	Ratio	Lower	Upper
95	100		
97	63.6	51.8	77.6
130	124.5	81.4	122.2#

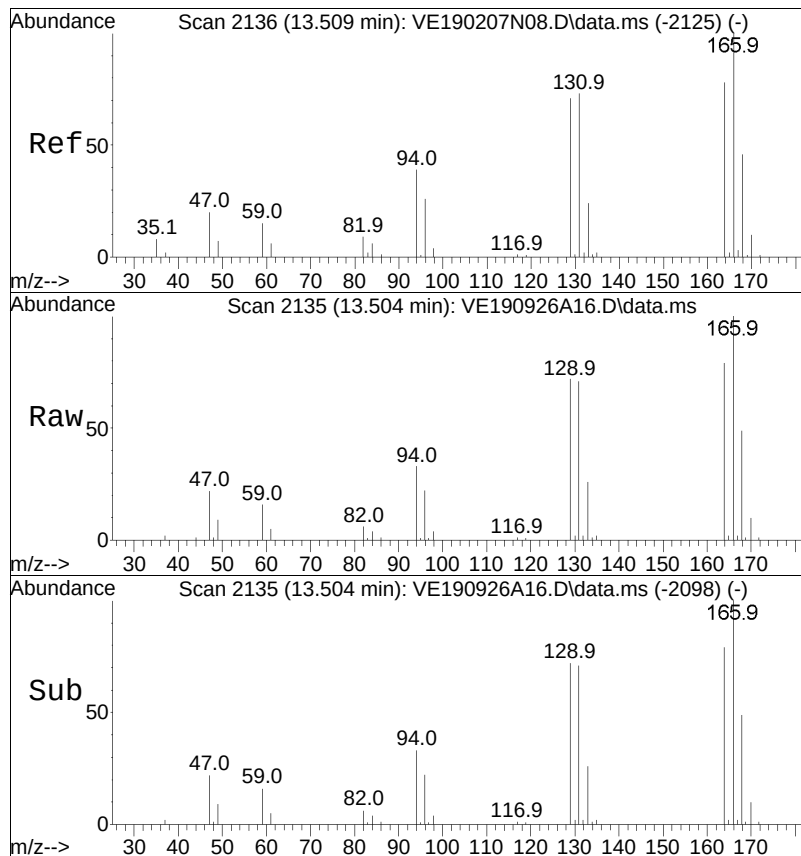




#54
 Bromodichloromethane
 Concen: 0.66 ug/L
 RT: 11.021 min Scan# 1679
 Delta R.T. 0.005 min
 Lab File: VE190926A16.D
 Acq: 26 Sep 2019 4:18 pm

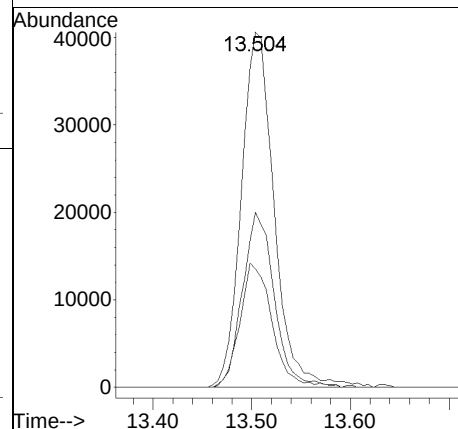
Tgt Ion:	83	Resp:	4318
Ion Ratio	Lower	Upper	
83	100		
85	59.5	50.7	76.1
127	3.6	6.5	9.7#





#63
Tetrachloroethene
Concen: 14.39 ug/L
RT: 13.504 min Scan# 2135
Delta R.T. -0.000 min
Lab File: VE190926A16.D
Acq: 26 Sep 2019 4:18 pm

Tgt Ion:	166	Resp:	94286
Ion Ratio	Lower	Upper	
166	100		
168	47.7	26.7	66.7
94	34.3	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A16.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 4:18 pm Instrument : Elaine
Sample : l1943646-06,31,10,10,,a Quant Date : 9/26/2019 7:43 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A17.D
 Acq On : 26 Sep 2019 4:55 pm
 Operator : ELAINE:PK
 Sample : l1943646-07,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:54 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	227990	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery =	87.66%		
59) Chlorobenzene-d5	14.848	117	206240	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery =	87.79%		
79) 1,4-Dichlorobenzene-d4	19.143	152	143229	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery =	89.18%		
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	57465	9.836	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.36%		
43) 1,2-Dichloroethane-d4	9.242	65	61799	9.975	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.75%		
60) Toluene-d8	12.285	98	223800	9.355	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.55%		
83) 4-Bromofluorobenzene	16.993	95	93810	7.655	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	76.55%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	4.201	101	1544	0.164	ug/L #	46
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	5.126	96	883	0.174	ug/L #	75
11) Carbon disulfide	5.894	76	244	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	6.329	96	1058	0.190	ug/L #	79
20) Methyl tert-butyl ether	6.106	73	865	0.076	ug/L #	61
23) 1,1-Dichloroethane	0.000		0	N.D.	d	
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.908	96	10626	1.750	ug/L	97
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.147	83	1313	0.137	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A17.D
 Acq On : 26 Sep 2019 4:55 pm
 Operator : ELAINE:PK
 Sample : l1943646-07,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:54 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D. d	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	9.410	78	200		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.358	95	270278	46.810	ug/L #	86
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	166123	24.723	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A17.D
 Acq On : 26 Sep 2019 4:55 pm
 Operator : ELAINE:PK
 Sample : l1943646-07,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:54 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	18.833	119	88		N.D.	
100)	1,3-Dichlorobenzene	19.024	146	69		N.D.	
101)	1,4-Dichlorobenzene	19.203	146	154		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	19.927	146	68		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	23.319	128	68		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

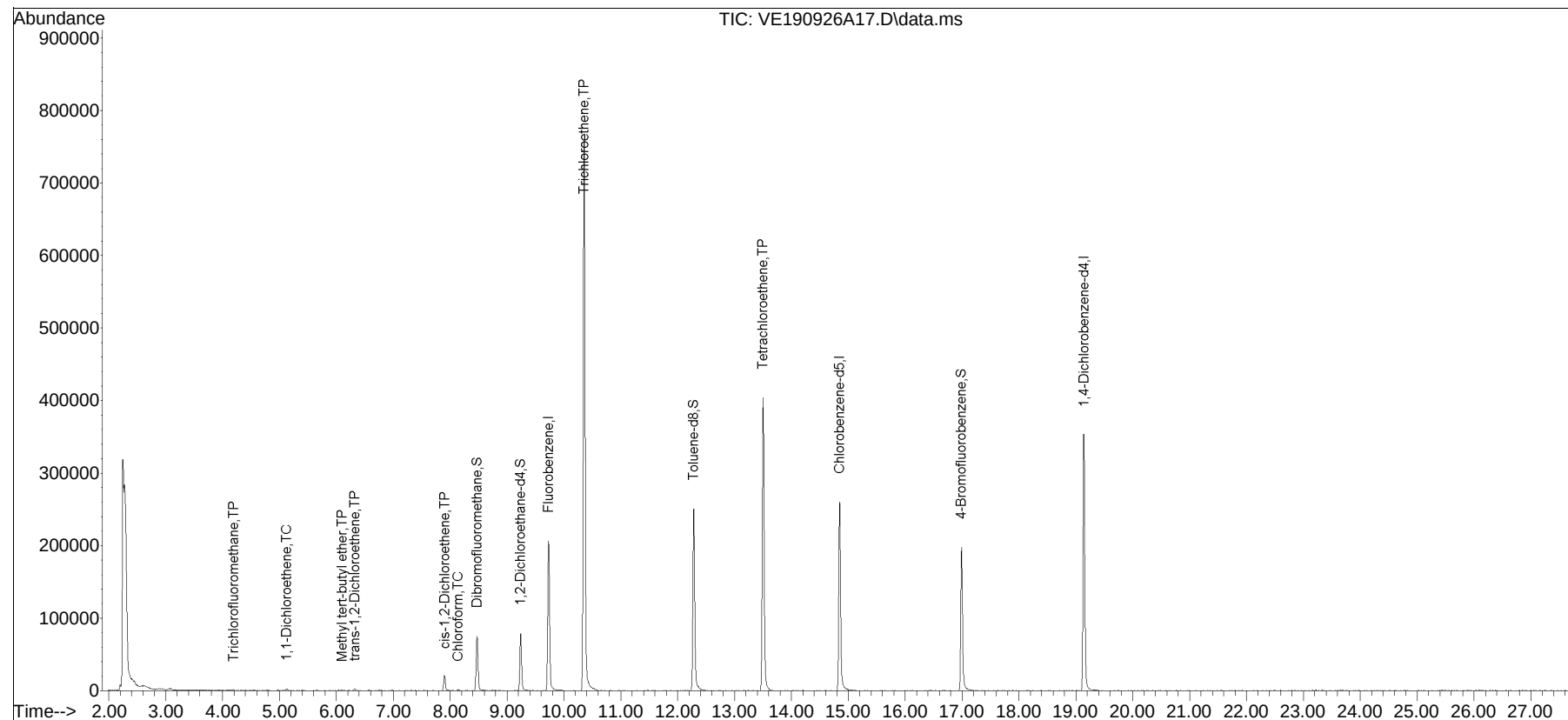
(#) = qualifier out of range (m) = manual integration (+) = signals summed

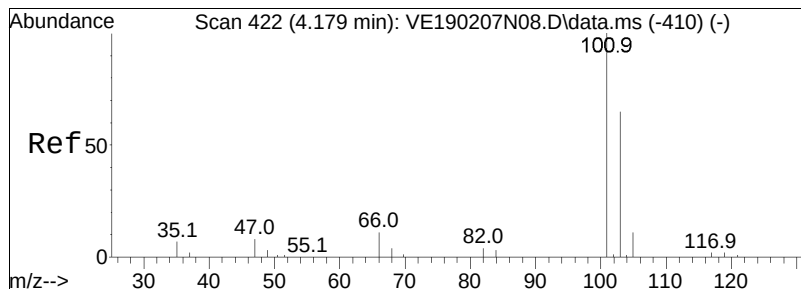
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A17.D
 Acq On : 26 Sep 2019 4:55 pm
 Operator : ELAINE:PK
 Sample : l1943646-07,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:45:54 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

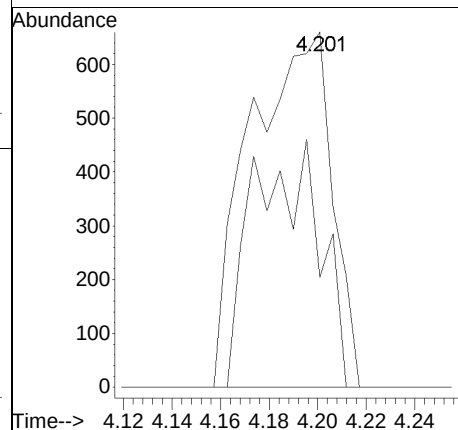
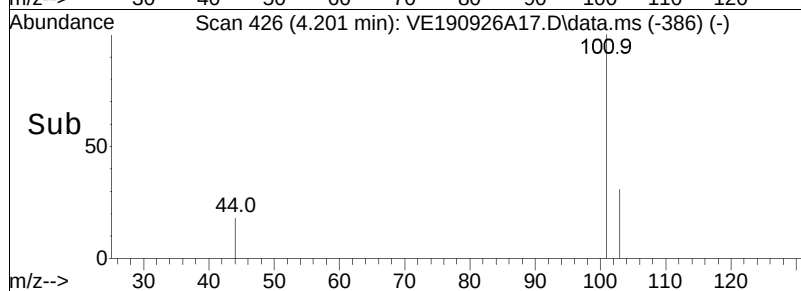
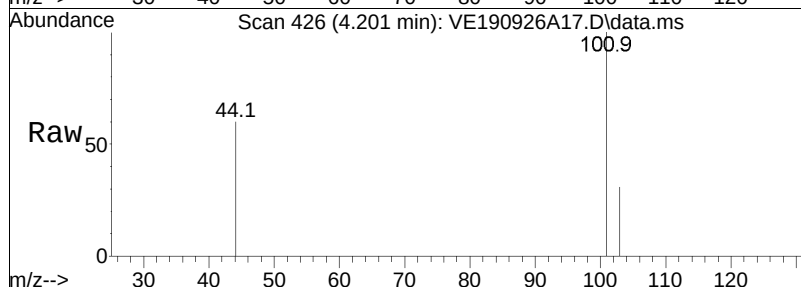
Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•

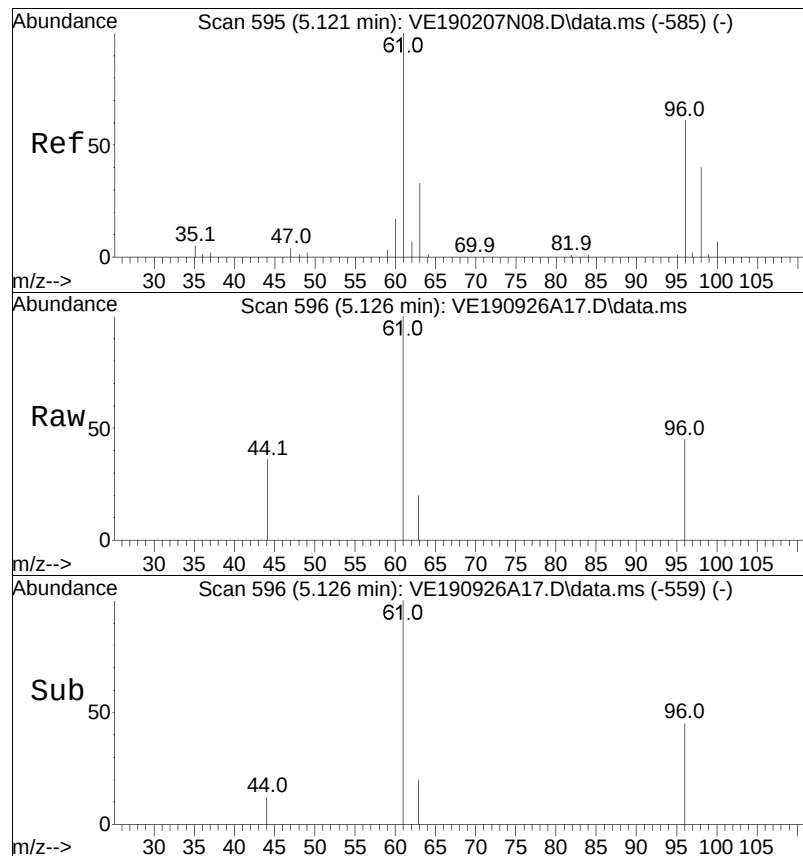




#7
 Trichlorofluoromethane
 Concen: 0.16 ug/L
 RT: 4.201 min Scan# 426
 Delta R.T. 0.017 min
 Lab File: VE190926A17.D
 Acq: 26 Sep 2019 4:55 pm

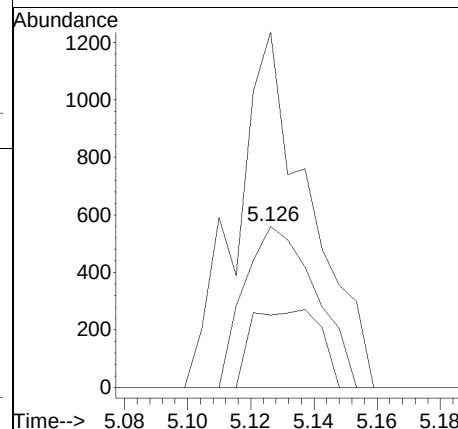
Tgt Ion:101 Resp: 1544
 Ion Ratio Lower Upper
 101 100
 103 21.6 51.4 77.0#

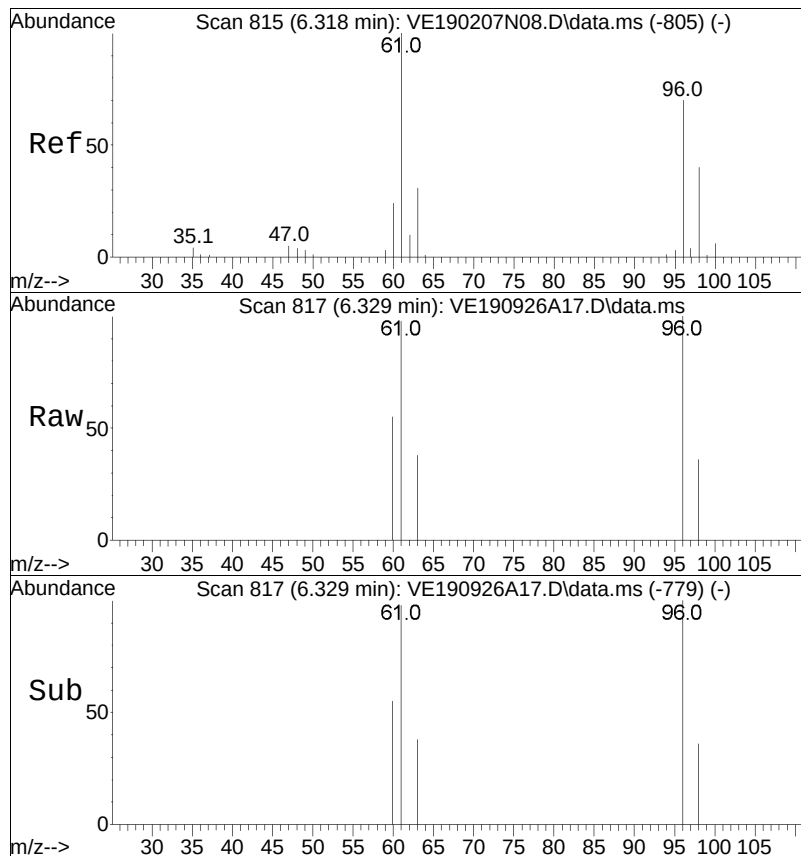




#10
 1,1-Dichloroethene
 Concen: 0.17 ug/L
 RT: 5.126 min Scan# 596
 Delta R.T. 0.000 min
 Lab File: VE190926A17.D
 Acq: 26 Sep 2019 4:55 pm

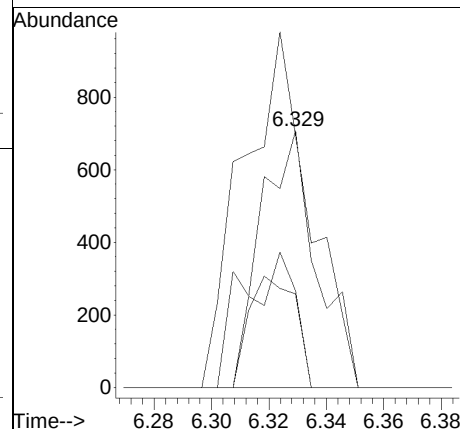
Tgt Ion:	96	Resp:	883
Ion Ratio	Lower	Upper	
96	100		
61	225.1	146.5	219.7#
63	46.2	43.6	65.4

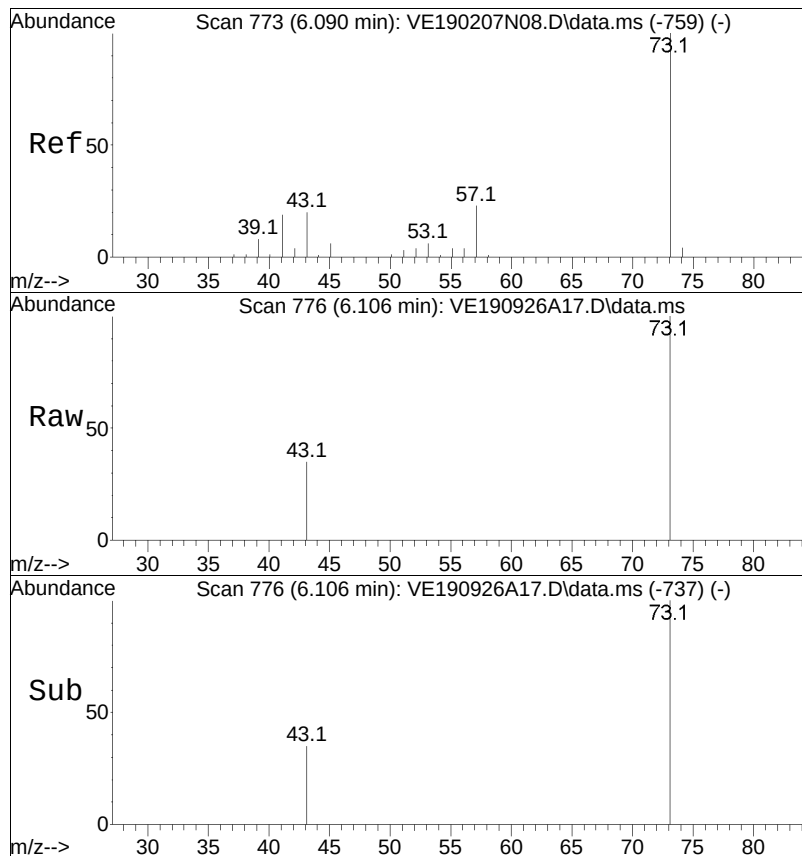




#18
trans-1,2-Dichloroethene
Concen: 0.19 ug/L
RT: 6.329 min Scan# 817
Delta R.T. 0.005 min
Lab File: VE190926A17.D
Acq: 26 Sep 2019 4:55 pm

Tgt Ion:	96	Resp:	1058
Ion Ratio	Lower	Upper	
96	100		
61	149.7	109.8	228.0
98	32.4	41.1	85.3#
63	34.5	31.0	64.4





#20

Methyl tert-butyl ether

Concen: 0.08 ug/L

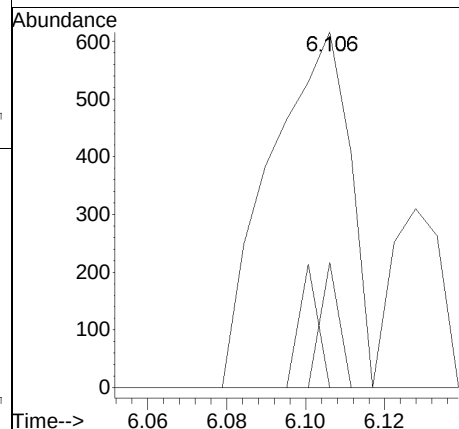
RT: 6.106 min Scan# 776

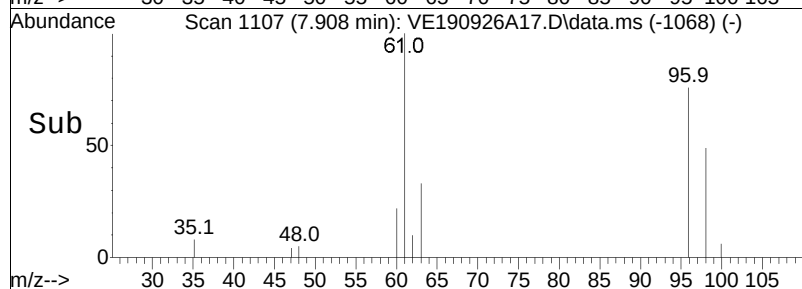
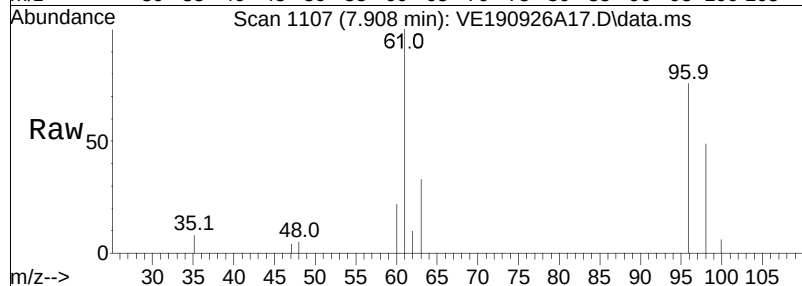
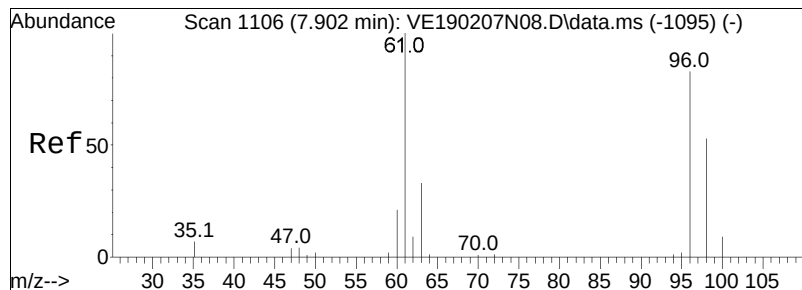
Delta R.T. 0.011 min

Lab File: VE190926A17.D

Acq: 26 Sep 2019 4:55 pm

Tgt Ion: 73	Resp: 865
Ion Ratio	Lower Upper
73 100	
57 0.0	18.5 38.5#
43 8.2	13.3 27.5#
41 8.1	14.8 30.8#





#28

cis-1,2-Dichloroethene

Concen: 1.75 ug/L

RT: 7.908 min Scan# 1107

Delta R.T. 0.011 min

Lab File: VE190926A17.D

Acq: 26 Sep 2019 4:55 pm

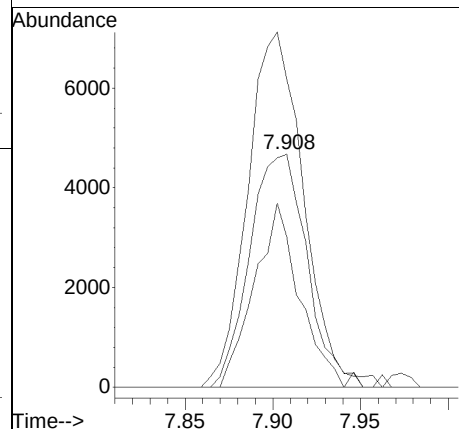
Tgt Ion: 96 Resp: 10626

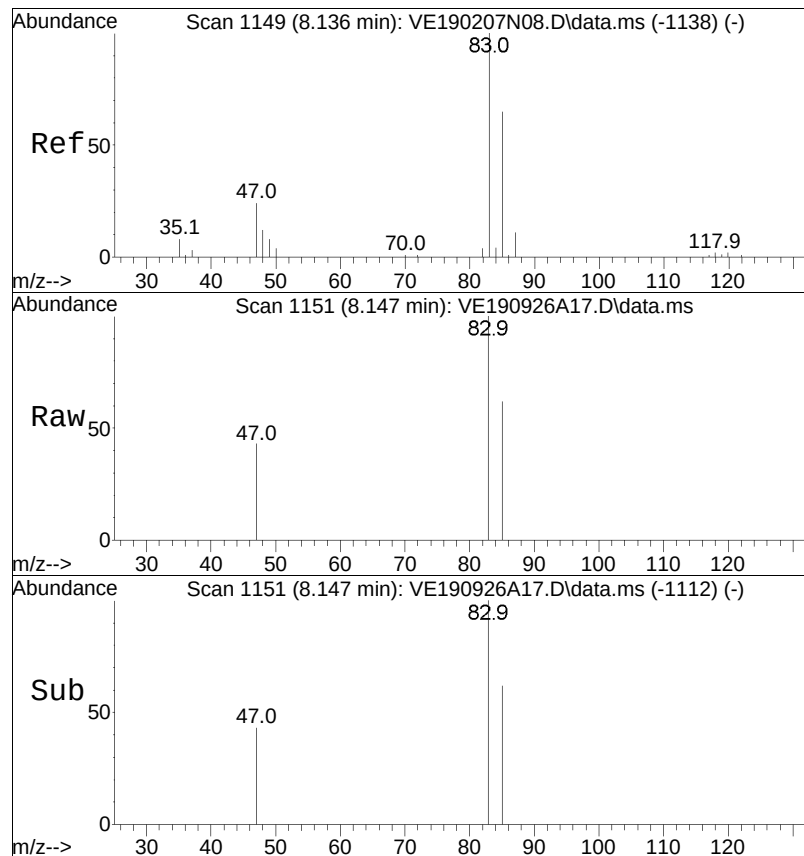
Ion Ratio Lower Upper

96 100

61 148.7 123.2 184.8

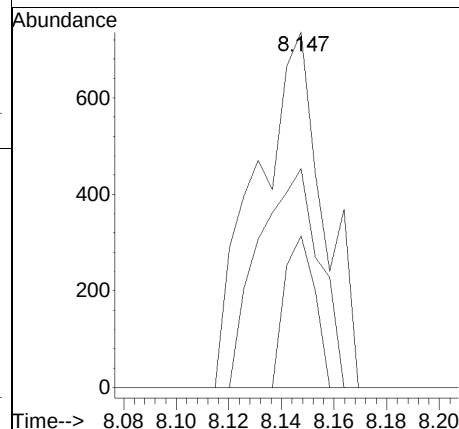
98 63.2 51.2 76.8

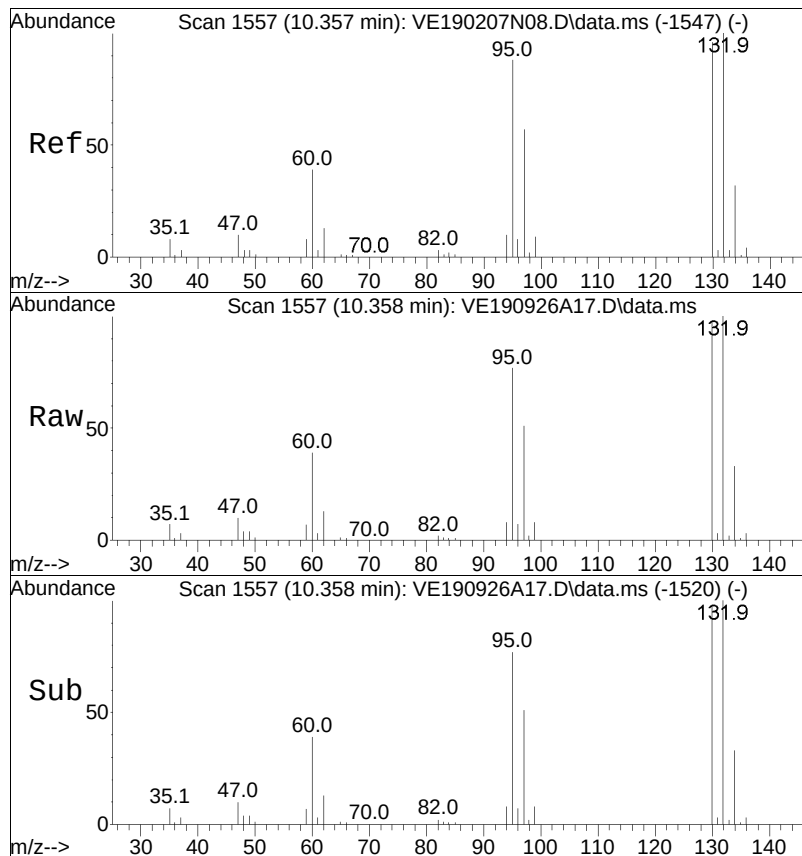




#32
 Chloroform
 Concen: 0.14 ug/L
 RT: 8.147 min Scan# 1151
 Delta R.T. 0.011 min
 Lab File: VE190926A17.D
 Acq: 26 Sep 2019 4:55 pm

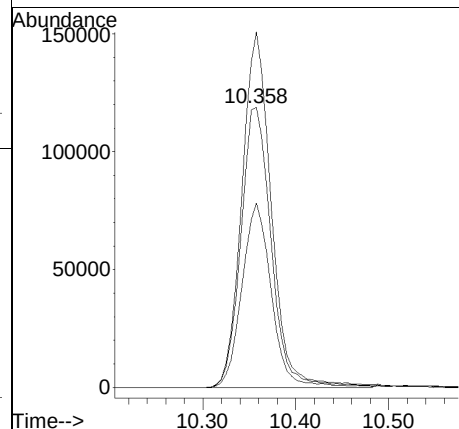
Tgt	Ion: 83	Resp:	1313
Ion	Ratio	Lower	Upper
83	100		
85	55.4	43.0	89.2
47	19.0	16.4	34.0
48	0.0	8.3	17.3#

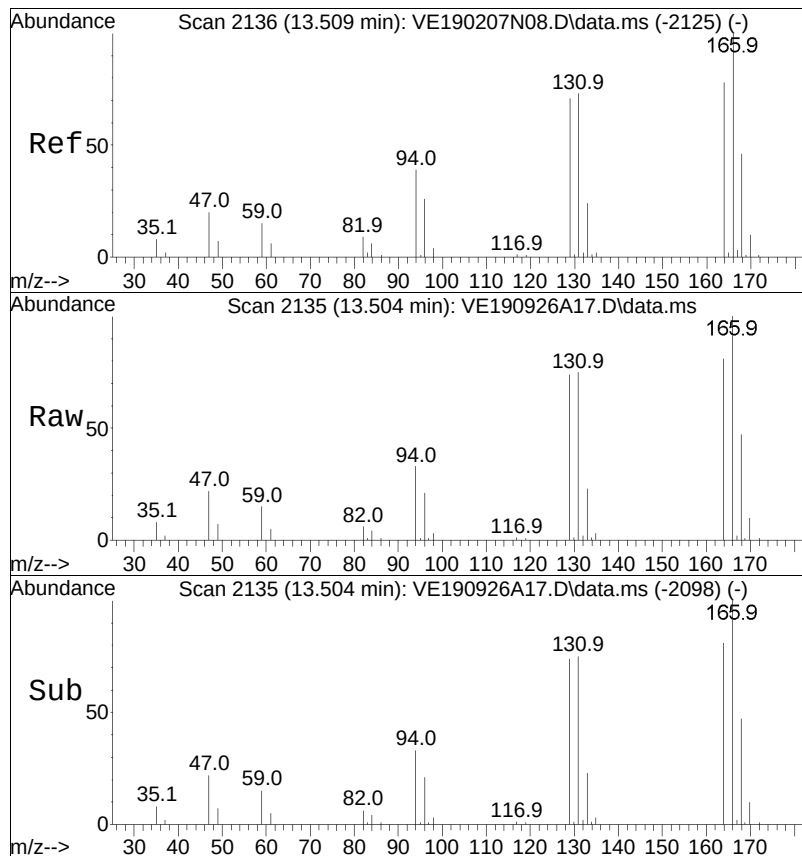




#48
 Trichloroethene
 Concen: 46.81 ug/L
 RT: 10.358 min Scan# 1557
 Delta R.T. 0.001 min
 Lab File: VE190926A17.D
 Acq: 26 Sep 2019 4:55 pm

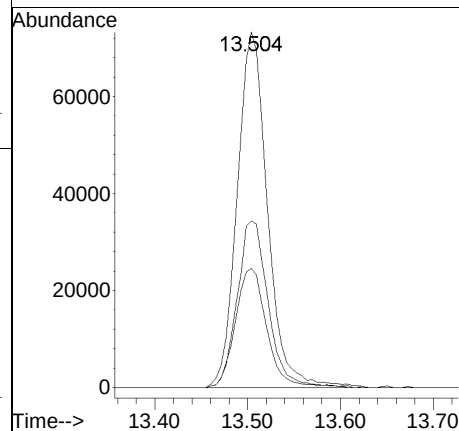
Tgt Ion	Ratio	Lower	Upper
95	100		
97	63.7	51.8	77.6
130	123.8	81.4	122.2#





#63
 Tetrachloroethene
 Concen: 24.72 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A17.D
 Acq: 26 Sep 2019 4:55 pm

Tgt	Ion:166	Resp:	166123
Ion	Ratio	Lower	Upper
166	100		
168	47.9	26.7	66.7
94	34.6	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A17.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 4:55 pm Instrument : Elaine
Sample : l1943646-07,31,10,10,,a Quant Date : 9/26/2019 7:43 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A18.D
 Acq On : 26 Sep 2019 5:32 pm
 Operator : ELAINE:PK
 Sample : l1943646-08,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:25 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	223206	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery	=	85.82%	
59) Chlorobenzene-d5	14.848	117	204319	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery	=	86.97%	
79) 1,4-Dichlorobenzene-d4	19.143	152	138121	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery	=	86.00%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	55868	9.767	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.67%	
43) 1,2-Dichloroethane-d4	9.241	65	60386	9.955	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.55%	
60) Toluene-d8	12.284	98	211832	8.938	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	89.38%	
83) 4-Bromofluorobenzene	16.993	95	92195	7.801	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	78.01%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.878	50	88	N.D.		
4) Vinyl chloride	3.019	62	1633m	0.285	ug/L	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	3.798	64	93	N.D.		
7) Trichlorofluoromethane	4.190	101	465	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	5.126	96	229	N.D.		
11) Carbon disulfide	5.894	76	332	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	6.329	96	417	0.076	ug/L #	72
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	6.977	63	2838	0.270	ug/L #	81
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	7.902	96	45542	7.661	ug/L	94
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.147	83	2909	0.310	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A18.D
 Acq On : 26 Sep 2019 5:32 pm
 Operator : ELAINE:PK
 Sample : l1943646-08,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:25 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	8.757	97	106		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	9.405	78	230		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	10.357	95	192169	33.996	ug/L #	85
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	13.504	166	137943	20.722	ug/L	90
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	14.843	91	84		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A18.D
 Acq On : 26 Sep 2019 5:32 pm
 Operator : ELAINE:PK
 Sample : l1943646-08,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:25 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	18.833	119	83		N.D.	
100)	1,3-Dichlorobenzene	19.013	146	72		N.D.	
101)	1,4-Dichlorobenzene	19.203	146	297		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	0.000		0		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

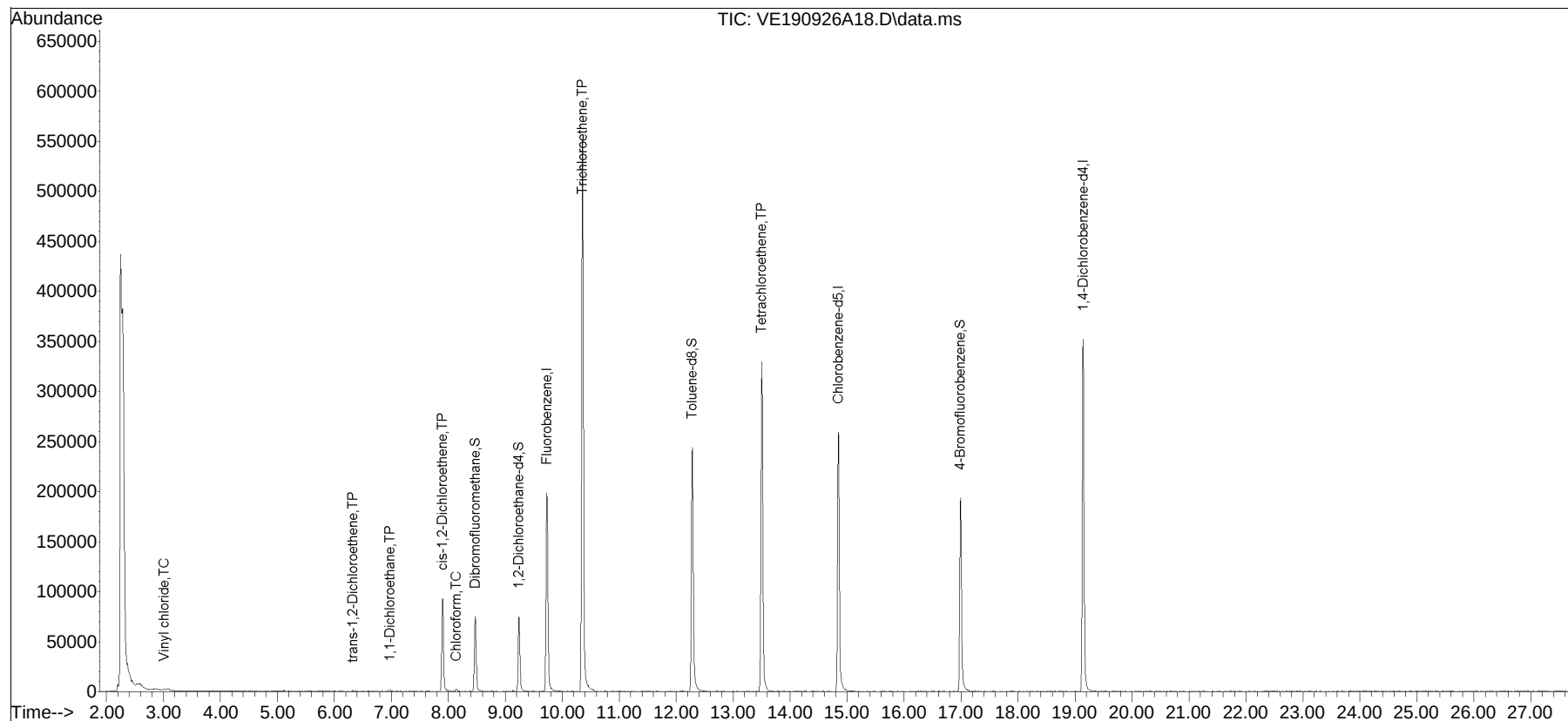
(#) = qualifier out of range (m) = manual integration (+) = signals summed

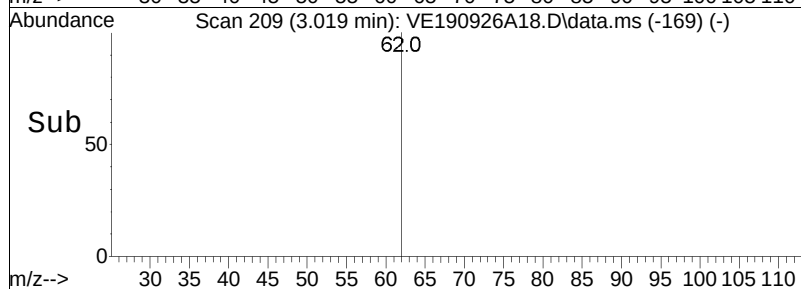
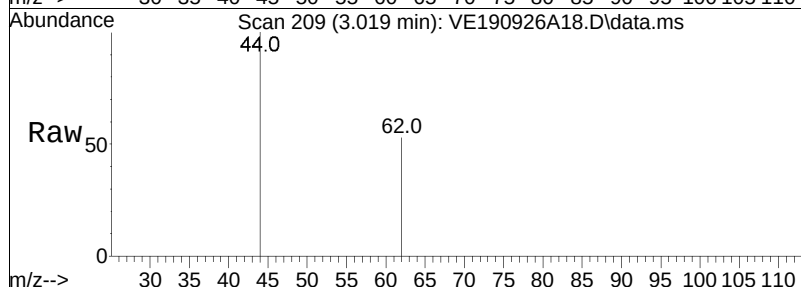
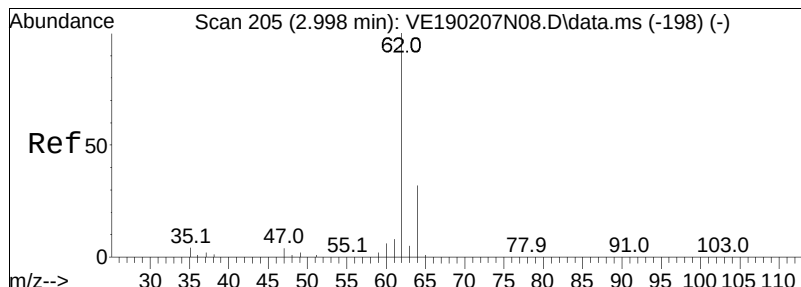
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A18.D
 Acq On : 26 Sep 2019 5:32 pm
 Operator : ELAINE:PK
 Sample : l1943646-08,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:25 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•





#4

Vinyl chloride

Concen: 0.28 ug/L m

RT: 3.019 min Scan# 209

Delta R.T. 0.016 min

Lab File: VE190926A18.D

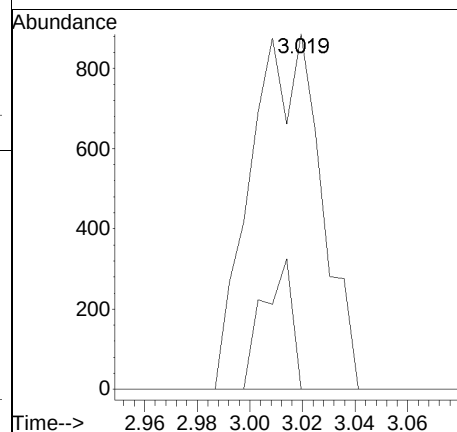
Acq: 26 Sep 2019 5:32 pm

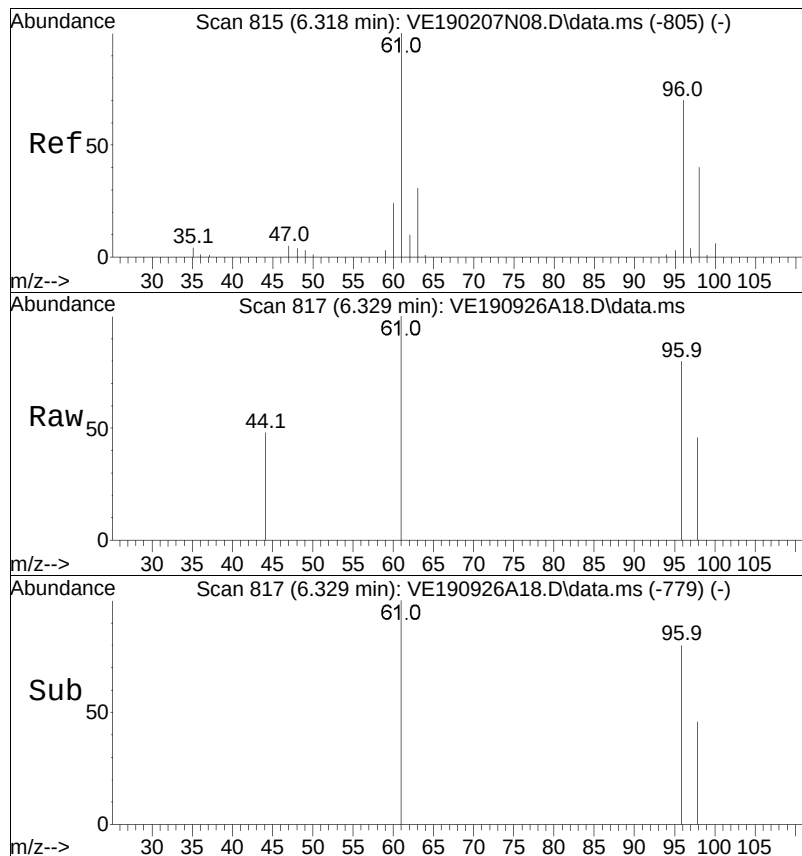
Tgt Ion: 62 Resp: 1633

Ion Ratio Lower Upper

62 100

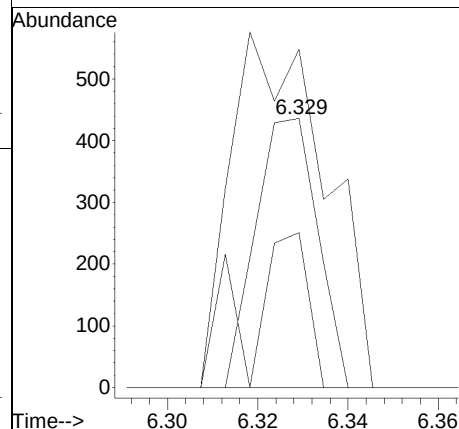
64 15.2 11.3 51.3

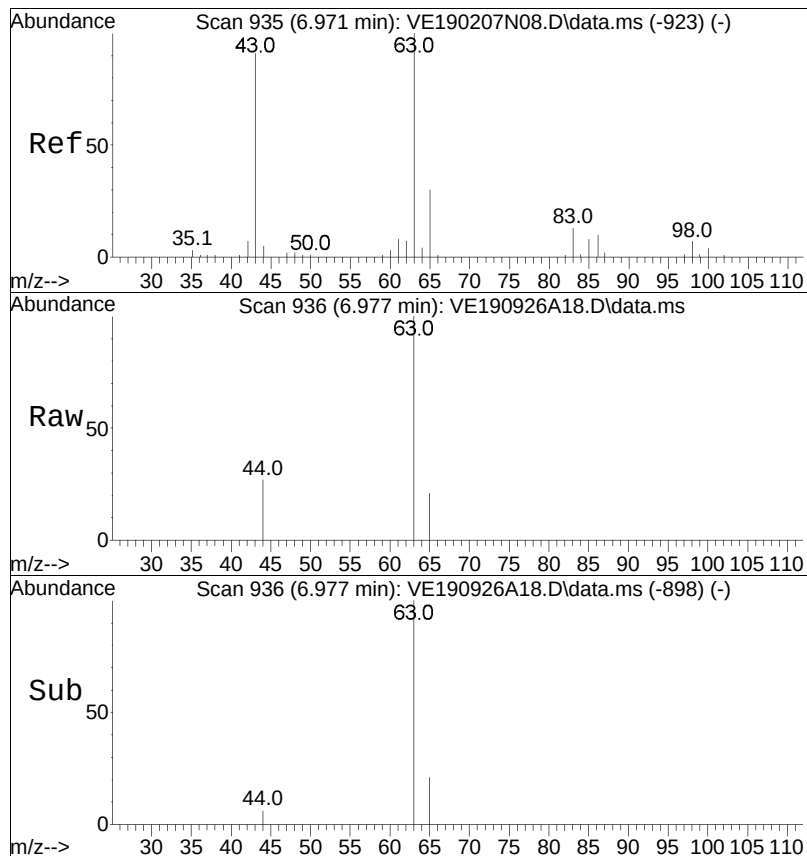




#18
trans-1,2-Dichloroethene
Concen: 0.08 ug/L
RT: 6.329 min Scan# 817
Delta R.T. 0.005 min
Lab File: VE190926A18.D
Acq: 26 Sep 2019 5:32 pm

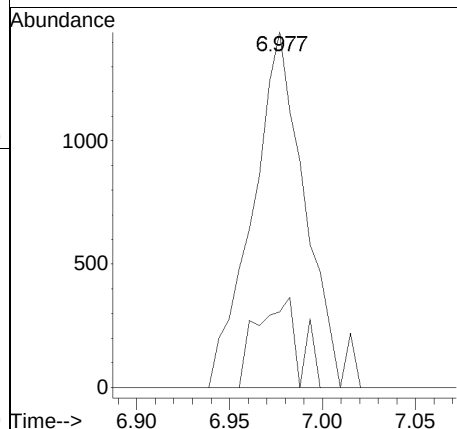
Tgt Ion:	96	Resp:	417
Ion Ratio	Lower	Upper	
96	100		
61	200.0	109.8	228.0
98	54.9	41.1	85.3
63	0.0	31.0	64.4#

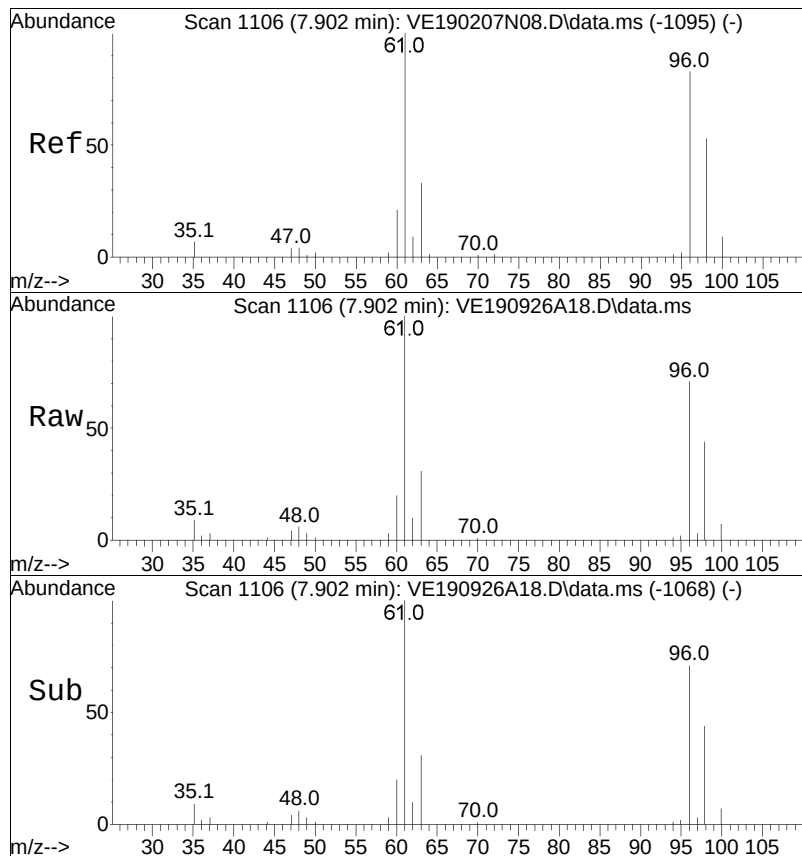




#23
 1,1-Dichloroethane
 Concen: 0.27 ug/L
 RT: 6.977 min Scan# 936
 Delta R.T. 0.005 min
 Lab File: VE190926A18.D
 Acq: 26 Sep 2019 5:32 pm

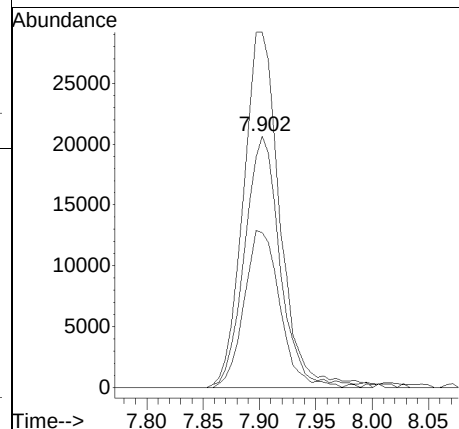
Tgt	Ion: 63	Resp:	2838
Ion	Ratio	Lower	Upper
63	100		
65	20.3	8.6	48.6
83	0.0	0.0	30.4

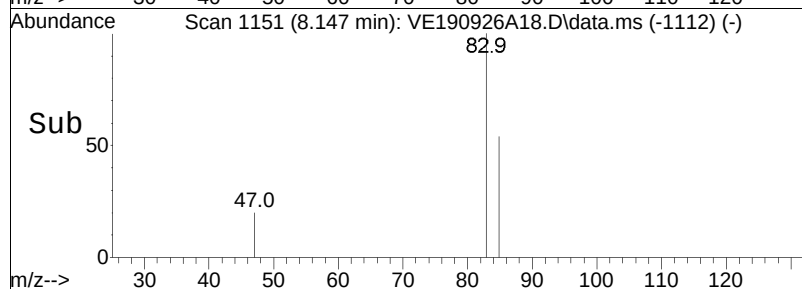
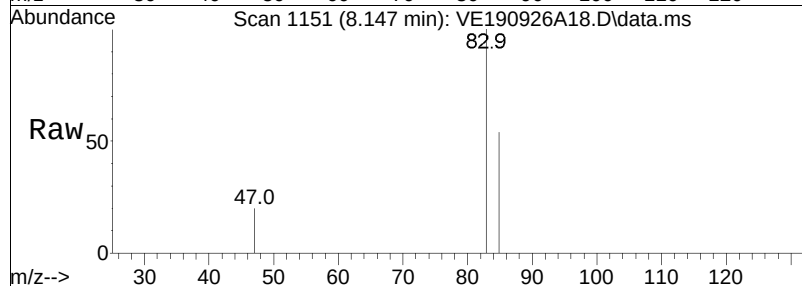
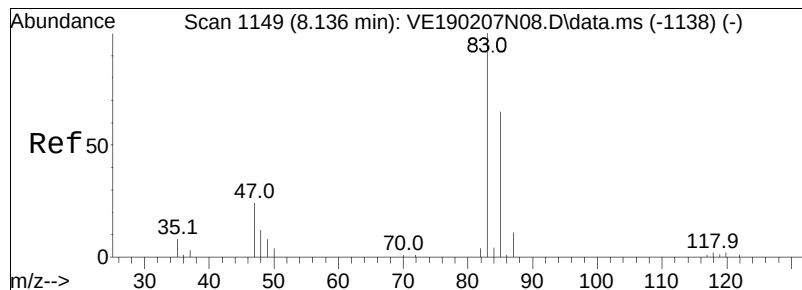




#28
 cis-1,2-Dichloroethene
 Concen: 7.66 ug/L
 RT: 7.902 min Scan# 1106
 Delta R.T. 0.005 min
 Lab File: VE190926A18.D
 Acq: 26 Sep 2019 5:32 pm

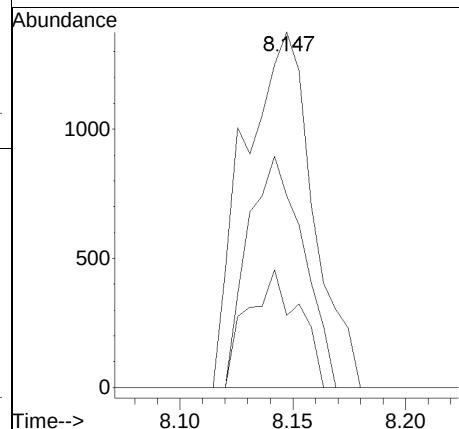
Tgt Ion	Ratio	Resp	Lower	Upper
96	100	45542		
61	144.9		123.2	184.8
98	62.5		51.2	76.8

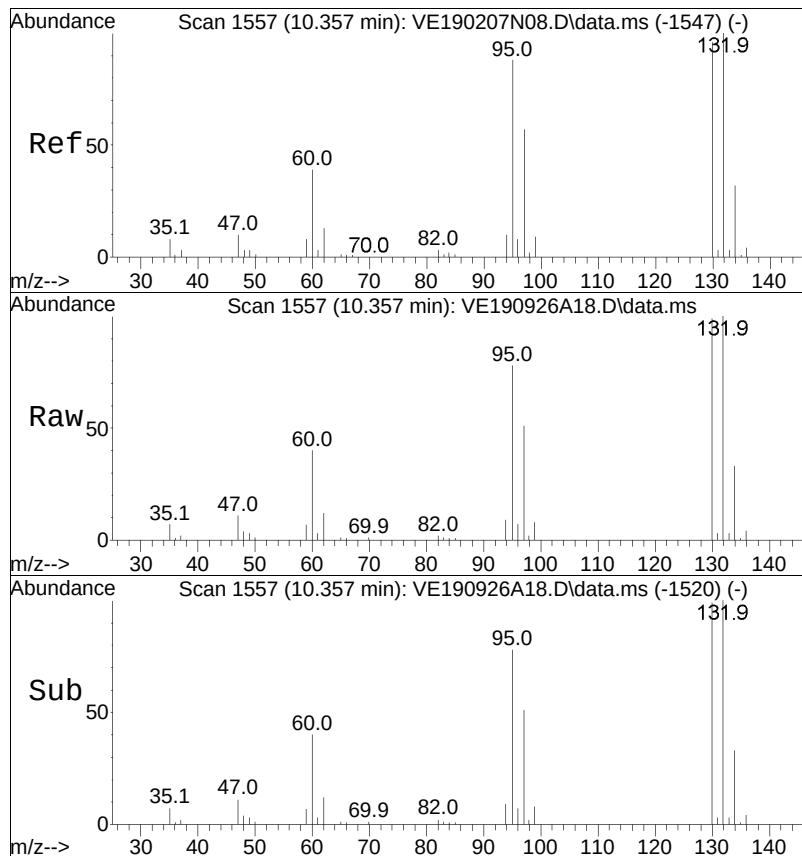




#32
 Chloroform
 Concen: 0.31 ug/L
 RT: 8.147 min Scan# 1151
 Delta R.T. 0.011 min
 Lab File: VE190926A18.D
 Acq: 26 Sep 2019 5:32 pm

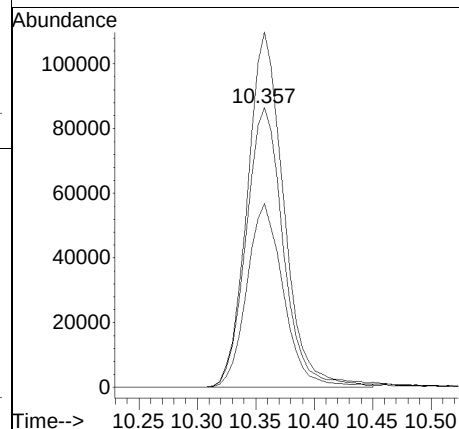
Tgt	Ion: 83	Resp:	2909
Ion	Ratio	Lower	Upper
83	100		
85	52.6	43.0	89.2
47	24.6	16.4	34.0
48	0.0	8.3	17.3#

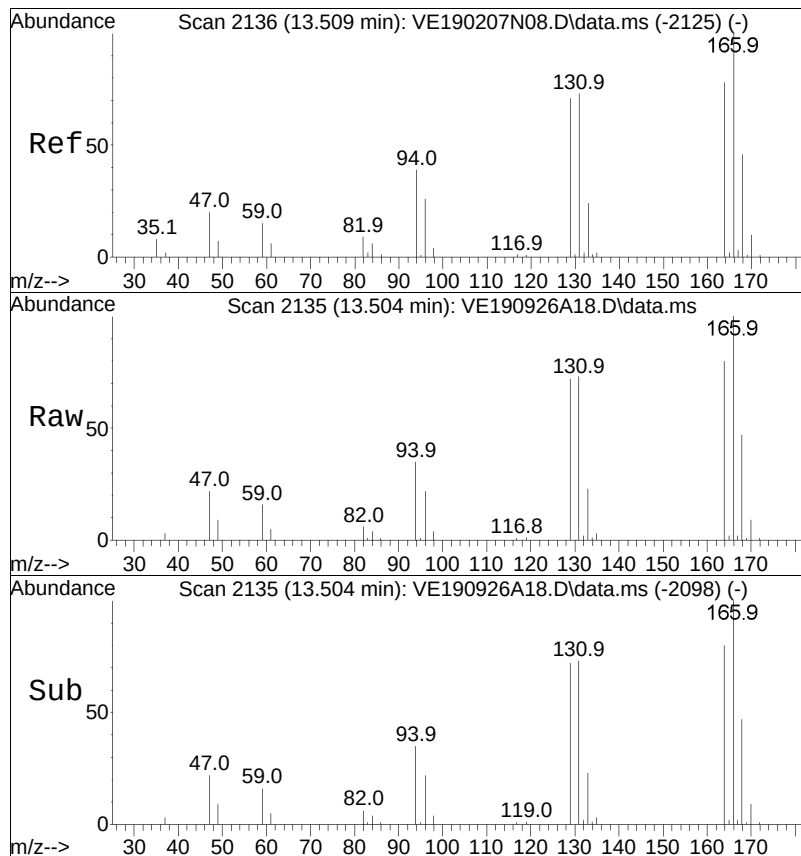




#48
 Trichloroethene
 Concen: 34.00 ug/L
 RT: 10.357 min Scan# 1557
 Delta R.T. 0.000 min
 Lab File: VE190926A18.D
 Acq: 26 Sep 2019 5:32 pm

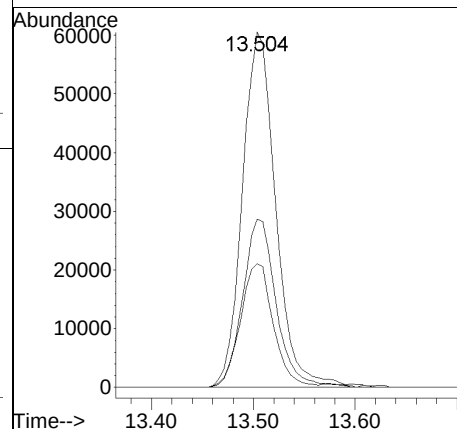
Tgt Ion	Ratio	Lower	Upper
95	100		
97	65.3	51.8	77.6
130	126.1	81.4	122.2#





#63
 Tetrachloroethene
 Concen: 20.72 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A18.D
 Acq: 26 Sep 2019 5:32 pm

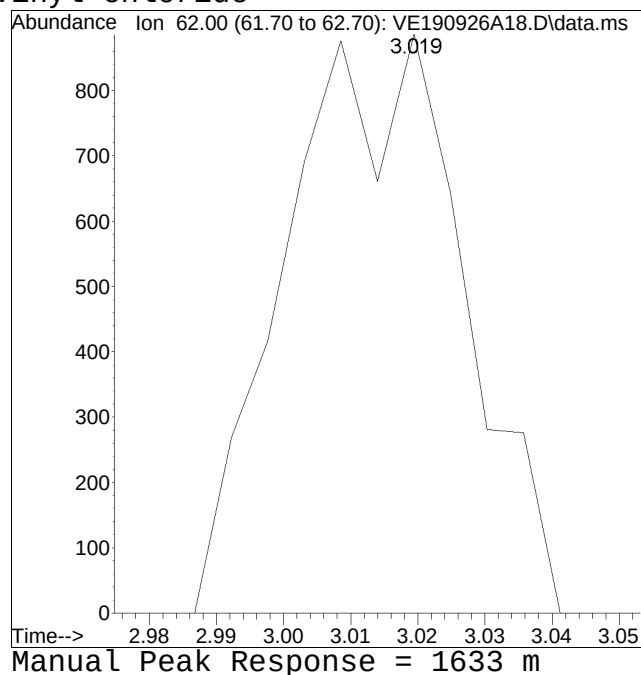
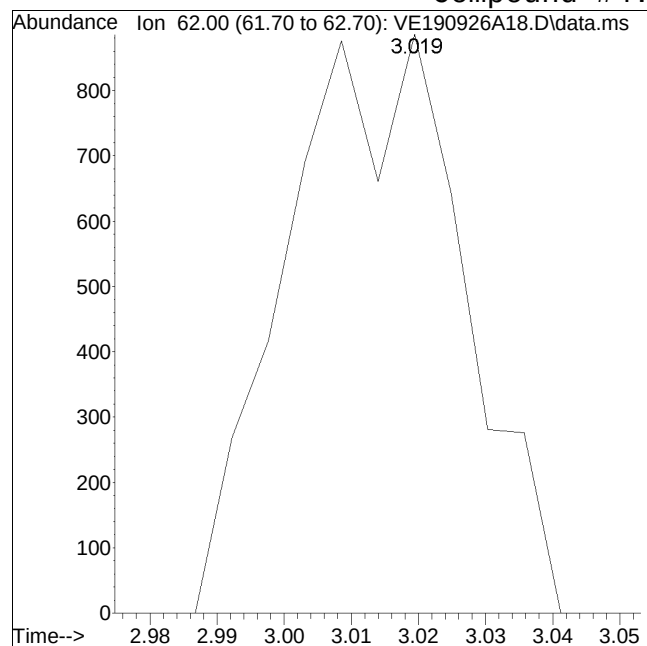
Tgt Ion:	166	Resp:	137943
Ion Ratio	Lower	Upper	
166	100		
168	47.8	26.7	66.7
94	34.3	26.8	66.8



Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A18.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 5:32 pm Instrument : Elaine
Sample : l1943646-08,31,10,10,,a Quant Date : 9/26/2019 7:43 pm

Compound #4: Vinyl chloride



Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A19.D
 Acq On : 26 Sep 2019 6:09 pm
 Operator : ELAINE:PK
 Sample : l1943646-09,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:50 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	215489	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery = 82.85%			
59) Chlorobenzene-d5	14.849	117	200298	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery = 85.26%			
79) 1,4-Dichlorobenzene-d4	19.144	152	139906	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery = 87.11%			
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	54513	9.872	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.72%			
43) 1,2-Dichloroethane-d4	9.242	65	58709	10.026	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.26%			
60) Toluene-d8	12.285	98	210593	9.064	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.64%			
83) 4-Bromofluorobenzene	16.988	95	90452	7.556	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 75.56%			
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		Qvalue
3) Chloromethane	2.856	50	66	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	5.888	76	303	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A19.D
 Acq On : 26 Sep 2019 6:09 pm
 Operator : ELAINE:PK
 Sample : l1943646-09,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:50 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	0.000		0		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A19.D
 Acq On : 26 Sep 2019 6:09 pm
 Operator : ELAINE:PK
 Sample : l1943646-09,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:50 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	0.000		0		N.D.	
101)	1,4-Dichlorobenzene	0.000		0		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	0.000		0		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

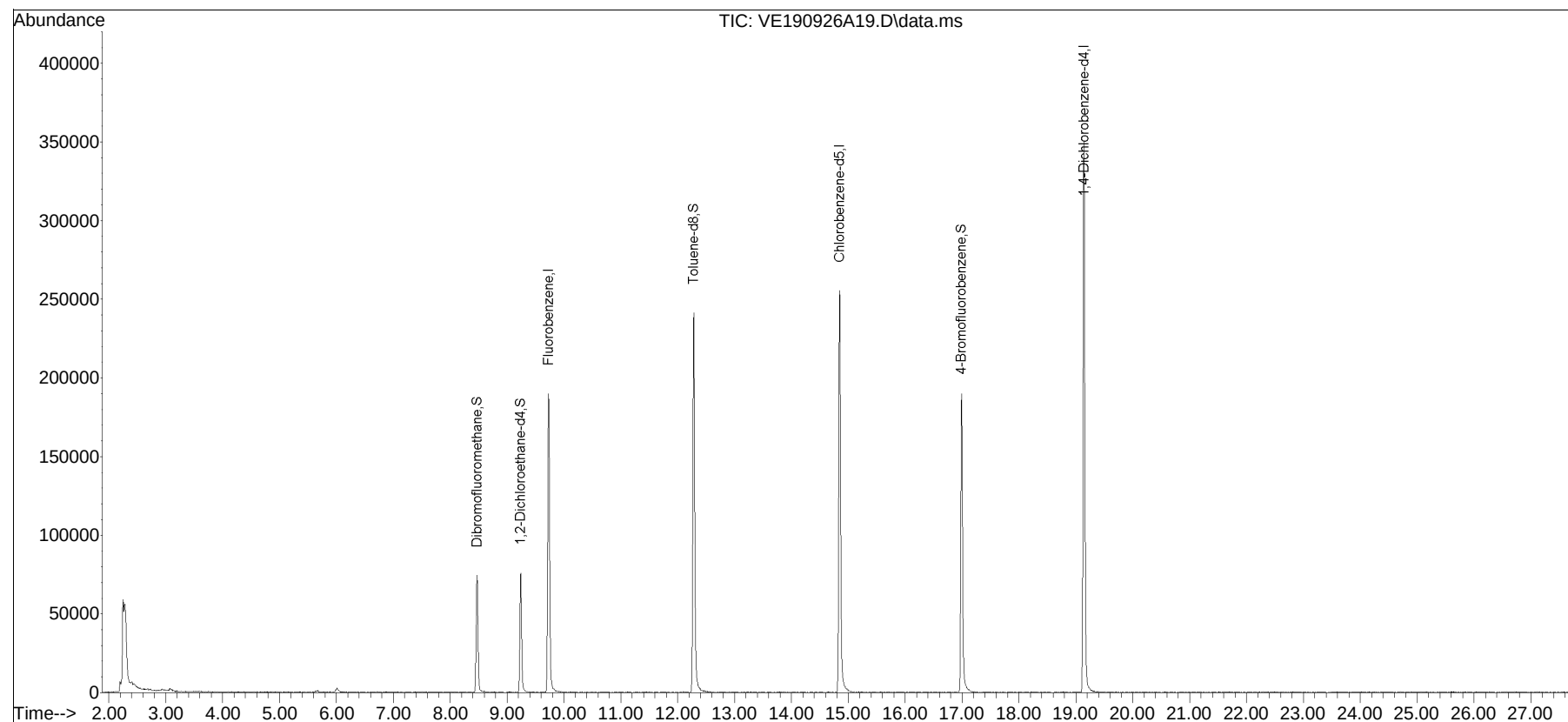
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A19.D
 Acq On : 26 Sep 2019 6:09 pm
 Operator : ELAINE:PK
 Sample : l1943646-09,31,10,10,,a
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 19:46:50 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90926A\VE190926A02.D•



Elaine_190501N_8260.m Thu Sep 26 19:49:18 2019

Page 4 : 4

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190926A19.D Operator : ELAINE:PK
Date Inj'd : 9/26/2019 6:09 pm Instrument : Elaine
Sample : l1943646-09,31,10,10,,a Quant Date : 9/26/2019 7:43 pm

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : ELAINE
Calibration dates : 05/01/19 22:38 05/02/19 04:03
Lab Number : L1943646
Project Number : 170329301
Ical Ref : ICAL15755

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.232	0.317	0.319	0.315	0.303	0.289	0.285	0.294	10.43
3) TP Chloromethane		0.485	0.517	0.460	0.446	0.427	0.424	0.414	0.453	8.19
4) TC Vinyl chloride	0.242	0.232	0.298	0.280	0.272	0.257	0.243	0.231	0.257	9.44
5) TP Bromomethane		0.258	0.245	0.213	0.191	0.198	0.205	0.208	0.217	11.52
6) TP Chloroethane		0.184	0.229	0.213	0.205	0.200	0.194	0.192	0.202	7.41
7) TP Trichlorofluor		0.368	0.421	0.418	0.407	0.421	0.422	0.431	0.412	5.08
8) TP Ethyl ether		0.100	0.125	0.127	0.118	0.120	0.114	0.113	0.117	7.86
10) TC 1,1-Dichloroet		0.193	0.229	0.228	0.223	0.224	0.217	0.245	0.223	7.07
11) TP Carbon disulfide		0.712	0.706	0.710	0.711	0.728	0.722	0.711	0.714	1.09
12) TP Freon-113		0.204	0.253	0.260	0.253	0.243	0.233	0.233	0.240	7.87
13) TP Iodomethane		0.436	0.369	0.322	0.334	0.340	0.317	0.296	0.345	13.37
14) TP Acrolein			0.031	0.032	0.034	0.034	0.033	0.032	0.033#	3.21
15) TP Methylene chlo		0.257	0.285	0.276	0.264	0.260	0.252	0.245	0.263	5.22
17) TP Acetone			0.064	0.054	0.053	0.055	0.050	0.049	0.054#	9.98
18) TP trans-1,2-Dich		0.241	0.260	0.252	0.245	0.245	0.237	0.234	0.245	3.66
19) TP Methyl acetate			0.169	0.147	0.133	0.130	0.120	0.106	0.134	16.30
20) TP Methyl tert butyl ether		0.458	0.496	0.491	0.500	0.523	0.510	0.503	0.497	4.08
21) TP tert-Butyl alc			0.008	0.010	0.012	0.013	0.013	0.014	0.012#	19.35
22) TP Diisopropyl ether		0.808	0.949	0.932	0.932	0.916	0.878	0.838	0.893	6.00
23) TP 1,1-Dichloroet		0.445	0.510	0.487	0.485	0.471	0.452	0.441	0.470	5.42
24) TP Halothane		0.164	0.208	0.203	0.204	0.203	0.196	0.195	0.196	7.60
25) TP Acrylonitrile		0.065	0.067	0.074	0.073	0.074	0.070	0.069	0.070	5.07
26) TP Ethyl tert-but		0.531	0.596	0.617	0.653	0.701	0.701	0.695	0.642	10.05
27) TP Vinyl acetate		0.289	0.335	0.370	0.418	0.436	0.411	0.377	0.377	13.69
28) TP cis-1,2-Dichlo		0.270	0.293	0.274	0.263	0.261	0.253	0.250	0.266	5.43
29) TP 2,2-Dichloropr		0.159	0.189	0.205	0.238	0.265	0.268	0.275	0.229	19.54
30) TP Bromochloromet		0.110	0.119	0.121	0.118	0.111	0.107	0.104	0.113	5.85
31) TP Cyclohexane		0.430	0.544	0.568	0.569	0.545	0.523	0.504	0.526	9.21
32) TC Chloroform		0.411	0.445	0.438	0.428	0.418	0.404	0.396	0.420	4.23
33) TP Ethyl acetate			0.693	0.274	0.207	0.183	0.168	0.159	*L	0.9982
34) TP Carbon tetrachloride	0.195	0.209	0.235	0.267	0.303	0.323	0.314	0.310	0.270	18.84
35) TP Tetrahydrofuran		0.048	0.055	0.056	0.051	0.052	0.050	0.048	0.051	5.88
36) S Dibromofluoromethane	0.260	0.254	0.263	0.260	0.256	0.257	0.254	0.246	0.256	2.05
37) TP 1,1,1-Trichlor		0.281	0.329	0.335	0.356	0.366	0.356	0.349	0.339	8.44
39) TP 2-Butanone		0.061	0.073	0.079	0.075	0.076	0.075	0.072	0.073#	7.89



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : ELAINE
Calibration dates : 05/01/19 22:38 05/02/19 04:03
Lab Number : L1943646
Project Number : 170329301
Ical Ref : ICAL15755

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP 1,1-Dichloropr		0.288	0.357	0.357	0.360	0.350	0.338	0.333	0.340	7.49
41) TP Benzene	1.014	1.003	1.137	1.069	1.051	1.021	0.983	0.930	1.026	6.01
42) TP Tertiary-Amyl Methyl Ether		0.401	0.449	0.491	0.531	0.568	0.562	0.550	0.508	12.43
43) S 1,2-Dichloroethane-d4	0.282	0.285	0.283	0.279	0.273	0.263	0.255	0.254	0.272	4.74
44) TP 1,2-Dichloroet		0.324	0.346	0.326	0.312	0.304	0.288	0.277	0.311	7.66
47) TP Methyl cyclohe		0.332	0.428	0.454	0.452	0.445	0.430	0.422	0.423	9.92
48) TP Trichloroethene	0.236	0.229	0.270	0.265	0.263	0.259	0.255	0.250	0.253	5.68
50) TP Dibromomethane		0.110	0.123	0.126	0.119	0.122	0.118	0.115	0.119	4.64
51) TC 1,2-Dichloropr		0.240	0.270	0.273	0.273	0.272	0.268	0.262	0.265	4.49
53) TP 2-Chloroethyl			0.105	0.127	0.132	0.135	0.131	0.128	0.126	8.58
54) TP Bromodichlorom		0.238	0.289	0.294	0.309	0.317	0.311	0.307	0.295	9.20
57) TP 1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	5.92
58) TP cis-1,3-Dichlo		0.226	0.288	0.331	0.360	0.382	0.378	0.371	0.334	17.32
59) I Chlorobenzene-d5	-----ISTD-----									
60) S Toluene-d8	1.177	1.161	1.167	1.183	1.168	1.159	1.132	1.132	1.160	1.64
61) TC Toluene		0.707	0.798	0.771	0.757	0.729	0.692	0.653	0.730	6.85
62) TP 4-Methyl-2-pen			0.055	0.073	0.074	0.077	0.072	0.071	0.070#	10.71
63) TP Tetrachloroethene		0.296	0.344	0.347	0.344	0.331	0.315	0.304	0.326	6.40
65) TP trans-1,3-Dich		0.155	0.200	0.262	0.311	0.340	0.331		*Q	0.9983
67) TP Ethyl methacry			0.166	0.234	0.257	0.271	0.259	0.253	0.240	15.87
68) TP 1,1,2-Trichlor		0.122	0.161	0.173	0.169	0.168	0.160	0.156	0.158	10.73
69) TP Chlorodibromom		0.139	0.177	0.204	0.232	0.245	0.237	0.233	0.209	18.63
70) TP 1,3-Dichloropr		0.315	0.371	0.370	0.366	0.360	0.342	0.333	0.351	6.15
71) TP 1,2-Dibromoethane		0.140	0.184	0.199	0.205	0.210	0.200	0.197	0.191	12.38
72) TP 2-Hexanone			0.080	0.120	0.126	0.130	0.123	0.116	0.116	15.71
73) TP Chlorobenzene		0.840	0.944	0.899	0.879	0.849	0.810	0.757	0.854	7.14
74) TC Ethylbenzene		1.329	1.562	1.542	1.523	1.439	1.349	1.182	1.418	9.82
75) TP 1,1,1,2-Tetrac		0.178	0.203	0.237	0.266	0.273	0.265	0.251	0.239	15.12
76) TP p/m Xylene		0.563	0.673	0.656	0.644	0.596	0.548	0.478	0.594	11.71
77) TP o Xylene		0.515	0.626	0.614	0.610	0.567	0.526	0.460	0.560	11.08
78) TP Styrene		0.779	0.983	0.992	0.987	0.916	0.836	0.701	0.885	13.06
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80) TP Bromoform			0.135	0.171	0.201	0.226	0.227	0.241	*L	0.9977
82) TP Isopropylbenzene		2.178	2.656	2.643	2.633	2.506	2.439	2.292	2.478	7.55
83) S 4-Bromofluorobenzene	0.836	0.840	0.841	0.844	0.847	0.847	0.871	0.918	0.856	3.22
84) TP Bromobenzene		0.558	0.639	0.607	0.605	0.596	0.591	0.591	0.598	4.08



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVENUE
Instrument ID : ELAINE
Calibration dates : 05/01/19 22:38 05/02/19 04:03
Lab Number : L1943646
Project Number : 170329301
Ical Ref : ICAL15755

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85) TP n-Propylbenzene	2.479	2.978	2.928	2.925	2.776	2.677	2.450	2.745	7.92	
86) TP 1,4-Dichlorobu	0.570	0.654	0.669	0.661	0.674	0.669	0.669	0.652	5.65	
87) TP 1,1,2,2-Tetrac	0.328	0.357	0.370	0.367	0.371	0.369	0.376	0.363	4.53	
88) TP 4-Ethyltoluene	2.052	2.572	2.529	2.541	2.455	2.370	2.211	2.390	8.12	
89) TP 2-Chlorotoluene	1.809	2.032	1.951	1.928	1.876	1.838	1.745	1.883	5.11	
90) TP 1,3,5-Trimethy	1.926	2.281	2.218	2.187	2.112	2.044	1.859	2.089	7.45	
91) TP 1,2,3-Trichlor	0.313	0.312	0.303	0.295	0.299	0.294	0.300	0.302	2.51	
92) TP trans-1,4-Dich		0.100	0.104	0.112	0.121	0.119	0.116	0.112	7.64	
93) TP 4-Chlorotoluene	1.728	1.959	1.858	1.838	1.786	1.740	1.636	1.792	5.84	
94) TP tert-Butylbenzene	1.537	1.809	1.808	1.812	1.765	1.722	1.624	1.725	6.19	
97) TP 1,2,4-Trimethy	1.816	2.234	2.177	2.204	2.131	2.049	1.860	2.067	8.11	
98) TP sec-Butylbenzene	1.992	2.435	2.400	2.444	2.367	2.289	2.101	2.290	7.72	
99) TP p-Isopropyltol	1.683	2.148	2.156	2.198	2.117	2.022	1.850	2.025	9.42	
100) TP 1,3-Dichlorobe	1.165	1.261	1.224	1.221	1.190	1.153	1.095	1.187	4.62	
101) TP 1,4-Dichlorobe	1.225	1.308	1.234	1.225	1.197	1.153	1.084	1.204	5.82	
102) TP p-Diethylbenzene	0.990	1.252	1.245	1.261	1.208	1.149	1.045	1.164	9.32	
103) TP n-Butylbenzene	1.683	2.083	2.118	2.161	2.070	1.981	1.829	1.989	8.73	
104) TP 1,2-Dichlorobe	1.031	1.128	1.096	1.104	1.069	1.030	0.974	1.062	5.02	
105) TP 1,2,4,5-Tetram	1.112	1.496	1.673	1.761	1.697	1.657	1.540	1.563	13.98	
106) TP 1,2-Dibromo-3-		0.032	0.044	0.054	0.059	0.058	0.058	*L	0.9993	
107) TP 1,3,5-Trichlor	0.550	0.627	0.621	0.638	0.610	0.600	0.586	0.605	4.92	
108) TP Hexachlorobuta	0.210	0.233	0.224	0.227	0.225	0.224	0.227	0.224	3.11	
109) TP 1,2,4-Trichlor	0.495	0.540	0.536	0.541	0.531	0.520	0.504	0.524	3.49	
110) TP Naphthalene	0.985	1.168	1.207	1.226	1.218	1.157	1.098	1.151	7.44	
111) TP 1,2,3-Trichlor	0.425	0.454	0.431	0.439	0.433	0.421	0.410	0.430	3.24	

Response Factor Report Elaine

Method Path : I:\VOLATILES\Elaine\2019\190501N\
 Method File : Elaine_190501N_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu May 02 12:42:56 2019
 Response Via : Initial Calibration

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD

1) I	Fluorobenzene	-----ISTD-----									
2) TP	Dichlorodifluo...	0.232	0.317	0.319	0.315	0.303	0.289	0.285	0.294	10.43	
3) TP	Chloromethane	0.485	0.517	0.460	0.446	0.427	0.424	0.414	0.453	8.19	
4) TC	Vinyl chloride	0.242	0.232	0.298	0.280	0.272	0.257	0.243	0.231	9.44	
5) TP	Bromomethane	0.258	0.245	0.213	0.191	0.198	0.205	0.208	0.217	11.52	
6) TP	Chloroethane	0.184	0.229	0.213	0.205	0.200	0.194	0.192	0.202	7.41	
7) TP	Trichlorofluor...	0.368	0.421	0.418	0.407	0.421	0.422	0.431	0.412	5.08	
8) TP	Ethyl ether	0.100	0.125	0.127	0.118	0.120	0.114	0.113	0.117	7.86	
10) TC	1,1-Dichloroet...	0.193	0.229	0.228	0.223	0.224	0.217	0.245	0.223	7.07	
11) TP	Carbon disulfide	0.712	0.706	0.710	0.711	0.728	0.722	0.711	0.714	1.09	
12) TP	Freon-113	0.204	0.253	0.260	0.253	0.243	0.233	0.233	0.240	7.87	
13) TP	Iodomethane	0.436	0.369	0.322	0.334	0.340	0.317	0.296	0.345	13.37	
14) TP	Acrolein		0.031	0.032	0.034	0.034	0.033	0.032	0.033#	3.21	
15) TP	Methylene chlo...	0.257	0.285	0.276	0.264	0.260	0.252	0.245	0.263	5.22	
17) TP	Acetone		0.064	0.054	0.053	0.055	0.050	0.049	0.054#	9.98	
18) TP	trans-1,2-Dich...	0.241	0.260	0.252	0.245	0.245	0.237	0.234	0.245	3.66	
19) TP	Methyl acetate		0.169	0.147	0.133	0.130	0.120	0.106	0.134	16.30	
20) TP	Methyl tert-bu...	0.458	0.496	0.491	0.500	0.523	0.510	0.503	0.497	4.08	
21) TP	tert-Butyl alc...		0.008	0.010	0.012	0.013	0.013	0.014	0.012#	19.35	
22) TP	Diisopropyl ether	0.808	0.949	0.932	0.932	0.916	0.878	0.838	0.893	6.00	
23) TP	1,1-Dichloroet...	0.445	0.510	0.487	0.485	0.471	0.452	0.441	0.470	5.42	
24) TP	Halothane	0.164	0.208	0.203	0.204	0.203	0.196	0.195	0.196	7.60	
25) TP	Acrylonitrile	0.065	0.067	0.074	0.073	0.074	0.070	0.069	0.070	5.07	
26) TP	Ethyl tert-but...	0.531	0.596	0.617	0.653	0.701	0.701	0.695	0.642	10.05	
27) TP	Vinyl acetate	0.289	0.335	0.370	0.418	0.436	0.411	0.377	0.377	13.69	
28) TP	cis-1,2-Dichlo...	0.270	0.293	0.274	0.263	0.261	0.253	0.250	0.266	5.43	
29) TP	2,2-Dichloropr...	0.159	0.189	0.205	0.238	0.265	0.268	0.275	0.229	19.54	
30) TP	Bromochloromet...	0.110	0.119	0.121	0.118	0.111	0.107	0.104	0.113	5.85	
31) TP	Cyclohexane	0.430	0.544	0.568	0.569	0.545	0.523	0.504	0.526	9.21	
32) TC	Chloroform	0.411	0.445	0.438	0.428	0.418	0.404	0.396	0.420	4.23	
33) TP	Ethyl acetate		0.693	0.274	0.207	0.183	0.168	0.159	*L	0.9982	

Response Factor Report Elaine

Method Path : I:\VOLATILES\Elaine\2019\190501N\
 Method File : Elaine_190501N_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu May 02 12:42:56 2019
 Response Via : Initial Calibration

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
34)	TP Carbon tetrach...	0.195	0.209	0.235	0.267	0.303	0.323	0.314	0.310	0.270	18.84
35)	TP Tetrahydrofuran	0.048	0.055	0.056	0.051	0.052	0.050	0.048	0.051		5.88
36)	S Dibromofluorom...	0.260	0.254	0.263	0.260	0.256	0.257	0.254	0.246	0.256	2.05
37)	TP 1,1,1-Trichlor...	0.281	0.329	0.335	0.356	0.366	0.356	0.349	0.339		8.44
39)	TP 2-Butanone	0.061	0.073	0.079	0.075	0.076	0.075	0.072	0.073#		7.89
40)	TP 1,1-Dichloropr...	0.288	0.357	0.357	0.360	0.350	0.338	0.333	0.340		7.49
41)	TP Benzene	1.014	1.003	1.137	1.069	1.051	1.021	0.983	0.930	1.026	6.01
42)	TP tert-Amyl meth...	0.401	0.449	0.491	0.531	0.568	0.562	0.550	0.508		12.43
43)	S 1,2-Dichloroet...	0.282	0.285	0.283	0.279	0.273	0.263	0.255	0.254	0.272	4.74
44)	TP 1,2-Dichloroet...	0.324	0.346	0.326	0.312	0.304	0.288	0.277	0.311		7.66
47)	TP Methyl cyclohe...	0.332	0.428	0.454	0.452	0.445	0.430	0.422	0.423		9.92
48)	TP Trichloroethene	0.236	0.229	0.270	0.265	0.263	0.259	0.255	0.250	0.253	5.68
50)	TP Dibromomethane	0.110	0.123	0.126	0.119	0.122	0.118	0.115	0.119		4.64
51)	TC 1,2-Dichloropr...	0.240	0.270	0.273	0.273	0.272	0.268	0.262	0.265		4.49
53)	TP 2-Chloroethyl ...		0.105	0.127	0.132	0.135	0.131	0.128	0.126		8.58
54)	TP Bromodichlorom...	0.238	0.289	0.294	0.309	0.317	0.311	0.307	0.295		9.20
57)	TP 1,4-Dioxane	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#		5.92
58)	TP cis-1,3-Dichlo...	0.226	0.288	0.331	0.360	0.382	0.378	0.371	0.334		17.32
59)	I Chlorobenzene-d5	-----ISTD-----									
60)	S Toluene-d8	1.177	1.161	1.167	1.183	1.168	1.159	1.132	1.132	1.160	1.64
61)	TC Toluene	0.707	0.798	0.771	0.757	0.729	0.692	0.653	0.730		6.85
62)	TP 4-Methyl-2-pen...		0.055	0.073	0.074	0.077	0.072	0.071	0.070#		10.71
63)	TP Tetrachloroethene	0.296	0.344	0.347	0.344	0.331	0.315	0.304	0.326		6.40
65)	TP trans-1,3-Dich...	0.155	0.200	0.262	0.311	0.340	0.331		*Q		0.9983
67)	TP Ethyl methacry...		0.166	0.234	0.257	0.271	0.259	0.253	0.240		15.87
68)	TP 1,1,2-Trichlor...	0.122	0.161	0.173	0.169	0.168	0.160	0.156	0.158		10.73
69)	TP Chlorodibromom...	0.139	0.177	0.204	0.232	0.245	0.237	0.233	0.209		18.63
70)	TP 1,3-Dichloropr...	0.315	0.371	0.370	0.366	0.360	0.342	0.333	0.351		6.15
71)	TP 1,2-Dibromoethane	0.140	0.184	0.199	0.205	0.210	0.200	0.197	0.191		12.38
72)	TP 2-Hexanone		0.080	0.120	0.126	0.130	0.123	0.116	0.116		15.71
73)	TP Chlorobenzene	0.840	0.944	0.899	0.879	0.849	0.810	0.757	0.854		7.14

Response Factor Report Elaine

Method Path : I:\VOLATILES\Elaine\2019\190501N\
 Method File : Elaine_190501N_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu May 02 12:42:56 2019
 Response Via : Initial Calibration

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
 L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
74)	TC Ethylbenzene	1.329	1.562	1.542	1.523	1.439	1.349	1.182	1.418	9.82	
75)	TP 1,1,1,2-Tetrac...	0.178	0.203	0.237	0.266	0.273	0.265	0.251	0.239	15.12	
76)	TP p/m Xylene	0.563	0.673	0.656	0.644	0.596	0.548	0.478	0.594	11.71	
77)	TP o Xylene	0.515	0.626	0.614	0.610	0.567	0.526	0.460	0.560	11.08	
78)	TP Styrene	0.779	0.983	0.992	0.987	0.916	0.836	0.701	0.885	13.06	
79)	I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80)	TP Bromoform		0.135	0.171	0.201	0.226	0.227	0.241	*L	0.9977	
82)	TP Isopropylbenzene	2.178	2.656	2.643	2.633	2.506	2.439	2.292	2.478	7.55	
83)	S 4-Bromofluorob...	0.836	0.840	0.841	0.844	0.847	0.871	0.918	0.856	3.22	
84)	TP Bromobenzene	0.558	0.639	0.607	0.605	0.596	0.591	0.591	0.598	4.08	
85)	TP n-Propylbenzene	2.479	2.978	2.928	2.925	2.776	2.677	2.450	2.745	7.92	
86)	TP 1,4-Dichlorobu...	0.570	0.654	0.669	0.661	0.674	0.669	0.669	0.652	5.65	
87)	TP 1,1,2,2-Tetrac...	0.328	0.357	0.370	0.367	0.371	0.369	0.376	0.363	4.53	
88)	TP 4-Ethyltoluene	2.052	2.572	2.529	2.541	2.455	2.370	2.211	2.390	8.12	
89)	TP 2-Chlorotoluene	1.809	2.032	1.951	1.928	1.876	1.838	1.745	1.883	5.11	
90)	TP 1,3,5-Trimethy...	1.926	2.281	2.218	2.187	2.112	2.044	1.859	2.089	7.45	
91)	TP 1,2,3-Trichlor...	0.313	0.312	0.303	0.295	0.299	0.294	0.300	0.302	2.51	
92)	TP trans-1,4-Dich...		0.100	0.104	0.112	0.121	0.119	0.116	0.112	7.64	
93)	TP 4-Chlorotoluene	1.728	1.959	1.858	1.838	1.786	1.740	1.636	1.792	5.84	
94)	TP tert-Butylbenzene	1.537	1.809	1.808	1.812	1.765	1.722	1.624	1.725	6.19	
97)	TP 1,2,4-Trimethy...	1.816	2.234	2.177	2.204	2.131	2.049	1.860	2.067	8.11	
98)	TP sec-Butylbenzene	1.992	2.435	2.400	2.444	2.367	2.289	2.101	2.290	7.72	
99)	TP p-Isopropyltol...	1.683	2.148	2.156	2.198	2.117	2.022	1.850	2.025	9.42	
100)	TP 1,3-Dichlorobe...	1.165	1.261	1.224	1.221	1.190	1.153	1.095	1.187	4.62	
101)	TP 1,4-Dichlorobe...	1.225	1.308	1.234	1.225	1.197	1.153	1.084	1.204	5.82	
102)	TP p-Diethylbenzene	0.990	1.252	1.245	1.261	1.208	1.149	1.045	1.164	9.32	
103)	TP n-Butylbenzene	1.683	2.083	2.118	2.161	2.070	1.981	1.829	1.989	8.73	
104)	TP 1,2-Dichlorobe...	1.031	1.128	1.096	1.104	1.069	1.030	0.974	1.062	5.02	
105)	TP 1,2,4,5-Tetram...	1.112	1.496	1.673	1.761	1.697	1.657	1.540	1.563	13.98	
106)	TP 1,2-Dibromo-3-...		0.032	0.044	0.054	0.059	0.058	0.058	*L	0.9993	
107)	TP 1,3,5-Trichlor...	0.550	0.627	0.621	0.638	0.610	0.600	0.586	0.605	4.92	

Response Factor Report Elaine

Method Path : I:\VOLATILES\Elaine\2019\190501N\
Method File : Elaine_190501N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu May 02 12:42:56 2019
Response Via : Initial Calibration

Calibration Files

L11 =VE190501N03.D L1 =VE190501N05.D L2 =VE190501N07.D L3 =VE190501N08.D L4 =VE190501N09.D
L6 =VE190501N10.D L8 =VE190501N11.D L10 =VE190501N12.D

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
108)	TP Hexachlorobuta...	0.210	0.233	0.224	0.227	0.225	0.224	0.227	0.224	3.11	
109)	TP 1,2,4-Trichlor...	0.495	0.540	0.536	0.541	0.531	0.520	0.504	0.524	3.49	
110)	TP Naphthalene	0.985	1.168	1.207	1.226	1.218	1.157	1.098	1.151	7.44	
111)	TP 1,2,3-Trichlor...	0.425	0.454	0.431	0.439	0.433	0.421	0.410	0.430	3.24	

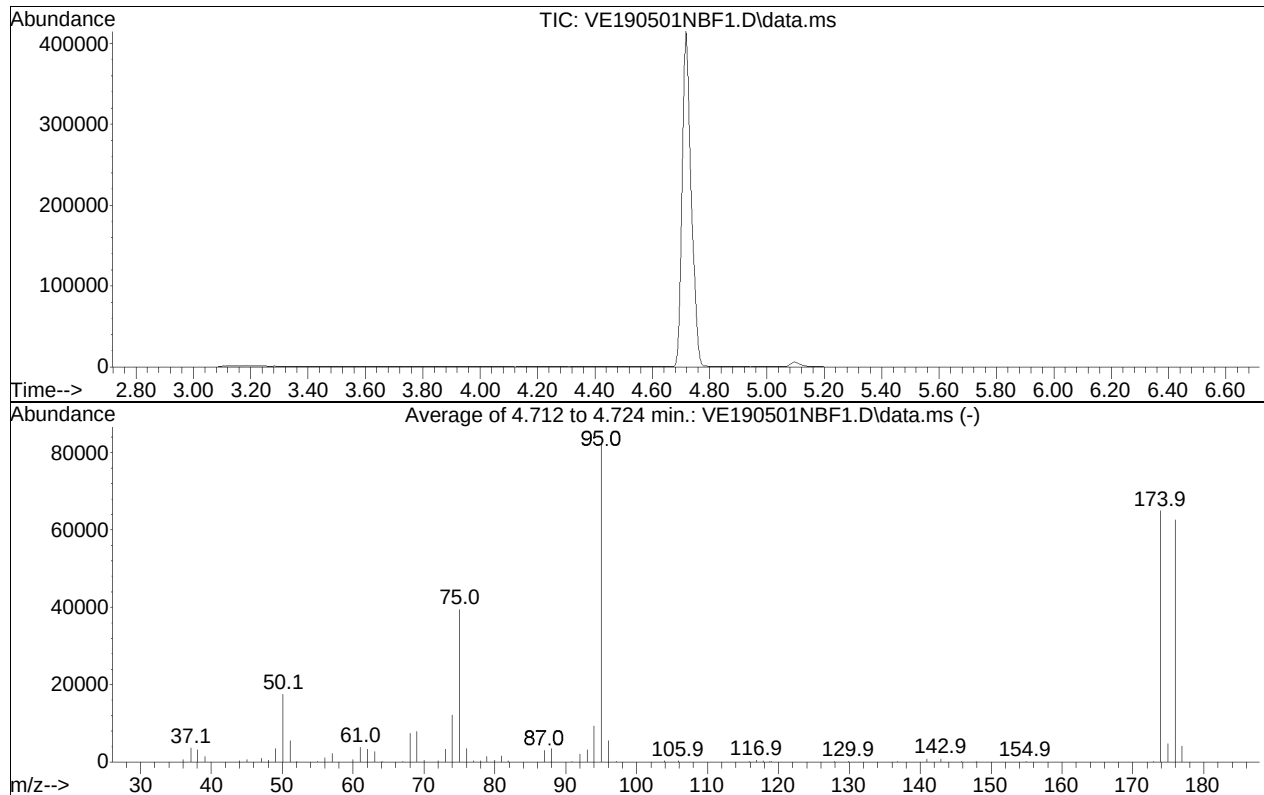
(#) = Out of Range

BFB

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501NBF1.D
 Acq On : 1 May 2019 9:04 pm
 Operator : ELAINE:PD
 Sample : WG1232921-1
 Misc : WG1232921
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Thu May 02 12:42:56 2019



AutoFind: Scans 268, 269, 270; Background Corrected with Scan 260

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.2	17497	PASS
75	95	30	60	47.8	39480	PASS
95	95	100	100	100.0	82568	PASS
96	95	5	9	6.7	5518	PASS
173	174	0.00	2	0.4	287	PASS
174	95	50	100	78.8	65088	PASS
175	174	5	9	7.3	4726	PASS
176	174	95	101	96.2	62611	PASS
177	176	5	9	6.6	4124	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N03.D
 Acq On : 1 May 2019 10:38 pm
 Operator : ELAINE:PD
 Sample : I8260STD11
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:45:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-L11 - Level 11 for 8260-LRR product

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	308736	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	96.57%	
59) Chlorobenzene-d5	14.849	117	286240	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	97.50%	
79) 1,4-Dichlorobenzene-d4	19.144	152	178471	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	96.04%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	80179	10.134	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.34%	
43) 1,2-Dichloroethane-d4	9.242	65	87043	10.375	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	103.75%	
60) Toluene-d8	12.285	98	336833	10.144	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.44%	
83) 4-Bromofluorobenzene	16.993	95	149213	9.772	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.72%	
Target Compounds						
4) Vinyl chloride	2.998	62	1493	0.188	ug/L	68
34) Carbon tetrachloride	9.144	117	1202	0.144	ug/L #	72
41) Benzene	9.410	78	6259	0.198	ug/L	94
48) Trichloroethene	10.363	95	1456	0.186	ug/L	85

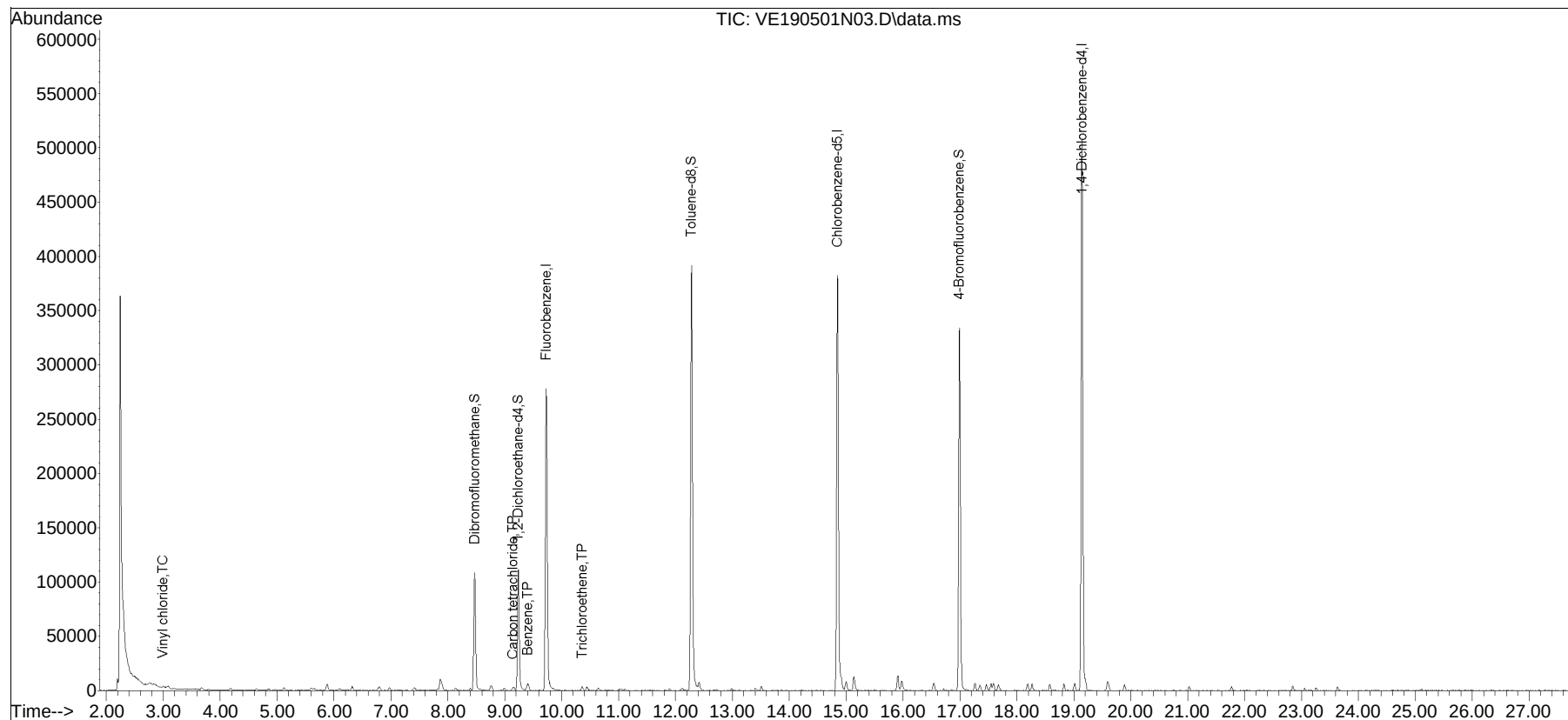
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N03.D
 Acq On : 1 May 2019 10:38 pm
 Operator : ELAINE:PD
 Sample : I8260STD11
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:45:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-L11 - Level 11 for 8260-LRR product90501N08.D•



Manual Integration Report

Data Path	: I:\VOLATILES\Elaine\2019\1Q	Method	: Elaine_190501N_8260.m
Data File	: VE190501N03.D	Operator	: ELAINE:PD
Date Inj'd	: 5/1/2019 10:38 pm	Instrument	: Elaine
Sample	: I8260STD11	Quant Date	: 5/2/2019 12:45 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N05.D
 Acq On : 1 May 2019 11:50 pm
 Operator : ELAINE:PD
 Sample : I8260STD1
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:55:21 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	297994	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	93.21%	
59) Chlorobenzene-d5	14.848	117	279203	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	95.10%	
79) 1,4-Dichlorobenzene-d4	19.143	152	175234	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	94.30%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	75697	9.913	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.13%	
43) 1,2-Dichloroethane-d4	9.241	65	84864	10.480	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	104.80%	
60) Toluene-d8	12.284	98	324223	10.011	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.11%	
83) 4-Bromofluorobenzene	16.988	95	147266	9.822	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.22%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	3457	0.394	ug/L	# 92
3) Chloromethane	2.845	50	7228	0.535	ug/L	91
4) Vinyl chloride	3.009	62	3464	0.452	ug/L	96
5) Bromomethane	3.673	94	3846	0.596	ug/L	95
6) Chloroethane	3.792	64	2742	0.455	ug/L	97
7) Trichlorofluoromethane	4.184	101	5477	0.446	ug/L	99
8) Ethyl ether	4.642	74	1485	0.427	ug/L	90
10) 1,1-Dichloroethene	5.132	96	2874	0.433	ug/L	98
11) Carbon disulfide	5.888	76	10604	0.498	ug/L	92
12) Freon-113	4.854	101	3040	0.426	ug/L	# 92
13) Iodomethane	5.600	142	6497	0.632	ug/L	# 93
14) Acrolein	4.865	56	159	0.163	ug/L	# 19
15) Methylene chloride	5.872	84	3833	0.490	ug/L	97
17) Acetone	4.957	43	1492	0.929	ug/L	# 69
18) trans-1,2-Dichloroethene	6.318	96	3593	0.492	ug/L	90
19) Methyl acetate	5.649	43	3944	0.985	ug/L	# 84
20) Methyl tert-butyl ether	6.101	73	6819	0.460	ug/L	# 88
21) tert-Butyl alcohol	5.257	59	215	0.627	ug/L	# 64
22) Diisopropyl ether	6.792	45	12035	0.452	ug/L	# 86
23) 1,1-Dichloroethane	6.977	63	6636	0.474	ug/L	97
24) Halothane	6.242	117	2442	0.418	ug/L	82

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N05.D
 Acq On : 1 May 2019 11:50 pm
 Operator : ELAINE:PD
 Sample : I8260STD1
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:55:21 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	962	0.460	ug/L	# 62
26) Ethyl tert-butyl ether	7.418	59	7913	0.414	ug/L	96
27) Vinyl acetate	6.971	43	4303	0.383	ug/L	# 75
28) cis-1,2-Dichloroethene	7.897	96	4025	0.507	ug/L	# 62
29) 2,2-Dichloropropane	7.826	77	2376	0.349	ug/L	# 12
30) Bromochloromethane	8.398	128	1632	0.486	ug/L	93
31) Cyclohexane	8.762	56	6402	0.408	ug/L	83
32) Chloroform	8.136	83	6130	0.490	ug/L	98
33) Ethyl acetate	7.870	43	28606M1	Below Cal		
34) Carbon tetrachloride	9.143	117	3118	0.388	ug/L	87
35) Tetrahydrofuran	8.463	42	719	0.469	ug/L	# 44
37) 1,1,1-Trichloroethane	8.746	97	4183	0.414	ug/L	# 93
39) 2-Butanone	7.630	43	904	0.417	ug/L	# 56
40) 1,1-Dichloropropene	8.991	75	4284	0.422	ug/L	97
41) Benzene	9.416	78	14938	0.489	ug/L	96
42) tert-Amyl methyl ether	9.154	73	5978	0.395	ug/L	# 61
44) 1,2-Dichloroethane	9.394	62	4830	0.521	ug/L	96
47) Methyl cyclohexane	10.455	83	4950	0.392	ug/L	94
48) Trichloroethene	10.363	95	3412	0.452	ug/L	97
50) Dibromomethane	11.109	93	1637	0.461	ug/L	# 88
51) 1,2-Dichloropropane	10.646	63	3575	0.452	ug/L	93
53) 2-Chloroethyl vinyl ether	11.506	63	934	0.248	ug/L	# 73
54) Bromodichloromethane	11.016	83	3539	0.403	ug/L	# 98
57) 1,4-Dioxane	11.054	88	5442	92.066	ug/L	96
58) cis-1,3-Dichloropropene	11.887	75	3372	0.339	ug/L	# 88
61) Toluene	12.420	92	9868	0.484	ug/L	97
62) 4-Methyl-2-pentanone	11.560	58	321	0.164	ug/L	# 1
63) Tetrachloroethene	13.509	166	4129	0.454	ug/L	90
65) trans-1,3-Dichloropropene	12.720	75	2166	0.626	ug/L	# 60
67) Ethyl methacrylate	12.698	69	1242	0.185	ug/L	# 58
68) 1,1,2-Trichloroethane	12.981	83	1706	0.386	ug/L	88
69) Chlorodibromomethane	13.868	129	1936	0.331	ug/L	# 92
70) 1,3-Dichloropropane	13.406	76	4392	0.448	ug/L	100
71) 1,2-Dibromoethane	14.217	107	1959	0.368	ug/L	100
72) 2-Hexanone	0.000		0	N.D.		
73) Chlorobenzene	14.919	112	11727	0.492	ug/L	99
74) Ethylbenzene	15.006	91	18552	0.469	ug/L	99
75) 1,1,1,2-Tetrachloroethane	14.990	131	2478	0.371	ug/L	# 63
76) p/m Xylene	15.137	106	15731	0.949	ug/L	98
77) o Xylene	15.904	106	14382	0.920	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N05.D
 Acq On : 1 May 2019 11:50 pm
 Operator : ELAINE:PD
 Sample : I8260STD1
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:55:21 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.975	104	21739	0.880	ug/L	97
80)	Bromoform	16.579	173	837	1.513	ug/L #	40
82)	Isopropylbenzene	16.536	105	19082	0.439	ug/L #	47
84)	Bromobenzene	17.358	156	4885	0.466	ug/L	92
85)	n-Propylbenzene	17.260	91	21724	0.452	ug/L	100
86)	1,4-Dichlorobutane	16.710	55	4994	0.437	ug/L	98
87)	1,1,2,2-Tetrachloroethane	16.852	83	2871	0.452	ug/L	97
88)	4-Ethyltoluene	17.461	105	17979	0.429	ug/L	100
89)	2-Chlorotoluene	17.586	91	15852	0.480	ug/L	100
90)	1,3,5-Trimethylbenzene	17.543	105	16873	0.461	ug/L	99
91)	1,2,3-Trichloropropane	17.118	75	2743	0.518	ug/L #	84
92)	trans-1,4-Dichloro-2-b...	17.254	53	404	0.206	ug/L #	10
93)	4-Chlorotoluene	17.668	91	15141M1	0.482	ug/L	
94)	tert-Butylbenzene	18.185	119	13471	0.446	ug/L	94
97)	1,2,4-Trimethylbenzene	18.256	105	15915	0.439	ug/L	96
98)	sec-Butylbenzene	18.577	105	17452	0.435	ug/L	97
99)	p-Isopropyltoluene	18.828	119	14745	0.416	ug/L	96
100)	1,3-Dichlorobenzene	19.007	146	10209	0.491	ug/L	93
101)	1,4-Dichlorobenzene	19.203	146	10734	0.509	ug/L	95
102)	p-Diethylbenzene	19.606	119	8670	0.425	ug/L	94
103)	n-Butylbenzene	19.590	91	14747	0.423	ug/L	93
104)	1,2-Dichlorobenzene	19.889	146	9034	0.486	ug/L	96
105)	1,2,4,5-Tetramethylben...	21.027	119	9747	0.356	ug/L	92
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
107)	1,3,5-Trichlorobenzene	21.773	180	4819	0.455	ug/L	98
108)	Hexachlorobutadiene	23.057	225	1841	0.468	ug/L	93
109)	1,2,4-Trichlorobenzene	22.850	180	4335	0.472	ug/L	96
110)	Naphthalene	23.259	128	8626	0.428	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	3723	0.494	ug/L	92

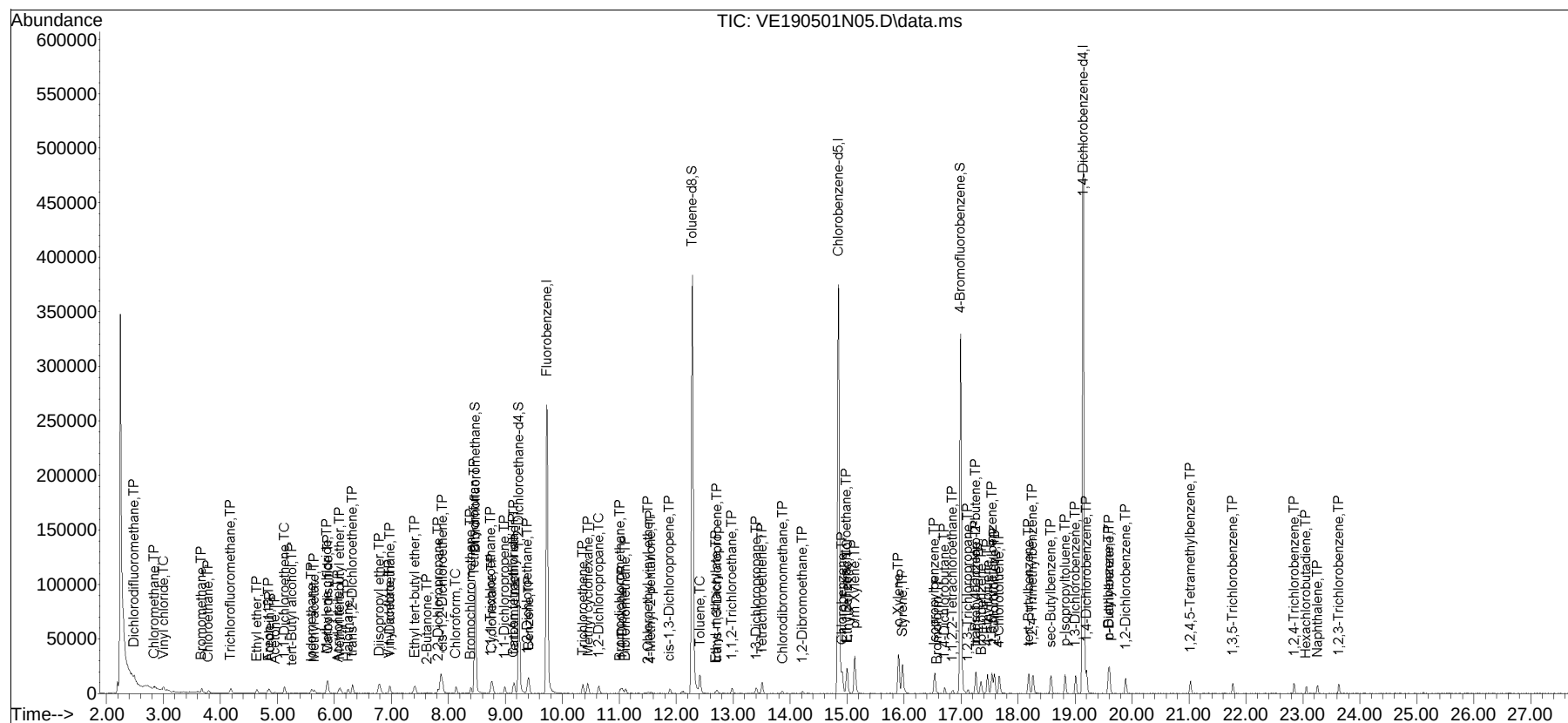
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
Data File : VE190501N05.D
Acq On : 1 May 2019 11:50 pm
Operator : ELAINE:PD
Sample : I8260STDL1
Misc : WG1232921,ICAL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:55:21 2019
Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

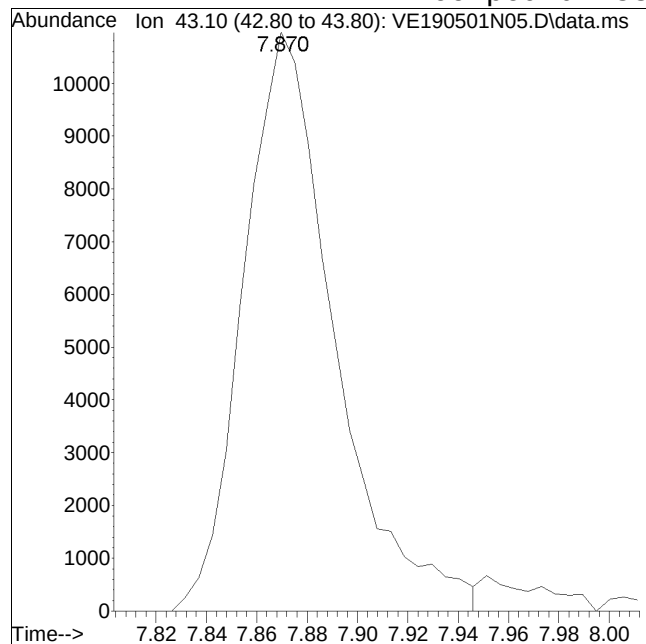
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

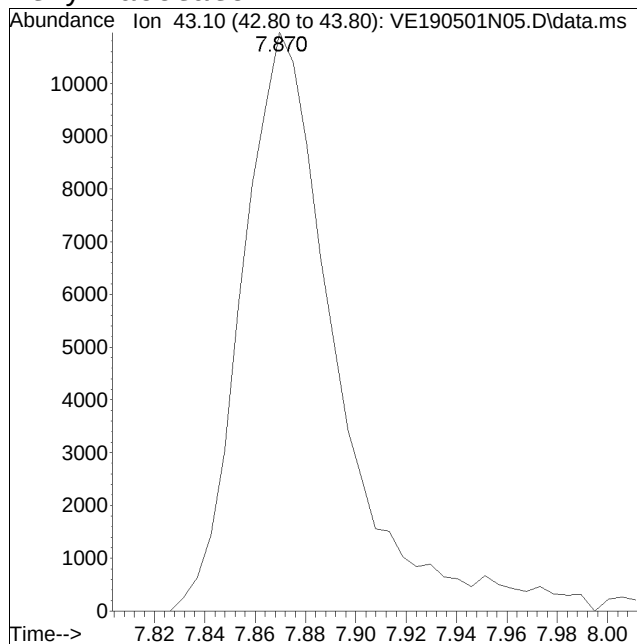
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N05.D Operator : ELAINE:PD
Date Inj'd : 5/1/2019 11:50 pm Instrument : Elaine
Sample : I8260STD1 Quant Date : 5/2/2019 12:55 pm

Compound #33: Ethyl acetate



Original Peak Response = 27503

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

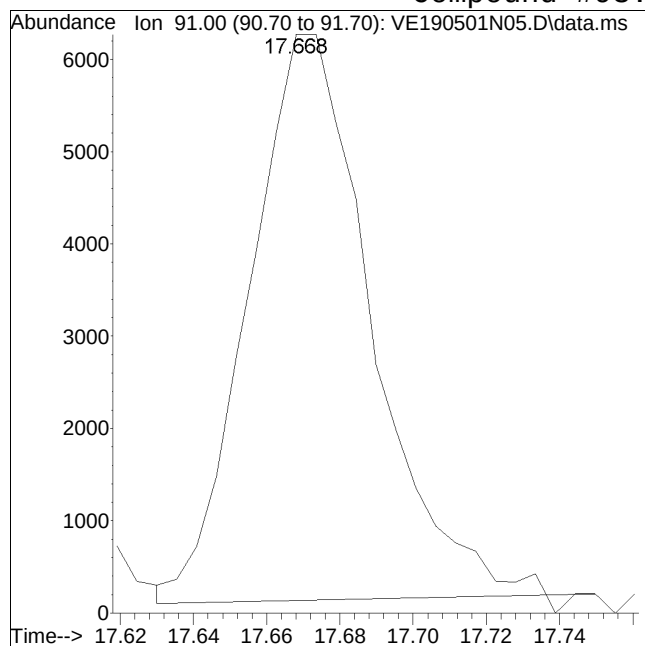


Manual Peak Response = 28606 M1

Manual Integration Report

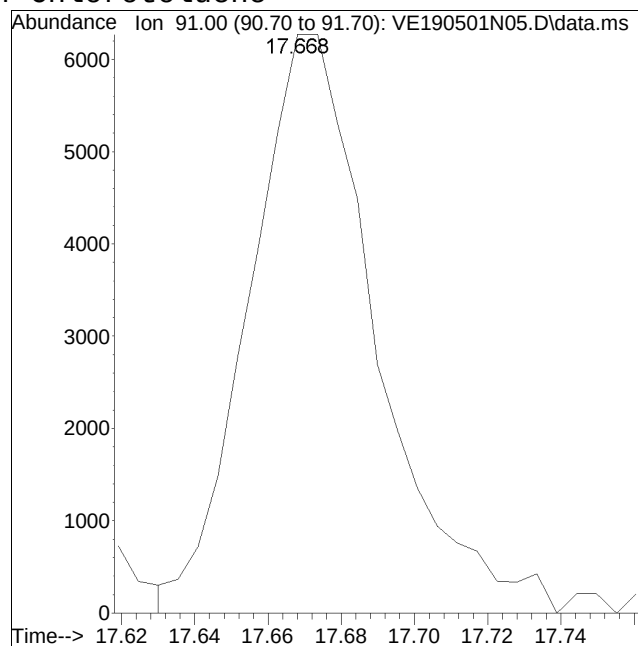
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190501N05.D Operator : ELAINE:PD
Date Inj'd : 5/1/2019 11:50 pm Instrument : Elaine
Sample : I8260STDL1 Quant Date : 5/2/2019 12:55 pm

Compound #93: 4-Chlorotoluene



Original Peak Response = 14155

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 15141 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N07.D
 Acq On : 2 May 2019 1:03 am
 Operator : ELAINE:PD
 Sample : I8260STD.L2
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:54:13 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	308798	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	96.59%	
59) Chlorobenzene-d5	14.848	117	287552	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	97.95%	
79) 1,4-Dichlorobenzene-d4	19.143	152	178972	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	96.31%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	81364	10.282	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.82%	
43) 1,2-Dichloroethane-d4	9.241	65	87454	10.422	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	104.22%	
60) Toluene-d8	12.284	98	335688	10.064	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.64%	
83) 4-Bromofluorobenzene	16.993	95	150478	9.827	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.27%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	19581	2.154	ug/L	98
3) Chloromethane	2.851	50	31926	2.281	ug/L	71
4) Vinyl chloride	3.003	62	18402	2.318	ug/L	97
5) Bromomethane	3.673	94	15108M1	2.258	ug/L	
6) Chloroethane	3.798	64	14153	2.264	ug/L	96
7) Trichlorofluoromethane	4.184	101	25987	2.041	ug/L	99
8) Ethyl ether	4.636	74	7725	2.143	ug/L	95
10) 1,1-Dichloroethene	5.132	96	14116	2.053	ug/L	97
11) Carbon disulfide	5.888	76	43575	1.975	ug/L	97
12) Freon-113	4.854	101	15640	2.113	ug/L	# 89
13) Iodomethane	5.605	142	22803	2.141	ug/L	98
14) Acrolein	4.854	56	1931	1.913	ug/L	89
15) Methylene chloride	5.872	84	17582	2.167	ug/L	95
17) Acetone	4.957	43	3942	2.370	ug/L	90
18) trans-1,2-Dichloroethene	6.324	96	16079	2.127	ug/L	93
19) Methyl acetate	5.649	43	10428	2.514	ug/L	# 96
20) Methyl tert-butyl ether	6.101	73	30633	1.996	ug/L	# 90
21) tert-Butyl alcohol	5.262	59	2436	6.850	ug/L	# 64
22) Diisopropyl ether	6.792	45	58631	2.125	ug/L	97
23) 1,1-Dichloroethane	6.971	63	31498	2.170	ug/L	97
24) Halothane	6.242	117	12839	2.121	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N07.D
 Acq On : 2 May 2019 1:03 am
 Operator : ELAINE:PD
 Sample : I8260STD2
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:54:13 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	4163	1.920	ug/L	97
26) Ethyl tert-butyl ether	7.407	59	36789	1.856	ug/L	98
27) Vinyl acetate	6.977	43	20711M1	1.781	ug/L	
28) cis-1,2-Dichloroethene	7.897	96	18078	2.198	ug/L	97
29) 2,2-Dichloropropane	7.821	77	11686	1.655	ug/L #	31
30) Bromochloromethane	8.398	128	7354	2.114	ug/L	87
31) Cyclohexane	8.773	56	33586	2.068	ug/L	90
32) Chloroform	8.142	83	27466	2.117	ug/L	98
33) Ethyl acetate	7.864	43	42791M1	1.762	ug/L	
34) Carbon tetrachloride	9.143	117	14511	1.744	ug/L	99
35) Tetrahydrofuran	8.463	42	3387	2.133	ug/L	98
37) 1,1,1-Trichloroethane	8.746	97	20333	1.943	ug/L	96
39) 2-Butanone	7.630	43	4490	1.998	ug/L #	90
40) 1,1-Dichloropropene	8.991	75	22061	2.099	ug/L	99
41) Benzene	9.410	78	70226	2.217	ug/L	98
42) tert-Amyl methyl ether	9.154	73	27760	1.771	ug/L #	71
44) 1,2-Dichloroethane	9.388	62	21365	2.225	ug/L	100
47) Methyl cyclohexane	10.450	83	26418	2.021	ug/L	94
48) Trichloroethene	10.357	95	16654	2.130	ug/L	95
50) Dibromomethane	11.114	93	7624	2.071	ug/L #	88
51) 1,2-Dichloropropane	10.640	63	16656	2.032	ug/L	98
53) 2-Chloroethyl vinyl ether	11.495	63	6470	1.661	ug/L #	85
54) Bromodichloromethane	11.016	83	17831	1.959	ug/L	97
57) 1,4-Dioxane	11.038	88	25840M1	421.856	ug/L	
58) cis-1,3-Dichloropropene	11.887	75	17775	1.724	ug/L	93
61) Toluene	12.415	92	45913	2.188	ug/L	98
62) 4-Methyl-2-pentanone	11.539	58	3191	1.579	ug/L #	59
63) Tetrachloroethene	13.509	166	19773	2.111	ug/L	94
65) trans-1,3-Dichloropropene	12.714	75	11492	1.675	ug/L #	61
67) Ethyl methacrylate	12.676	69	9545	1.384	ug/L	90
68) 1,1,2-Trichloroethane	12.976	83	9253	2.033	ug/L	95
69) Chlorodibromomethane	13.863	129	10186	1.691	ug/L	98
70) 1,3-Dichloropropane	13.400	76	21327	2.113	ug/L	99
71) 1,2-Dibromoethane	14.211	107	10597	1.931	ug/L	98
72) 2-Hexanone	12.992	43	4599M1	1.381	ug/L	
73) Chlorobenzene	14.914	112	54309	2.211	ug/L	98
74) Ethylbenzene	15.001	91	89847	2.203	ug/L	99
75) 1,1,1,2-Tetrachloroethane	14.979	131	11651	1.696	ug/L	96
76) p/m Xylene	15.131	106	77354	4.529	ug/L	94
77) o Xylene	15.899	106	72057	4.477	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N07.D
 Acq On : 2 May 2019 1:03 am
 Operator : ELAINE:PD
 Sample : I8260STD2
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:54:13 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.964	104	113081	4.445	ug/L	96
80)	Bromoform	16.585	173	4841	2.465	ug/L	99
82)	Isopropylbenzene	16.536	105	95084	2.144	ug/L	97
84)	Bromobenzene	17.341	156	22879	2.137	ug/L	100
85)	n-Propylbenzene	17.254	91	106606	2.170	ug/L	100
86)	1,4-Dichlorobutane	16.710	55	23417	2.006	ug/L	99
87)	1,1,2,2-Tetrachloroethane	16.846	83	12761	1.967	ug/L	99
88)	4-Ethyltoluene	17.461	105	92049	2.152	ug/L	97
89)	2-Chlorotoluene	17.581	91	72741	2.159	ug/L	98
90)	1,3,5-Trimethylbenzene	17.543	105	81643	2.183	ug/L	99
91)	1,2,3-Trichloropropane	17.124	75	11170	2.064	ug/L	98
92)	trans-1,4-Dichloro-2-b...	17.238	53	3563	1.778	ug/L #	53
93)	4-Chlorotoluene	17.663	91	70126	2.186	ug/L	99
94)	tert-Butylbenzene	18.185	119	64743	2.097	ug/L	96
97)	1,2,4-Trimethylbenzene	18.256	105	79974	2.161	ug/L	98
98)	sec-Butylbenzene	18.577	105	87162	2.127	ug/L	97
99)	p-Isopropyltoluene	18.822	119	76895	2.122	ug/L	97
100)	1,3-Dichlorobenzene	19.007	146	45131	2.124	ug/L	95
101)	1,4-Dichlorobenzene	19.203	146	46806	2.172	ug/L	96
102)	p-Diethylbenzene	19.606	119	44831	2.151	ug/L	98
103)	n-Butylbenzene	19.584	91	74554	2.094	ug/L	96
104)	1,2-Dichlorobenzene	19.884	146	40385	2.125	ug/L	97
105)	1,2,4,5-Tetramethylben...	21.027	119	53549	1.915	ug/L	94
106)	1,2-Dibromo-3-chloropr...	21.348	155	1134	2.266	ug/L	90
107)	1,3,5-Trichlorobenzene	21.767	180	22456	2.075	ug/L	96
108)	Hexachlorobutadiene	23.052	225	8333	2.075	ug/L	99
109)	1,2,4-Trichlorobenzene	22.839	180	19339	2.063	ug/L	97
110)	Naphthalene	23.253	128	41814	2.029	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	16235	2.108	ug/L	98

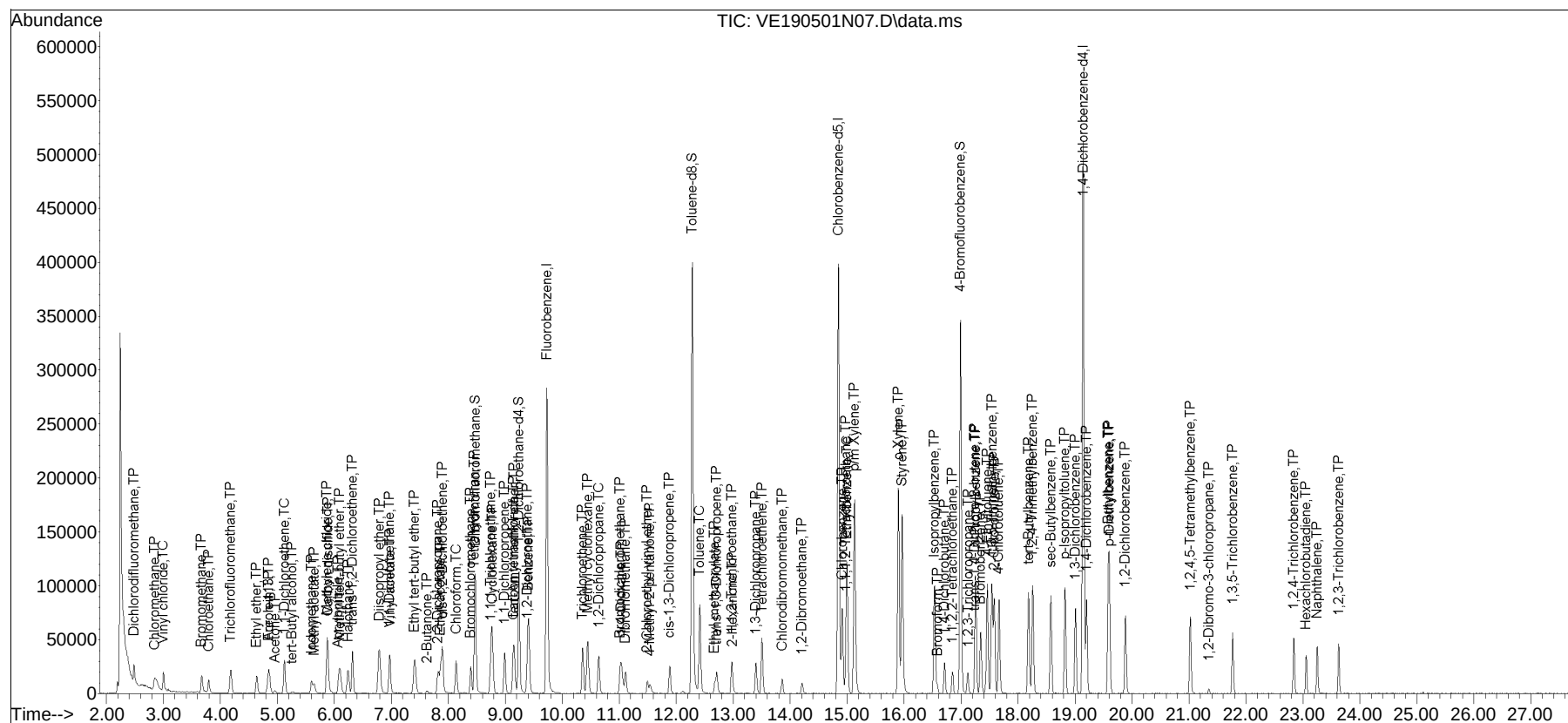
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
Data File : VE190501N07.D
Acq On : 2 May 2019 1:03 am
Operator : ELAINE:PD
Sample : I8260STDL2
Misc : WG1232921,ICAL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:54:13 2019
Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

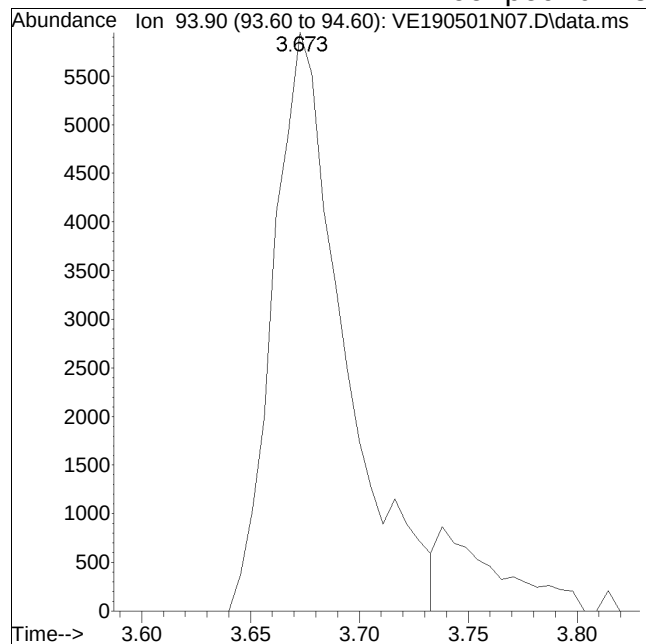
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

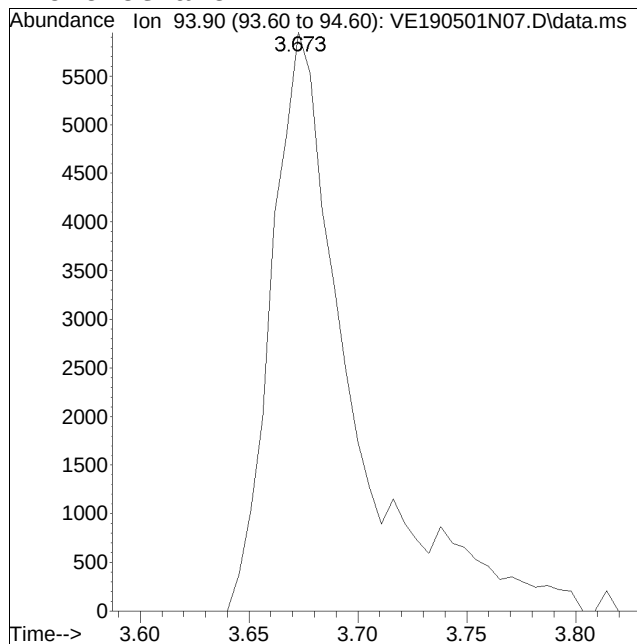
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N07.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:03 am Instrument : Elaine
Sample : I8260STD2 Quant Date : 5/2/2019 12:54 pm

Compound #5: Bromomethane



Original Peak Response = 13436

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

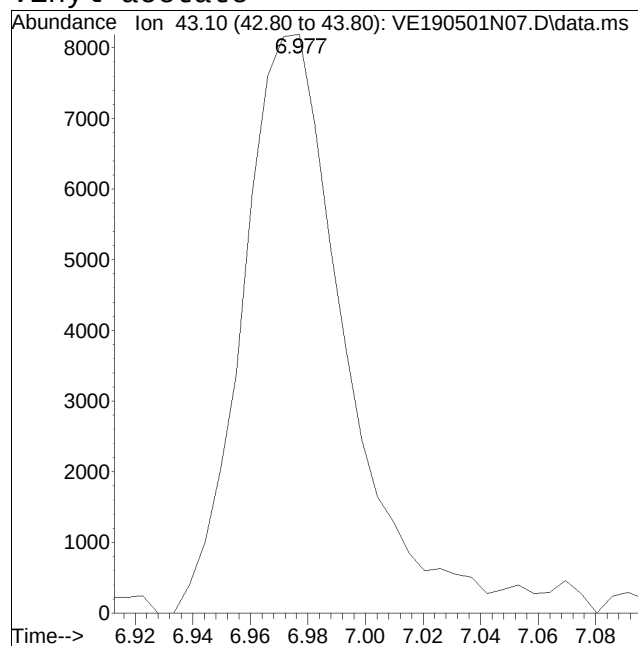
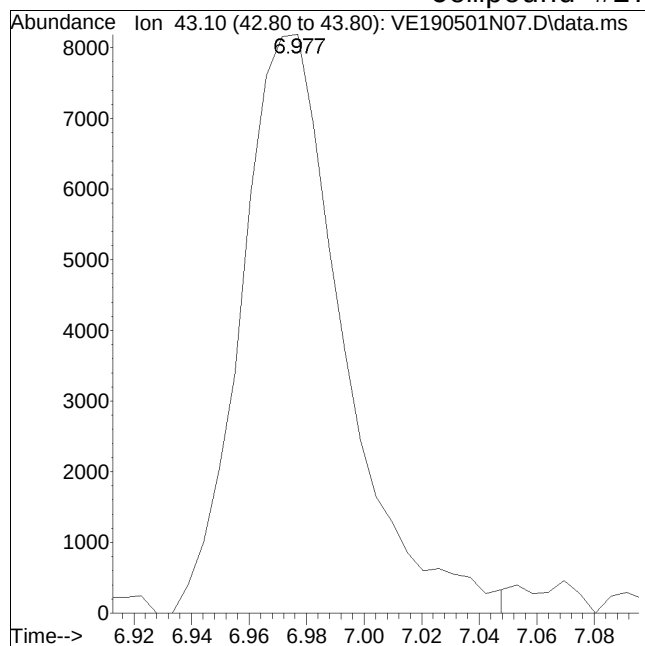


Manual Peak Response = 15108 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N07.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:03 am Instrument : Elaine
Sample : I8260STDL2 Quant Date : 5/2/2019 12:54 pm

Compound #27: Vinyl acetate



Original Peak Response = 20156

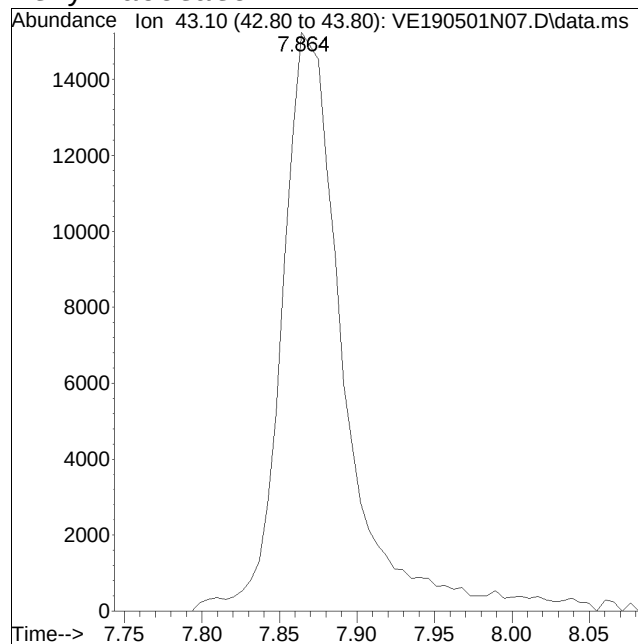
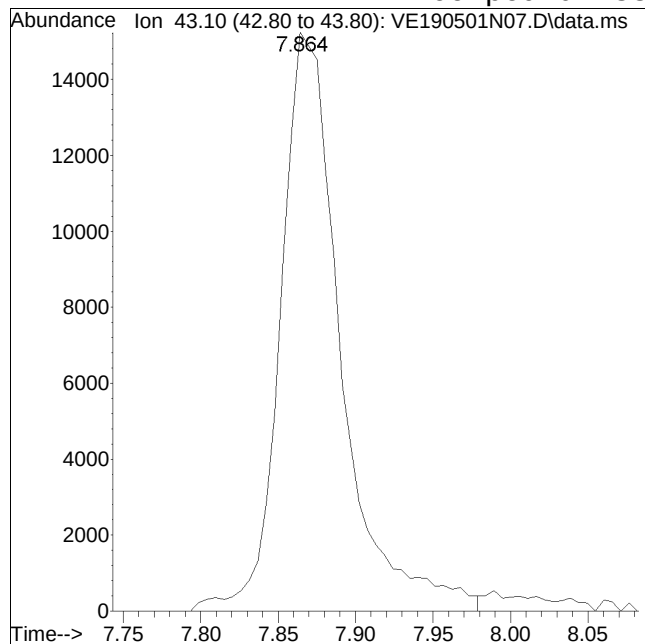
Manual Peak Response = 20711 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N07.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:03 am Instrument : Elaine
Sample : I8260STD L2 Quant Date : 5/2/2019 12:54 pm

Compound #33: Ethyl acetate



Original Peak Response = 41364

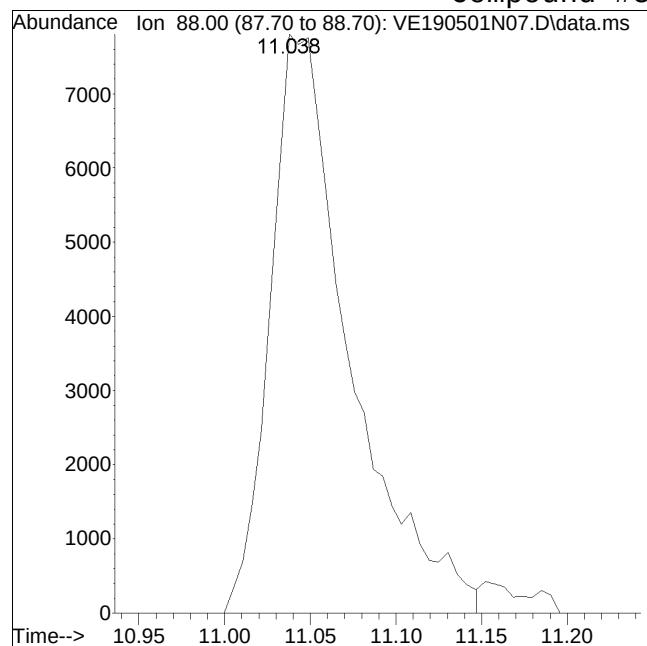
Manual Peak Response = 42791 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

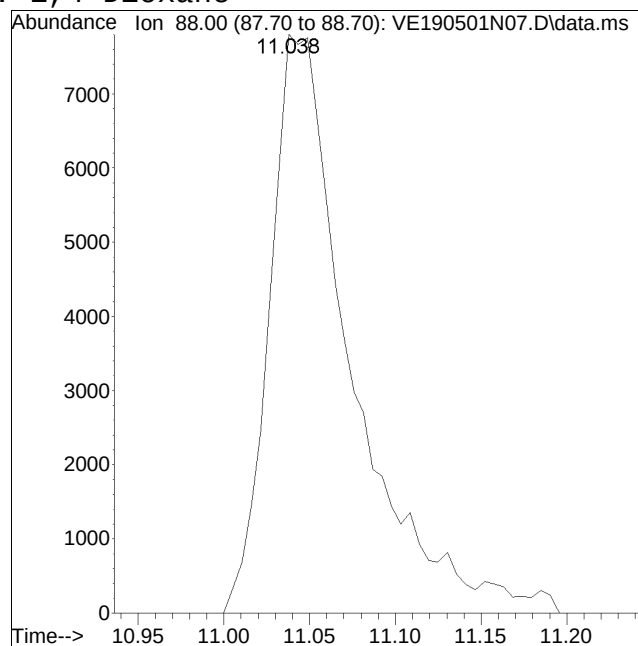
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N07.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:03 am Instrument : Elaine
Sample : I8260STDL2 Quant Date : 5/2/2019 12:54 pm

Compound #57: 1,4-Dioxane



Original Peak Response = 25064

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

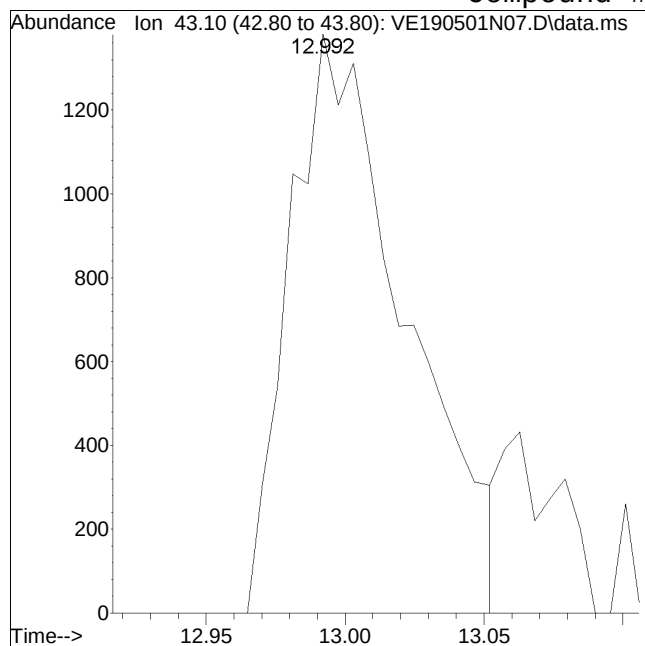


Manual Peak Response = 25840 M1

Manual Integration Report

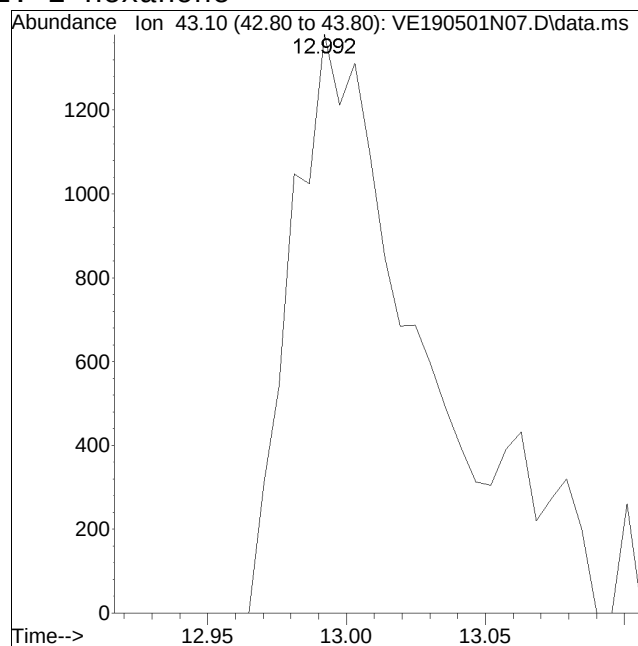
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190501N07.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:03 am Instrument : Elaine
Sample : I8260STDL2 Quant Date : 5/2/2019 12:54 pm

Compound #72: 2-Hexanone



Original Peak Response = 3999

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 4599 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N08.D
 Acq On : 2 May 2019 1:38 am
 Operator : ELAINE:PD
 Sample : I8260STD.L3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:11 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	319710	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	100.00%	
59) Chlorobenzene-d5	14.848	117	293576	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	100.00%	
79) 1,4-Dichlorobenzene-d4	19.143	152	185834	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	100.00%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	83066	10.139	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.39%	
43) 1,2-Dichloroethane-d4	9.242	65	89357	10.285	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.85%	
60) Toluene-d8	12.285	98	347357	10.200	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.00%	
83) 4-Bromofluorobenzene	16.988	95	156758	9.859	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.59%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	102103	10.848	ug/L	98
3) Chloromethane	2.862	50	147063	10.148	ug/L	98
4) Vinyl chloride	3.003	62	89670	10.911	ug/L	99
5) Bromomethane	3.673	94	67946	9.807	ug/L	99
6) Chloroethane	3.798	64	68018	10.511	ug/L	94
7) Trichlorofluoromethane	4.184	101	133504	10.126	ug/L	99
8) Ethyl ether	4.642	74	40727	10.913	ug/L	91
10) 1,1-Dichloroethene	5.126	96	73045	10.261	ug/L	96
11) Carbon disulfide	5.888	76	227087	9.944	ug/L	98
12) Freon-113	4.854	101	83019	10.831	ug/L	# 93
13) Iodomethane	5.605	142	102788	9.323	ug/L	96
14) Acrolein	4.843	56	10381	9.935	ug/L	88
15) Methylene chloride	5.872	84	88292	10.510	ug/L	92
17) Acetone	4.947	43	17231	10.004	ug/L	# 83
18) trans-1,2-Dichloroethene	6.324	96	80469	10.280	ug/L	92
19) Methyl acetate	5.643	43	47152	10.982	ug/L	98
20) Methyl tert-butyl ether	6.095	73	156894	9.872	ug/L	# 91
21) tert-Butyl alcohol	5.257	59	15961	43.352	ug/L	# 65
22) Diisopropyl ether	6.787	45	297817	10.428	ug/L	97
23) 1,1-Dichloroethane	6.972	63	155671	10.357	ug/L	95
24) Halothane	6.242	117	64795	10.337	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N08.D
 Acq On : 2 May 2019 1:38 am
 Operator : ELAINE:PD
 Sample : I8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:11 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	23601	10.516	ug/L	98
26) Ethyl tert-butyl ether	7.407	59	197225	9.610	ug/L	97
27) Vinyl acetate	6.972	43	118392	9.831	ug/L	99
28) cis-1,2-Dichloroethene	7.897	96	87668	10.296	ug/L	97
29) 2,2-Dichloropropane	7.826	77	65699	8.989	ug/L #	48
30) Bromochloromethane	8.398	128	38670	10.734	ug/L	86
31) Cyclohexane	8.773	56	181627	10.800	ug/L	89
32) Chloroform	8.136	83	140173	10.434	ug/L	97
33) Ethyl acetate	7.864	43	87571	10.263	ug/L	100
34) Carbon tetrachloride	9.144	117	85387	9.910	ug/L	99
35) Tetrahydrofuran	8.452	42	17853	10.861	ug/L	99
37) 1,1,1-Trichloroethane	8.752	97	107247	9.898	ug/L	99
39) 2-Butanone	7.619	43	25099	10.785	ug/L	98
40) 1,1-Dichloropropene	8.991	75	114151	10.489	ug/L	98
41) Benzene	9.410	78	341757	10.420	ug/L	99
42) tert-Amyl methyl ether	9.154	73	157079	9.680	ug/L #	80
44) 1,2-Dichloroethane	9.389	62	104246	10.487	ug/L	98
47) Methyl cyclohexane	10.445	83	145088	10.721	ug/L	93
48) Trichloroethene	10.357	95	84841	10.478	ug/L	95
50) Dibromomethane	11.109	93	40411	10.604	ug/L #	88
51) 1,2-Dichloropropane	10.641	63	87365	10.293	ug/L	96
53) 2-Chloroethyl vinyl ether	11.490	63	40577	10.062	ug/L #	83
54) Bromodichloromethane	11.016	83	93996	9.972	ug/L	99
57) 1,4-Dioxane	11.043	88	33425	527.061	ug/L	98
58) cis-1,3-Dichloropropene	11.887	75	105832	9.917	ug/L	94
61) Toluene	12.415	92	226231	10.562	ug/L	97
62) 4-Methyl-2-pentanone	11.539	58	21360	10.350	ug/L	98
63) Tetrachloroethene	13.504	166	101835	10.647	ug/L	94
65) trans-1,3-Dichloropropene	12.709	75	76860	8.845	ug/L #	63
67) Ethyl methacrylate	12.676	69	68777	9.767	ug/L	96
68) 1,1,2-Trichloroethane	12.970	83	50686	10.905	ug/L	99
69) Chlorodibromomethane	13.858	129	59947	9.747	ug/L	98
70) 1,3-Dichloropropane	13.400	76	108716	10.551	ug/L	100
71) 1,2-Dibromoethane	14.206	107	58365	10.420	ug/L	100
72) 2-Hexanone	12.976	43	35323M1	10.389	ug/L	
73) Chlorobenzene	14.914	112	263894	10.523	ug/L	99
74) Ethylbenzene	14.995	91	452585	10.872	ug/L	99
75) 1,1,1,2-Tetrachloroethane	14.985	131	69558	9.917	ug/L	97
76) p/m Xylene	15.132	106	385173	22.089	ug/L	95
77) o Xylene	15.899	106	360696	21.949	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N08.D
 Acq On : 2 May 2019 1:38 am
 Operator : ELAINE:PD
 Sample : I8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:11 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.964	104	582304	22.421	ug/L	96
80)	Bromoform	16.579	173	31854	8.638	ug/L	99
82)	Isopropylbenzene	16.531	105	491164	10.665	ug/L	98
84)	Bromobenzene	17.342	156	112880	10.155	ug/L	99
85)	n-Propylbenzene	17.254	91	544116	10.667	ug/L	99
86)	1,4-Dichlorobutane	16.705	55	124320	10.257	ug/L	96
87)	1,1,2,2-Tetrachloroethane	16.852	83	68786	10.211	ug/L	99
88)	4-Ethyltoluene	17.456	105	469919	10.581	ug/L	99
89)	2-Chlorotoluene	17.581	91	362586	10.363	ug/L	98
90)	1,3,5-Trimethylbenzene	17.538	105	412128	10.614	ug/L	99
91)	1,2,3-Trichloropropane	17.113	75	56226	10.008	ug/L	97
92)	trans-1,4-Dichloro-2-b...	17.238	53	19339	9.294	ug/L #	71
93)	4-Chlorotoluene	17.668	91	345291	10.368	ug/L	99
94)	tert-Butylbenzene	18.185	119	335920	10.478	ug/L	95
97)	1,2,4-Trimethylbenzene	18.256	105	404528	10.529	ug/L	100
98)	sec-Butylbenzene	18.577	105	446077	10.484	ug/L	96
99)	p-Isopropyltoluene	18.822	119	400672	10.648	ug/L	97
100)	1,3-Dichlorobenzene	19.007	146	227484	10.311	ug/L	96
101)	1,4-Dichlorobenzene	19.198	146	229363	10.252	ug/L	96
102)	p-Diethylbenzene	19.601	119	231326	10.692	ug/L	97
103)	n-Butylbenzene	19.579	91	393527	10.646	ug/L	96
104)	1,2-Dichlorobenzene	19.884	146	203698	10.323	ug/L	97
105)	1,2,4,5-Tetramethylben...	21.021	119	310880	10.706	ug/L	96
106)	1,2-Dibromo-3-chloropr...	21.343	155	8245	8.800	ug/L	99
107)	1,3,5-Trichlorobenzene	21.767	180	115471	10.276	ug/L	98
108)	Hexachlorobutadiene	23.057	225	41591	9.974	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	99618	10.233	ug/L	97
110)	Naphthalene	23.248	128	224242	10.482	ug/L	100
111)	1,2,3-Trichlorobenzene	23.623	180	80025	10.007	ug/L	98

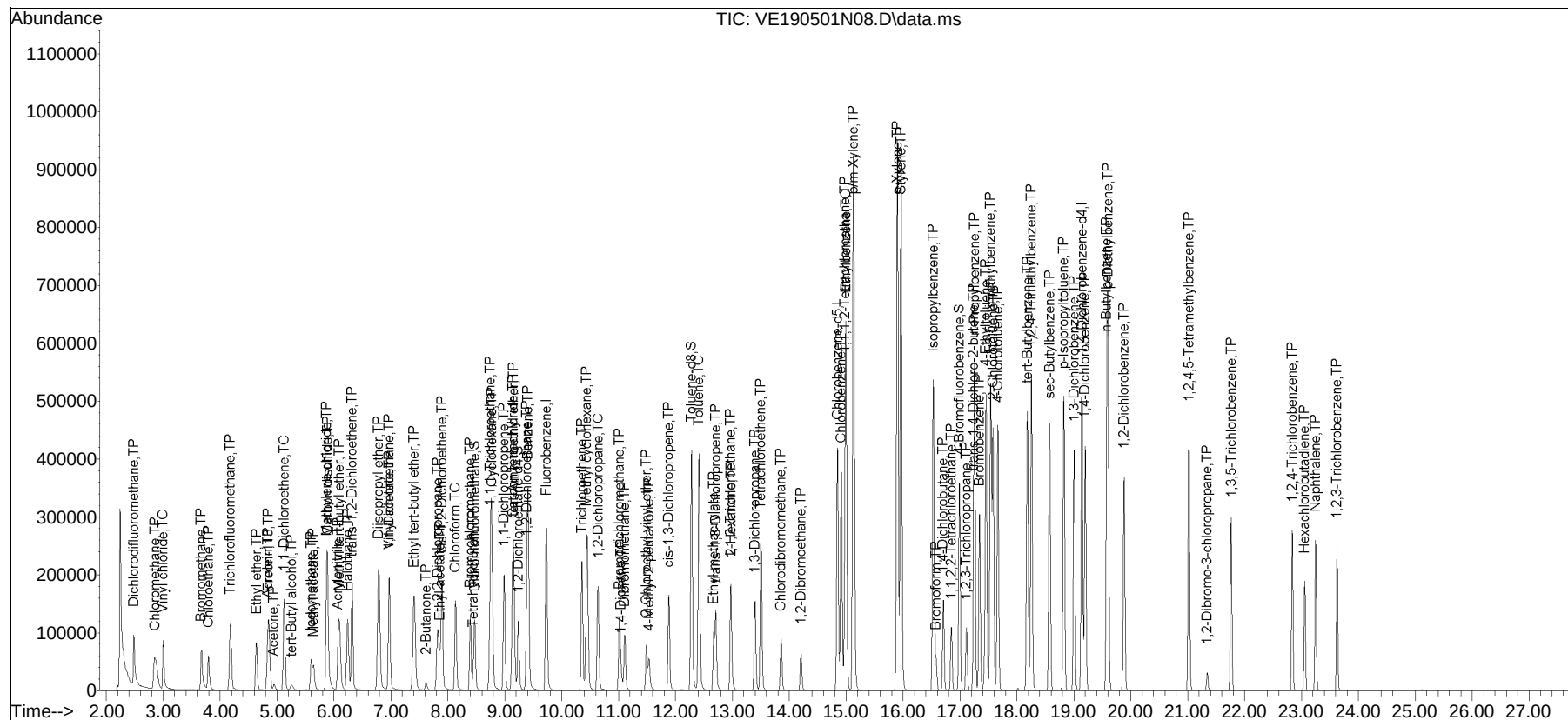
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N08.D
 Acq On : 2 May 2019 1:38 am
 Operator : ELAINE:PD
 Sample : I8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:11 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

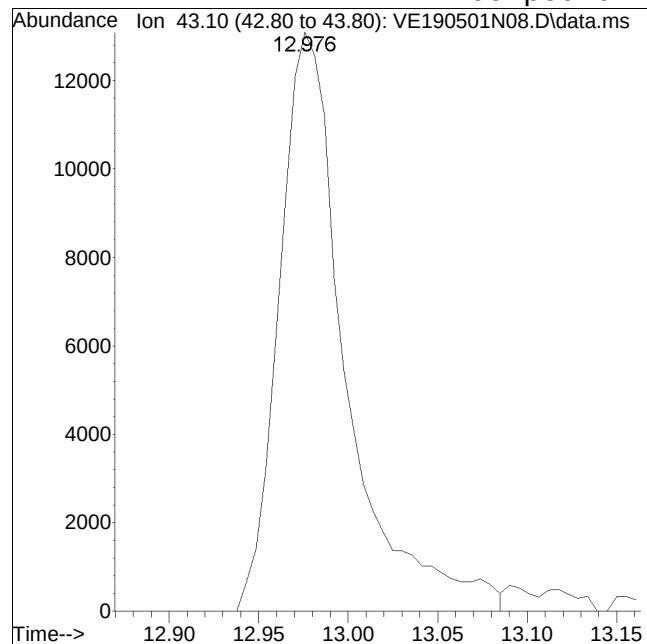
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

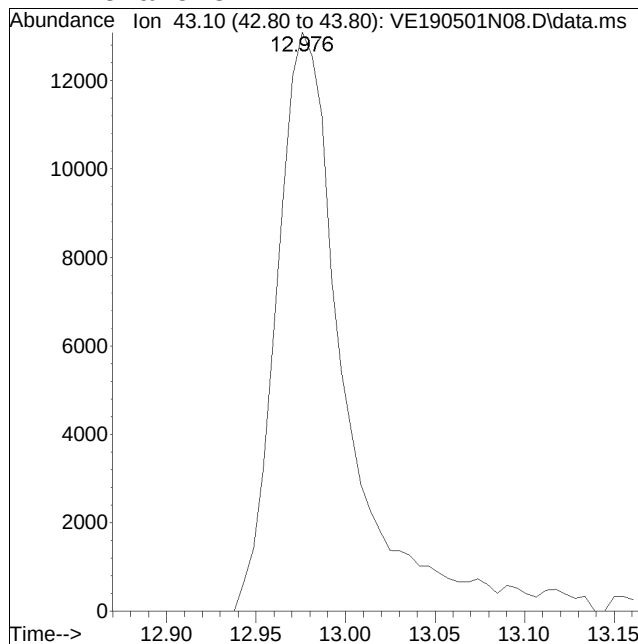
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N08.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 1:38 am Instrument : Elaine
Sample : I8260STD3 Quant Date : 5/2/2019 12:46 pm

Compound #72: 2-Hexanone



Original Peak Response = 34083

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 35323 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N09.D
 Acq On : 2 May 2019 2:14 am
 Operator : ELAINE:PD
 Sample : I8260STD4
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:23 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	327266	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	102.36%	
59) Chlorobenzene-d5	14.849	117	297651	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	101.39%	
79) 1,4-Dichlorobenzene-d4	19.144	152	189765	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	102.12%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	83862	10.000	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.00%	
43) 1,2-Dichloroethane-d4	9.242	65	89421	10.055	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.55%	
60) Toluene-d8	12.285	98	347793	10.073	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.73%	
83) 4-Bromofluorobenzene	16.988	95	160698	9.897	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.97%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	309586	32.132	ug/L	98
3) Chloromethane	2.845	50	438292	29.545	ug/L	98
4) Vinyl chloride	3.003	62	266761	31.709	ug/L	99
5) Bromomethane	3.673	94	187748	26.473	ug/L	98
6) Chloroethane	3.798	64	201240	30.381	ug/L	94
7) Trichlorofluoromethane	4.185	101	399848	29.626	ug/L	99
8) Ethyl ether	4.636	74	115897	30.339	ug/L	94
10) 1,1-Dichloroethene	5.126	96	218898	30.039	ug/L	95
11) Carbon disulfide	5.888	76	698498	29.879	ug/L	100
12) Freon-113	4.854	101	248225	31.637	ug/L	# 91
13) Iodomethane	5.605	142	328030	29.067	ug/L	96
14) Acrolein	4.849	56	33022	30.872	ug/L	91
15) Methylene chloride	5.872	84	259174	30.138	ug/L	91
17) Acetone	4.947	43	51599M1	29.266	ug/L	
18) trans-1,2-Dichloroethene	6.318	96	240359	29.996	ug/L	94
19) Methyl acetate	5.643	43	130949	29.793	ug/L	98
20) Methyl tert-butyl ether	6.095	73	490525	30.153	ug/L	93
21) tert-Butyl alcohol	5.262	59	56666M1	150.357	ug/L	
22) Diisopropyl ether	6.787	45	914930	31.296	ug/L	97
23) 1,1-Dichloroethane	6.972	63	476098	30.944	ug/L	97
24) Halothane	6.242	117	200483	31.246	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N09.D
 Acq On : 2 May 2019 2:14 am
 Operator : ELAINE:PD
 Sample : I8260STD4
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:23 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.068	53	71315	31.042	ug/L	98
26) Ethyl tert-butyl ether	7.407	59	640720	30.499	ug/L	97
27) Vinyl acetate	6.966	43	410337	33.286	ug/L	100
28) cis-1,2-Dichloroethene	7.897	96	258214	29.624	ug/L	97
29) 2,2-Dichloropropane	7.826	77	233776	31.247	ug/L #	65
30) Bromochloromethane	8.398	128	115410	31.297	ug/L	87
31) Cyclohexane	8.768	56	558592	32.447	ug/L	91
32) Chloroform	8.137	83	420481	30.577	ug/L	97
33) Ethyl acetate	7.864	43	202751	31.972	ug/L	98
34) Carbon tetrachloride	9.144	117	297595	33.740	ug/L	99
35) Tetrahydrofuran	8.441	42	50245	29.861	ug/L	95
37) 1,1,1-Trichloroethane	8.752	97	349412	31.502	ug/L	98
39) 2-Butanone	7.614	43	73158	30.711	ug/L	95
40) 1,1-Dichloropropene	8.991	75	353703	31.751	ug/L	97
41) Benzene	9.410	78	1031493	30.723	ug/L	99
42) tert-Amyl methyl ether	9.155	73	521797	31.413	ug/L #	89
44) 1,2-Dichloroethane	9.383	62	306679	30.138	ug/L	99
47) Methyl cyclohexane	10.445	83	443430	32.009	ug/L	94
48) Trichloroethene	10.358	95	258002	31.129	ug/L	95
50) Dibromomethane	11.109	93	116436	29.847	ug/L #	86
51) 1,2-Dichloropropane	10.635	63	268112	30.859	ug/L	97
53) 2-Chloroethyl vinyl ether	11.490	63	129430	31.354	ug/L #	85
54) Bromodichloromethane	11.016	83	302984	31.402	ug/L	99
57) 1,4-Dioxane	11.043	88	39419M1	607.227	ug/L	
58) cis-1,3-Dichloropropene	11.882	75	353792	32.386	ug/L	95
61) Toluene	12.415	92	676405	31.145	ug/L	98
62) 4-Methyl-2-pentanone	11.533	58	65957	31.522	ug/L	90
63) Tetrachloroethene	13.504	166	307038	31.661	ug/L	93
65) trans-1,3-Dichloropropene	12.709	75	277576	30.022	ug/L	92
67) Ethyl methacrylate	12.671	69	229375	32.126	ug/L	97
68) 1,1,2-Trichloroethane	12.970	83	150948	32.032	ug/L	99
69) Chlorodibromomethane	13.858	129	206826	33.169	ug/L	99
70) 1,3-Dichloropropane	13.395	76	326445	31.249	ug/L	100
71) 1,2-Dibromoethane	14.201	107	183493	32.310	ug/L	100
72) 2-Hexanone	12.970	43	112836	32.733	ug/L	96
73) Chlorobenzene	14.914	112	785329	30.886	ug/L	99
74) Ethylbenzene	14.996	91	1360255	32.228	ug/L	99
75) 1,1,1,2-Tetrachloroethane	14.985	131	237489	33.397	ug/L	97
76) p/m Xylene	15.132	106	1149930	65.044	ug/L	95
77) o Xylene	15.899	106	1088597	65.335	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N09.D
 Acq On : 2 May 2019 2:14 am
 Operator : ELAINE:PD
 Sample : I8260STD4
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:23 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.964	104	1762524	66.934	ug/L	97
80)	Bromoform	16.580	173	114242	27.050	ug/L	100
82)	Isopropylbenzene	16.531	105	1499216	31.879	ug/L	99
84)	Bromobenzene	17.342	156	344423	30.343	ug/L	100
85)	n-Propylbenzene	17.255	91	1665093	31.967	ug/L	99
86)	1,4-Dichlorobutane	16.705	55	376086	30.387	ug/L	97
87)	1,1,2,2-Tetrachloroethane	16.846	83	209088	30.395	ug/L	99
88)	4-Ethyltoluene	17.461	105	1446613	31.898	ug/L	99
89)	2-Chlorotoluene	17.581	91	1097488	30.718	ug/L	98
90)	1,3,5-Trimethylbenzene	17.538	105	1245133	31.403	ug/L	100
91)	1,2,3-Trichloropropane	17.113	75	168034	29.290	ug/L	96
92)	trans-1,4-Dichloro-2-b...	17.238	53	63800	30.027	ug/L	84
93)	4-Chlorotoluene	17.668	91	1046318	30.766	ug/L	98
94)	tert-Butylbenzene	18.185	119	1031488	31.507	ug/L	96
97)	1,2,4-Trimethylbenzene	18.256	105	1254868	31.986	ug/L	99
98)	sec-Butylbenzene	18.572	105	1391098	32.017	ug/L	97
99)	p-Isopropyltoluene	18.828	119	1251423	32.568	ug/L	97
100)	1,3-Dichlorobenzene	19.007	146	695326	30.865	ug/L	97
101)	1,4-Dichlorobenzene	19.203	146	697388	30.527	ug/L	96
102)	p-Diethylbenzene	19.601	119	718108	32.503	ug/L	97
103)	n-Butylbenzene	19.584	91	1230327	32.593	ug/L	96
104)	1,2-Dichlorobenzene	19.884	146	628466	31.191	ug/L	96
105)	1,2,4,5-Tetramethylben...	21.022	119	1002730	33.818	ug/L	96
106)	1,2-Dibromo-3-chloropr...	21.343	155	30512	28.801	ug/L	95
107)	1,3,5-Trichlorobenzene	21.762	180	363372	31.667	ug/L	98
108)	Hexachlorobutadiene	23.057	225	129460	30.403	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	307984	30.982	ug/L	98
110)	Naphthalene	23.248	128	697982	31.950	ug/L	100
111)	1,2,3-Trichlorobenzene	23.624	180	250142	30.632	ug/L	98

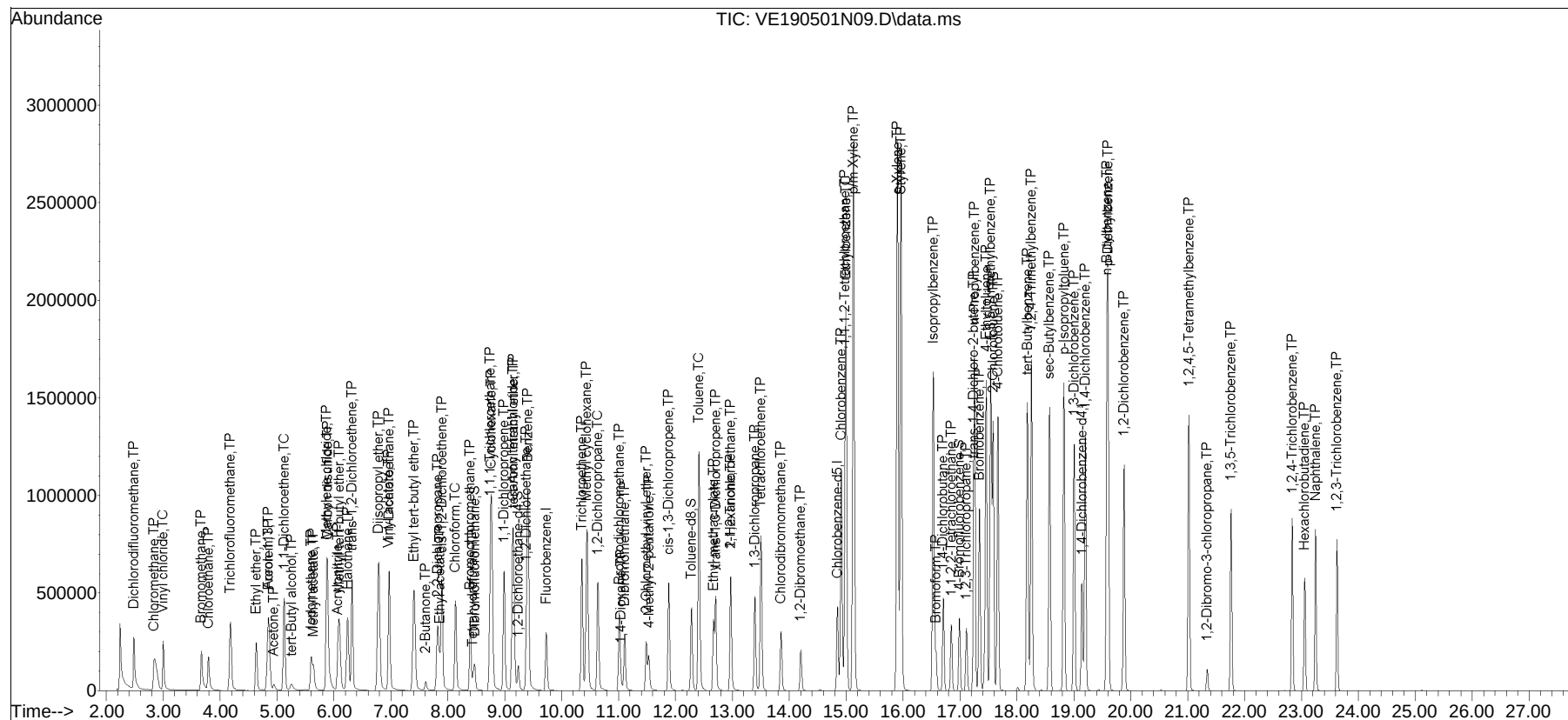
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N09.D
 Acq On : 2 May 2019 2:14 am
 Operator : ELAINE:PD
 Sample : I8260STD4
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:23 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

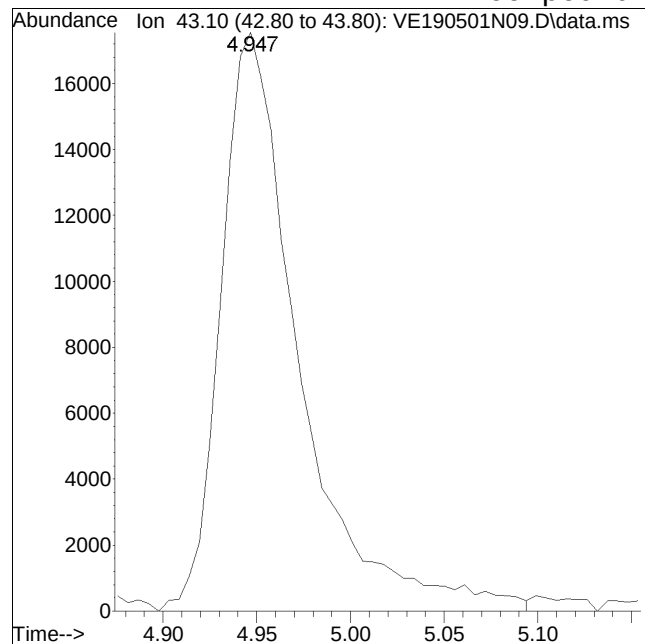
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

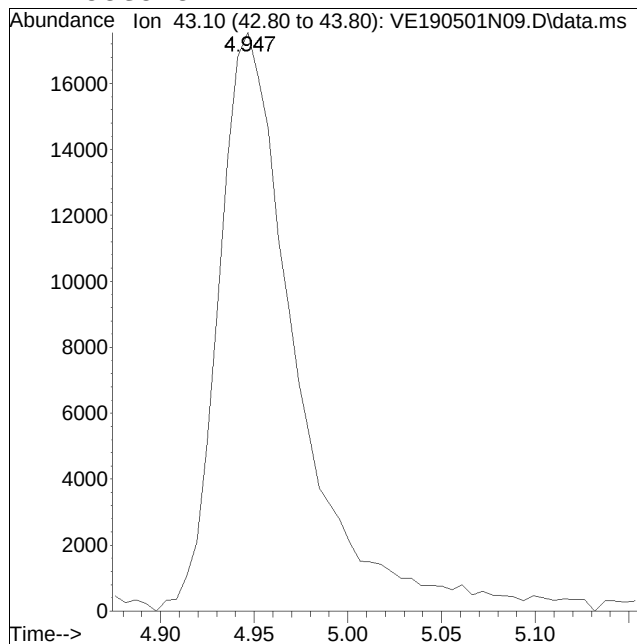
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N09.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 2:14 am Instrument : Elaine
Sample : I8260STD4 Quant Date : 5/2/2019 12:46 pm

Compound #17: Acetone



Original Peak Response = 50864

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

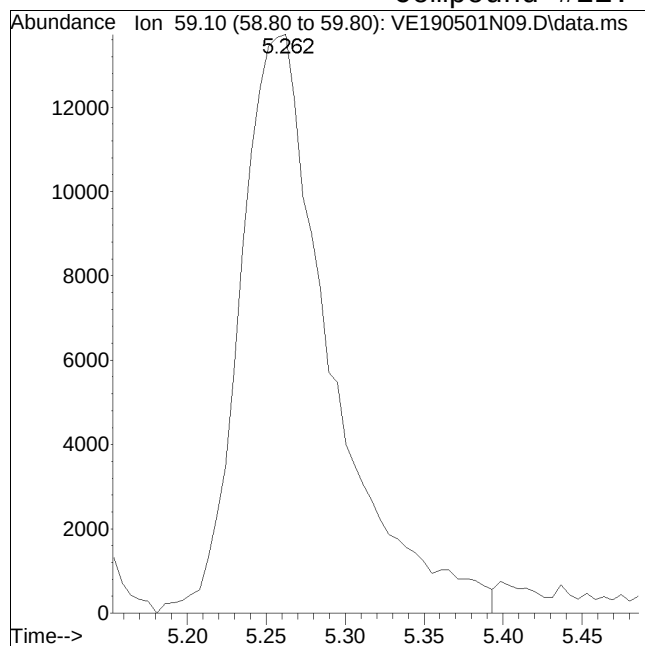


Manual Peak Response = 51599 M1

Manual Integration Report

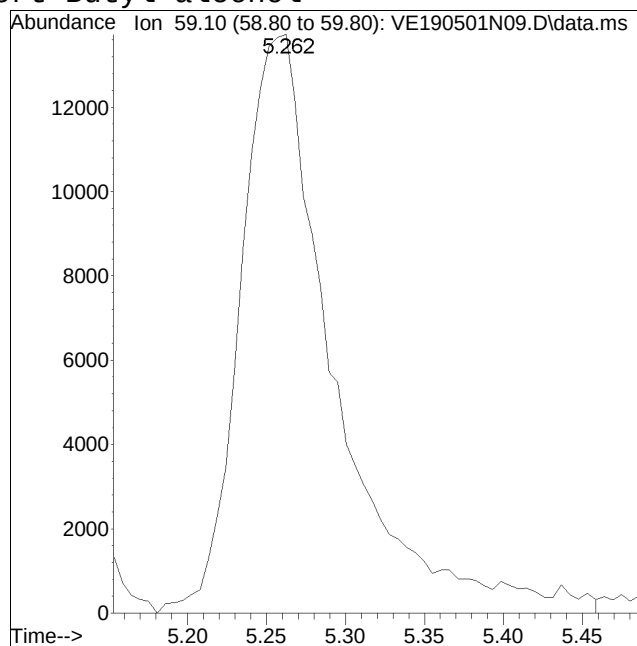
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190501N09.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 2:14 am Instrument : Elaine
Sample : I8260STDL4 Quant Date : 5/2/2019 12:46 pm

Compound #21: tert-Butyl alcohol



Original Peak Response = 54687

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

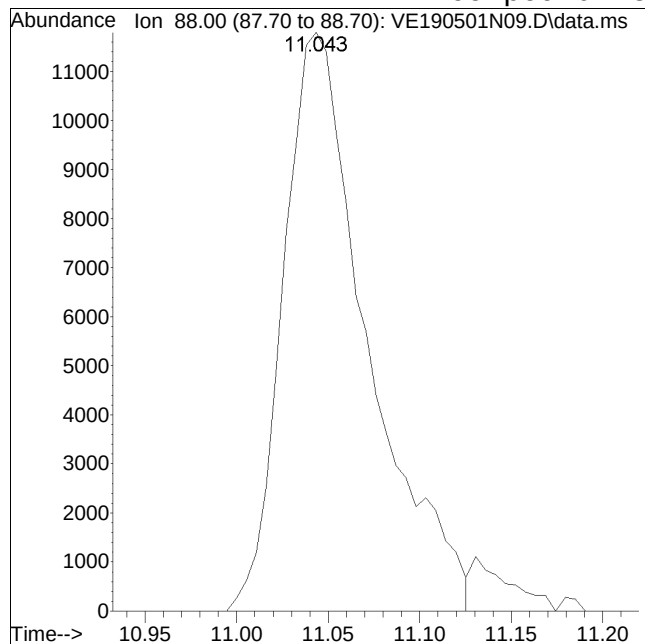


Manual Peak Response = 56666 M1

Manual Integration Report

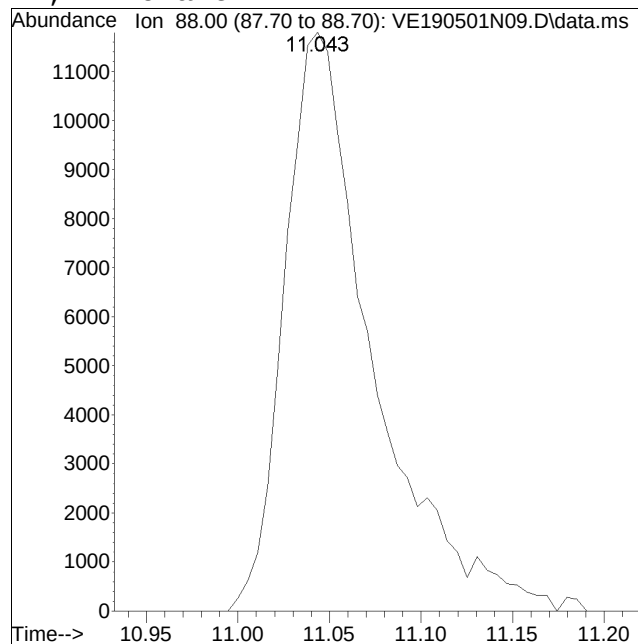
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N09.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 2:14 am Instrument : Elaine
Sample : I8260STDL4 Quant Date : 5/2/2019 12:46 pm

Compound #57: 1,4-Dioxane



Original Peak Response = 37677

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 39419 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N10.D
 Acq On : 2 May 2019 2:51 am
 Operator : ELAINE:PD
 Sample : I8260STD16
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:33 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	334016	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	104.47%	
59) Chlorobenzene-d5	14.849	117	307998	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	104.91%	
79) 1,4-Dichlorobenzene-d4	19.144	152	197138	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	106.08%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	85780	10.022	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.22%	
43) 1,2-Dichloroethane-d4	9.242	65	87852	9.679	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.79%	
60) Toluene-d8	12.285	98	357073	9.994	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.94%	
83) 4-Bromofluorobenzene	16.988	95	167060	9.904	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.04%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	809944	82.365	ug/L	98
3) Chloromethane	2.851	50	1140777	75.344	ug/L	97
4) Vinyl chloride	3.003	62	687695	80.091	ug/L	99
5) Bromomethane	3.678	94	528401	73.000	ug/L	98
6) Chloroethane	3.798	64	533343	78.891	ug/L	93
7) Trichlorofluoromethane	4.185	101	1124712	81.650	ug/L	99
8) Ethyl ether	4.636	74	319836	82.034	ug/L	92
10) 1,1-Dichloroethene	5.126	96	597923	80.393	ug/L	94
11) Carbon disulfide	5.894	76	1944425	81.495	ug/L	100
12) Freon-113	4.854	101	649792	81.144	ug/L	# 90
13) Iodomethane	5.605	142	908161	78.845	ug/L	97
14) Acrolein	4.849	56	91189	83.530	ug/L	86
15) Methylene chloride	5.872	84	695028	79.189	ug/L	91
17) Acetone	4.947	43	145636M2	80.932	ug/L	
18) trans-1,2-Dichloroethene	6.318	96	654709	80.055	ug/L	91
19) Methyl acetate	5.643	43	348561	77.702	ug/L	96
20) Methyl tert-butyl ether	6.090	73	1397197	84.151	ug/L	95
21) tert-Butyl alcohol	5.257	59	168670	438.502	ug/L	# 71
22) Diisopropyl ether	6.787	45	2448851	82.073	ug/L	97
23) 1,1-Dichloroethane	6.972	63	1258864	80.167	ug/L	96
24) Halothane	6.242	117	542411	82.829	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N10.D
 Acq On : 2 May 2019 2:51 am
 Operator : ELAINE:PD
 Sample : I8260STD16
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:33 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	198147	84.505	ug/L	96
26) Ethyl tert-butyl ether	7.407	59	1873363	87.372	ug/L	97
27) Vinyl acetate	6.966	43	1165953	92.669	ug/L	99
28) cis-1,2-Dichloroethene	7.897	96	698236	78.488	ug/L	96
29) 2,2-Dichloropropane	7.826	77	708544	92.791	ug/L #	79
30) Bromochloromethane	8.398	128	297228	78.973	ug/L	86
31) Cyclohexane	8.774	56	1455907	82.861	ug/L	90
32) Chloroform	8.137	83	1116095	79.520	ug/L	98
33) Ethyl acetate	7.864	43	488289	84.881	ug/L #	96
34) Carbon tetrachloride	9.144	117	863666	95.941	ug/L	99
35) Tetrahydrofuran	8.441	42	138732	80.782	ug/L	94
37) 1,1,1-Trichloroethane	8.746	97	978272	86.416	ug/L	98
39) 2-Butanone	7.609	43	203700	83.784	ug/L	94
40) 1,1-Dichloropropene	8.991	75	934193	82.165	ug/L	96
41) Benzene	9.410	78	2729162	79.646	ug/L	99
42) tert-Amyl methyl ether	9.149	73	1518114	89.545	ug/L	95
44) 1,2-Dichloroethane	9.389	62	811577	78.144	ug/L	98
47) Methyl cyclohexane	10.450	83	1189278	84.113	ug/L	94
48) Trichloroethene	10.358	95	691439	81.739	ug/L	95
50) Dibromomethane	11.109	93	327313	82.208	ug/L #	89
51) 1,2-Dichloropropane	10.641	63	727661	82.060	ug/L	97
53) 2-Chloroethyl vinyl ether	11.490	63	359785	85.397	ug/L #	83
54) Bromodichloromethane	11.016	83	847324	86.045	ug/L	99
57) 1,4-Dioxane	11.043	88	55468	837.185	ug/L	95
58) cis-1,3-Dichloropropene	11.882	75	1021252	91.595	ug/L	95
61) Toluene	12.415	92	1795949	79.917	ug/L	99
62) 4-Methyl-2-pentanone	11.528	58	189079	87.328	ug/L	94
63) Tetrachloroethene	13.504	166	815590	81.276	ug/L	94
65) trans-1,3-Dichloropropene	12.709	75	838640	83.303	ug/L	95
67) Ethyl methacrylate	12.671	69	666653	90.234	ug/L	97
68) 1,1,2-Trichloroethane	12.976	83	413619	84.824	ug/L	100
69) Chlorodibromomethane	13.858	129	602739	93.416	ug/L	99
70) 1,3-Dichloropropane	13.401	76	887969	82.145	ug/L	100
71) 1,2-Dibromoethane	14.206	107	516624	87.913	ug/L	100
72) 2-Hexanone	12.965	43	319518	89.575	ug/L	99
73) Chlorobenzene	14.914	112	2093067	79.552	ug/L	99
74) Ethylbenzene	15.001	91	3546672	81.208	ug/L	98
75) 1,1,1,2-Tetrachloroethane	14.985	131	673232	91.492	ug/L	98
76) p/m Xylene	15.132	106	2935507	160.464	ug/L	94
77) o Xylene	15.905	106	2793207	162.009	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N10.D
 Acq On : 2 May 2019 2:51 am
 Operator : ELAINE:PD
 Sample : I8260STD6
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:33 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.970	104	4513998	165.666	ug/L	98
80)	Bromoform	16.580	173	356270	78.582	ug/L	99
82)	Isopropylbenzene	16.536	105	3952930	80.910	ug/L	99
84)	Bromobenzene	17.347	156	939327	79.658	ug/L	99
85)	n-Propylbenzene	17.255	91	4378634	80.918	ug/L	98
86)	1,4-Dichlorobutane	16.710	55	1062193	82.613	ug/L	97
87)	1,1,2,2-Tetrachloroethane	16.846	83	585537	81.935	ug/L	99
88)	4-Ethyltoluene	17.467	105	3871241	82.168	ug/L	100
89)	2-Chlorotoluene	17.587	91	2958861	79.719	ug/L	98
90)	1,3,5-Trimethylbenzene	17.543	105	3330773	80.862	ug/L	100
91)	1,2,3-Trichloropropane	17.113	75	472160	79.224	ug/L	96
92)	trans-1,4-Dichloro-2-b...	17.238	53	191181	86.613	ug/L	97
93)	4-Chlorotoluene	17.668	91	2817387	79.744	ug/L	99
94)	tert-Butylbenzene	18.185	119	2783127	81.833	ug/L	96
97)	1,2,4-Trimethylbenzene	18.262	105	3360285	82.450	ug/L	99
98)	sec-Butylbenzene	18.577	105	3732467	82.692	ug/L	96
99)	p-Isopropyltoluene	18.828	119	3338802	83.641	ug/L	97
100)	1,3-Dichlorobenzene	19.007	146	1876454	80.179	ug/L	97
101)	1,4-Dichlorobenzene	19.203	146	1888433	79.571	ug/L	96
102)	p-Diethylbenzene	19.606	119	1905410	83.017	ug/L	97
103)	n-Butylbenzene	19.584	91	3263855	83.230	ug/L	97
104)	1,2-Dichlorobenzene	19.884	146	1685408	80.519	ug/L	97
105)	1,2,4,5-Tetramethylben...	21.022	119	2677001	86.908	ug/L	96
106)	1,2-Dibromo-3-chloropr...	21.343	155	92628	81.902	ug/L	96
107)	1,3,5-Trichlorobenzene	21.767	180	961707	80.676	ug/L	97
108)	Hexachlorobutadiene	23.057	225	355617	80.391	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	837235	81.072	ug/L	98
110)	Naphthalene	23.248	128	1920555	84.626	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	683064	80.518	ug/L	99

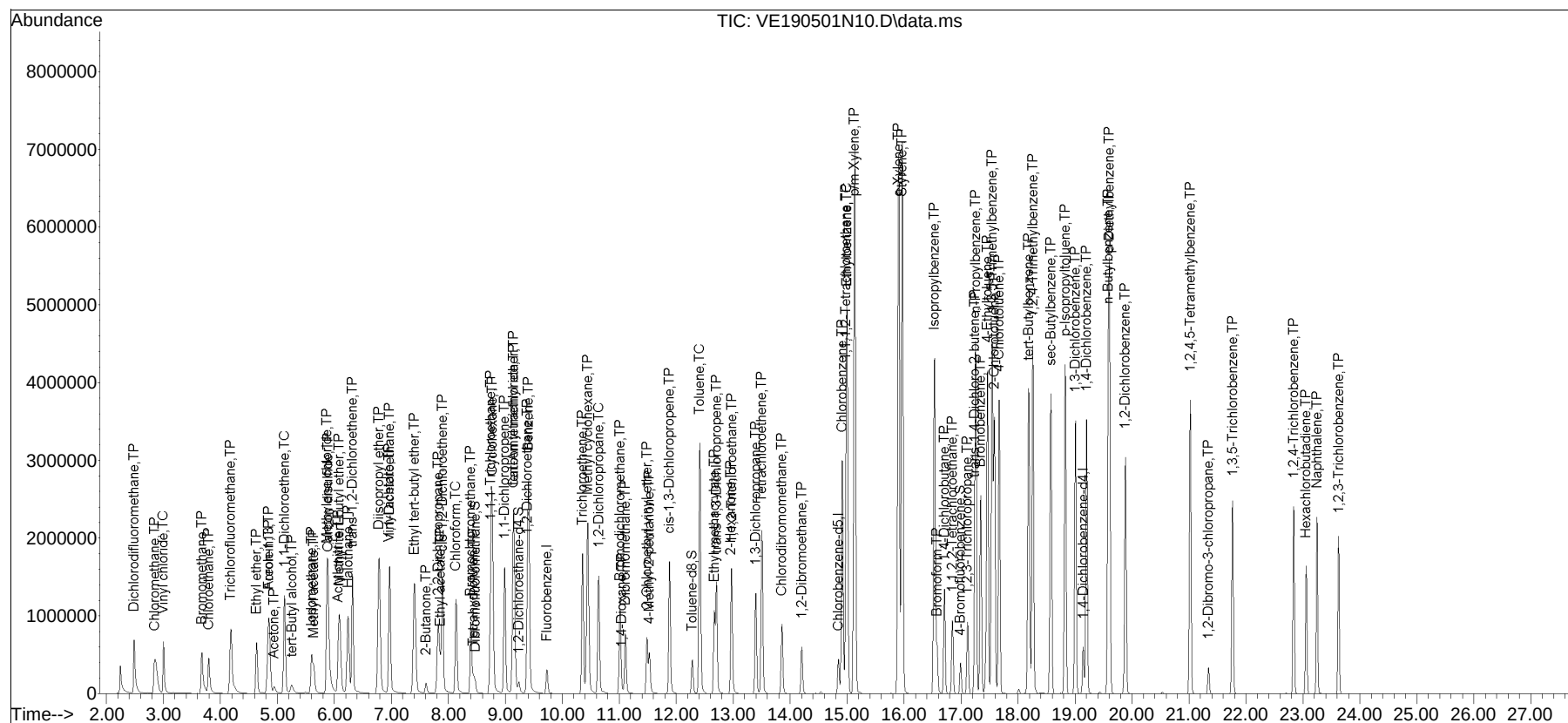
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
Data File : VE190501N10.D
Acq On : 2 May 2019 2:51 am
Operator : ELAINE:PD
Sample : I8260STDL6
Misc : WG1232921,ICAL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:33 2019
Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

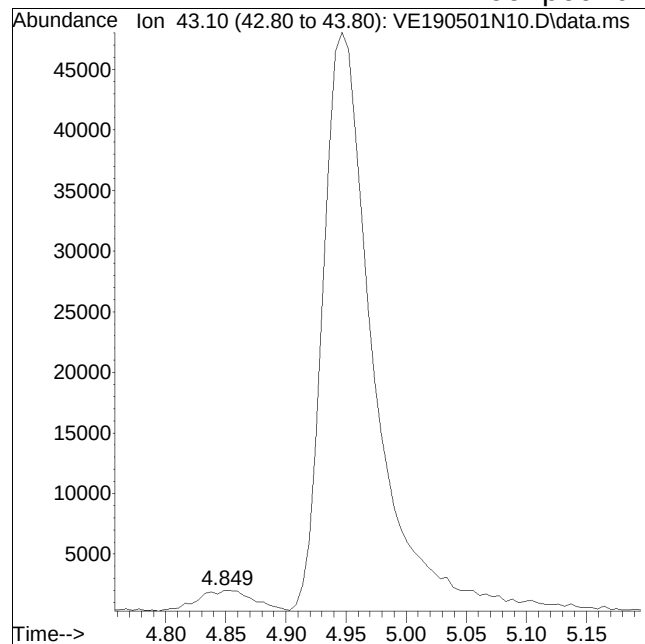
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

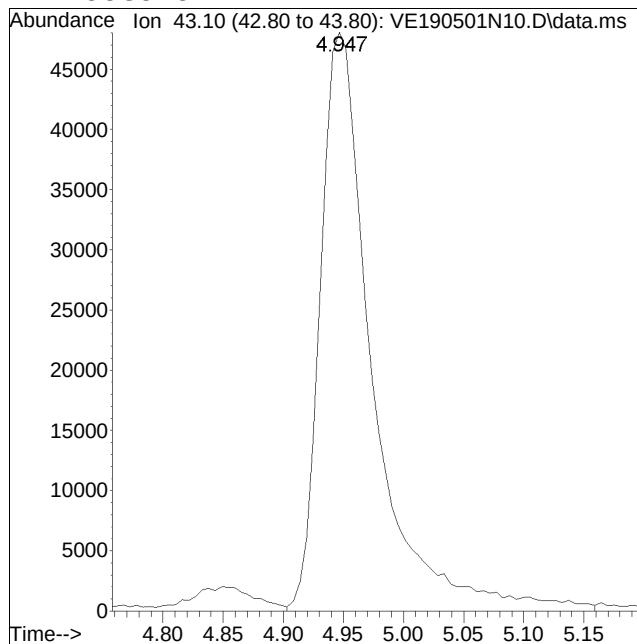
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N10.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 2:51 am Instrument : Elaine
Sample : I8260STD6 Quant Date : 5/2/2019 12:46 pm

Compound #17: Acetone



Original Peak Response = 5575

M2 = Peak not found by automatic integration algorithm.



Manual Peak Response = 145636 M2

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N11.D
 Acq On : 2 May 2019 3:27 am
 Operator : ELAINE:PD
 Sample : I8260STD18
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	347954	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	108.83%	
59) Chlorobenzene-d5	14.848	117	329052	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	112.08%	
79) 1,4-Dichlorobenzene-d4	19.143	152	204201	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	109.88%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	88417	9.916	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.16%	
43) 1,2-Dichloroethane-d4	9.242	65	88638	9.374	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.74%	
60) Toluene-d8	12.285	98	372352	9.755	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.55%	
83) 4-Bromofluorobenzene	16.993	95	177959	10.186	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.86%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.492	85	1207278	117.854	ug/L	98
3) Chloromethane	2.856	50	1768373	112.116	ug/L	97
4) Vinyl chloride	3.003	62	1016150	113.604	ug/L	99
5) Bromomethane	3.678	94	854109	113.271	ug/L	99
6) Chloroethane	3.798	64	811833	115.274	ug/L	93
7) Trichlorofluoromethane	4.190	101	1760895	122.714	ug/L	99
8) Ethyl ether	4.636	74	475072	116.969	ug/L	91
10) 1,1-Dichloroethene	5.126	96	906394	116.986	ug/L	94
11) Carbon disulfide	5.894	76	3016288	121.355	ug/L	100
12) Freon-113	4.854	101	971492	116.458	ug/L	# 90
13) Iodomethane	5.605	142	1324210	110.361	ug/L	97
14) Acrolein	4.849	56	136143	119.712	ug/L	85
15) Methylene chloride	5.872	84	1053943	115.272	ug/L	90
17) Acetone	4.947	43	206848	110.344	ug/L	89
18) trans-1,2-Dichloroethene	6.324	96	989150	116.104	ug/L	92
19) Methyl acetate	5.638	43	499096	106.803	ug/L	95
20) Methyl tert-butyl ether	6.090	73	2128485	123.060	ug/L	96
21) tert-Butyl alcohol	5.251	59	280486	699.987	ug/L	# 75
22) Diisopropyl ether	6.787	45	3667394	117.989	ug/L	97
23) 1,1-Dichloroethane	6.972	63	1886392	115.317	ug/L	96
24) Halothane	6.242	117	817274	119.802	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N11.D
 Acq On : 2 May 2019 3:27 am
 Operator : ELAINE:PD
 Sample : I8260STD8
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	292161	119.609	ug/L	97
26) Ethyl tert-butyl ether	7.407	59	2927030	131.045	ug/L	97
27) Vinyl acetate	6.972	43	1718137	131.086	ug/L	99
28) cis-1,2-Dichloroethene	7.902	96	1057625	114.125	ug/L	95
29) 2,2-Dichloropropane	7.826	77	1119450	140.731	ug/L	84
30) Bromochloromethane	8.398	128	444986	113.496	ug/L	86
31) Cyclohexane	8.773	56	2185206	119.387	ug/L	89
32) Chloroform	8.137	83	1688878	115.510	ug/L	98
33) Ethyl acetate	7.864	43	703399	120.034	ug/L #	96
34) Carbon tetrachloride	9.144	117	1310600	139.757	ug/L	99
35) Tetrahydrofuran	8.441	42	207196	115.816	ug/L	94
37) 1,1,1-Trichloroethane	8.752	97	1486733	126.070	ug/L	97
39) 2-Butanone	7.609	43	311382	122.945	ug/L	95
40) 1,1-Dichloropropene	8.991	75	1412647	119.269	ug/L	96
41) Benzene	9.416	78	4104396	114.981	ug/L	98
42) tert-Amyl methyl ether	9.154	73	2344689	132.761	ug/L	98
44) 1,2-Dichloroethane	9.389	62	1200999	111.008	ug/L	98
47) Methyl cyclohexane	10.450	83	1796601	121.977	ug/L	94
48) Trichloroethene	10.358	95	1065222	120.882	ug/L	97
50) Dibromomethane	11.109	93	493394	118.958	ug/L #	89
51) 1,2-Dichloropropane	10.641	63	1118408	121.073	ug/L	98
53) 2-Chloroethyl vinyl ether	11.490	63	545509	124.293	ug/L #	83
54) Bromodichloromethane	11.016	83	1299231	126.650	ug/L	99
57) 1,4-Dioxane	11.043	88	82186	1190.754	ug/L	95
58) cis-1,3-Dichloropropene	11.887	75	1577501	135.818	ug/L	96
61) Toluene	12.415	92	2733823	113.868	ug/L	100
62) 4-Methyl-2-pentanone	11.528	58	285192	123.291	ug/L	94
63) Tetrachloroethene	13.509	166	1245401	116.166	ug/L	94
65) trans-1,3-Dichloropropene	12.709	75	1305539	117.994	ug/L #	74
67) Ethyl methacrylate	12.671	69	1021629	129.434	ug/L	98
68) 1,1,2-Trichloroethane	12.976	83	631413	121.204	ug/L	99
69) Chlorodibromomethane	13.858	129	937051	135.937	ug/L	100
70) 1,3-Dichloropropane	13.400	76	1349954	116.893	ug/L	100
71) 1,2-Dibromoethane	14.206	107	789580	125.764	ug/L	99
72) 2-Hexanone	12.965	43	484011	127.008	ug/L	99
73) Chlorobenzene	14.919	112	3200310	113.852	ug/L	99
74) Ethylbenzene	15.001	91	5325872	114.143	ug/L	97
75) 1,1,1,2-Tetrachloroethane	14.985	131	1045945	133.049	ug/L	98
76) p/m Xylene	15.137	106	4330669	221.581	ug/L	93
77) o Xylene	15.910	106	4157793	225.727	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N11.D
 Acq On : 2 May 2019 3:27 am
 Operator : ELAINE:PD
 Sample : I8260STD18
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.975	104	6599090	226.693	ug/L	99
80)	Bromoform	16.579	173	557378	118.021	ug/L	99
82)	Isopropylbenzene	16.536	105	5975535	118.079	ug/L	100
84)	Bromobenzene	17.347	156	1448377	118.578	ug/L	100
85)	n-Propylbenzene	17.260	91	6560034	117.038	ug/L	97
86)	1,4-Dichlorobutane	16.710	55	1638855	123.054	ug/L	97
87)	1,1,2,2-Tetrachloroethane	16.846	83	904525	122.193	ug/L	99
88)	4-Ethyltoluene	17.467	105	5808190	119.016	ug/L	99
89)	2-Chlorotoluene	17.587	91	4503565	117.141	ug/L	99
90)	1,3,5-Trimethylbenzene	17.548	105	5008349	117.383	ug/L	100
91)	1,2,3-Trichloropropane	17.118	75	720083	116.645	ug/L	96
92)	trans-1,4-Dichloro-2-b...	17.244	53	291099	127.319	ug/L	99
93)	4-Chlorotoluene	17.674	91	4263673	116.506	ug/L	98
94)	tert-Butylbenzene	18.191	119	4219978	119.789	ug/L	97
97)	1,2,4-Trimethylbenzene	18.262	105	5020183	118.917	ug/L	100
98)	sec-Butylbenzene	18.577	105	5607823	119.943	ug/L	95
99)	p-Isopropyltoluene	18.833	119	4953888	119.809	ug/L	98
100)	1,3-Dichlorobenzene	19.013	146	2826322	116.588	ug/L	97
101)	1,4-Dichlorobenzene	19.209	146	2826539	114.979	ug/L	97
102)	p-Diethylbenzene	19.612	119	2814953	118.402	ug/L	96
103)	n-Butylbenzene	19.590	91	4855060	119.525	ug/L	97
104)	1,2-Dichlorobenzene	19.889	146	2524472	116.433	ug/L	97
105)	1,2,4,5-Tetramethylben...	21.021	119	4060966	127.277	ug/L	96
106)	1,2-Dibromo-3-chloropr...	21.343	155	142025	120.670	ug/L	95
107)	1,3,5-Trichlorobenzene	21.767	180	1471113	119.140	ug/L	97
108)	Hexachlorobutadiene	23.057	225	548856	119.783	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	1273030	119.008	ug/L	98
110)	Naphthalene	23.248	128	2835613	120.625	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	1030649	117.289	ug/L	99

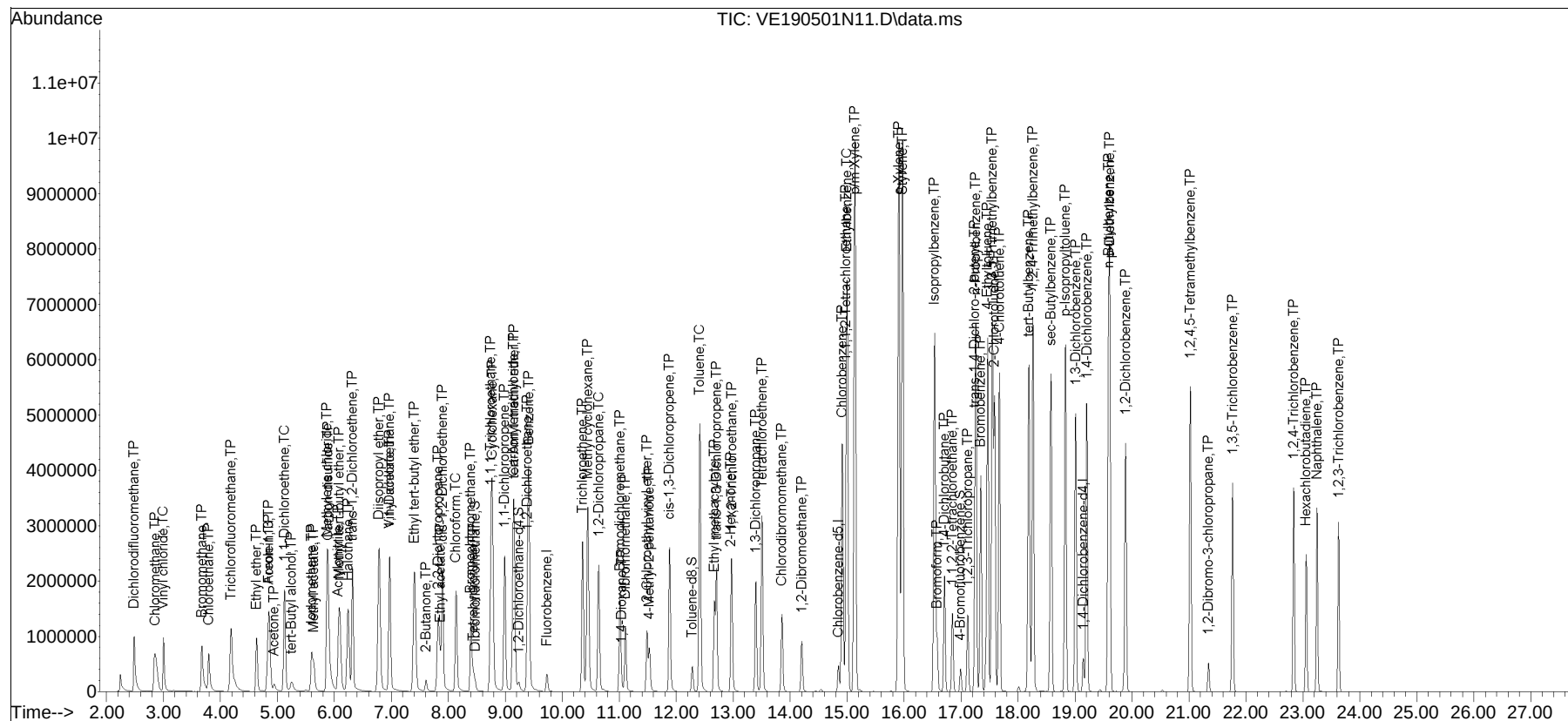
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
Data File : VE190501N11.D
Acq On : 2 May 2019 3:27 am
Operator : ELAINE:PD
Sample : I8260STDL8
Misc : WG1232921,ICAL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:39 2019
Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

Data Path	: I:\VOLATILES\Elaine\2019\1Q	Method	: Elaine_190501N_8260.m
Data File	: VE190501N11.D	Operator	: ELAINE:PD
Date Inj'd	: 5/2/2019 3:27 am	Instrument	: Elaine
Sample	: I8260STD8	Quant Date	: 5/2/2019 12:46 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N12.D
 Acq On : 2 May 2019 4:03 am
 Operator : ELAINE:PD
 Sample : I8260STD10
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:48 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.737	96	367414	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	114.92%	
59) Chlorobenzene-d5	14.848	117	351962	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	119.89%	
79) 1,4-Dichlorobenzene-d4	19.149	152	203066	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	109.27%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	90348	9.596	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	95.96%	
43) 1,2-Dichloroethane-d4	9.242	65	93175	9.332	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.32%	
60) Toluene-d8	12.285	98	398400	9.758	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.58%	
83) 4-Bromofluorobenzene	16.993	95	186489	10.733	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	107.33%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.486	85	2092939	193.490	ug/L	98
3) Chloromethane	2.856	50	3043596	182.746	ug/L	97
4) Vinyl chloride	3.003	62	1700215	180.014	ug/L	100
5) Bromomethane	3.673	94	1529524	192.100	ug/L	99
6) Chloroethane	3.798	64	1409942	189.597	ug/L	93
7) Trichlorofluoromethane	4.190	101	3166820	209.001	ug/L	99
8) Ethyl ether	4.636	74	833480	194.345	ug/L	92
10) 1,1-Dichloroethene	5.132	96	1800089	220.027	ug/L	93
11) Carbon disulfide	5.894	76	5226146	199.128	ug/L	99
12) Freon-113	4.849	101	1709227	194.042	ug/L	# 90
13) Iodomethane	5.605	142	2175064	171.671	ug/L	97
14) Acrolein	4.849	56	235154	195.823	ug/L	87
15) Methylene chloride	5.872	84	1798624	186.301	ug/L	89
17) Acetone	4.947	43	359508	181.624	ug/L	88
18) trans-1,2-Dichloroethene	6.318	96	1720623	191.266	ug/L	91
19) Methyl acetate	5.643	43	779834	158.040	ug/L	95
20) Methyl tert-butyl ether	6.095	73	3695815	202.359	ug/L	97
21) tert-Butyl alcohol	5.251	59	500403	1182.673	ug/L	# 80
22) Diisopropyl ether	6.787	45	6156204	187.571	ug/L	96
23) 1,1-Dichloroethane	6.977	63	3238970	187.515	ug/L	95
24) Halothane	6.242	117	1433080	198.945	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N12.D
 Acq On : 2 May 2019 4:03 am
 Operator : ELAINE:PD
 Sample : I8260STD10
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:48 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	505906	196.145	ug/L	96
26) Ethyl tert-butyl ether	7.407	59	5108068	216.579	ug/L	97
27) Vinyl acetate	6.972	43	2767166	199.940	ug/L	98
28) cis-1,2-Dichloroethene	7.902	96	1834732	187.494	ug/L	94
29) 2,2-Dichloropropane	7.826	77	2018638	240.331	ug/L	88
30) Bromochloromethane	8.403	128	763048	184.311	ug/L	85
31) Cyclohexane	8.773	56	3699892	191.434	ug/L	88
32) Chloroform	8.142	83	2912774	188.666	ug/L	99
33) Ethyl acetate	7.864	43	1170054	193.087	ug/L #	96
34) Carbon tetrachloride	9.144	117	2277317	229.981	ug/L	99
35) Tetrahydrofuran	8.441	42	354565	187.693	ug/L	93
37) 1,1,1-Trichloroethane	8.752	97	2564326	205.929	ug/L	97
39) 2-Butanone	7.609	43	531419	198.710	ug/L	94
40) 1,1-Dichloropropene	8.991	75	2445516	195.538	ug/L	96
41) Benzene	9.416	78	6833217	181.288	ug/L	98
42) tert-Amyl methyl ether	9.155	73	4040204	216.647	ug/L	99
44) 1,2-Dichloroethane	9.389	62	2032861	177.945	ug/L	98
47) Methyl cyclohexane	10.450	83	3103526	199.548	ug/L	93
48) Trichloroethene	10.358	95	1833719	197.070	ug/L	97
50) Dibromomethane	11.109	93	848301	193.693	ug/L	90
51) 1,2-Dichloropropane	10.641	63	1926807	197.539	ug/L	98
53) 2-Chloroethyl vinyl ether	11.490	63	940642	202.971	ug/L #	85
54) Bromodichloromethane	11.016	83	2253355	208.025	ug/L	99
57) 1,4-Dioxane	11.043	88	134065	1839.525	ug/L	93
58) cis-1,3-Dichloropropene	11.887	75	2727243	222.370	ug/L	97
61) Toluene	12.421	92	4595895	178.966	ug/L	97
62) 4-Methyl-2-pentanone	11.533	58	497787	201.190	ug/L	92
63) Tetrachloroethene	13.509	166	2139588	186.582	ug/L	94
65) trans-1,3-Dichloropropene	12.709	75	2299567	184.634	ug/L #	75
67) Ethyl methacrylate	12.676	69	1779717	210.802	ug/L	98
68) 1,1,2-Trichloroethane	12.976	83	1095757	196.647	ug/L	100
69) Chlorodibromomethane	13.858	129	1639261	222.327	ug/L	99
70) 1,3-Dichloropropane	13.400	76	2345295	189.860	ug/L	100
71) 1,2-Dibromoethane	14.206	107	1387227	206.574	ug/L	100
72) 2-Hexanone	12.970	43	816416	200.288	ug/L	99
73) Chlorobenzene	14.919	112	5329231	177.249	ug/L	97
74) Ethylbenzene	15.006	91	8318002	166.666	ug/L	95
75) 1,1,1,2-Tetrachloroethane	14.990	131	1768712	210.343	ug/L	99
76) p/m Xylene	15.148	106	6727098	321.791	ug/L	88
77) o Xylene	15.915	106	6471917	328.490	ug/L	85

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N12.D
 Acq On : 2 May 2019 4:03 am
 Operator : ELAINE:PD
 Sample : I8260STD10
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:48 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.981	104	9864422	316.807	ug/L	96
80)	Bromoform	16.580	173	978011	207.244	ug/L	99
82)	Isopropylbenzene	16.541	105	9308475	184.967	ug/L	98
84)	Bromobenzene	17.353	156	2401557	197.713	ug/L	100
85)	n-Propylbenzene	17.265	91	9950473	178.519	ug/L	94
86)	1,4-Dichlorobutane	16.710	55	2718446	205.257	ug/L	97
87)	1,1,2,2-Tetrachloroethane	16.852	83	1525180	207.189	ug/L	99
88)	4-Ethyltoluene	17.472	105	8979137	185.021	ug/L	98
89)	2-Chlorotoluene	17.592	91	7086190	185.347	ug/L	98
90)	1,3,5-Trimethylbenzene	17.559	105	7549046	177.919	ug/L	98
91)	1,2,3-Trichloropropane	17.118	75	1218841	198.541	ug/L	96
92)	trans-1,4-Dichloro-2-b...	17.244	53	471545	207.394	ug/L	92
93)	4-Chlorotoluene	17.679	91	6642552	182.524	ug/L	97
94)	tert-Butylbenzene	18.196	119	6594466	188.237	ug/L	98
97)	1,2,4-Trimethylbenzene	18.267	105	7555783	179.980	ug/L	98
98)	sec-Butylbenzene	18.583	105	8533676	183.543	ug/L	93
99)	p-Isopropyltoluene	18.839	119	7513768	182.734	ug/L	96
100)	1,3-Dichlorobenzene	19.013	146	4448672	184.537	ug/L	97
101)	1,4-Dichlorobenzene	19.209	146	4403213	180.117	ug/L	98
102)	p-Diethylbenzene	19.617	119	4243040	179.468	ug/L	95
103)	n-Butylbenzene	19.590	91	7427389	183.874	ug/L	96
104)	1,2-Dichlorobenzene	19.889	146	3956684	183.508	ug/L	98
105)	1,2,4,5-Tetramethylben...	21.027	119	6254969	197.136	ug/L	95
106)	1,2-Dibromo-3-chloropr...	21.343	155	234484	199.562	ug/L	95
107)	1,3,5-Trichlorobenzene	21.767	180	2378414	193.696	ug/L	98
108)	Hexachlorobutadiene	23.063	225	922445	202.441	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	2048681	192.590	ug/L	98
110)	Naphthalene	23.248	128	4459538	190.766	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	1665423	190.586	ug/L	99

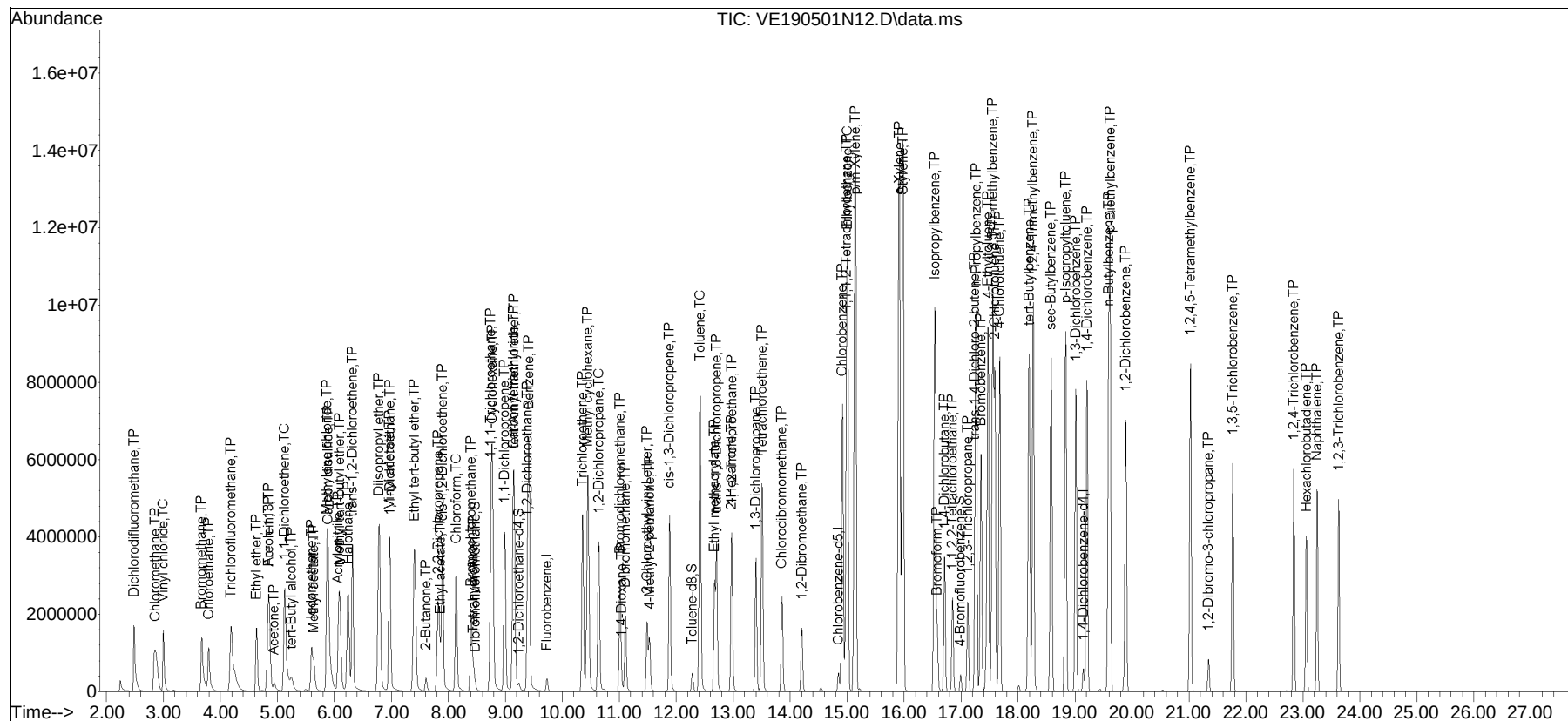
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
Data File : VE190501N12.D
Acq On : 2 May 2019 4:03 am
Operator : ELAINE:PD
Sample : I8260STDL10
Misc : WG1232921,ICAL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:46:48 2019
Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

Data Path	: I:\VOLATILES\Elaine\2019\1Q	Method	: Elaine_190501N_8260.m
Data File	: VE190501N12.D	Operator	: ELAINE:PD
Date Inj'd	: 5/2/2019 4:03 am	Instrument	: Elaine
Sample	: I8260STD10	Quant Date	: 5/2/2019 12:46 pm

There are no manual integrations or false positives in this file.

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	98	0.00
2 TP	Dichlorodifluoromethane	0.294	0.322	-9.5	99	0.00
3 TP	Chloromethane	0.453	0.451	0.4	96	-0.01
4 TC	Vinyl chloride	0.257	0.267	-3.9	94	0.00
5 TP	Bromomethane	0.217	0.217	0.0	100	0.00
6 TP	Chloroethane	0.202	0.213	-5.4	98	0.00
7 TP	Trichlorofluoromethane	0.412	0.406	1.5	95	0.00
8 TP	Ethyl ether	0.117	0.124	-6.0	96	0.00
10 TC	1,1-Dichloroethene	0.223	0.209	6.3	90	0.00
11 TP	Carbon disulfide	0.714	0.623	12.7	86	0.00
12 TP	Freon-113	0.240	0.233	2.9	88	0.00
13 TP	Iodomethane	0.345	0.308	10.7	94	0.00
14 TP	Acrolein	0.033	0.029#	12.1	87	0.00
15 TP	Methylene chloride	0.263	0.255	3.0	91	0.00
17 TP	Acetone	0.054	0.056#	-3.7	102	0.00
18 TP	trans-1,2-Dichloroethene	0.245	0.231	5.7	90	0.00
19 TP	Methyl acetate	0.134	0.151	-12.7	101	0.00
20 TP	Methyl tert-butyl ether	0.497	0.488	1.8	98	0.00
21 TP	tert-Butyl alcohol	0.012	0.013#	-8.3	126	0.00
22 TP	Diisopropyl ether	0.893	0.887	0.7	94	0.00
23 TP	1,1-Dichloroethane	0.470	0.461	1.9	93	0.00
24 TP	Halothane	0.196	0.201	-2.6	97	0.00
25 TP	Acrylonitrile	0.070	0.074	-5.7	99	0.00
26 TP	Ethyl tert-butyl ether	0.642	0.652	-1.6	104	0.00
27 TP	Vinyl acetate	0.377	0.356	5.6	95	0.00
28 TP	cis-1,2-Dichloroethene	0.266	0.276	-3.8	99	0.00
29 TP	2,2-Dichloropropane	0.229	0.185	19.2	88	0.00
30 TP	Bromochloromethane	0.113	0.120	-6.2	97	0.00
31 TP	Cyclohexane	0.526	0.513	2.5	89	0.00
32 TC	Chloroform	0.420	0.410	2.4	92	0.00
33 TP	Ethyl acetate	* 10.000	10.013	-0.1	97	0.00
34 TP	Carbon tetrachloride	0.270	0.247	8.5	91	0.00
35 TP	Tetrahydrofuran	0.051	0.051	0.0	90	0.00
36 S	Dibromofluoromethane	0.256	0.253	1.2	96	0.00
37 TP	1,1,1-Trichloroethane	0.339	0.330	2.7	97	0.00
39 TP	2-Butanone	0.073	0.075#	-2.7	94	0.00
40 TP	1,1-Dichloropropene	0.340	0.346	-1.8	95	0.00
41 TP	Benzene	1.026	1.039	-1.3	96	0.00
42 TP	tert-Amyl methyl ether	0.508	0.494	2.8	99	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 S	1,2-Dichloroethane-d4	0.272	0.272	0.0	96	0.00
44 TP	1,2-Dichloroethane	0.311	0.311	0.0	94	0.00
47 TP	Methyl cyclohexane	0.423	0.392	7.3	85	0.00
48 TP	Trichloroethene	0.253	0.244	3.6	90	0.00
50 TP	Dibromomethane	0.119	0.117	1.7	91	0.00
51 TC	1,2-Dichloropropane	0.265	0.271	-2.3	97	0.00
53 TP	2-Chloroethyl vinyl ether	0.126	0.112	11.1	87	0.00
54 TP	Bromodichloromethane	0.295	0.268	9.2	90	0.00
57 TP	1,4-Dioxane	0.00198	0.00207#	-4.5	97	0.00
58 TP	cis-1,3-Dichloropropene	0.334	0.301	9.9	89	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
60 S	Toluene-d8	1.160	1.157	0.3	99	0.00
61 TC	Toluene	0.730	0.741	-1.5	98	0.00
62 TP	4-Methyl-2-pentanone	0.070	0.065#	7.1	91	0.00
63 TP	Tetrachloroethene	0.326	0.324	0.6	95	0.00
65 TP	trans-1,3-Dichloropropene	* 10.000	8.095	19.0	93	0.00
67 TP	Ethyl methacrylate	0.240	0.228	5.0	99	0.00
68 TP	1,1,2-Trichloroethane	0.158	0.158	0.0	93	0.00
69 TP	Chlorodibromomethane	0.209	0.191	8.6	95	0.00
70 TP	1,3-Dichloropropane	0.351	0.342	2.6	94	0.00
71 TP	1,2-Dibromoethane	0.191	0.184	3.7	94	0.00
72 TP	2-Hexanone	0.116	0.117	-0.9	98	0.00
73 TP	Chlorobenzene	0.854	0.856	-0.2	97	0.00
74 TC	Ethylbenzene	1.418	1.452	-2.4	96	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.239	0.229	4.2	98	0.00
76 TP	p/m Xylene	0.594	0.615	-3.5	95	0.00
77 TP	o Xylene	0.560	0.593	-5.9	98	0.00
78 TP	Styrene	0.885	0.982	-11.0	101	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
80 TP	Bromoform	* 10.000	8.023	19.8	92	0.00
82 TP	Isopropylbenzene	2.478	2.498	-0.8	95	0.00
83 S	4-Bromofluorobenzene	0.856	0.842	1.6	100	0.00
84 TP	Bromobenzene	0.598	0.599	-0.2	99	0.00
85 TP	n-Propylbenzene	2.745	2.795	-1.8	96	0.00
86 TP	1,4-Dichlorobutane	0.652	0.686	-5.2	103	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.363	0.367	-1.1	99	0.00
88 TP	4-Ethyltoluene	2.390	2.448	-2.4	97	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
89 TP	2-Chlorotoluene	1.883	1.876	0.4	97	0.00
90 TP	1,3,5-Trimethylbenzene	2.089	2.140	-2.4	97	0.00
91 TP	1,2,3-Trichloropropane	0.302	0.294	2.6	98	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.112	0.102	8.9	99	0.00
93 TP	4-Chlorotoluene	1.792	1.770	1.2	96	0.00
94 TP	tert-Butylbenzene	1.725	1.741	-0.9	97	0.00
97 TP	1,2,4-Trimethylbenzene	2.067	2.148	-3.9	99	0.00
98 TP	sec-Butylbenzene	2.290	2.461	-7.5	103	0.00
99 TP	p-Isopropyltoluene	2.025	2.064	-1.9	96	0.00
100 TP	1,3-Dichlorobenzene	1.187	1.186	0.1	97	0.00
101 TP	1,4-Dichlorobenzene	1.204	1.189	1.2	97	0.00
102 TP	p-Diethylbenzene	1.164	1.145	1.6	92	0.00
103 TP	n-Butylbenzene	1.989	2.014	-1.3	96	0.00
104 TP	1,2-Dichlorobenzene	1.062	1.074	-1.1	98	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.563	1.607	-2.8	97	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	8.436	15.6	96	0.00
107 TP	1,3,5-Trichlorobenzene	0.605	0.631	-4.3	102	0.00
108 TP	Hexachlorobutadiene	0.224	0.222	0.9	100	0.00
109 TP	1,2,4-Trichlorobenzene	0.524	0.538	-2.7	101	0.00
110 TP	Naphthalene	1.151	1.249	-8.5	104	0.00
111 TP	1,2,3-Trichlorobenzene	0.430	0.451	-4.9	105	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 6 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	314324	10.000	ug/L	0.00
Standard Area 1 = 319710			Recovery	=	98.32%	
59) Chlorobenzene-d5	14.848	117	298175	10.000	ug/L	0.00
Standard Area 1 = 293576			Recovery	=	101.57%	
79) 1,4-Dichlorobenzene-d4	19.143	152	186709	10.000	ug/L	0.00
Standard Area 1 = 185834			Recovery	=	100.47%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	79605	9.883	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.83%	
43) 1,2-Dichloroethane-d4	9.241	65	85504	10.010	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.10%	
60) Toluene-d8	12.284	98	344889	9.971	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.71%	
83) 4-Bromofluorobenzene	16.988	95	157264	9.844	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.44%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.491	85	101265	10.943	ug/L	99
3) Chloromethane	2.851	50	141628	9.940	ug/L	98
4) Vinyl chloride	3.003	62	84064	10.404	ug/L	99
5) Bromomethane	3.673	94	68274	10.023	ug/L	99
6) Chloroethane	3.798	64	66888	10.514	ug/L	95
7) Trichlorofluoromethane	4.184	101	127492	9.835	ug/L	99
8) Ethyl ether	4.636	74	38950	10.616	ug/L	92
10) 1,1-Dichloroethene	5.132	96	65544	9.365	ug/L	95
11) Carbon disulfide	5.888	76	195942	8.727	ug/L	99
12) Freon-113	4.854	101	73100	9.700	ug/L	# 92
13) Iodomethane	5.605	142	96854	8.936	ug/L	97
14) Acrolein	4.848	56	9022	8.782	ug/L	# 84
15) Methylene chloride	5.872	84	80089	9.697	ug/L	93
17) Acetone	4.946	43	17608M1	10.398	ug/L	
18) trans-1,2-Dichloroethene	6.324	96	72703	9.447	ug/L	92
19) Methyl acetate	5.643	43	47451M1	11.241	ug/L	
20) Methyl tert-butyl ether	6.095	73	153335	9.814	ug/L	93
21) tert-Butyl alcohol	5.262	59	20173M1	55.731	ug/L	
22) Diisopropyl ether	6.786	45	278745	9.927	ug/L	96
23) 1,1-Dichloroethane	6.971	63	144980	9.811	ug/L	97
24) Halothane	6.242	117	63098	10.239	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) Acrylonitrile	6.073	53	23307	10.563	ug/L	98
26) Ethyl tert-butyl ether	7.412	59	204999	10.160	ug/L	97
27) Vinyl acetate	6.971	43	112010	9.460	ug/L	100
28) cis-1,2-Dichloroethene	7.902	96	86597	10.344	ug/L	97
29) 2,2-Dichloropropane	7.826	77	58099	8.085	ug/L #	61
30) Bromochloromethane	8.398	128	37701	10.645	ug/L	87
31) Cyclohexane	8.768	56	161243	9.752	ug/L	91
32) Chloroform	8.136	83	128946	9.763	ug/L	97
33) Ethyl acetate	7.864	43	84846	10.013	ug/L	98
34) Carbon tetrachloride	9.143	117	77568	9.156	ug/L	100
35) Tetrahydrofuran	8.452	42	16009	9.906	ug/L	97
37) 1,1,1-Trichloroethane	8.752	97	103711	9.735	ug/L	98
39) 2-Butanone	7.619	43	23507	10.274	ug/L	100
40) 1,1-Dichloropropene	8.991	75	108790	10.168	ug/L	96
41) Benzene	9.410	78	326736	10.133	ug/L	99
42) tert-Amyl methyl ether	9.149	73	155382	9.739	ug/L #	88
44) 1,2-Dichloroethane	9.388	62	97667	9.993	ug/L	99
47) Methyl cyclohexane	10.450	83	123327	9.269	ug/L	92
48) Trichloroethene	10.357	95	76753	9.642	ug/L	93
50) Dibromomethane	11.109	93	36623	9.775	ug/L #	88
51) 1,2-Dichloropropane	10.640	63	85176	10.207	ug/L	97
53) 2-Chloroethyl vinyl ether	11.490	63	35305	8.905	ug/L #	81
54) Bromodichloromethane	11.016	83	84351	9.102	ug/L	99
57) 1,4-Dioxane	11.043	88	32460M1	520.615	ug/L	
58) cis-1,3-Dichloropropene	11.887	75	94492	9.006	ug/L	94
61) Toluene	12.415	92	220986	10.158	ug/L	98
62) 4-Methyl-2-pentanone	11.539	58	19372	9.242	ug/L	85
63) Tetrachloroethene	13.509	166	96566	9.940	ug/L	94
65) trans-1,3-Dichloropropene	12.709	75	71110	8.095	ug/L #	63
67) Ethyl methacrylate	12.676	69	67985	9.505	ug/L	96
68) 1,1,2-Trichloroethane	12.976	83	47203	9.999	ug/L	100
69) Chlorodibromomethane	13.858	129	56986	9.123	ug/L	99
70) 1,3-Dichloropropane	13.395	76	101908	9.738	ug/L	98
71) 1,2-Dibromoethane	14.206	107	54966	9.662	ug/L	99
72) 2-Hexanone	12.976	43	34780M1	10.072	ug/L	
73) Chlorobenzene	14.914	112	255218	10.020	ug/L	99
74) Ethylbenzene	14.995	91	433043	10.242	ug/L	100
75) 1,1,1,2-Tetrachloroethane	14.984	131	68288	9.586	ug/L	97
76) p/m Xylene	15.131	106	366933	20.718	ug/L	96
77) o Xylene	15.899	106	353550	21.182	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190501N\VE190501N08.D
 Sub List : 8260-Curve - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78)	Styrene	15.964	104	585536	22.197	ug/L	95
80)	Bromoform	16.579	173	29320	8.023	ug/L	96
82)	Isopropylbenzene	16.530	105	466373	10.079	ug/L	99
84)	Bromobenzene	17.341	156	111894	10.019	ug/L	99
85)	n-Propylbenzene	17.254	91	521820	10.182	ug/L	99
86)	1,4-Dichlorobutane	16.710	55	128066	10.517	ug/L	97
87)	1,1,2,2-Tetrachloroethane	16.846	83	68429	10.110	ug/L	98
88)	4-Ethyltoluene	17.461	105	457117	10.244	ug/L	100
89)	2-Chlorotoluene	17.581	91	350212	9.963	ug/L	98
90)	1,3,5-Trimethylbenzene	17.537	105	399487	10.240	ug/L	99
91)	1,2,3-Trichloropropane	17.113	75	54965	9.738	ug/L	96
92)	trans-1,4-Dichloro-2-b...	17.243	53	19088	9.131	ug/L #	69
93)	4-Chlorotoluene	17.663	91	330545	9.878	ug/L	98
94)	tert-Butylbenzene	18.185	119	325106	10.093	ug/L	95
97)	1,2,4-Trimethylbenzene	18.256	105	400997	10.389	ug/L	99
98)	sec-Butylbenzene	18.572	105	459539	10.750	ug/L	97
99)	p-Isopropyltoluene	18.822	119	385349	10.193	ug/L	97
100)	1,3-Dichlorobenzene	19.007	146	221529	9.994	ug/L	96
101)	1,4-Dichlorobenzene	19.203	146	221956	9.875	ug/L	96
102)	p-Diethylbenzene	19.601	119	213857	9.838	ug/L	96
103)	n-Butylbenzene	19.579	91	376061	10.125	ug/L	97
104)	1,2-Dichlorobenzene	19.884	146	200601	10.119	ug/L	96
105)	1,2,4,5-Tetramethylben...	21.021	119	300134	10.288	ug/L	96
106)	1,2-Dibromo-3-chloropr...	21.343	155	7889	8.436	ug/L	98
107)	1,3,5-Trichlorobenzene	21.762	180	117738	10.429	ug/L	97
108)	Hexachlorobutadiene	23.057	225	41391	9.880	ug/L	99
109)	1,2,4-Trichlorobenzene	22.834	180	100376	10.263	ug/L	98
110)	Naphthalene	23.248	128	233125	10.846	ug/L	100
111)	1,2,3-Trichlorobenzene	23.623	180	84274	10.489	ug/L	99

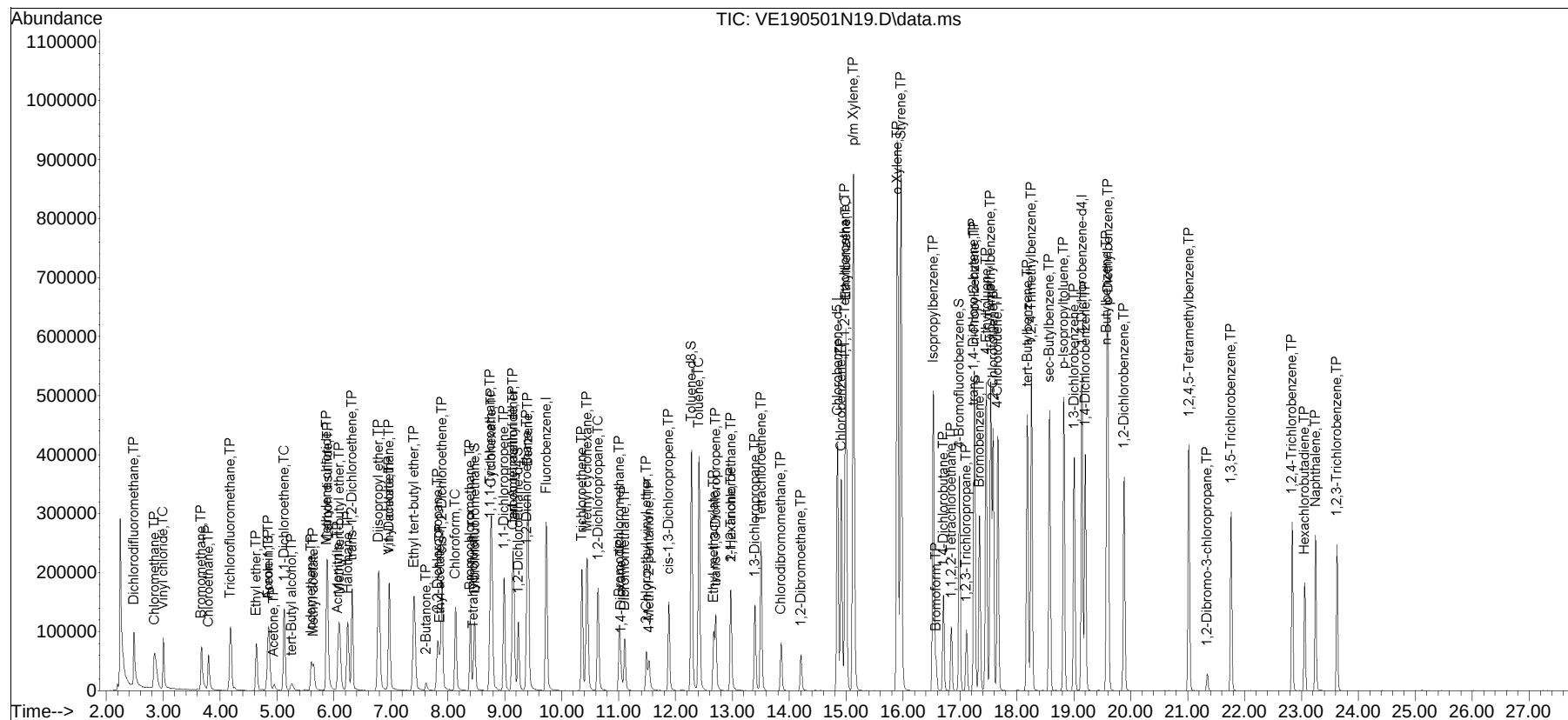
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190501N\
 Data File : VE190501N19.D
 Acq On : 2 May 2019 8:16 am
 Operator : ELAINE:PD
 Sample : C8260STD3
 Misc : WG1232921,ICAL
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 12:57:42 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190501N\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

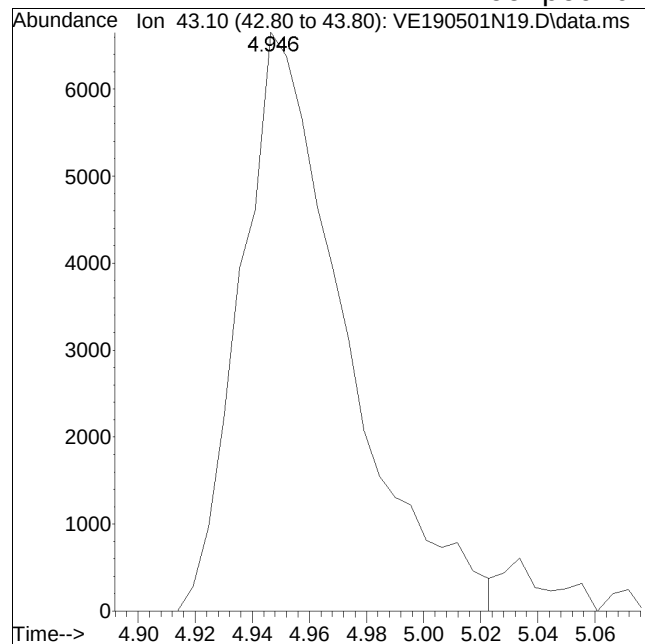
Sub List : 8260-Curve - Megamix plus Diox90501N\VE190501N08.D•



Manual Integration Report

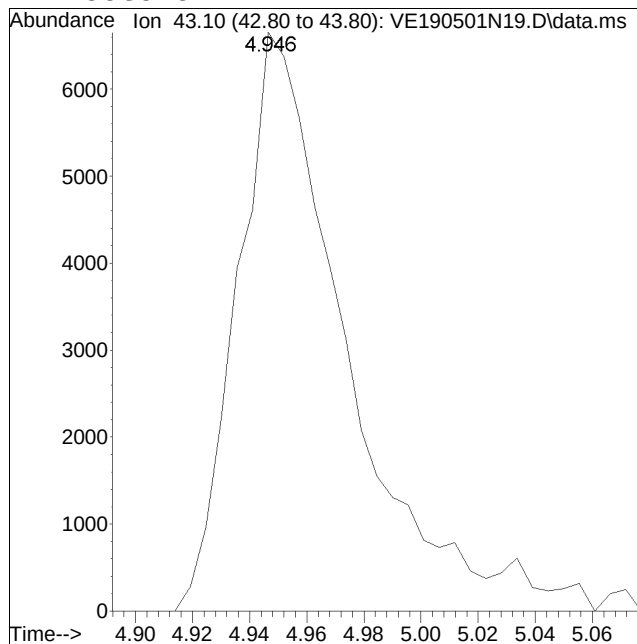
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N19.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 8:16 am Instrument : Elaine
Sample : C8260STD3 Quant Date : 5/2/2019 12:56 pm

Compound #17: Acetone



Original Peak Response = 16911

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

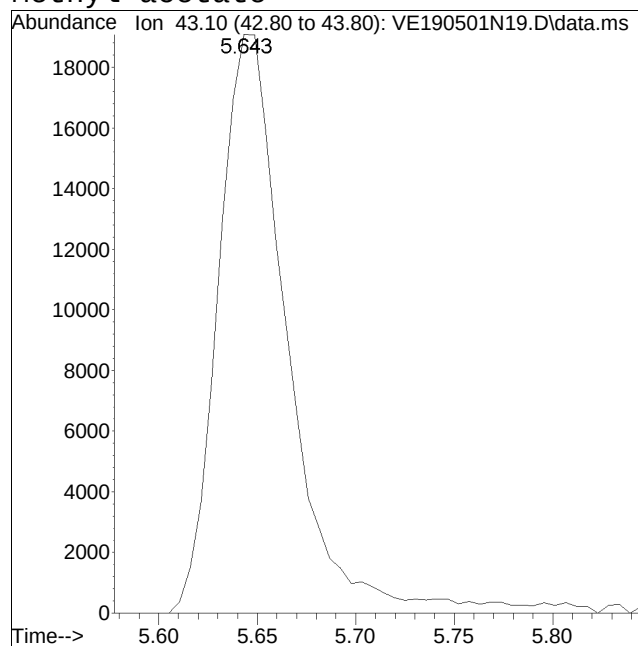
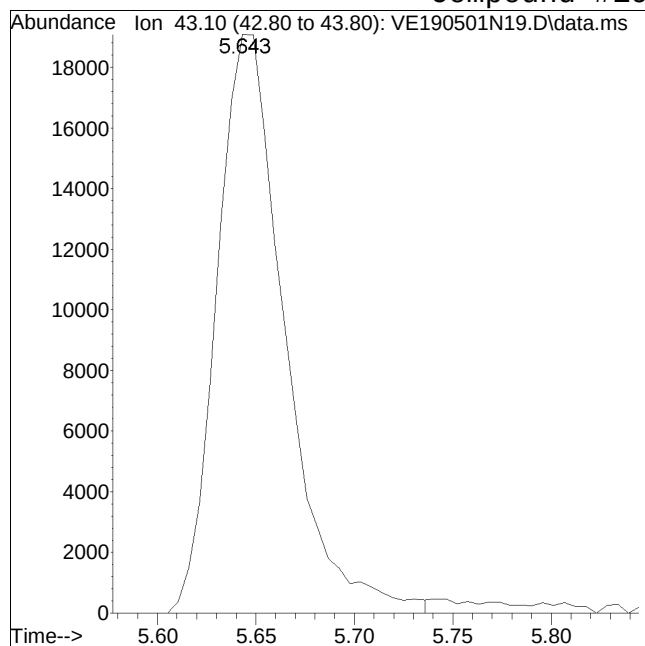


Manual Peak Response = 17608 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N19.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 8:16 am Instrument : Elaine
Sample : C8260STD3 Quant Date : 5/2/2019 12:56 pm

Compound #19: Methyl acetate



Original Peak Response = 45888

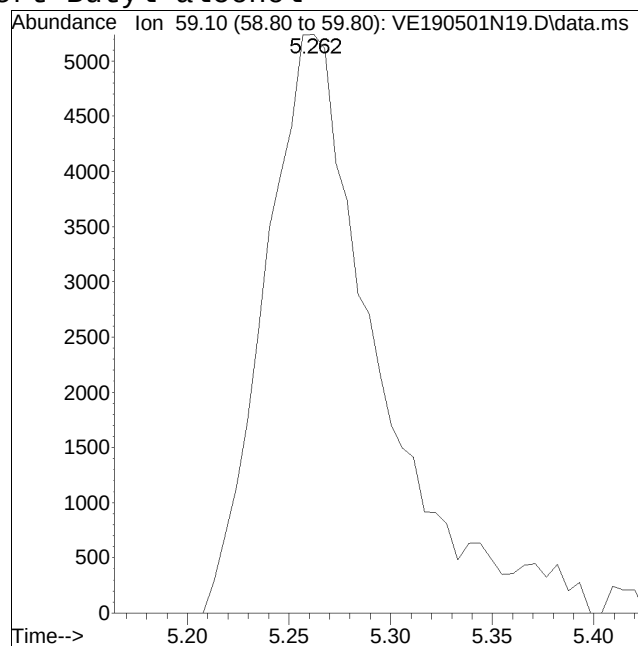
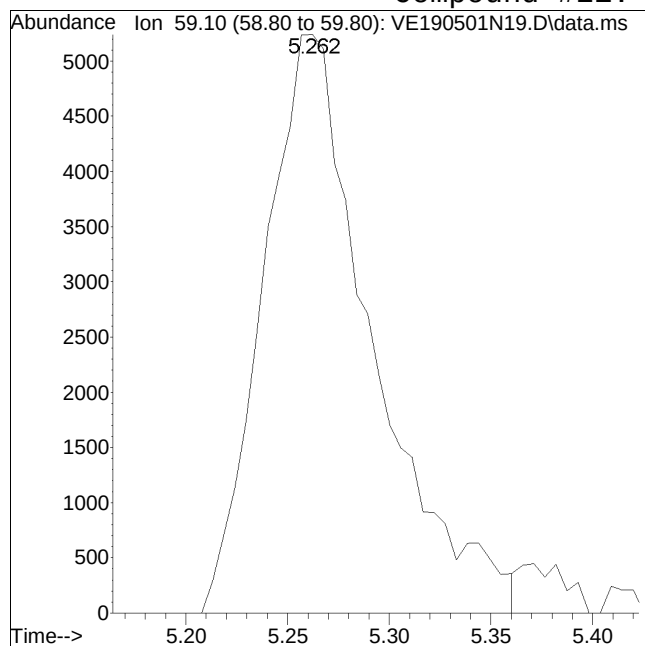
Manual Peak Response = 47451 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190501N19.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 8:16 am Instrument : Elaine
Sample : C8260STDL3 Quant Date : 5/2/2019 12:56 pm

Compound #21: tert-Butyl alcohol



Original Peak Response = 19478

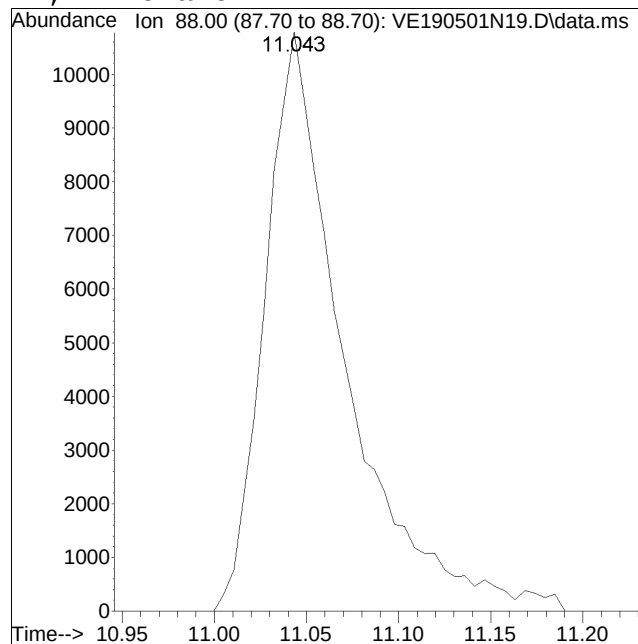
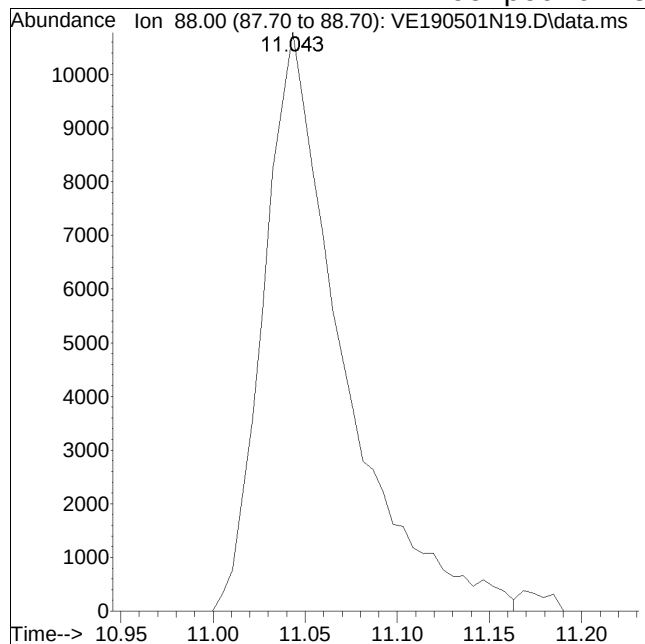
Manual Peak Response = 20173 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190501N19.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 8:16 am Instrument : Elaine
Sample : C8260STDL3 Quant Date : 5/2/2019 12:56 pm

Compound #57: 1,4-Dioxane



Original Peak Response = 32042

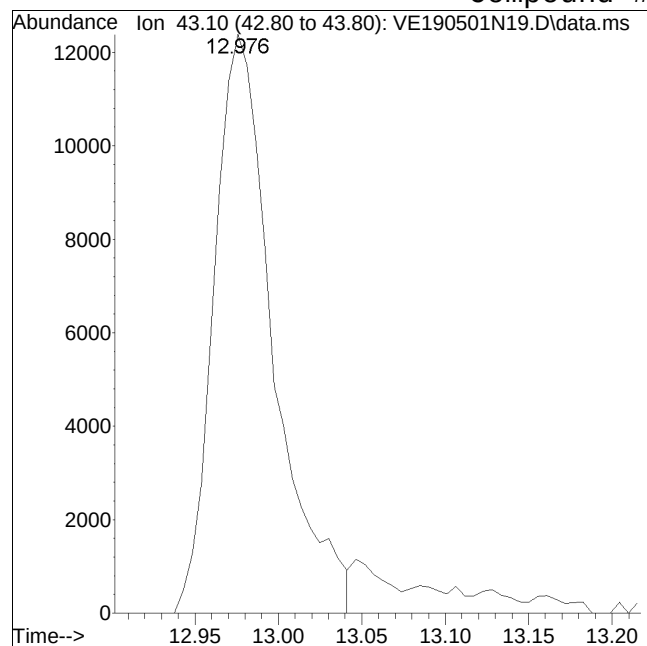
Manual Peak Response = 32460 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

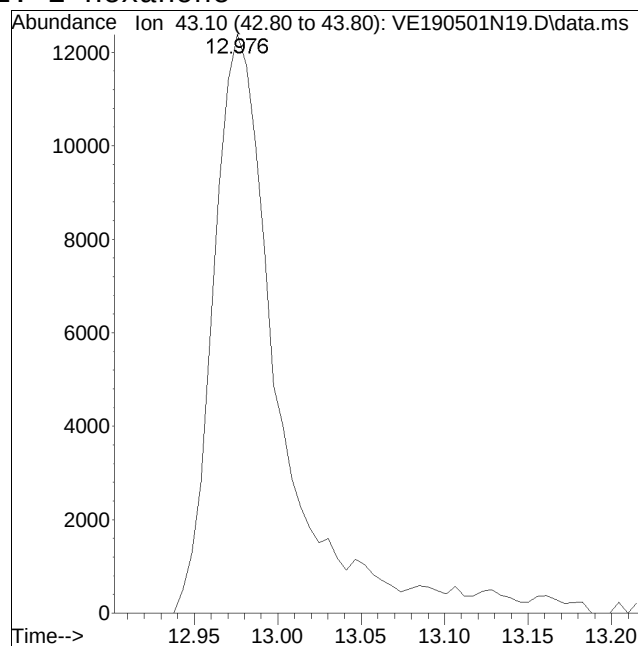
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190501N19.D Operator : ELAINE:PD
Date Inj'd : 5/2/2019 8:16 am Instrument : Elaine
Sample : C8260STD3 Quant Date : 5/2/2019 12:56 pm

Compound #72: 2-Hexanone



Original Peak Response = 30710

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 34780 M1

Continuing Calibration

Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : ELAINE
 Lab File ID : VE190926A02
 Sample No : WG1288977-2
 Channel :

Lab Number : L1943646
 Project Number : 170329301
 Calibration Date : 09/26/19 07:43
 Init. Calib. Date(s) : 05/01/19 05/02/19
 Init. Calib. Times : 22:38 04:03

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	81	0
Dichlorodifluoromethane	0.294	0.185	-	37.1*	20	47	0
Chloromethane	0.453	0.416	-	8.2	20	74	.02
Vinyl chloride	0.257	0.229	-	10.9	20	66	0
Bromomethane	0.217	0.12	-	44.7*	20	46	0
Chloroethane	0.202	0.168	-	16.8	20	64	0
Trichlorofluoromethane	0.412	0.338	-	18	20	66	0
Ethyl ether	0.117	0.085	-	27.4*	20	54	0
1,1-Dichloroethene	0.223	0.198	-	11.2	20	70	0
Carbon disulfide	0.714	0.441	-	38.2*	20	51	0
Freon-113	0.24	0.204	-	15	20	64	0
Acrolein	0.033	0.032*	-	3	20	81	0
Methylene chloride	0.263	0.22	-	16.3	20	65	0
Acetone	0.054	0.05*	-	7.4	20	75	0
trans-1,2-Dichloroethene	0.245	0.222	-	9.4	20	72	0
Methyl acetate	0.134	0.13	-	3	20	72	0
Methyl tert-butyl ether	0.497	0.406	-	18.3	20	67	0
tert-Butyl alcohol	0.012	0.015*	-	-25*	20	120	0
Diisopropyl ether	0.893	0.921	-	-3.1	20	80	0
1,1-Dichloroethane	0.47	0.427	-	9.1	20	71	0
Halothane	0.196	0.188	-	4.1	20	75	0
Acrylonitrile	0.07	0.07	-	0	20	77	0
Ethyl tert-butyl ether	0.642	0.706	-	-10	20	93	0
Vinyl acetate	0.377	0.429	-	-13.8	20	94	0
cis-1,2-Dichloroethene	0.266	0.246	-	7.5	20	73	0
2,2-Dichloropropane	0.229	0.269	-	-17.5	20	106	0
Bromochloromethane	0.113	0.121	-	-7.1	20	82	0
Cyclohexane	0.526	0.503	-	4.4	20	72	0
Chloroform	0.42	0.364	-	13.3	20	68	0
Ethyl acetate	10	7.546	-	24.5*	20	69	0
Carbon tetrachloride	0.27	0.303	-	-12.2	20	92	0
Tetrahydrofuran	0.051	0.051	-	0	20	74	0
Dibromofluoromethane	0.256	0.245	-	4.3	20	77	0
1,1,1-Trichloroethane	0.339	0.352	-	-3.8	20	85	0
2-Butanone	0.073	0.074*	-	-1.4	20	77	0
1,1-Dichloropropene	0.34	0.261	-	23.2*	20	60	0
Benzene	1.026	0.749	-	27*	20	57	0
tert-Amyl methyl ether	0.508	0.41	-	19.3	20	68	0
1,2-Dichloroethane-d4	0.272	0.249	-	8.5	20	72	0
1,2-Dichloroethane	0.311	0.298	-	4.2	20	74	0
Methyl cyclohexane	0.423	0.333	-	21.3*	20	60	0
Trichloroethene	0.253	0.23	-	9.1	20	71	0
Dibromomethane	0.119	0.095	-	20.2*	20	61	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : ELAINE
 Lab File ID : VE190926A02
 Sample No : WG1288977-2
 Channel :

Lab Number : L1943646
 Project Number : 170329301
 Calibration Date : 09/26/19 07:43
 Init. Calib. Date(s) : 05/01/19 05/02/19
 Init. Calib. Times : 22:38 04:03

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.265	0.22	-	17	20	66	0
Bromodichloromethane	0.295	0.258	-	12.5	20	71	0
1,4-Dioxane	0.00198	0.00159*	-	19.7	20	62	0
cis-1,3-Dichloropropene	0.334	0.276	-	17.4	20	68	0
Chlorobenzene-d5	1	1	-	0	20	80	0
Toluene-d8	1.16	1.069	-	7.8	20	72	0
Toluene	0.73	0.629	-	13.8	20	65	0
4-Methyl-2-pentanone	0.07	0.064*	-	8.6	20	71	0
Tetrachloroethene	0.326	0.349	-	-7.1	20	81	0
trans-1,3-Dichloropropene	10	8.544	-	14.6	20	77	0
Ethyl methacrylate	0.24	0.174	-	27.5*	20	59	0
1,1,2-Trichloroethane	0.158	0.128	-	19	20	59	0
Chlorodibromomethane	0.209	0.228	-	-9.1	20	89	0
1,3-Dichloropropane	0.351	0.269	-	23.4*	20	58	0
1,2-Dibromoethane	0.191	0.186	-	2.6	20	75	0
2-Hexanone	0.116	0.115	-	0.9	20	77	0
Chlorobenzene	0.854	0.819	-	4.1	20	73	0
Ethylbenzene	1.418	1.282	-	9.6	20	67	0
1,1,1,2-Tetrachloroethane	0.239	0.29	-	-21.3*	20	98	0
p/m Xylene	0.594	0.58	-	2.4	20	71	0
o Xylene	0.56	0.555	-	0.9	20	72	0
Styrene	0.885	0.853	-	3.6	20	69	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	86	0
Bromoform	10	8.849	-	11.5	20	89	0
Isopropylbenzene	2.478	2.077	-	16.2	20	68	0
4-Bromofluorobenzene	0.856	0.681	-	20.4*	20	70	0
Bromobenzene	0.598	0.58	-	3	20	83	0
n-Propylbenzene	2.745	2.236	-	18.5	20	66	0
1,4-Dichlorobutane	0.652	0.601	-	7.8	20	78	0
1,1,2,2-Tetrachloroethane	0.363	0.264*	-	27.3*	20	62	0
4-Ethyltoluene	2.39	2.002	-	16.2	20	68	0
2-Chlorotoluene	1.883	1.507	-	20	20	67	0
1,3,5-Trimethylbenzene	2.089	1.726	-	17.4	20	67	0
1,2,3-Trichloropropane	0.302	0.208	-	31.1*	20	59	0
trans-1,4-Dichloro-2-buten	0.112	0.085	-	24.1*	20	71	0
4-Chlorotoluene	1.792	1.482	-	17.3	20	69	0
tert-Butylbenzene	1.725	1.671	-	3.1	20	80	0
1,2,4-Trimethylbenzene	2.067	1.728	-	16.4	20	69	0
sec-Butylbenzene	2.29	1.904	-	16.9	20	69	0
p-Isopropyltoluene	2.025	2.028	-	-0.1	20	81	0
1,3-Dichlorobenzene	1.187	1.151	-	3	20	81	0
1,4-Dichlorobenzene	1.204	1.181	-	1.9	20	83	0
p-Diethylbenzene	1.164	1.158	-	0.5	20	80	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVENUE
 Instrument ID : ELAINE
 Lab File ID : VE190926A02
 Sample No : WG1288977-2
 Channel :

Lab Number : L1943646
 Project Number : 170329301
 Calibration Date : 09/26/19 07:43
 Init. Calib. Date(s) : 05/01/19 05/02/19
 Init. Calib. Times : 22:38 04:03

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.989	1.629	-	18.1	20	66	0
1,2-Dichlorobenzene	1.062	1.062	-	0	20	84	0
1,2,4,5-Tetramethylbenzene	1.563	1.611	-	-3.1	20	83	0
1,2-Dibromo-3-chloropropan	10	9.514	-	4.9	20	95	0
1,3,5-Trichlorobenzene	0.605	0.587	-	3	20	82	0
Hexachlorobutadiene	0.224	0.214	-	4.5	20	83	0
1,2,4-Trichlorobenzene	0.524	0.533	-	-1.7	20	86	0
Naphthalene	1.151	1.182	-	-2.7	20	85	0
1,2,3-Trichlorobenzene	0.43	0.423	-	1.6	20	85	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	81	0.00
2 TP	Dichlorodifluoromethane	0.294	0.185	37.1#	47#	0.00
3 TP	Chloromethane	0.453	0.416	8.2	74	0.02
4 TC	Vinyl chloride	0.257	0.229	10.9	66	0.00
5 TP	Bromomethane	0.217	0.120	44.7#	46#	0.00
6 TP	Chloroethane	0.202	0.168	16.8	64	0.00
7 TP	Trichlorofluoromethane	0.412	0.338	18.0	66	0.00
8 TP	Ethyl ether	0.117	0.085	27.4#	54	0.00
10 TC	1,1-Dichloroethene	0.223	0.198	11.2	70	0.00
11 TP	Carbon disulfide	0.714	0.441	38.2#	51	0.00
12 TP	Freon-113	0.240	0.204	15.0	64	0.00
14 TP	Acrolein	0.033	0.032#	3.0	81	0.00
15 TP	Methylene chloride	0.263	0.220	16.3	65	0.00
17 TP	Acetone	0.054	0.050#	7.4	75	0.00
18 TP	trans-1,2-Dichloroethene	0.245	0.222	9.4	72	0.00
19 TP	Methyl acetate	0.134	0.130	3.0	72	0.00
20 TP	Methyl tert-butyl ether	0.497	0.406	18.3	67	0.00
21 TP	tert-Butyl alcohol	0.012	0.015#	-25.0#	120	0.00
22 TP	Diisopropyl ether	0.893	0.921	-3.1	80	0.00
23 TP	1,1-Dichloroethane	0.470	0.427	9.1	71	0.00
24 TP	Halothane	0.196	0.188	4.1	75	0.00
25 TP	Acrylonitrile	0.070	0.070	0.0	77	0.00
26 TP	Ethyl tert-butyl ether	0.642	0.706	-10.0	93	0.00
27 TP	Vinyl acetate	0.377	0.429	-13.8	94	0.00
28 TP	cis-1,2-Dichloroethene	0.266	0.246	7.5	73	0.00
29 TP	2,2-Dichloropropane	0.229	0.269	-17.5	106	0.00
30 TP	Bromochloromethane	0.113	0.121	-7.1	82	0.00
31 TP	Cyclohexane	0.526	0.503	4.4	72	0.00
32 TC	Chloroform	0.420	0.364	13.3	68	0.00
33 TP	Ethyl acetate	* 10.000	7.546	24.5#	69	0.00
34 TP	Carbon tetrachloride	0.270	0.303	-12.2	92	0.00
35 TP	Tetrahydrofuran	0.051	0.051	0.0	74	0.00
36 S	Dibromofluoromethane	0.256	0.245	4.3	77	0.00
37 TP	1,1,1-Trichloroethane	0.339	0.352	-3.8	85	0.00
39 TP	2-Butanone	0.073	0.074#	-1.4	77	0.00
40 TP	1,1-Dichloropropene	0.340	0.261	23.2#	60	0.00
41 TP	Benzene	1.026	0.749	27.0#	57	0.00
42 TP	tert-Amyl methyl ether	0.508	0.410	19.3	68	0.00
43 S	1,2-Dichloroethane-d4	0.272	0.249	8.5	72	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44 TP	1,2-Dichloroethane	0.311	0.298	4.2	74	0.00
47 TP	Methyl cyclohexane	0.423	0.333	21.3#	60	0.00
48 TP	Trichloroethene	0.253	0.230	9.1	71	0.00
50 TP	Dibromomethane	0.119	0.095	20.2#	61	0.00
51 TC	1,2-Dichloropropane	0.265	0.220	17.0	66	0.00
54 TP	Bromodichloromethane	0.295	0.258	12.5	71	0.00
57 TP	1,4-Dioxane	0.00198	0.00159#	19.7	62	0.00
58 TP	cis-1,3-Dichloropropene	0.334	0.276	17.4	68	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
60 S	Toluene-d8	1.160	1.069	7.8	72	0.00
61 TC	Toluene	0.730	0.629	13.8	65	0.00
62 TP	4-Methyl-2-pentanone	0.070	0.064#	8.6	71	0.00
63 TP	Tetrachloroethene	0.326	0.349	-7.1	81	0.00
65 TP	trans-1,3-Dichloropropene	* 10.000	8.544	14.6	77	0.00
67 TP	Ethyl methacrylate	0.240	0.174	27.5#	59	0.00
68 TP	1,1,2-Trichloroethane	0.158	0.128	19.0	59	0.00
69 TP	Chlorodibromomethane	0.209	0.228	-9.1	89	0.00
70 TP	1,3-Dichloropropane	0.351	0.269	23.4#	58	0.00
71 TP	1,2-Dibromoethane	0.191	0.186	2.6	75	0.00
72 TP	2-Hexanone	0.116	0.115	0.9	77	0.00
73 TP	Chlorobenzene	0.854	0.819	4.1	73	0.00
74 TC	Ethylbenzene	1.418	1.282	9.6	67	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.239	0.290	-21.3#	98	0.00
76 TP	p/m Xylene	0.594	0.580	2.4	71	0.00
77 TP	o Xylene	0.560	0.555	0.9	72	0.00
78 TP	Styrene	0.885	0.853	3.6	69	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	86	0.00
80 TP	Bromoform	* 10.000	8.849	11.5	89	0.00
82 TP	Isopropylbenzene	2.478	2.077	16.2	68	0.00
83 S	4-Bromofluorobenzene	0.856	0.681	20.4#	70	0.00
84 TP	Bromobenzene	0.598	0.580	3.0	83	0.00
85 TP	n-Propylbenzene	2.745	2.236	18.5	66	0.00
86 TP	1,4-Dichlorobutane	0.652	0.601	7.8	78	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.363	0.264#	27.3#	62	0.00
88 TP	4-Ethyltoluene	2.390	2.002	16.2	68	0.00
89 TP	2-Chlorotoluene	1.883	1.507	20.0	67	0.00
90 TP	1,3,5-Trimethylbenzene	2.089	1.726	17.4	67	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.302	0.208	31.1#	59	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.112	0.085	24.1#	71	0.00
93 TP	4-Chlorotoluene	1.792	1.482	17.3	69	0.00
94 TP	tert-Butylbenzene	1.725	1.671	3.1	80	0.00
97 TP	1,2,4-Trimethylbenzene	2.067	1.728	16.4	69	0.00
98 TP	sec-Butylbenzene	2.290	1.904	16.9	69	0.00
99 TP	p-Isopropyltoluene	2.025	2.028	-0.1	81	0.00
100 TP	1,3-Dichlorobenzene	1.187	1.151	3.0	81	0.00
101 TP	1,4-Dichlorobenzene	1.204	1.181	1.9	83	0.00
102 TP	p-Diethylbenzene	1.164	1.158	0.5	80	0.00
103 TP	n-Butylbenzene	1.989	1.629	18.1	66	0.00
104 TP	1,2-Dichlorobenzene	1.062	1.062	0.0	84	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.563	1.611	-3.1	83	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	9.514	4.9	95	0.00
107 TP	1,3,5-Trichlorobenzene	0.605	0.587	3.0	82	0.00
108 TP	Hexachlorobutadiene	0.224	0.214	4.5	83	0.00
109 TP	1,2,4-Trichlorobenzene	0.524	0.533	-1.7	86	0.00
110 TP	Naphthalene	1.151	1.182	-2.7	85	0.00
111 TP	1,2,3-Trichlorobenzene	0.430	0.423	1.6	85	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 7 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	260092	10.000	ug/L	0.00
59) Chlorobenzene-d5	14.849	117	234931	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	19.138	152	160613	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	63625	9.546	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.46%		
43) 1,2-Dichloroethane-d4	9.242	65	64776	9.165	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	91.65%		
60) Toluene-d8	12.285	98	251112	9.215	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	92.15%		
83) 4-Bromofluorobenzene	16.988	95	109394	7.960	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	79.60%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.492	85	48061	6.277	ug/L	97
3) Chloromethane	2.878	50	108099M1	9.169	ug/L	
4) Vinyl chloride	3.009	62	59459	8.893	ug/L	94
5) Bromomethane	3.673	94	31257M1	5.546	ug/L	
6) Chloroethane	3.804	64	43585	8.279	ug/L	99
7) Trichlorofluoromethane	4.185	101	87941	8.199	ug/L	100
8) Ethyl ether	4.642	74	22195	7.311	ug/L #	73
10) 1,1-Dichloroethene	5.126	96	51419	8.878	ug/L	99
11) Carbon disulfide	5.894	76	114807	6.179	ug/L	99
12) Freon-113	4.854	101	53020	8.503	ug/L #	69
14) Acrolein	4.849	56	8385	9.864	ug/L	87
15) Methylene chloride	5.872	84	57270	8.380	ug/L	86
17) Acetone	4.947	43	12937	9.233	ug/L #	78
18) trans-1,2-Dichloroethene	6.324	96	57674	9.057	ug/L	93
19) Methyl acetate	5.649	43	33717	9.653	ug/L #	93
20) Methyl tert-butyl ether	6.101	73	105487	8.159	ug/L #	86
21) tert-Butyl alcohol	5.262	59	19093M1	63.745	ug/L	
22) Diisopropyl ether	6.792	45	239465	10.307	ug/L	96
23) 1,1-Dichloroethane	6.977	63	111037	9.081	ug/L	99
24) Halothane	6.242	117	48843	9.578	ug/L	93
25) Acrylonitrile	6.079	53	18083	9.904	ug/L	97
26) Ethyl tert-butyl ether	7.407	59	183655	11.000	ug/L	95
27) Vinyl acetate	6.972	43	111665	11.398	ug/L #	94
28) cis-1,2-Dichloroethene	7.897	96	64108	9.255	ug/L	94
29) 2,2-Dichloropropane	7.826	77	69860	11.749	ug/L #	69

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
30)	Bromochloromethane	8.403	128	31559	10.768	ug/L	87
31)	Cyclohexane	8.774	56	130803	9.560	ug/L	94
32)	Chloroform	8.137	83	94660	8.661	ug/L	94
33)	Ethyl acetate	7.864	43	59991	7.546	ug/L	98
34)	Carbon tetrachloride	9.144	117	78923	11.259	ug/L	93
35)	Tetrahydrofuran	8.458	42	13202	9.872	ug/L #	87
37)	1,1,1-Trichloroethane	8.746	97	91557	10.386	ug/L	97
39)	2-Butanone	7.625	43	19334	10.213	ug/L #	82
40)	1,1-Dichloropropene	8.991	75	67940	7.674	ug/L	89
41)	Benzene	9.410	78	194761	7.299	ug/L #	89
42)	tert-Amyl methyl ether	9.155	73	106562	8.072	ug/L #	79
44)	1,2-Dichloroethane	9.389	62	77529	9.587	ug/L	99
47)	Methyl cyclohexane	10.445	83	86547	7.861	ug/L	87
48)	Trichloroethene	10.358	95	59922	9.097	ug/L #	87
50)	Dibromomethane	11.109	93	24808	8.002	ug/L #	67
51)	1,2-Dichloropropane	10.641	63	57260	8.293	ug/L	97
54)	Bromodichloromethane	11.016	83	67013	8.739	ug/L #	98
57)	1,4-Dioxane	11.043	88	20690	401.032	ug/L #	84
58)	cis-1,3-Dichloropropene	11.887	75	71744	8.264	ug/L #	82
61)	Toluene	12.415	92	147669	8.615	ug/L	99
62)	4-Methyl-2-pentanone	11.533	58	15089	9.136	ug/L #	36
63)	Tetrachloroethene	13.504	166	82048	10.719	ug/L	90
65)	trans-1,3-Dichloropropene	12.709	75	59308	8.544	ug/L #	56
67)	Ethyl methacrylate	12.671	69	40847M1	7.248	ug/L	
68)	1,1,2-Trichloroethane	12.970	83	30150	8.106	ug/L #	87
69)	Chlorodibromomethane	13.858	129	53461	10.863	ug/L	99
70)	1,3-Dichloropropane	13.395	76	63305	7.678	ug/L	97
71)	1,2-Dibromoethane	14.201	107	43675	9.744	ug/L	98
72)	2-Hexanone	12.976	43	27065M1	9.947	ug/L	
73)	Chlorobenzene	14.914	112	192520	9.593	ug/L	90
74)	Ethylbenzene	14.996	91	301280	9.044	ug/L	94
75)	1,1,1,2-Tetrachloroethane	14.985	131	68018	12.119	ug/L	98
76)	p/m Xylene	15.126	106	272307	19.515	ug/L	90
77)	o Xylene	15.899	106	260695	19.823	ug/L	87
78)	Styrene	15.964	104	400729	19.281	ug/L	92
80)	Bromoform	16.580	173	28324	8.849	ug/L	100
82)	Isopropylbenzene	16.531	105	333564	8.380	ug/L	92
84)	Bromobenzene	17.342	156	93202	9.701	ug/L	99
85)	n-Propylbenzene	17.255	91	359194	8.148	ug/L #	88
86)	1,4-Dichlorobutane	16.705	55	96512	9.213	ug/L	98
87)	1,1,2,2-Tetrachloroethane	16.846	83	42411	7.284	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-2
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
88)	4-Ethyltoluene	17.456	105	321565	8.377	ug/L		92
89)	2-Chlorotoluene	17.581	91	242119	8.007	ug/L	#	85
90)	1,3,5-Trimethylbenzene	17.538	105	277292	8.263	ug/L		89
91)	1,2,3-Trichloropropane	17.108	75	33451	6.889	ug/L		81
92)	trans-1,4-Dichloro-2-b...	17.238	53	13659	7.595	ug/L	#	70
93)	4-Chlorotoluene	17.663	91	238009M2	8.269	ug/L		
94)	tert-Butylbenzene	18.180	119	268331	9.684	ug/L		87
97)	1,2,4-Trimethylbenzene	18.256	105	277595	8.360	ug/L		89
98)	sec-Butylbenzene	18.572	105	305853	8.317	ug/L		87
99)	p-Isopropyltoluene	18.822	119	325681	10.014	ug/L		94
100)	1,3-Dichlorobenzene	19.007	146	184861	9.695	ug/L		94
101)	1,4-Dichlorobenzene	19.198	146	189672	9.809	ug/L	#	94
102)	p-Diethylbenzene	19.601	119	185957	9.944	ug/L		88
103)	n-Butylbenzene	19.584	91	261640	8.189	ug/L	#	88
104)	1,2-Dichlorobenzene	19.884	146	170645	10.006	ug/L		93
105)	1,2,4,5-Tetramethylben...	21.022	119	258669	10.307	ug/L		95
106)	1,2-Dibromo-3-chloropr...	21.343	155	7794	9.514	ug/L		99
107)	1,3,5-Trichlorobenzene	21.762	180	94325	9.712	ug/L		95
108)	Hexachlorobutadiene	23.057	225	34380	9.539	ug/L		98
109)	1,2,4-Trichlorobenzene	22.834	180	85622	10.177	ug/L		97
110)	Naphthalene	23.248	128	189875	10.269	ug/L		100
111)	1,2,3-Trichlorobenzene	23.629	180	67955	9.832	ug/L		97

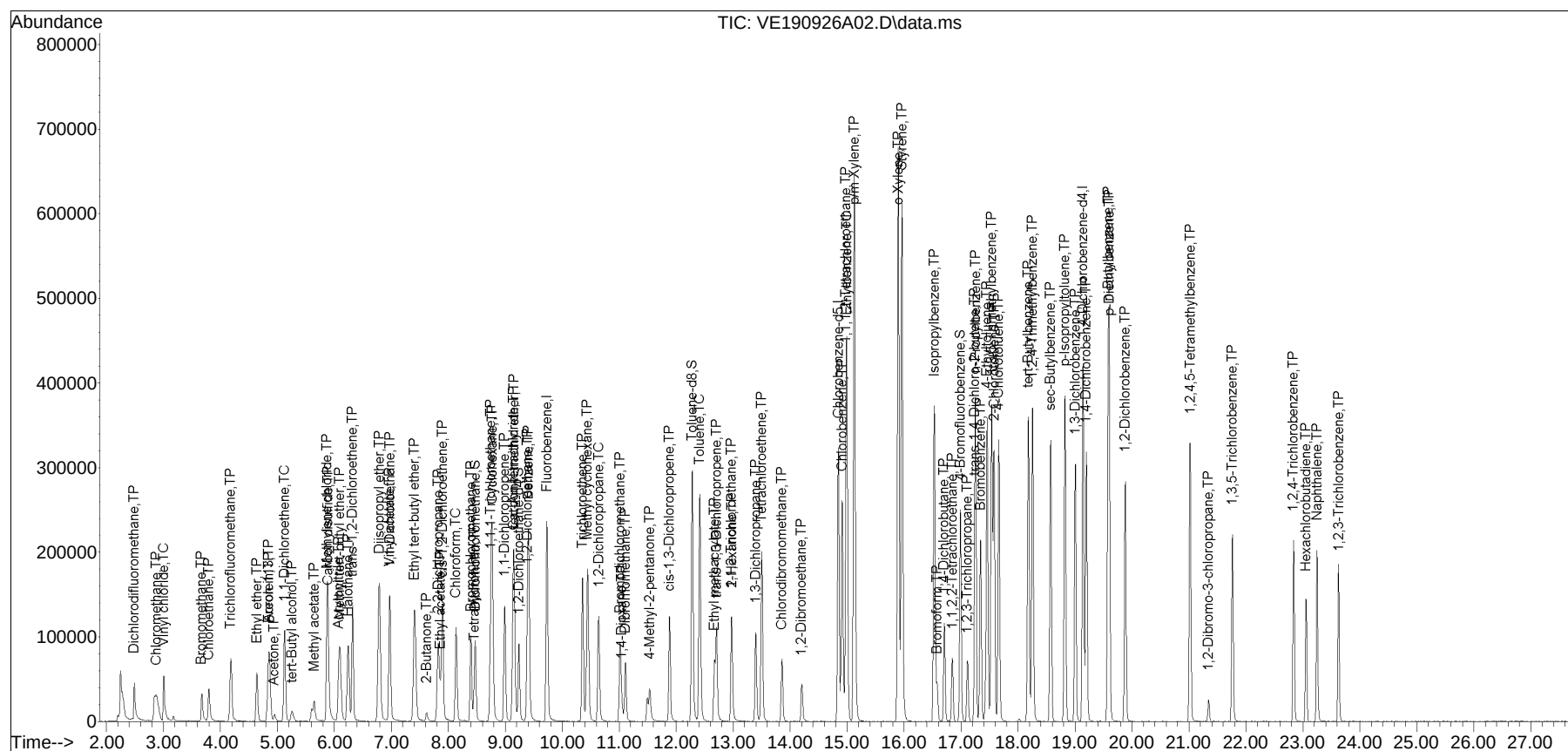
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
Data File : VE190926A02.D
Acq On : 26 Sep 2019 7:43 am
Operator : ELAINE:PD
Sample : WG1288977-2
Misc : WG1288977,ICAL15755
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

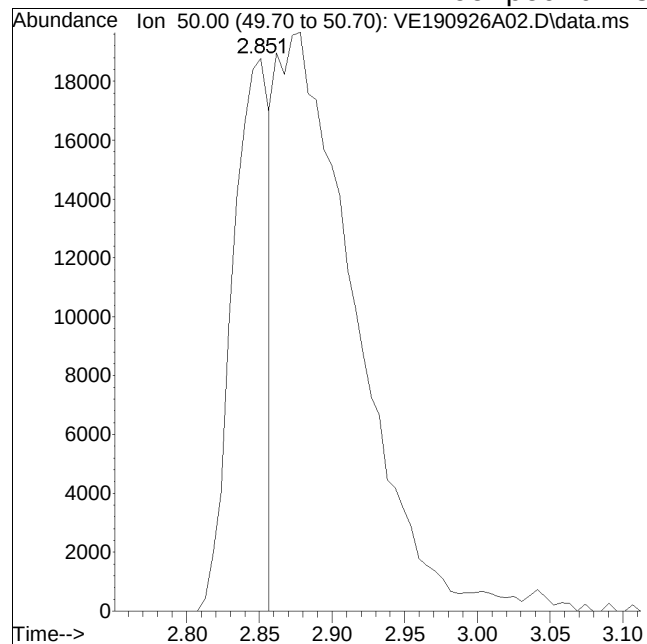
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

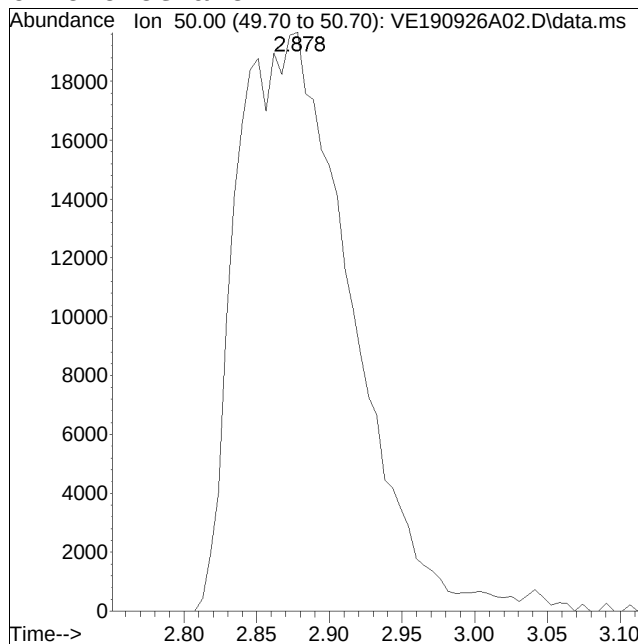
Data Path : I:\VOLATILES\Elaine\2019\1QMethod : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #3: Chloromethane



Original Peak Response = 33030

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

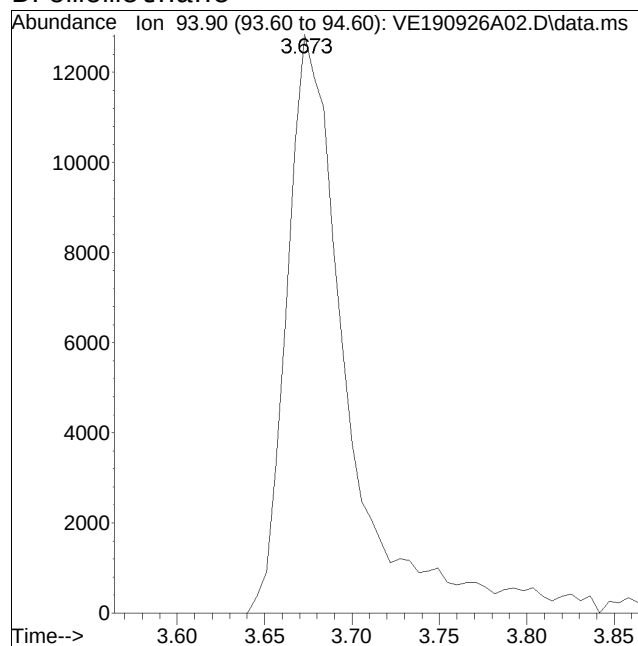
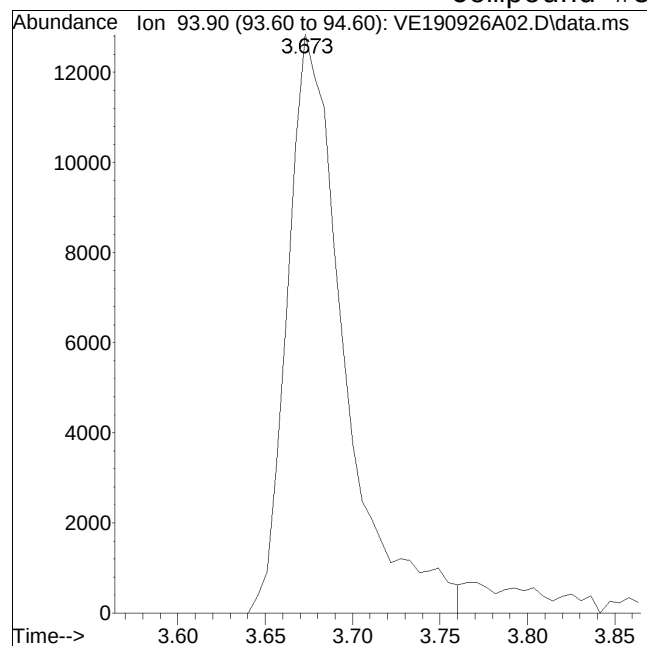


Manual Peak Response = 108099 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #5: Bromomethane



Original Peak Response = 29101

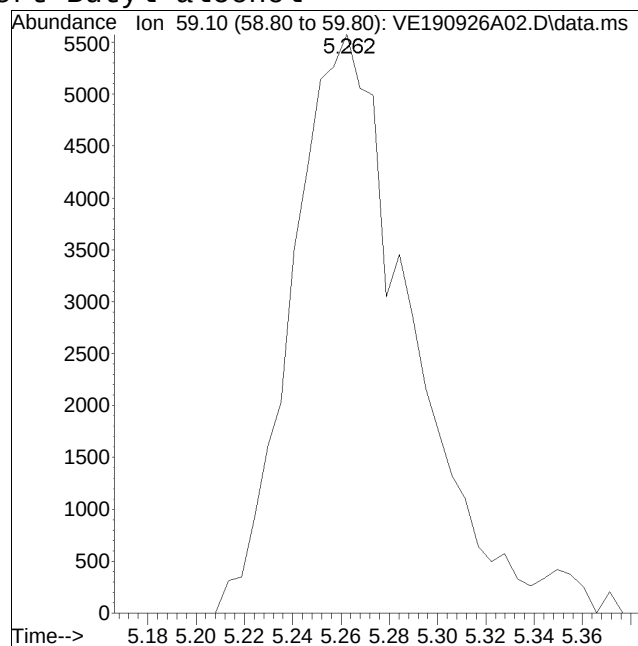
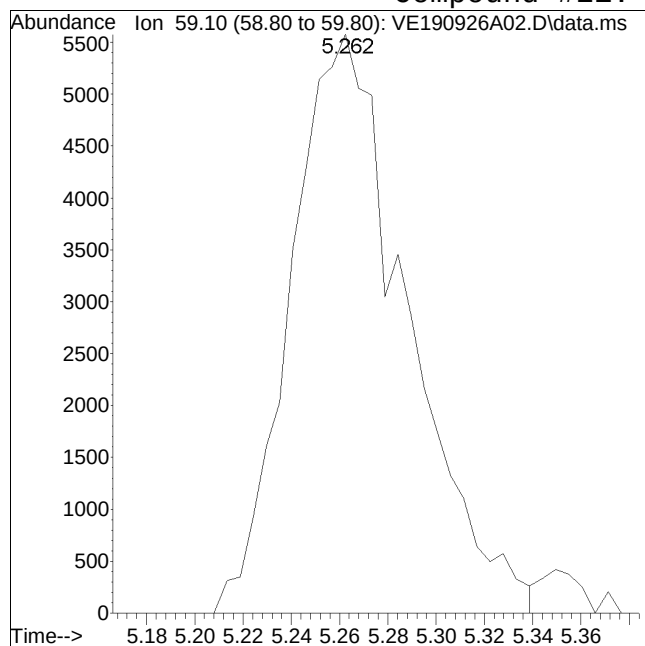
Manual Peak Response = 31257 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #21: tert-Butyl alcohol



Original Peak Response = 18642

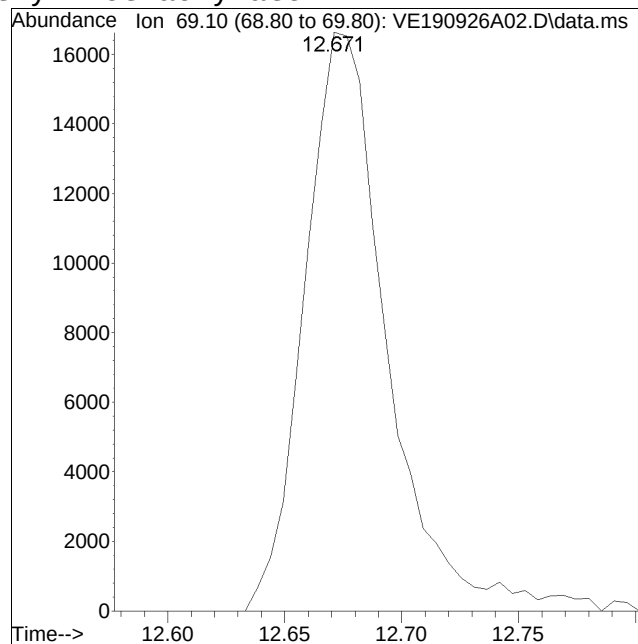
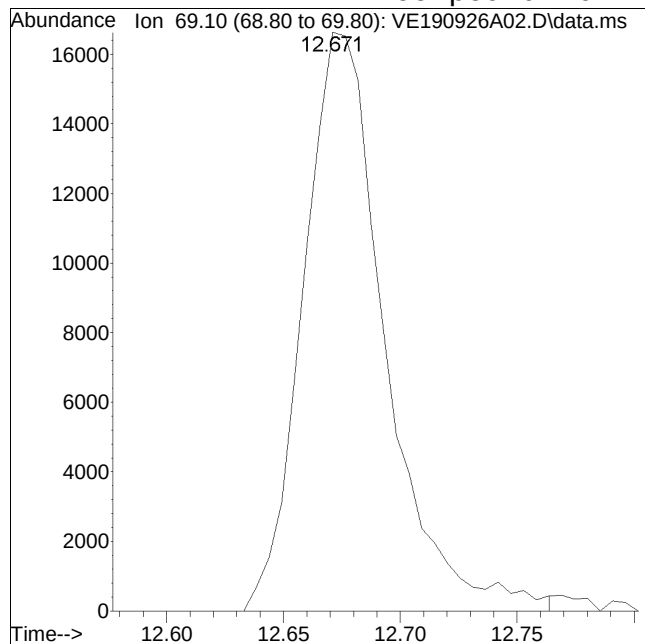
Manual Peak Response = 19093 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #67: Ethyl methacrylate



Original Peak Response = 40461

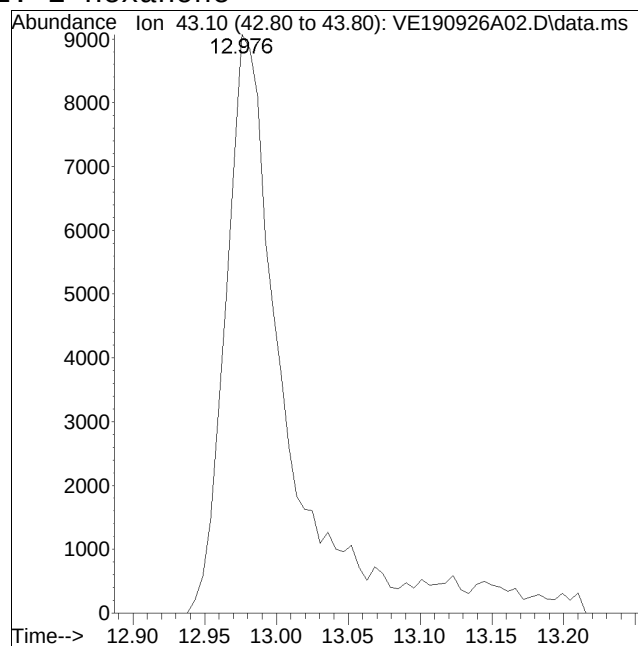
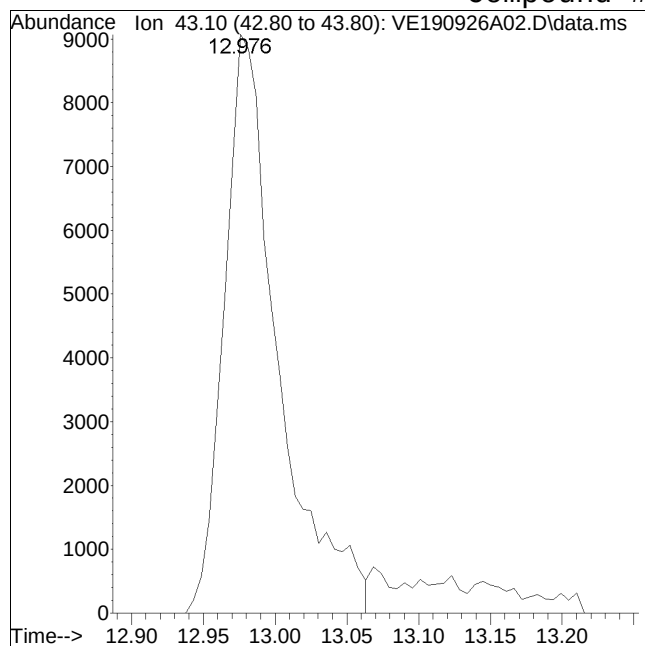
Manual Peak Response = 40847 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #72: 2-Hexanone



Original Peak Response = 23572

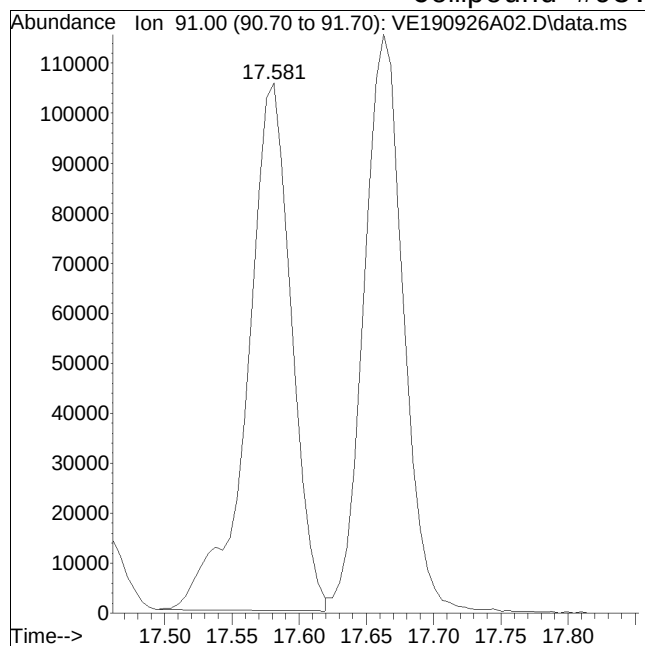
Manual Peak Response = 27065 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

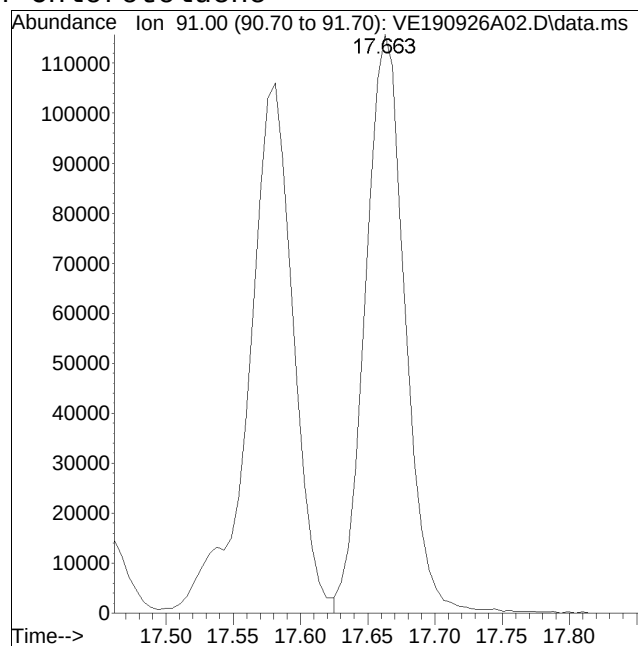
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-2 Quant Date : 9/26/2019 8:20 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 239279

M2 = Peak not found by automatic integration algorithm.



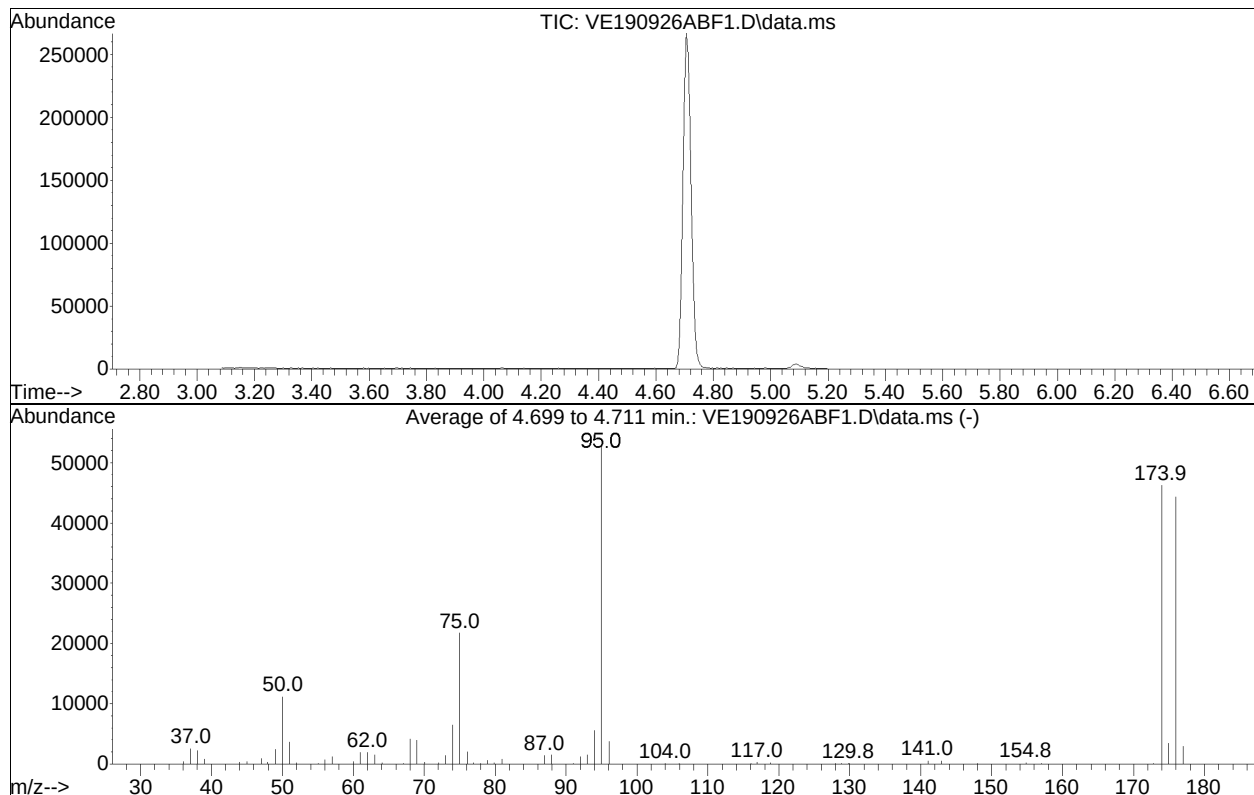
Manual Peak Response = 238009 M2

BFB

Data Path : I:\VOLATILES\Elaine\2019\190926A\
Data File : VE190926ABF1.D
Acq On : 26 Sep 2019 6:53 am
Operator : ELAINE:PD
Sample : WG1288977-1
Misc : WG1288977
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
Title : VOLATILES BY GC/MS
Last Update : Thu May 02 12:42:56 2019



AutoFind: Scans 266, 267, 268; Background Corrected with Scan 258

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	11165	PASS
75	95	30	60	41.2	21821	PASS
95	95	100	100	100.0	52987	PASS
96	95	5	9	7.1	3739	PASS
173	174	0.00	2	0.2	102	PASS
174	95	50	100	87.3	46275	PASS
175	174	5	9	7.6	3502	PASS
176	174	95	101	95.8	44347	PASS
177	176	5	9	6.7	2985	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A05.D
 Acq On : 26 Sep 2019 9:33 am
 Operator : ELAINE:PD
 Sample : WG1288977-5,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 12:04:38 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	247865	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery	=	95.30%	
59) Chlorobenzene-d5	14.848	117	226871	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery	=	96.57%	
79) 1,4-Dichlorobenzene-d4	19.143	152	154936	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery	=	96.47%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	59357	9.345	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.45%	
43) 1,2-Dichloroethane-d4	9.241	65	63085	9.366	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.66%	
60) Toluene-d8	12.284	98	243270	9.244	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	92.44%	
83) 4-Bromofluorobenzene	16.993	95	101245	7.637	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	76.37%	
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.872	50	76	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	5.888	76	667	N.D.		
15) Methylene chloride	5.877	84	72	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	8.136	83	1069	0.103	ug/L	# 82

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A05.D
 Acq On : 26 Sep 2019 9:33 am
 Operator : ELAINE:PD
 Sample : WG1288977-5,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 12:04:38 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	0.000		0		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	15.033	91	83		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	16.558	105	429		N.D.	
84) Bromobenzene	17.358	156	84		N.D.	
85) n-Propylbenzene	17.303	91	75		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	17.548	105	76		N.D.	
89) 2-Chlorotoluene	17.603	91	77		N.D.	
90) 1,3,5-Trimethylbenzene	17.548	105	76		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	17.603	91	77		N.D.	
94) tert-Butylbenzene	18.191	119	169		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A05.D
 Acq On : 26 Sep 2019 9:33 am
 Operator : ELAINE:PD
 Sample : WG1288977-5,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 12:04:38 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	18.300	105	323	N.D.		
98)	sec-Butylbenzene	18.588	105	890	N.D.		
99)	p-Isopropyltoluene	18.833	119	663	N.D.		
100)	1,3-Dichlorobenzene	19.029	146	888	N.D.		
101)	1,4-Dichlorobenzene	19.198	146	1236	N.D.		
102)	p-Diethylbenzene	19.655	119	74	N.D.		
103)	n-Butylbenzene	19.617	91	93	N.D.		
104)	1,2-Dichlorobenzene	19.916	146	356	N.D.		
105)	1,2,4,5-Tetramethylben...	21.059	119	77	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	23.057	225	805	0.232	ug/L #	82
109)	1,2,4-Trichlorobenzene	22.867	180	867	0.107	ug/L #	71
110)	Naphthalene	23.275	128	2323	0.130	ug/L	100
111)	1,2,3-Trichlorobenzene	23.651	180	1090	0.163	ug/L #	72

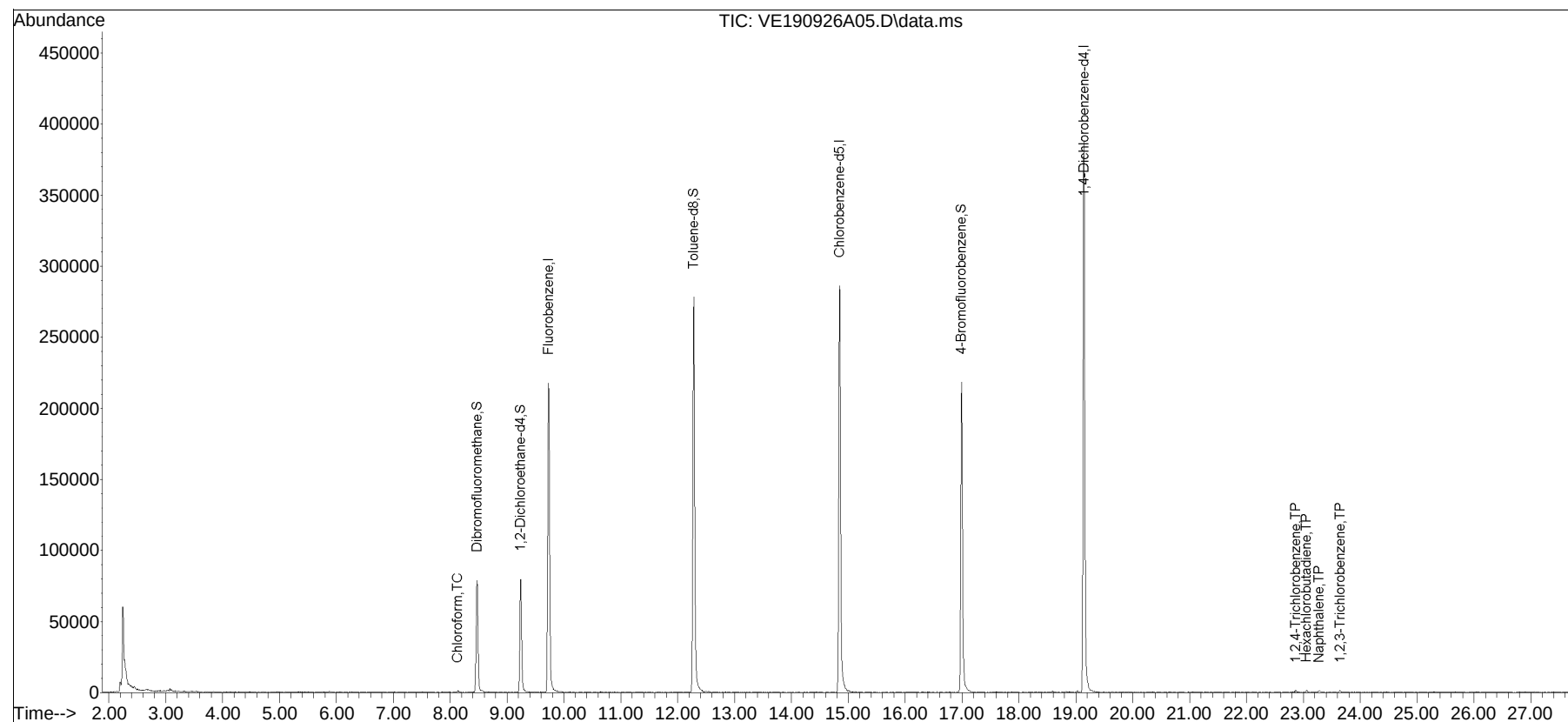
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A05.D
 Acq On : 26 Sep 2019 9:33 am
 Operator : ELAINE:PD
 Sample : WG1288977-5,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

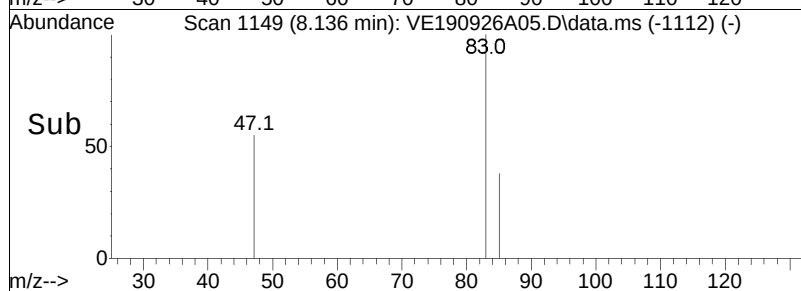
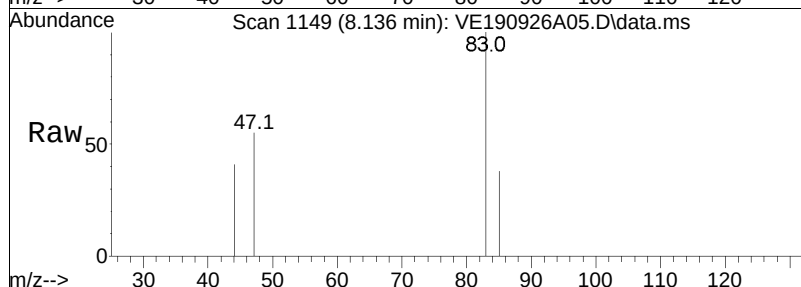
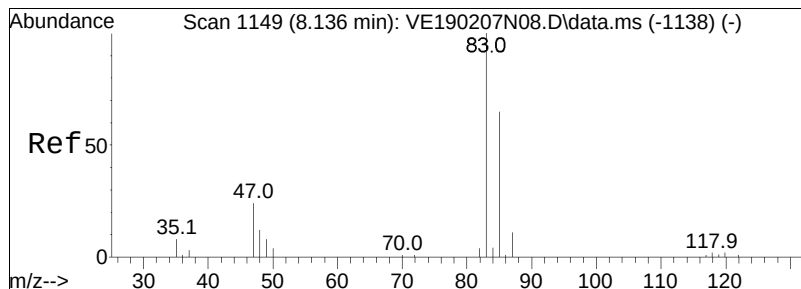
Quant Time: Sep 26 12:04:38 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



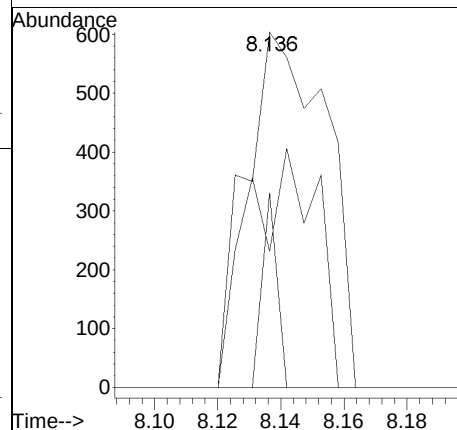
Elaine_190501N_8260.m Thu Sep 26 12:09:44 2019

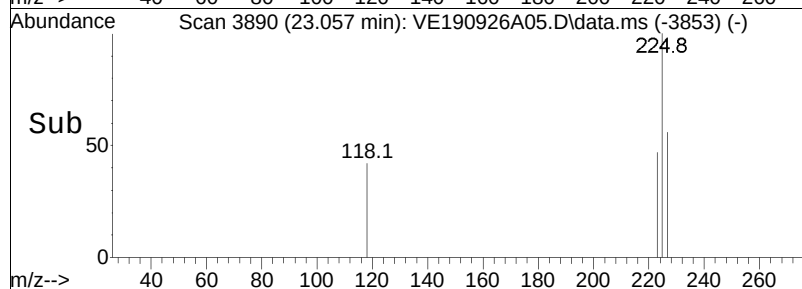
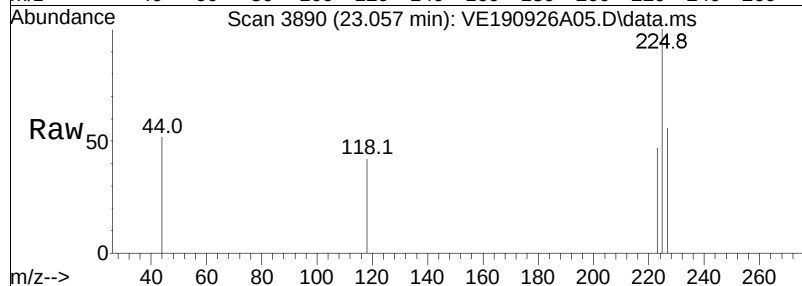
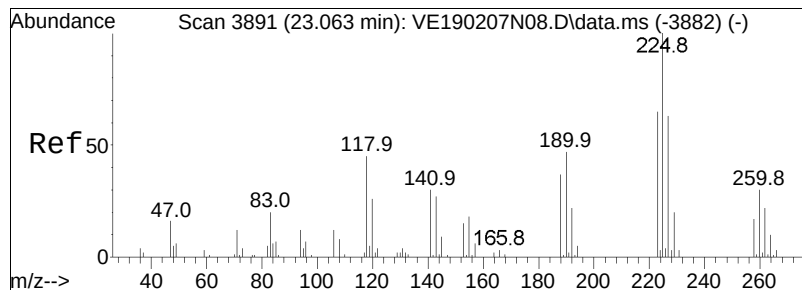
Page 4 : 4



#32
 Chloroform
 Concen: 0.10 ug/L
 RT: 8.136 min Scan# 1149
 Delta R.T. 0.000 min
 Lab File: VE190926A05.D
 Acq: 26 Sep 2019 9:33 am

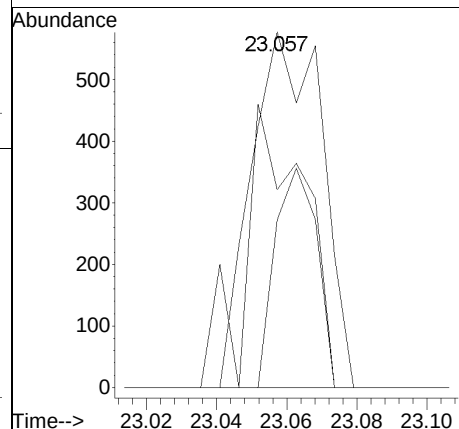
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	1069		
85	57.1		43.0	89.2
47	10.1		16.4	34.0#
48	0.0		8.3	17.3#

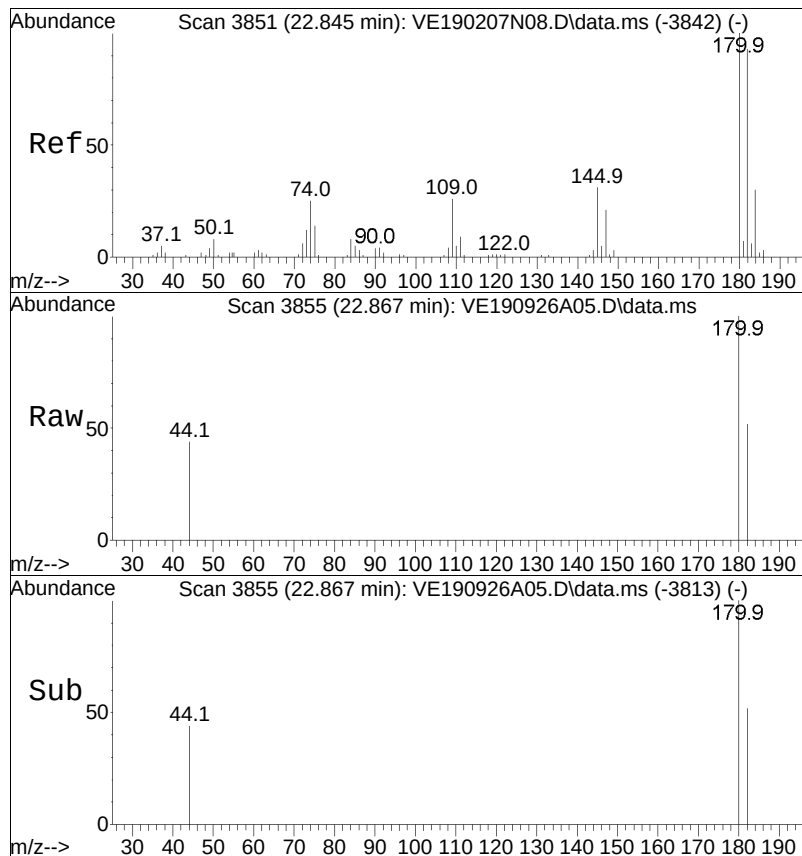




#108
 Hexachlorobutadiene
 Concen: 0.23 ug/L
 RT: 23.057 min Scan# 3890
 Delta R.T. 0.000 min
 Lab File: VE190926A05.D
 Acq: 26 Sep 2019 9:33 am

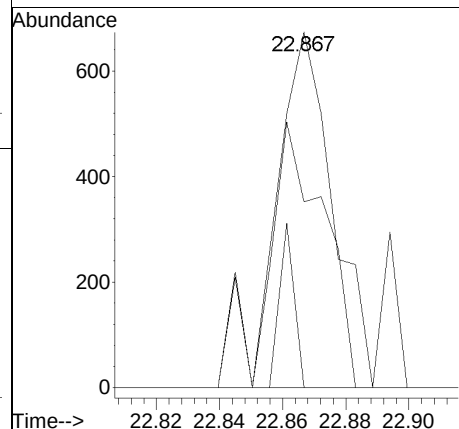
Tgt Ion	Ratio	Lower	Upper
225	100		
223	36.5	48.2	72.4#
227	58.9	50.6	75.8

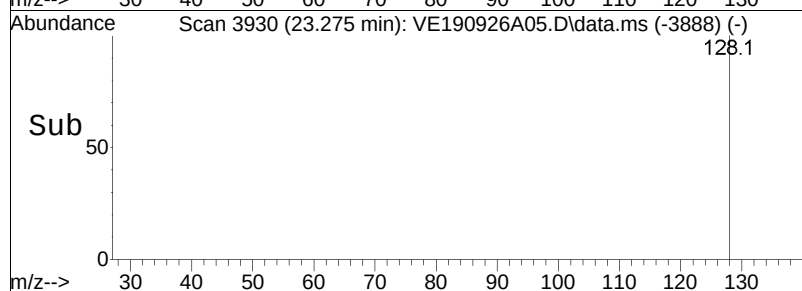
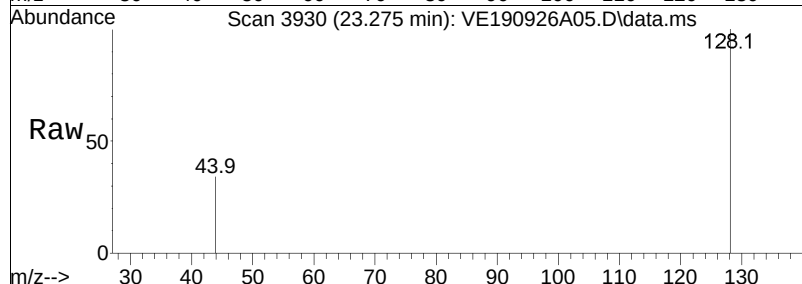
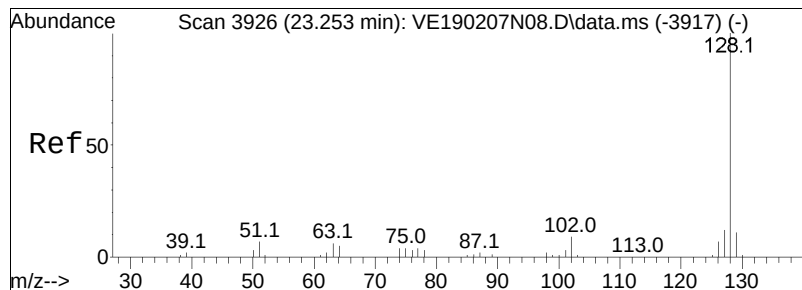




#109
 1,2,4-Trichlorobenzene
 Concen: 0.11 ug/L
 RT: 22.867 min Scan# 3855
 Delta R.T. 0.027 min
 Lab File: VE190926A05.D
 Acq: 26 Sep 2019 9:33 am

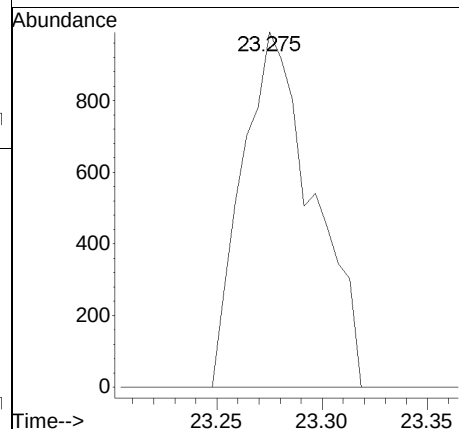
Tgt Ion	Ratio	Lower	Upper
180	100		
182	72.4	77.7	116.5#
145	11.8	27.4	41.2#

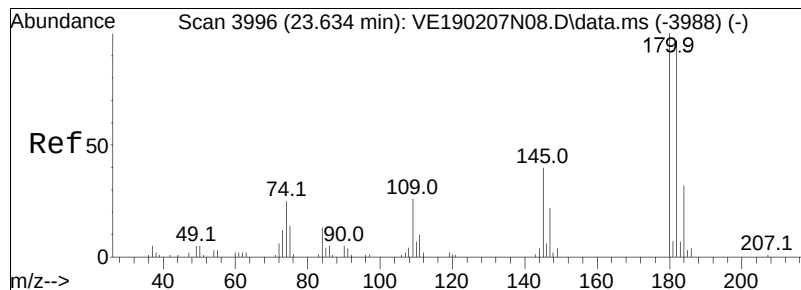




#110
Naphthalene
Concen: 0.13 ug/L
RT: 23.275 min Scan# 3930
Delta R.T. 0.027 min
Lab File: VE190926A05.D
Acq: 26 Sep 2019 9:33 am

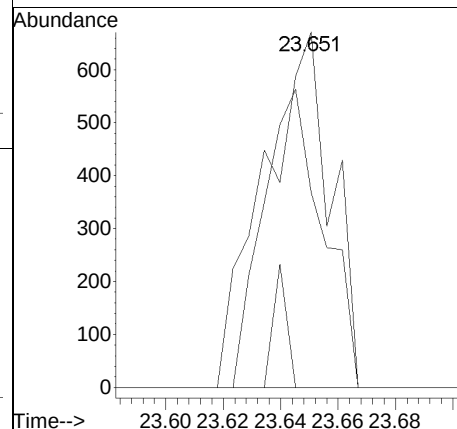
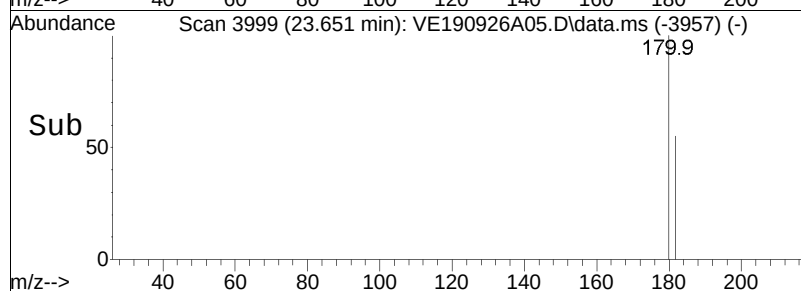
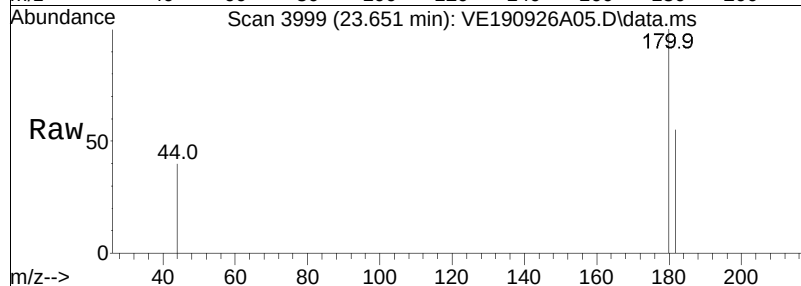
Tgt Ion:128 Resp: 2323





#111
 1,2,3-Trichlorobenzene
 Concen: 0.16 ug/L
 RT: 23.651 min Scan# 3999
 Delta R.T. 0.028 min
 Lab File: VE190926A05.D
 Acq: 26 Sep 2019 9:33 am

Tgt Ion	Ratio	Lower	Upper
180	100		
182	75.2	74.6	112.0
145	7.0	29.2	43.8



Manual Integration Report

Data Path	: I:\VOLATILES\Elaine\2019\10	Method	: Elaine_190501N_8260.m
Data File	: VE190926A05.D	Operator	: ELAINE:PD
Date Inj'd	: 9/26/2019 9:33 am	Instrument	: Elaine
Sample	: WG1288977-5,31,10,10	Quant Date	: 9/26/2019 12:04 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-3,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.732	96	260092	10.000	ug/L	0.00
59) Chlorobenzene-d5	14.849	117	234931	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	19.138	152	160613	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	63625	9.546	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	95.46%	
43) 1,2-Dichloroethane-d4	9.242	65	64776	9.165	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	91.65%	
60) Toluene-d8	12.285	98	251112	9.215	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	92.15%	
83) 4-Bromofluorobenzene	16.988	95	109394	7.960	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	79.60%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.492	85	48061	6.277	ug/L	97
3) Chloromethane	2.878	50	108099M1	9.169	ug/L	
4) Vinyl chloride	3.009	62	59459	8.893	ug/L	94
5) Bromomethane	3.673	94	31257M1	5.546	ug/L	
6) Chloroethane	3.804	64	43585	8.279	ug/L	99
7) Trichlorofluoromethane	4.185	101	87941	8.199	ug/L	100
8) Ethyl ether	4.642	74	22195	7.311	ug/L #	73
10) 1,1-Dichloroethene	5.126	96	51419	8.878	ug/L	99
11) Carbon disulfide	5.894	76	114807	6.179	ug/L	99
15) Methylene chloride	5.872	84	57270	8.380	ug/L	86
17) Acetone	4.947	43	12937	9.233	ug/L #	78
18) trans-1,2-Dichloroethene	6.324	96	57674	9.057	ug/L	93
20) Methyl tert-butyl ether	6.101	73	105487	8.159	ug/L #	86
23) 1,1-Dichloroethane	6.977	63	111037	9.081	ug/L	99
25) Acrylonitrile	6.079	53	18083	9.904	ug/L	97
27) Vinyl acetate	6.972	43	111665	11.398	ug/L #	94
28) cis-1,2-Dichloroethene	7.897	96	64108	9.255	ug/L	94
29) 2,2-Dichloropropane	7.826	77	69860	11.749	ug/L #	69
30) Bromochloromethane	8.403	128	31559	10.768	ug/L	87
32) Chloroform	8.137	83	94660	8.661	ug/L	94
34) Carbon tetrachloride	9.144	117	78923	11.259	ug/L	93
37) 1,1,1-Trichloroethane	8.746	97	91557	10.386	ug/L	97
39) 2-Butanone	7.625	43	19334	10.213	ug/L #	82
40) 1,1-Dichloropropene	8.991	75	67940	7.674	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-3,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41)	Benzene	9.410	78	194761	7.299	ug/L	# 89
44)	1,2-Dichloroethane	9.389	62	77529	9.587	ug/L	99
48)	Trichloroethene	10.358	95	59922	9.097	ug/L	# 87
50)	Dibromomethane	11.109	93	24808	8.002	ug/L	# 67
51)	1,2-Dichloropropane	10.641	63	57260	8.293	ug/L	97
54)	Bromodichloromethane	11.016	83	67013	8.739	ug/L	# 98
57)	1,4-Dioxane	11.043	88	20690	401.032	ug/L	# 84
58)	cis-1,3-Dichloropropene	11.887	75	71744	8.264	ug/L	# 82
61)	Toluene	12.415	92	147669	8.615	ug/L	99
62)	4-Methyl-2-pentanone	11.533	58	15089	9.136	ug/L	# 36
63)	Tetrachloroethene	13.504	166	82048	10.719	ug/L	90
65)	trans-1,3-Dichloropropene	12.709	75	59308	8.544	ug/L	# 56
68)	1,1,2-Trichloroethane	12.970	83	30150	8.106	ug/L	# 87
69)	Chlorodibromomethane	13.858	129	53461	10.863	ug/L	99
70)	1,3-Dichloropropane	13.395	76	63305	7.678	ug/L	97
71)	1,2-Dibromoethane	14.201	107	43675	9.744	ug/L	98
72)	2-Hexanone	12.976	43	27065M1	9.947	ug/L	
73)	Chlorobenzene	14.914	112	192520	9.593	ug/L	90
74)	Ethylbenzene	14.996	91	301280	9.044	ug/L	94
75)	1,1,1,2-Tetrachloroethane	14.985	131	68018	12.119	ug/L	98
76)	p/m Xylene	15.126	106	272307	19.515	ug/L	90
77)	o Xylene	15.899	106	260695	19.823	ug/L	87
78)	Styrene	15.964	104	400729	19.281	ug/L	92
80)	Bromoform	16.580	173	28324	8.849	ug/L	100
82)	Isopropylbenzene	16.531	105	333564	8.380	ug/L	92
84)	Bromobenzene	17.342	156	93202	9.701	ug/L	99
85)	n-Propylbenzene	17.255	91	359194	8.148	ug/L	# 88
87)	1,1,2,2-Tetrachloroethane	16.846	83	42411	7.284	ug/L	96
88)	4-Ethyltoluene	17.456	105	321565	8.377	ug/L	92
89)	2-Chlorotoluene	17.581	91	242119	8.007	ug/L	# 85
90)	1,3,5-Trimethylbenzene	17.538	105	277292	8.263	ug/L	89
91)	1,2,3-Trichloropropane	17.108	75	33451	6.889	ug/L	81
92)	trans-1,4-Dichloro-2-b...	17.238	53	13659	7.595	ug/L	# 70
93)	4-Chlorotoluene	17.663	91	238009M2	8.269	ug/L	
94)	tert-Butylbenzene	18.180	119	268331	9.684	ug/L	87
97)	1,2,4-Trimethylbenzene	18.256	105	277595	8.360	ug/L	89
98)	sec-Butylbenzene	18.572	105	305853	8.317	ug/L	87
99)	p-Isopropyltoluene	18.822	119	325681	10.014	ug/L	94
100)	1,3-Dichlorobenzene	19.007	146	184861	9.695	ug/L	94
101)	1,4-Dichlorobenzene	19.198	146	189672	9.809	ug/L	# 94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A02.D
 Acq On : 26 Sep 2019 7:43 am
 Operator : ELAINE:PD
 Sample : WG1288977-3,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	p-Diethylbenzene	19.601	119	185957	9.944	ug/L	88
103)	n-Butylbenzene	19.584	91	261640	8.189	ug/L #	88
104)	1,2-Dichlorobenzene	19.884	146	170645	10.006	ug/L	93
105)	1,2,4,5-Tetramethylben...	21.022	119	258669	10.307	ug/L	95
106)	1,2-Dibromo-3-chloropr...	21.343	155	7794	9.514	ug/L	99
108)	Hexachlorobutadiene	23.057	225	34380	9.539	ug/L	98
109)	1,2,4-Trichlorobenzene	22.834	180	85622	10.177	ug/L	97
110)	Naphthalene	23.248	128	189875	10.269	ug/L	100
111)	1,2,3-Trichlorobenzene	23.629	180	67955	9.832	ug/L	97

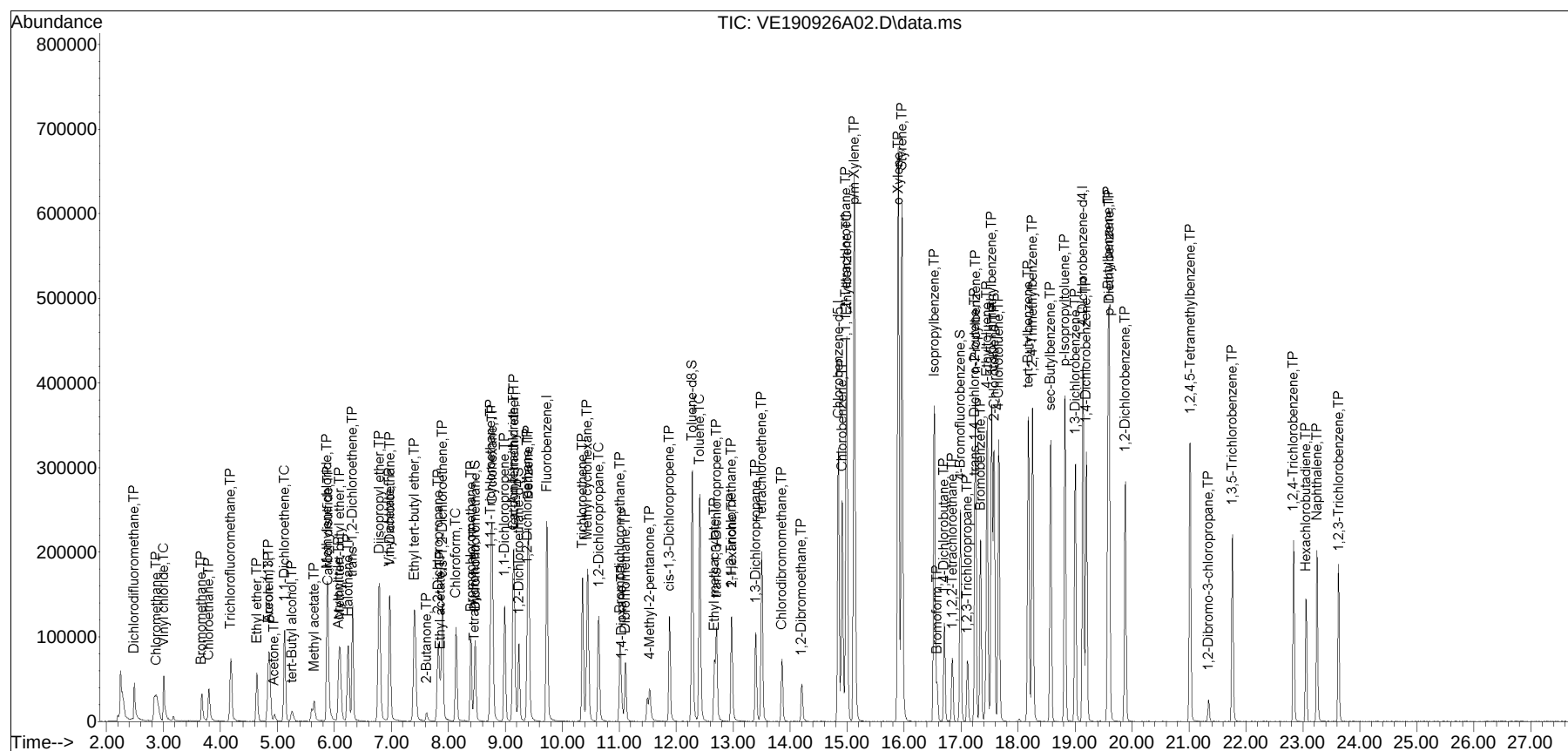
(#) = qualifier out of range (m) = manual integration (+) = signals summed

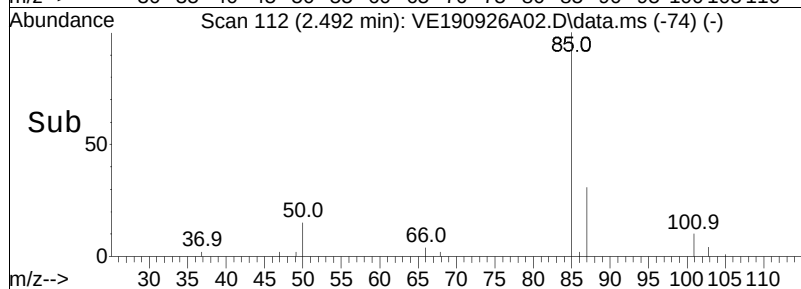
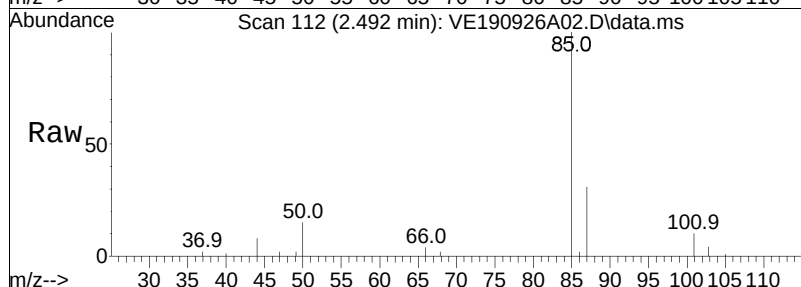
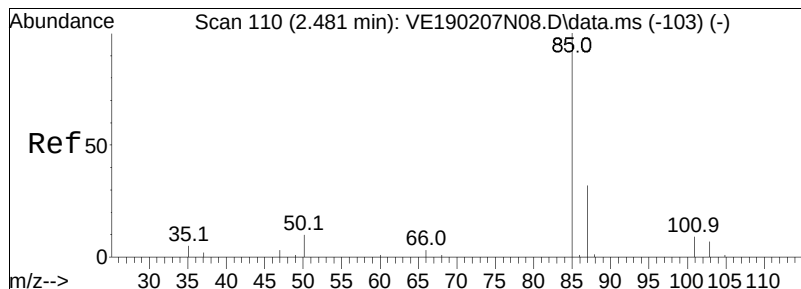
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
Data File : VE190926A02.D
Acq On : 26 Sep 2019 7:43 am
Operator : ELAINE:PD
Sample : WG1288977-3,31,10,10
Misc : WG1288977,ICAL15755
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 08:21:45 2019
Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

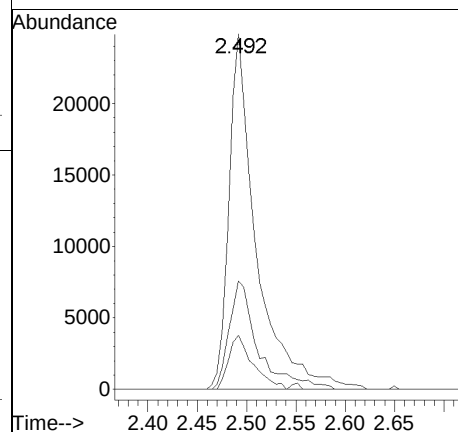
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

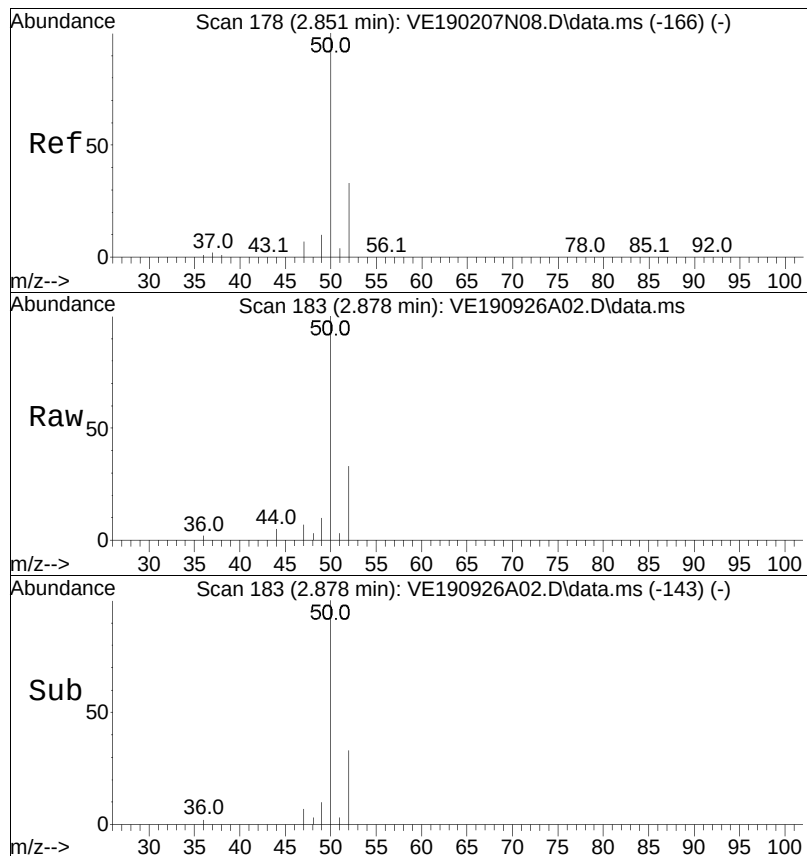




#2
 Dichlorodifluoromethane
 Concen: 6.28 ug/L
 RT: 2.492 min Scan# 112
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

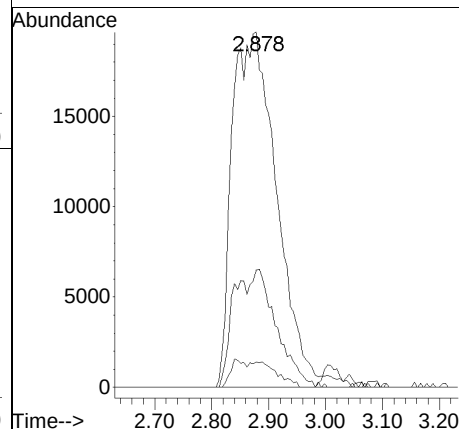
Tgt Ion	85	87	50	Ratio	100	32.3	13.5	Resp:	48061	Lower	Upper
85	100										
87		32.3				22.1					45.9
50			13.5			8.3					17.3

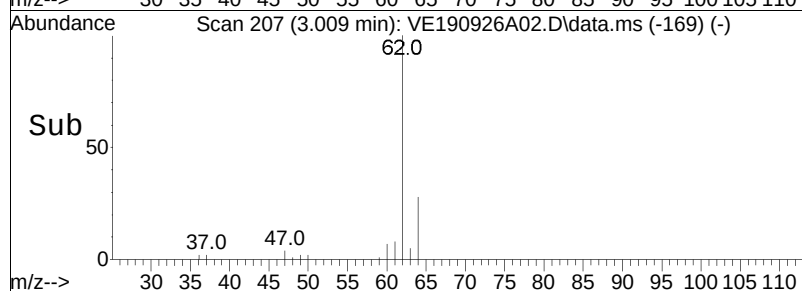
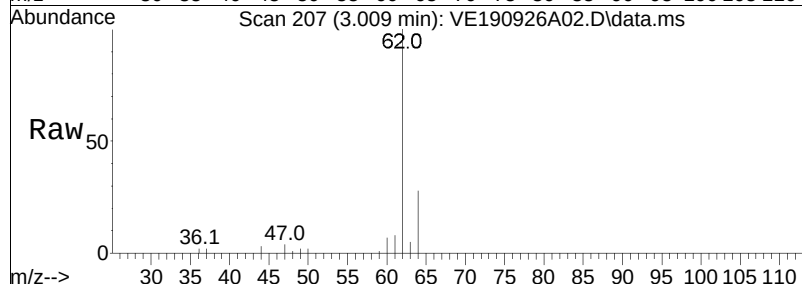
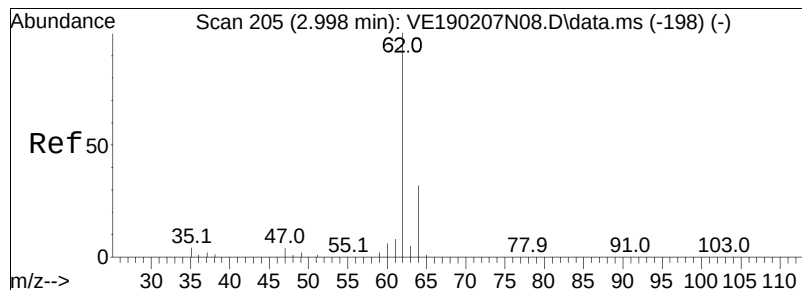




#3
 Chloromethane
 Concen: 9.17 ug/L M1
 RT: 2.878 min Scan# 183
 Delta R.T. 0.016 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

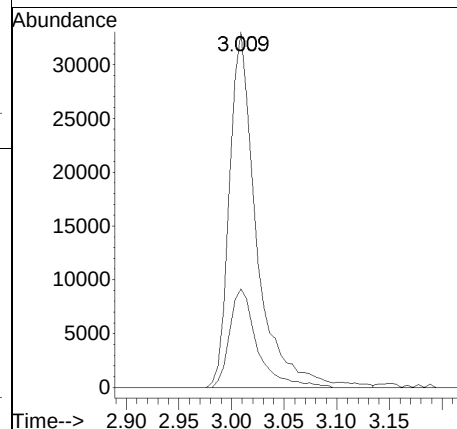
Tgt Ion	Ratio	Lower	Upper
50	100		
52	11.4	11.7	51.7#
47	2.7	0.0	26.8

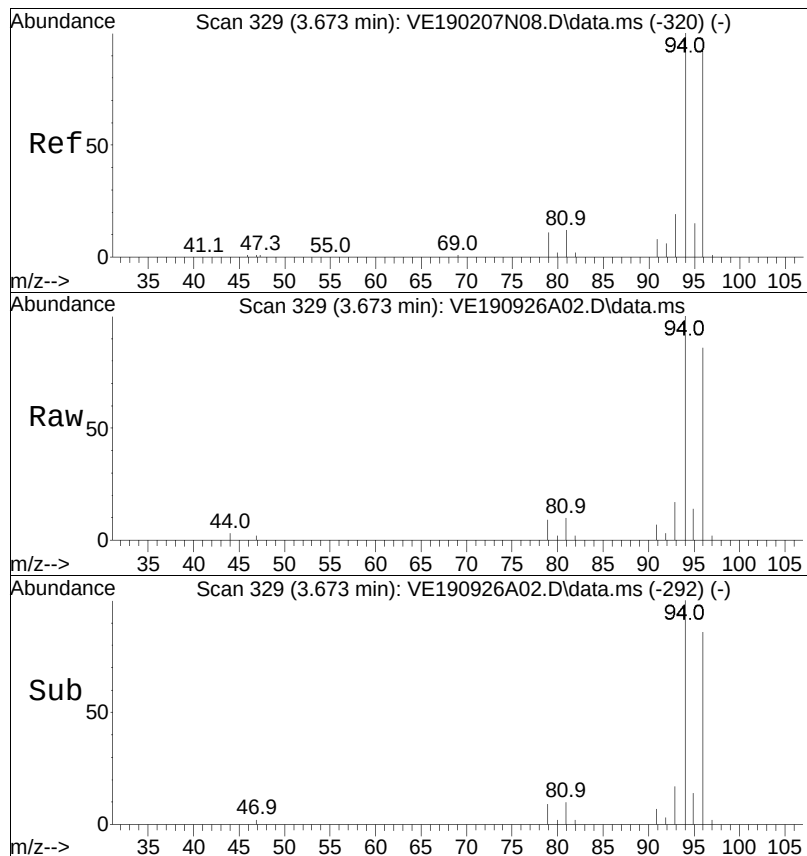




#4
 Vinyl chloride
 Concen: 8.89 ug/L
 RT: 3.009 min Scan# 207
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

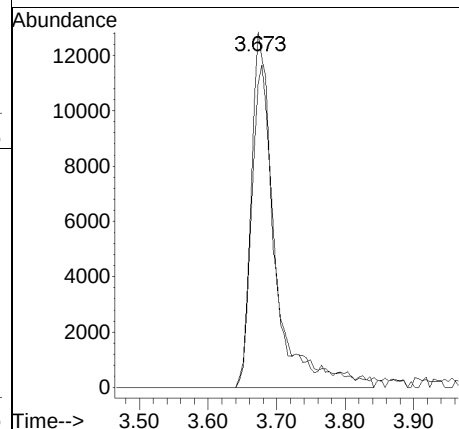
Tgt Ion	Ratio	Lower	Upper
62	100		
64	28.2	11.3	51.3

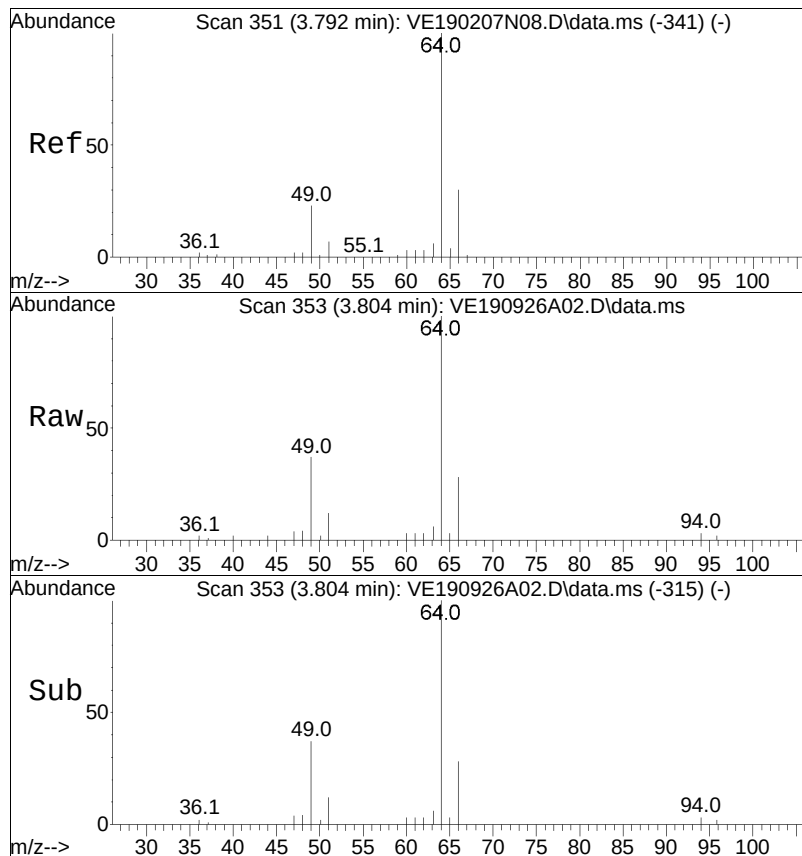




#5
 Bromomethane
 Concen: 5.55 ug/L M1
 RT: 3.673 min Scan# 329
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

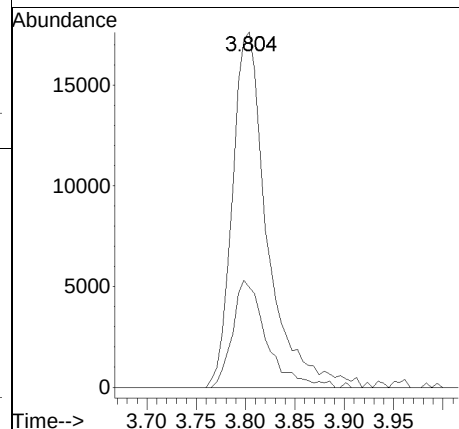
Tgt Ion	Ratio	Lower	Upper
94	100		
96	78.4	71.9	111.9

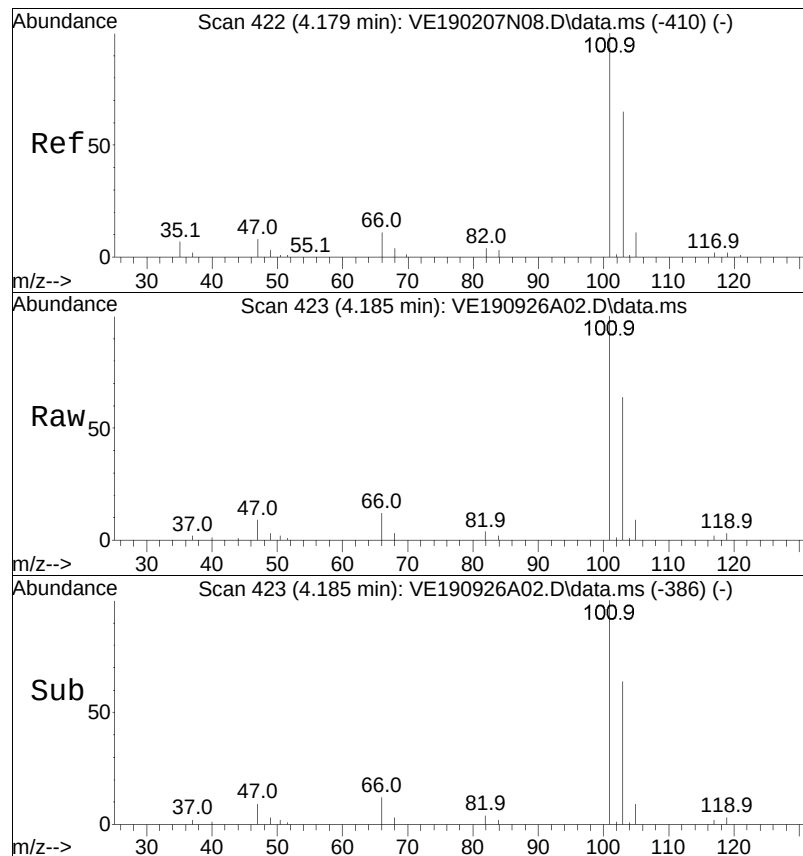




#6
 Chloroethane
 Concen: 8.28 ug/L
 RT: 3.804 min Scan# 353
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

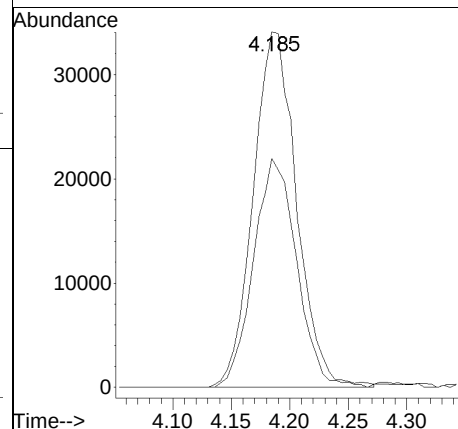
Tgt Ion:	64	Resp:	43585
Ion Ratio	Lower	Upper	
64	100		
66	29.3	8.6	48.6

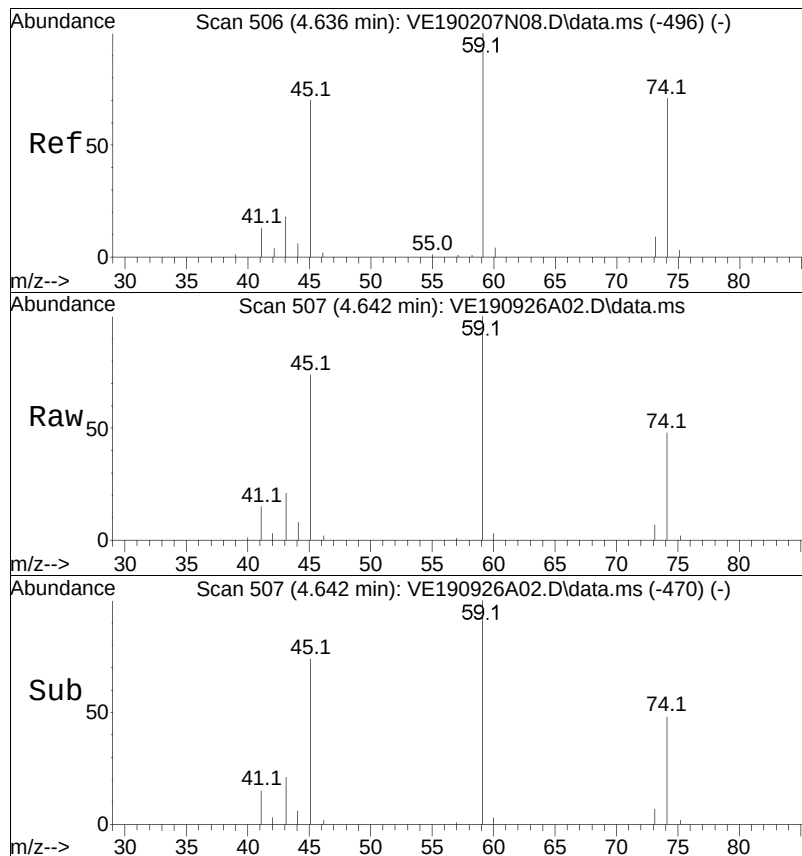




#7
 Trichlorofluoromethane
 Concen: 8.20 ug/L
 RT: 4.185 min Scan# 423
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

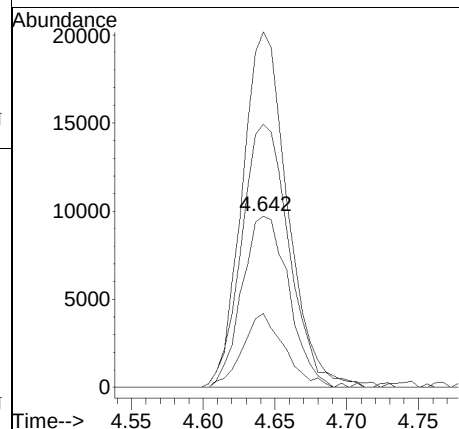
Tgt	Ion	Ratio	Lower	Upper
101	100			
103	64.0	51.4	77.0	

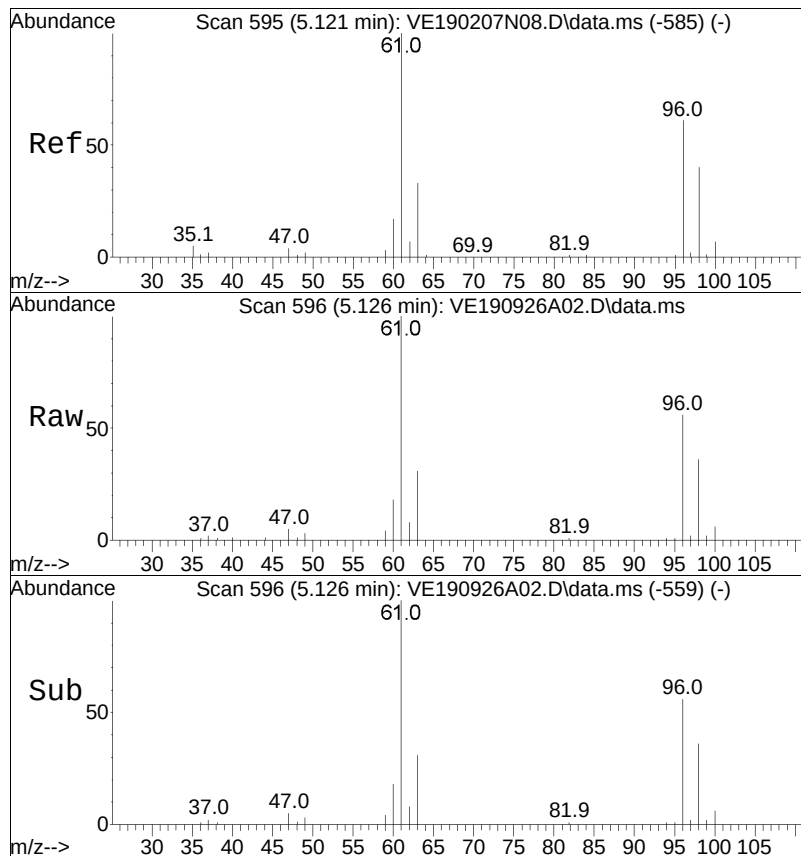




#8
 Ethyl ether
 Concen: 7.31 ug/L
 RT: 4.642 min Scan# 507
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

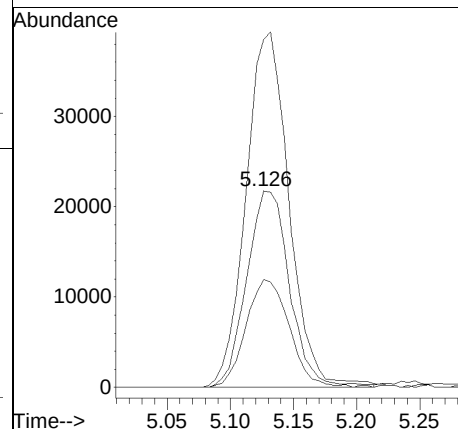
Tgt Ion:	74	Resp:	22195
Ion Ratio	Lower	Upper	
74	100		
59	200.1	106.7	221.7
45	157.5	80.9	167.9
43	38.5	17.7	36.9#

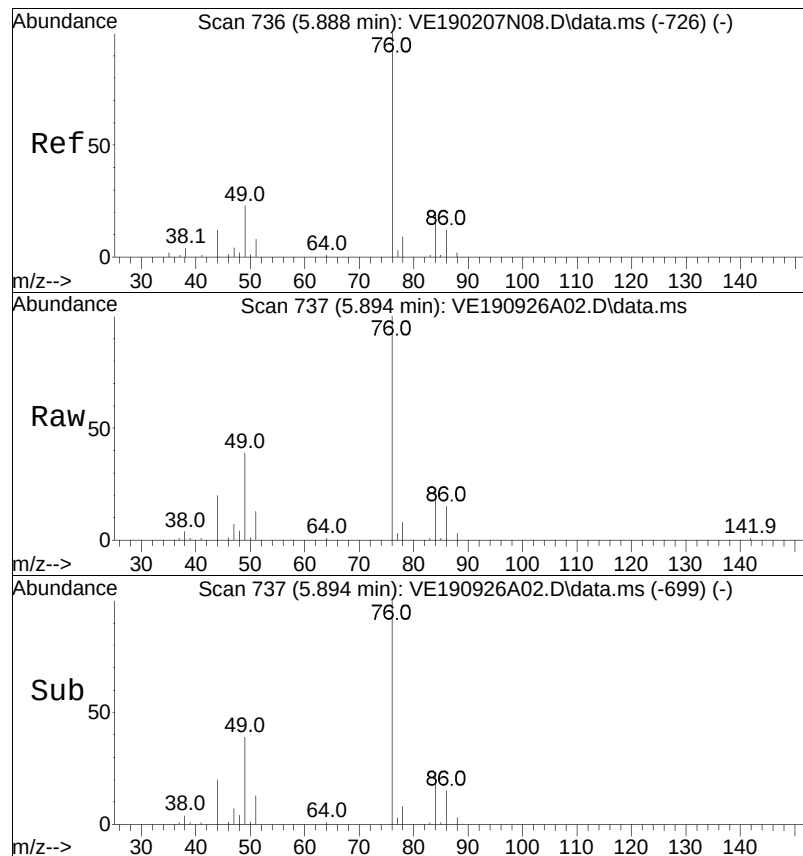




#10
 1,1-Dichloroethene
 Concen: 8.88 ug/L
 RT: 5.126 min Scan# 596
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

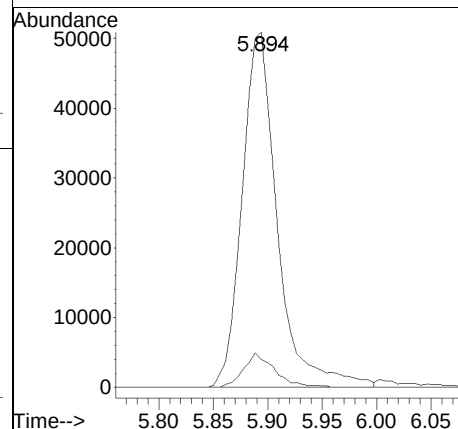
Tgt Ion:	96	Resp:	51419
Ion Ratio	100	Lower	Upper
61	181.8	146.5	219.7
63	55.4	43.6	65.4

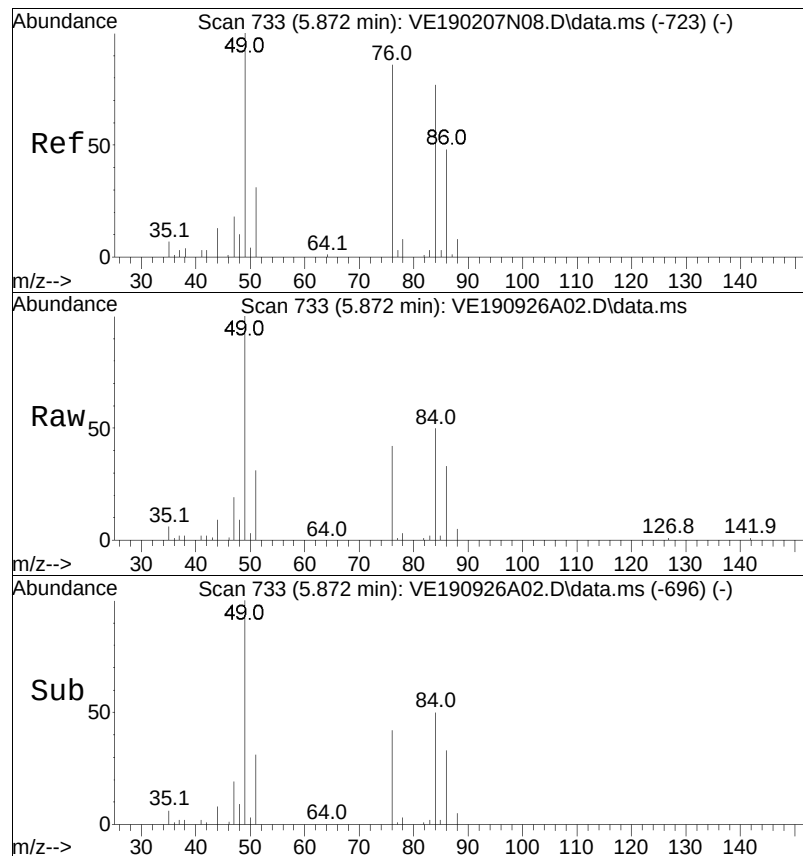




#11
 Carbon disulfide
 Concen: 6.18 ug/L
 RT: 5.894 min Scan# 737
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

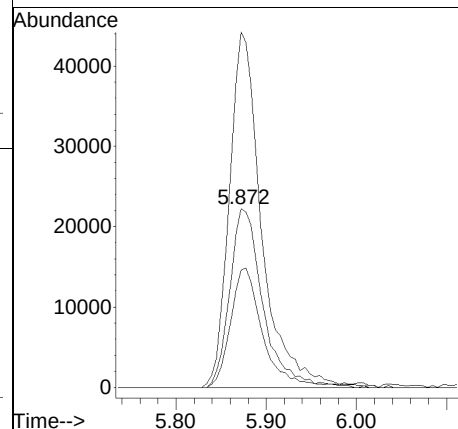
Tgt Ion	Ratio	Lower	Upper
76	100		
78	8.6	5.9	12.3

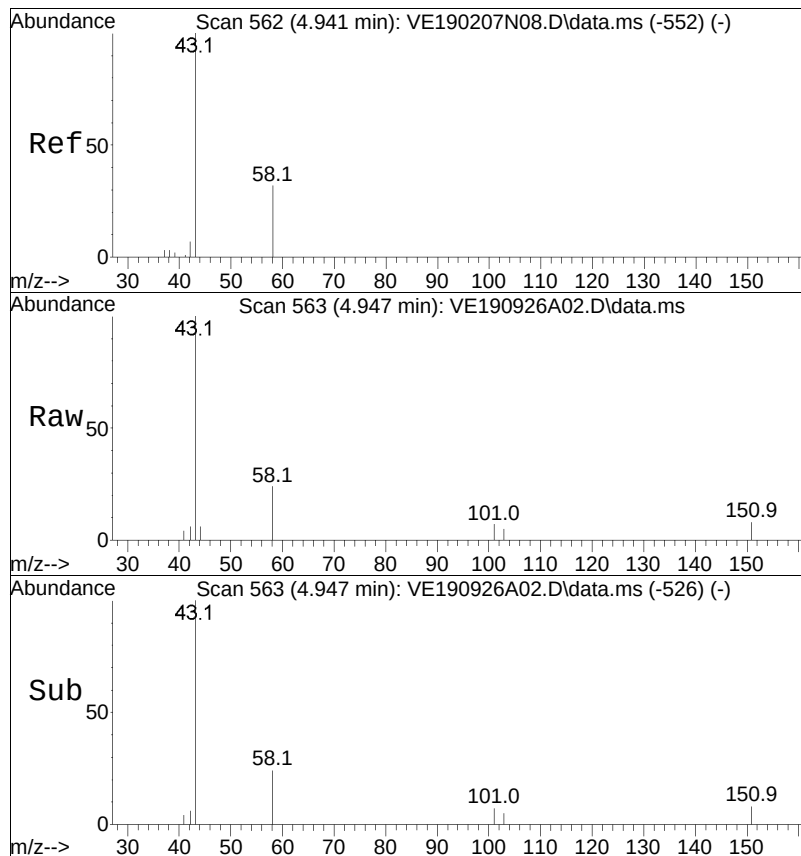




#15
Methylene chloride
Concen: 8.38 ug/L
RT: 5.872 min Scan# 733
Delta R.T. 0.000 min
Lab File: VE190926A02.D
Acq: 26 Sep 2019 7:43 am

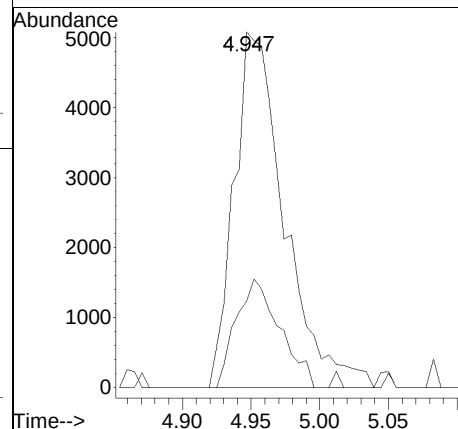
Tgt Ion	Ratio	Lower	Upper
84	100		
86	64.4	42.4	88.2
49	192.1	107.7	223.7

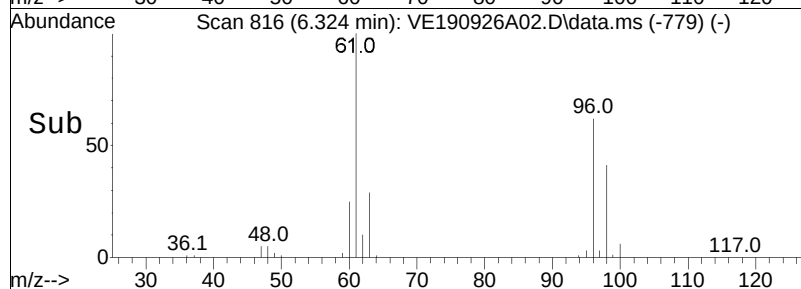
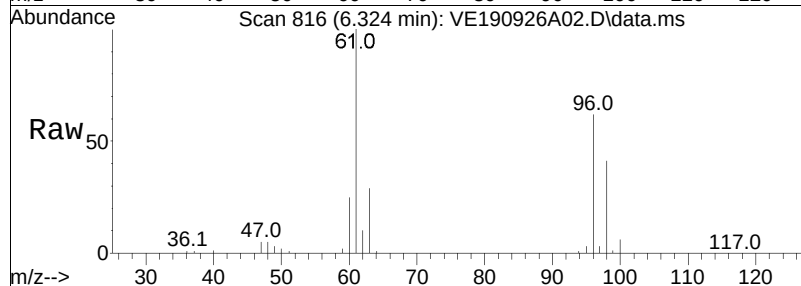
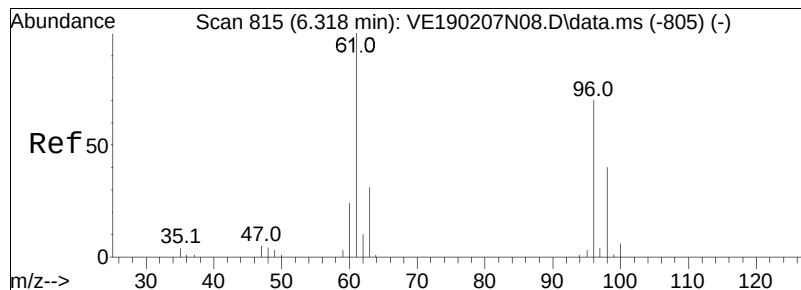




#17
 Acetone
 Concen: 9.23 ug/L
 RT: 4.947 min Scan# 563
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

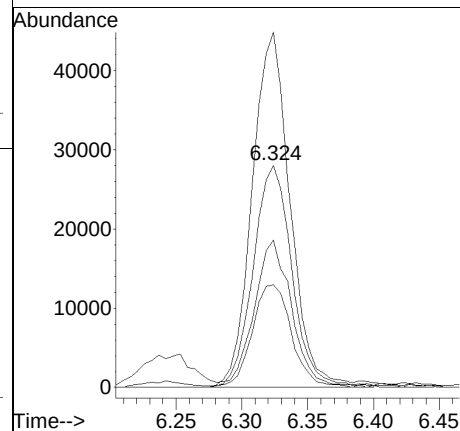
Tgt Ion:	43	58	Ratio	100	26.5	Resp:	12937	Lower	Upper
								32.1	48.1#

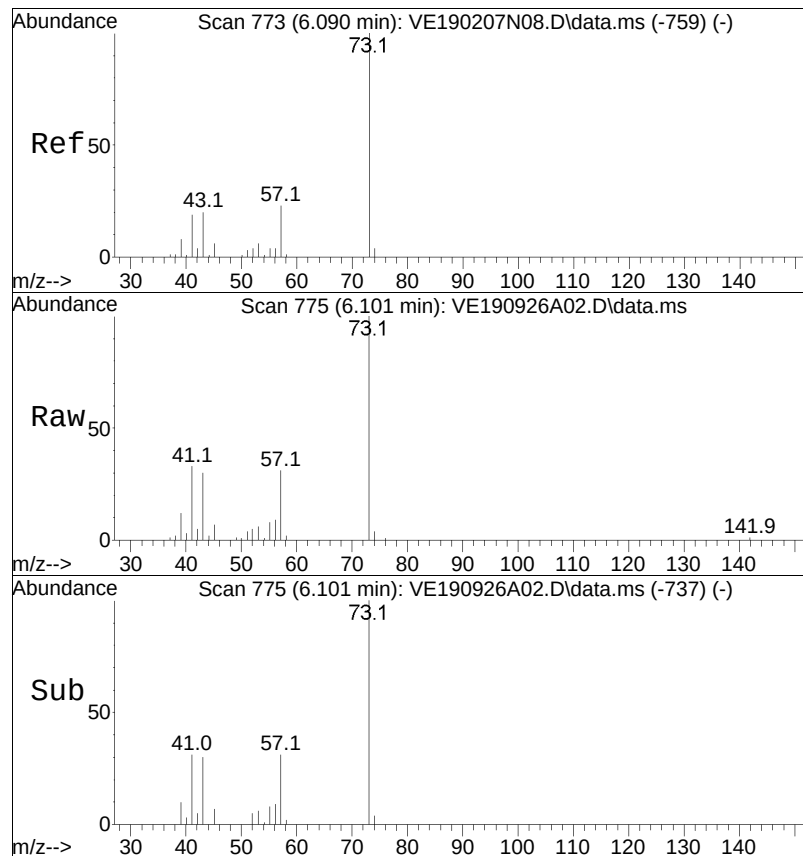




#18
 trans-1,2-Dichloroethene
 Concen: 9.06 ug/L
 RT: 6.324 min Scan# 816
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

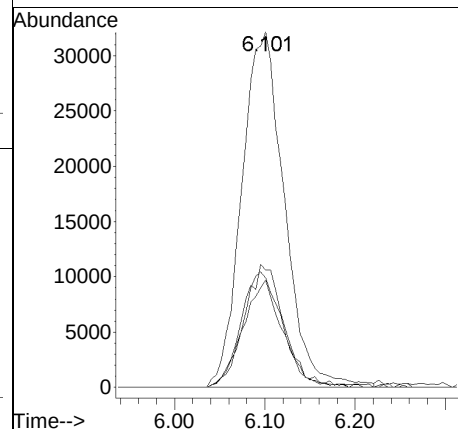
Tgt Ion:	96	Resp:	57674
Ion Ratio	Lower	Upper	
96	100		
61	155.3	109.8	228.0
98	61.9	41.1	85.3
63	46.8	31.0	64.4

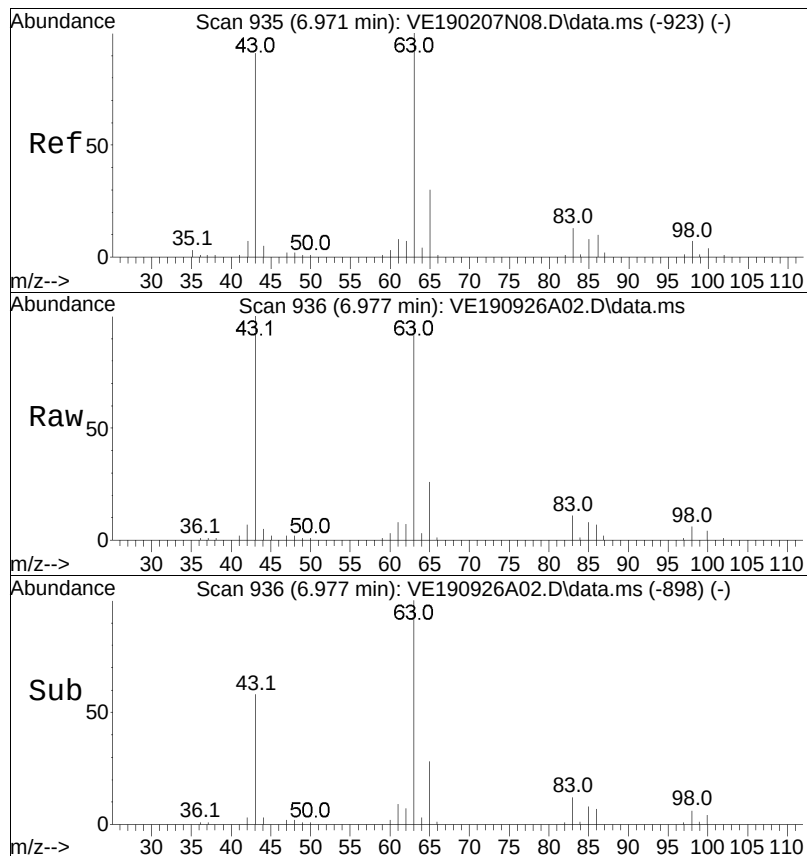




#20
Methyl tert-butyl ether
Concen: 8.16 ug/L
RT: 6.101 min Scan# 775
Delta R.T. 0.006 min
Lab File: VE190926A02.D
Acq: 26 Sep 2019 7:43 am

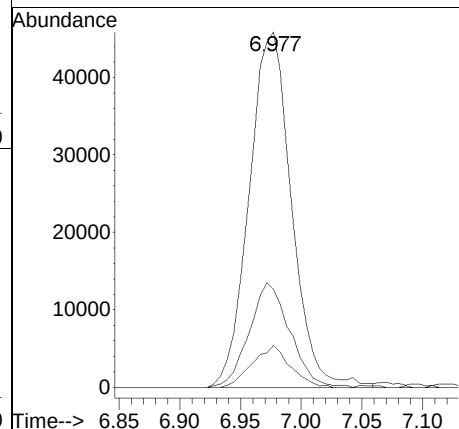
Tgt Ion:	73	Resp:	105487
Ion Ratio	Lower	Upper	
73	100		
57	30.6	18.5	38.5
43	28.2	13.3	27.5#
41	33.7	14.8	30.8#

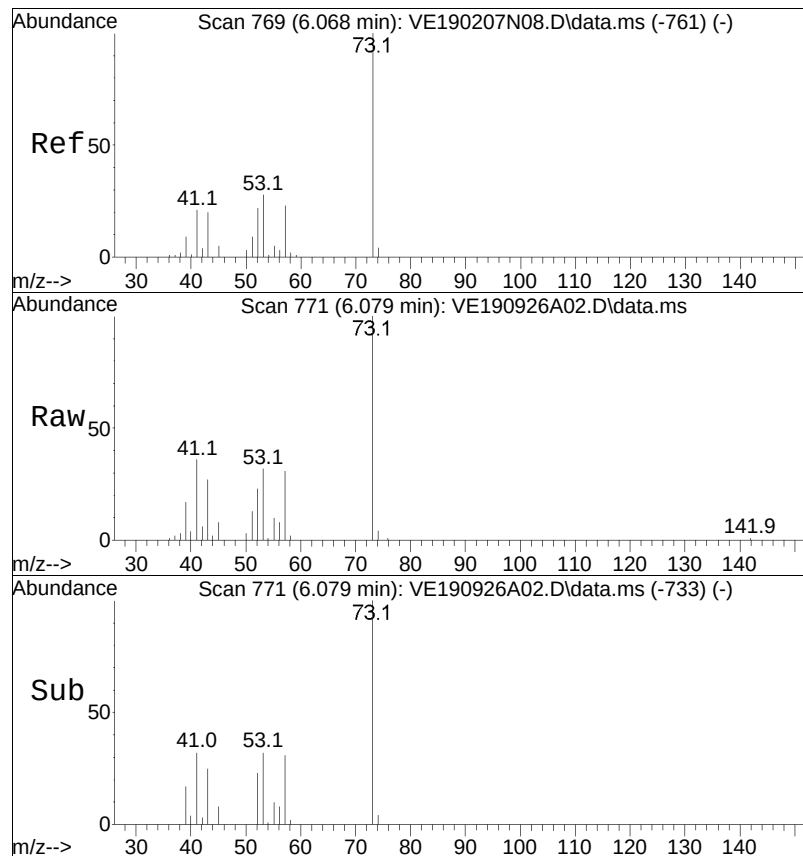




#23
 1,1-Dichloroethane
 Concen: 9.08 ug/L
 RT: 6.977 min Scan# 936
 Delta R.T. 0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

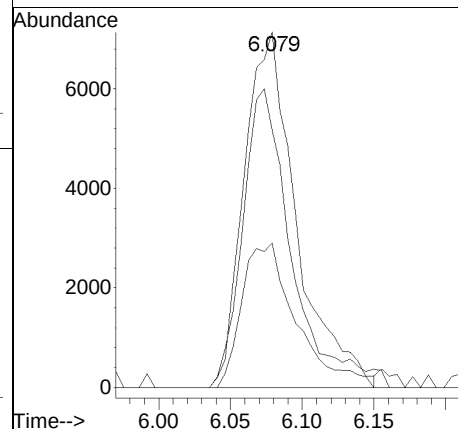
Tgt Ion:	63	Resp:	111037
Ion Ratio	Lower	Upper	
63	100		
65	28.3	8.6	48.6
83	10.6	0.0	30.4

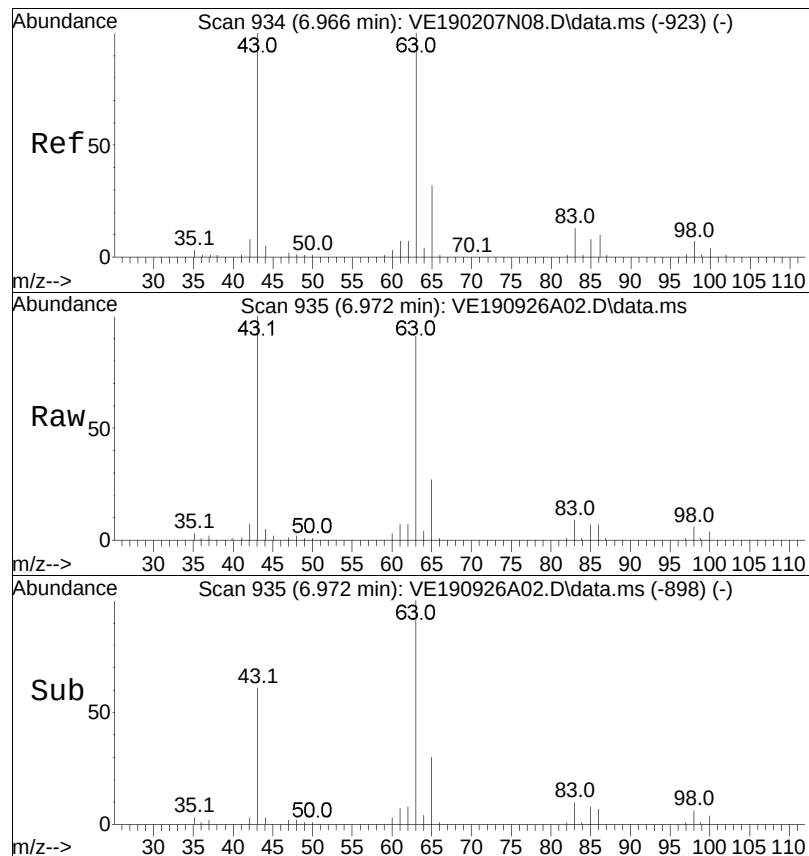




#25
 Acrylonitrile
 Concen: 9.90 ug/L
 RT: 6.079 min Scan# 771
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

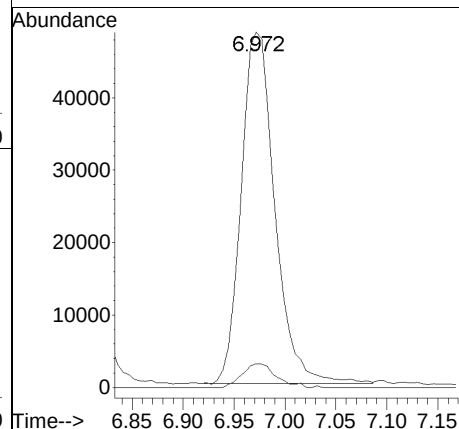
Tgt	Ion: 53	Resp:	18083
Ion	Ratio	Lower	Upper
53	100		
52	78.8	61.1	91.7
51	42.1	31.8	47.8

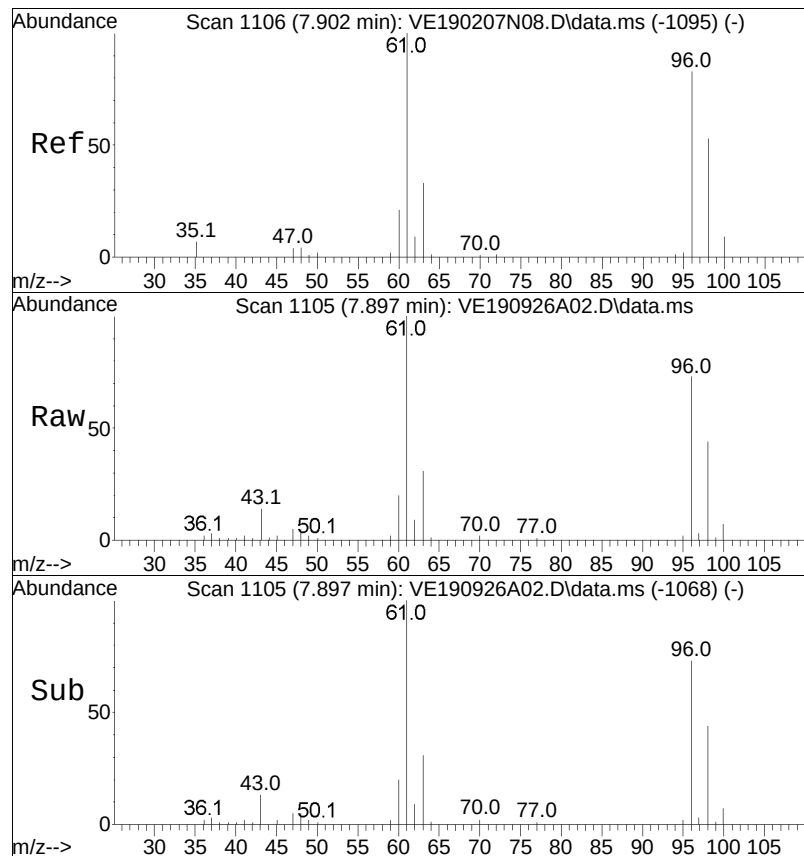




#27
 Vinyl acetate
 Concen: 11.40 ug/L
 RT: 6.972 min Scan# 935
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

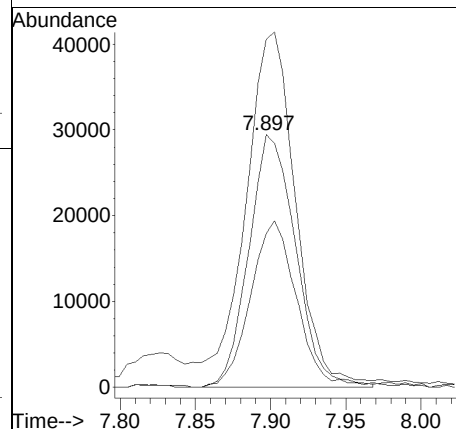
Tgt Ion:	43	86	Ratio	100	Lower	Upper
Resp:	111665					
		6.7		7.2		10.8#

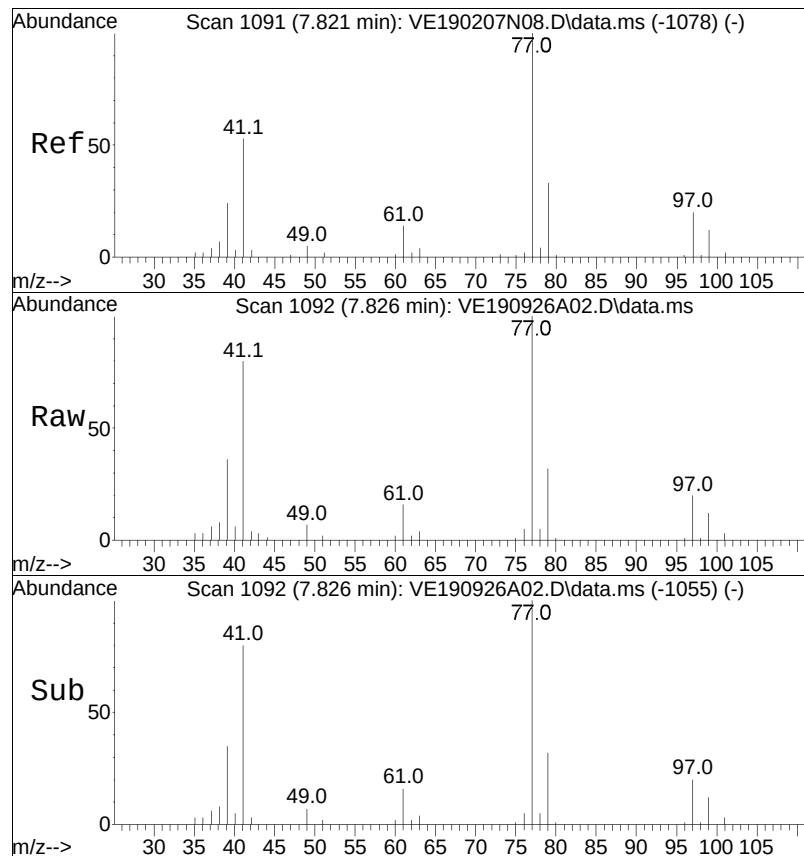




#28
 cis-1,2-Dichloroethene
 Concen: 9.25 ug/L
 RT: 7.897 min Scan# 1105
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

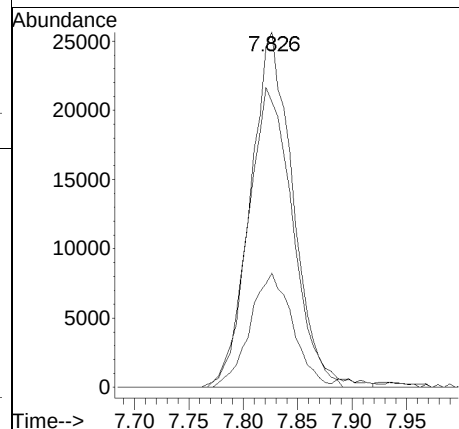
Tgt Ion:	96	Resp:	64108
Ion Ratio	Lower	Upper	
96	100		
61	144.8	123.2	184.8
98	65.3	51.2	76.8

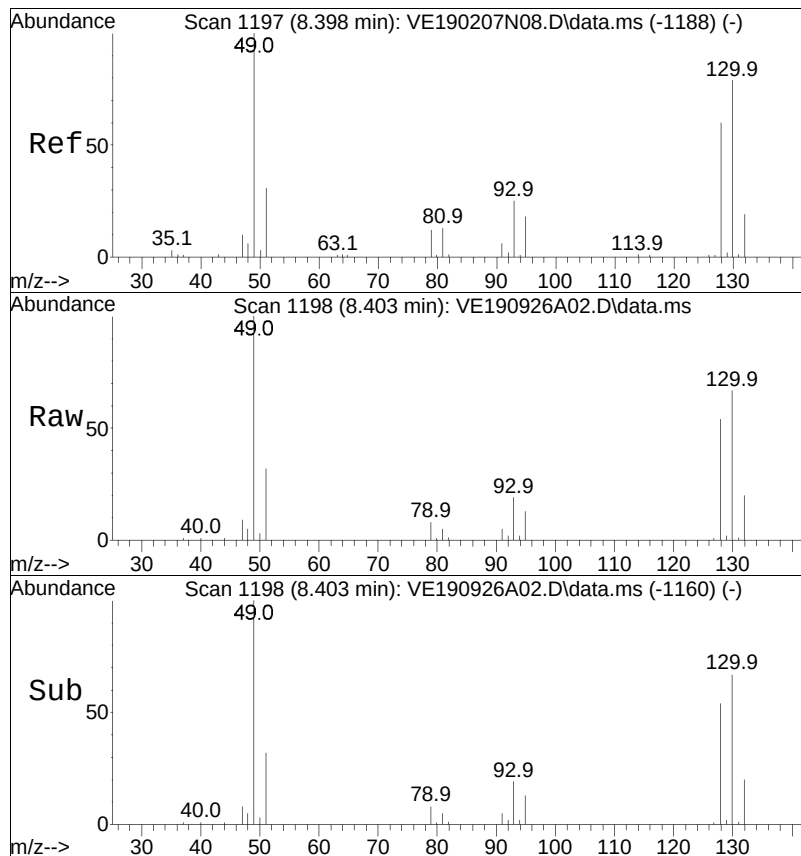




#29
 2,2-Dichloropropane
 Concen: 11.75 ug/L
 RT: 7.826 min Scan# 1092
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

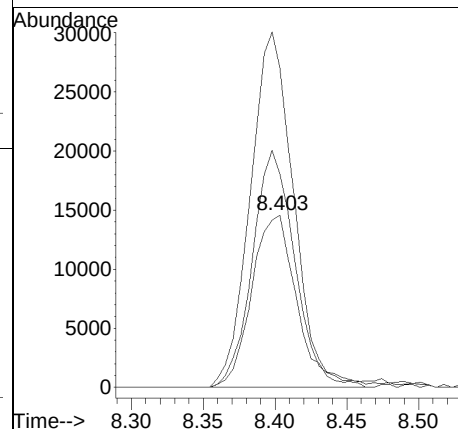
Tgt Ion	Ratio	Resp	Lower	Upper
77	100	69860		
41	89.2		35.0	72.8#
79	32.5		20.8	43.2

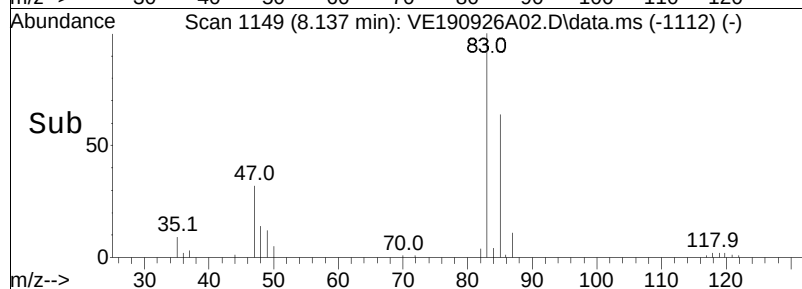
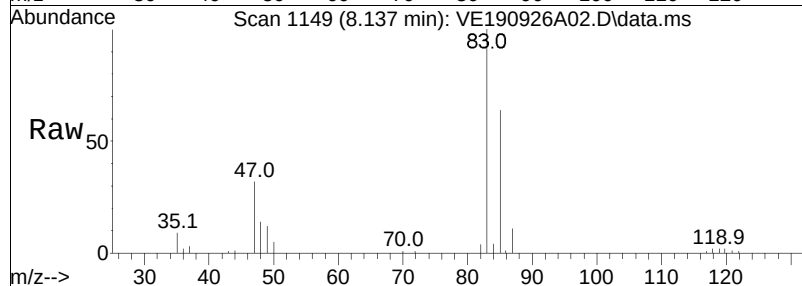
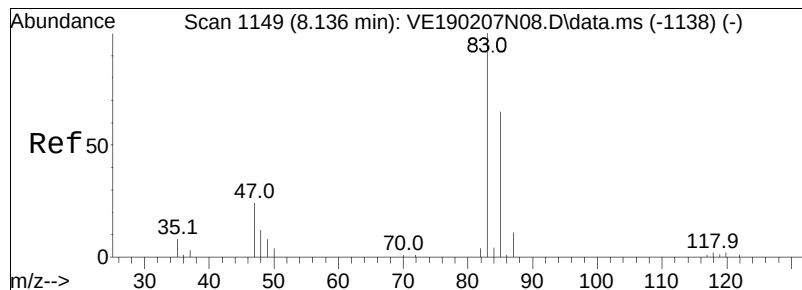




#30
 Bromochloromethane
 Concen: 10.77 ug/L
 RT: 8.403 min Scan# 1198
 Delta R.T. 0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

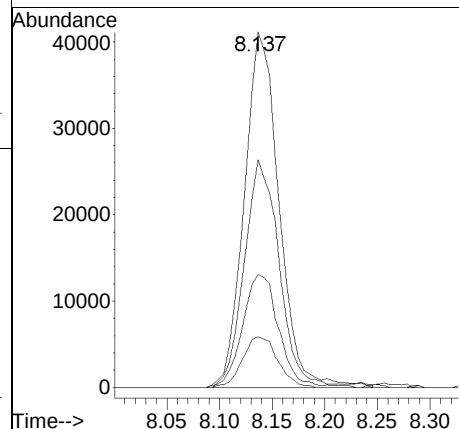
Tgt Ion:	128	Resp:	31559
Ion Ratio	Lower	Upper	
128	100		
49	199.9	181.7	272.5
130	133.3	100.5	150.7

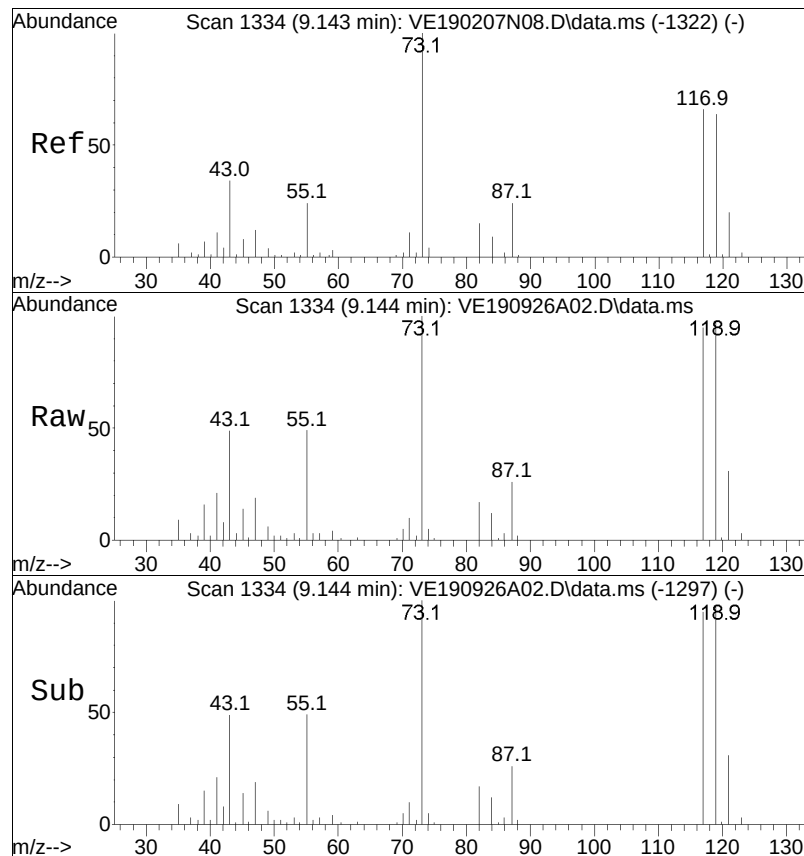




#32
 Chloroform
 Concen: 8.66 ug/L
 RT: 8.137 min Scan# 1149
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

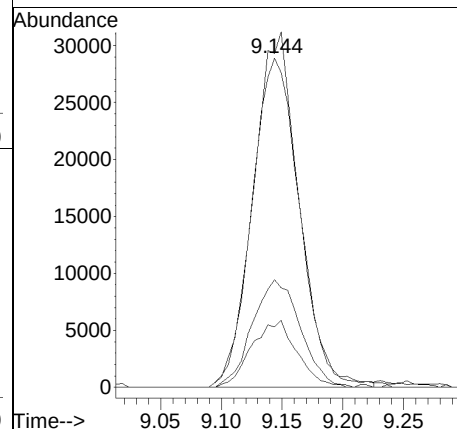
Tgt Ion:	83	Resp:	94660
Ion Ratio	Lower	Upper	
83	100		
85	64.0	43.0	89.2
47	33.1	16.4	34.0
48	14.4	8.3	17.3

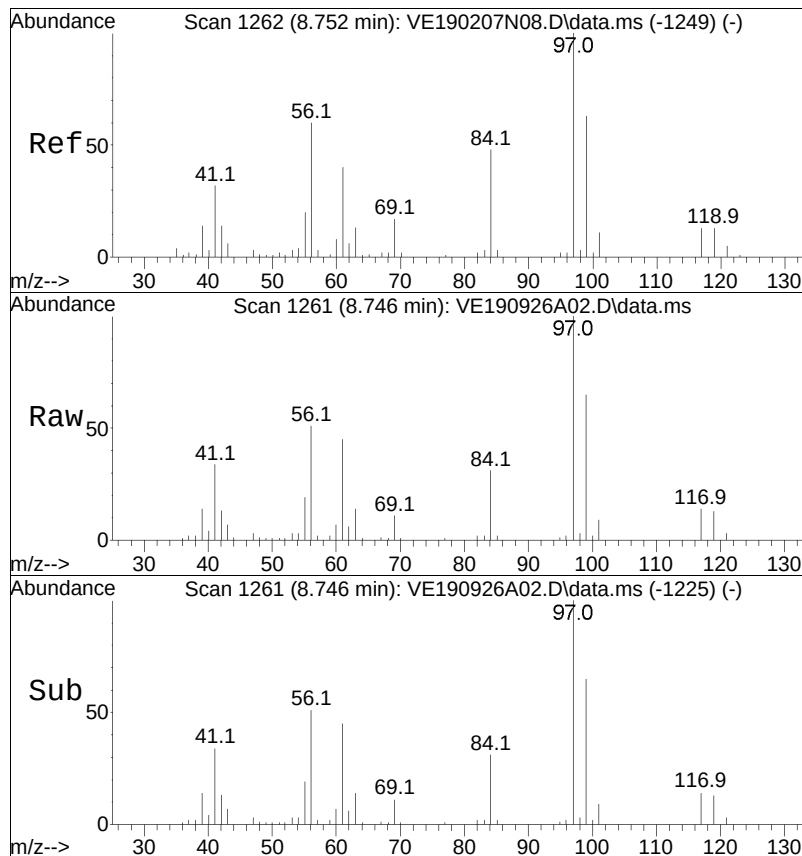




#34
 Carbon tetrachloride
 Concen: 11.26 ug/L
 RT: 9.144 min Scan# 1334
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

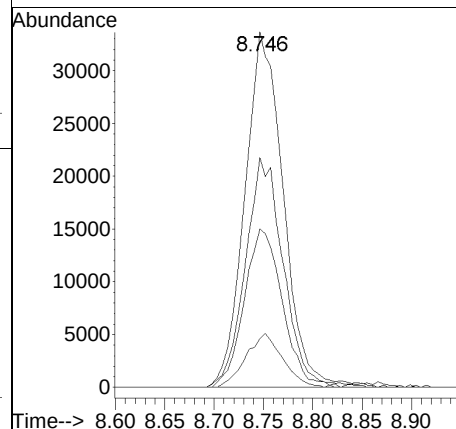
Tgt	Ion:117	Resp:	78923
Ion	Ratio	Lower	Upper
117	100		
119	103.8	62.9	130.5
121	33.0	19.6	40.6
82	19.4	14.6	30.2

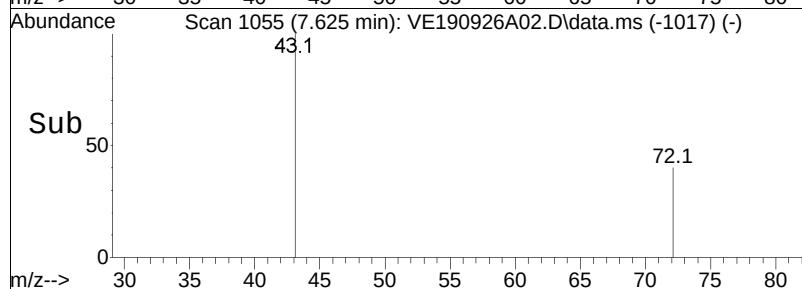
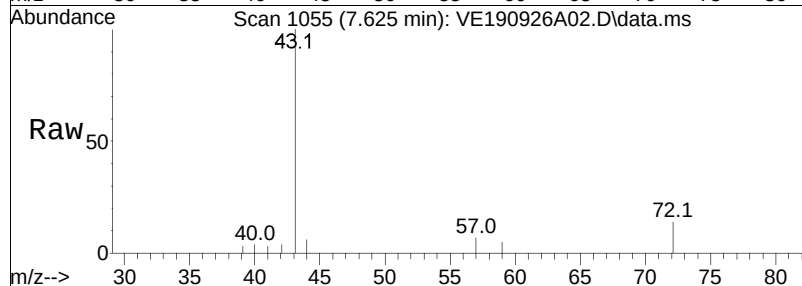
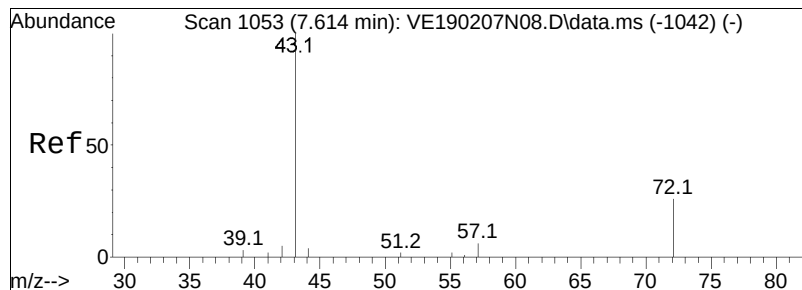




#37
 1,1,1-Trichloroethane
 Concen: 10.39 ug/L
 RT: 8.746 min Scan# 1261
 Delta R.T. -0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

Tgt Ion:	97	Resp:	91557
Ion Ratio	Lower	Upper	
97	100		
99	63.7	41.1	85.3
61	44.2	31.3	64.9
63	14.6	9.8	20.4





#39

2-Butanone

Concen: 10.21 ug/L

RT: 7.625 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VE190926A02.D

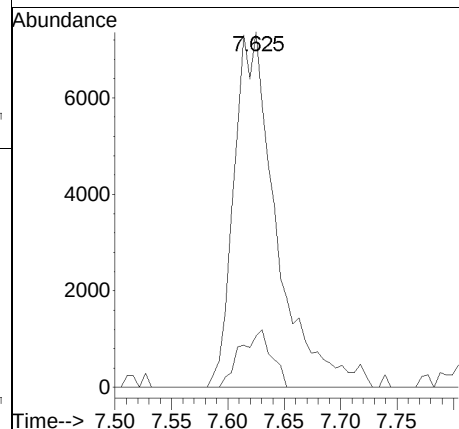
Acq: 26 Sep 2019 7:43 am

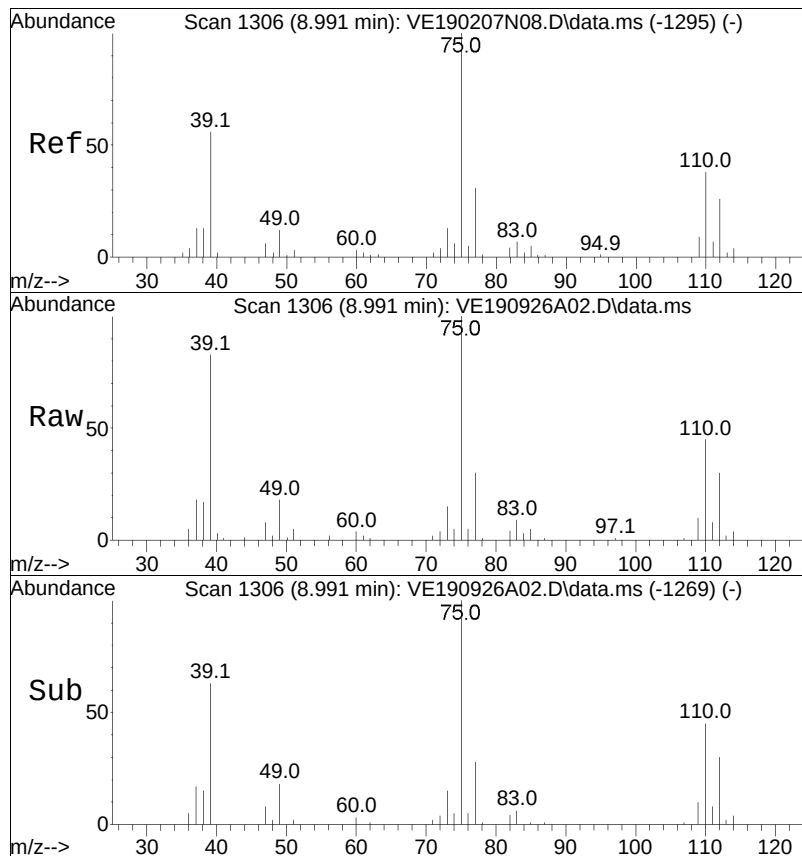
Tgt Ion: 43 Resp: 19334

Ion Ratio Lower Upper

43 100

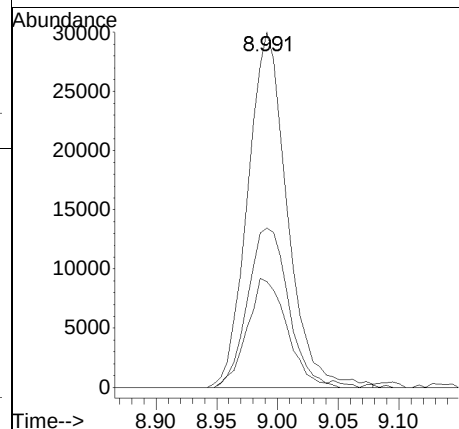
72 11.9 16.1 24.1#

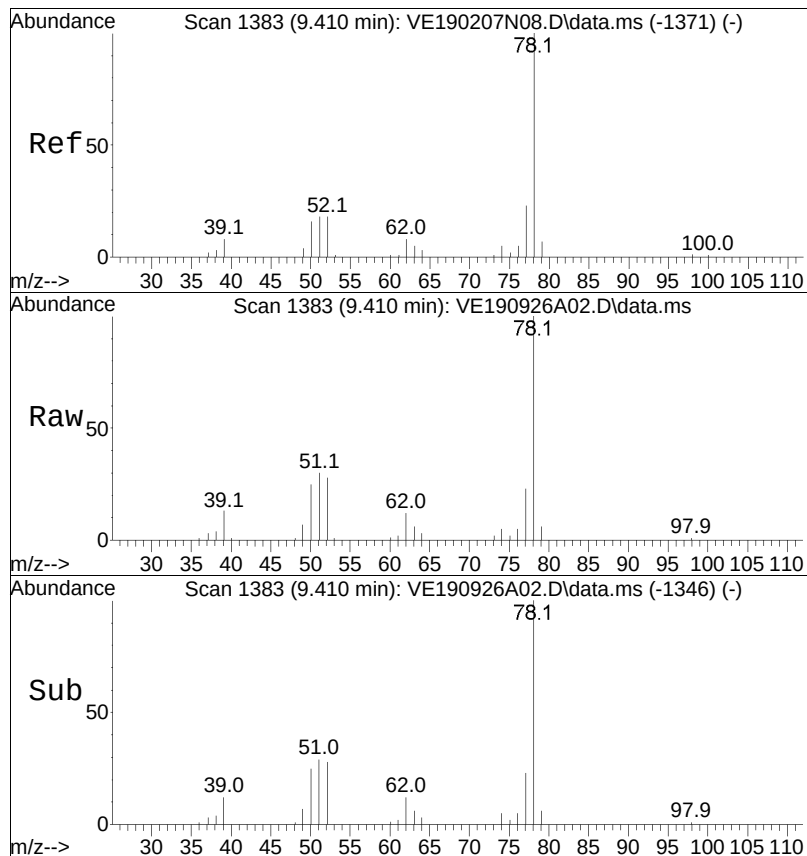




#40
 1,1-Dichloropropene
 Concen: 7.67 ug/L
 RT: 8.991 min Scan# 1306
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

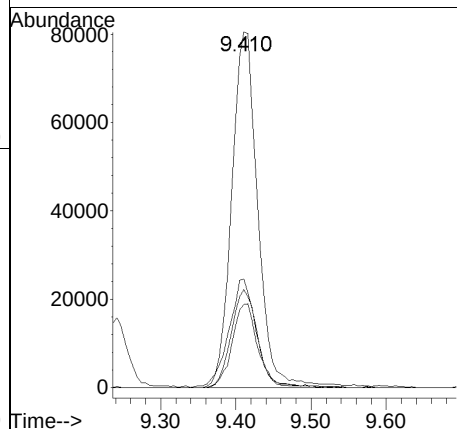
Tgt Ion	Ratio	Lower	Upper
75	100		
110	46.8	23.2	48.2
77	31.0	19.8	41.2

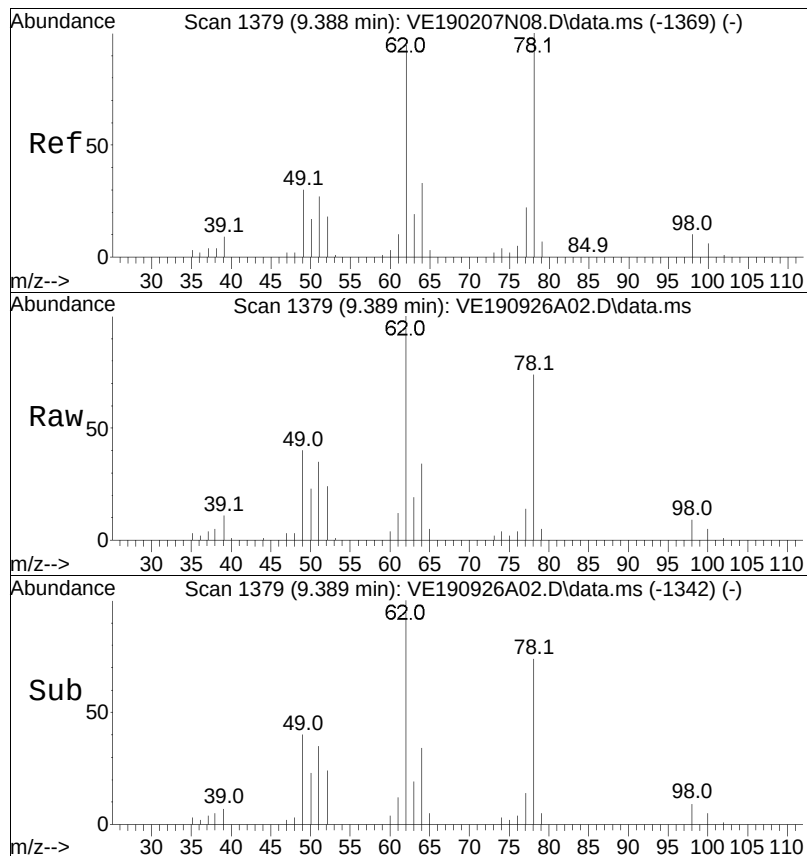




#41
Benzene
Concen: 7.30 ug/L
RT: 9.410 min Scan# 1383
Delta R.T. 0.000 min
Lab File: VE190926A02.D
Acq: 26 Sep 2019 7:43 am

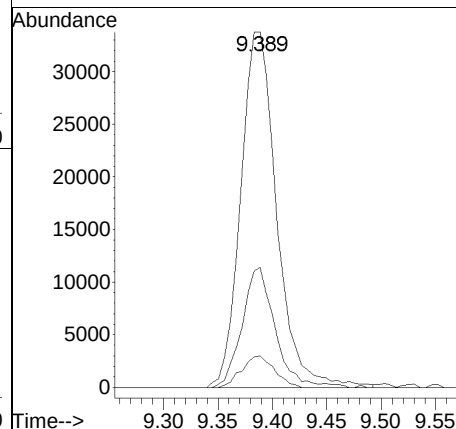
Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.7	14.7	30.5
51	32.1	15.0	31.1#
52	27.4	13.7	28.4

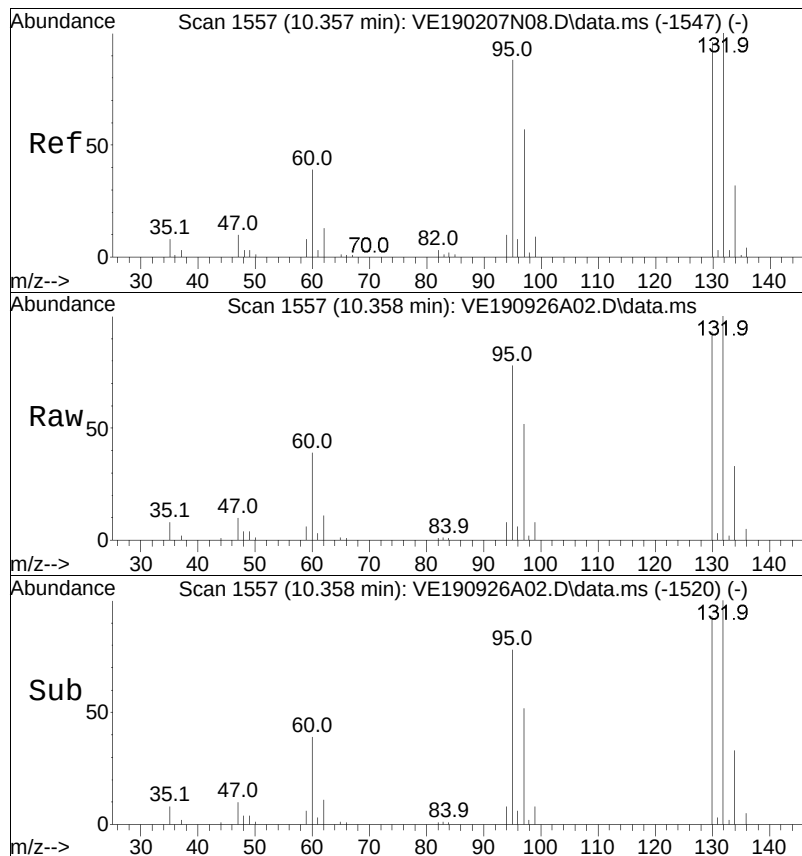




#44
 1,2-Dichloroethane
 Concen: 9.59 ug/L
 RT: 9.389 min Scan# 1379
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

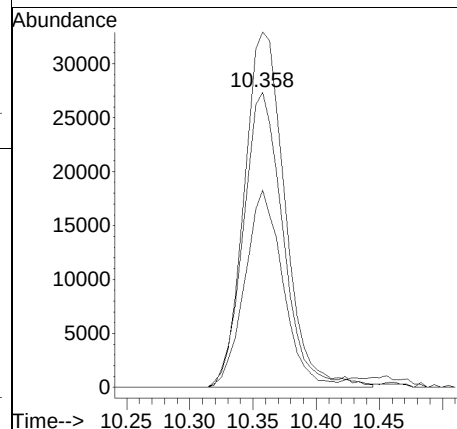
Tgt Ion:	62	Resp:	77529
Ion Ratio	Lower	Upper	
62	100		
64	30.9	10.5	50.5
98	8.1	0.0	28.2

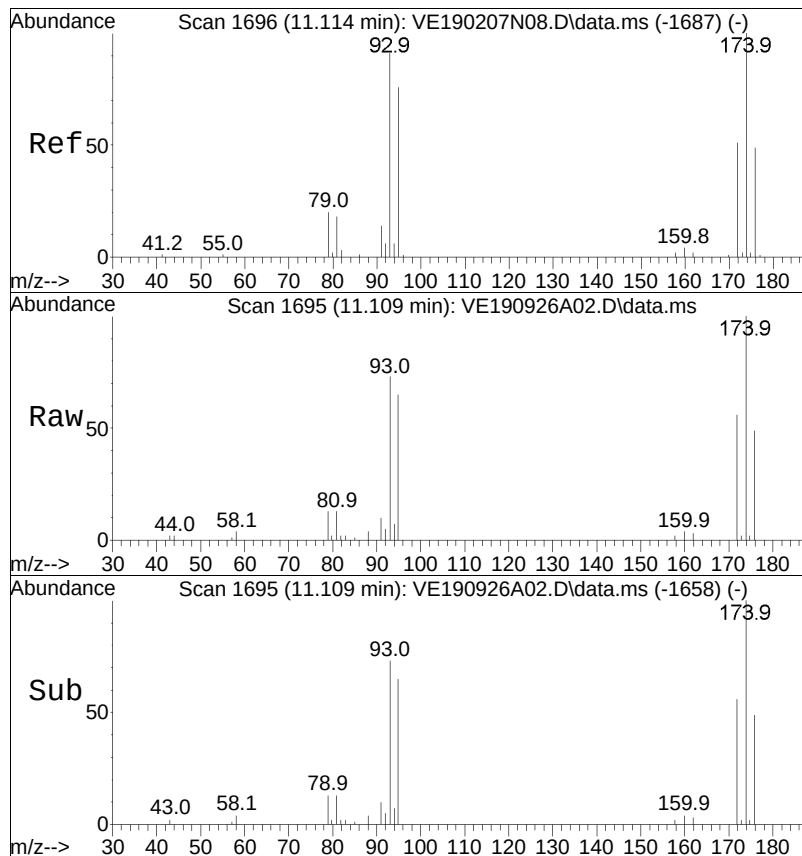




#48
 Trichloroethene
 Concen: 9.10 ug/L
 RT: 10.358 min Scan# 1557
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

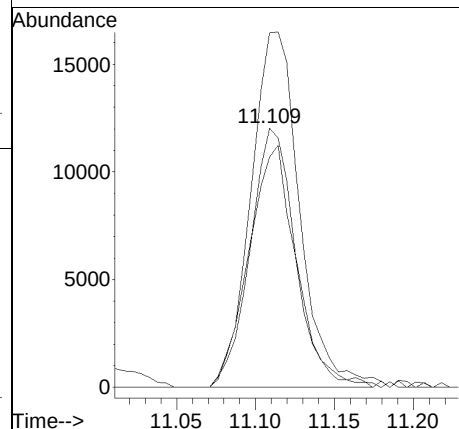
Tgt Ion:	95	Resp:	59922
Ion Ratio	Lower	Upper	
95	100		
97	64.4	51.8	77.6
130	123.5	81.4	122.2#

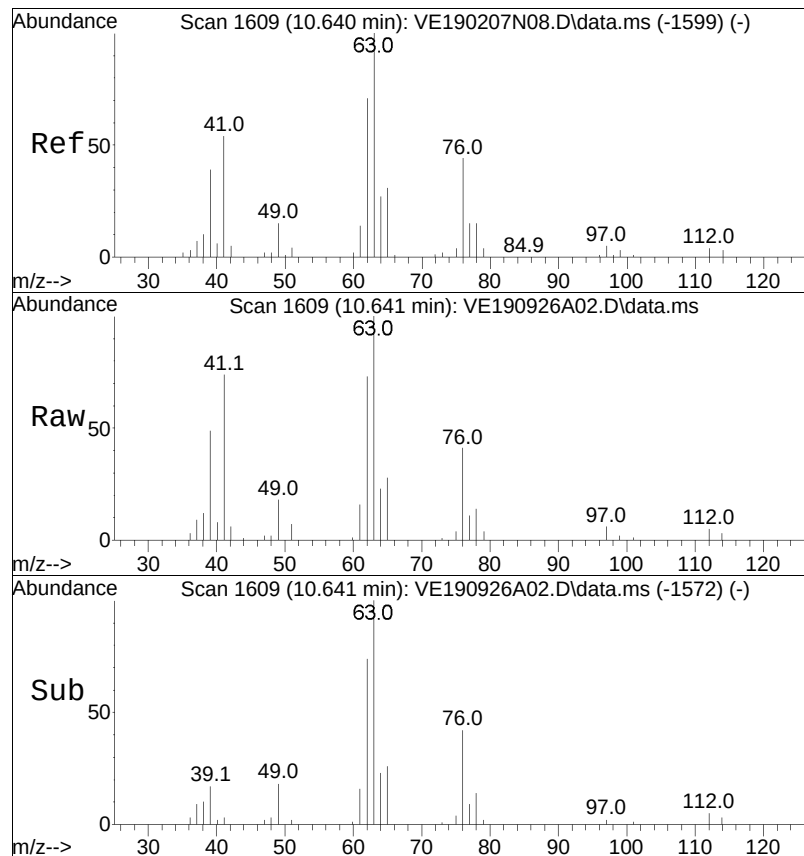




#50
 Dibromomethane
 Concen: 8.00 ug/L
 RT: 11.109 min Scan# 1695
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

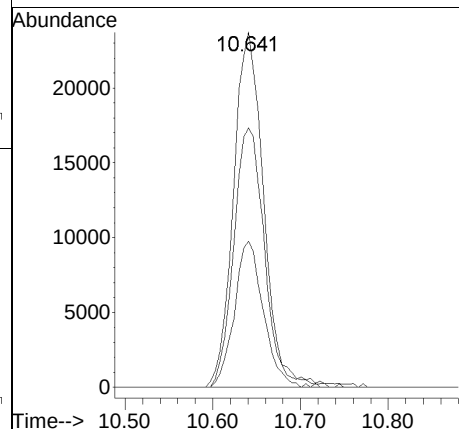
Tgt Ion:	93	Resp:	24808
Ion Ratio	Lower	Upper	
93	100		
95	92.5	66.9	100.3
174	143.6	73.7	110.5#

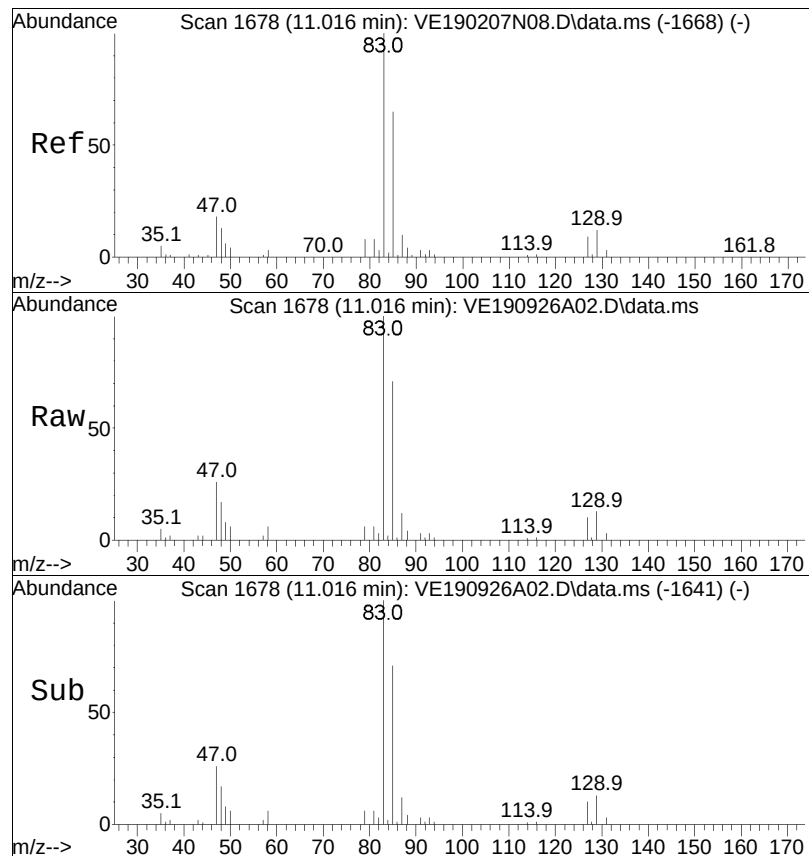




#51
 1,2-Dichloropropane
 Concen: 8.29 ug/L
 RT: 10.641 min Scan# 1609
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

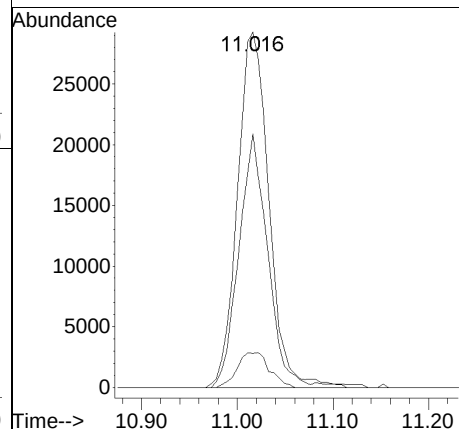
Tgt	Ion	Ratio	Lower	Upper
63	100			
62	74.0	58.0	87.0	
76	39.2	29.5	44.3	

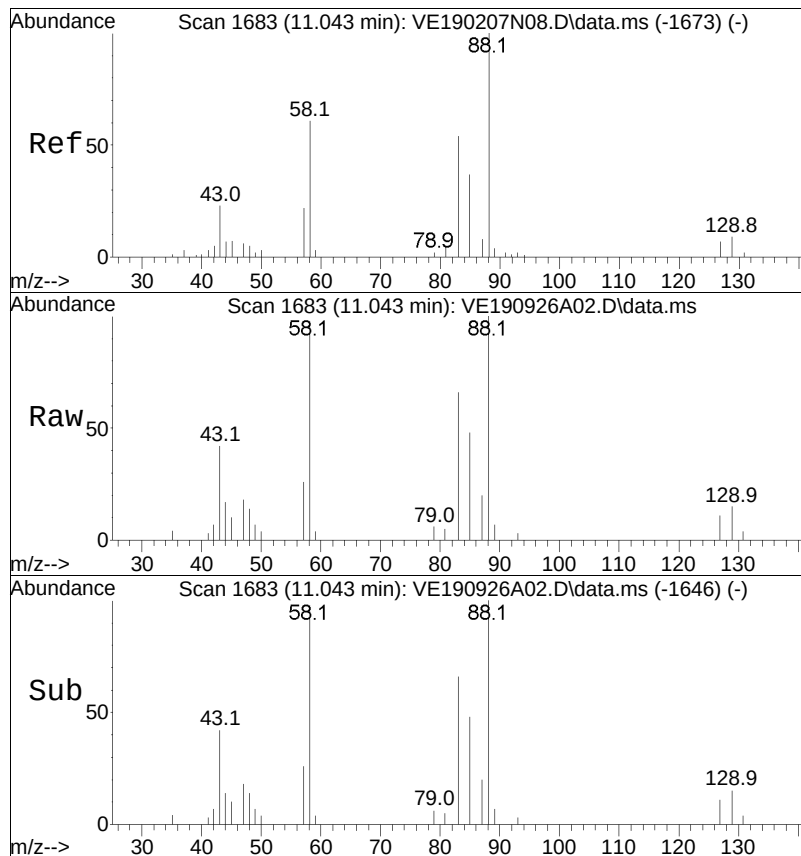




#54
 Bromodichloromethane
 Concen: 8.74 ug/L
 RT: 11.016 min Scan# 1678
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

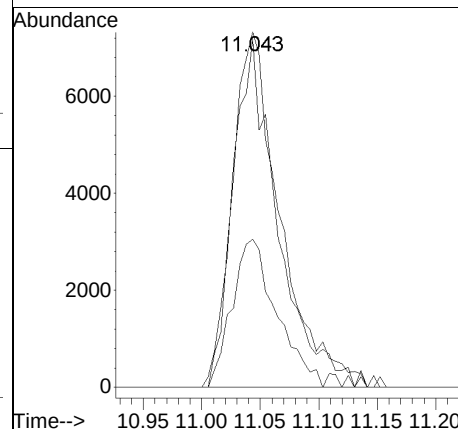
Tgt Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.7	76.1
127	10.0	6.5	9.7

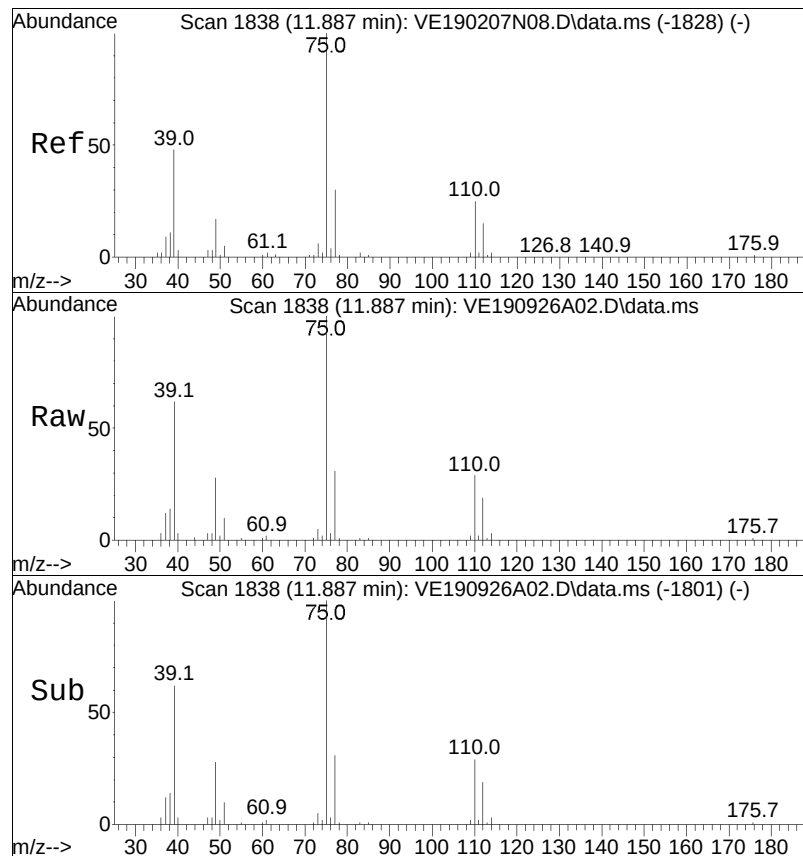




#57
 1,4-Dioxane
 Concen: 401.03 ug/L
 RT: 11.043 min Scan# 1683
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

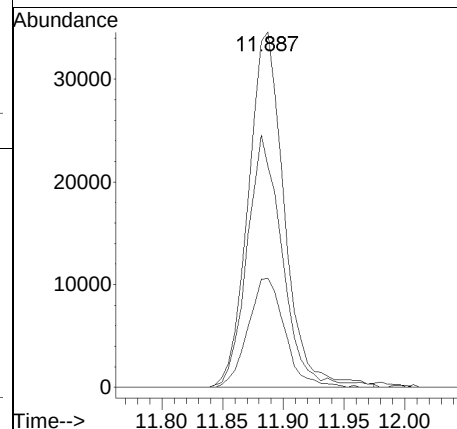
Tgt Ion	Ratio	Lower	Upper
88	100		
58	93.4	64.6	96.8
43	39.3	22.1	33.1#

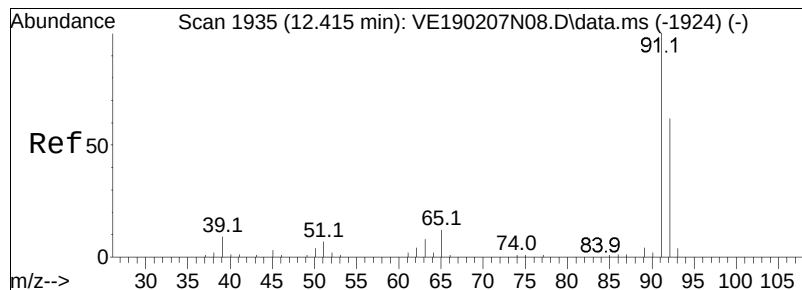




#58
 cis-1,3-Dichloropropene
 Concen: 8.26 ug/L
 RT: 11.887 min Scan# 1838
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

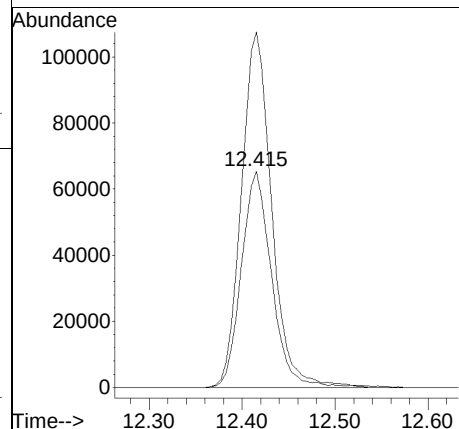
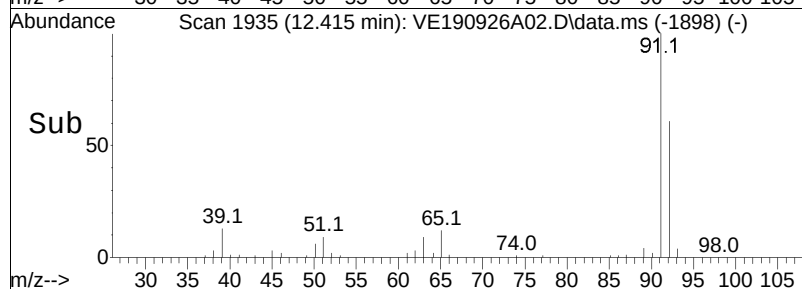
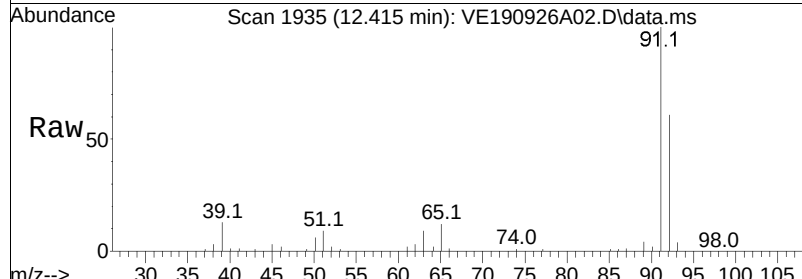
Tgt Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.3	37.9
39	68.7	39.4	59.0#

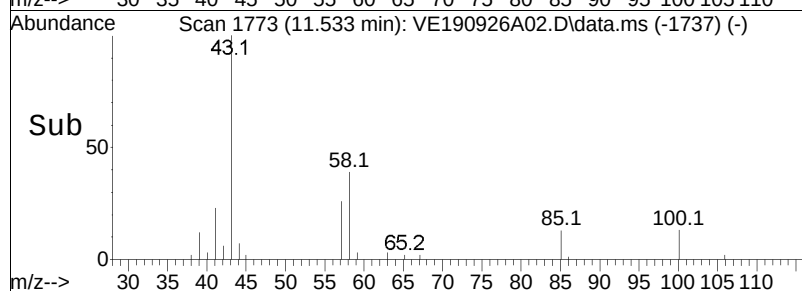
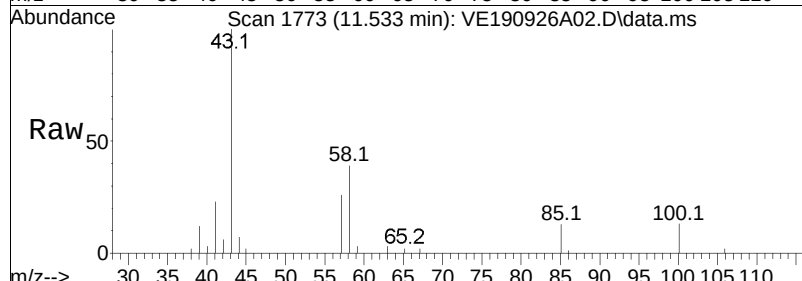
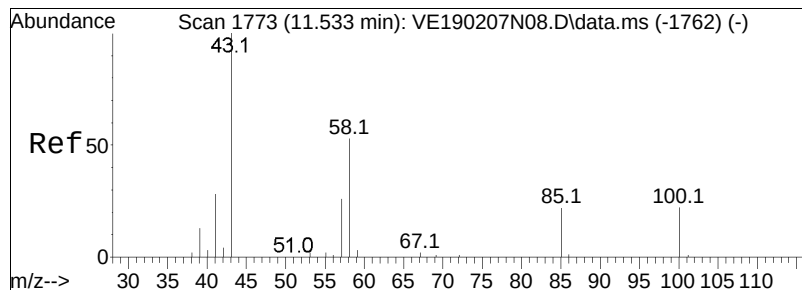




#61
Toluene
Concen: 8.61 ug/L
RT: 12.415 min Scan# 1935
Delta R.T. 0.000 min
Lab File: VE190926A02.D
Acq: 26 Sep 2019 7:43 am

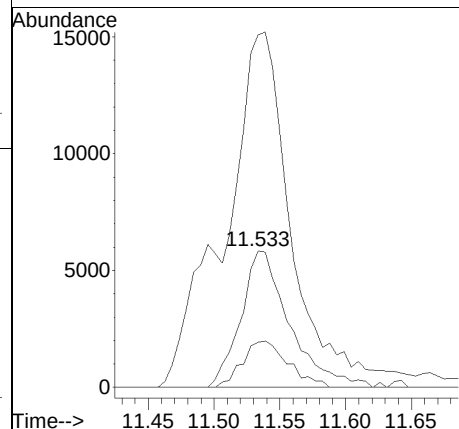
Tgt Ion	Ratio	Lower	Upper
92	100		
91	165.0	130.9	196.3

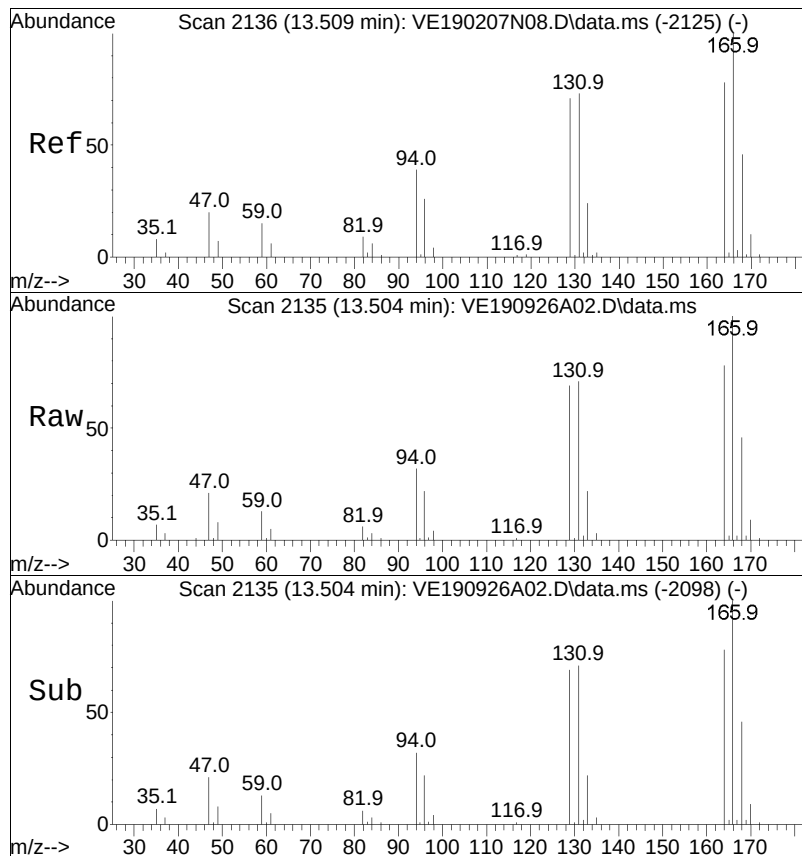




#62
 4-Methyl-2-pentanone
 Concen: 9.14 ug/L
 RT: 11.533 min Scan# 1773
 Delta R.T. -0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

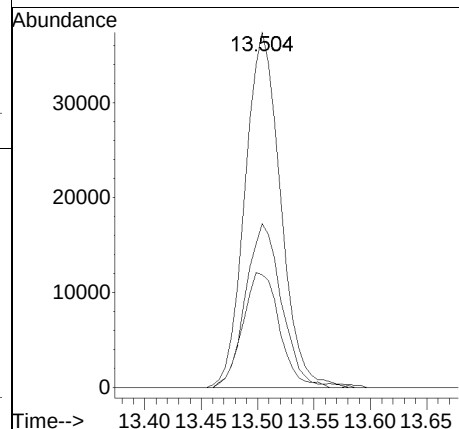
Tgt	Ion	Ratio	Lower	Upper
58	100			
100	32.0	25.5	38.3	
43	360.2	189.7	284.5	

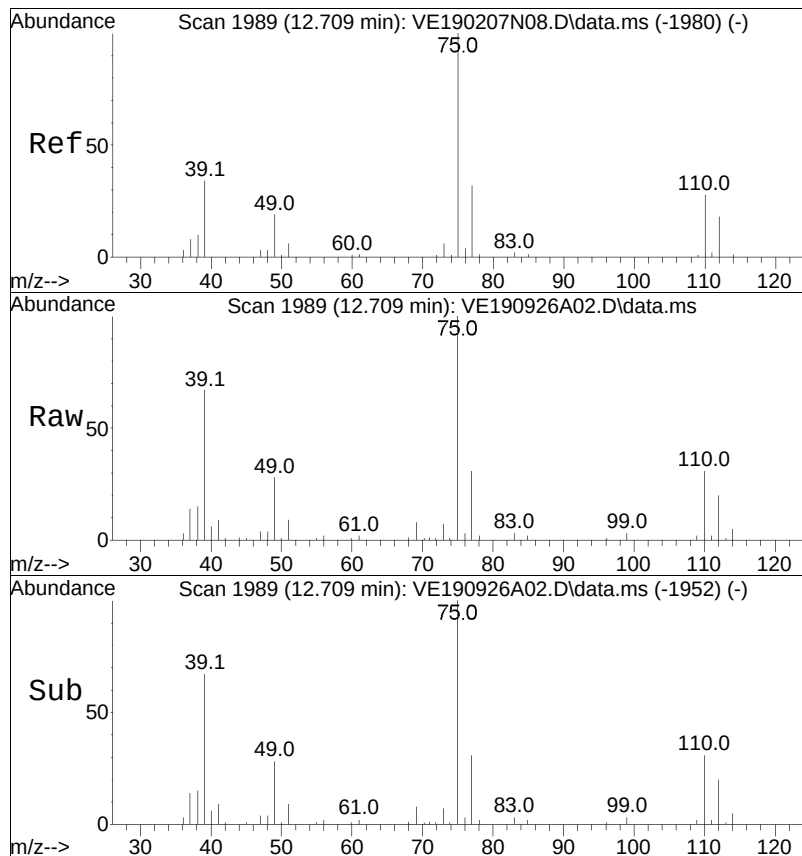




#63
 Tetrachloroethene
 Concen: 10.72 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

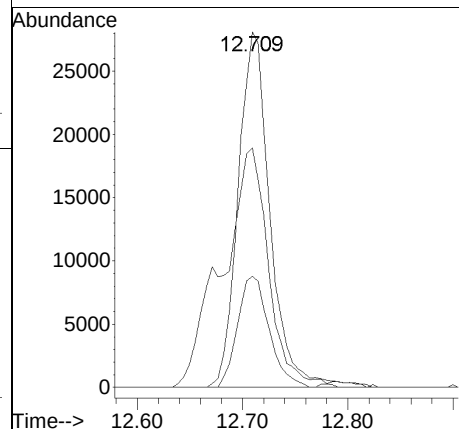
Tgt Ion	Ratio	Lower	Upper
166	100		
168	46.7	26.7	66.7
94	33.4	26.8	66.8

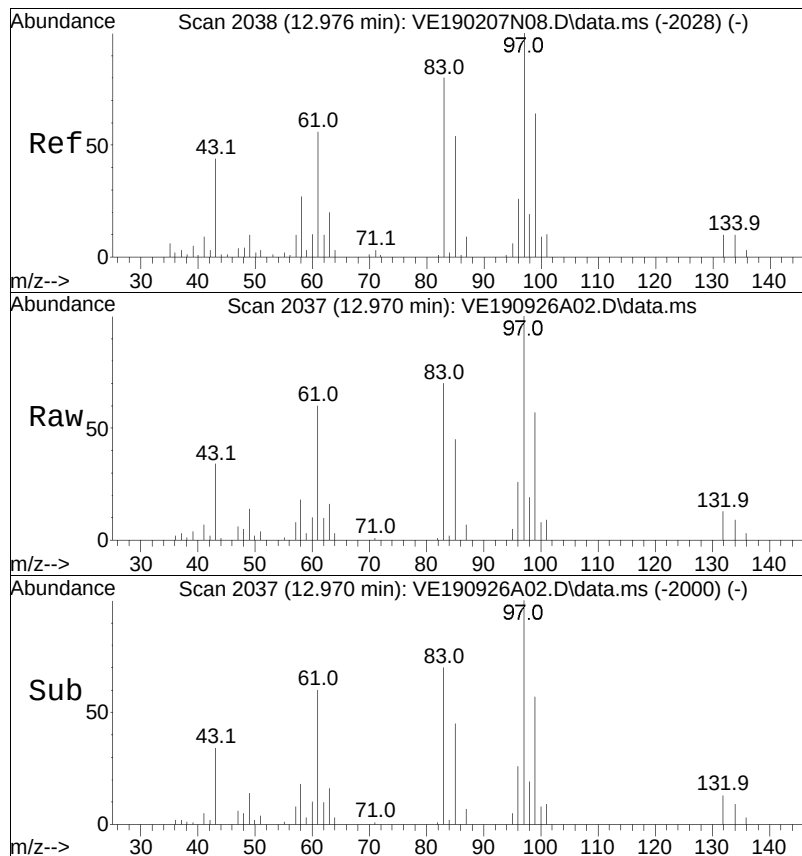




#65
 trans-1,3-Dichloropropene
 Concen: 8.54 ug/L
 RT: 12.709 min Scan# 1989
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

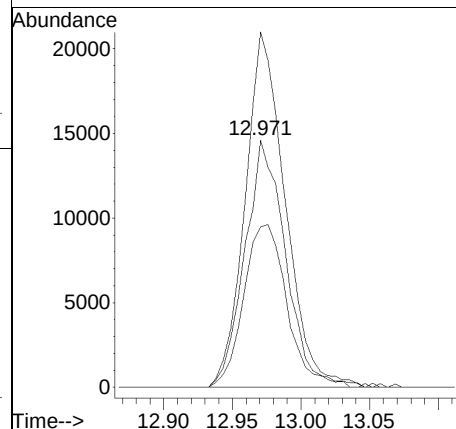
Tgt Ion	Ratio	Lower	Upper
75	100		
77	30.9	12.2	52.2
39	98.0	29.1	69.1#

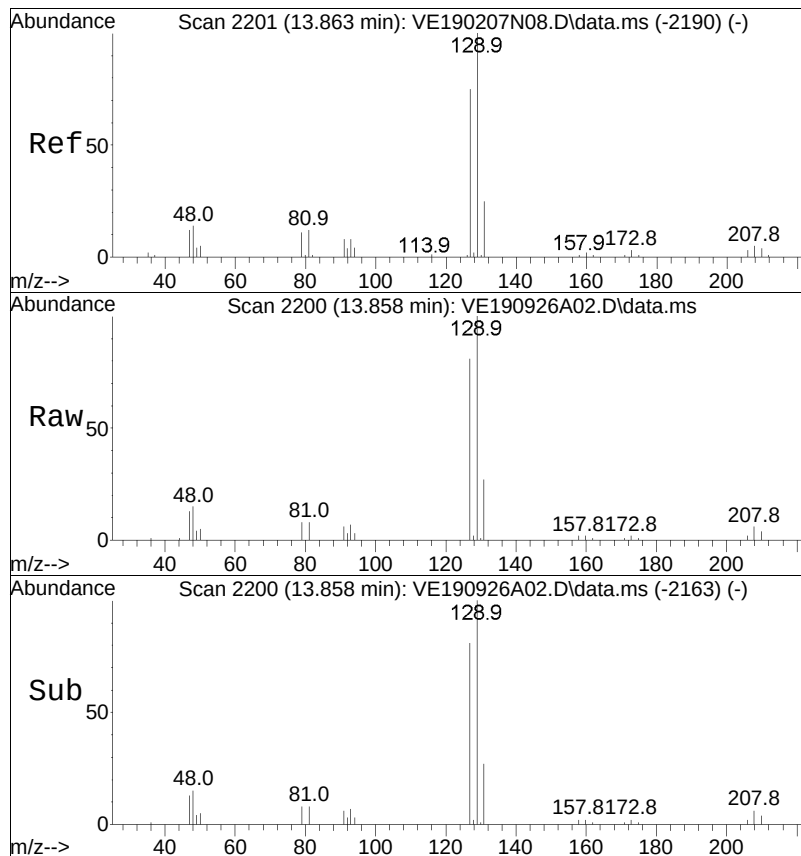




#68
 1,1,2-Trichloroethane
 Concen: 8.11 ug/L
 RT: 12.970 min Scan# 2037
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

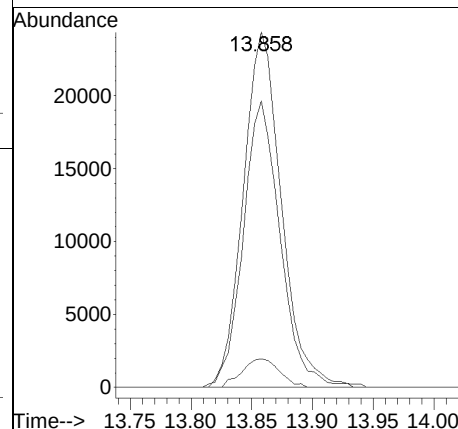
Tgt Ion	Ratio	Lower	Upper
83	100		
97	141.5	99.6	139.6#
85	70.3	49.7	89.7

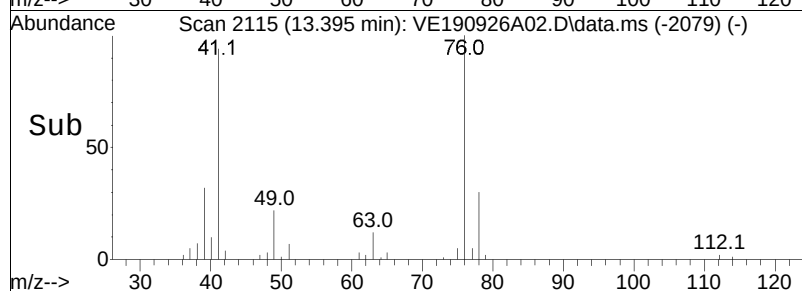
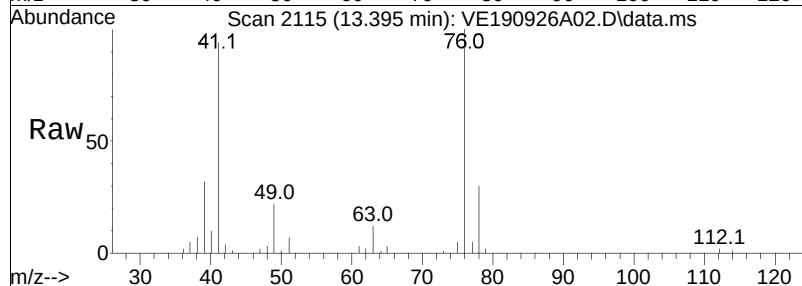
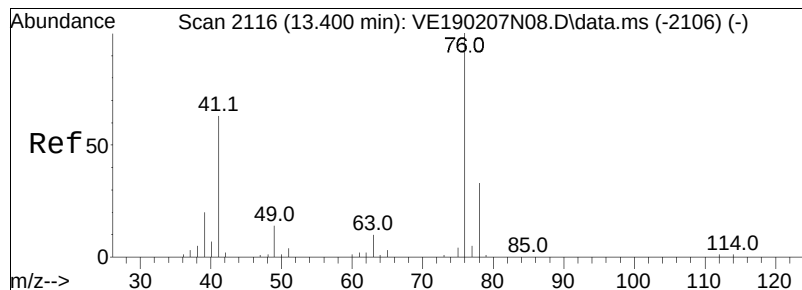




#69
 Chlorodibromomethane
 Concen: 10.86 ug/L
 RT: 13.858 min Scan# 2200
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

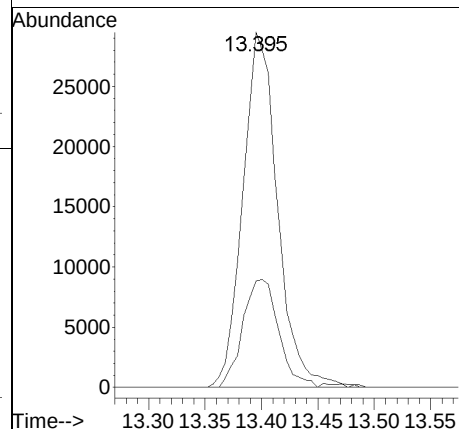
Tgt Ion	Ratio	Lower	Upper
129	100		
81	7.9	0.0	31.7
127	77.8	57.9	97.9

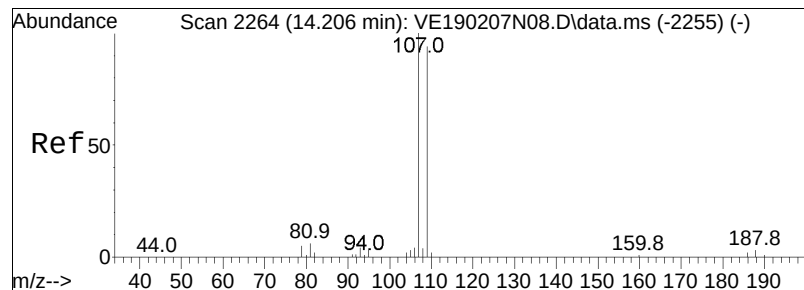




#70
 1,3-Dichloropropane
 Concen: 7.68 ug/L
 RT: 13.395 min Scan# 2115
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

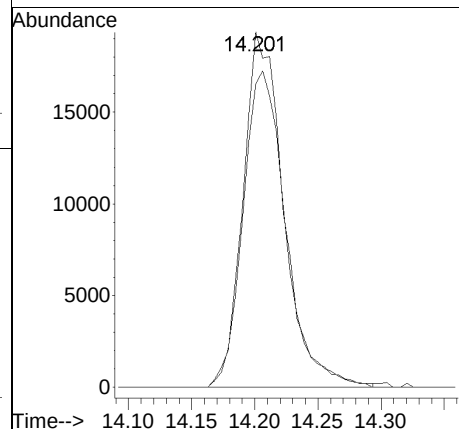
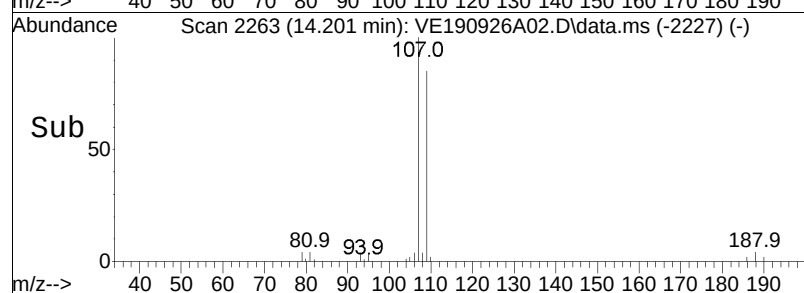
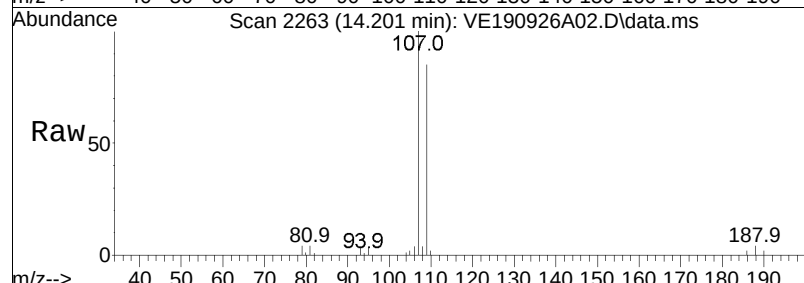
Tgt Ion	Ratio	Lower	Upper
76	100		
78	31.3	26.3	39.5

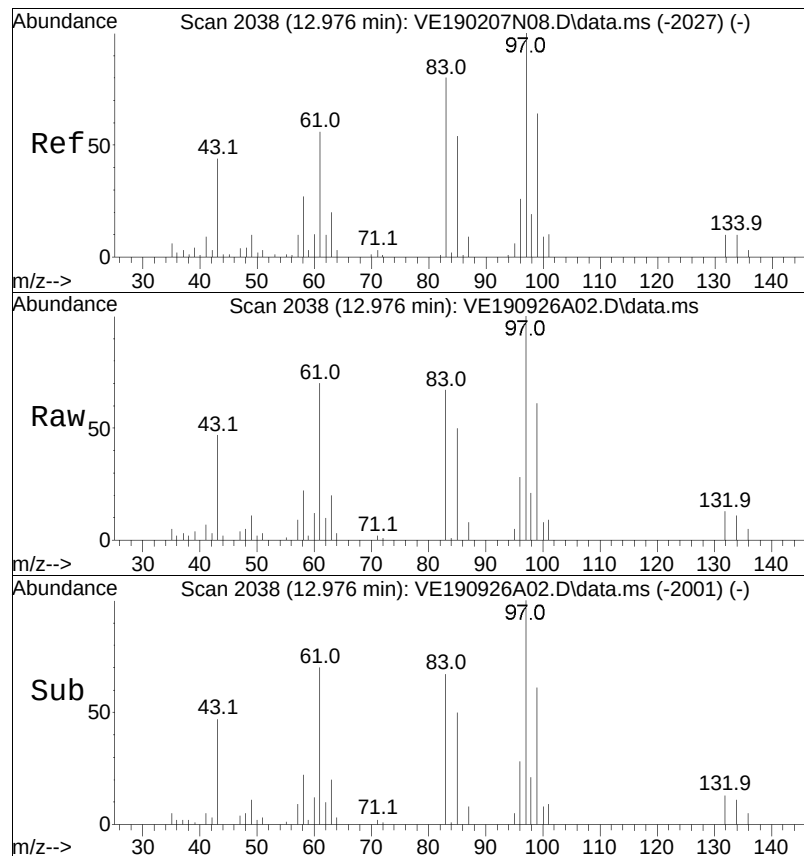




#71
 1,2-Dibromoethane
 Concen: 9.74 ug/L
 RT: 14.201 min Scan# 2263
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

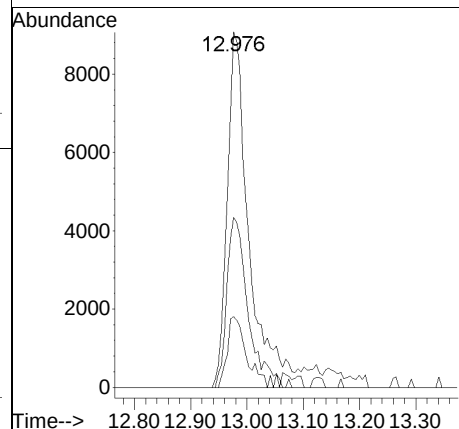
Tgt Ion	Ratio	Lower	Upper
107	100		
109	92.3	75.0	112.6

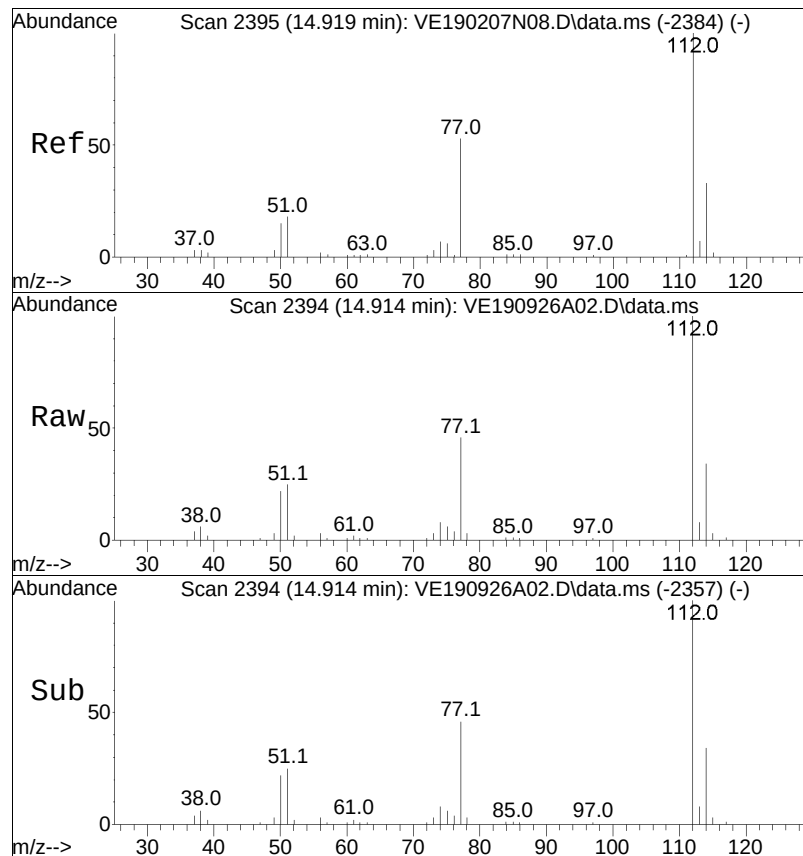




#72
 2-Hexanone
 Concen: 9.95 ug/L M1
 RT: 12.976 min Scan# 2038
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

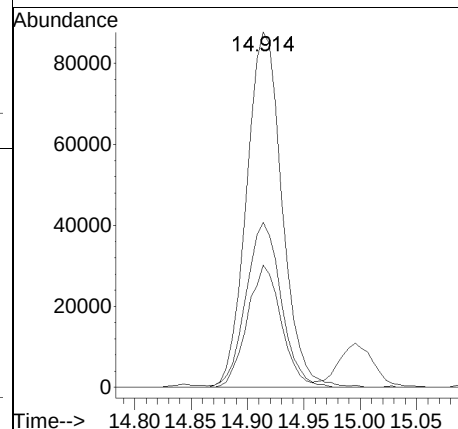
Tgt Ion:	43	Resp:	27065
Ion Ratio	100	Lower	Upper
58	41.6	45.0	67.4#
57	15.8	16.0	24.0#

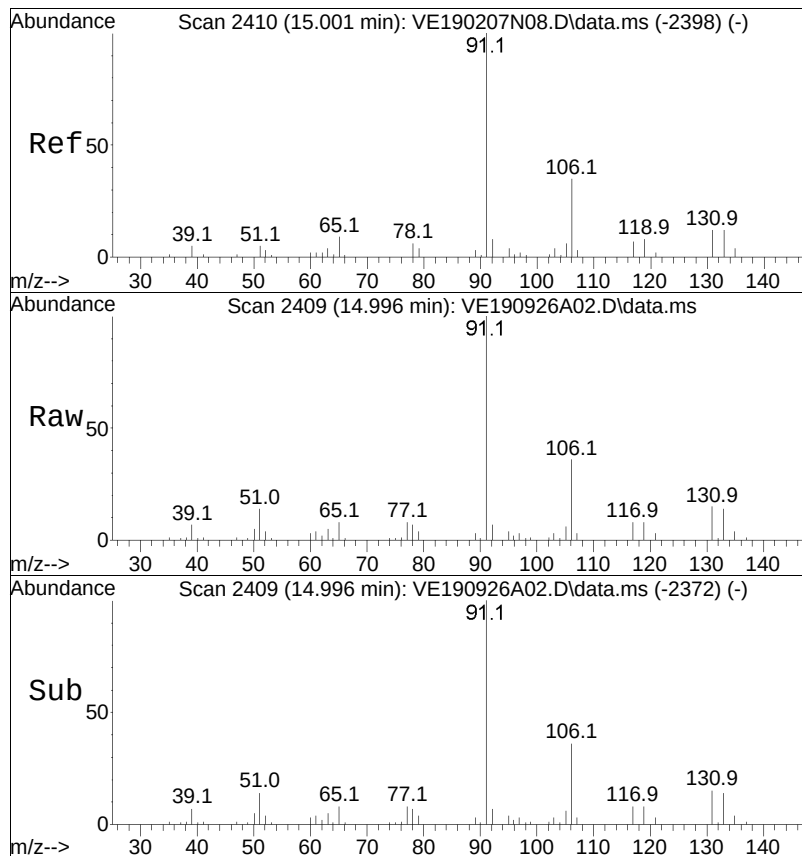




#73
 Chlorobenzene
 Concen: 9.59 ug/L
 RT: 14.914 min Scan# 2394
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

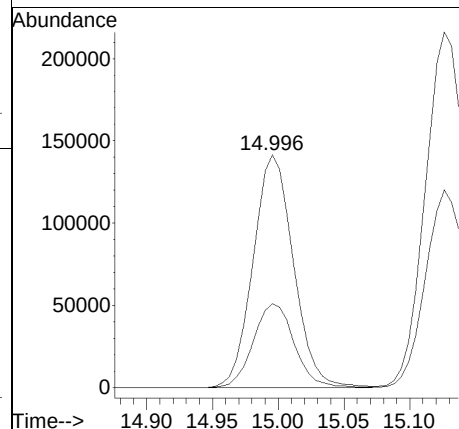
Tgt Ion:	112	Resp:	192520
Ion Ratio	Lower	Upper	
112	100		
77	45.8	45.6	68.4
114	33.2	25.7	38.5

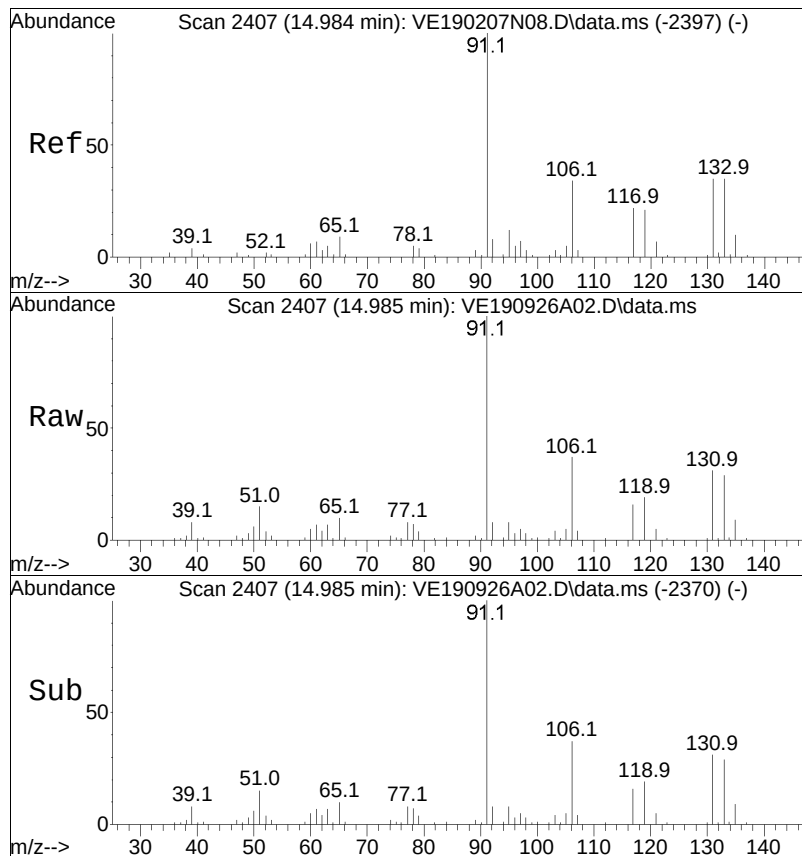




#74
 Ethylbenzene
 Concen: 9.04 ug/L
 RT: 14.996 min Scan# 2409
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

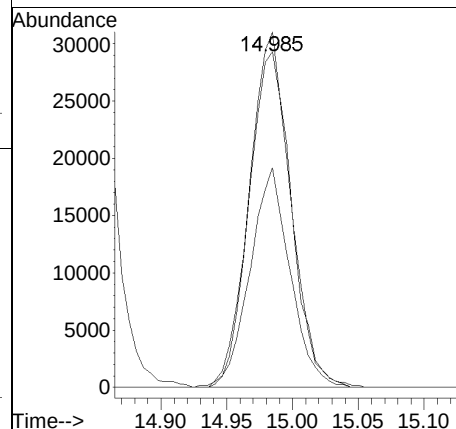
Tgt Ion	Ratio	Lower	Upper
91	100		
106	36.4	26.6	39.8

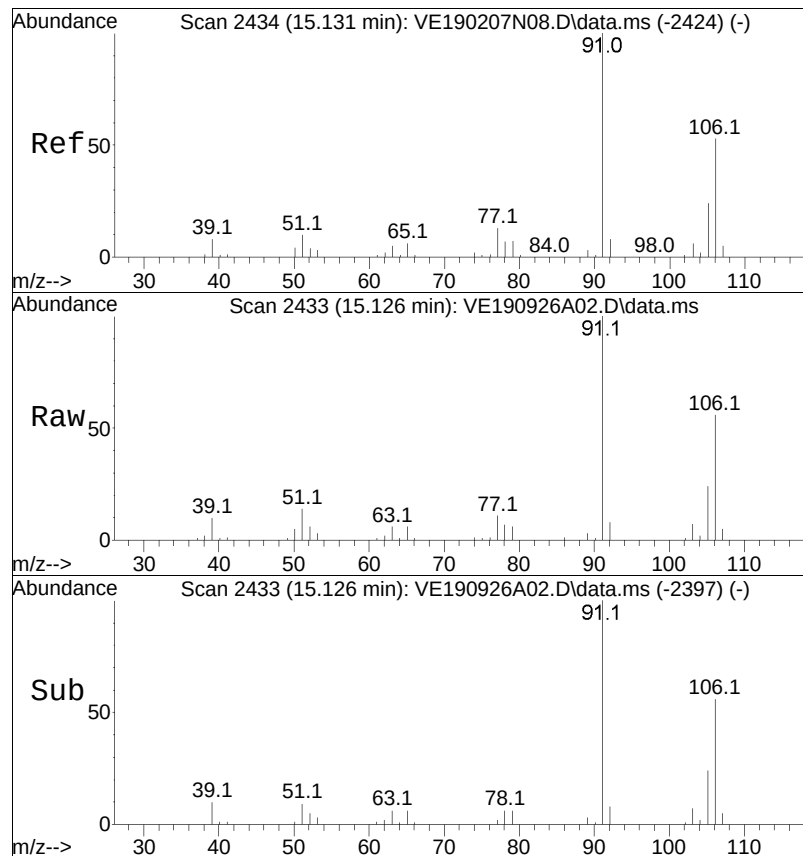




#75
 1,1,1,2-Tetrachloroethane
 Concen: 12.12 ug/L
 RT: 14.985 min Scan# 2407
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

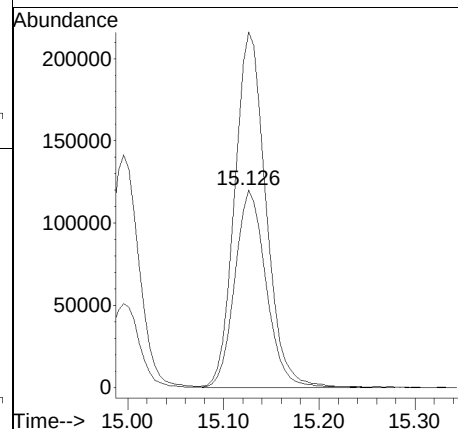
Tgt Ion	Ratio	Resp	Lower	Upper
131	100	68018		
133	96.1		75.9	115.9
119	59.9		44.5	84.5

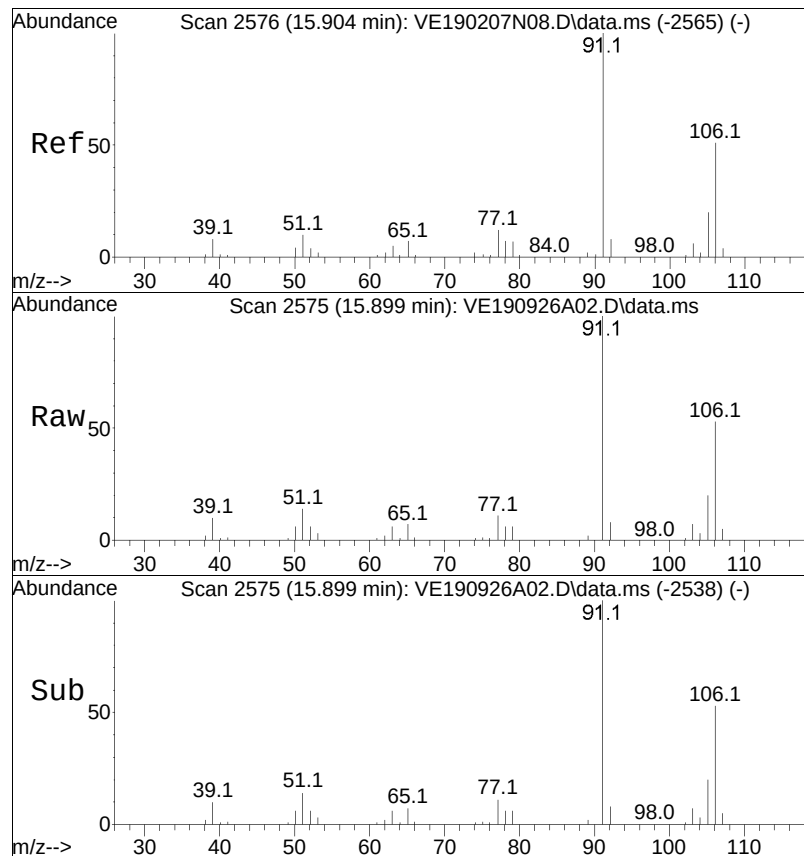




#76
 p/m Xylene
 Concen: 19.51 ug/L
 RT: 15.126 min Scan# 2433
 Delta R.T. -0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

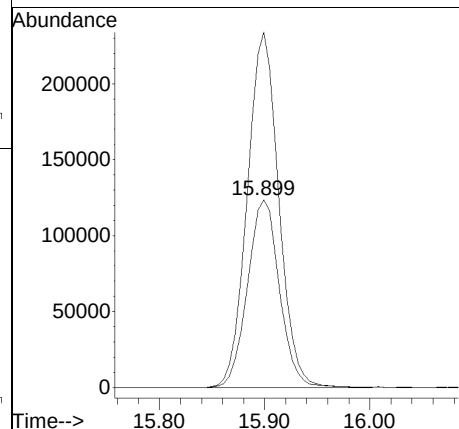
Tgt Ion	Ratio	Lower	Upper
106	100		
91	178.7	155.0	232.6

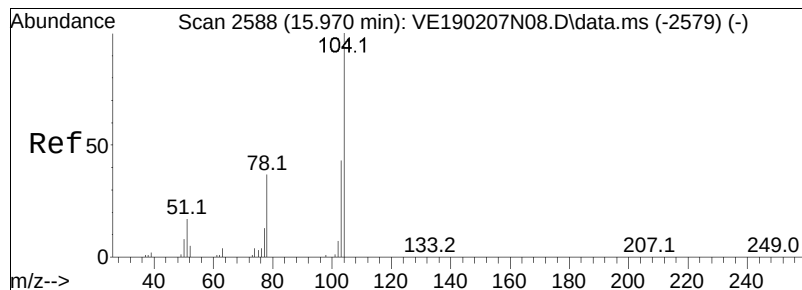




#77
 o Xylene
 Concen: 19.82 ug/L
 RT: 15.899 min Scan# 2575
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

Tgt Ion	Ratio	Lower	Upper
106	100		
91	186.4	165.7	248.5





#78

Styrene

Concen: 19.28 ug/L

RT: 15.964 min Scan# 2587

Delta R.T. 0.000 min

Lab File: VE190926A02.D

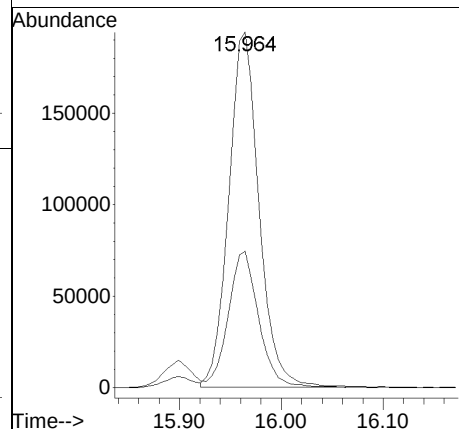
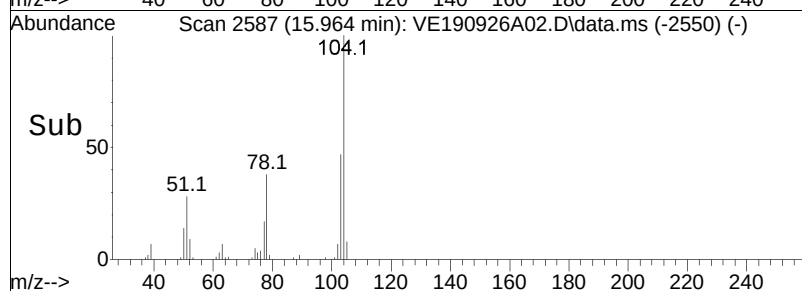
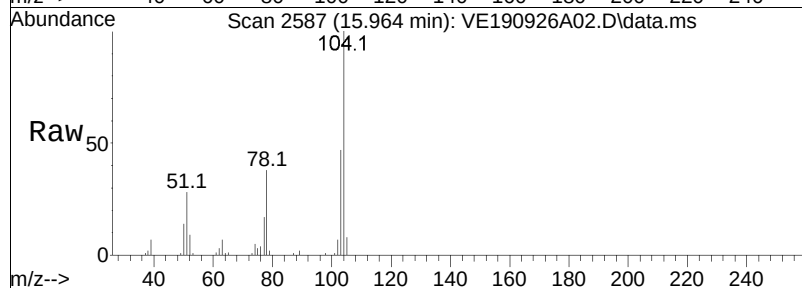
Acq: 26 Sep 2019 7:43 am

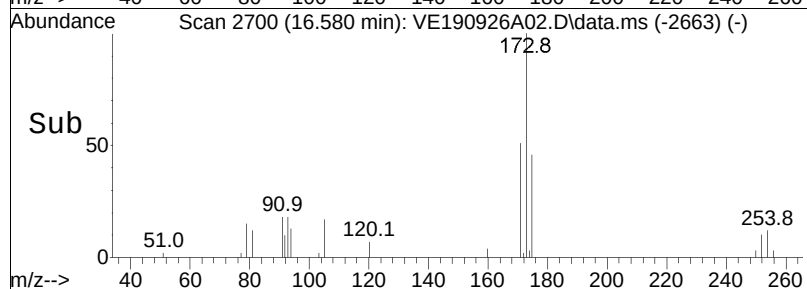
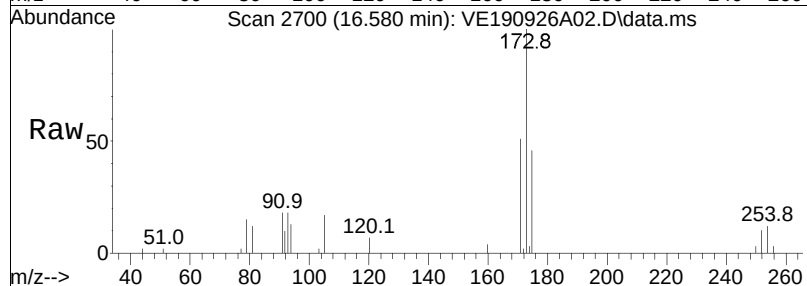
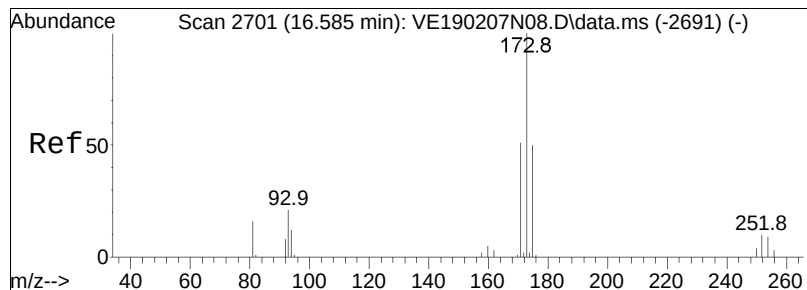
Tgt Ion:104 Resp: 400729

Ion Ratio Lower Upper

104 100

78 38.3 34.6 51.8





#80

Bromoform

Concen: 8.85 ug/L

RT: 16.580 min Scan# 2700

Delta R.T. 0.001 min

Lab File: VE190926A02.D

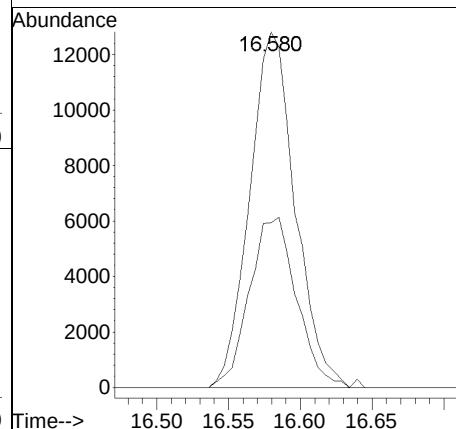
Acq: 26 Sep 2019 7:43 am

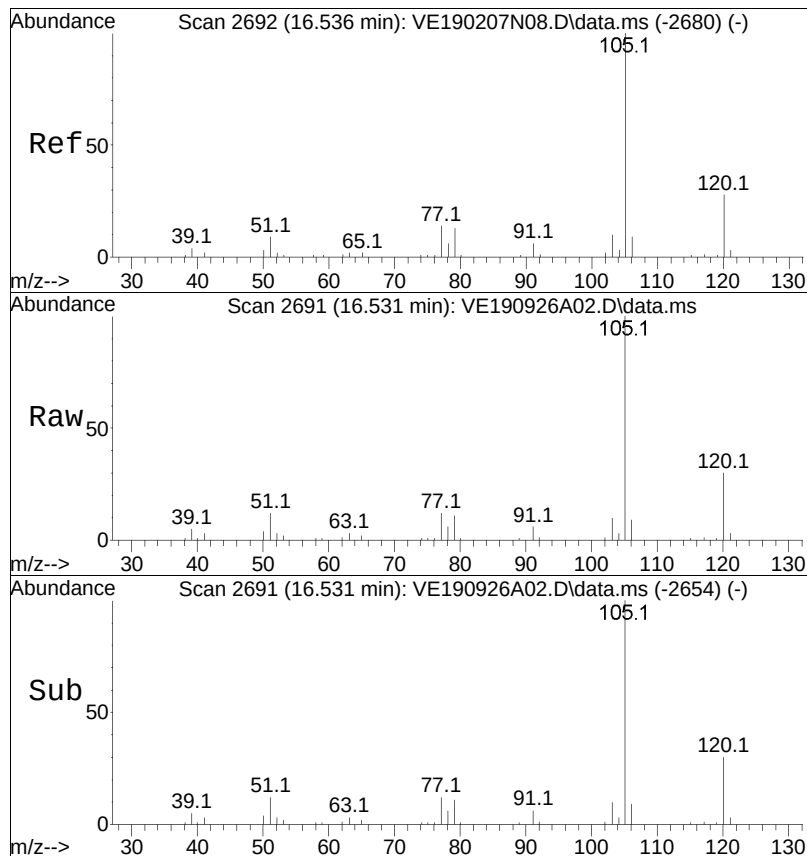
Tgt Ion:173 Resp: 28324

Ion Ratio Lower Upper

173 100

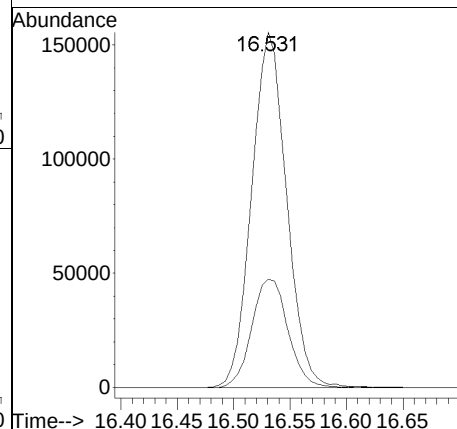
175 49.4 29.3 69.3

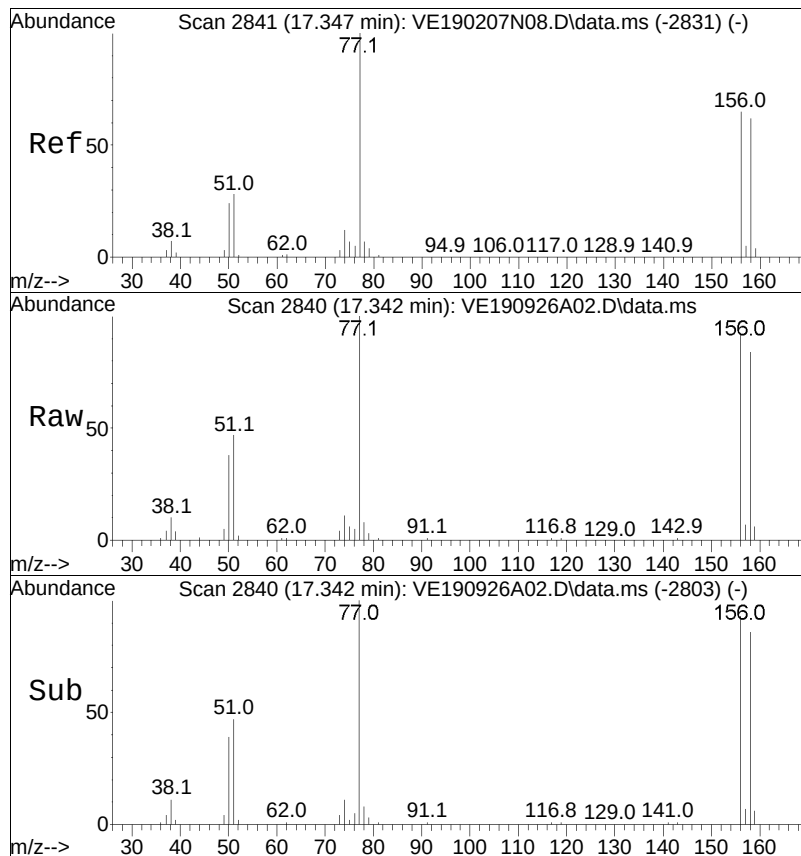




#82
 Isopropylbenzene
 Concen: 8.38 ug/L
 RT: 16.531 min Scan# 2691
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

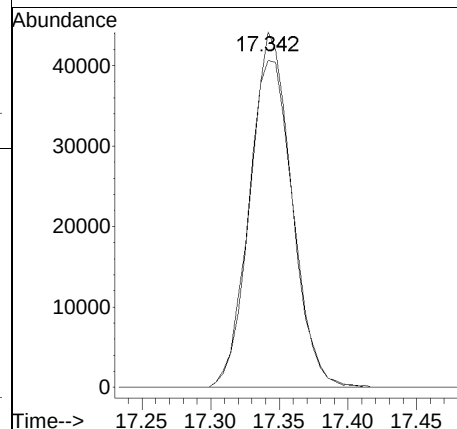
Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.6	7.7	47.7

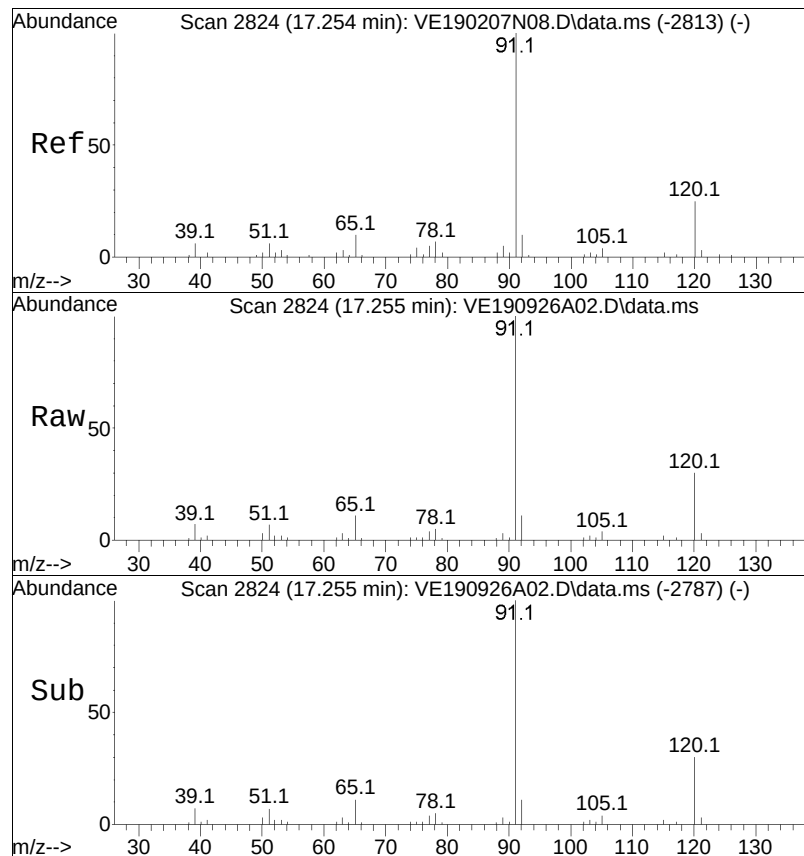




#84
 Bromobenzene
 Concen: 9.70 ug/L
 RT: 17.342 min Scan# 2840
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

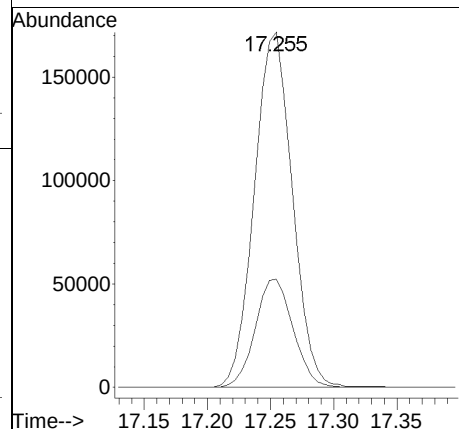
Tgt Ion	Ratio	Lower	Upper
156	100		
158	96.8	76.8	115.2

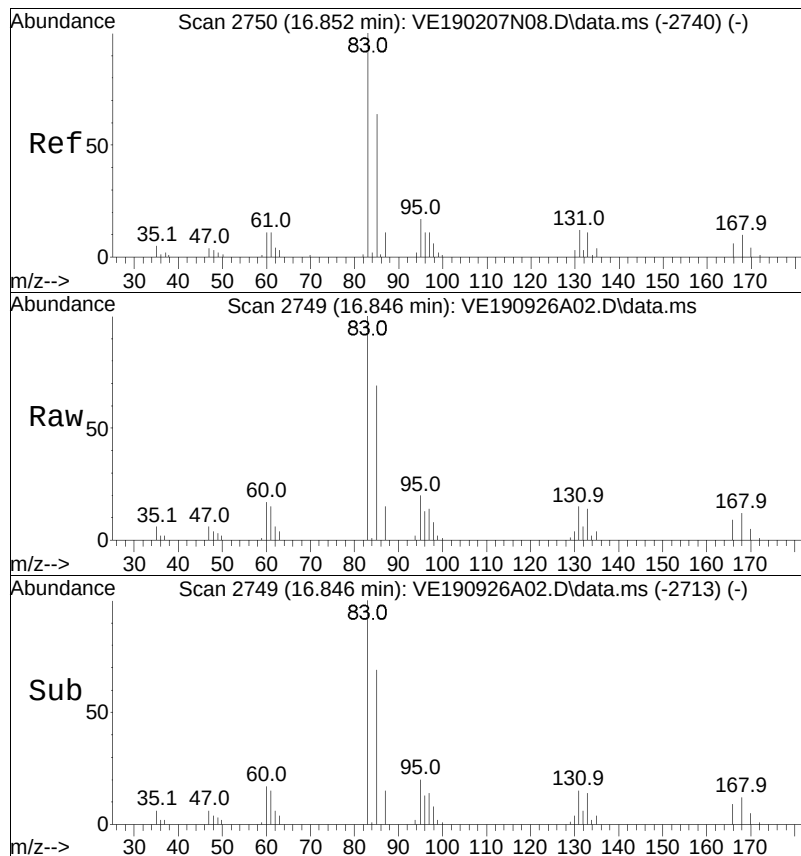




#85
 n-Propylbenzene
 Concen: 8.15 ug/L
 RT: 17.255 min Scan# 2824
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

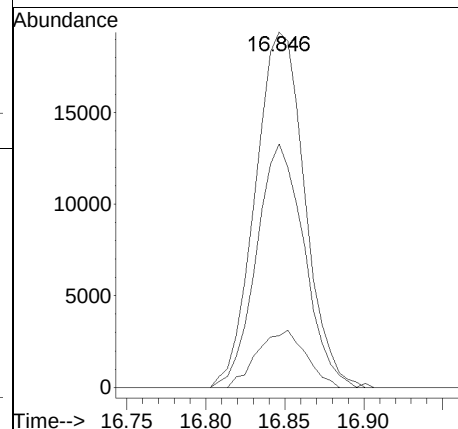
Tgt	Ion	Resp	Lower	Upper
91	100	359194		
120	30.3	19.5	29.3#	

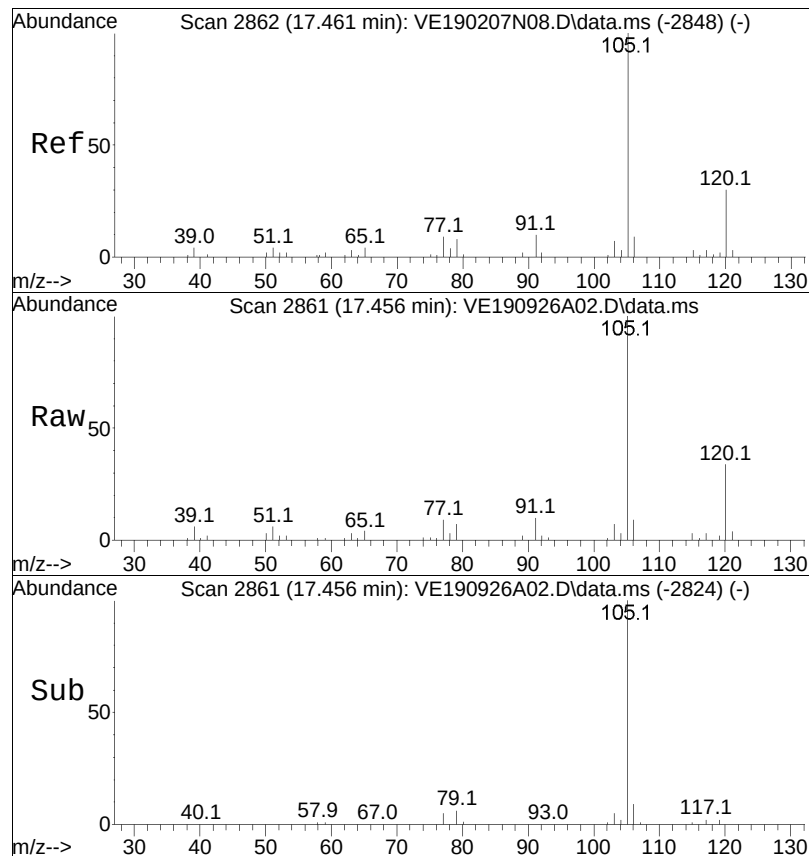




#87
 1,1,2,2-Tetrachloroethane
 Concen: 7.28 ug/L
 RT: 16.846 min Scan# 2749
 Delta R.T. -0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

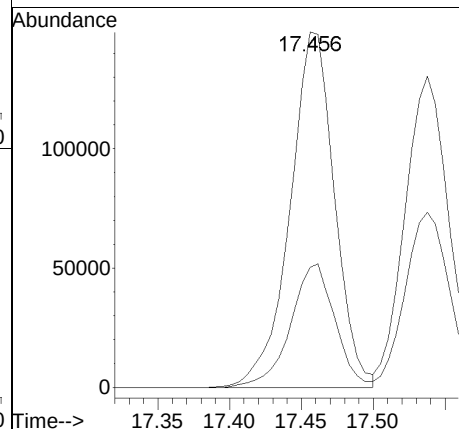
Tgt Ion:	83	Resp:	42411
Ion Ratio	Lower	Upper	
83	100		
131	15.7	0.0	30.0
85	66.3	44.5	84.5

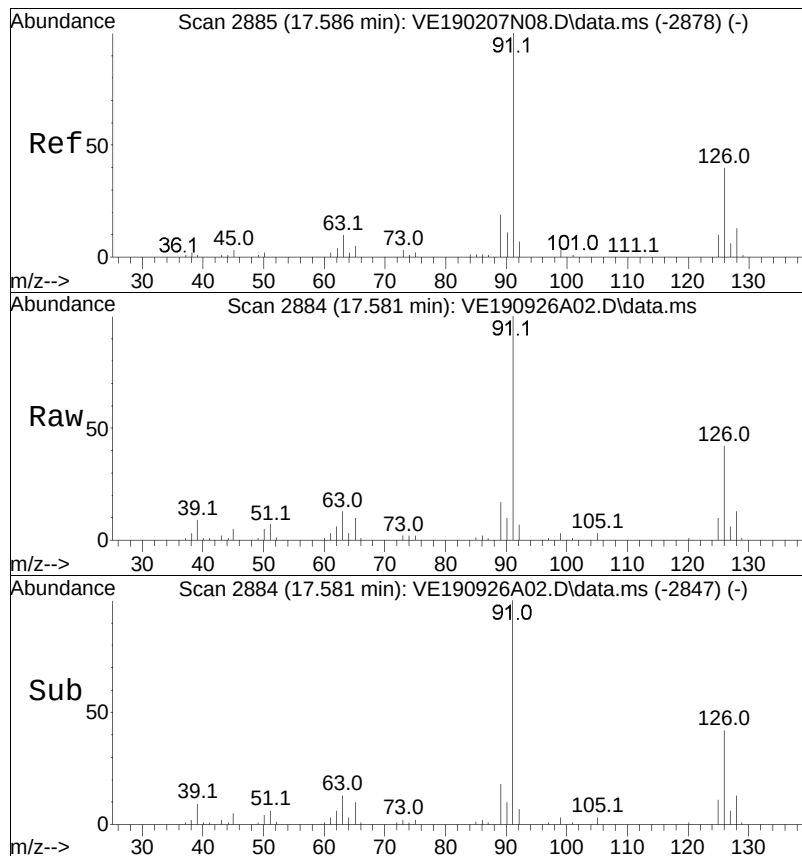




#88
 4-Ethyltoluene
 Concen: 8.38 ug/L
 RT: 17.456 min Scan# 2861
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

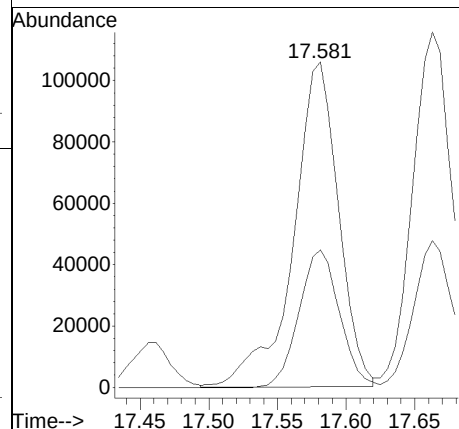
Tgt Ion	Ratio	Lower	Upper
105	100		
120	34.6	19.8	41.2

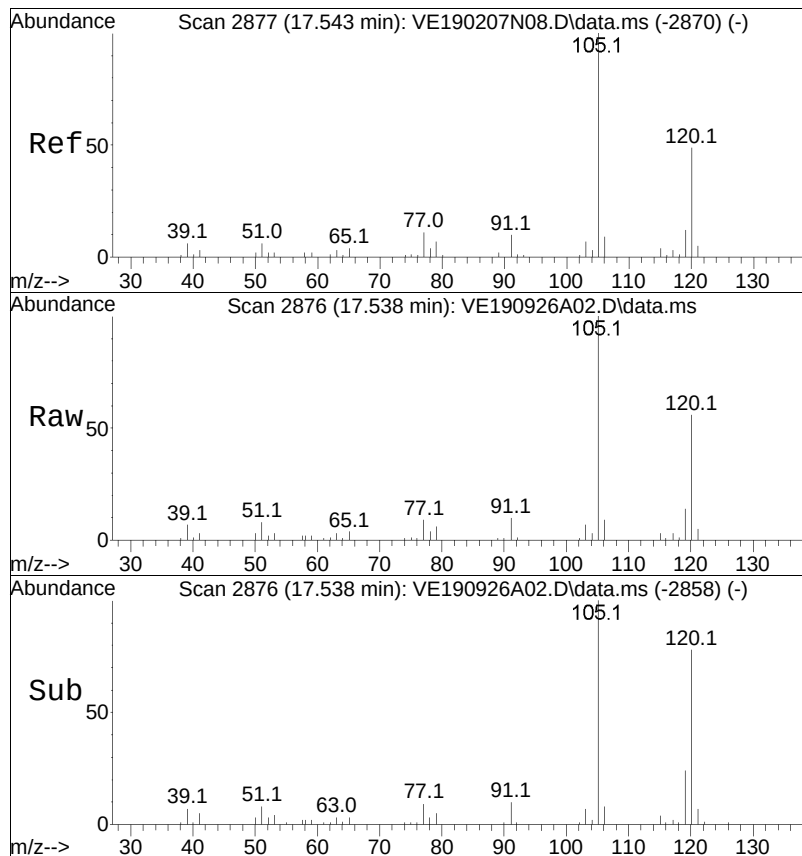




#89
 2-Chlorotoluene
 Concen: 8.01 ug/L
 RT: 17.581 min Scan# 2884
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

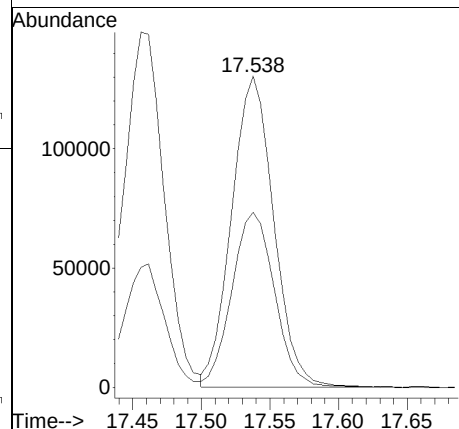
Tgt Ion	Ratio	Lower	Upper
91	100		
126	38.0	24.1	36.1#

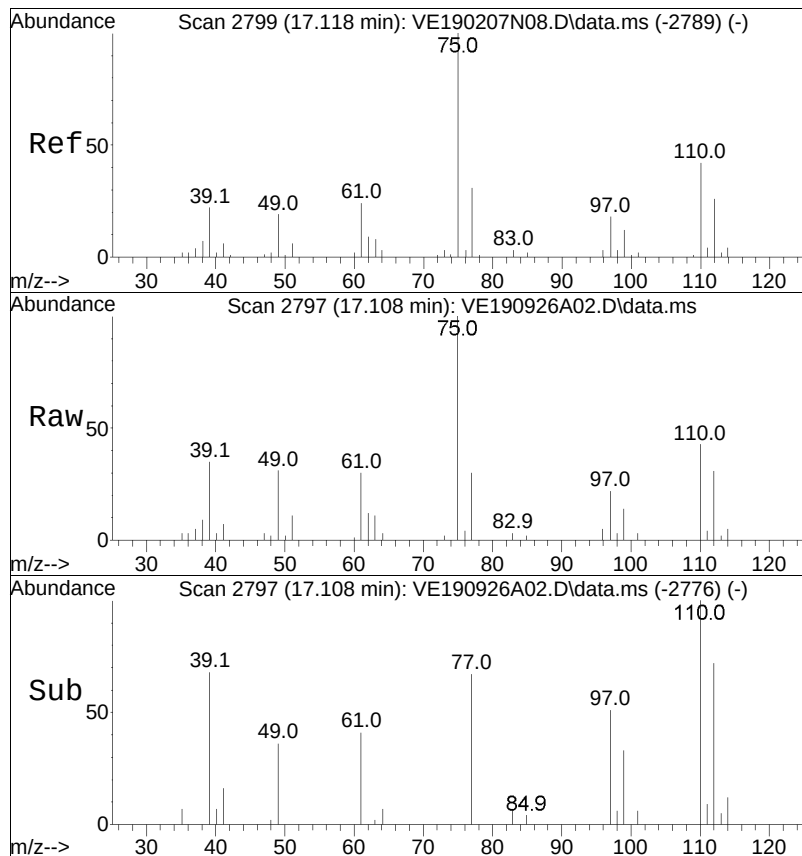




#90
 1,3,5-Trimethylbenzene
 Concen: 8.26 ug/L
 RT: 17.538 min Scan# 2876
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

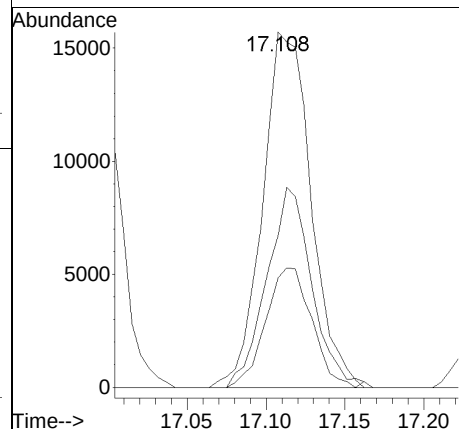
Tgt Ion	105	120	Ratio	Lower	Upper
Resp	277292				
105	100				
120	57.3	39.6	59.4		

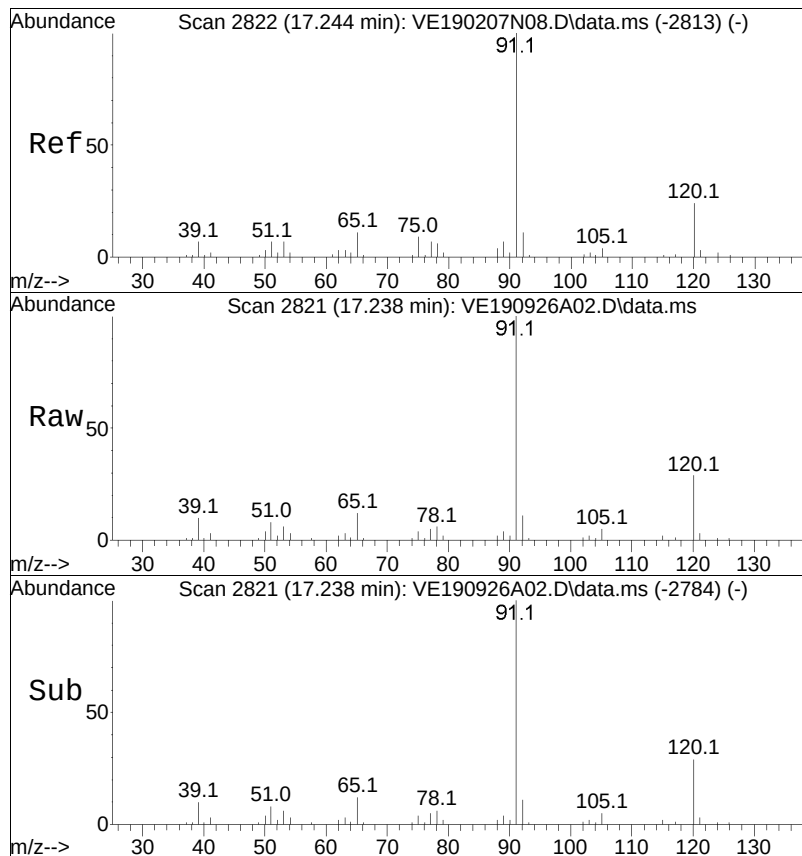




#91
 1,2,3-Trichloropropane
 Concen: 6.89 ug/L
 RT: 17.108 min Scan# 2797
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

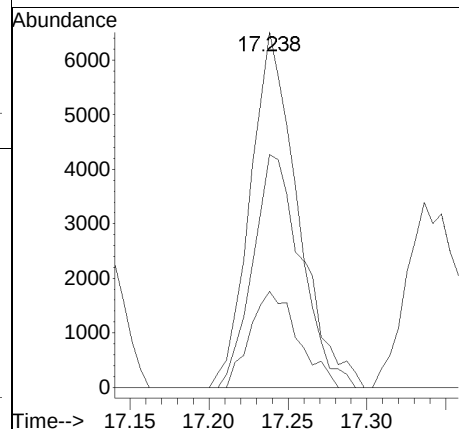
Tgt	Ion: 75	Resp:	33451
Ion	Ratio	Lower	Upper
75	100		
110	52.4	25.3	52.5
112	32.2	16.1	33.3

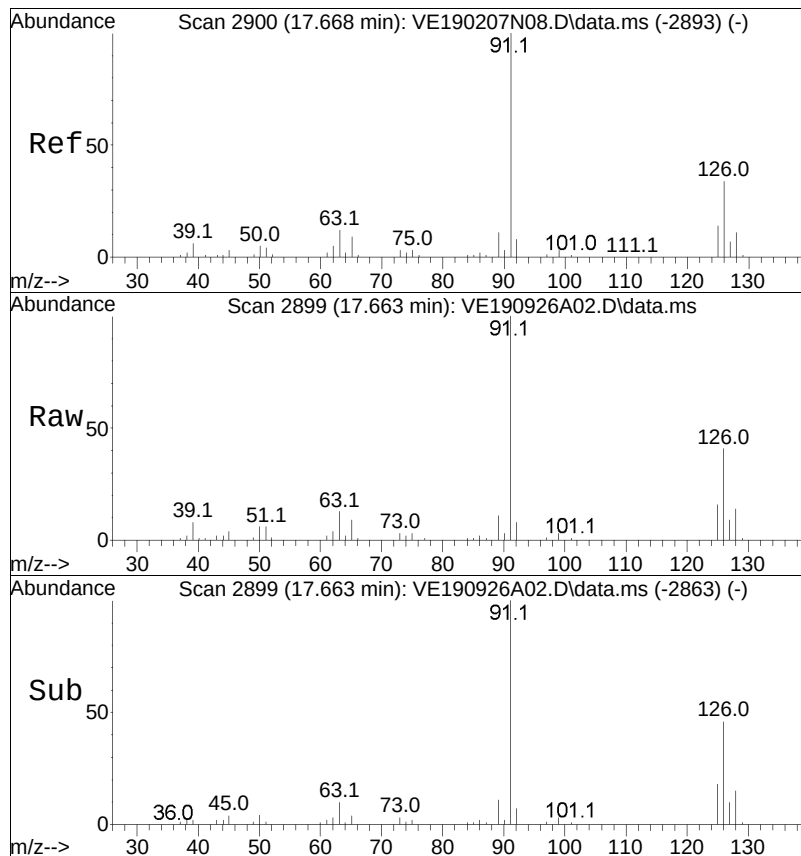




#92
trans-1,4-Dichloro-2-butene
Concen: 7.60 ug/L
RT: 17.238 min Scan# 2821
Delta R.T. 0.000 min
Lab File: VE190926A02.D
Acq: 26 Sep 2019 7:43 am

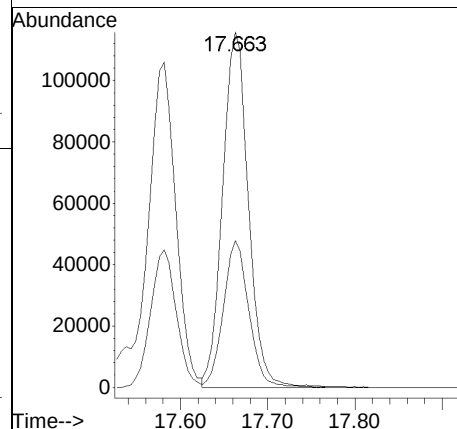
Tgt Ion:	53	Resp:	13659
Ion Ratio	Lower	Upper	
53	100		
88	27.2	30.5	45.7#
75	66.5	80.5	120.7#

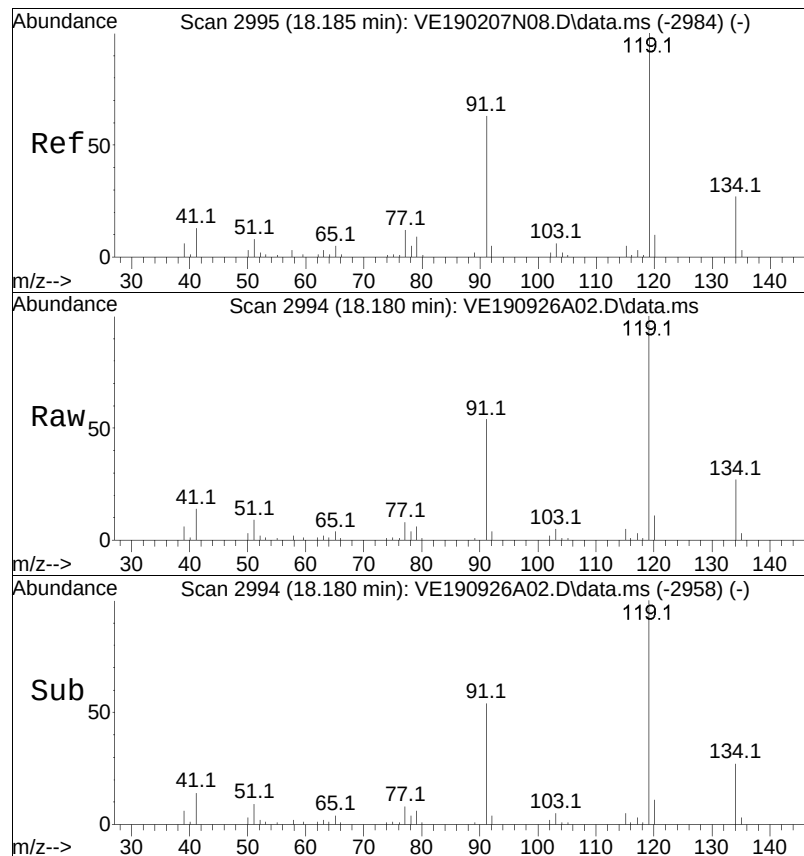




#93
 4-Chlorotoluene
 Concen: 8.27 ug/L M2
 RT: 17.663 min Scan# 2899
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

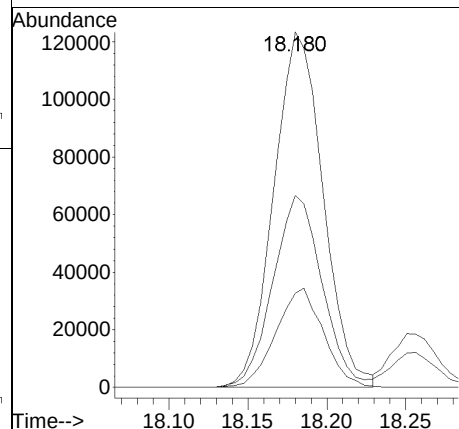
Tgt Ion:	91	126	Ratio	Lower	Upper
Resp:	238009				
Ion Ratio	100	38.7			
		26.8		40.2	

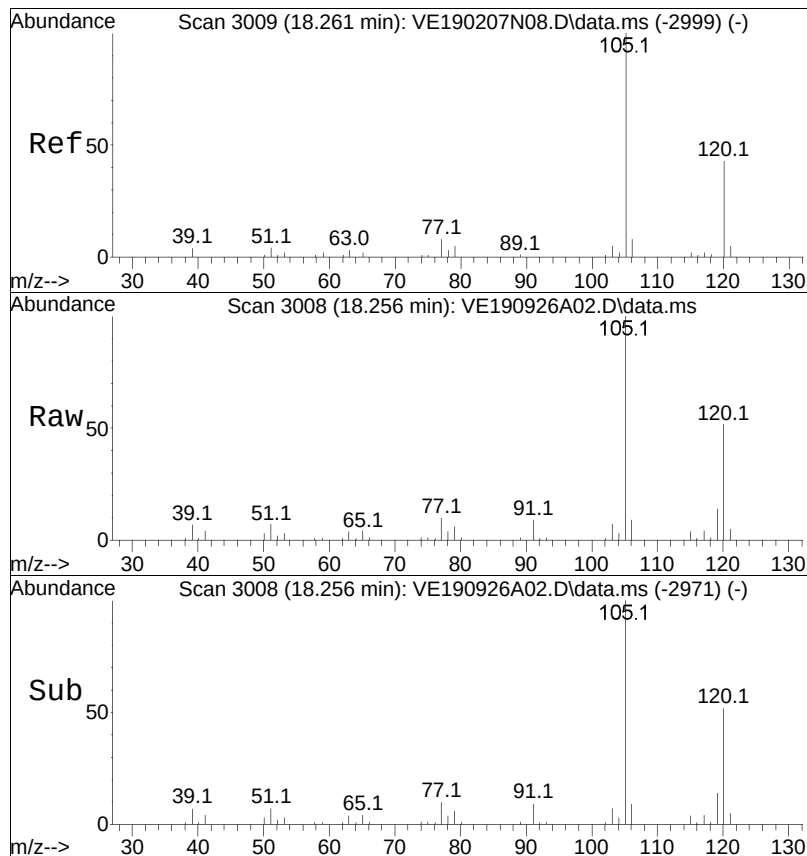




#94
 tert-Butylbenzene
 Concen: 9.68 ug/L
 RT: 18.180 min Scan# 2994
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

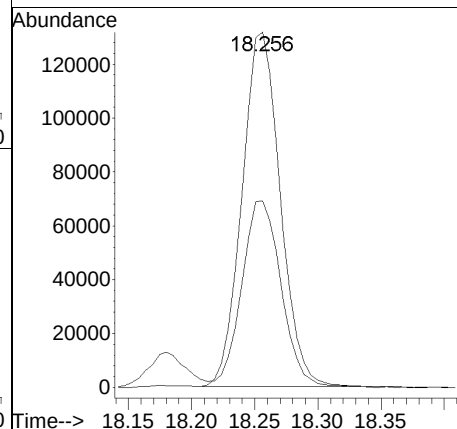
Tgt	Ion:119	Resp:	268331
Ion	Ratio	Lower	Upper
119	100		
91	53.7	53.6	80.4
134	27.0	20.2	30.2

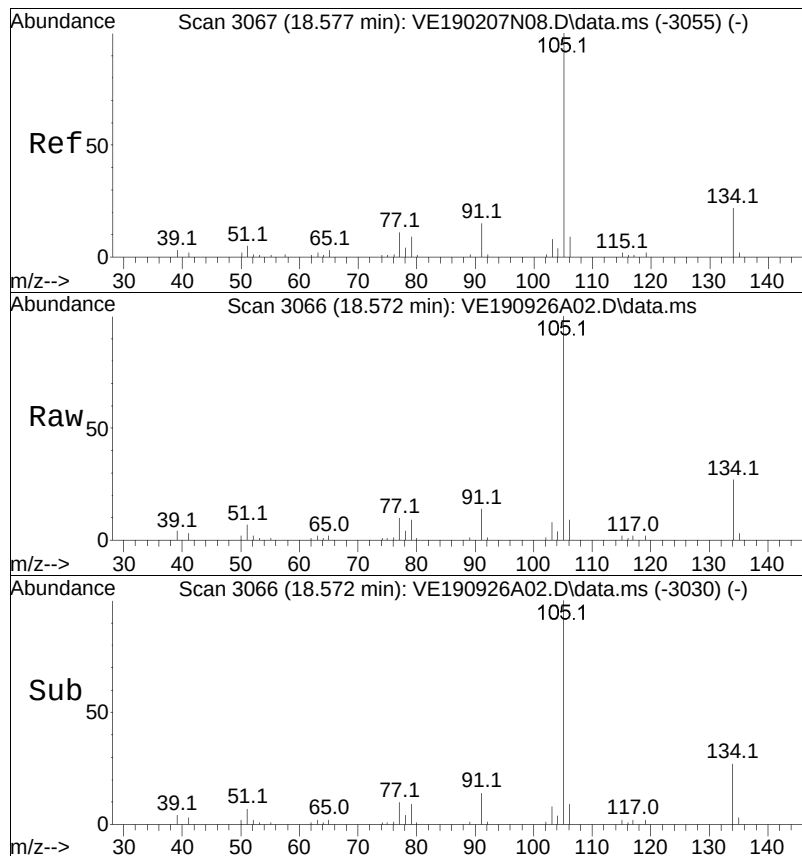




#97
 1,2,4-Trimethylbenzene
 Concen: 8.36 ug/L
 RT: 18.256 min Scan# 3008
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

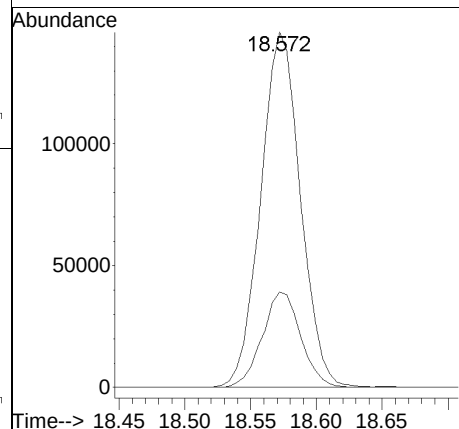
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	54.3	37.4	56.0	

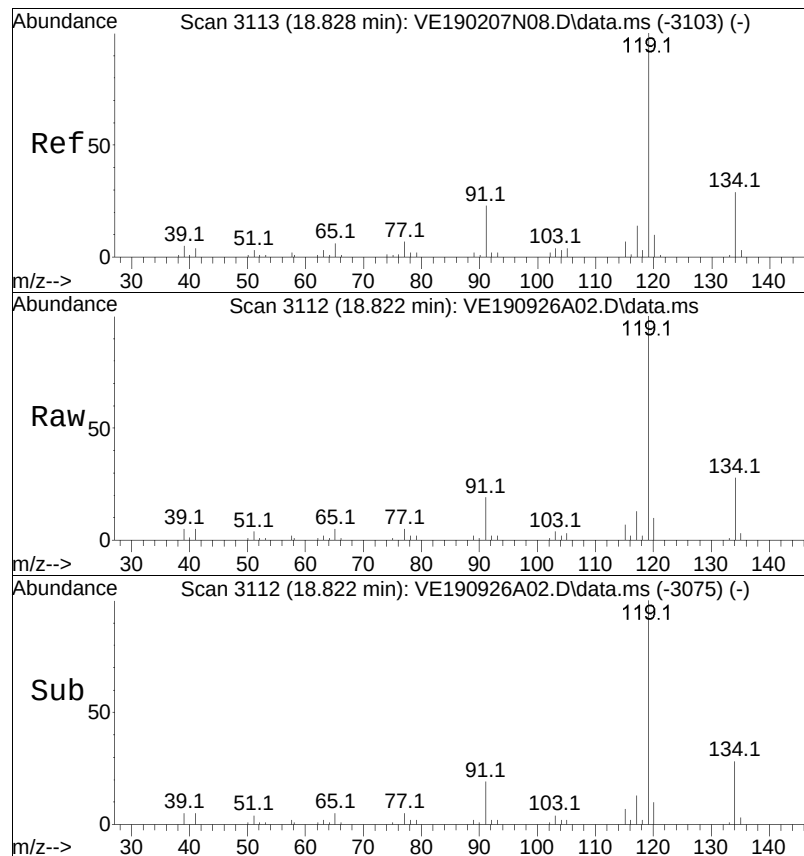




#98
 sec-Butylbenzene
 Concen: 8.32 ug/L
 RT: 18.572 min Scan# 3066
 Delta R.T. -0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

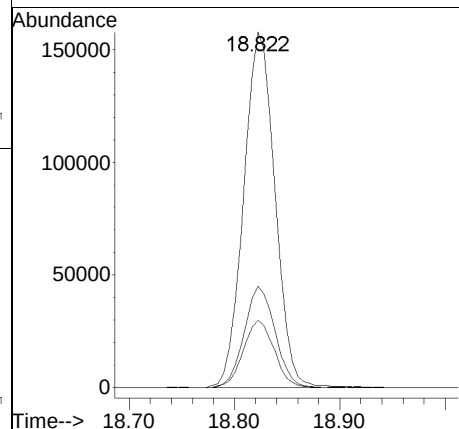
Tgt Ion	Ratio	Lower	Upper
105	100		
134	26.0	13.1	27.1

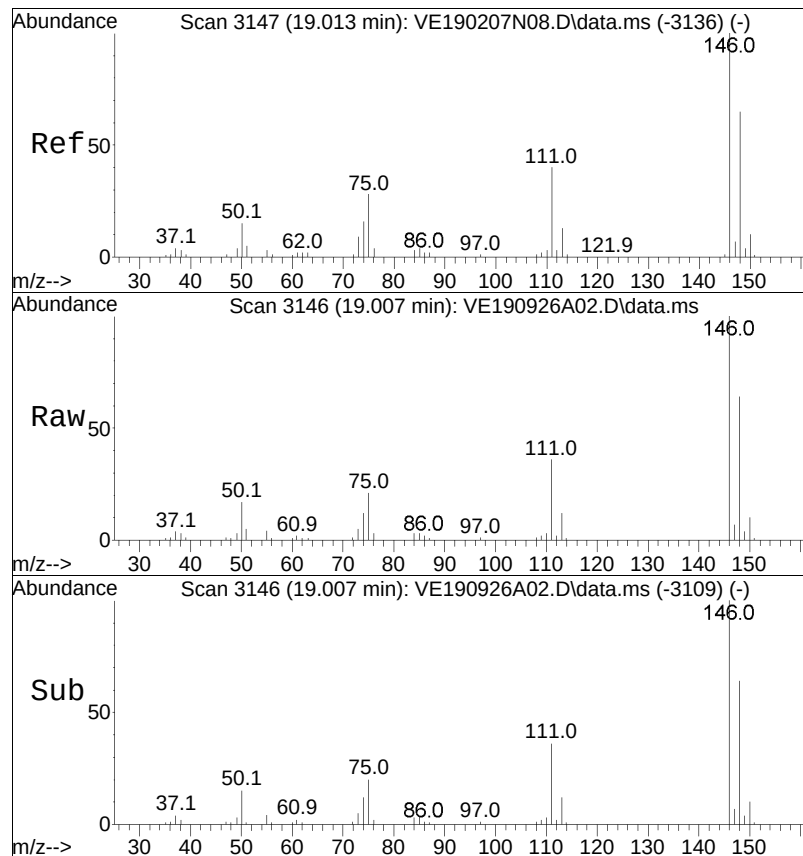




#99
 p-Isopropyltoluene
 Concen: 10.01 ug/L
 RT: 18.822 min Scan# 3112
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

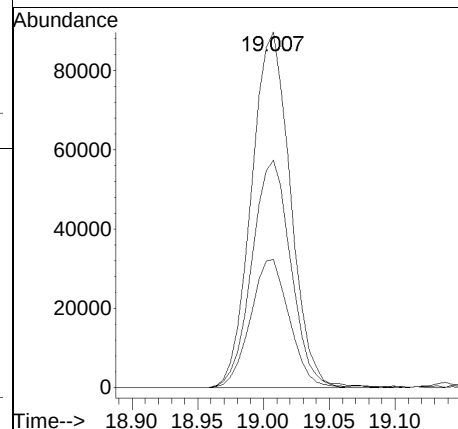
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.0	17.2	35.8
91	18.6	15.3	31.9

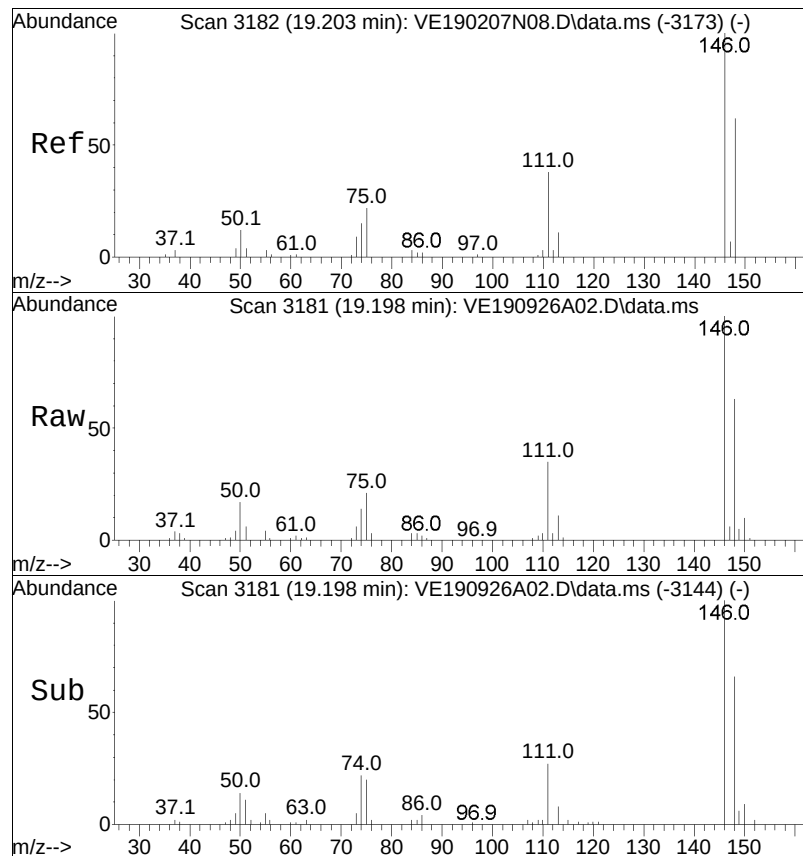




#100
 1,3-Dichlorobenzene
 Concen: 9.70 ug/L
 RT: 19.007 min Scan# 3146
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

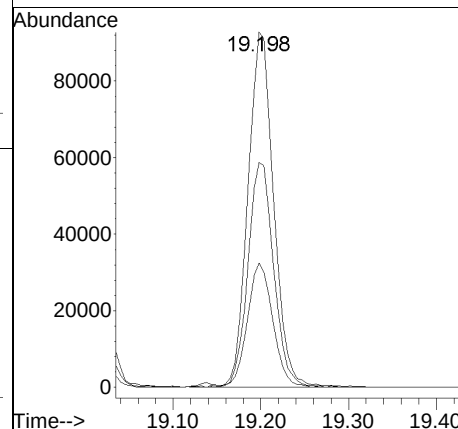
Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.7	28.8	59.8
148	63.6	41.1	85.5

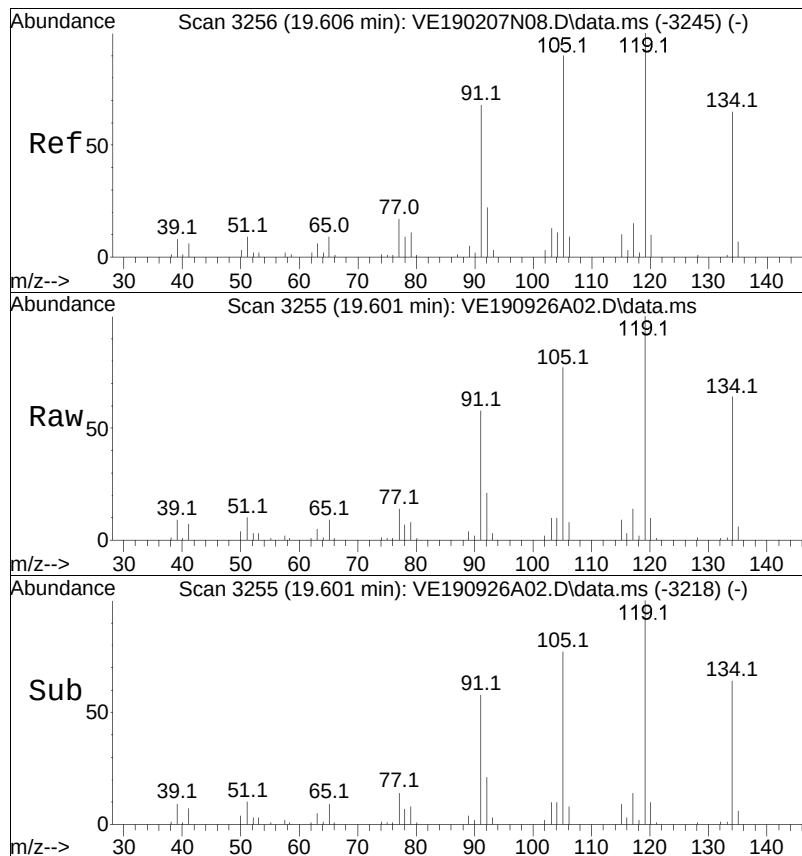




#101
 1,4-Dichlorobenzene
 Concen: 9.81 ug/L
 RT: 19.198 min Scan# 3181
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

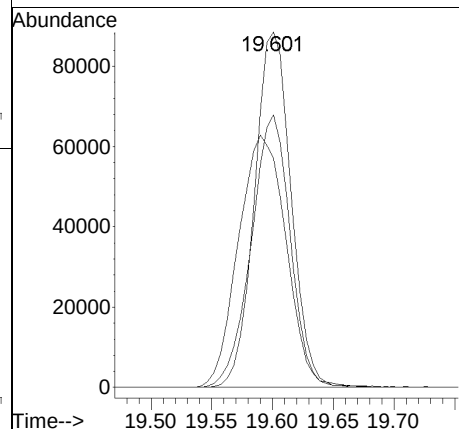
Tgt Ion:	146	Resp:	189672
Ion Ratio	Lower	Upper	
146	100		
111	34.5	34.6	52.0#
148	63.5	51.5	77.3

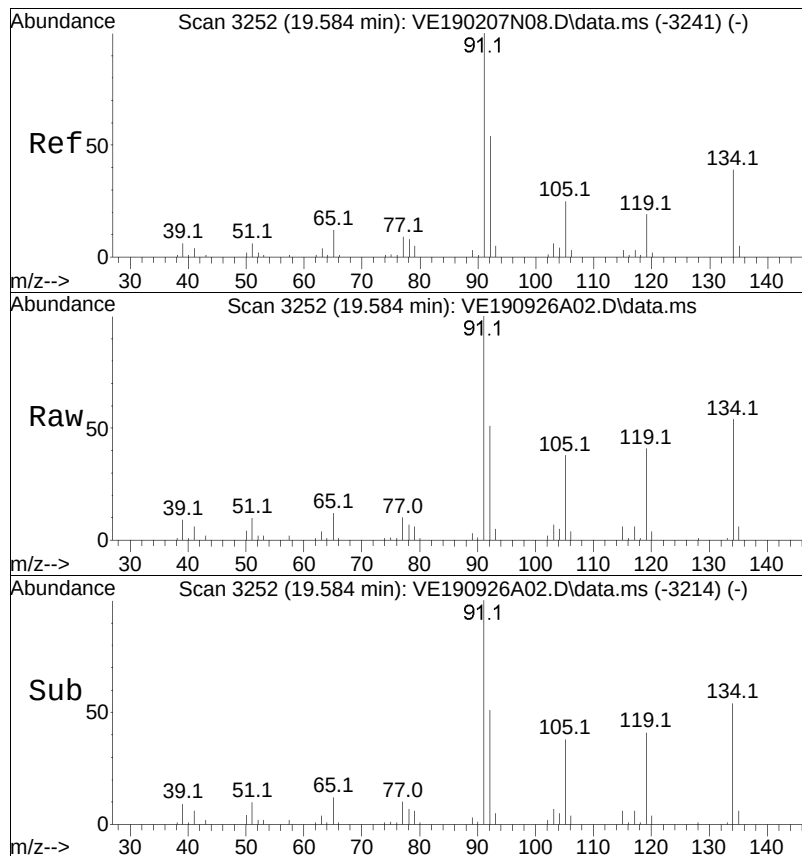




#102
 p-Diethylbenzene
 Concen: 9.94 ug/L
 RT: 19.601 min Scan# 3255
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

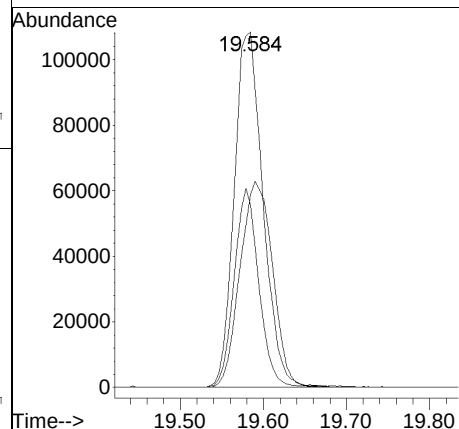
Tgt	Ion	Ratio	Resp	Lower	Upper
119	100		185957		
105	81.9	63.0		131.0	
134	92.0	55.5		115.3	

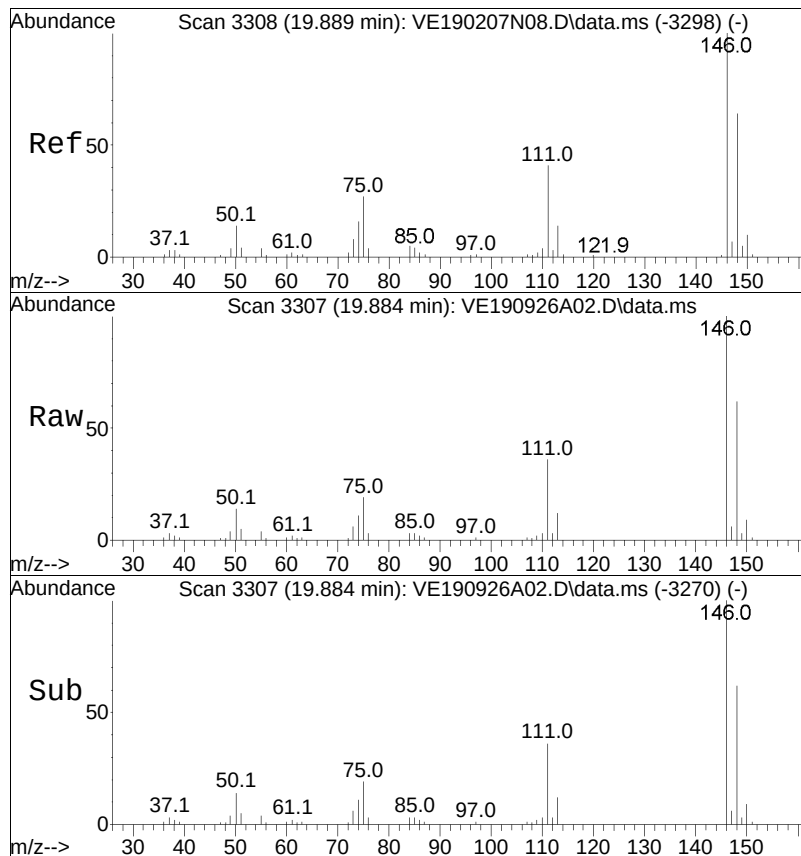




#103
 n-Butylbenzene
 Concen: 8.19 ug/L
 RT: 19.584 min Scan# 3252
 Delta R.T. 0.005 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

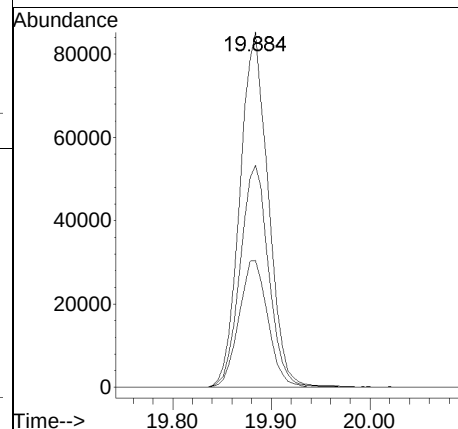
Tgt Ion	Ratio	Lower	Upper
91	100		
92	47.8	38.2	57.4
134	65.4	39.4	59.2

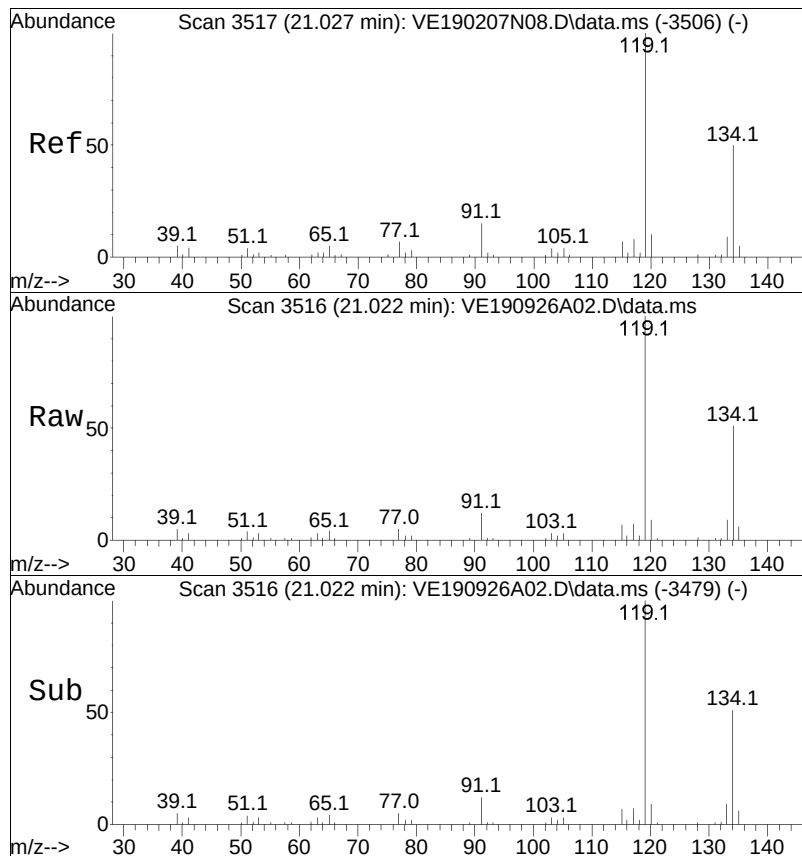




#104
 1,2-Dichlorobenzene
 Concen: 10.01 ug/L
 RT: 19.884 min Scan# 3307
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

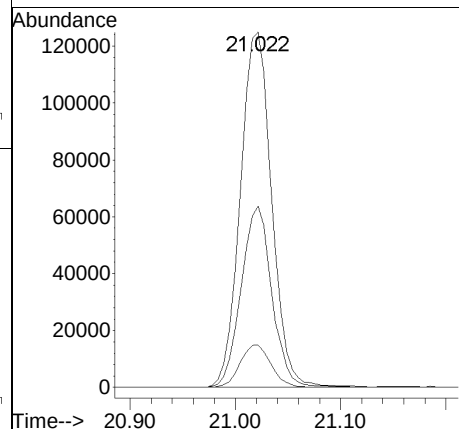
Tgt Ion	Ratio	Lower	Upper
146	100		
111	36.4	29.4	61.0
148	62.9	41.9	86.9

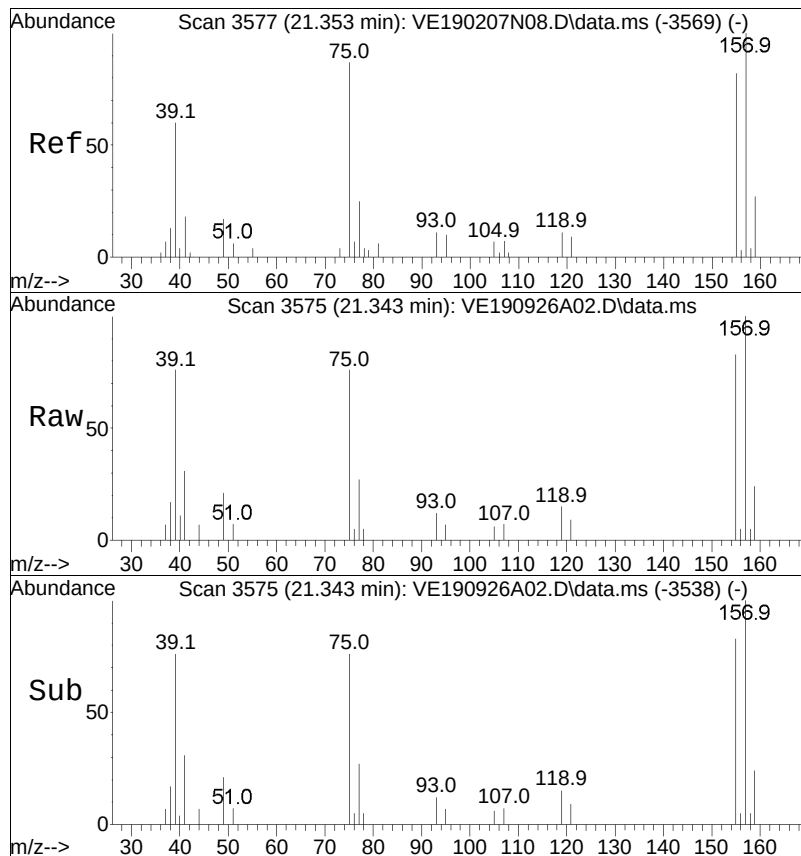




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 10.31 ug/L
 RT: 21.022 min Scan# 3516
 Delta R.T. 0.001 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

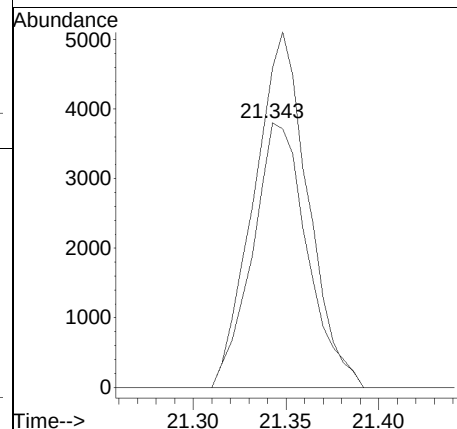
Tgt Ion	Ratio	Lower	Upper
119	100		
134	50.0	30.7	63.7
91	11.8	10.1	21.1

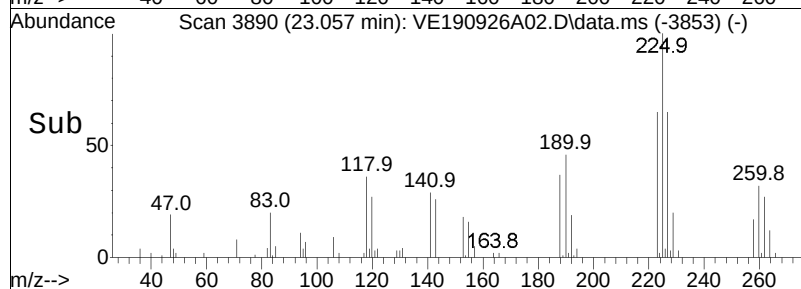
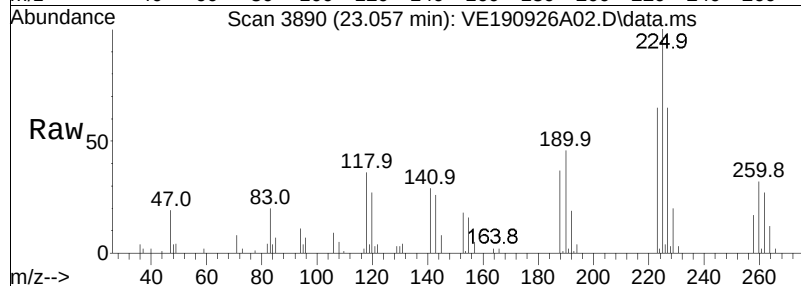
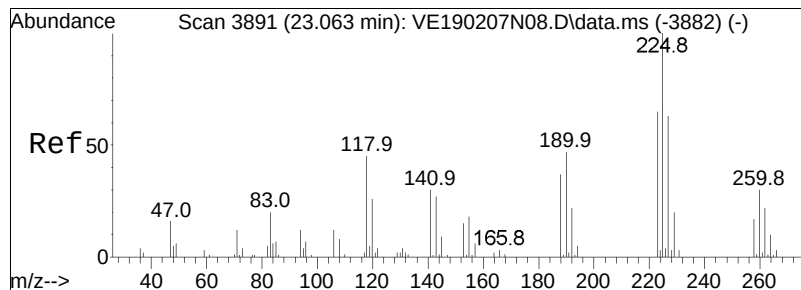




#106
 1,2-Dibromo-3-chloropropane
 Concen: 9.51 ug/L
 RT: 21.343 min Scan# 3575
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

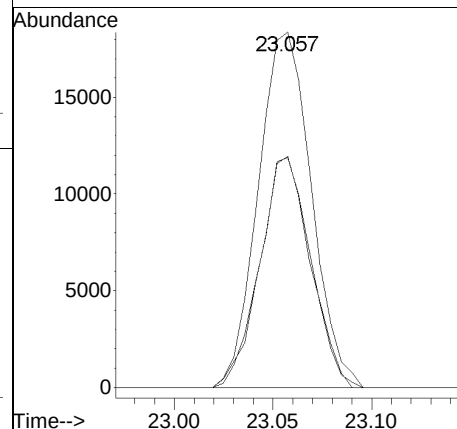
Tgt Ion:155 Resp: 7794
 Ion Ratio Lower Upper
 155 100
 157 132.2 106.7 160.1

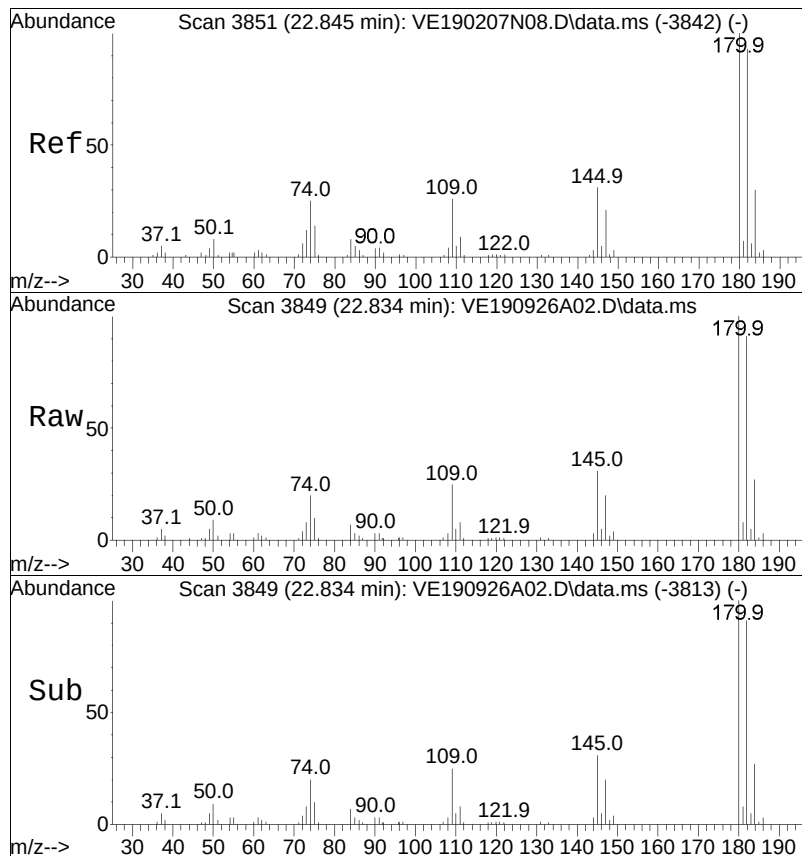




#108
 Hexachlorobutadiene
 Concen: 9.54 ug/L
 RT: 23.057 min Scan# 3890
 Delta R.T. 0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

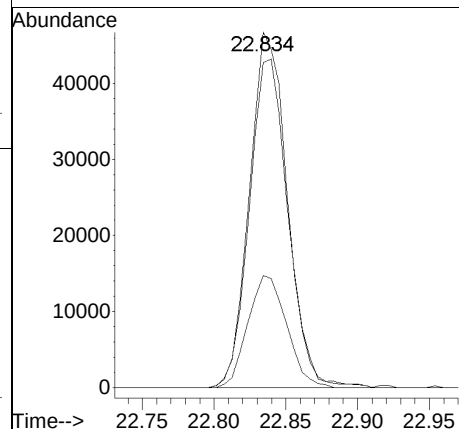
Tgt Ion	Ratio	Lower	Upper
225	100		
223	61.6	48.2	72.4
227	62.1	50.6	75.8

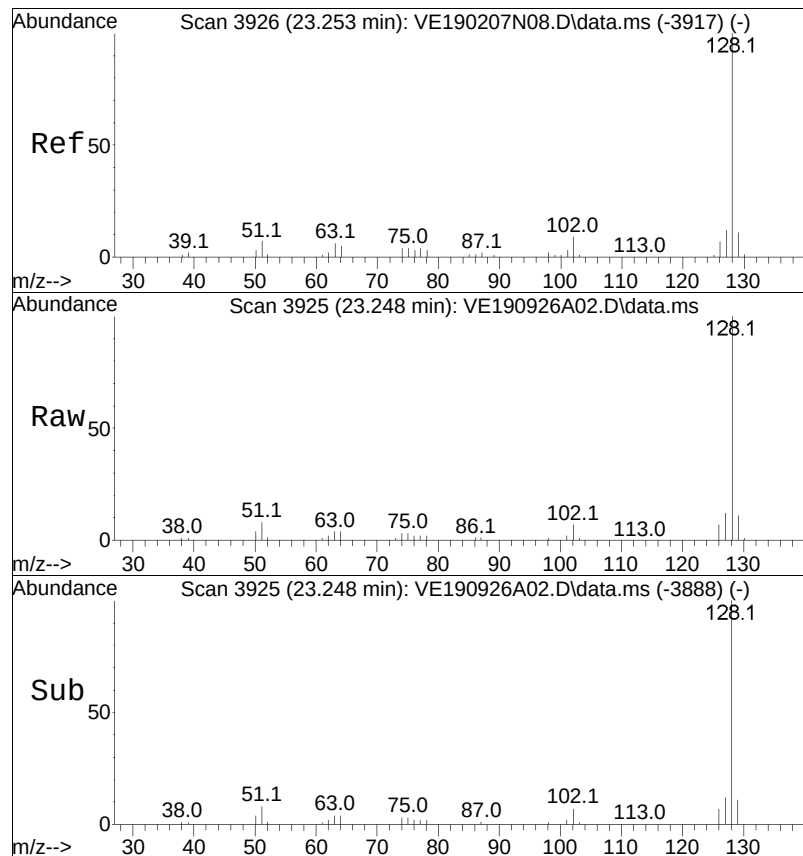




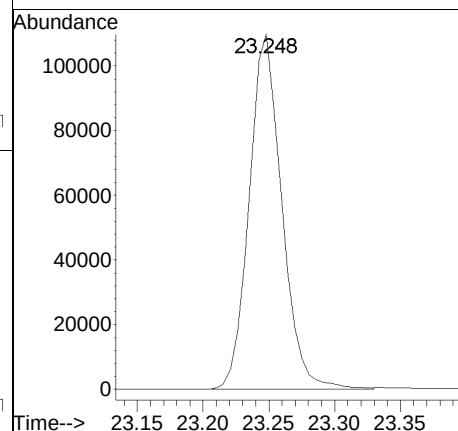
#109
 1,2,4-Trichlorobenzene
 Concen: 10.18 ug/L
 RT: 22.834 min Scan# 3849
 Delta R.T. -0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

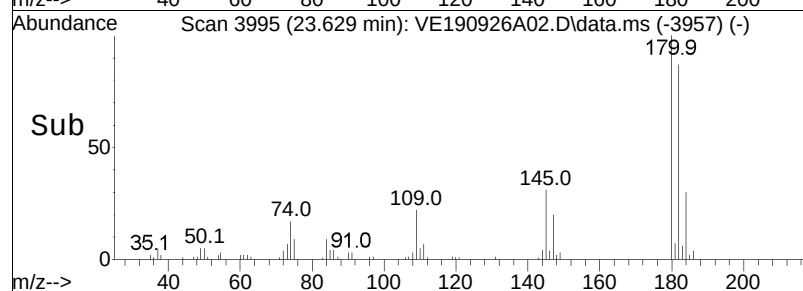
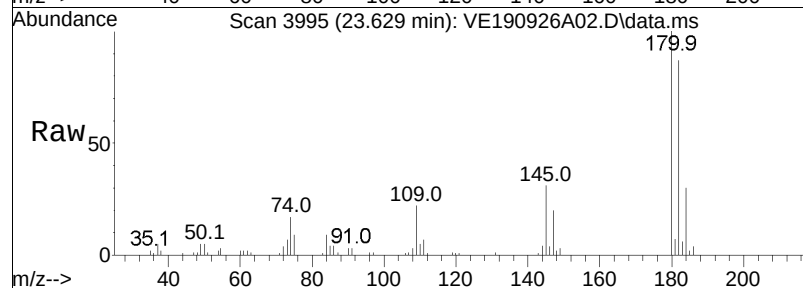
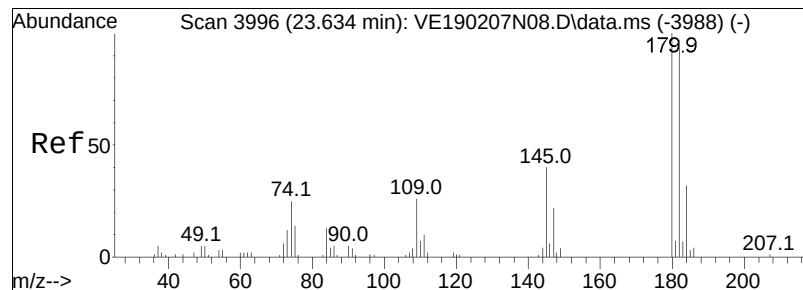
Tgt Ion:	180	Resp:	85622
Ion Ratio	Lower	Upper	
180	100		
182	94.2	77.7	116.5
145	32.2	27.4	41.2





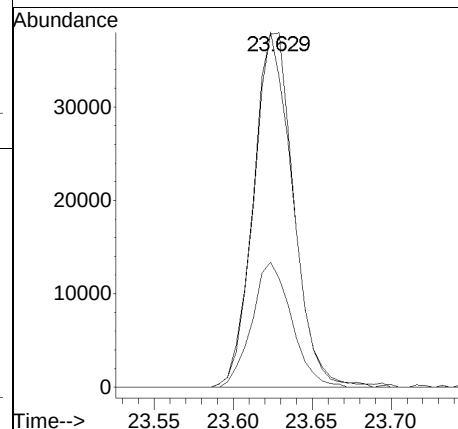
#110
 Naphthalene
 Concen: 10.27 ug/L
 RT: 23.248 min Scan# 3925
 Delta R.T. -0.000 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am
 Tgt Ion:128 Resp: 189875





#111
 1,2,3-Trichlorobenzene
 Concen: 9.83 ug/L
 RT: 23.629 min Scan# 3995
 Delta R.T. 0.006 min
 Lab File: VE190926A02.D
 Acq: 26 Sep 2019 7:43 am

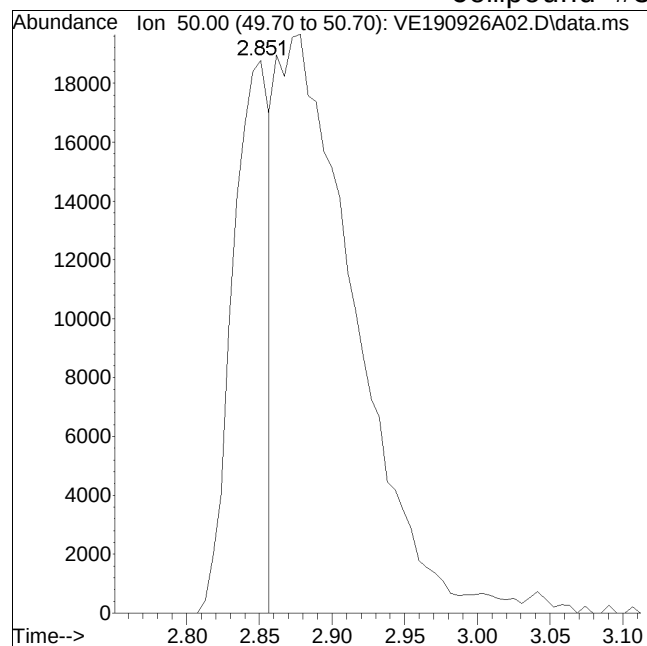
Tgt Ion	Ratio	Lower	Upper
180	100		
182	95.9	74.6	112.0
145	34.5	29.2	43.8



Manual Integration Report

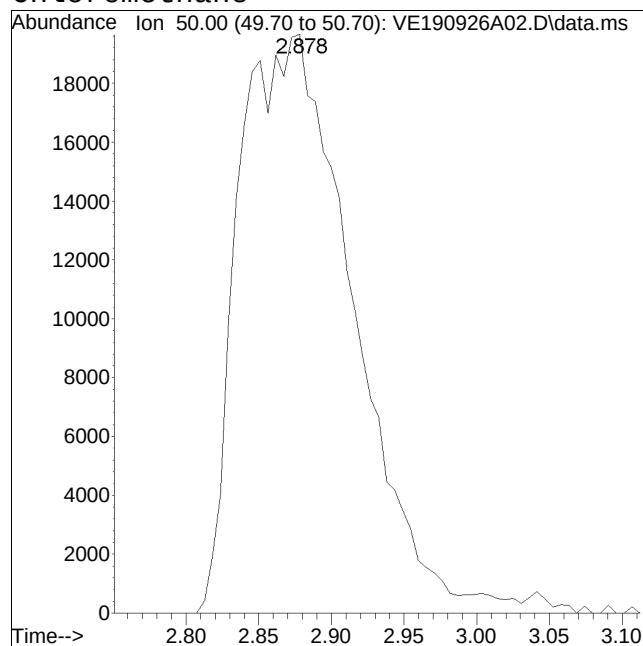
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-3,31,10,10 Quant Date : 9/26/2019 8:20 am

Compound #3: Chloromethane



Original Peak Response = 33030

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

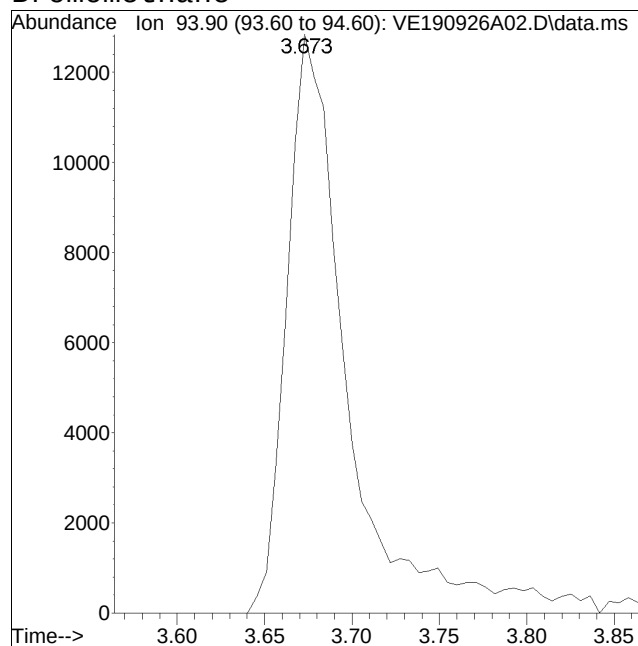
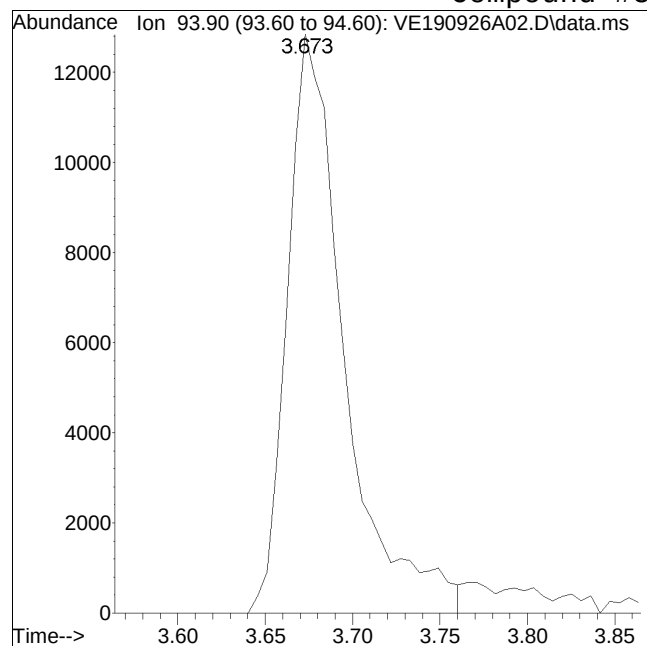


Manual Peak Response = 108099 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-3,31,10,10 Quant Date : 9/26/2019 8:20 am

Compound #5: Bromomethane



Original Peak Response = 29101

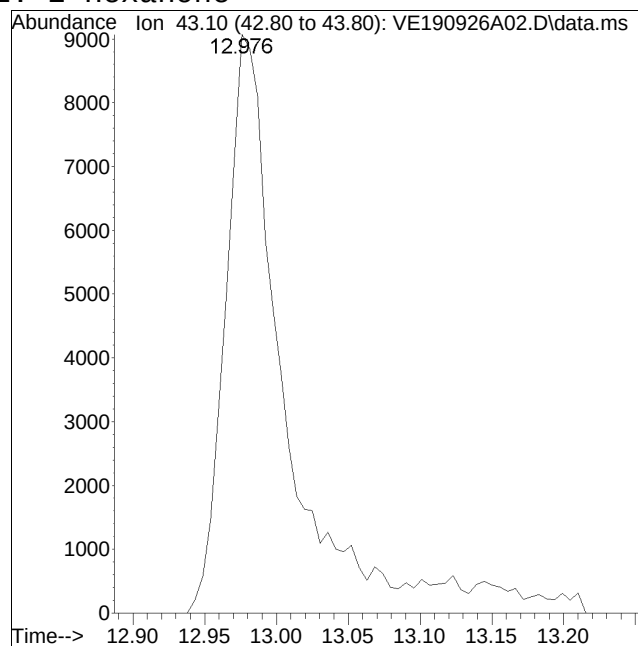
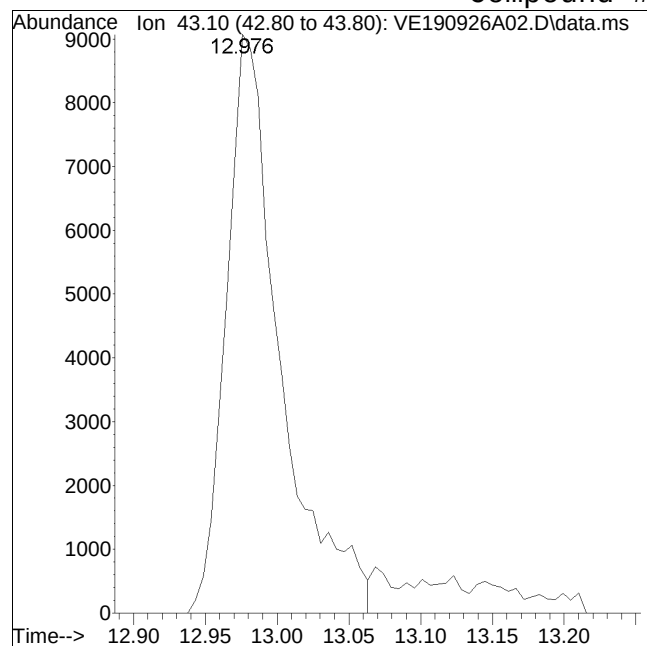
Manual Peak Response = 31257 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-3,31,10,10 Quant Date : 9/26/2019 8:20 am

Compound #72: 2-Hexanone



Original Peak Response = 23572

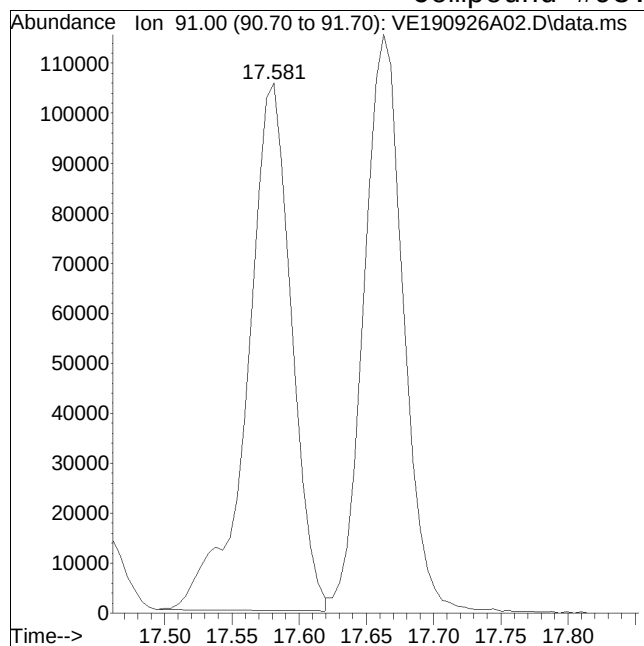
Manual Peak Response = 27065 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

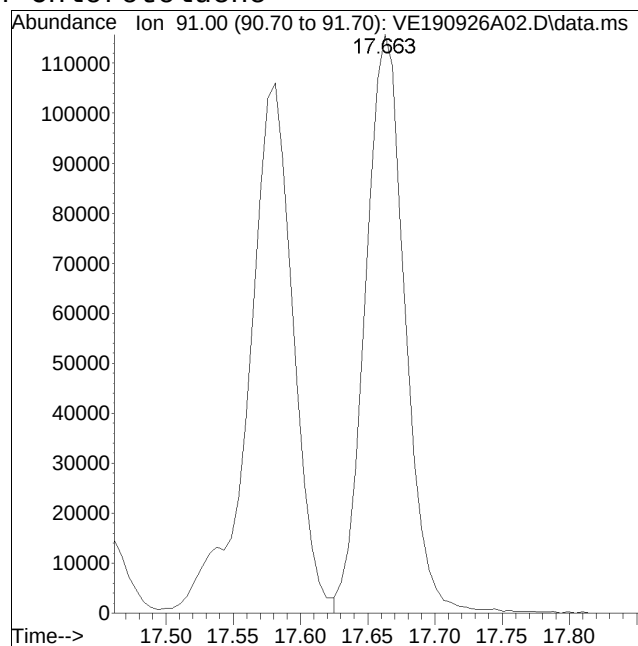
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A02.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 7:43 am Instrument : Elaine
Sample : WG1288977-3,31,10,10 Quant Date : 9/26/2019 8:20 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 239279

M2 = Peak not found by automatic integration algorithm.



Manual Peak Response = 238009 M2

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A03.D
 Acq On : 26 Sep 2019 8:20 am
 Operator : ELAINE:PD
 Sample : WG1288977-4,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 09:23:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Fluorobenzene	9.731	96	256301	10.000	ug/L	0.00
Standard Area 1 = 260092			Recovery	=	98.54%	
59) Chlorobenzene-d5	14.848	117	229924	10.000	ug/L	0.00
Standard Area 1 = 234931			Recovery	=	97.87%	
79) 1,4-Dichlorobenzene-d4	19.143	152	157573	10.000	ug/L	0.00
Standard Area 1 = 160613			Recovery	=	98.11%	
System Monitoring Compounds						
36) Dibromofluoromethane	8.474	113	63643	9.690	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.90%	
43) 1,2-Dichloroethane-d4	9.241	65	64193	9.216	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	92.16%	
60) Toluene-d8	12.284	98	249314	9.348	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.48%	
83) 4-Bromofluorobenzene	16.988	95	106610	7.908	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	79.08%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.491	85	43042M1	5.704	ug/L	
3) Chloromethane	2.867	50	106342M1	9.153	ug/L	
4) Vinyl chloride	3.009	62	56142	8.521	ug/L	95
5) Bromomethane	3.673	94	30151M1	5.428	ug/L	
6) Chloroethane	3.798	64	41928	8.082	ug/L	98
7) Trichlorofluoromethane	4.184	101	82301	7.786	ug/L	99
8) Ethyl ether	4.642	74	21403	7.154	ug/L #	70
10) 1,1-Dichloroethene	5.126	96	47984	8.408	ug/L	97
11) Carbon disulfide	5.888	76	107748	5.885	ug/L	99
15) Methylene chloride	5.872	84	55360	8.220	ug/L	82
17) Acetone	4.947	43	12558M1	9.095	ug/L	
18) trans-1,2-Dichloroethene	6.324	96	54800	8.732	ug/L	93
20) Methyl tert-butyl ether	6.095	73	102496	8.045	ug/L #	87
23) 1,1-Dichloroethane	6.977	63	108396	8.996	ug/L	99
25) Acrylonitrile	6.068	53	18493	10.278	ug/L	95
27) Vinyl acetate	6.972	43	105814	10.960	ug/L #	95
28) cis-1,2-Dichloroethene	7.902	96	61969	9.078	ug/L	97
29) 2,2-Dichloropropane	7.826	77	67331	11.491	ug/L #	72
30) Bromochloromethane	8.398	128	31739	10.990	ug/L	87
32) Chloroform	8.136	83	91472	8.493	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A03.D
 Acq On : 26 Sep 2019 8:20 am
 Operator : ELAINE:PD
 Sample : WG1288977-4,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 09:23:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34)	Carbon tetrachloride	9.143	117	72886	10.552	ug/L	94
37)	1,1,1-Trichloroethane	8.746	97	86642	9.974	ug/L	97
39)	2-Butanone	7.625	43	19212M1	10.298	ug/L	
40)	1,1-Dichloropropene	8.991	75	64755	7.422	ug/L	91
41)	Benzene	9.410	78	184556	7.019	ug/L #	89
44)	1,2-Dichloroethane	9.388	62	76021	9.539	ug/L	100
48)	Trichloroethene	10.357	95	56819	8.754	ug/L #	86
50)	Dibromomethane	11.114	93	25307	8.283	ug/L #	73
51)	1,2-Dichloropropane	10.635	63	54117	7.953	ug/L	98
54)	Bromodichloromethane	11.016	83	64295	8.509	ug/L #	99
57)	1,4-Dioxane	11.043	88	22471	441.996	ug/L #	89
58)	cis-1,3-Dichloropropene	11.882	75	68884	8.051	ug/L #	81
61)	Toluene	12.415	92	139327	8.305	ug/L	96
62)	4-Methyl-2-pentanone	11.533	58	14278	8.834	ug/L	82
63)	Tetrachloroethene	13.504	166	76444	10.205	ug/L	89
65)	trans-1,3-Dichloropropene	12.714	75	55938	8.250	ug/L #	52
68)	1,1,2-Trichloroethane	12.976	83	29389	8.074	ug/L #	88
69)	Chlorodibromomethane	13.858	129	52112	10.819	ug/L	98
70)	1,3-Dichloropropane	13.400	76	63679	7.891	ug/L	99
71)	1,2-Dibromoethane	14.201	107	42232	9.627	ug/L	97
72)	2-Hexanone	12.981	43	25417M1	9.545	ug/L	
73)	Chlorobenzene	14.914	112	190015	9.674	ug/L #	90
74)	Ethylbenzene	14.995	91	286874	8.799	ug/L	94
75)	1,1,1,2-Tetrachloroethane	14.984	131	64518	11.745	ug/L	96
76)	p/m Xylene	15.126	106	263636	19.305	ug/L	89
77)	o Xylene	15.899	106	249834	19.411	ug/L	89
78)	Styrene	15.964	104	388765	19.113	ug/L	92
80)	Bromoform	16.579	173	27753	8.840	ug/L	97
82)	Isopropylbenzene	16.530	105	324936	8.321	ug/L	93
84)	Bromobenzene	17.347	156	90415	9.593	ug/L	98
85)	n-Propylbenzene	17.254	91	347876	8.043	ug/L #	88
87)	1,1,2,2-Tetrachloroethane	16.846	83	41777	7.314	ug/L	97
88)	4-Ethyltoluene	17.456	105	311537	8.273	ug/L	91
89)	2-Chlorotoluene	17.576	91	233496	7.871	ug/L #	85
90)	1,3,5-Trimethylbenzene	17.537	105	268674	8.160	ug/L	90
91)	1,2,3-Trichloropropane	17.113	75	33477	7.028	ug/L	83
92)	trans-1,4-Dichloro-2-b...	17.238	53	13671	7.749	ug/L #	71
93)	4-Chlorotoluene	17.663	91	228857M2	8.104	ug/L	
94)	tert-Butylbenzene	18.185	119	260039	9.566	ug/L #	86

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
 Data File : VE190926A03.D
 Acq On : 26 Sep 2019 8:20 am
 Operator : ELAINE:PD
 Sample : WG1288977-4,31,10,10
 Misc : WG1288977,ICAL15755
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 09:23:39 2019
 Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Thu May 02 12:42:56 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\Elaine\2019\190926A\VE190926A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

97)	1,2,4-Trimethylbenzene	18.256	105	273519	8.396	ug/L	92
98)	sec-Butylbenzene	18.572	105	292178	8.098	ug/L	87
99)	p-Isopropyltoluene	18.822	119	309775	9.709	ug/L	93
100)	1,3-Dichlorobenzene	19.007	146	182286	9.745	ug/L	94
101)	1,4-Dichlorobenzene	19.198	146	183241	9.660	ug/L	94
102)	p-Diethylbenzene	19.601	119	178077	9.707	ug/L	88
103)	n-Butylbenzene	19.579	91	250803	8.002	ug/L #	87
104)	1,2-Dichlorobenzene	19.884	146	165274	9.878	ug/L	94
105)	1,2,4,5-Tetramethylben...	21.021	119	251024	10.196	ug/L	95
106)	1,2-Dibromo-3-chloropr...	21.348	155	7780	9.660	ug/L	92
108)	Hexachlorobutadiene	23.057	225	33005	9.335	ug/L	98
109)	1,2,4-Trichlorobenzene	22.840	180	82372	9.979	ug/L	98
110)	Naphthalene	23.248	128	192026	10.586	ug/L	100
111)	1,2,3-Trichlorobenzene	23.623	180	69058	10.184	ug/L	98

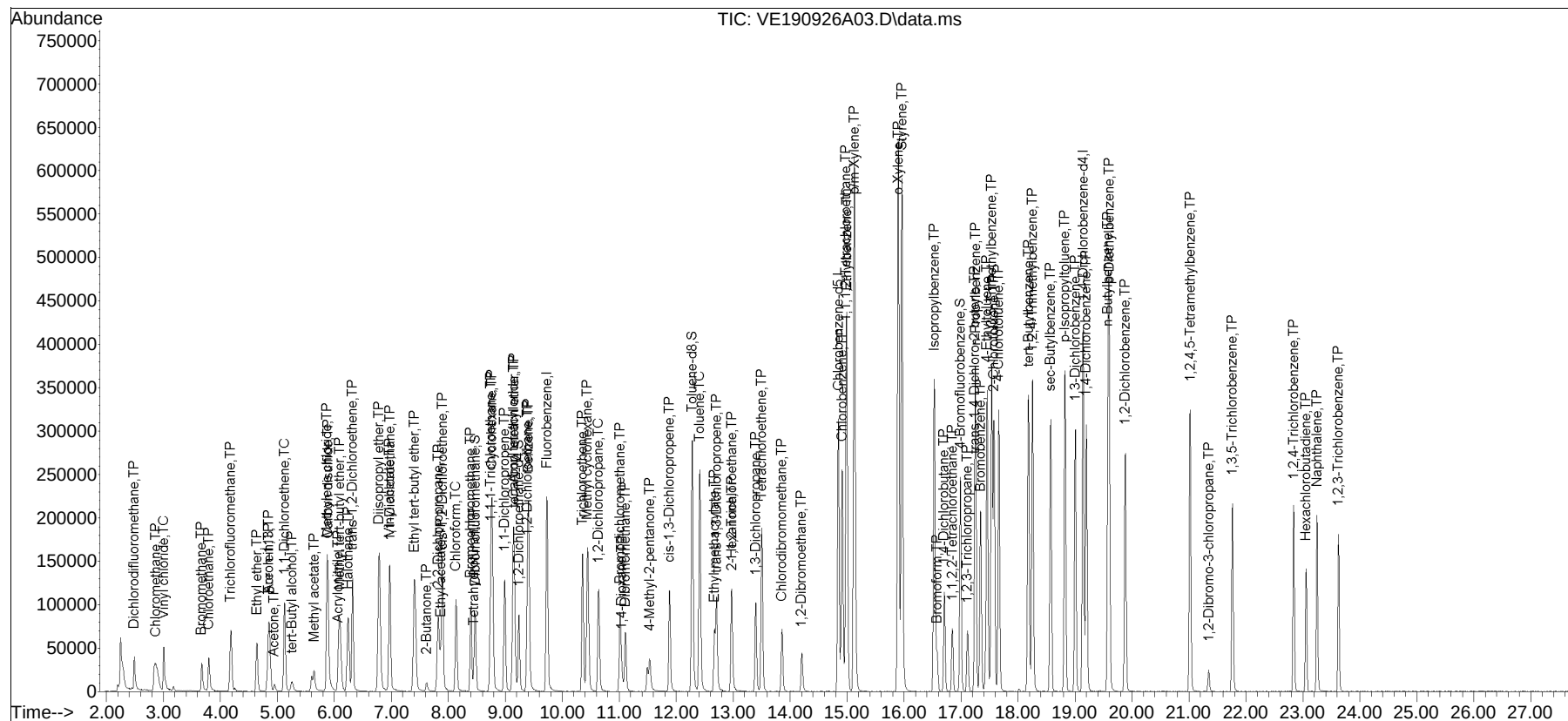
(#) = qualifier out of range (m) = manual integration (+) = signals summed

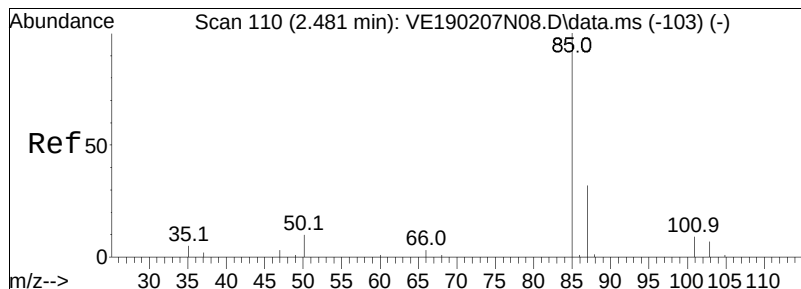
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\Elaine\2019\190926A\
Data File : VE190926A03.D
Acq On : 26 Sep 2019 8:20 am
Operator : ELAINE:PD
Sample : WG1288977-4, 31, 10, 10
Misc : WG1288977, ICAL15755
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 26 09:23:39 2019
Quant Method : I:\VOLATILES\Elaine\2019\190926A\Elaine_190501N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Thu May 02 12:42:56 2019
Response via : Initial Calibration

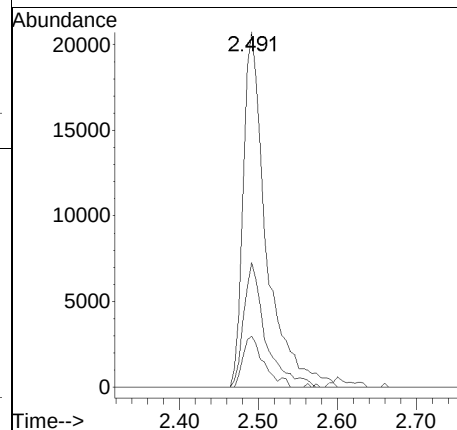
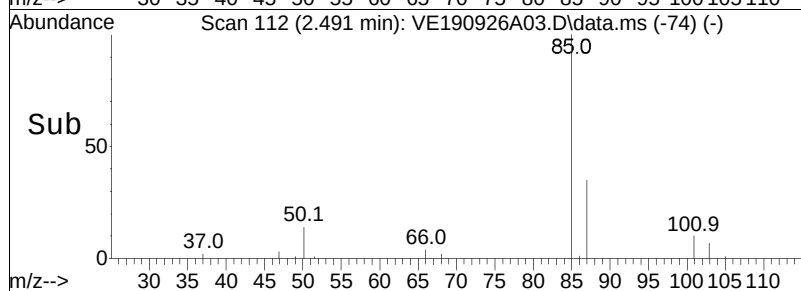
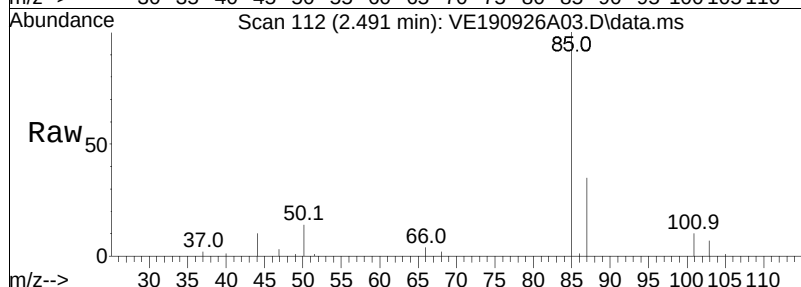
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

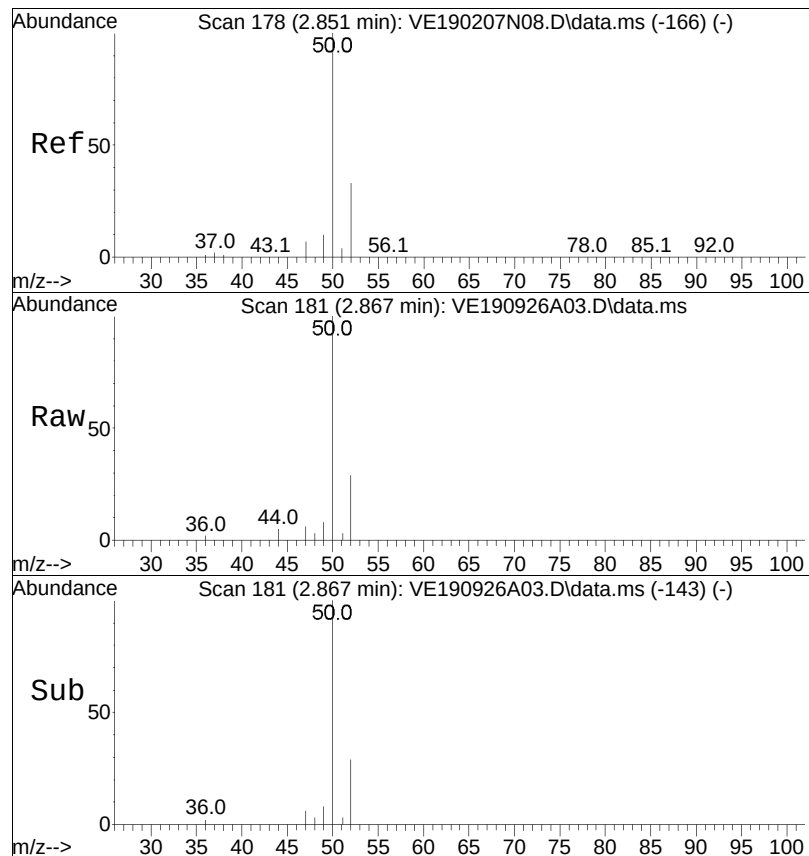




#2
 Dichlorodifluoromethane
 Concen: 5.70 ug/L M1
 RT: 2.491 min Scan# 112
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

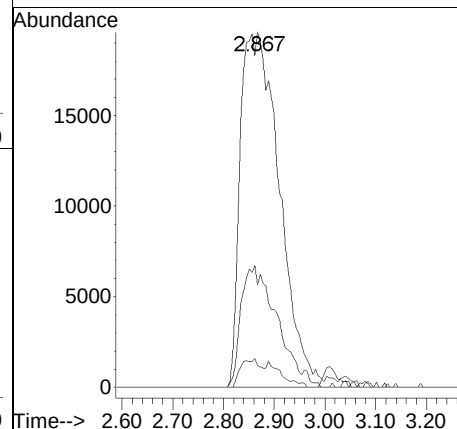
Tgt Ion:	85	Resp:	43042
Ion Ratio	Lower	Upper	
85	100		
87	32.7	22.1	45.9
50	12.9	8.3	17.3

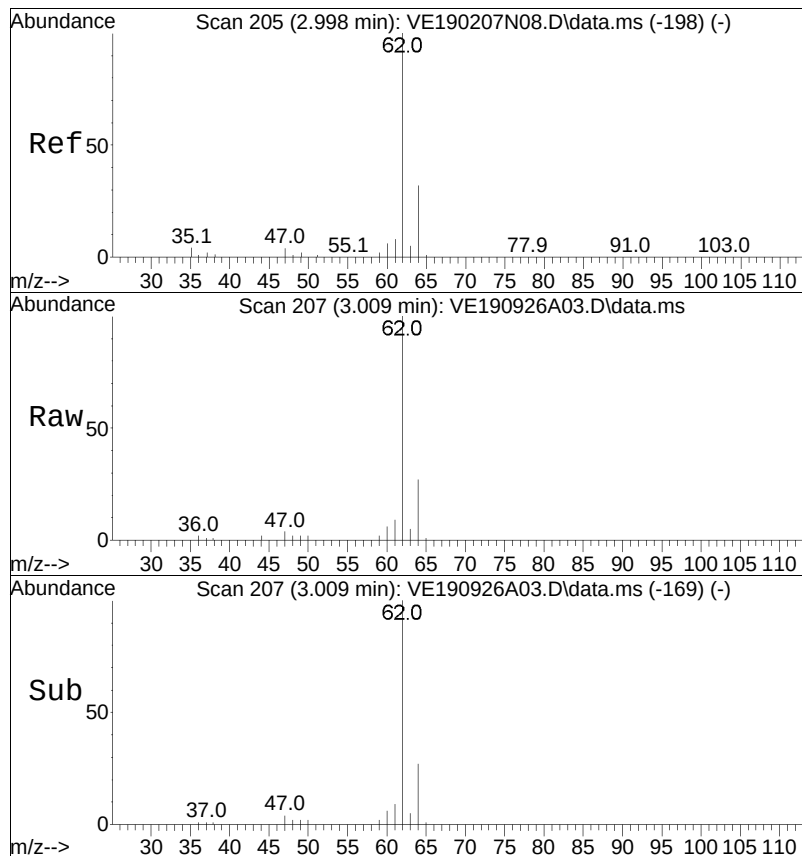




#3
 Chloromethane
 Concen: 9.15 ug/L M1
 RT: 2.867 min Scan# 181
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

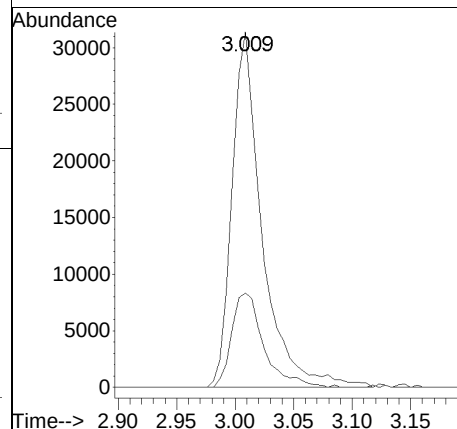
Tgt Ion	Ratio	Lower	Upper
50	100		
52	30.3	11.7	51.7
47	4.0	0.0	26.8

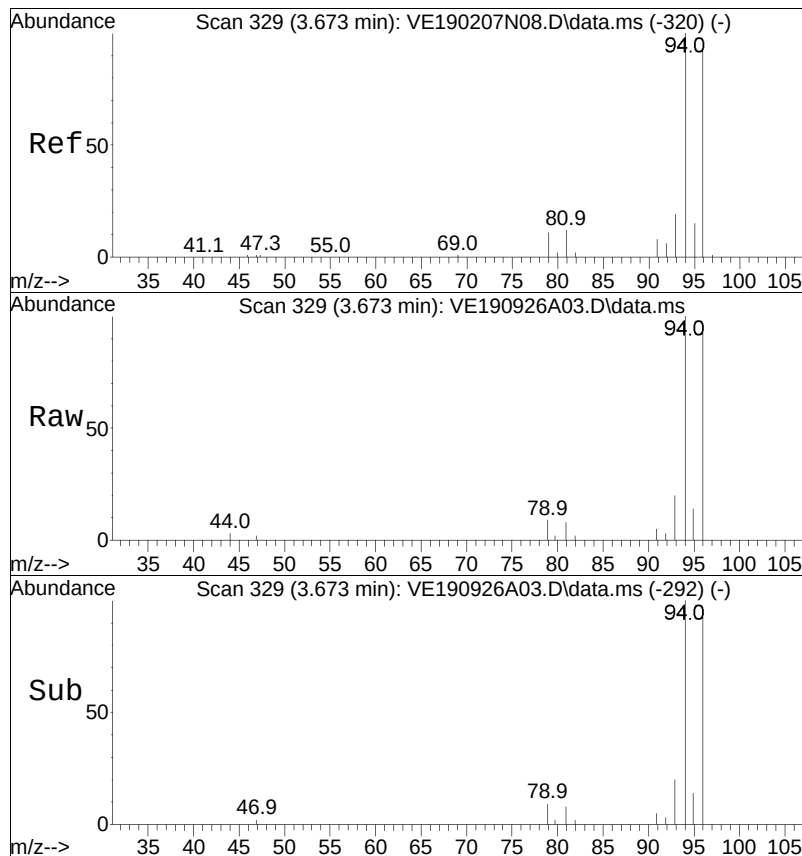




#4
 Vinyl chloride
 Concen: 8.52 ug/L
 RT: 3.009 min Scan# 207
 Delta R.T. 0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

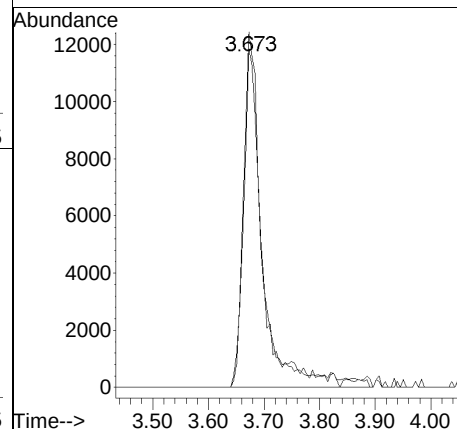
Tgt Ion	Ratio	Lower	Upper
62	100		
64	28.5	11.3	51.3

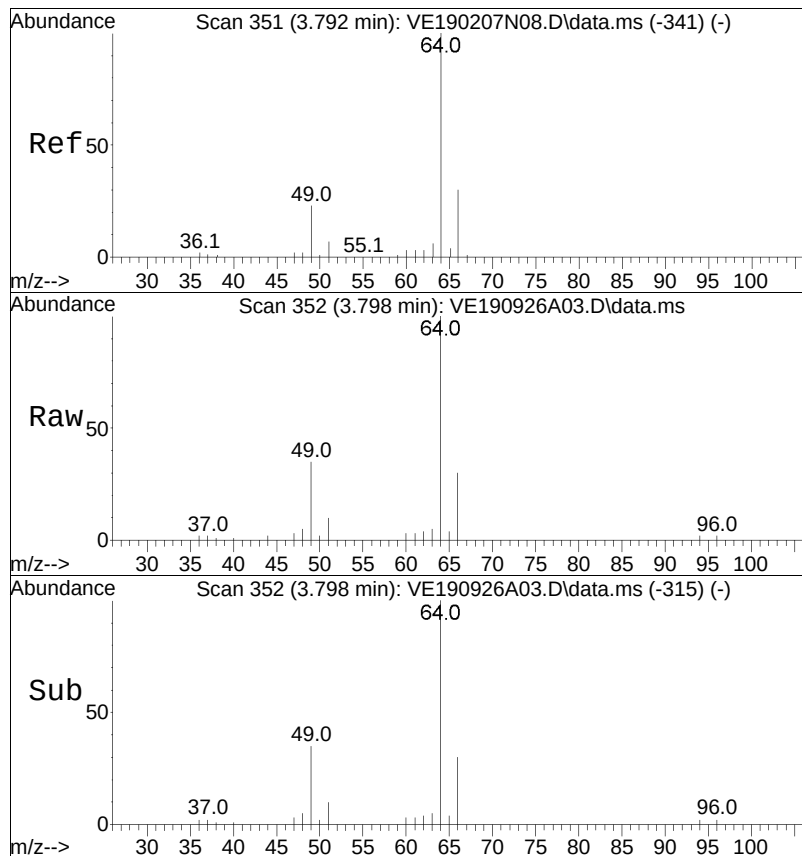




#5
 Bromomethane
 Concen: 5.43 ug/L M1
 RT: 3.673 min Scan# 329
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

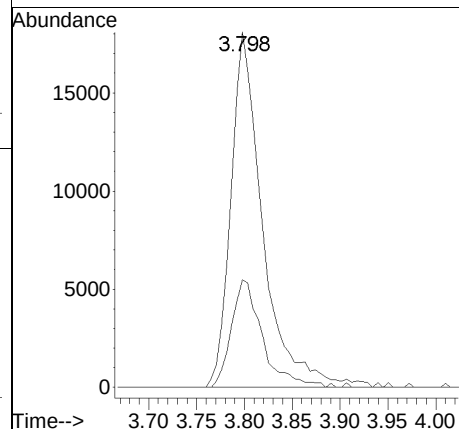
Tgt Ion: 94 Resp: 30151
 Ion Ratio Lower Upper
 94 100
 96 87.6 71.9 111.9

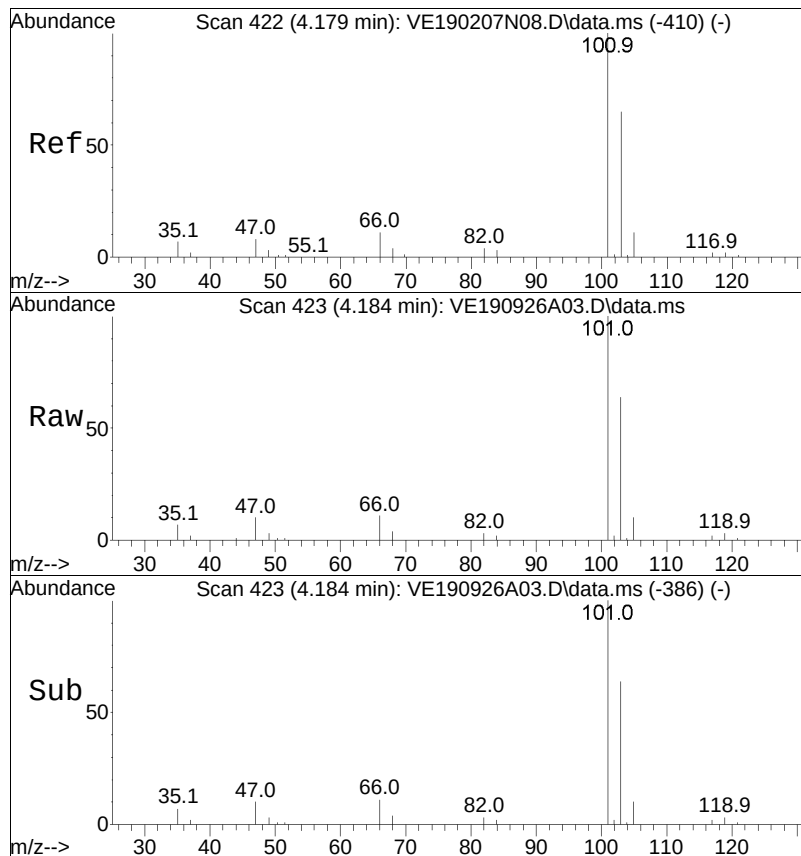




#6
 Chloroethane
 Concen: 8.08 ug/L
 RT: 3.798 min Scan# 352
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

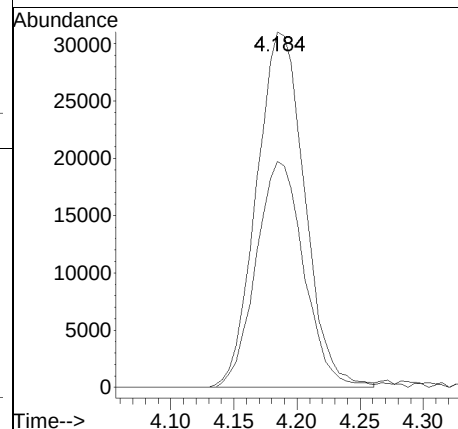
Tgt Ion	Ratio	Lower	Upper
64	100		
66	29.7	8.6	48.6

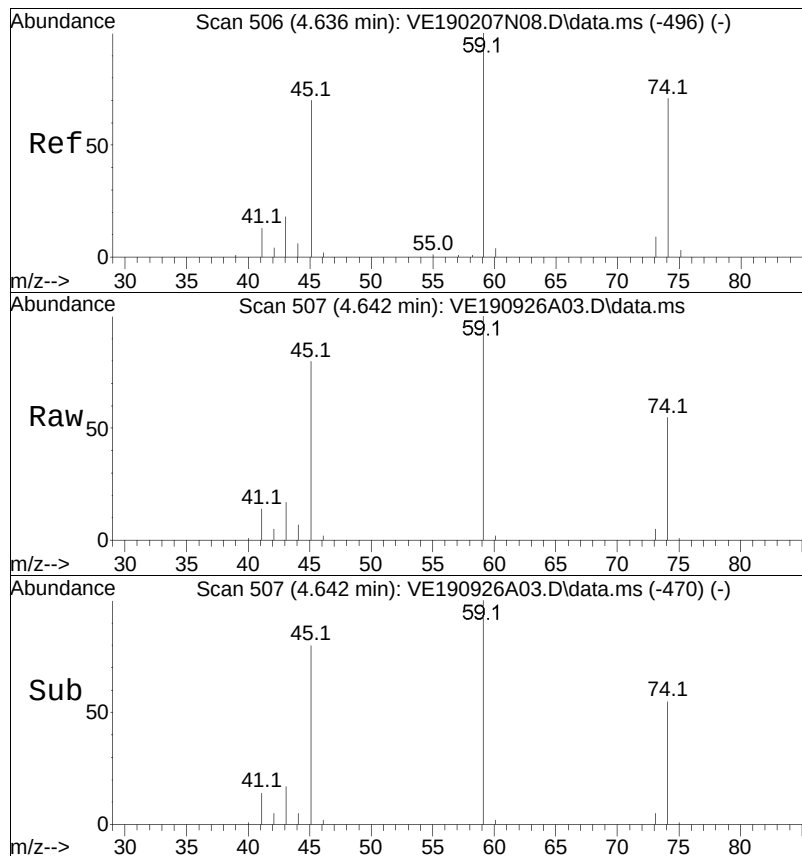




#7
 Trichlorofluoromethane
 Concen: 7.79 ug/L
 RT: 4.184 min Scan# 423
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

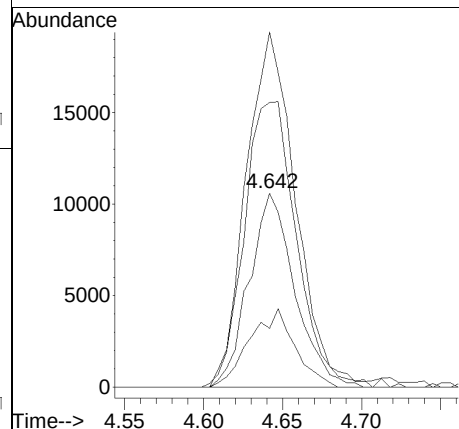
Tgt Ion	Ratio	Lower	Upper
101	100		
103	63.2	51.4	77.0

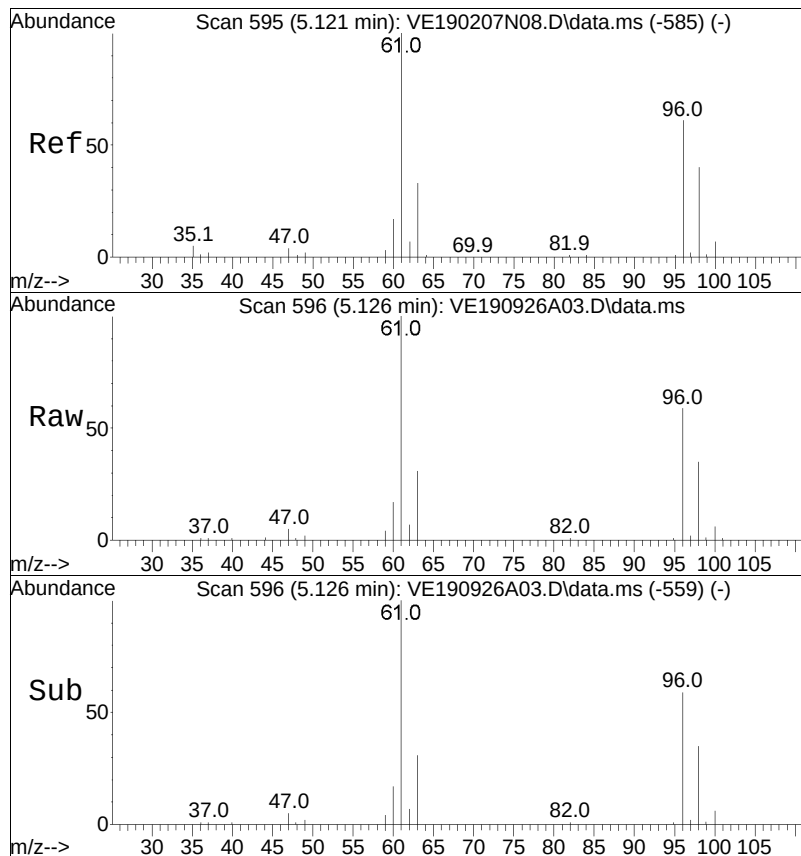




#8
 Ethyl ether
 Concen: 7.15 ug/L
 RT: 4.642 min Scan# 507
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

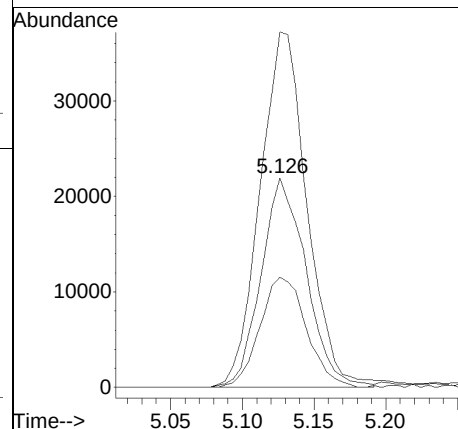
Tgt Ion:	74	Resp:	21403
Ion Ratio	Lower	Upper	
74	100		
59	197.0	106.7	221.7
45	167.2	80.9	167.9
43	40.3	17.7	36.9#

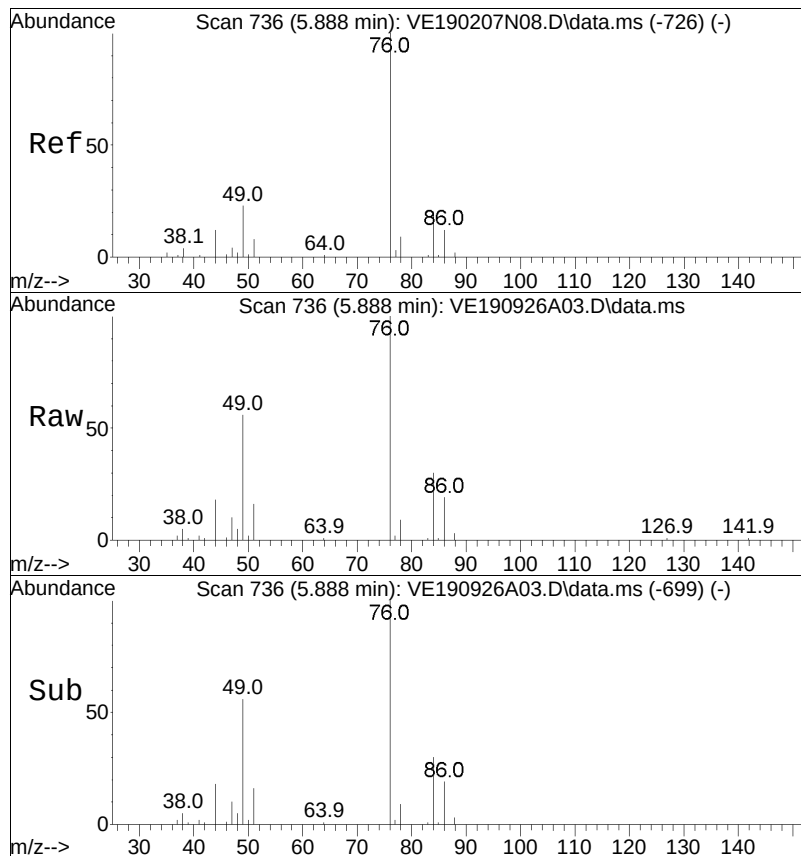




#10
 1,1-Dichloroethene
 Concen: 8.41 ug/L
 RT: 5.126 min Scan# 596
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

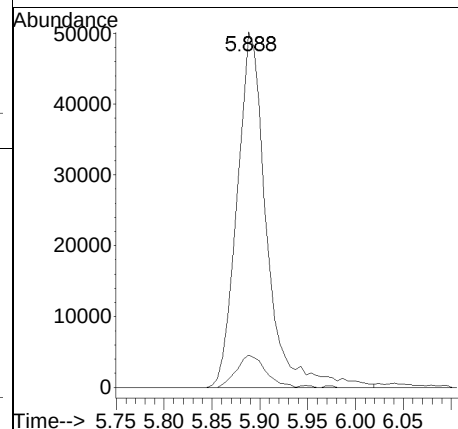
Tgt Ion:	96	61	63	Ion Ratio	100	177.9	54.2	Resp:	47984	Lower	Upper

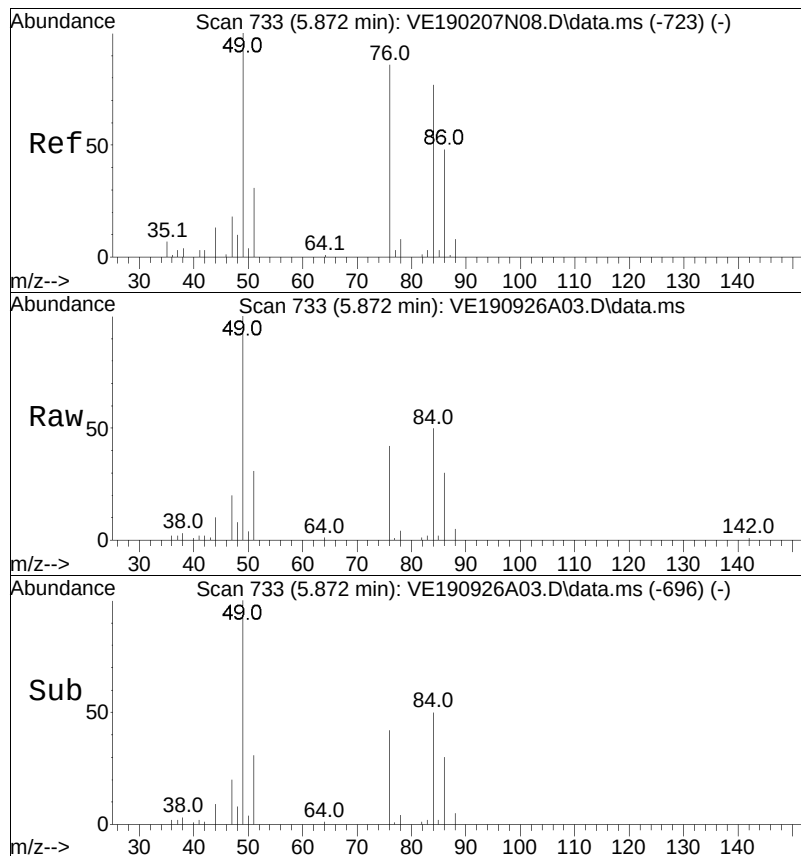




#11
 Carbon disulfide
 Concen: 5.89 ug/L
 RT: 5.888 min Scan# 736
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

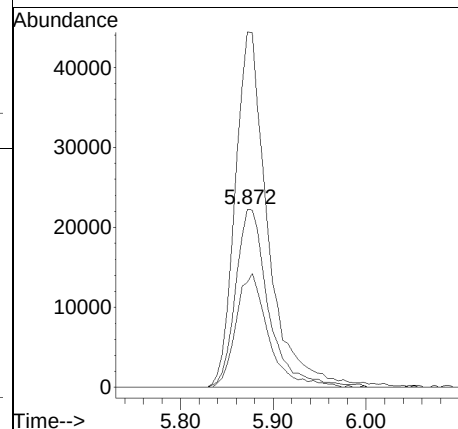
Tgt Ion: 76 Resp: 107748
 Ion Ratio Lower Upper
 76 100
 78 8.9 5.9 12.3

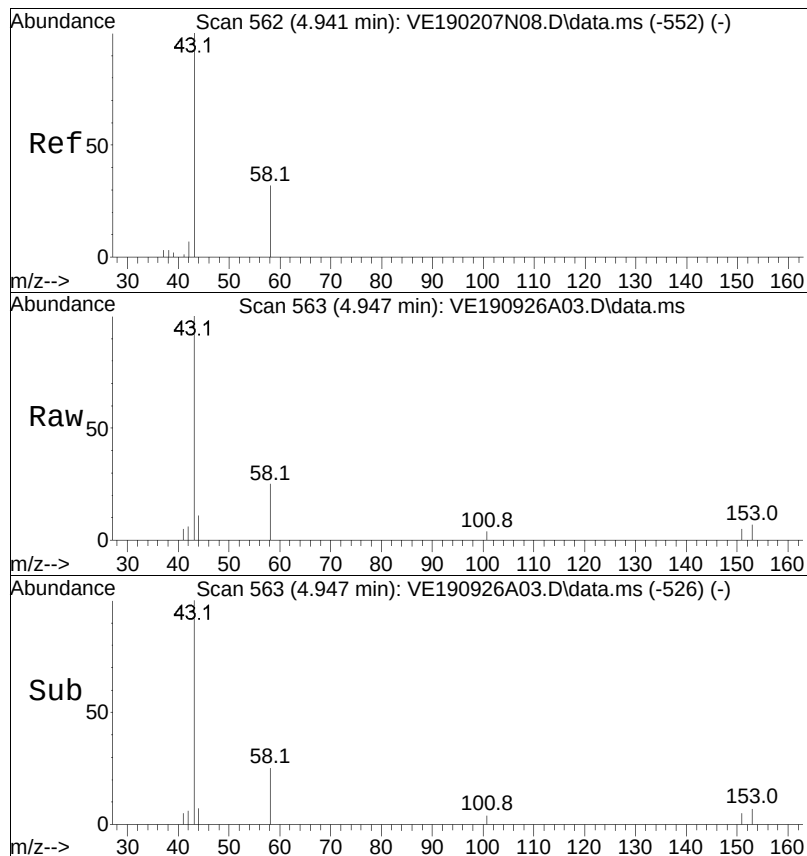




#15
 Methylene chloride
 Concen: 8.22 ug/L
 RT: 5.872 min Scan# 733
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

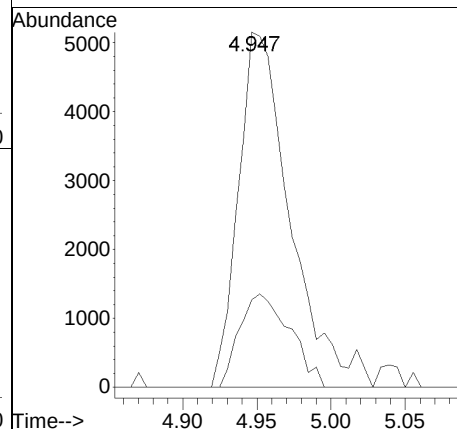
Tgt Ion:	84	Resp:	55360
Ion Ratio	Lower	Upper	
84	100		
86	62.8	42.4	88.2
49	198.2	107.7	223.7

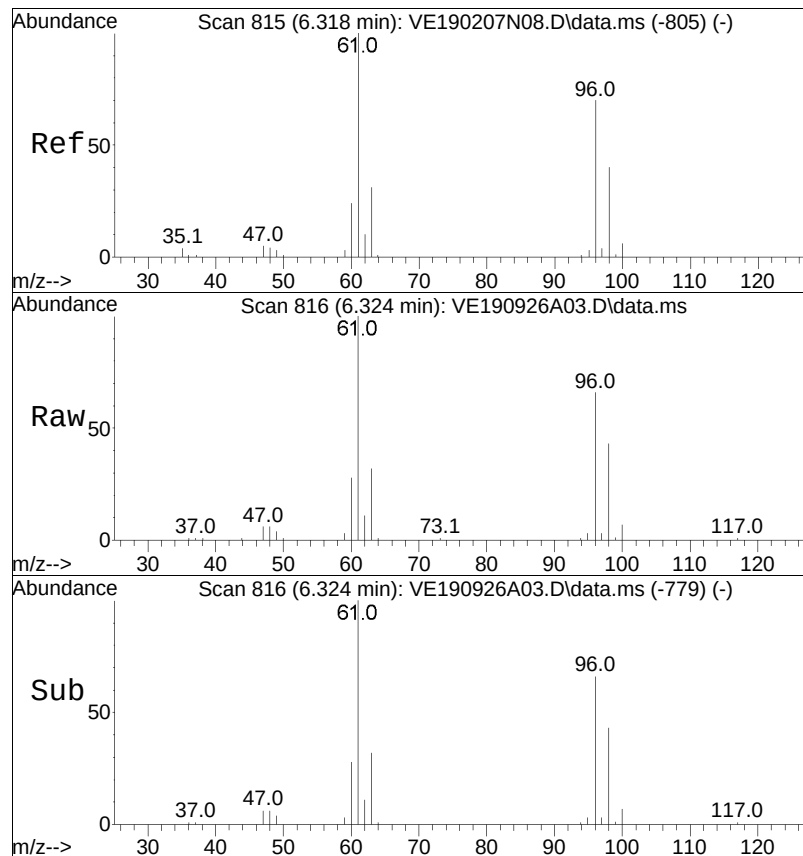




#17
 Acetone
 Concen: 9.09 ug/L M1
 RT: 4.947 min Scan# 563
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

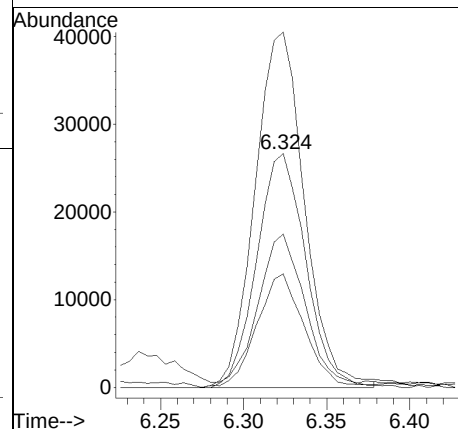
Tgt Ion:	43	58	Ratio	100	25.6	Resp:	12558	Lower	Upper
								32.1	48.1#

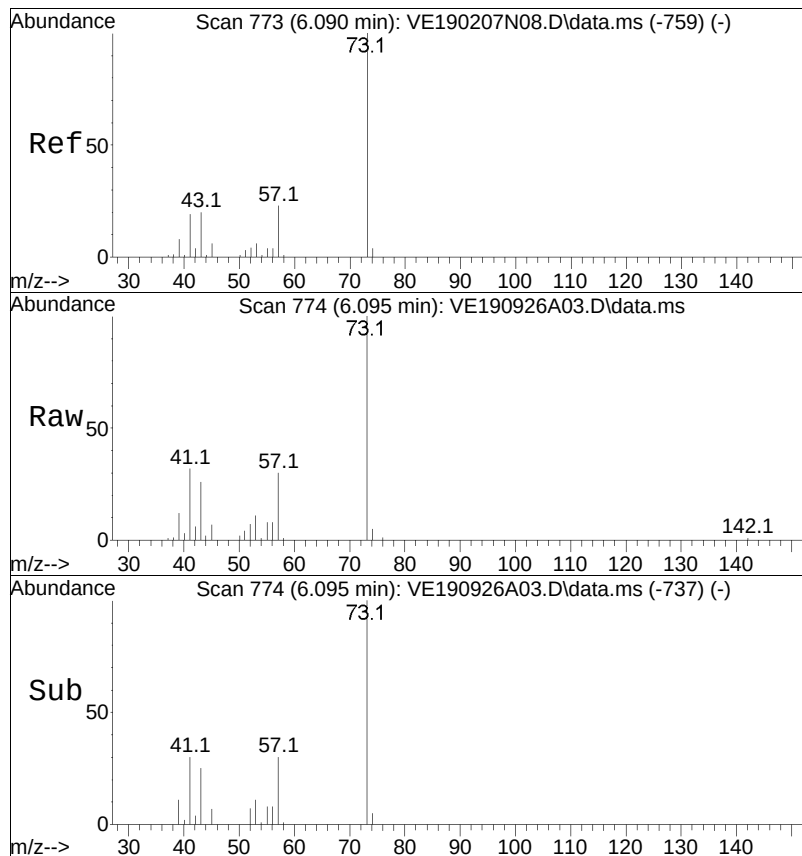




#18
 trans-1,2-Dichloroethene
 Concen: 8.73 ug/L
 RT: 6.324 min Scan# 816
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

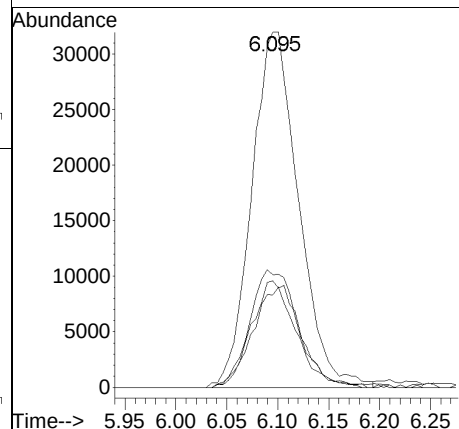
Tgt Ion:	96	Resp:	54800
Ion Ratio	Lower	Upper	
96	100		
61	155.4	109.8	228.0
98	61.3	41.1	85.3
63	47.1	31.0	64.4

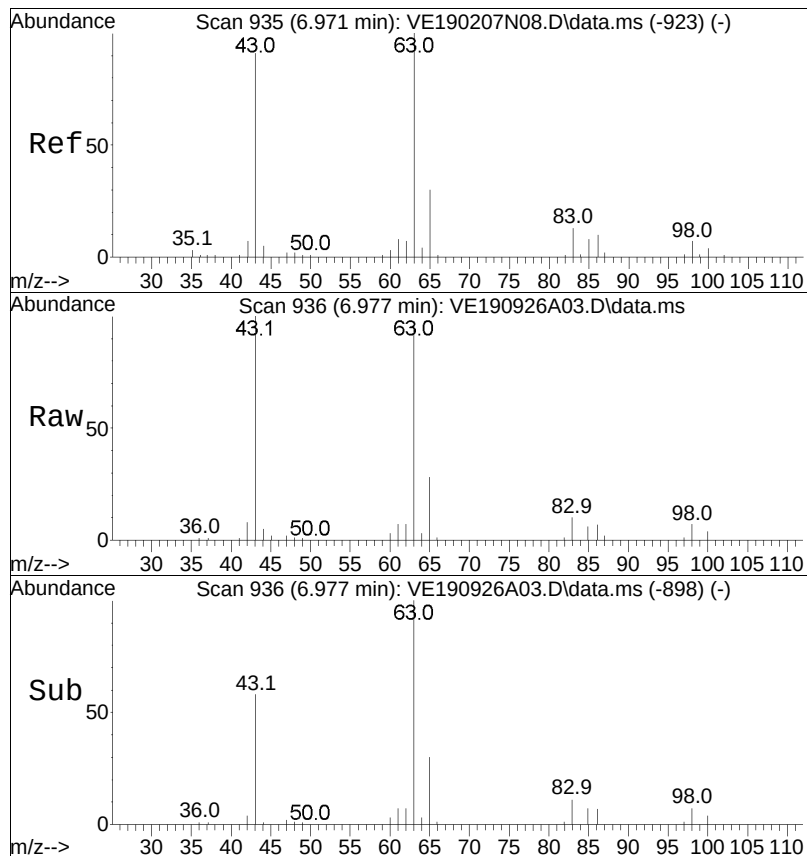




#20
Methyl tert-butyl ether
Concen: 8.04 ug/L
RT: 6.095 min Scan# 774
Delta R.T. 0.000 min
Lab File: VE190926A03.D
Acq: 26 Sep 2019 8:20 am

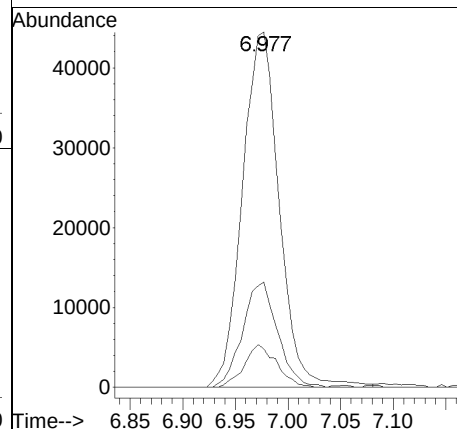
Tgt Ion:	73	Resp:	102496
Ion Ratio	Lower	Upper	
73	100		
57	31.0	18.5	38.5
43	27.0	13.3	27.5
41	34.2	14.8	30.8#

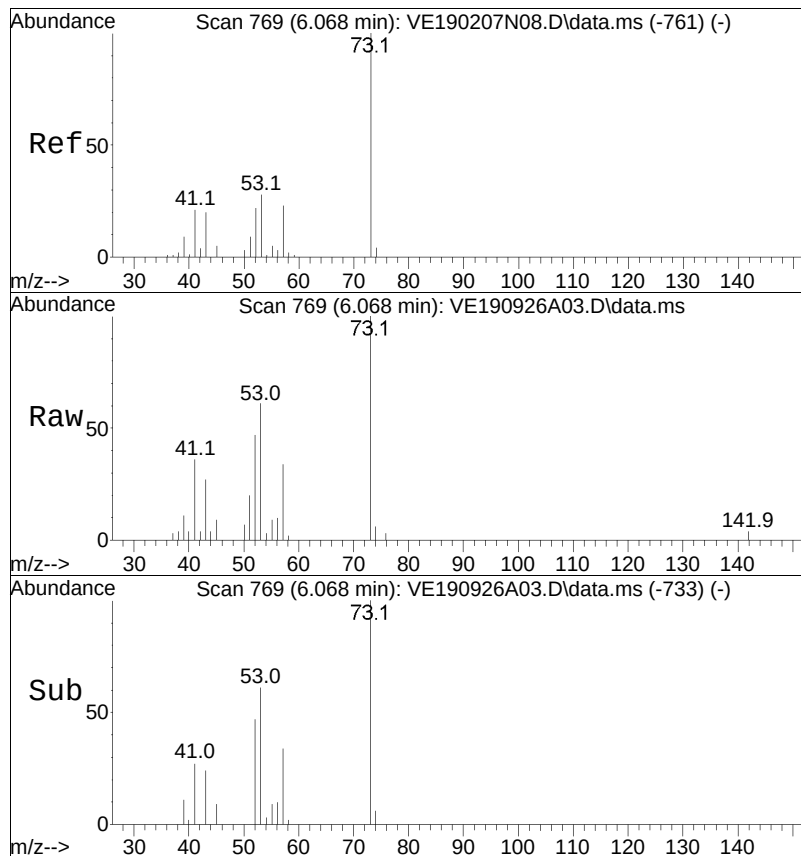




#23
 1,1-Dichloroethane
 Concen: 9.00 ug/L
 RT: 6.977 min Scan# 936
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

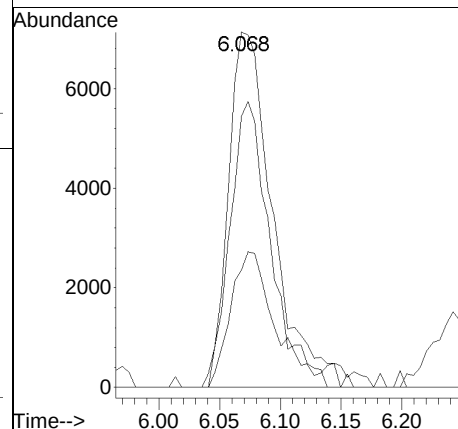
Tgt Ion:	63	Resp:	108396
Ion Ratio	Lower	Upper	
63	100		
65	28.2	8.6	48.6
83	10.7	0.0	30.4

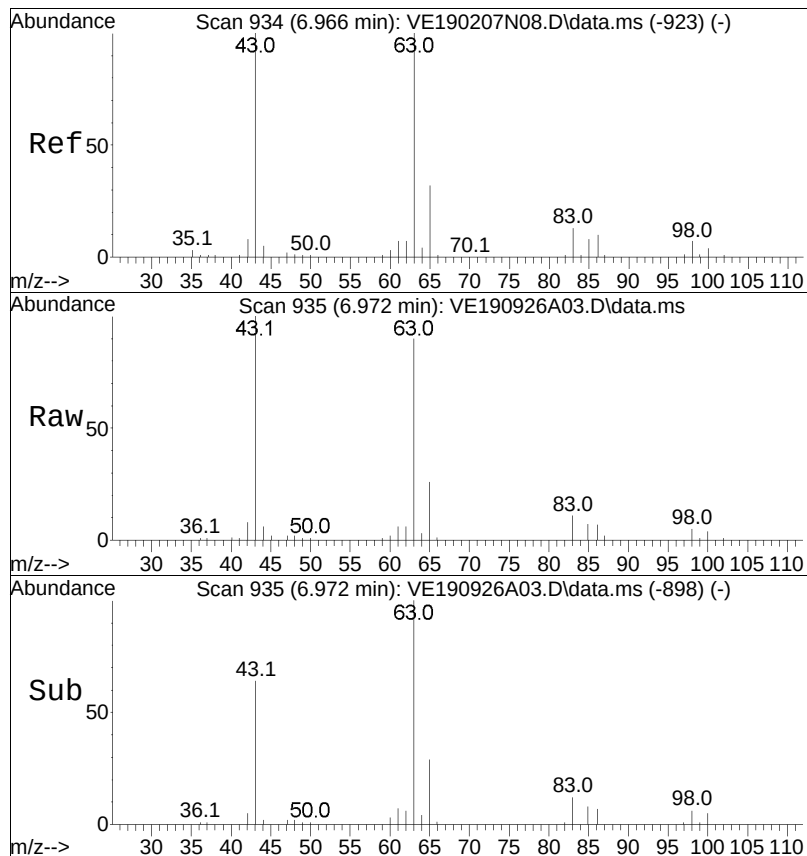




#25
 Acrylonitrile
 Concen: 10.28 ug/L
 RT: 6.068 min Scan# 769
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

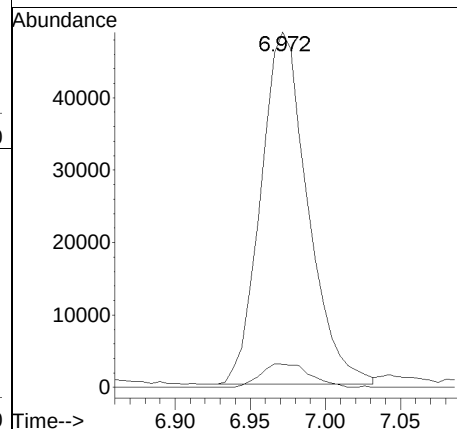
Tgt	Ion	Resp	Lower	Upper
53	100	18493		
52	71.8		61.1	91.7
51	38.0		31.8	47.8

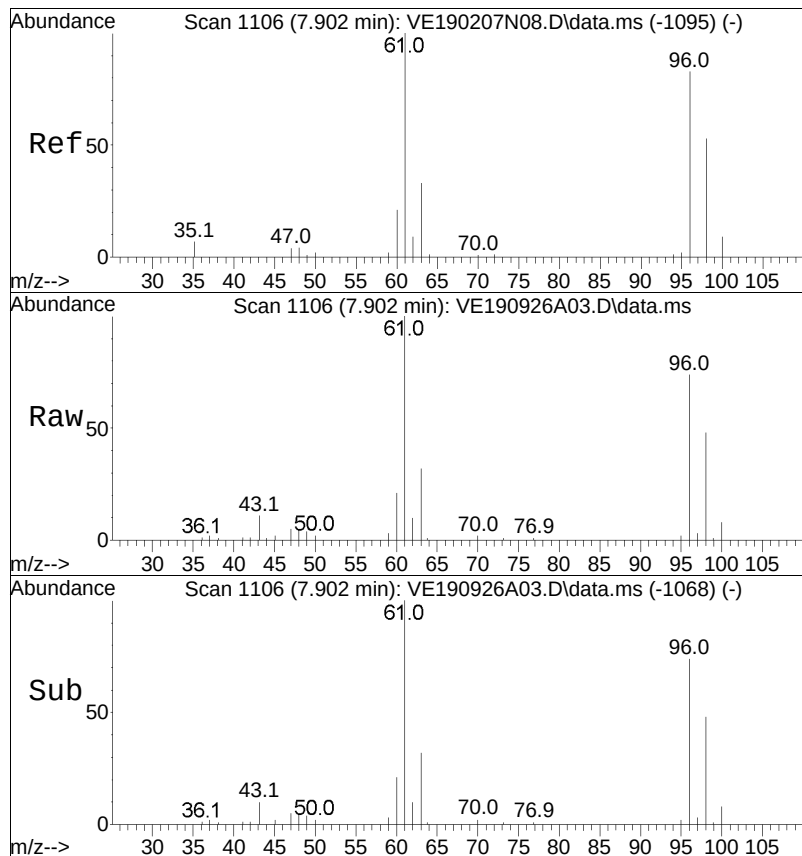




#27
 Vinyl acetate
 Concen: 10.96 ug/L
 RT: 6.972 min Scan# 935
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

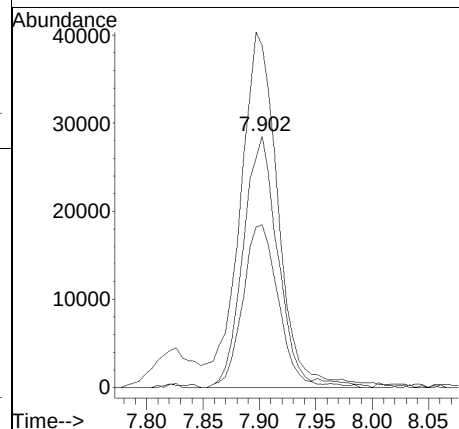
Tgt Ion:	43	86	Ratio	100	7.1	Resp:	105814	Lower	7.2	Upper	10.8#

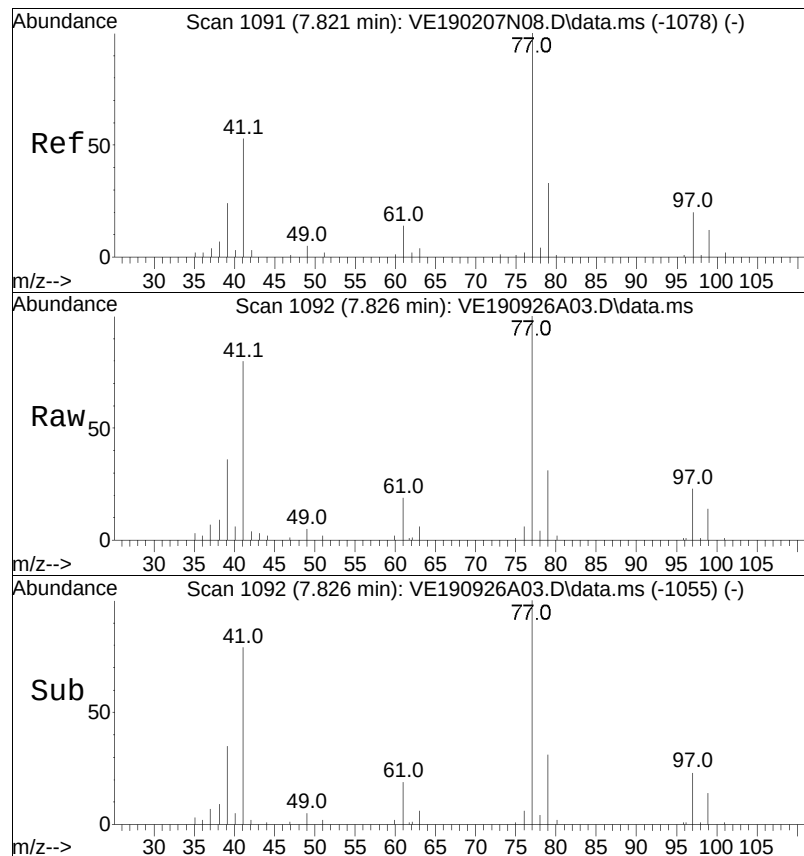




#28
 cis-1,2-Dichloroethene
 Concen: 9.08 ug/L
 RT: 7.902 min Scan# 1106
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

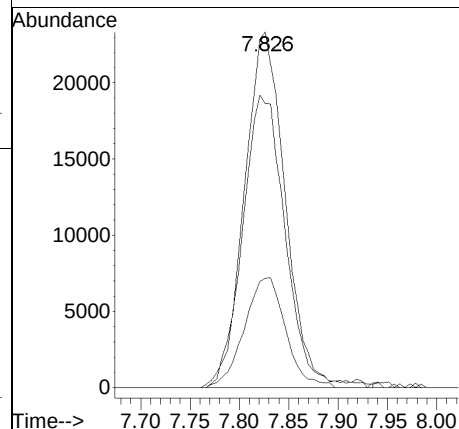
Tgt Ion	Ratio	Lower	Upper
96	100		
61	149.9	123.2	184.8
98	65.0	51.2	76.8

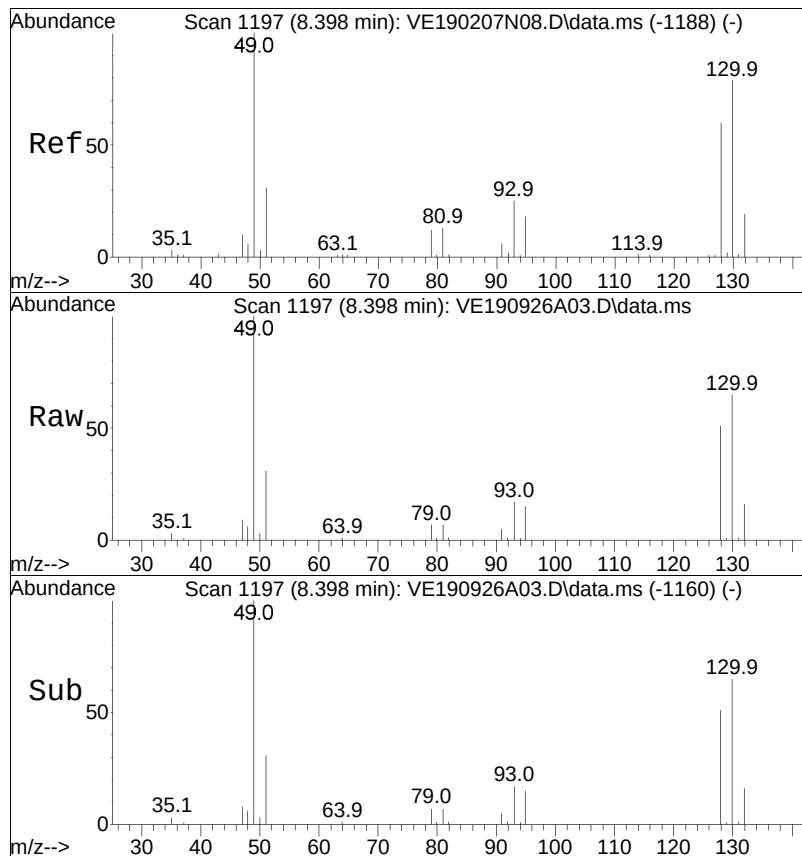




#29
 2,2-Dichloropropane
 Concen: 11.49 ug/L
 RT: 7.826 min Scan# 1092
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

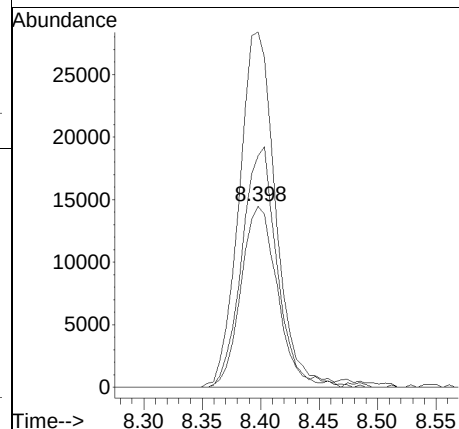
Tgt Ion	Ratio	Lower	Upper
77	100		
41	84.6	35.0	72.8#
79	31.1	20.8	43.2

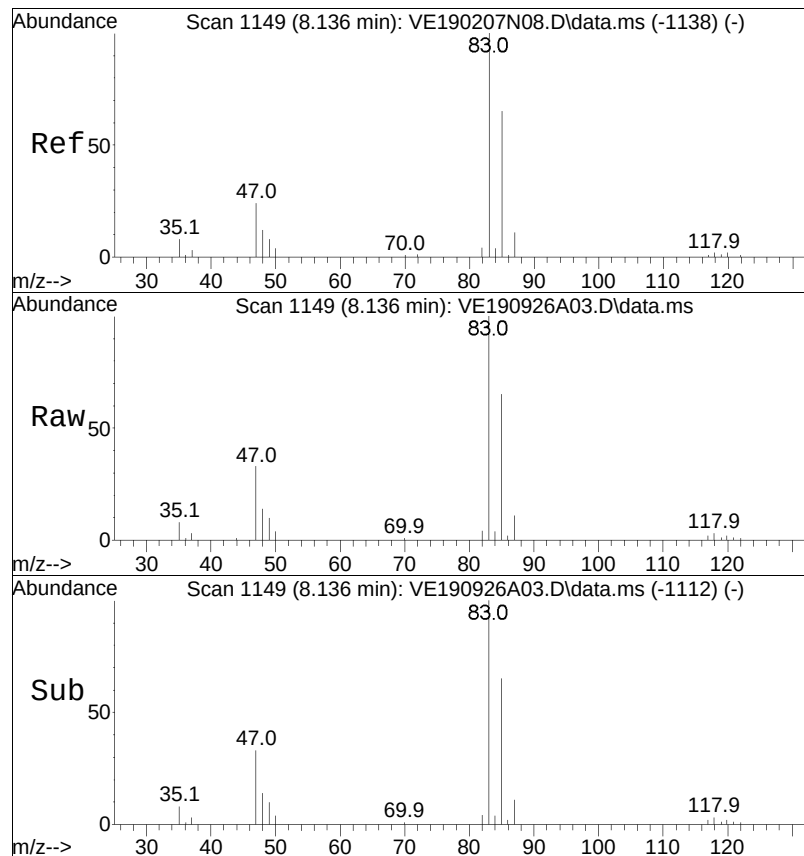




#30
 Bromochloromethane
 Concen: 10.99 ug/L
 RT: 8.398 min Scan# 1197
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

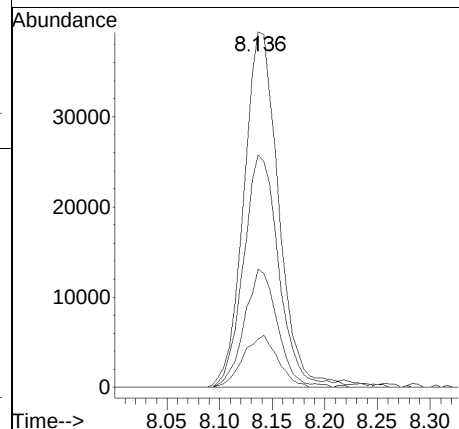
Tgt Ion	Ratio	Lower	Upper
128	100		
49	194.6	181.7	272.5
130	127.1	100.5	150.7

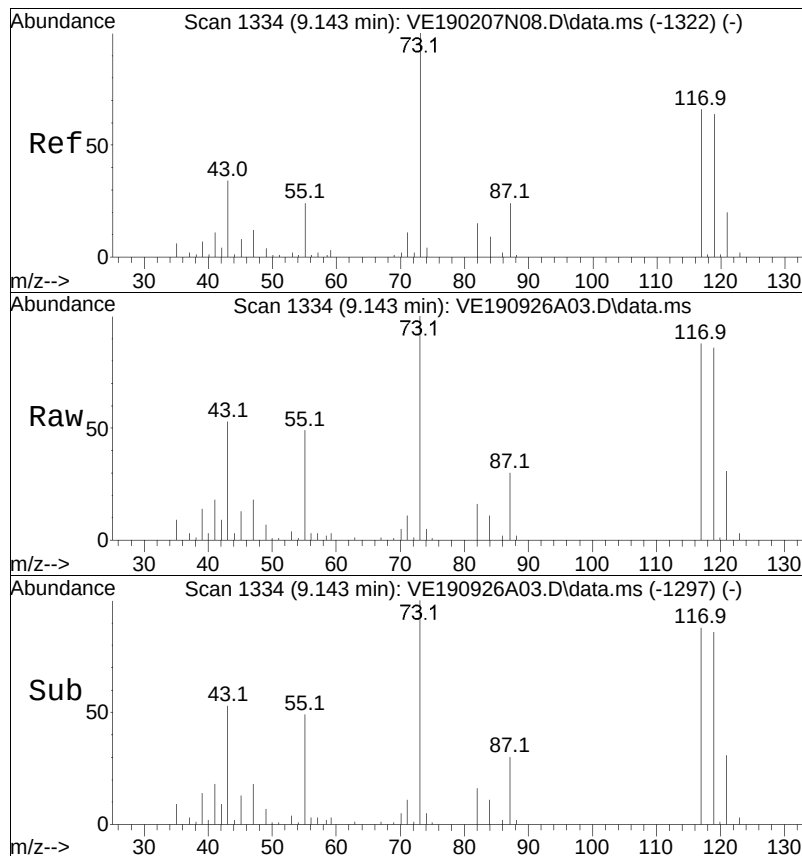




#32
 Chloroform
 Concen: 8.49 ug/L
 RT: 8.136 min Scan# 1149
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

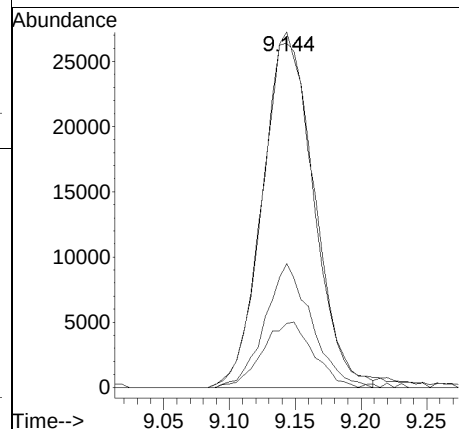
Tgt	Ion: 83	Resp:	91472
Ion	Ratio	Lower	Upper
83	100		
85	66.1	43.0	89.2
47	31.6	16.4	34.0
48	14.5	8.3	17.3

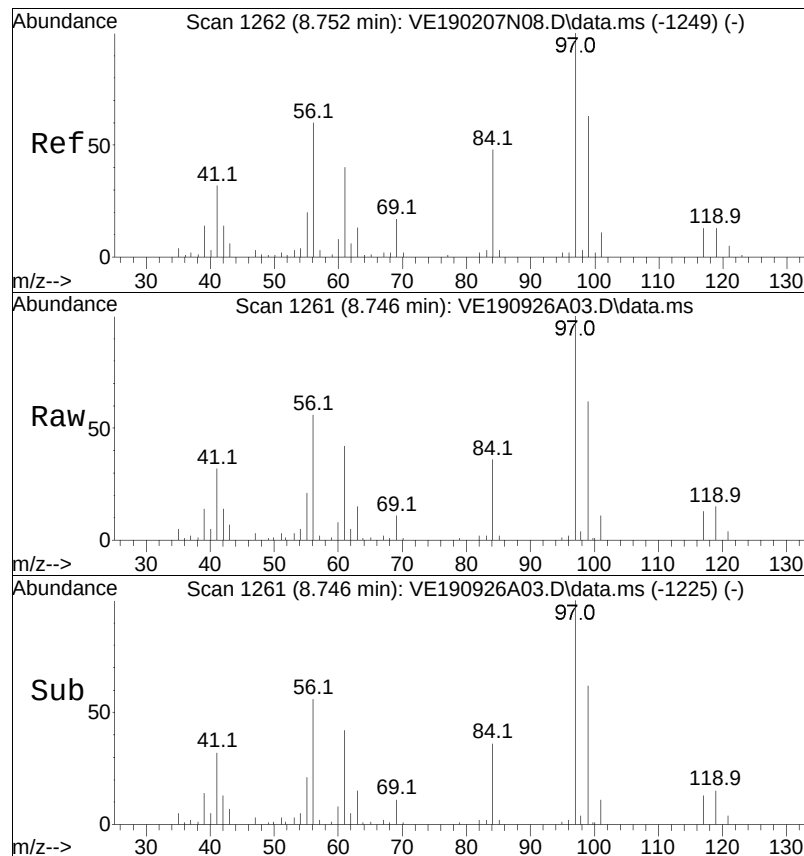




#34
 Carbon tetrachloride
 Concen: 10.55 ug/L
 RT: 9.143 min Scan# 1334
 Delta R.T. -0.001 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

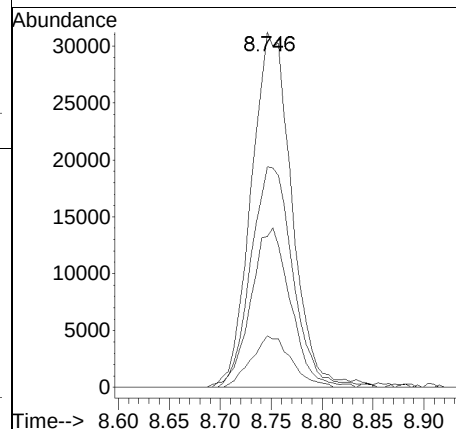
Tgt Ion:	117	Resp:	72886
Ion Ratio	Lower	Upper	
117	100		
119	103.0	62.9	130.5
121	32.2	19.6	40.6
82	18.6	14.6	30.2

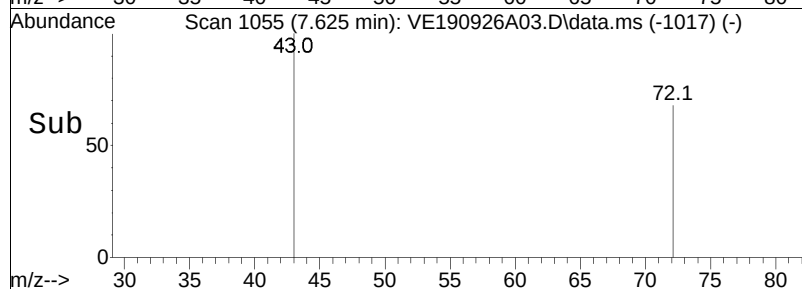
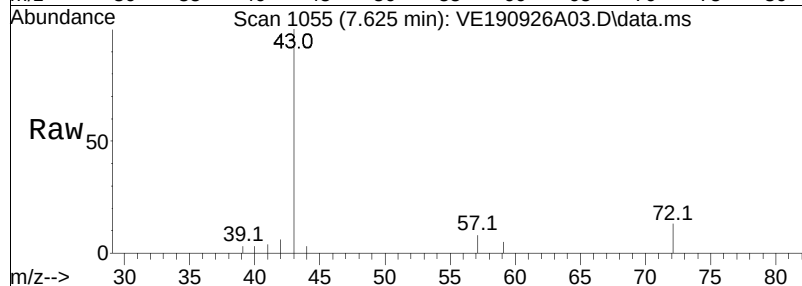
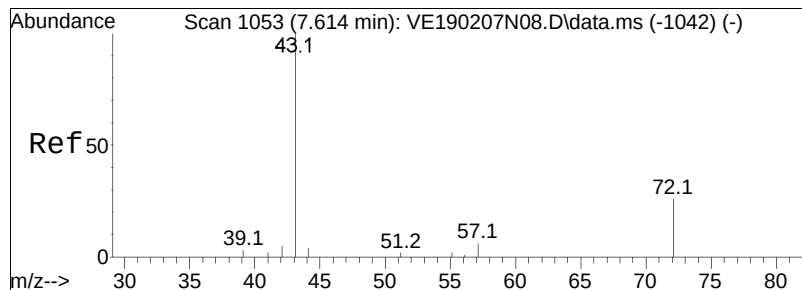




#37
 1,1,1-Trichloroethane
 Concen: 9.97 ug/L
 RT: 8.746 min Scan# 1261
 Delta R.T. -0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

Tgt Ion: 97	Resp: 86642
Ion Ratio	Lower Upper
97 100	
99 64.4	41.1 85.3
61 44.0	31.3 64.9
63 14.4	9.8 20.4





#39

2-Butanone

Concen: 10.30 ug/L M1

RT: 7.625 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VE190926A03.D

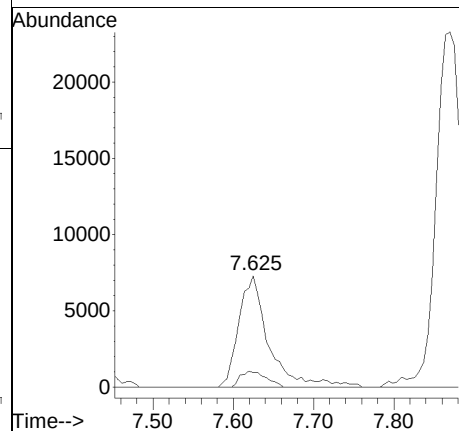
Acq: 26 Sep 2019 8:20 am

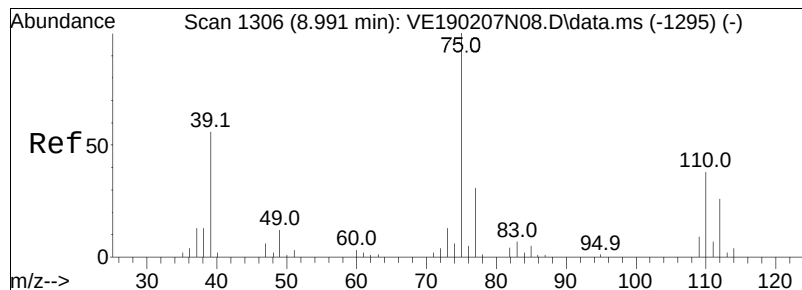
Tgt Ion: 43 Resp: 19212

Ion Ratio Lower Upper

43 100

72 12.5 16.1 24.1#





#40

1,1-Dichloropropene

Concen: 7.42 ug/L

RT: 8.991 min Scan# 1306

Delta R.T. 0.000 min

Lab File: VE190926A03.D

Acq: 26 Sep 2019 8:20 am

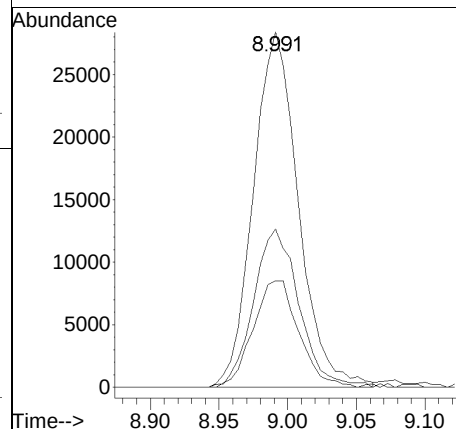
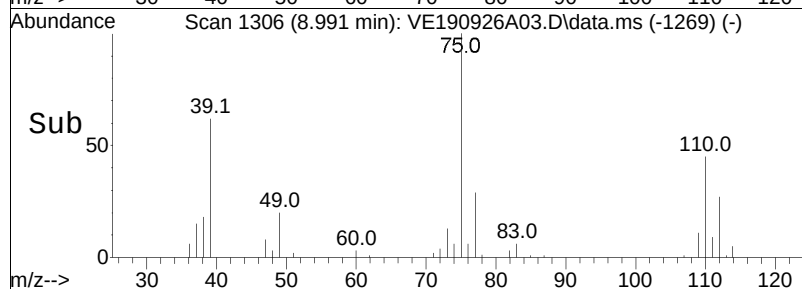
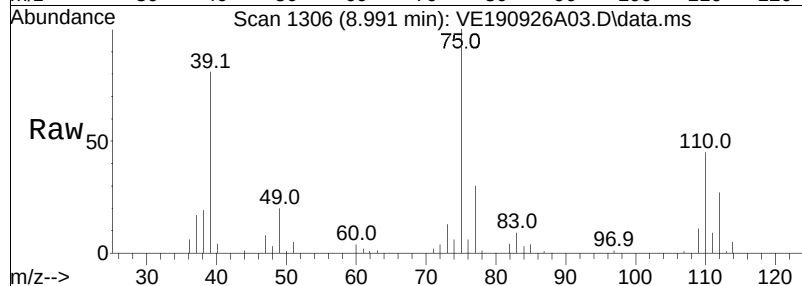
Tgt Ion: 75 Resp: 64755

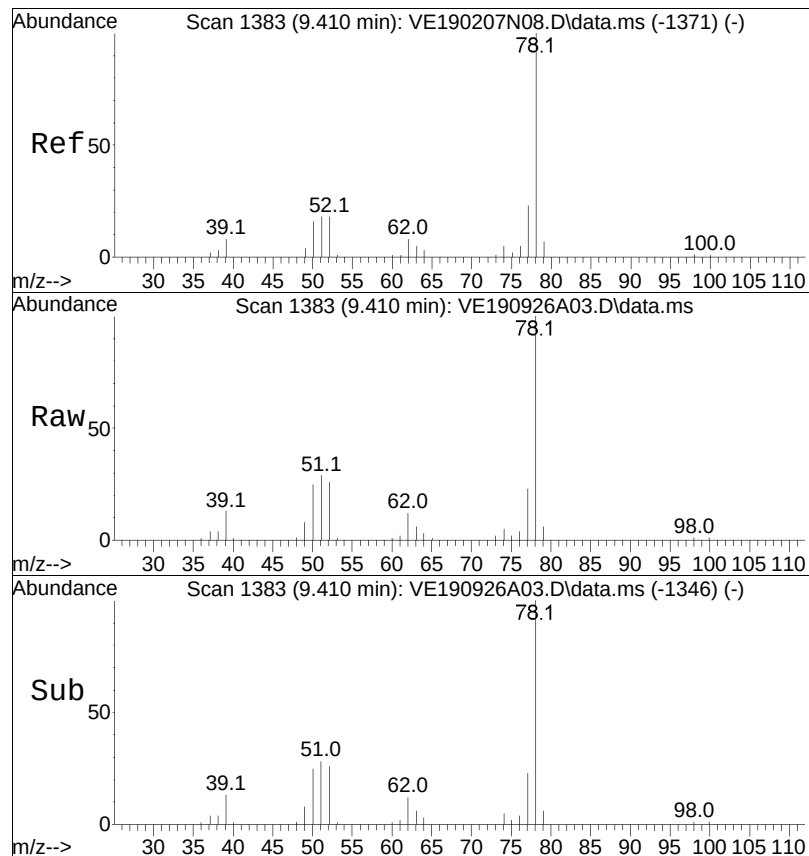
Ion Ratio Lower Upper

75 100

110 45.2 23.2 48.2

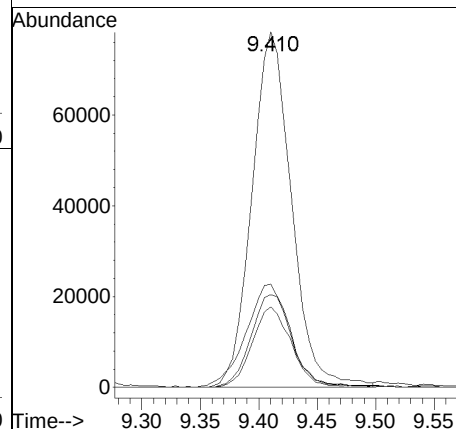
77 30.5 19.8 41.2

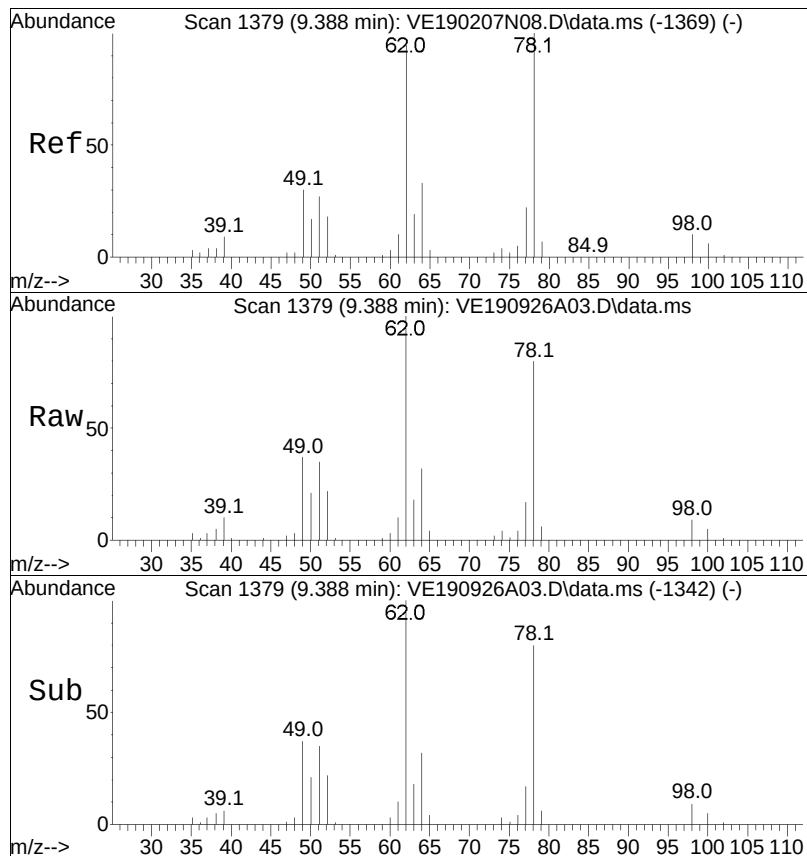




#41
Benzene
Concen: 7.02 ug/L
RT: 9.410 min Scan# 1383
Delta R.T. 0.000 min
Lab File: VE190926A03.D
Acq: 26 Sep 2019 8:20 am

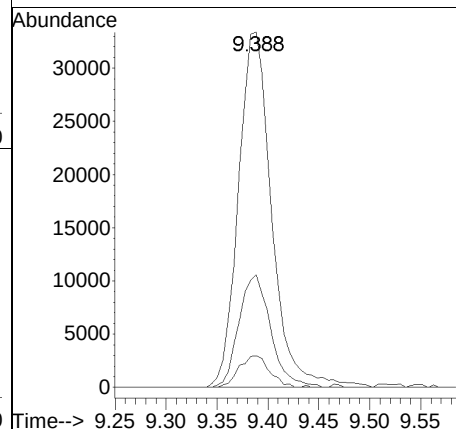
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	184556		
77	22.5		14.7	30.5
51	32.6		15.0	31.1#
52	27.5		13.7	28.4

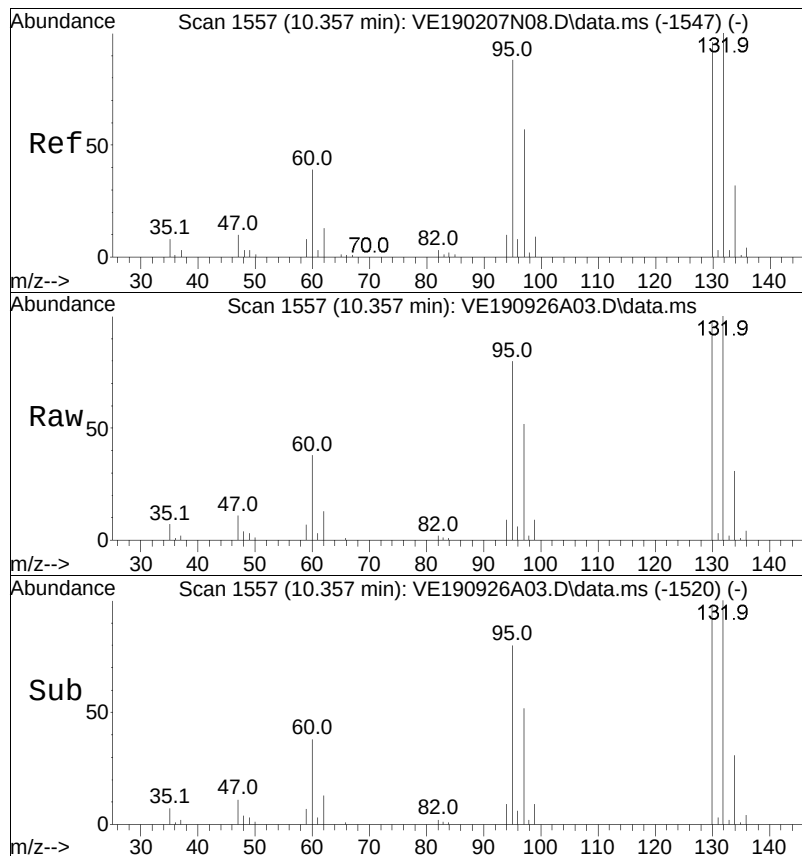




#44
 1,2-Dichloroethane
 Concen: 9.54 ug/L
 RT: 9.388 min Scan# 1379
 Delta R.T. -0.001 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

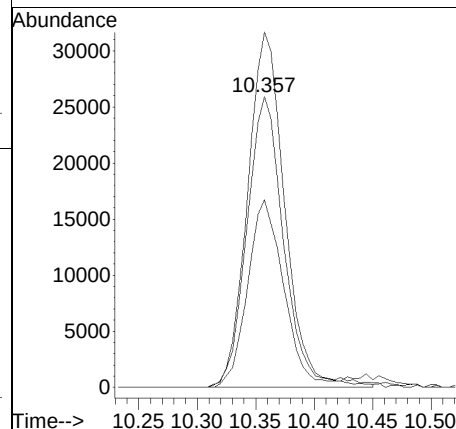
Tgt Ion	Ratio	Lower	Upper
62	100		
64	30.2	10.5	50.5
98	8.2	0.0	28.2

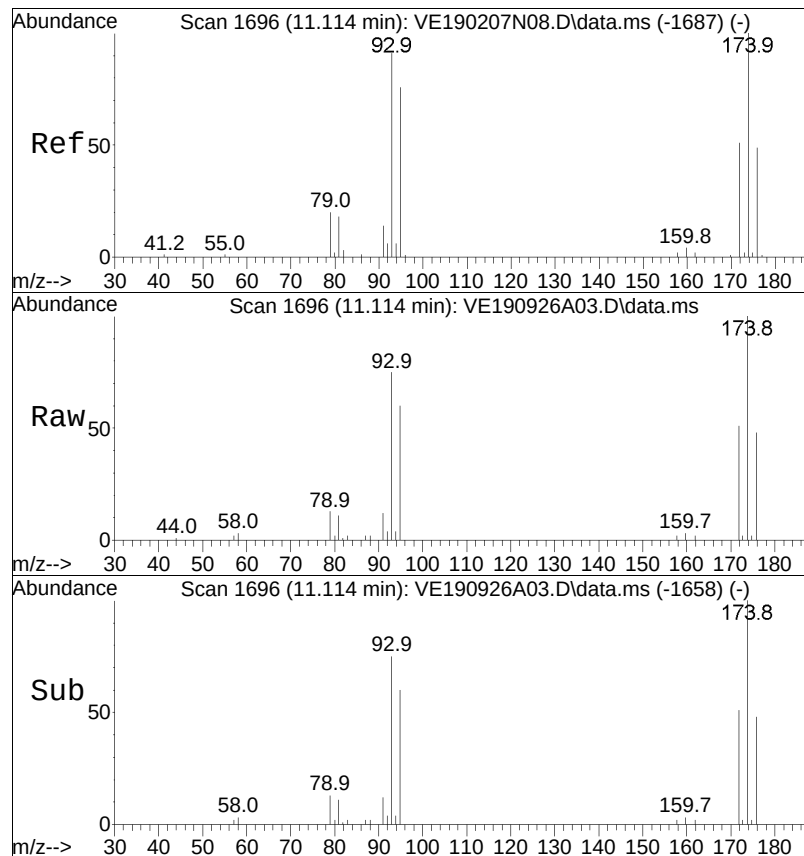




#48
 Trichloroethene
 Concen: 8.75 ug/L
 RT: 10.357 min Scan# 1557
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

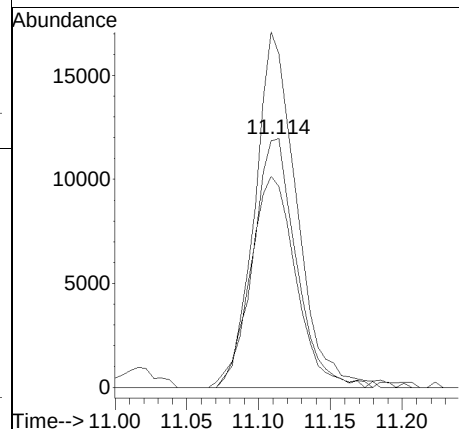
Tgt Ion	Ratio	Lower	Upper
95	100		
97	63.2	51.8	77.6
130	123.9	81.4	122.2#

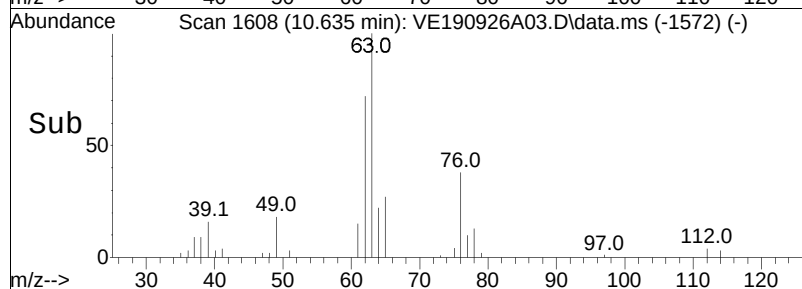
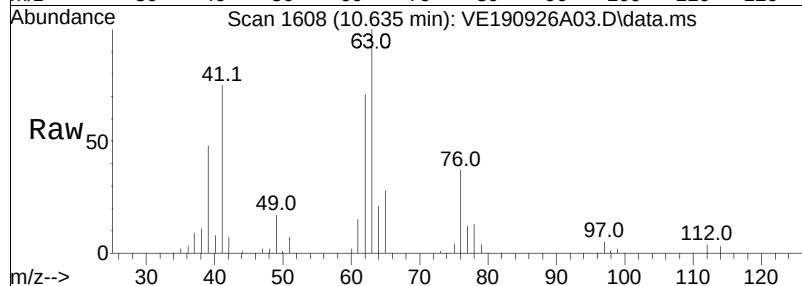
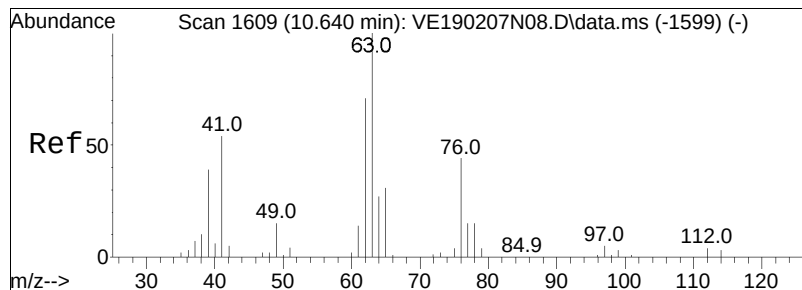




#50
 Dibromomethane
 Concen: 8.28 ug/L
 RT: 11.114 min Scan# 1696
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

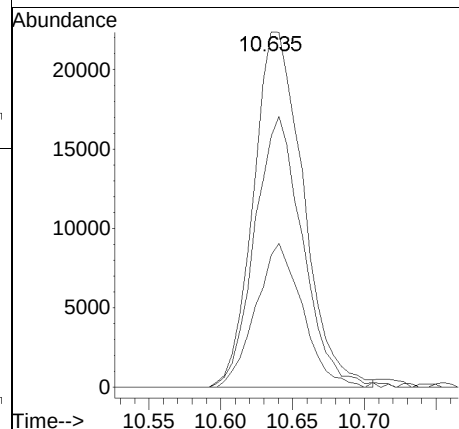
Tgt Ion	Ratio	Lower	Upper
93	100		
95	87.9	66.9	100.3
174	138.0	73.7	110.5#

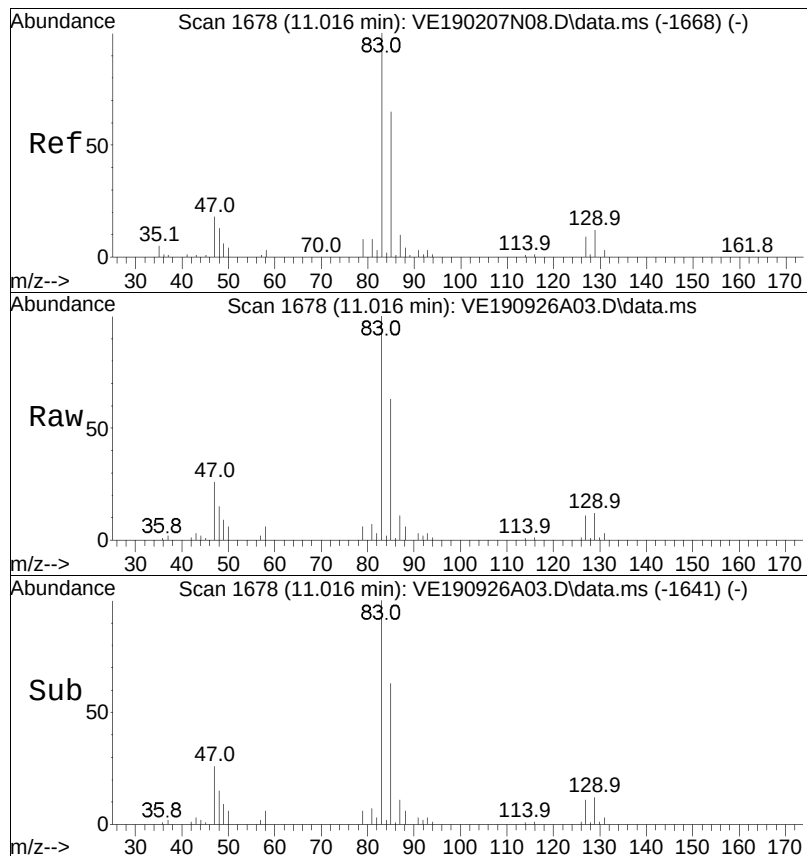




#51
 1,2-Dichloropropane
 Concen: 7.95 ug/L
 RT: 10.635 min Scan# 1608
 Delta R.T. -0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

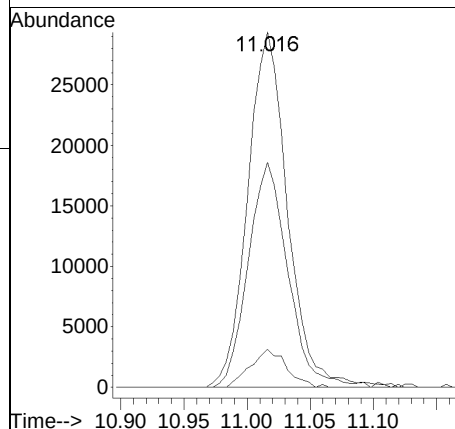
Tgt	Ion:	63	Resp:	54117
Ion	Ratio	Lower	Upper	
63	100			
62	73.8	58.0	87.0	
76	38.0	29.5	44.3	

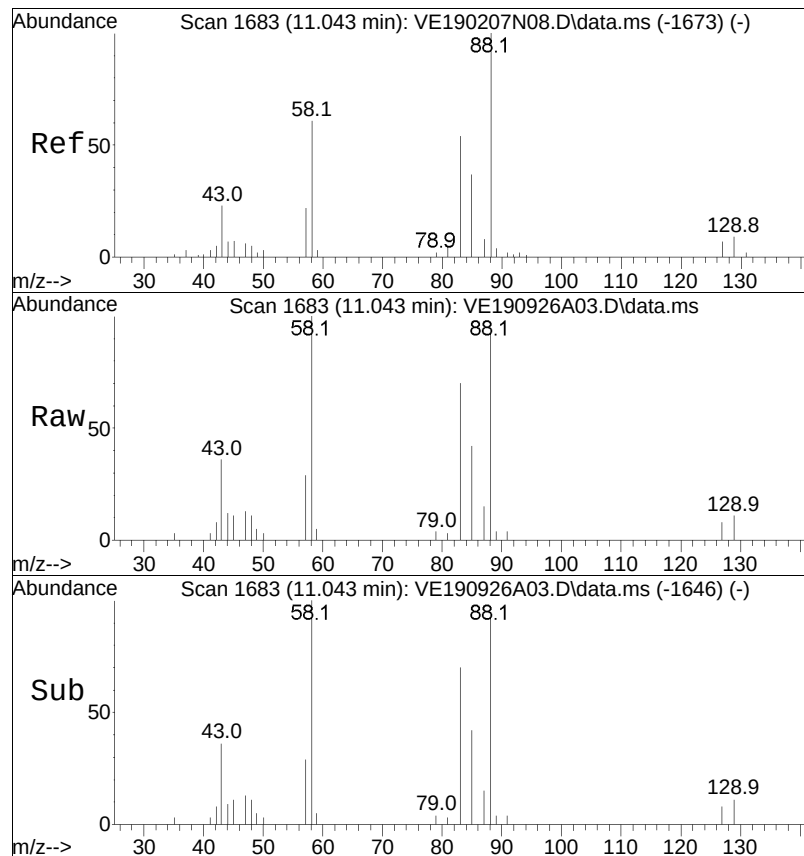




#54
 Bromodichloromethane
 Concen: 8.51 ug/L
 RT: 11.016 min Scan# 1678
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

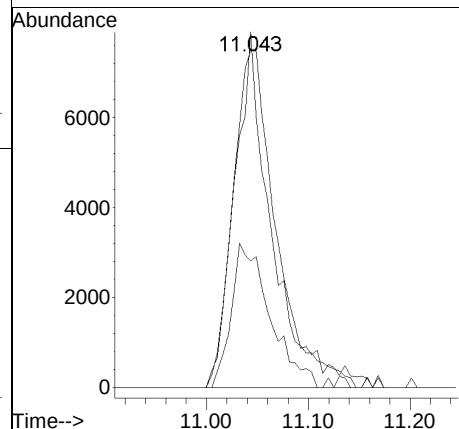
Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.2	50.7	76.1
127	9.9	6.5	9.7

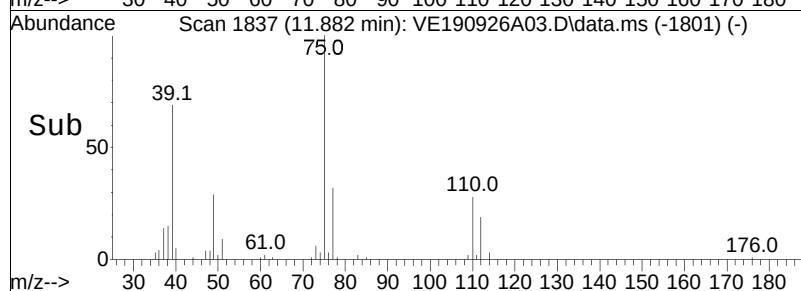
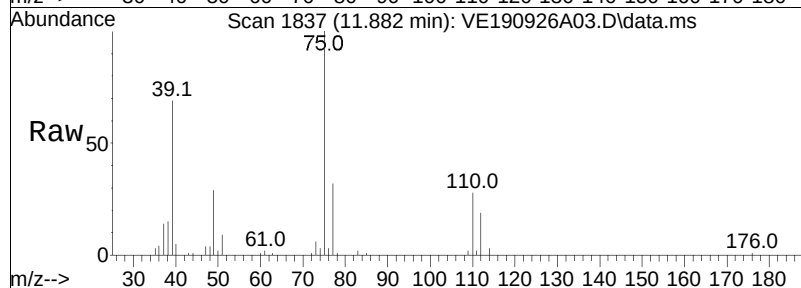
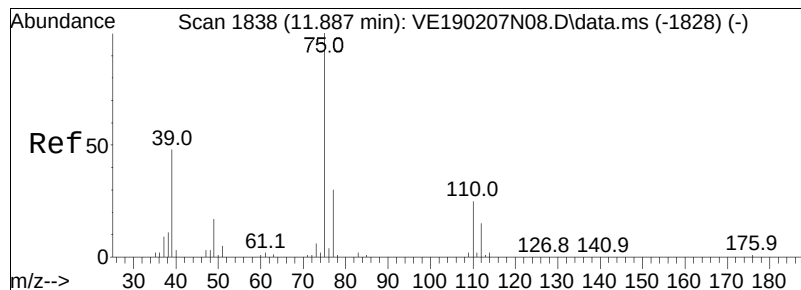




#57
 1,4-Dioxane
 Concen: 442.00 ug/L
 RT: 11.043 min Scan# 1683
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

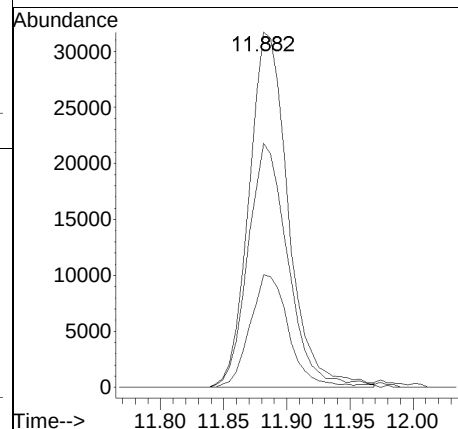
Tgt Ion	Ratio	Lower	Upper
88	100		
58	88.2	64.6	96.8
43	37.8	22.1	33.1#

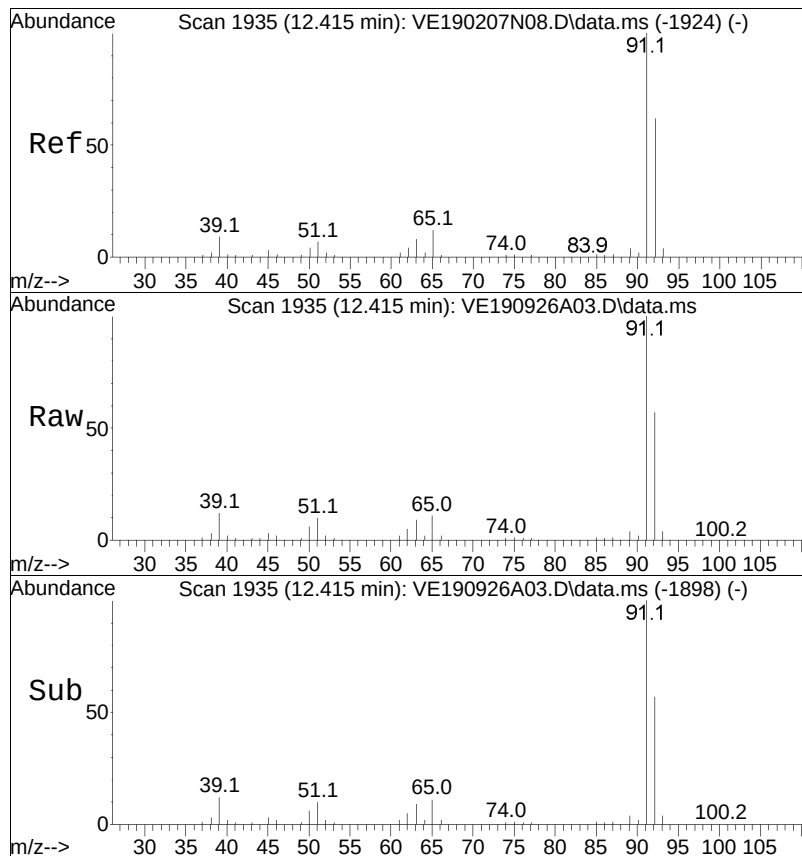




#58
 cis-1,3-Dichloropropene
 Concen: 8.05 ug/L
 RT: 11.882 min Scan# 1837
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

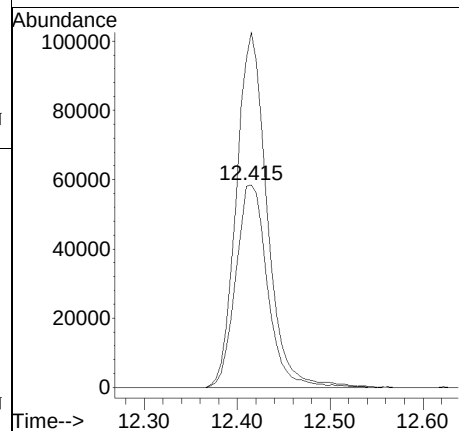
Tgt Ion:	75	Resp:	68884
Ion Ratio	100	Lower	Upper
75	100		
77	31.1	25.3	37.9
39	69.9	39.4	59.0

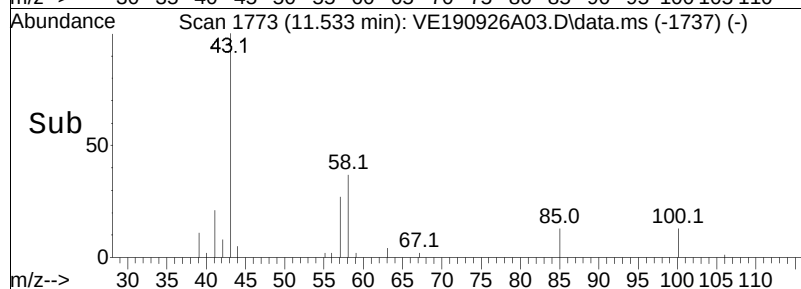
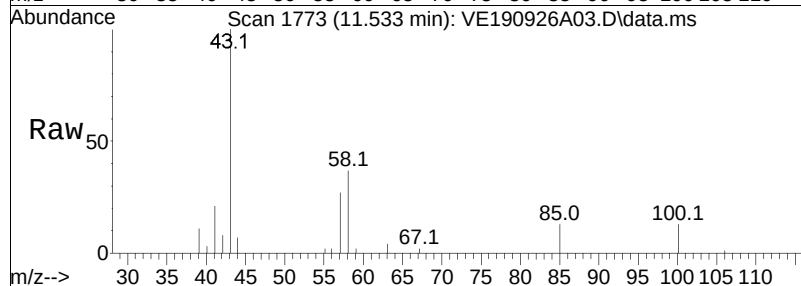
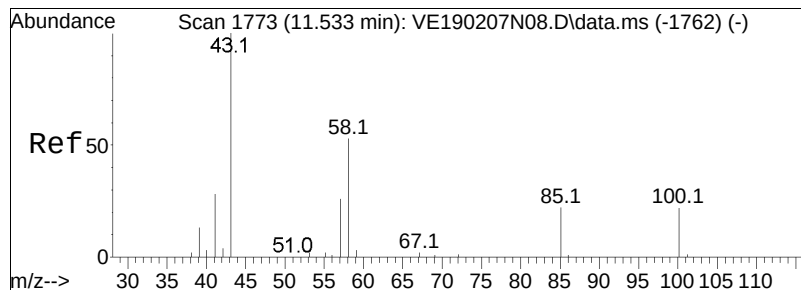




#61
Toluene
Concen: 8.31 ug/L
RT: 12.415 min Scan# 1935
Delta R.T. 0.000 min
Lab File: VE190926A03.D
Acq: 26 Sep 2019 8:20 am

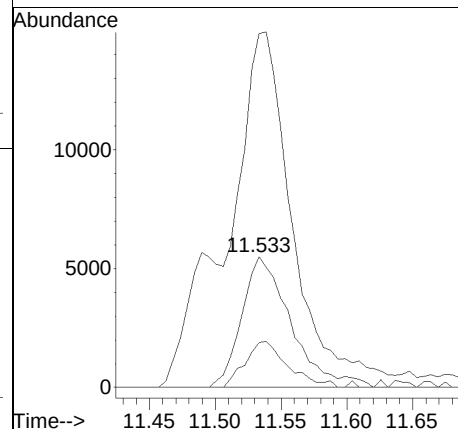
Tgt	Ion	Resp	Lower	Upper
92	100			
91	169.0	130.9	196.3	

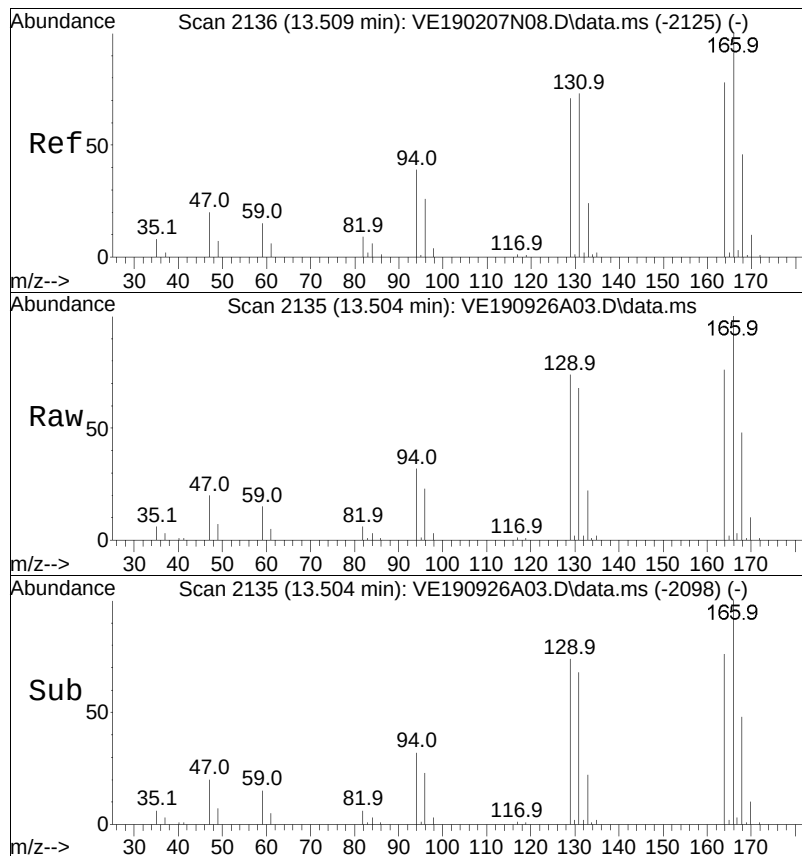




#62
 4-Methyl-2-pentanone
 Concen: 8.83 ug/L
 RT: 11.533 min Scan# 1773
 Delta R.T. -0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

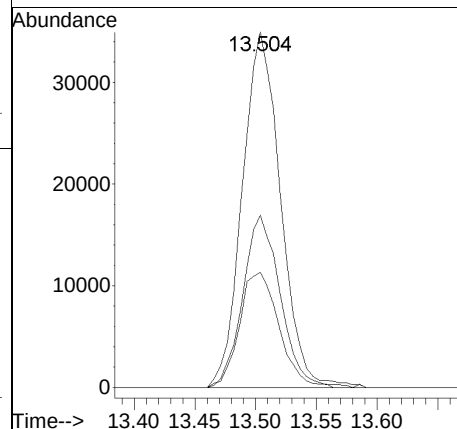
Tgt Ion	Ratio	Lower	Upper
58	100		
100	30.7	25.5	38.3
43	271.5	189.7	284.5

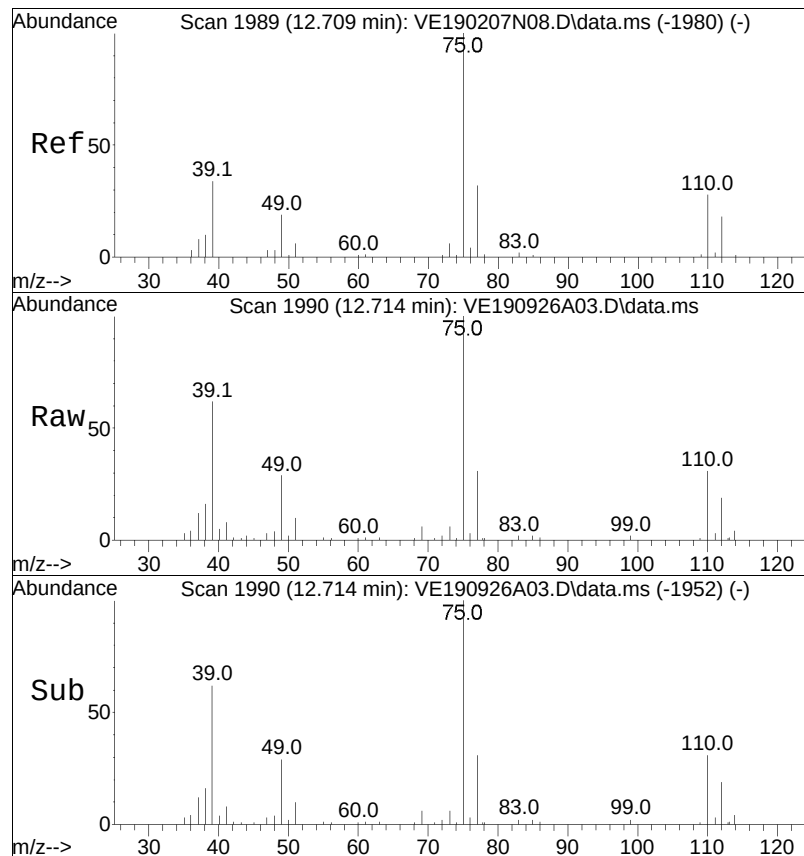




#63
 Tetrachloroethene
 Concen: 10.20 ug/L
 RT: 13.504 min Scan# 2135
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

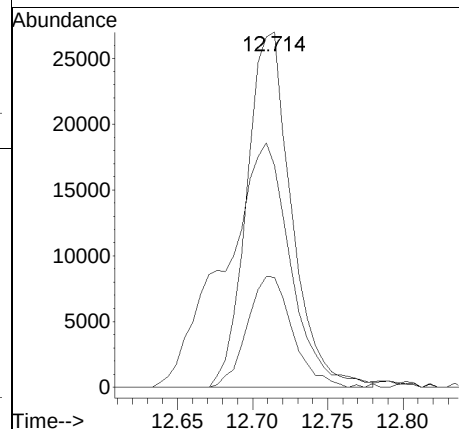
Tgt Ion:	166	Resp:	76444
Ion Ratio	Lower	Upper	
166	100		
168	47.5	26.7	66.7
94	33.4	26.8	66.8

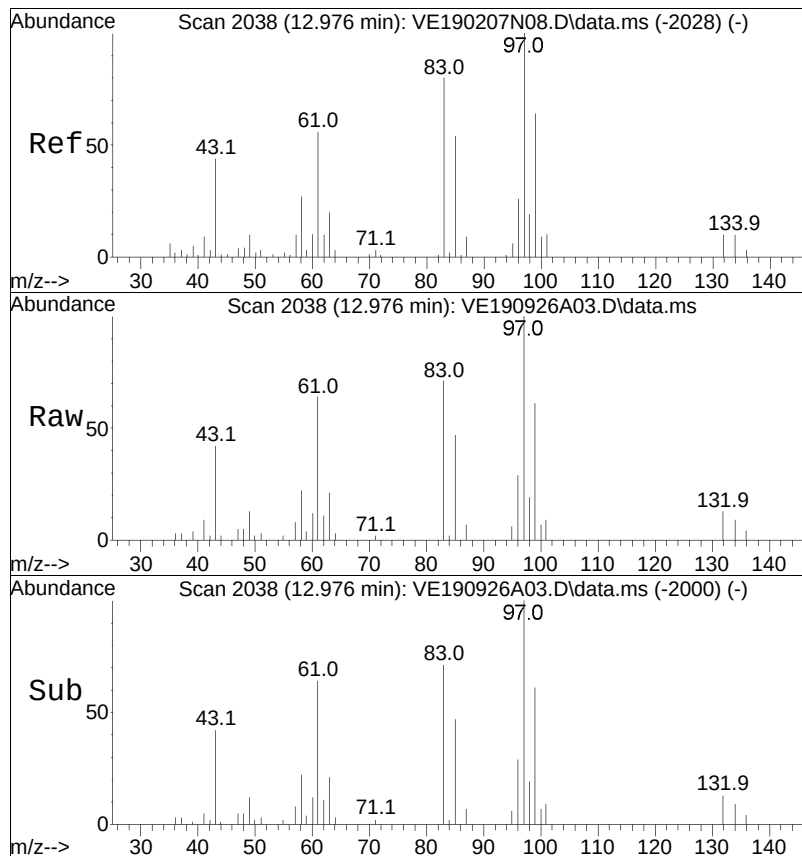




#65
trans-1,3-Dichloropropene
Concen: 8.25 ug/L
RT: 12.714 min Scan# 1990
Delta R.T. 0.005 min
Lab File: VE190926A03.D
Acq: 26 Sep 2019 8:20 am

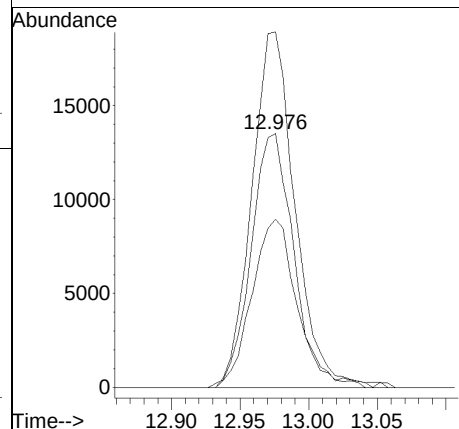
Tgt Ion:	75	Resp:	55938
Ion Ratio	Lower	Upper	
75	100		
77	31.6	12.2	52.2
39	102.8	29.1	69.1#

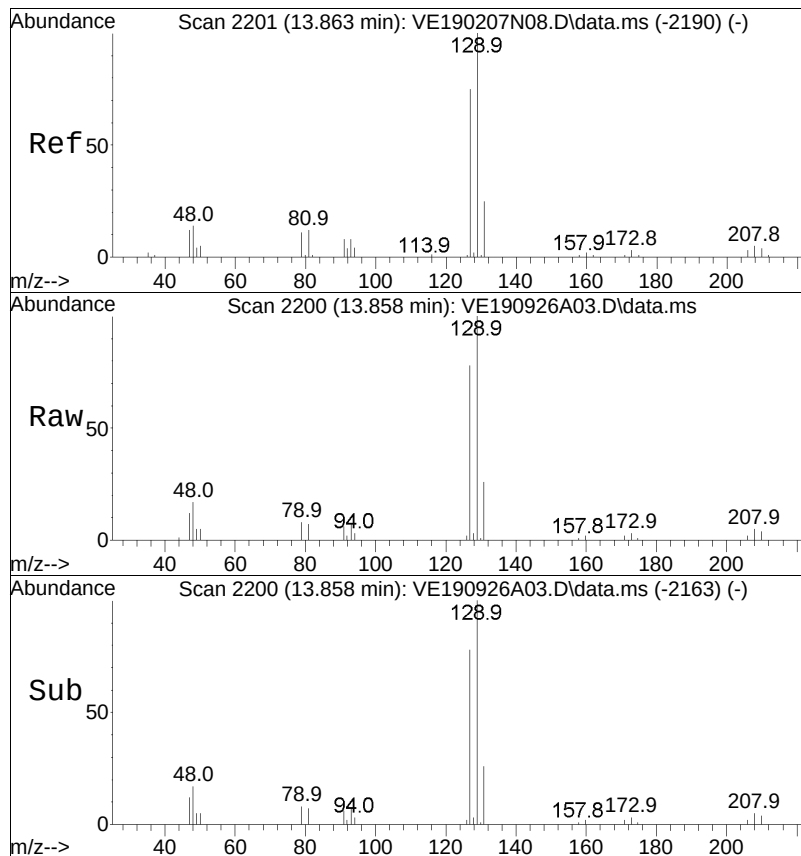




#68
 1,1,2-Trichloroethane
 Concen: 8.07 ug/L
 RT: 12.976 min Scan# 2038
 Delta R.T. 0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

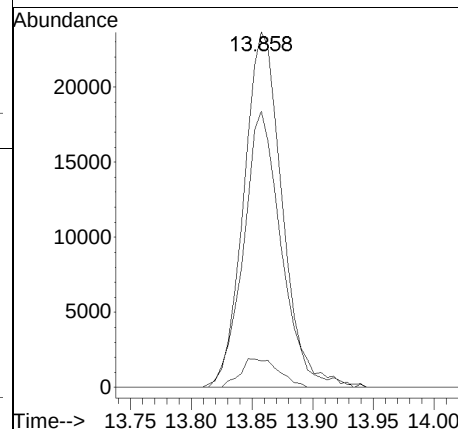
Tgt Ion	Ratio	Lower	Upper
83	100		
97	141.2	99.6	139.6#
85	69.3	49.7	89.7

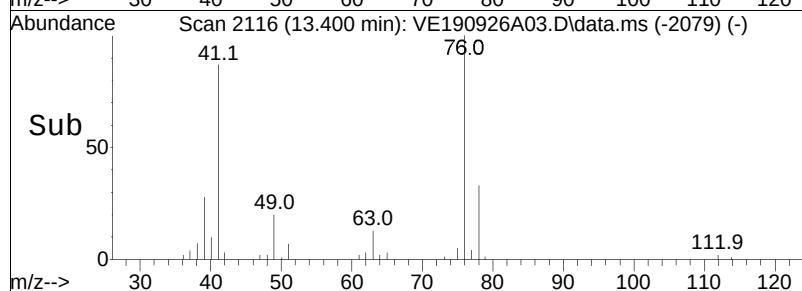
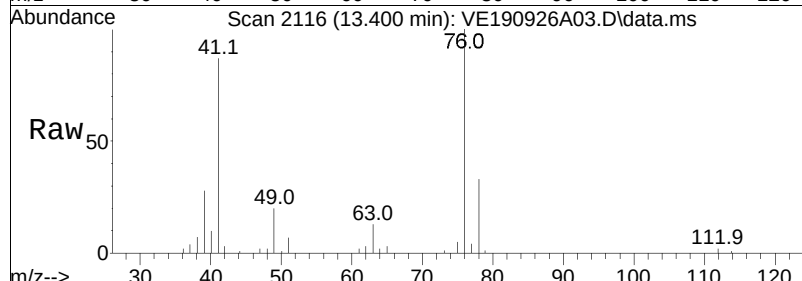
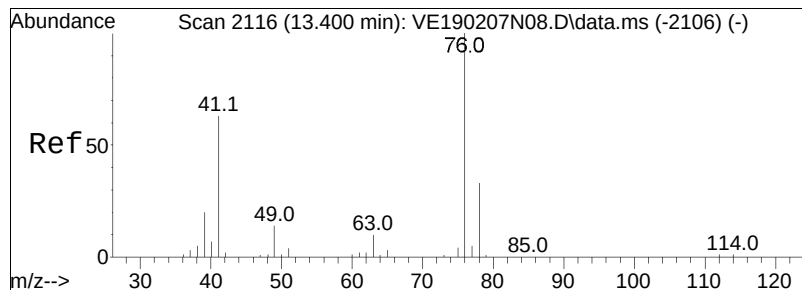




#69
 Chlorodibromomethane
 Concen: 10.82 ug/L
 RT: 13.858 min Scan# 2200
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

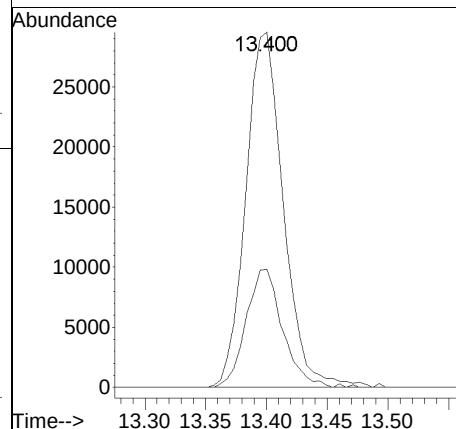
Tgt Ion	Ratio	Resp	Lower	Upper
129	100	52112		
81	8.1		0.0	31.7
127	76.9		57.9	97.9

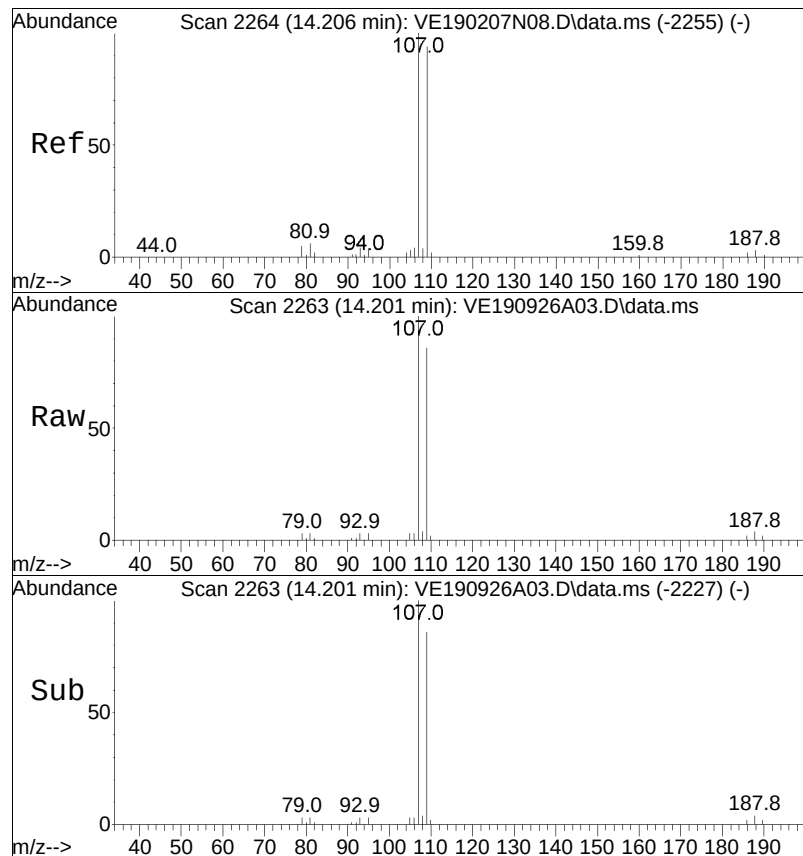




#70
 1,3-Dichloropropane
 Concen: 7.89 ug/L
 RT: 13.400 min Scan# 2116
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

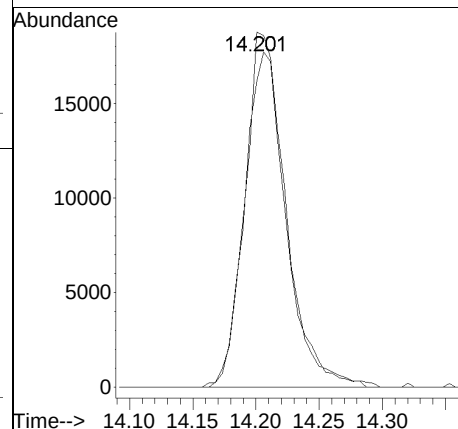
Tgt Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.3	39.5

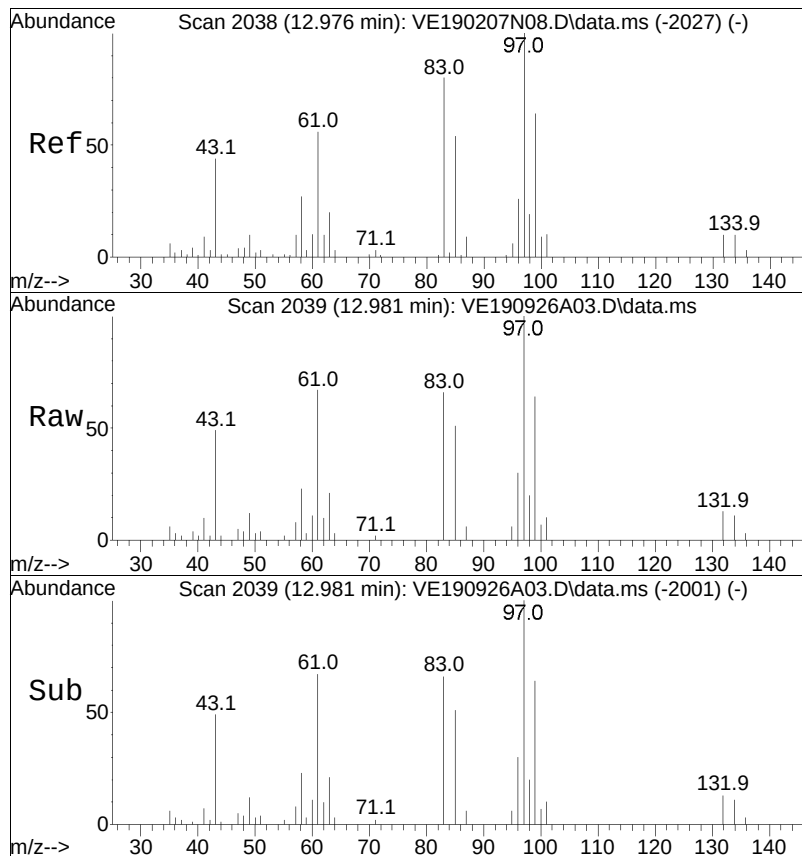




#71
 1,2-Dibromoethane
 Concen: 9.63 ug/L
 RT: 14.201 min Scan# 2263
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

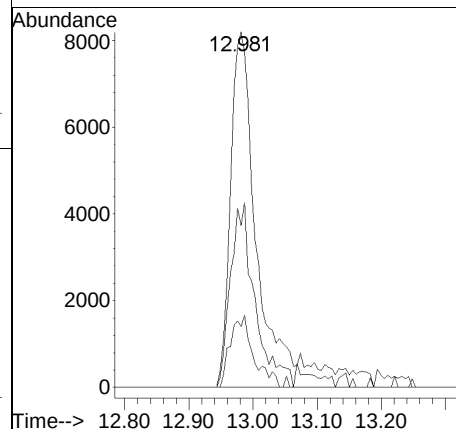
Tgt Ion	Ratio	Lower	Upper
107	100		
109	96.8	75.0	112.6

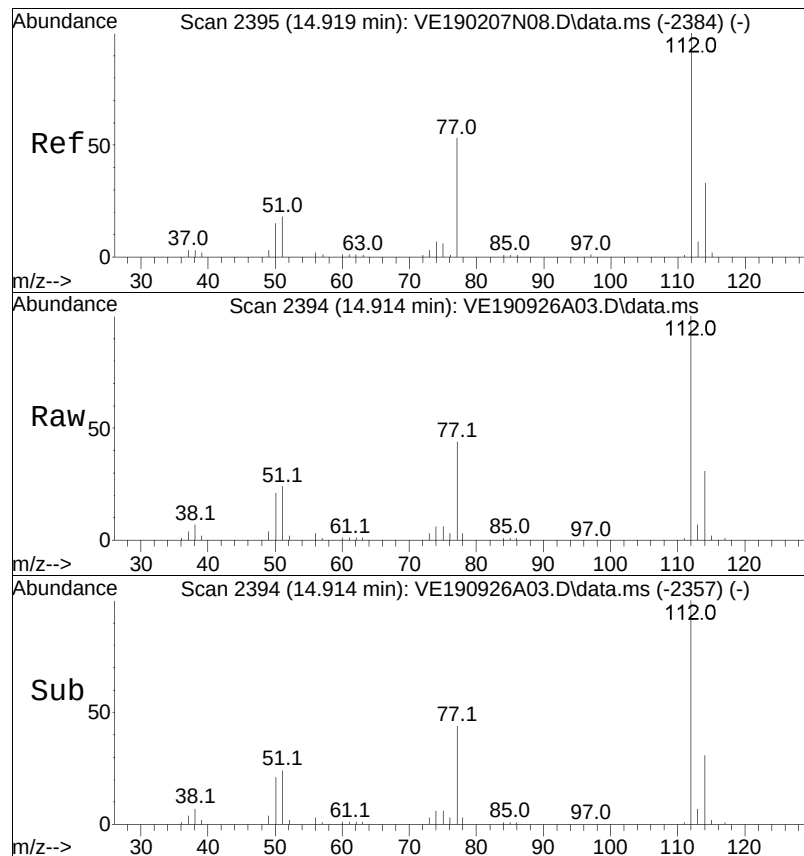




#72
 2-Hexanone
 Concen: 9.55 ug/L M1
 RT: 12.981 min Scan# 2039
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

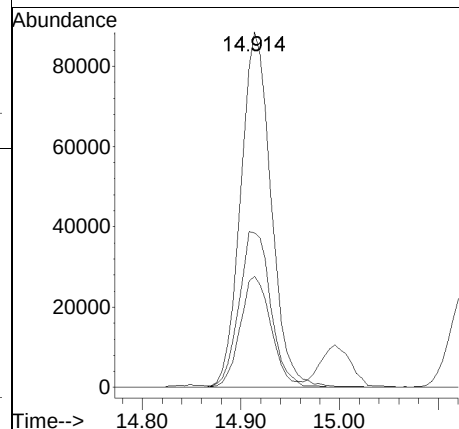
Tgt Ion:	43	58	57	Ratio	100	44.5	16.6	Resp:	25417	Lower	Upper
						45.0	16.0				

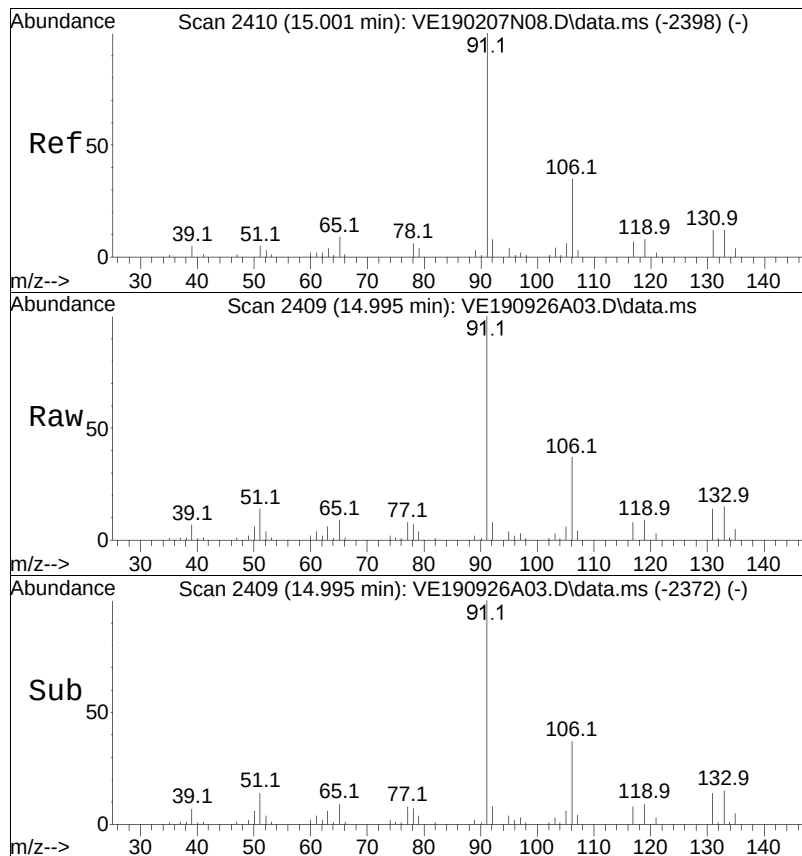




#73
 Chlorobenzene
 Concen: 9.67 ug/L
 RT: 14.914 min Scan# 2394
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

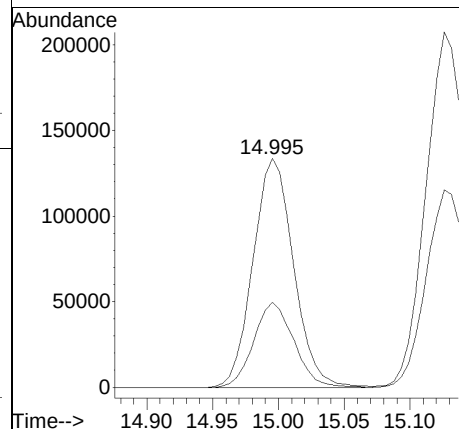
Tgt Ion:	112	Resp:	190015
Ion Ratio	Lower	Upper	
112	100		
77	45.6	45.6	68.4#
114	31.9	25.7	38.5

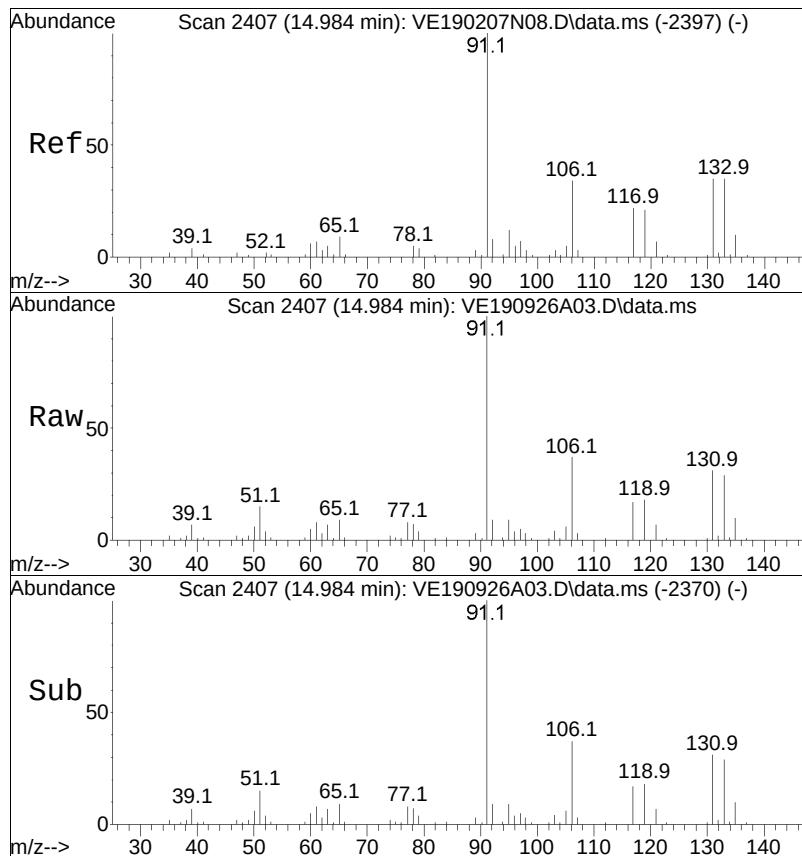




#74
 Ethylbenzene
 Concen: 8.80 ug/L
 RT: 14.995 min Scan# 2409
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

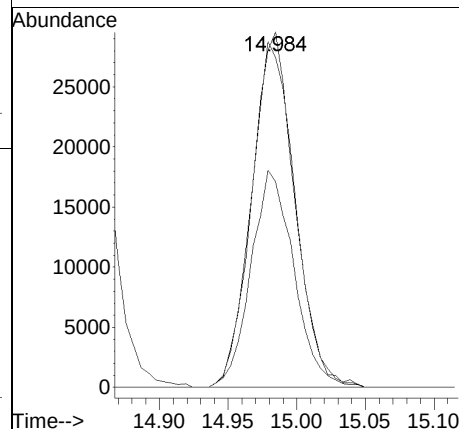
Tgt Ion	Ratio	Lower	Upper
91	100		
106	36.6	26.6	39.8

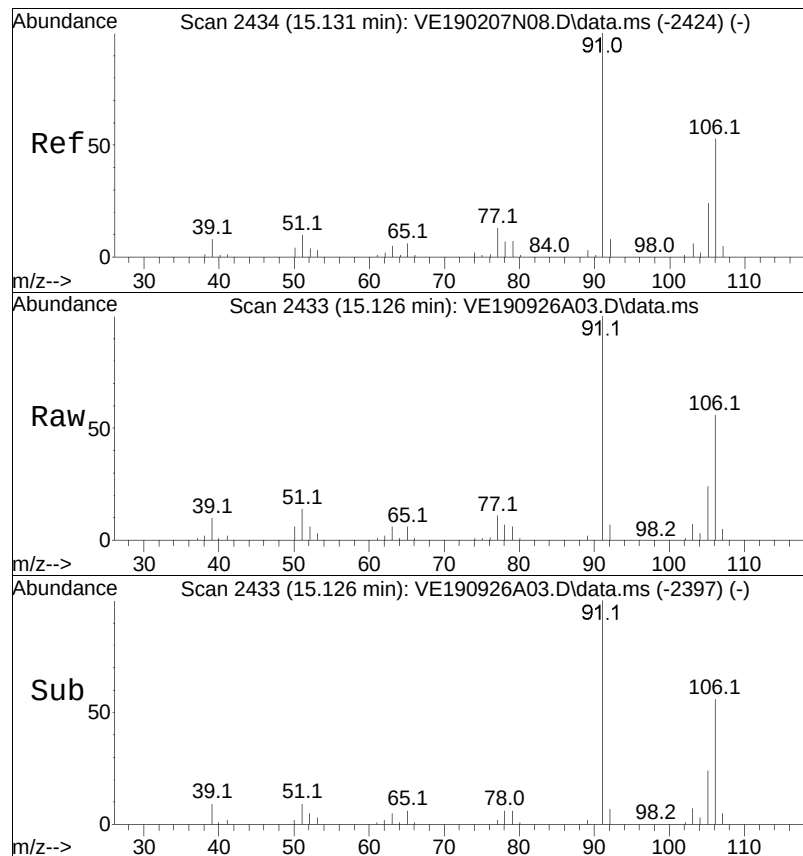




#75
 1,1,1,2-Tetrachloroethane
 Concen: 11.75 ug/L
 RT: 14.984 min Scan# 2407
 Delta R.T. -0.001 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

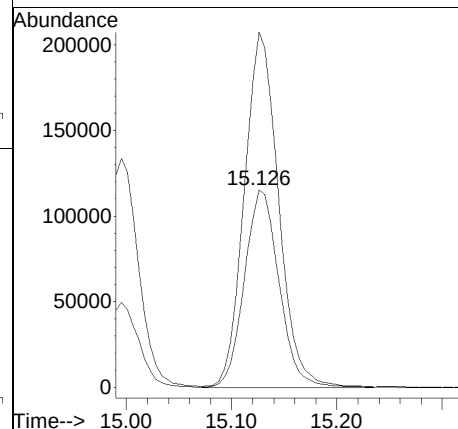
Tgt Ion	Ratio	Resp	Lower	Upper
131	100	64518		
133	98.8		75.9	115.9
119	60.9		44.5	84.5

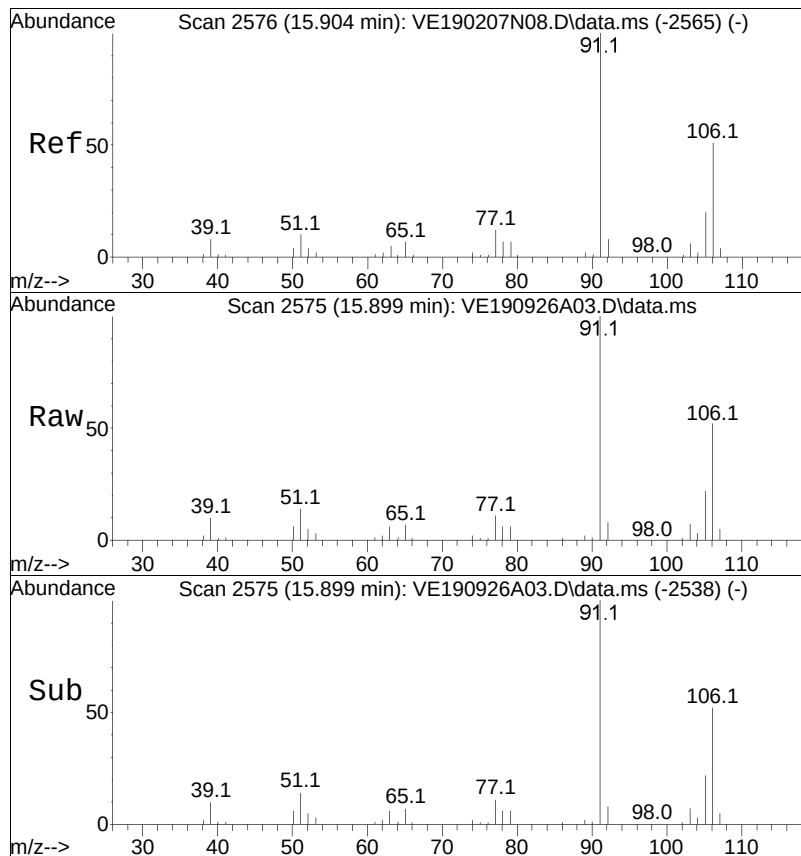




#76
 p/m Xylene
 Concen: 19.30 ug/L
 RT: 15.126 min Scan# 2433
 Delta R.T. -0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

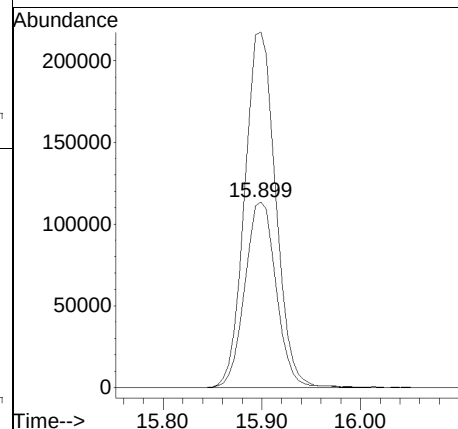
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	177.0	155.0	232.6	

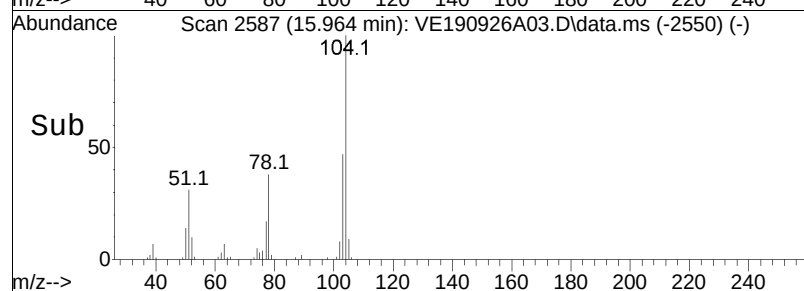
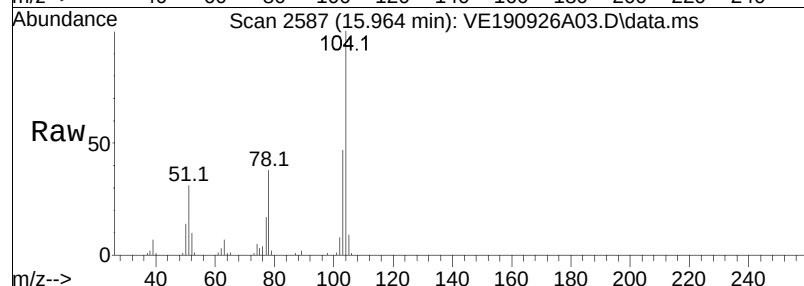
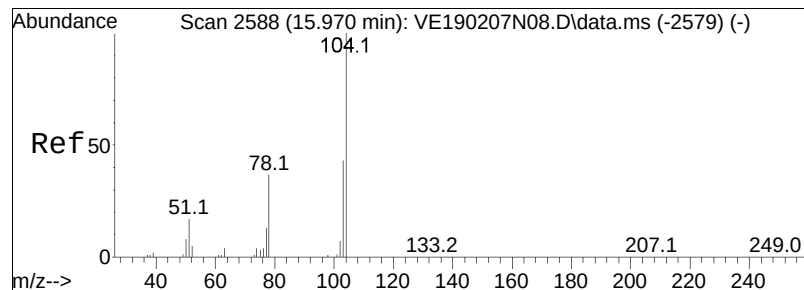




#77
 o Xylene
 Concen: 19.41 ug/L
 RT: 15.899 min Scan# 2575
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

Tgt Ion	Ratio	Lower	Upper
106	100		
91	189.5	165.7	248.5





#78

Styrene

Concen: 19.11 ug/L

RT: 15.964 min Scan# 2587

Delta R.T. 0.000 min

Lab File: VE190926A03.D

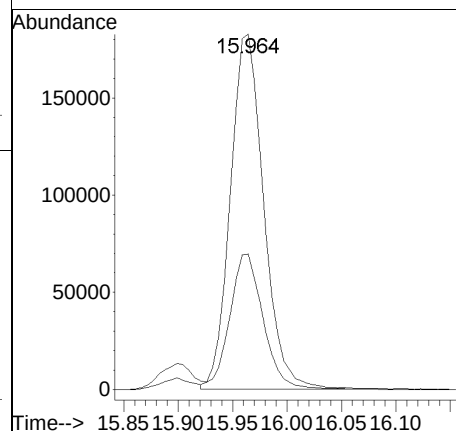
Acq: 26 Sep 2019 8:20 am

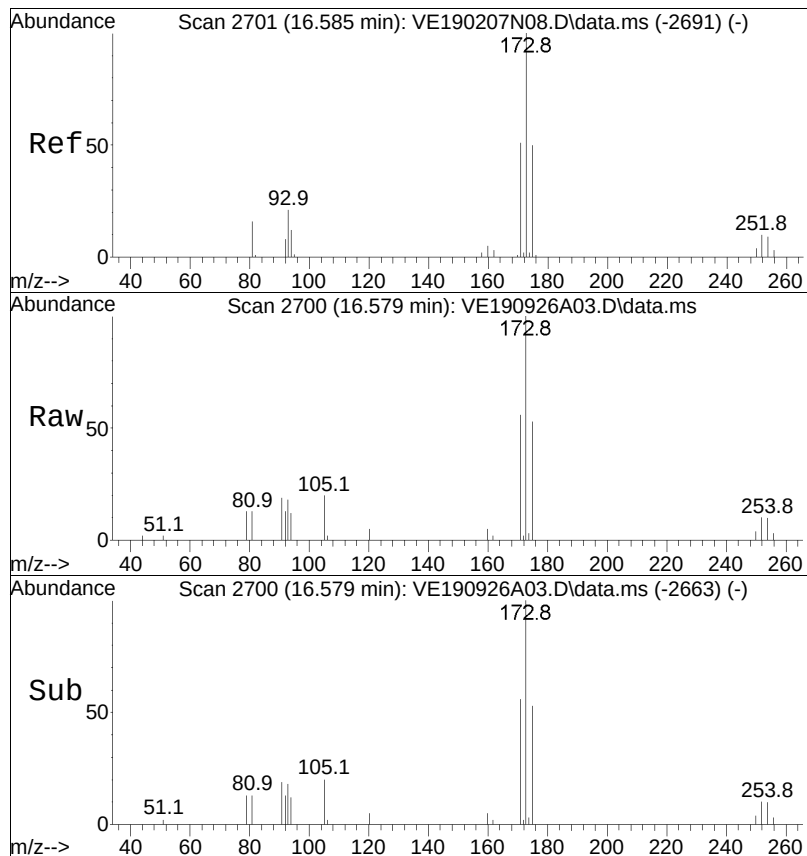
Tgt Ion:104 Resp: 388765

Ion Ratio Lower Upper

104 100

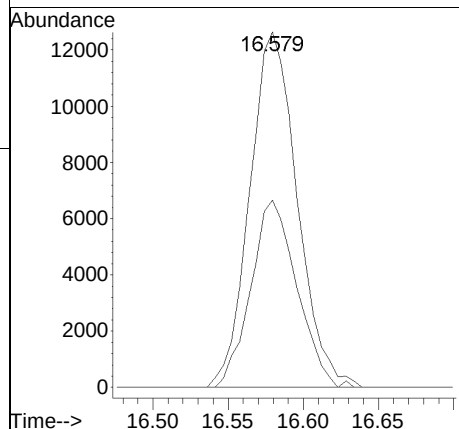
78 38.2 34.6 51.8

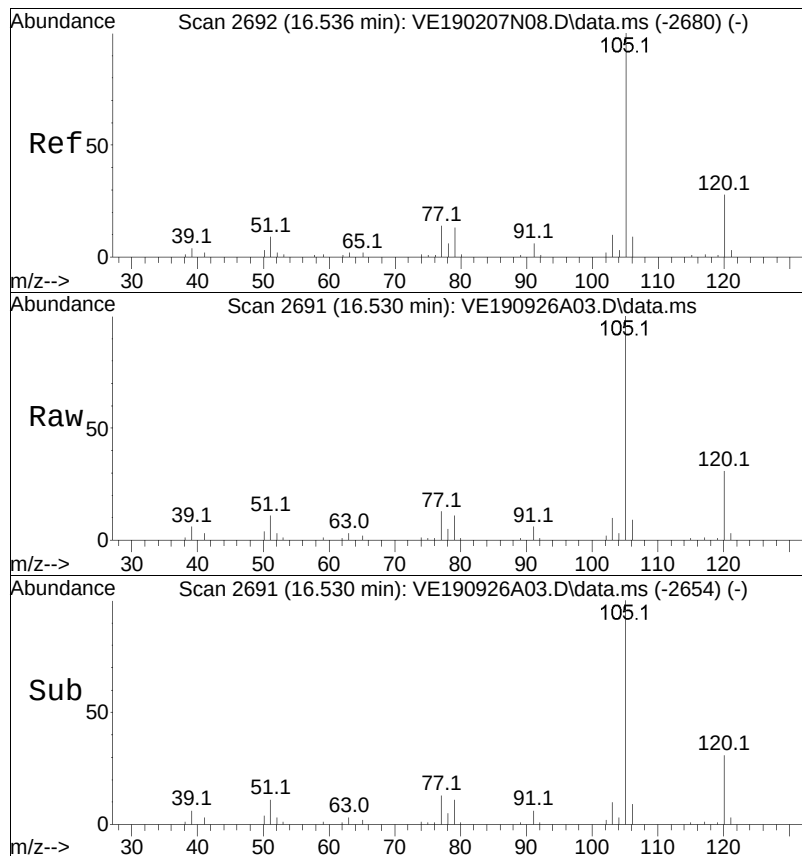




#80
 Bromoform
 Concen: 8.84 ug/L
 RT: 16.579 min Scan# 2700
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

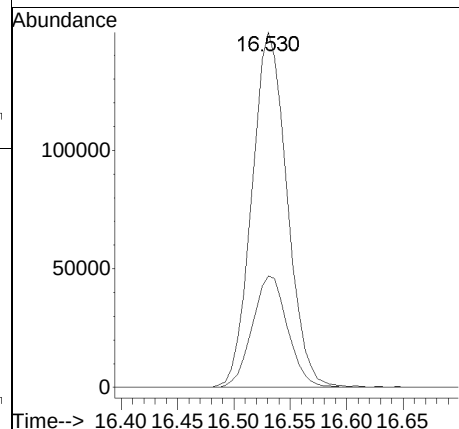
Tgt Ion	Ratio	Lower	Upper
173	100		
175	51.0	29.3	69.3

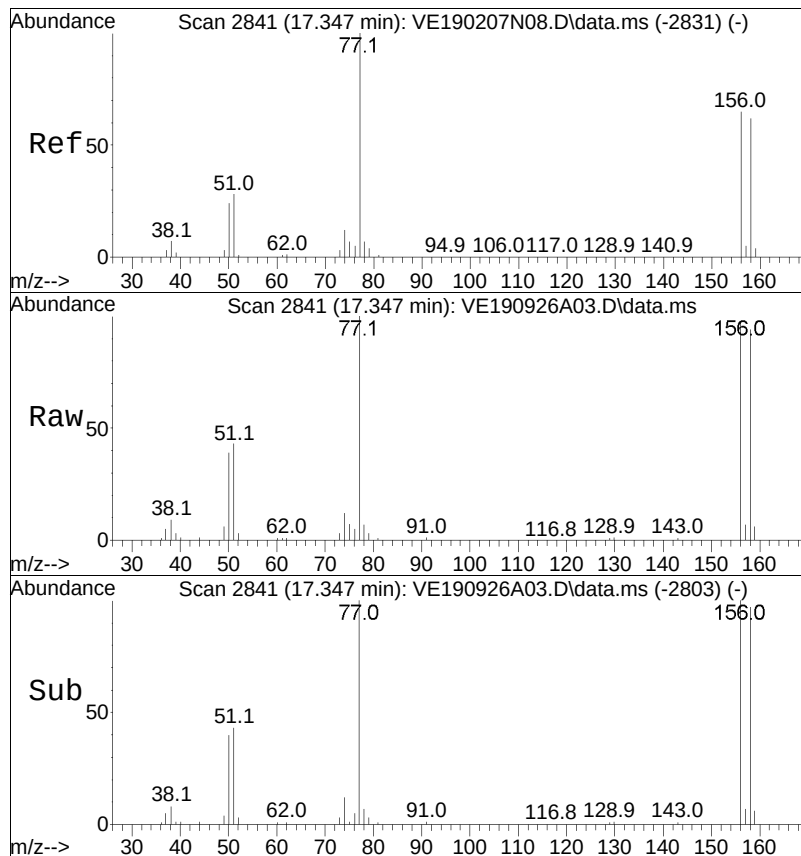




#82
 Isopropylbenzene
 Concen: 8.32 ug/L
 RT: 16.530 min Scan# 2691
 Delta R.T. -0.001 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.5	7.7	47.7





#84

Bromobenzene

Concen: 9.59 ug/L

RT: 17.347 min Scan# 2841

Delta R.T. 0.005 min

Lab File: VE190926A03.D

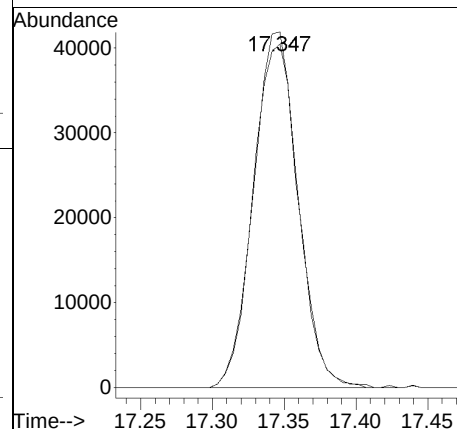
Acq: 26 Sep 2019 8:20 am

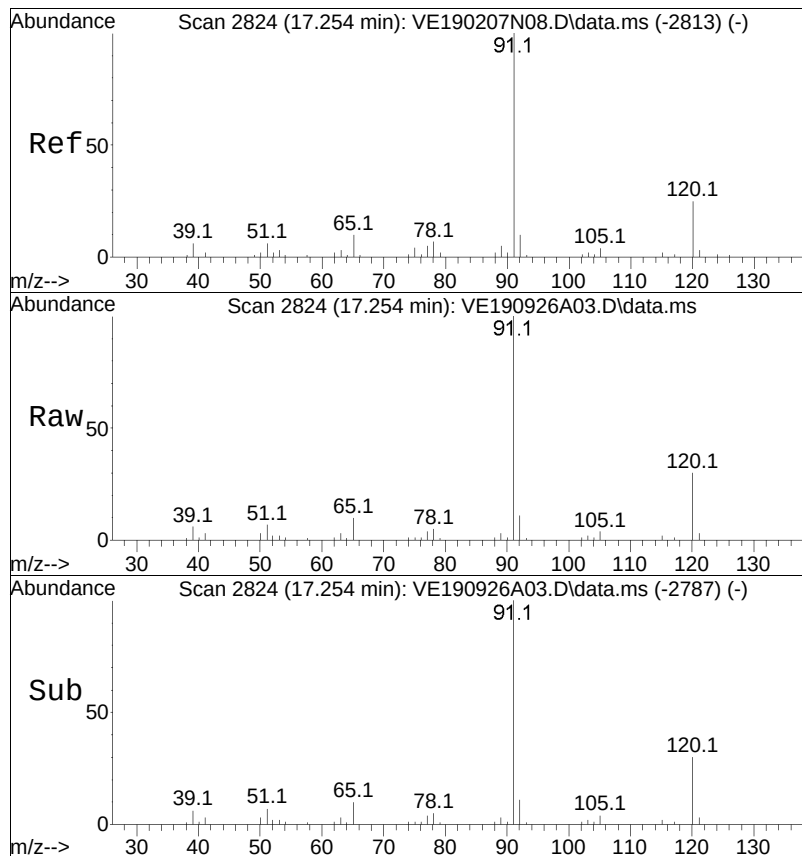
Tgt Ion:156 Resp: 90415

Ion Ratio Lower Upper

156 100

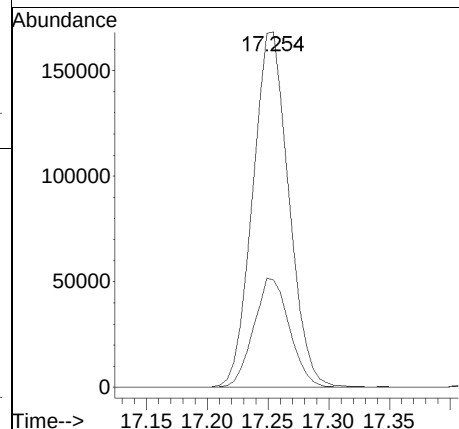
158 98.0 76.8 115.2

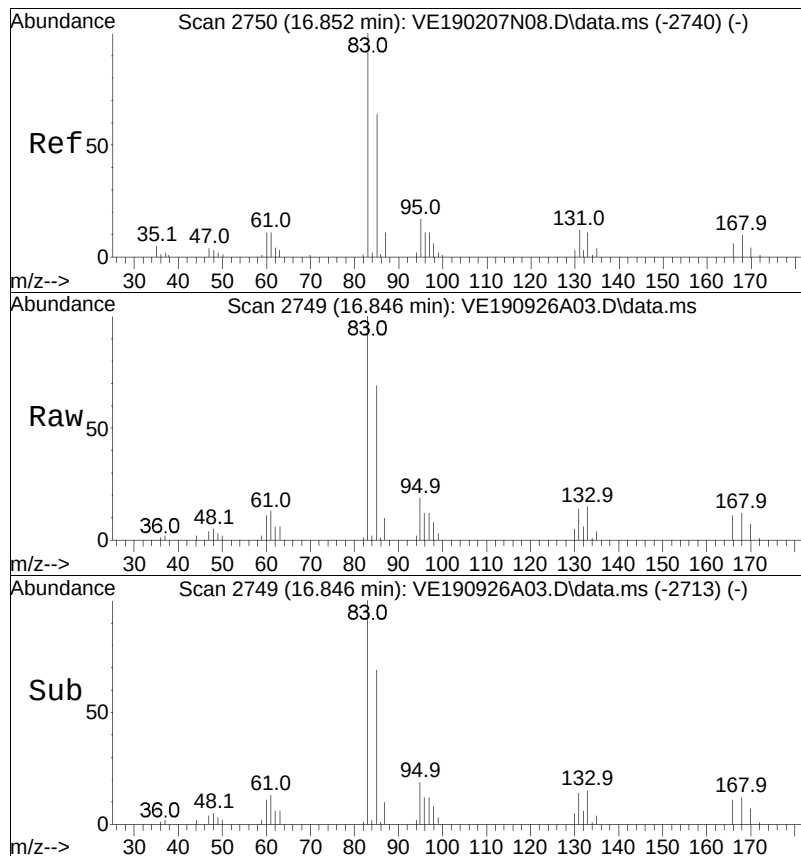




#85
 n-Propylbenzene
 Concen: 8.04 ug/L
 RT: 17.254 min Scan# 2824
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

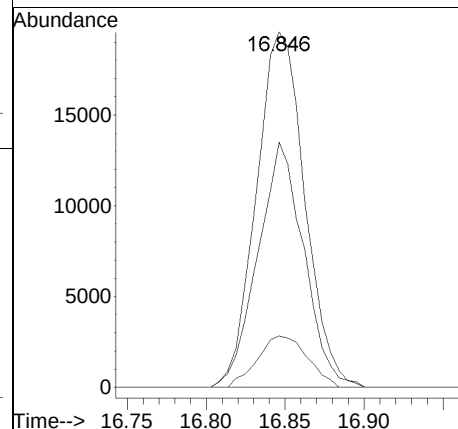
Tgt Ion	Ratio	Lower	Upper
91	100		
120	30.5	19.5	29.3#

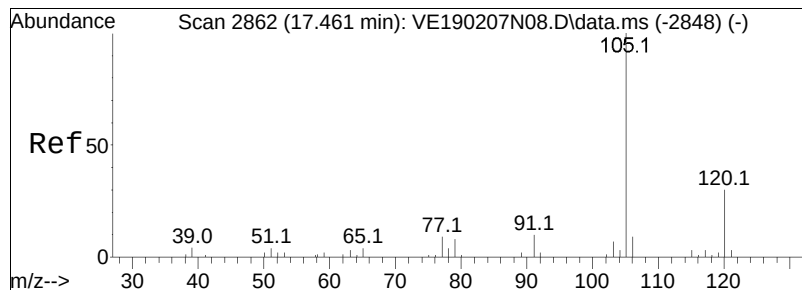




#87
 1,1,2,2-Tetrachloroethane
 Concen: 7.31 ug/L
 RT: 16.846 min Scan# 2749
 Delta R.T. -0.006 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

Tgt Ion:	83	Resp:	41777
Ion Ratio	Lower	Upper	
83	100		
131	15.0	0.0	30.0
85	65.4	44.5	84.5





#88

4-Ethyltoluene

Concen: 8.27 ug/L

RT: 17.456 min Scan# 2861

Delta R.T. -0.000 min

Lab File: VE190926A03.D

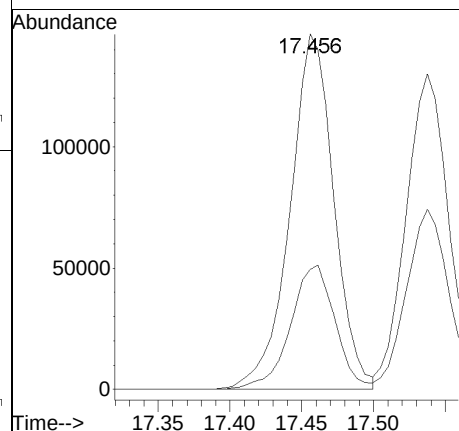
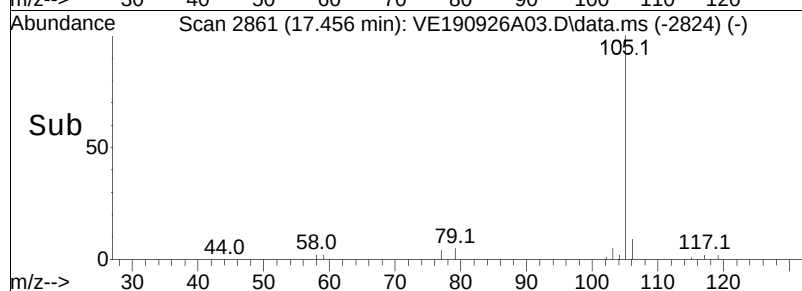
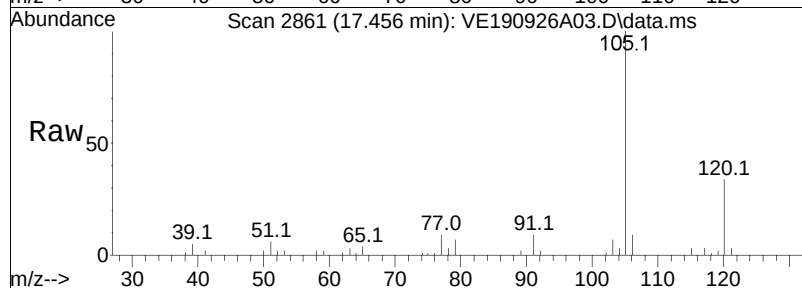
Acq: 26 Sep 2019 8:20 am

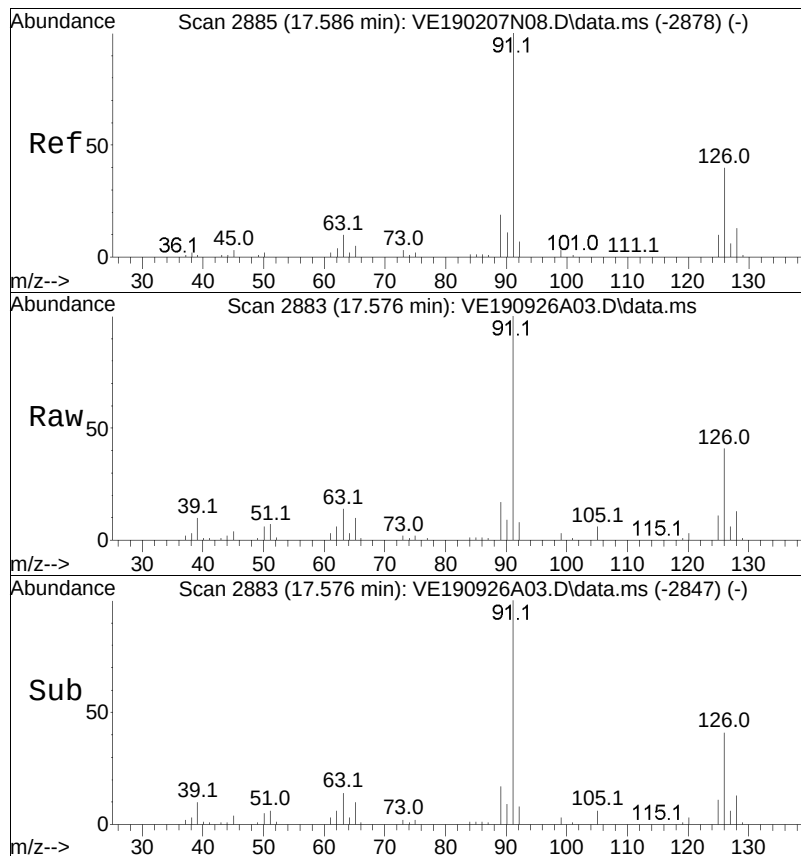
Tgt Ion:105 Resp: 311537

Ion Ratio Lower Upper

105 100

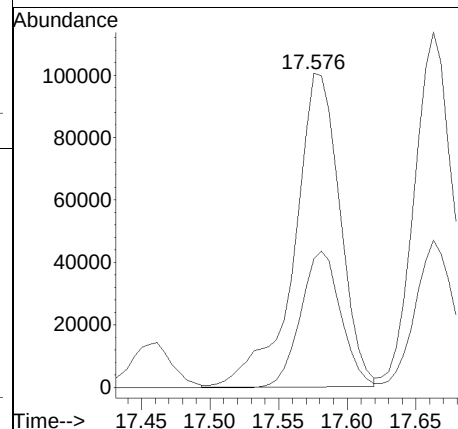
120 35.6 19.8 41.2

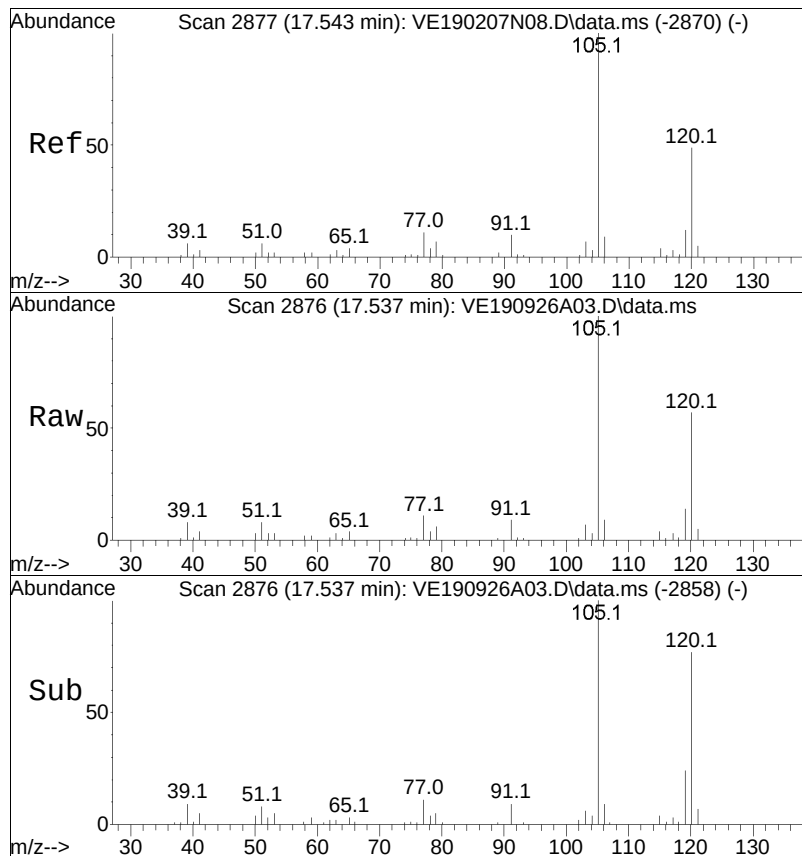




#89
 2-Chlorotoluene
 Concen: 7.87 ug/L
 RT: 17.576 min Scan# 2883
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

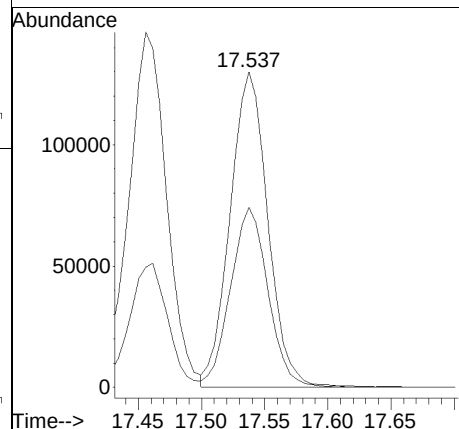
Tgt Ion	Ratio	Lower	Upper
91	100		
126	38.2	24.1	36.1#

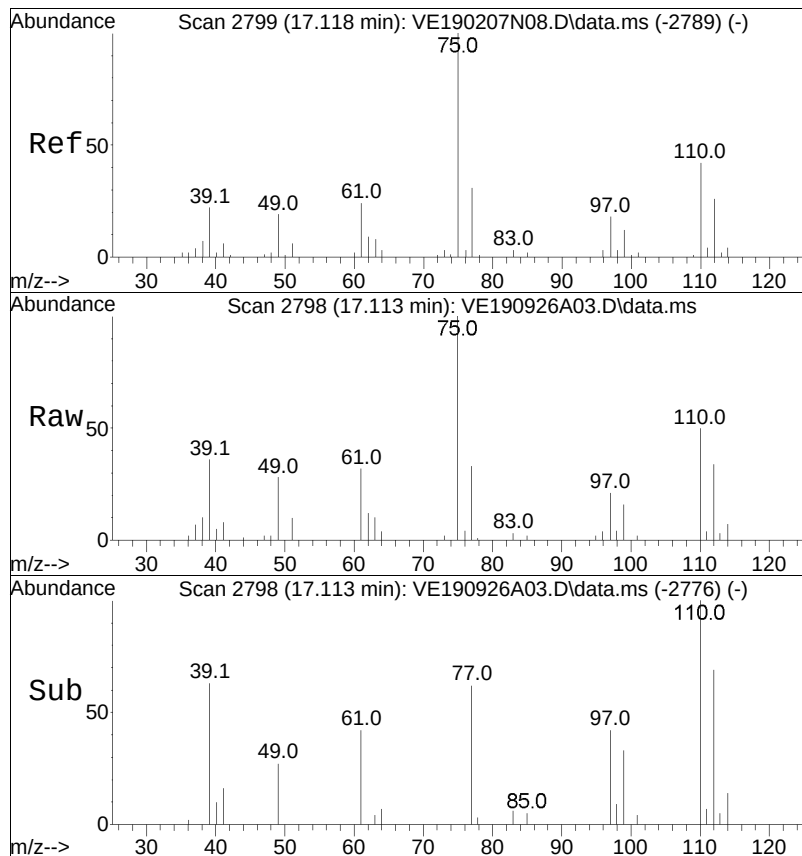




#90
 1,3,5-Trimethylbenzene
 Concen: 8.16 ug/L
 RT: 17.537 min Scan# 2876
 Delta R.T. -0.001 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

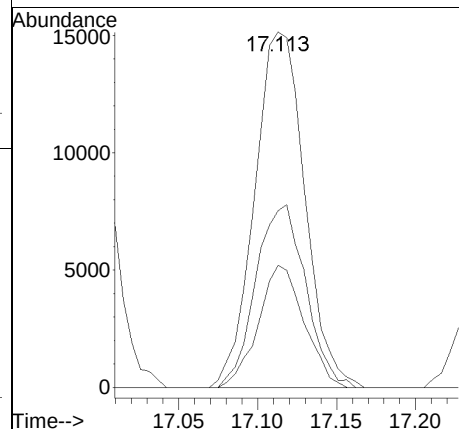
Tgt Ion	105	120	Ratio	Lower	Upper
105	100				
120	56.5		39.6	59.4	

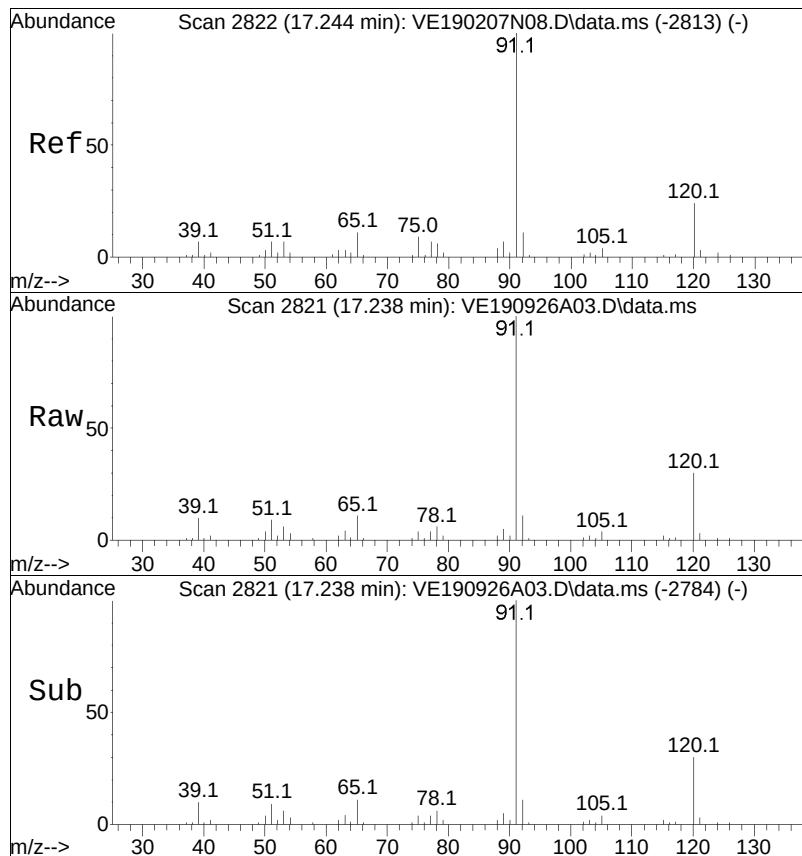




#91
 1,2,3-Trichloropropane
 Concen: 7.03 ug/L
 RT: 17.113 min Scan# 2798
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

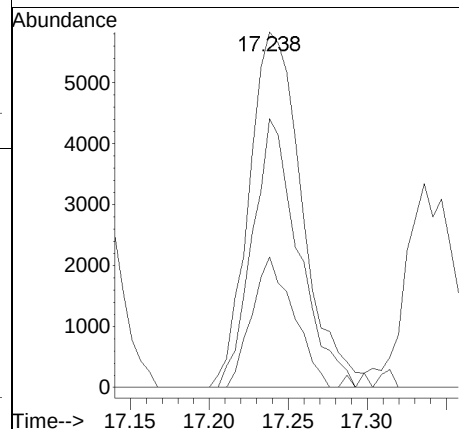
Tgt Ion:	75	Resp:	33477
Ion Ratio	Lower	Upper	
75	100		
110	51.0	25.3	52.5
112	31.4	16.1	33.3

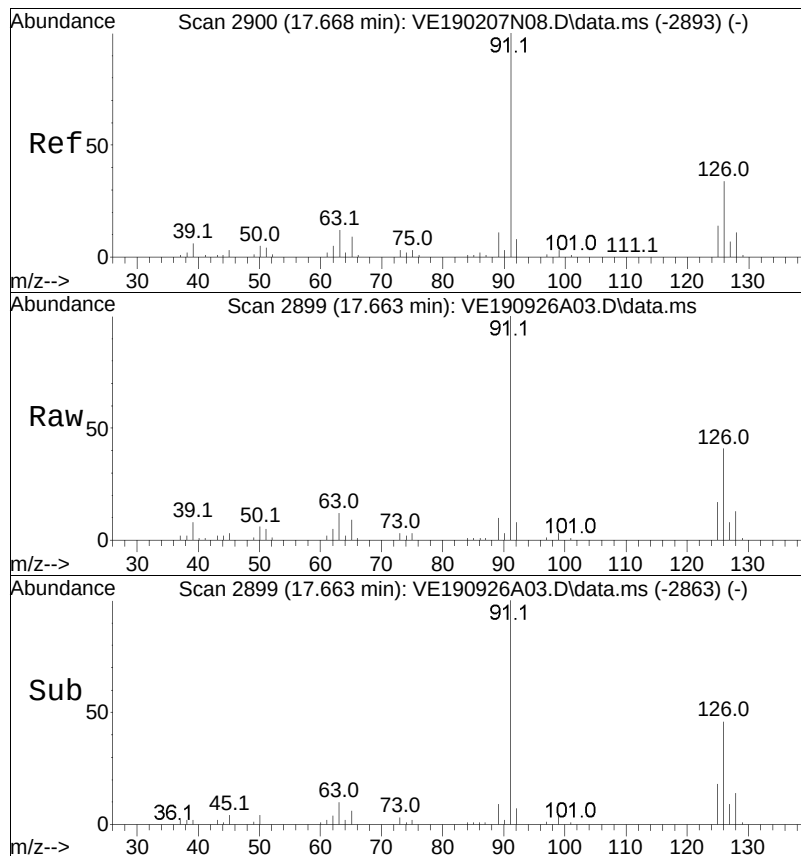




#92
 trans-1,4-Dichloro-2-butene
 Concen: 7.75 ug/L
 RT: 17.238 min Scan# 2821
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

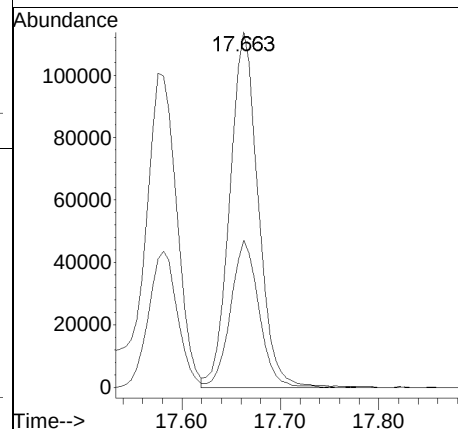
Tgt Ion:	53	Resp:	13671
Ion Ratio	Lower	Upper	
53	100		
88	29.0	30.5	45.7#
75	65.9	80.5	120.7#

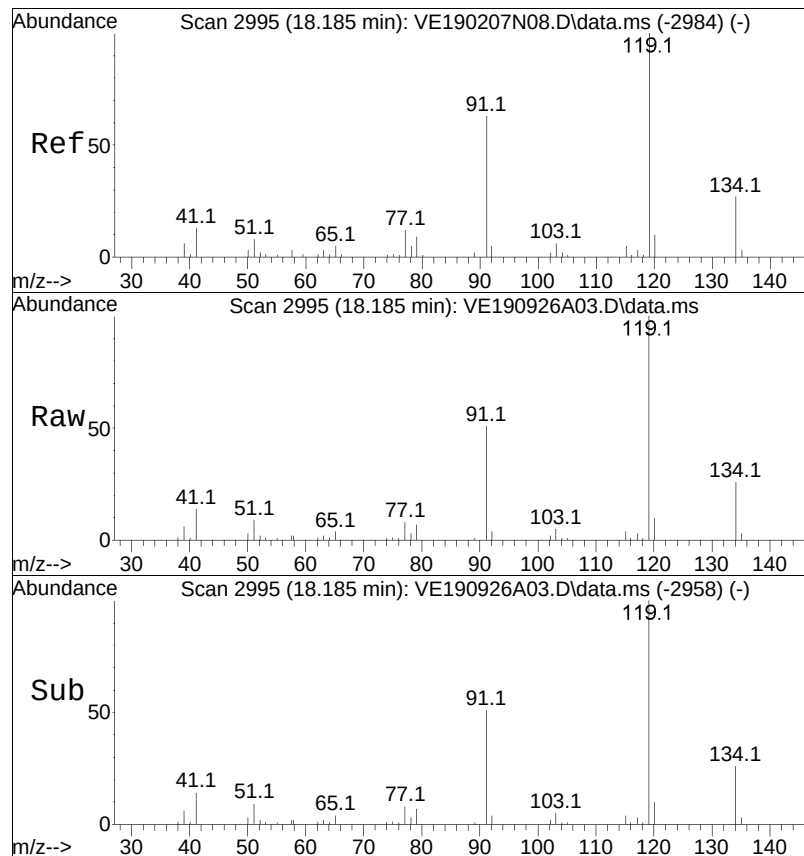




#93
 4-Chlorotoluene
 Concen: 8.10 ug/L M2
 RT: 17.663 min Scan# 2899
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

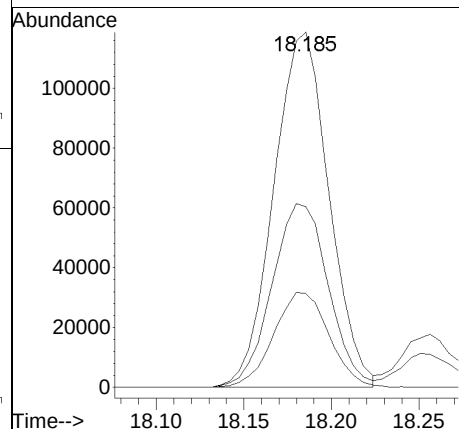
Tgt Ion	Ratio	Lower	Upper
91	100		
126	39.0	26.8	40.2

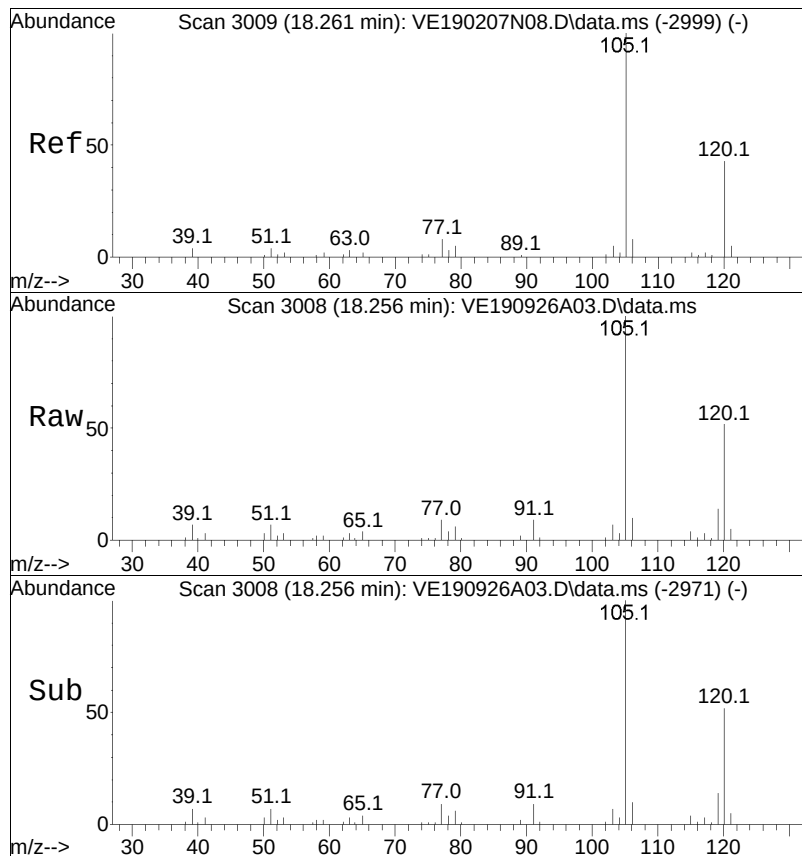




#94
 tert-Butylbenzene
 Concen: 9.57 ug/L
 RT: 18.185 min Scan# 2995
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

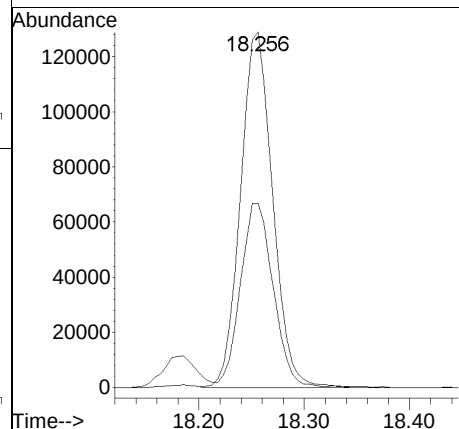
Tgt	Ion	Ratio	Resp	Lower	Upper
119	100		260039		
91	52.9	53.6		80.4#	
134	26.9	20.2		30.2	

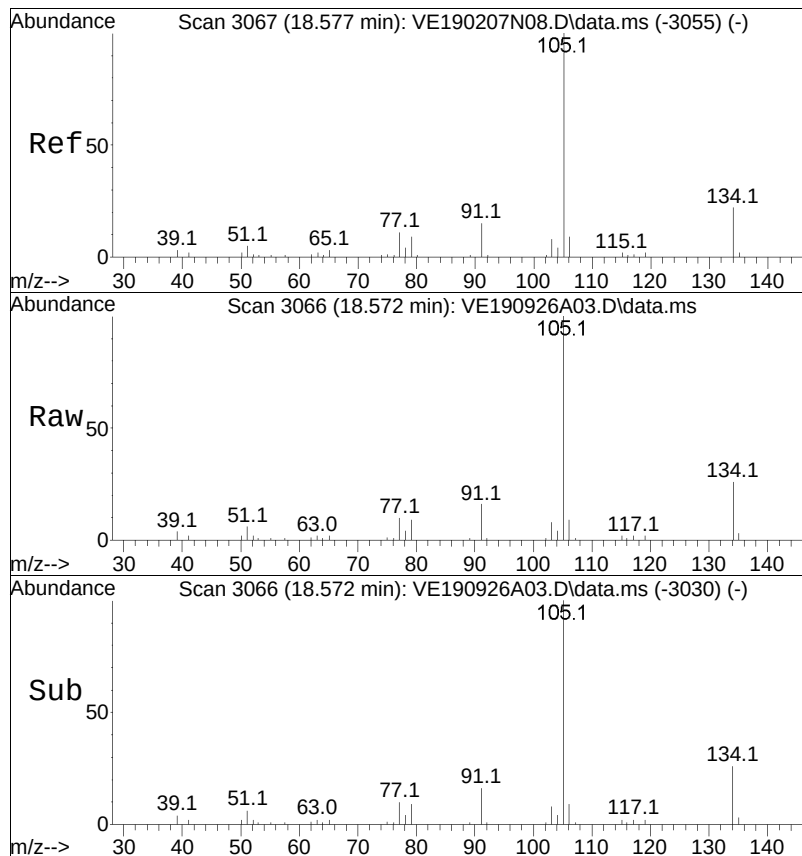




#97
 1,2,4-Trimethylbenzene
 Concen: 8.40 ug/L
 RT: 18.256 min Scan# 3008
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

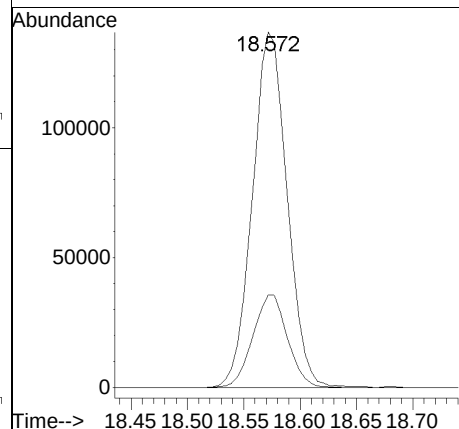
Tgt Ion	Ratio	Lower	Upper
105	100		
120	52.2	37.4	56.0

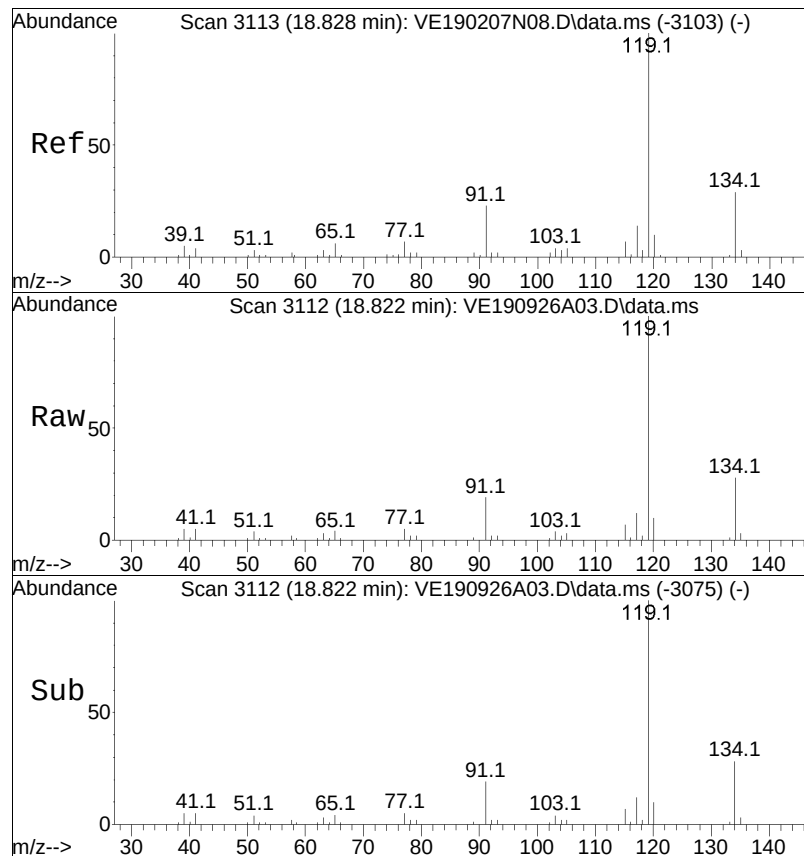




#98
 sec-Butylbenzene
 Concen: 8.10 ug/L
 RT: 18.572 min Scan# 3066
 Delta R.T. -0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

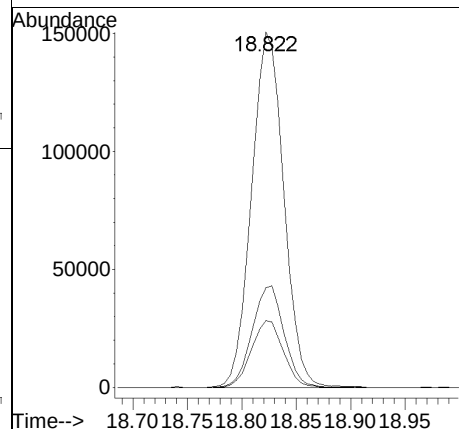
Tgt Ion	Ratio	Lower	Upper
105	100		
134	25.9	13.1	27.1

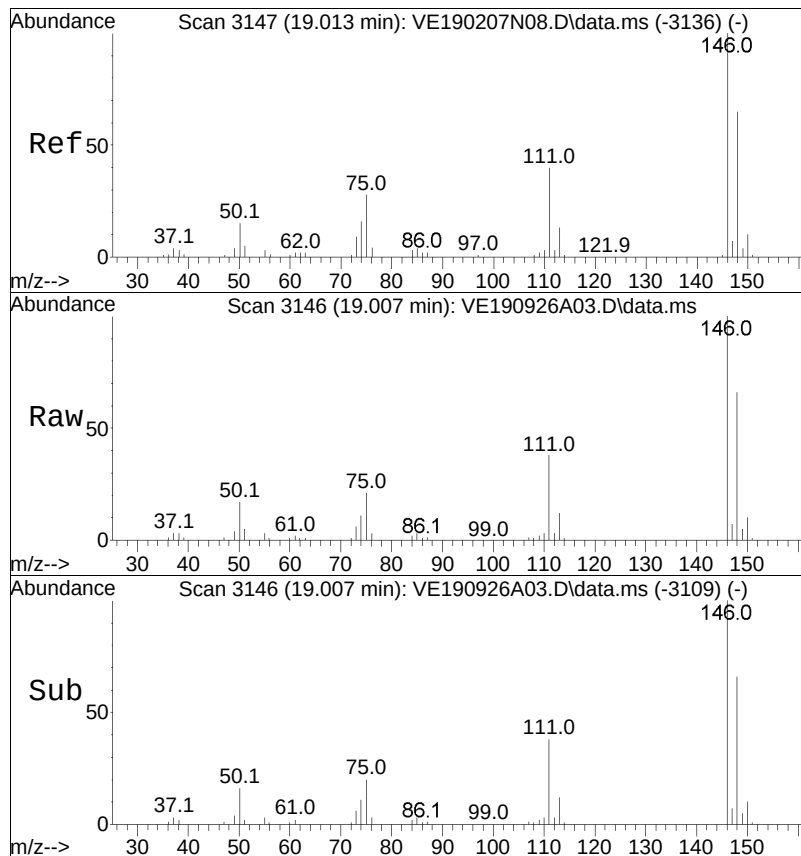




#99
 p-Isopropyltoluene
 Concen: 9.71 ug/L
 RT: 18.822 min Scan# 3112
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

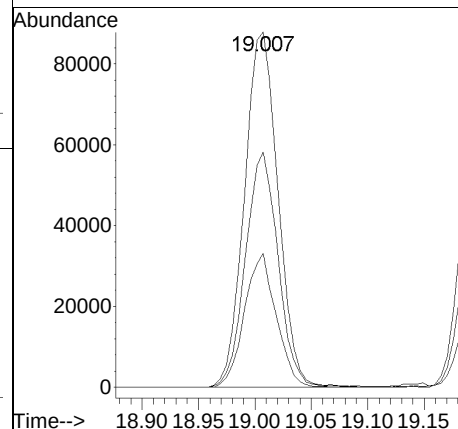
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.3	17.2	35.8
91	18.7	15.3	31.9

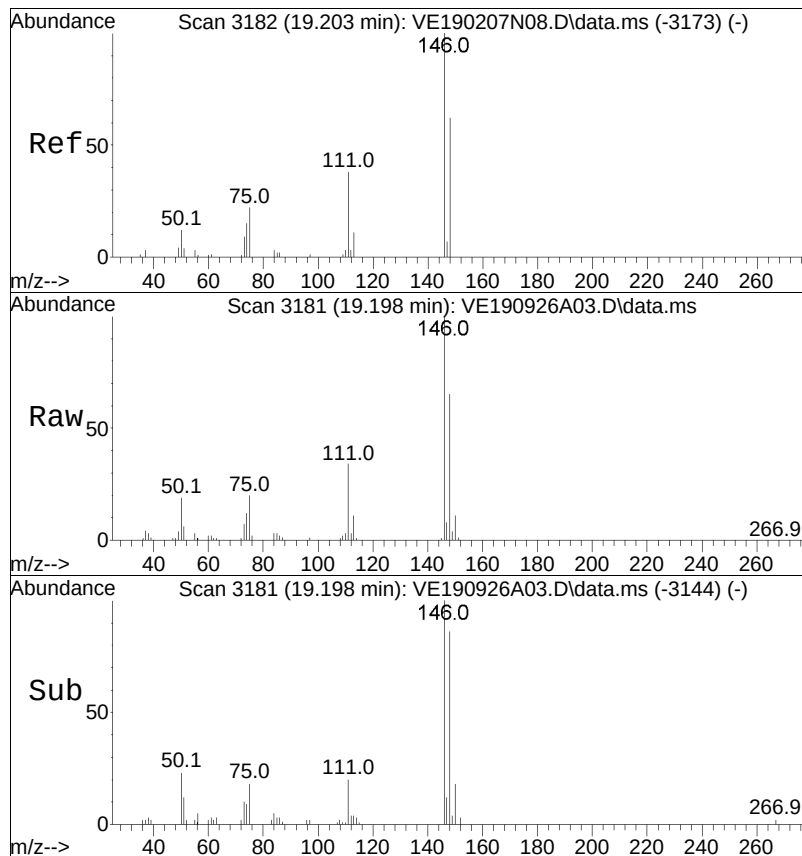




#100
 1,3-Dichlorobenzene
 Concen: 9.74 ug/L
 RT: 19.007 min Scan# 3146
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

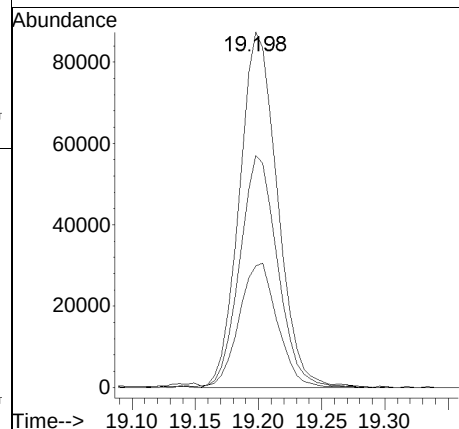
Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.6	28.8	59.8
148	64.2	41.1	85.5

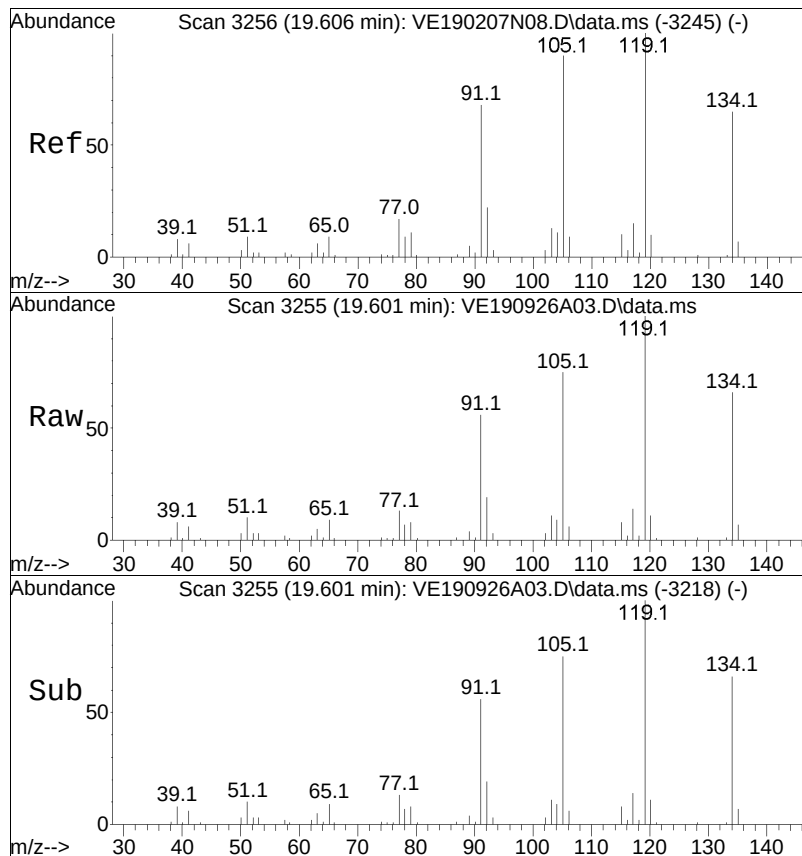




#101
 1,4-Dichlorobenzene
 Concen: 9.66 ug/L
 RT: 19.198 min Scan# 3181
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

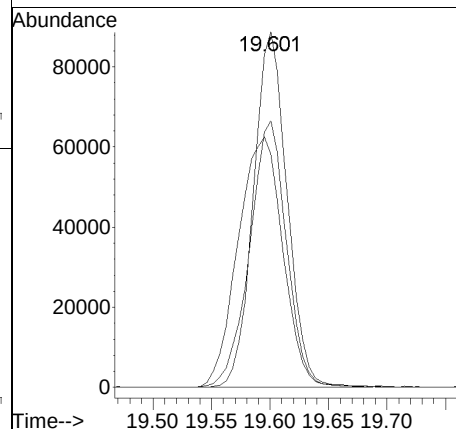
Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.2	34.6	52.0
148	65.1	51.5	77.3

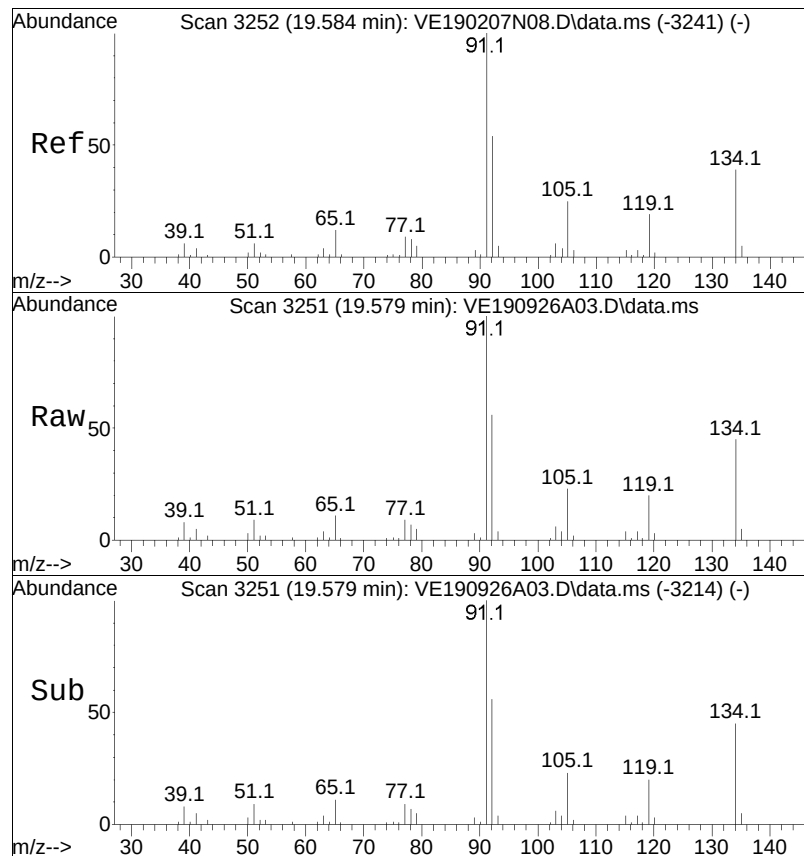




#102
 p-Diethylbenzene
 Concen: 9.71 ug/L
 RT: 19.601 min Scan# 3255
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

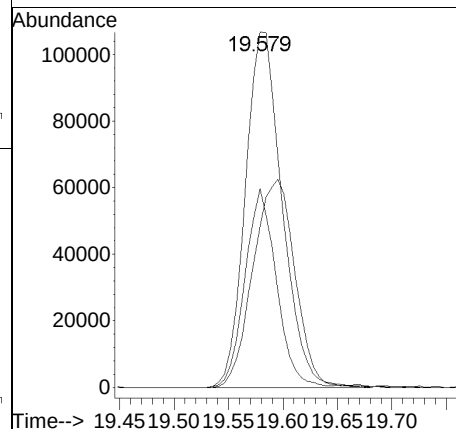
Tgt Ion	Ratio	Lower	Upper
119	100		
105	82.1	63.0	131.0
134	93.8	55.5	115.3

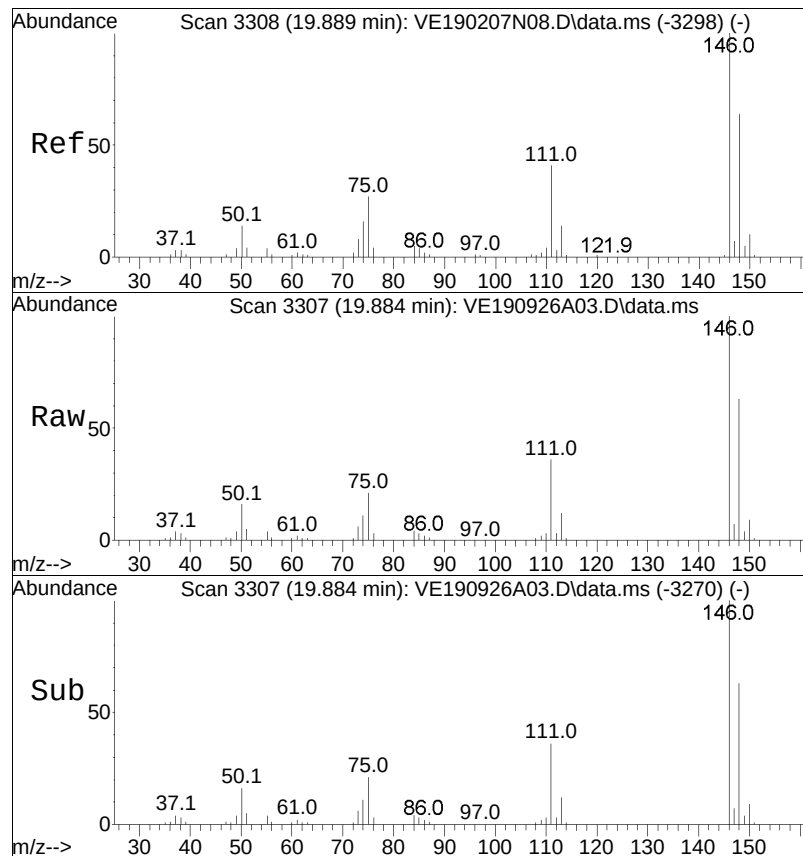




#103
 n-Butylbenzene
 Concen: 8.00 ug/L
 RT: 19.579 min Scan# 3251
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

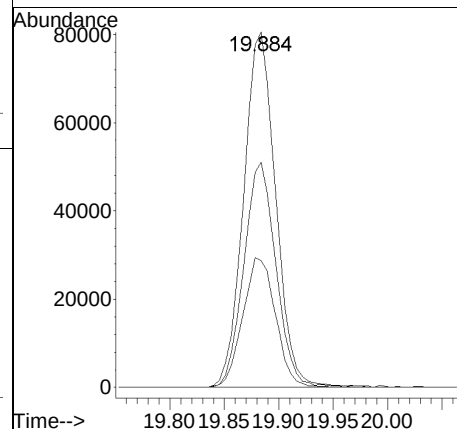
Tgt	Ion	Resp	Lower	Upper
91	100			
92	48.0	38.2	57.4	
134	66.6	39.4	59.2	

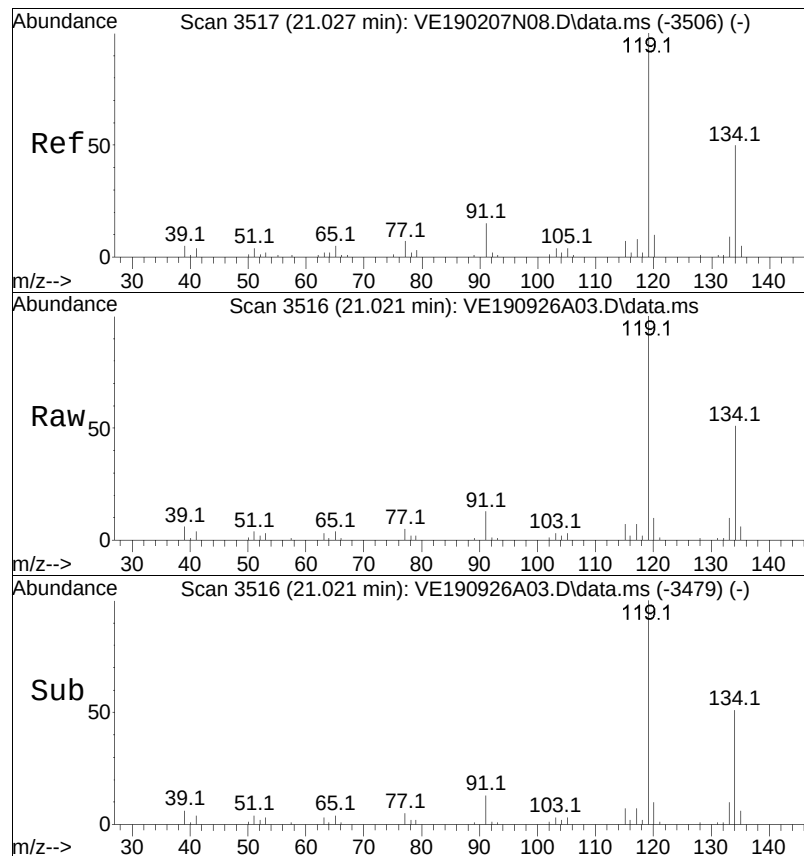




#104
 1,2-Dichlorobenzene
 Concen: 9.88 ug/L
 RT: 19.884 min Scan# 3307
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

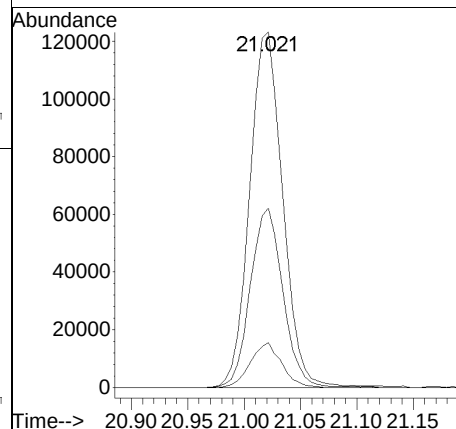
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.2	29.4	61.0
148	63.3	41.9	86.9

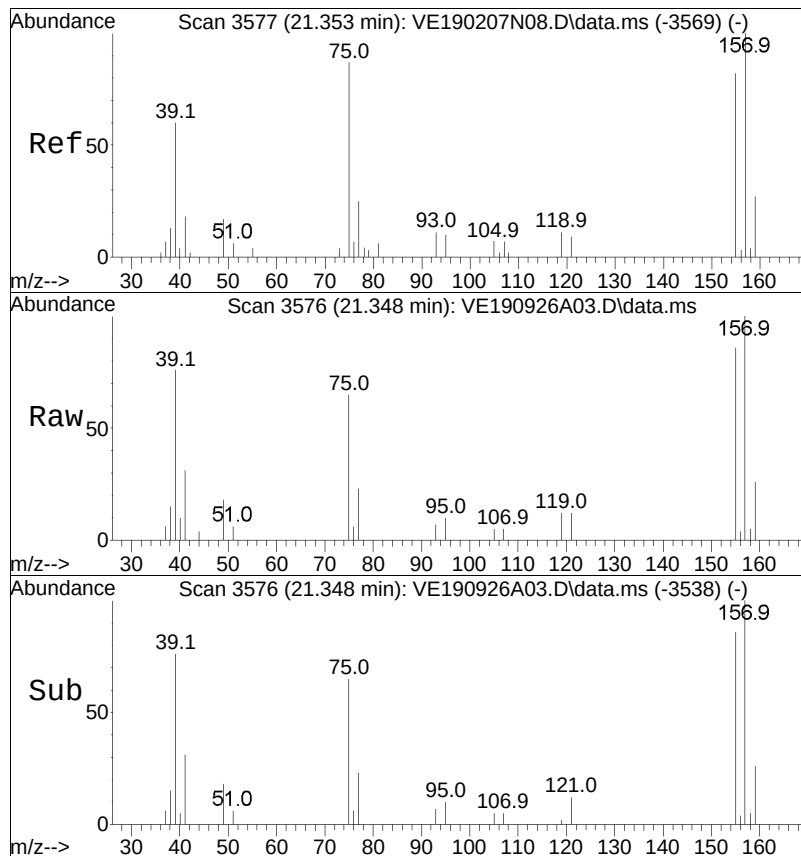




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 10.20 ug/L
 RT: 21.021 min Scan# 3516
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

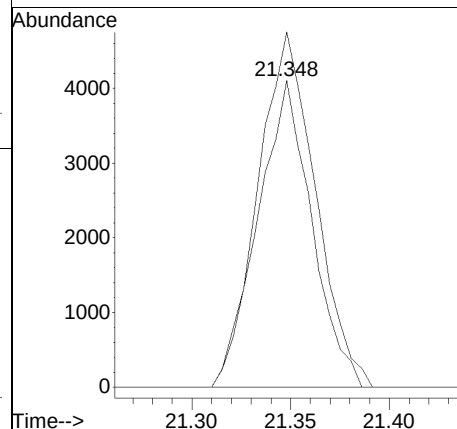
Tgt Ion	Ratio	Lower	Upper
119	100		
134	49.5	30.7	63.7
91	11.8	10.1	21.1

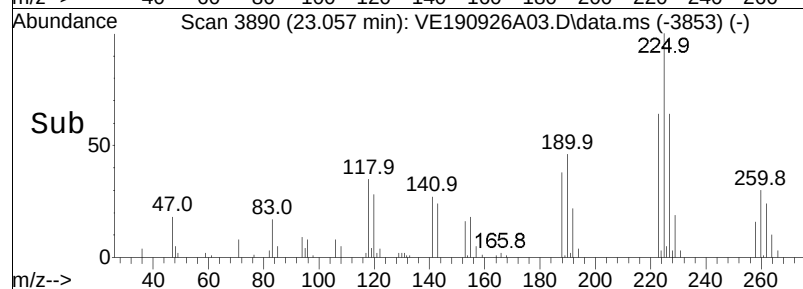
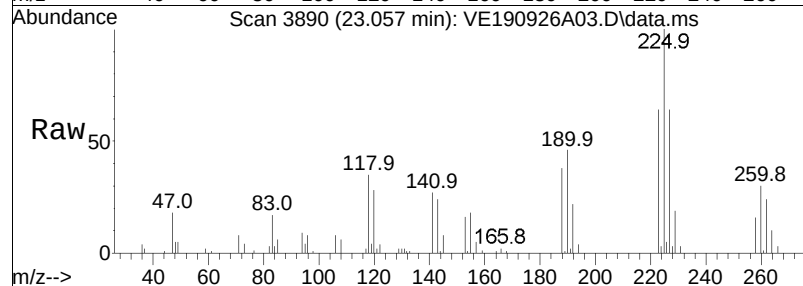
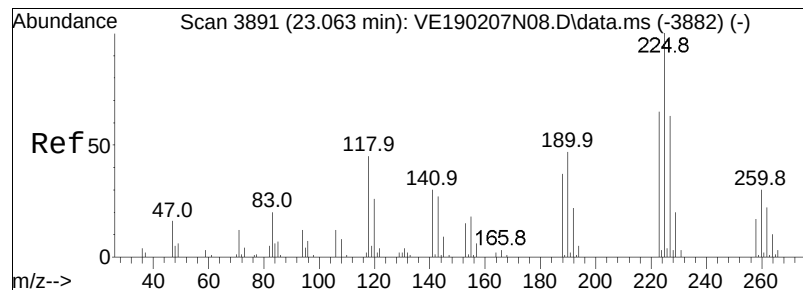




#106
 1,2-Dibromo-3-chloropropane
 Concen: 9.66 ug/L
 RT: 21.348 min Scan# 3576
 Delta R.T. 0.005 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

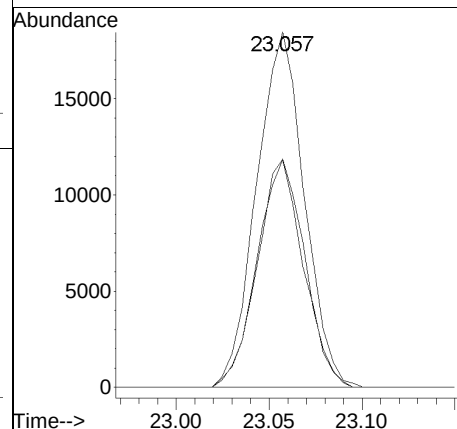
Tgt Ion	Ratio	Lower	Upper
155	100		
157	124.2	106.7	160.1

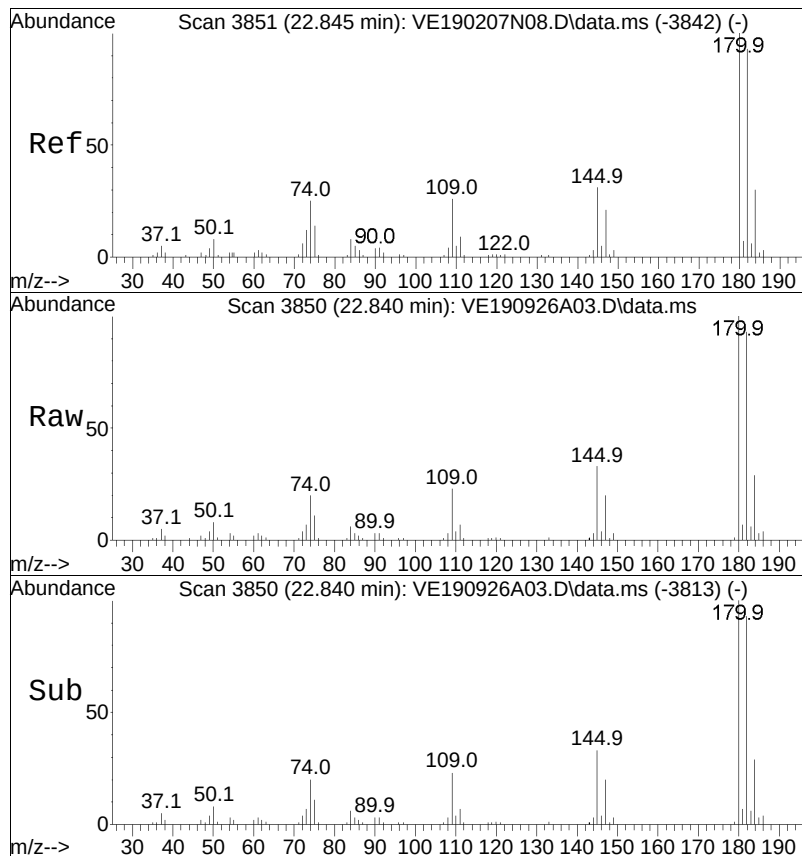




#108
 Hexachlorobutadiene
 Concen: 9.33 ug/L
 RT: 23.057 min Scan# 3890
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

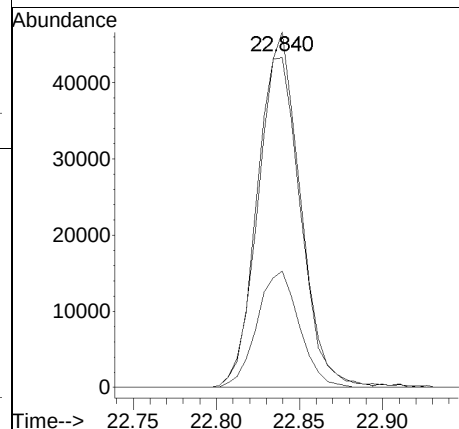
Tgt Ion	Ratio	Resp	Lower	Upper
225	100	33005		
223	62.3		48.2	72.4
227	64.0		50.6	75.8

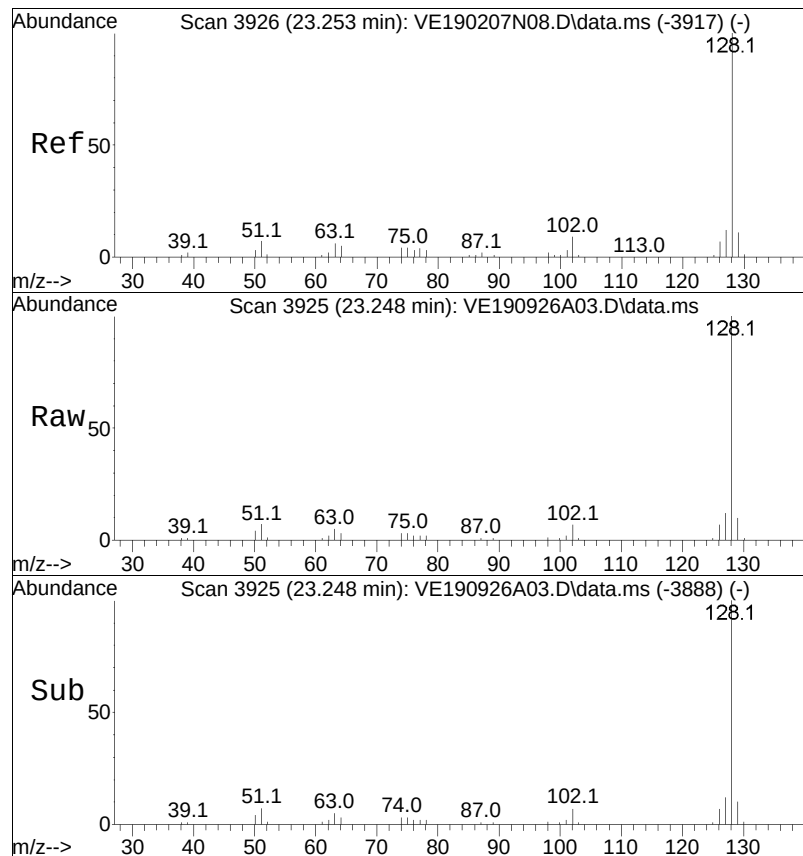




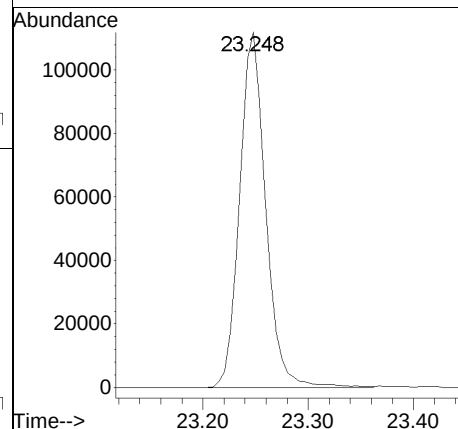
#109
 1,2,4-Trichlorobenzene
 Concen: 9.98 ug/L
 RT: 22.840 min Scan# 3850
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

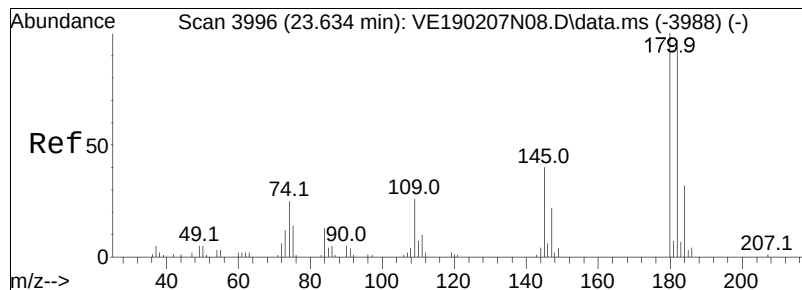
Tgt	Ion	Ratio	Lower	Upper
180	100			
182	95.3	77.7	116.5	
145	32.8	27.4	41.2	





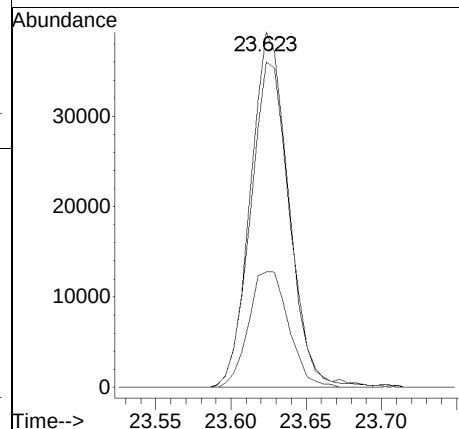
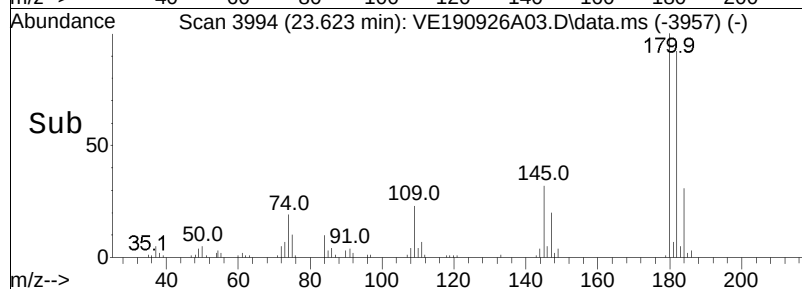
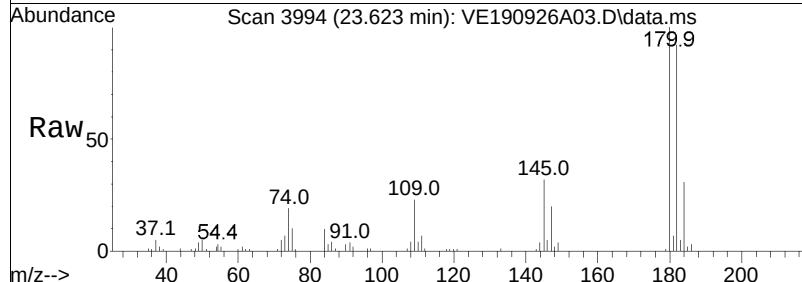
#110
 Naphthalene
 Concen: 10.59 ug/L
 RT: 23.248 min Scan# 3925
 Delta R.T. -0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am
 Tgt Ion:128 Resp: 192026





#111
 1,2,3-Trichlorobenzene
 Concen: 10.18 ug/L
 RT: 23.623 min Scan# 3994
 Delta R.T. 0.000 min
 Lab File: VE190926A03.D
 Acq: 26 Sep 2019 8:20 am

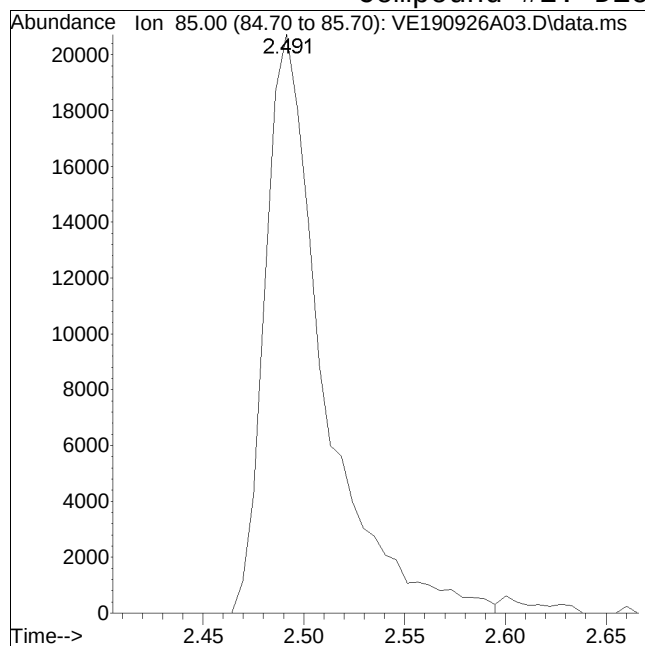
Tgt Ion:	180	Resp:	69058
Ion Ratio	Lower	Upper	
180	100		
182	94.9	74.6	112.0
145	34.5	29.2	43.8



Manual Integration Report

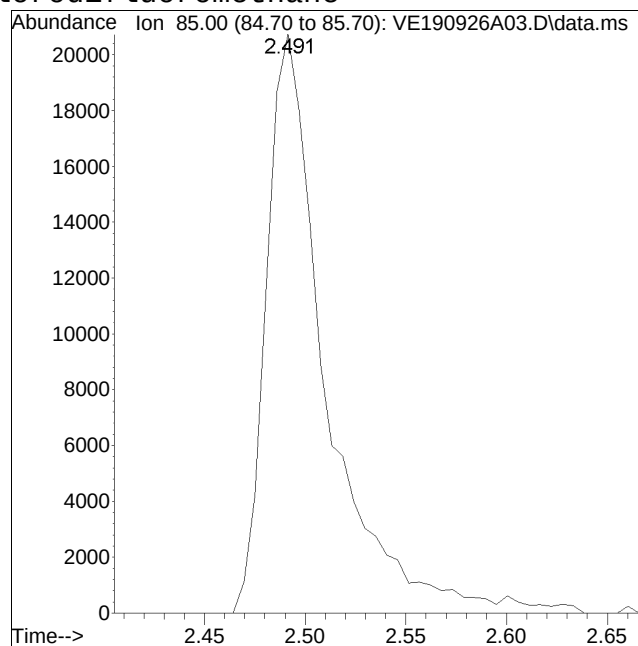
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #2: Dichlorodifluoromethane



Original Peak Response = 42261

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

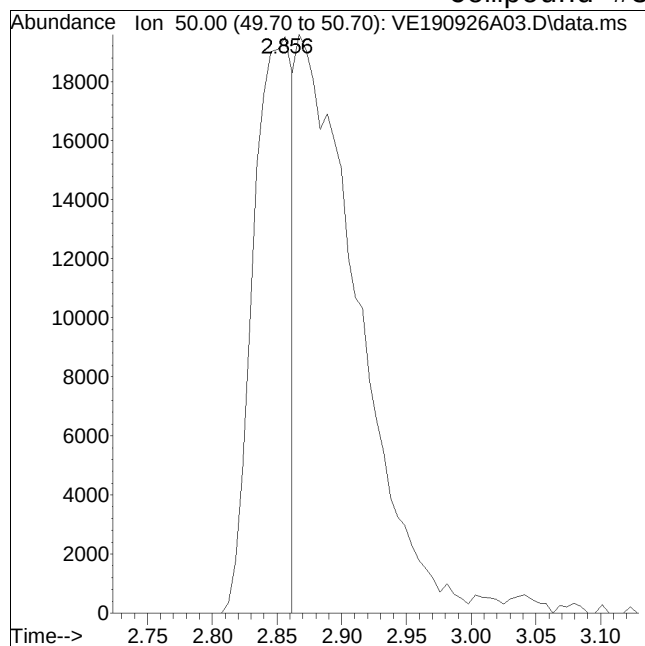


Manual Peak Response = 43042 M1

Manual Integration Report

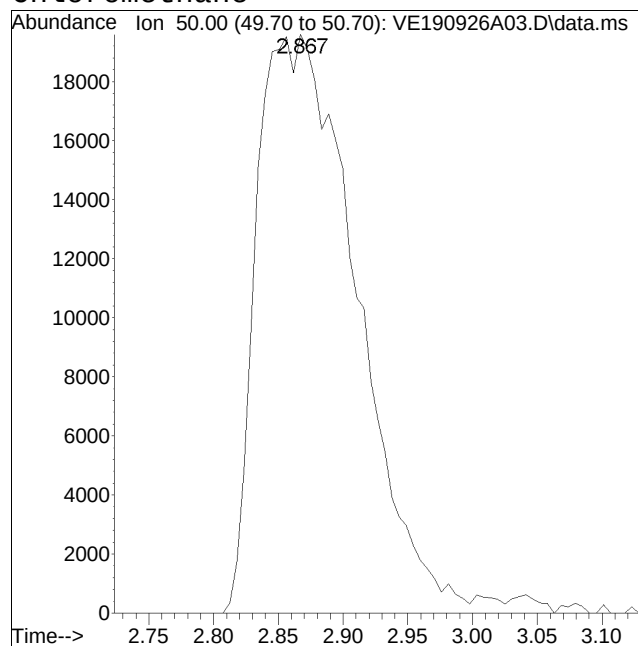
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #3: Chloromethane



Original Peak Response = 40919

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

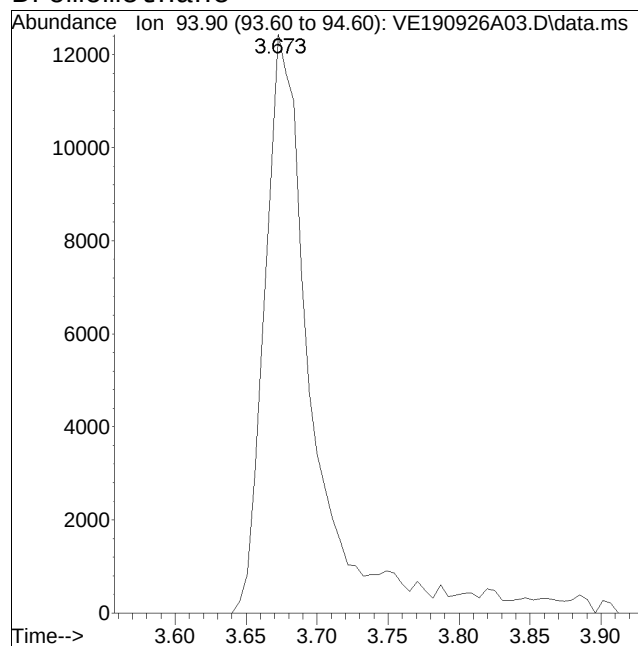
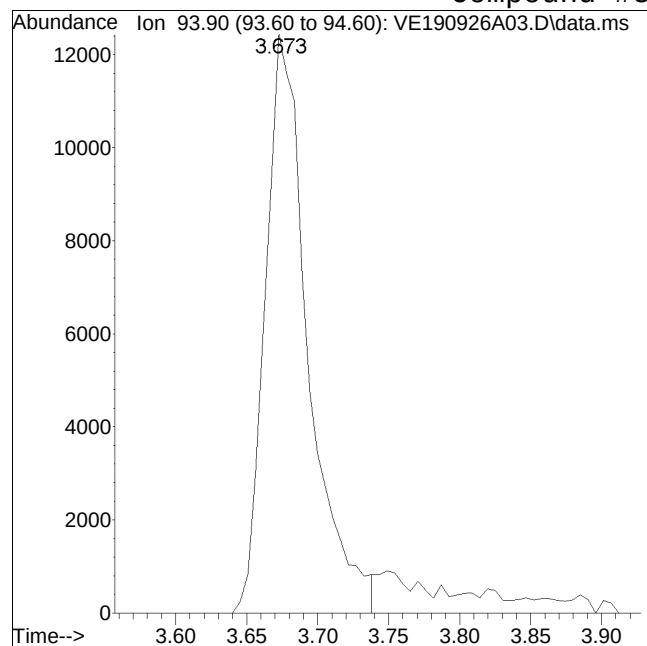


Manual Peak Response = 106342 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #5: Bromomethane



Original Peak Response = 26143

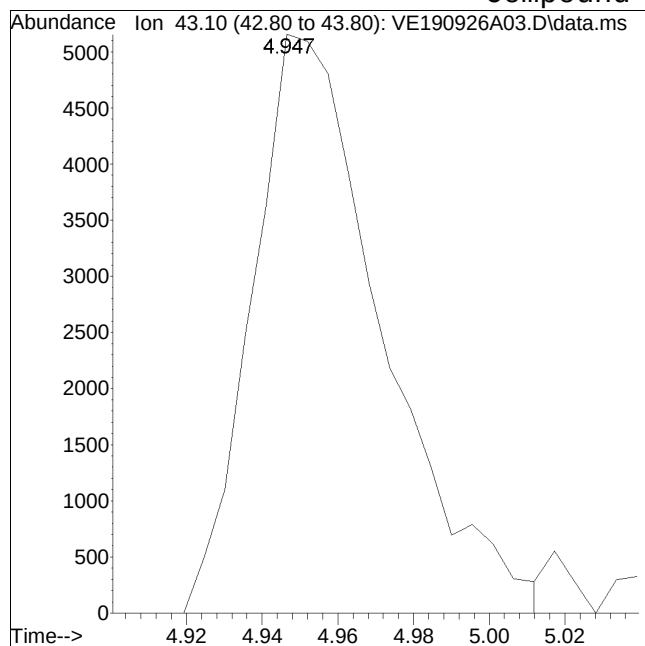
Manual Peak Response = 30151 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

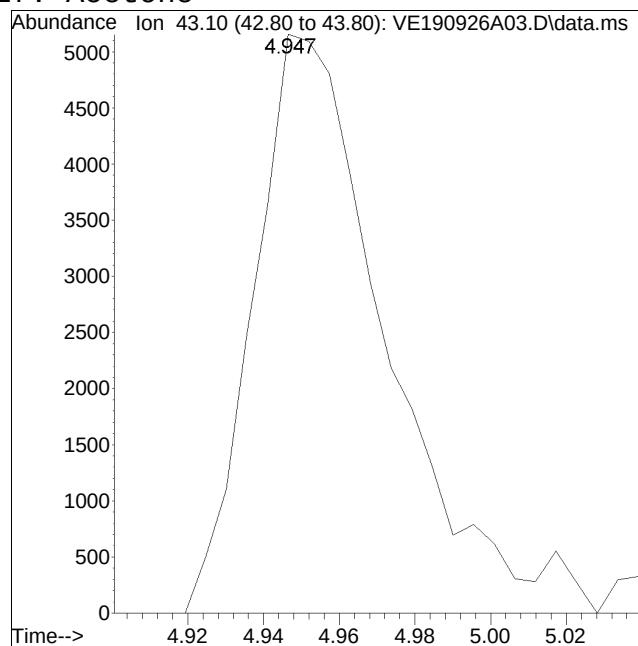
Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #17: Acetone



Original Peak Response = 12289

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

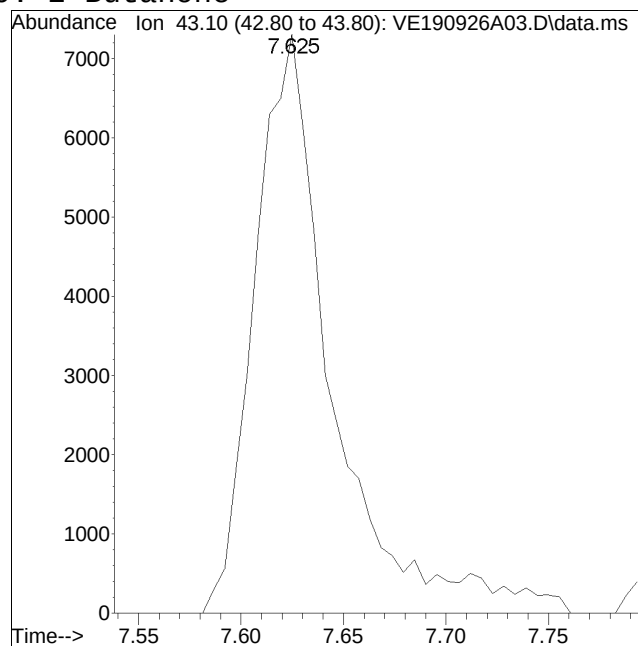
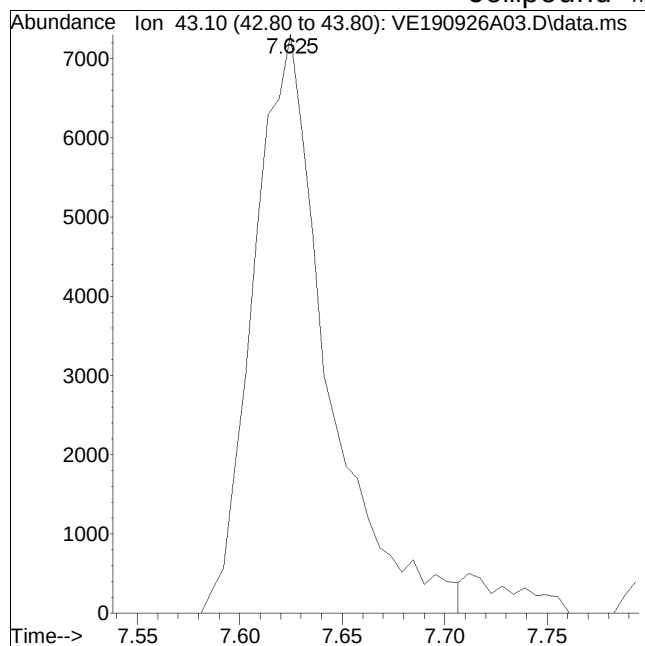


Manual Peak Response = 12558 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #39: 2-Butanone



Original Peak Response = 18315

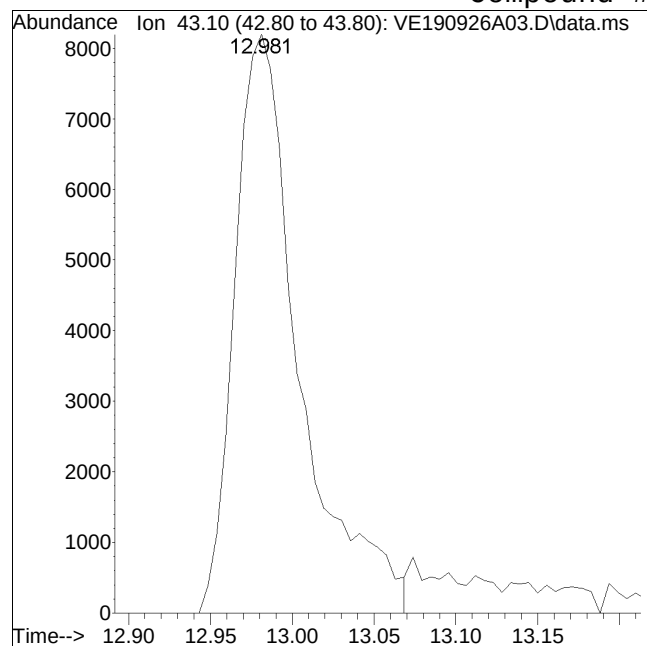
Manual Peak Response = 19212 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

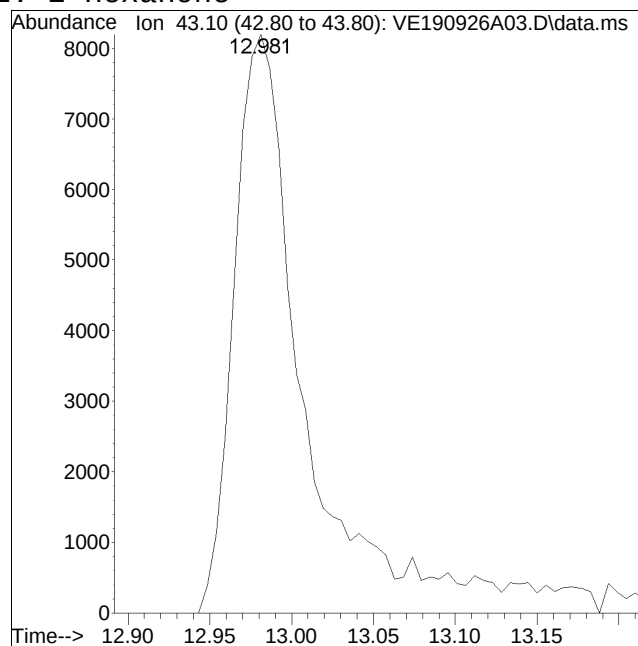
Data Path : I:\VOLATILES\Elaine\2019\10 Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #72: 2-Hexanone



Original Peak Response = 22480

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

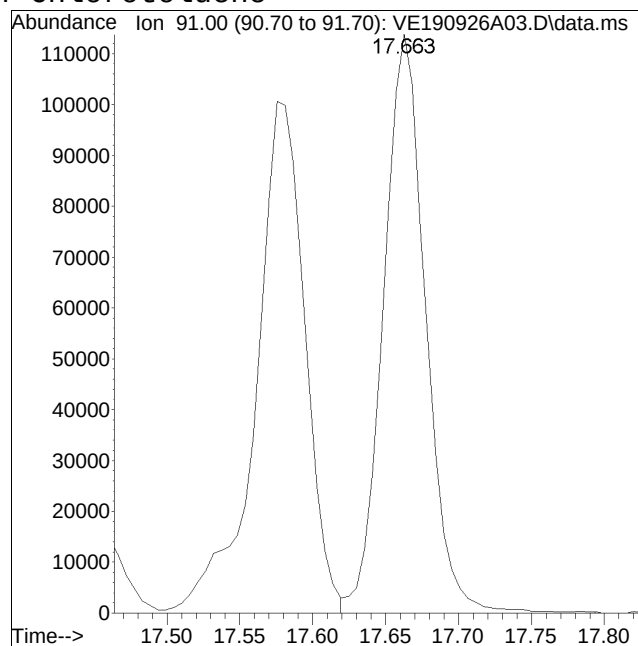
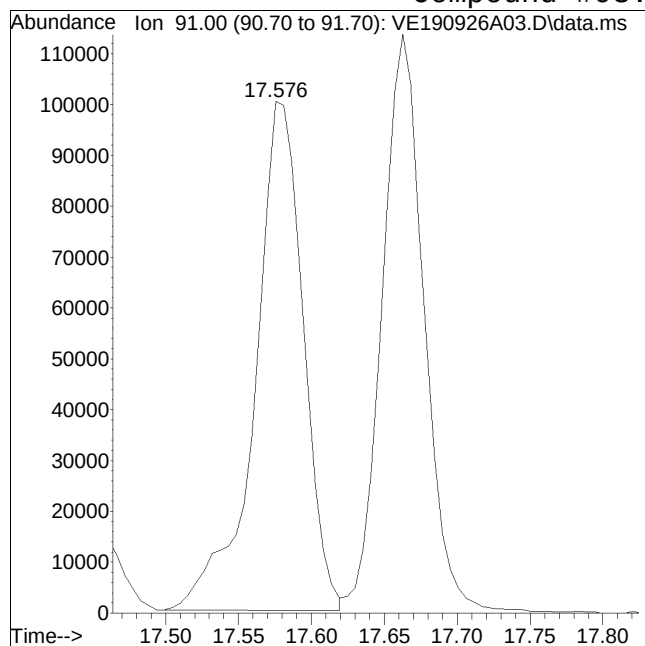


Manual Peak Response = 25417 M1

Manual Integration Report

Data Path : I:\VOLATILES\Elaine\2019\10Method : Elaine_190501N_8260.m
Data File : VE190926A03.D Operator : ELAINE:PD
Date Inj'd : 9/26/2019 8:20 am Instrument : Elaine
Sample : WG1288977-4,31,10,10 Quant Date : 9/26/2019 8:53 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 230724

Manual Peak Response = 228857 M2

M2 = Peak not found by automatic integration algorithm.



Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: $Amt * DF * Uf * (1/Vo)$

Where:

DF = Dilution Factor

Vo = Sample Volume Purged (mL)

Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: $Amt * DF * (1/Wt)$

Where:

DF = Dilution Factor

Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 27 2019, 12:06 pm

Work Group: WG1288977 for Department: 31 GC/MS - Volatiles

Created: 26-SEP-19 Due: Operator: PD

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1943426-01	TWP-4	S NYTCL-8260	WATER	SEC	U	1003	0927	S0	Vial-B
L1943557-21	WCTB03_092019	S NYTCL-8260	WATER	SEC	U	1004	0927	S0	Vial-B
L1943645-05	FIELD BLANK	S NYSUFFOLK-8260	WATER	SEC	U	1004	0927	S0	Vial-B
L1943645-06	TRIP BLANK	S NYSUFFOLK-8260	WATER	SEC	U	1004	0927	S0	Vial-B
L1943646-01	MW-19_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-02	MW-6_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-03	MW-17_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-04	MW-7_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-05	MW-10_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-06	MW-11_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-07	MW-18M_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-08	MW-18S_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943646-09	GWTB02_092019	S NYTCL-8260	WATER	DONE	U	1004	0927	S0	Vial-B
L1943669-01	WC01_092019	S NYTCL-8260	WATER	SEC	U	1004	0927	S0	Vial-B
L1944408-05	TRIP BLANK	S NYTCL-8260	WATER	DONE	U	1009	0926	1A	Vial-B
WG1288977-1	MS BFB Tune Standard	S NYTCL-8260	WATER	DONE	U				
WG1288977-1	MS BFB Tune Standard	S NYSUFFOLK-8260	WATER	DACQ	U				
WG1288977-2	Continuing Calibrati	S NYSUFFOLK-8260	WATER	DACQ	U				
WG1288977-2	Continuing Calibrati	S NYTCL-8260	WATER	DONE	U				
WG1288977-3	Laboratory Control S	S NYTCL-8260	WATER	DONE	U				
WG1288977-3	Laboratory Control S	S NYSUFFOLK-8260	WATER	DACQ	U				
WG1288977-4	LCS Duplicate	S NYTCL-8260	WATER	DONE	U				
WG1288977-4	LCS Duplicate	S NYSUFFOLK-8260	WATER	DACQ	U				
WG1288977-5	Laboratory Method Bl	S NYSUFFOLK-8260	WATER	DACQ	U				
WG1288977-5	Laboratory Method Bl	S NYTCL-8260	WATER	DONE	U				

Comments:

WG1288977-4 WG1288977-3

Inst: Elaine

BFB: V7270

Method

Initials: PK

IS/SS: V7292

GC: 8260

Date: 05/01/19

ICAL: V7330A,V7329

Autosampler: 8260water10mL

Run: N

ICV: V7320,V7237,V7249,V7280,V7266,V7314

Concentrator: 8260

QC: _____ Seq: _____



Vial	DATA FILE	SAMPLE
1	VE190501NBF1	BFB TUNE
1	VE190501N01	BLK
1	VE190501N02	BLK
1	VE190501N03	I8260STD11
1	VE190501N04	I8260STD1
1	VE190501N05	I8260STD1
1	VE190501N06	I8260STD2
1	VE190501N07	I8260STD2
1	VE190501N08	I8260STD3
1	VE190501N09	I8260STD4
1	VE190501N10	I8260STD6
1	VE190501N11	I8260STD8
1	VE190501N12	I8260STD10
1	VE190501N13	BLK
1	VE190501N14	BLK
1	VE190501N15	BLK
1	VE190501N16	BLK
1	VE190501N17	BLK
1	VE190501N18	C8260STD3
1	VE190501N19	C8260STD3
1	VE190501N20	BLK

Inst: Elaine

BFB: V7498

Method

GC: 8260

Initials: PD

IS/SS: V7539

Autosampler: 8260water10mL



Date: 09/26/19

ICAL: V7506D,V7538

Concentrator: 8260

Run: A

ICV: V7320,V7237,V7249,V7280,V7266,V7314

QC: _____ Seq: _____

Vial	DATA FILE	SAMPLE	
1	VE190926ABF1	BFB TUNE	06:53
1	VE190926A01	8260 CCAL	
1	VE190926A02	8260 CCAL	LCS
1	VE190926A03	8260 CCAL	LCSD
1	VE190926A04	BLK	
1	VE190926A05	METHOD BLK	
1	VE190926A06	I1944408-05,31,10,10,,a	NYTCL/10 pH<2
1	VE190926A07	I1943557-21,31,10,10,,a	NYCURVE pH<2
1	VE190926A08	I1943645-05,31,10,10,,a	NYCURVE pH<2
1	VE190926A09	I1943645-06,31,10,10,,a	NYCURVE pH<2
1	VE190926A10	I1943669-01,31,10,10,,a	NYTCL pH<2
1	VE190926A11	I1943646-01D,31,0.5,10,,a	NYTCL pH<2
1	VE190926A12	I1943646-02D,31,5,10,,a	NYTCL pH<2
1	VE190926A13	I1943646-03,31,10,10,,a	NYTCL pH<2
1	VE190926A14	I1943646-04,31,10,10,,a	NYTCL pH<2
1	VE190926A15	I1943646-05,31,10,10,,a	NYTCL pH<2
1	VE190926A16	I1943646-06,31,10,10,,a	NYTCL pH<2
1	VE190926A17	I1943646-07,31,10,10,,a	NYTCL pH<2
1	VE190926A18	I1943646-08,31,10,10,,a	NYTCL pH<2
1	VE190926A19	I1943646-09,31,10,10,,a	NYTCL pH<2
1	VE190926A20	I1943426-01,31,10,10,,a	NYTCL pH<2



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1935043

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Table of Contents

New York ASP Category B Data Deliverable Package.....	1
Table of Contents	2
Sample ID Cross Reference	5
SDG Narrative	6
Data Qualifier Definitions	8
Instrument Information	10
Sample Log-in Sheet	13
Lims COC (LN01)	14
External Chain of Custody	16
Supporting Documentation	17
Air Canister Report	18
Air Canister Certification Results	19
Organics Analysis	27
Volatile Organics in Air TO-15 Low Level	28
Volatiles QC Summary	29
Form 3 - Organics	30
Form 4 - Organics	33
Form 5 - Organics	34
Form 8 - Organics	36
MDL Study - Volatile Organics in Air: TO-15	37
Volatiles Sample Data	40
Form 1 - Organics	41
VP-6_080619 (L1935043-01) Analyzed: 08/09/19 22:05	65
VP-7_080619 (L1935043-02) Analyzed: 08/09/19 22:35	99
VP-4_080619 (L1935043-03) Analyzed: 08/09/19 23:05	136
VP-1_080619 (L1935043-04) Analyzed: 08/09/19 23:38	172
VP-5_080619 (L1935043-05) Analyzed: 08/10/19 00:08	189
VP-2_080619 (L1935043-06) Analyzed: 08/10/19 00:38	211
VP-3_080619 (L1935043-07) Analyzed: 08/10/19 01:08	241
Volatile Standards Data	273
Initial Calibration	274
Form 6 - Organics	275
ICAL for AIRPIANO1 on 07/13/19 ICAL15961	279
Initial Calibration Summary - Cal Date: 07/13/19 00:00	279
BFB Tune Injected on: 07/12/19 19:12	283
STD0.2 Injected on: 07/12/19 21:18	284
STD0.5 Injected on: 07/12/19 21:50	289
STD1.0 Injected on: 07/12/19 22:23	294
STD5.0 Injected on: 07/12/19 22:55	299
STD10.0 Injected on: 07/12/19 23:29	304
STD20.0 Injected on: 07/13/19 00:02	309
STD50.0 Injected on: 07/13/19 00:33	314
STD100.0 Injected on: 07/13/19 01:07	319
ICV Summary Injected on: 07/13/19 10:53	324
ICV Quant Injected on: 07/13/19 10:53	327
Continuing Calibration	331
Form 7 - Organics	332
CC Summary - AIRPIANO1 Run: 08/09/19 12:22	335
CC Quant - AIRPIANO1 Run: 08/09/19 12:22	338
bfb tune - Inst. AIRPIANO1 08/09/19 11:49	343

Table of Contents

Volatiles Raw QC Data	344
Laboratory Method BI (WG1270780-4) Analyzed: 08/09/19 15:52	345
LCS Summary for WG1270780-3	355
Laboratory Control S (WG1270780-3) Analyzed: 08/09/19 14:34	358
Duplicate Sample (WG1270780-5) Analyzed: 08/09/19 20:30	428
Air Calculations	459
QC Batch WG1270780	461
ICAL Sequence for AIRPIANO1 on 13-JUL-2019 00:00 ICAL15961	462
Sequence Log	464
Canister Dilution Calculation Worksheet	466
GCMS SIM Air Analysis	467
Volatiles QC Summary	468
Form 3 - Organics	469
Form 4 - Organics	473
Form 5 - Organics	474
Form 8 - Organics	476
MDL Study - Volatile Organics in Air: TO-15 SIM	477
Volatiles Sample Data	479
Form 1 - Organics	480
VP-1_080619 (L1935043-04) Analyzed: 08/09/19 23:38	486
VP-5_080619 (L1935043-05) Analyzed: 08/10/19 00:08	493
Volatile Standards Data	501
Initial Calibration	502
Form 6 - Organics	503
ICAL for AIRPIANO1 on 07/16/19 ICAL15967	506
Initial Calibration Summary - Cal Date: 07/16/19 00:00	506
BFB Tune Injected on: 07/12/19 19:12	509
STD0.02 Injected on: 07/12/19 19:43	510
STD0.05 Injected on: 07/12/19 20:14	526
STD0.1 Injected on: 07/12/19 20:48	534
STD0.2 Injected on: 07/12/19 21:18	542
STD0.5 Injected on: 07/12/19 21:50	550
STD1.0 Injected on: 07/12/19 22:23	558
STD5.0 Injected on: 07/12/19 22:55	565
STD10.0 Injected on: 07/12/19 23:29	573
STD20.0 Injected on: 07/13/19 00:02	580
STD50.0 Injected on: 07/13/19 00:33	587
ICV Summary Injected on: 07/13/19 11:24	593
ICV Quant Injected on: 07/13/19 11:24	596
Continuing Calibration	603
Form 7 - Organics	604
CC Summary - AIRPIANO1 Run: 08/09/19 13:28	606
CC Quant - AIRPIANO1 Run: 08/09/19 13:28	609
bfb tune - Inst. AIRPIANO1 08/09/19 11:49	615
Volatiles Raw QC Data	616
Laboratory Method BI (WG1270782-4) Analyzed: 08/09/19 16:25	617
LCS Summary for WG1270782-3	635
Laboratory Control S (WG1270782-3) Analyzed: 08/09/19 13:28	638
Duplicate Sample (WG1270782-5) Analyzed: 08/09/19 20:30	722
Air Calculations	728

Table of Contents

QC Batch WG1270782	730
ICAL Sequence for AIRPIANO1 on 16-JUL-2019 00:00 ICAL15967	731
Sequence Log	733
Canister Dilution Calculation Worksheet	735

Project Name: 491 WORTMAN AVE.
Project Number: 170329301

Lab Number: L1935043
Report Date: 08/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1935043-01	VP-6_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 10:54	08/06/19
L1935043-02	VP-7_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 11:04	08/06/19
L1935043-03	VP-4_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 11:10	08/06/19
L1935043-04	VP-1_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 11:14	08/06/19
L1935043-05	VP-5_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 13:07	08/06/19
L1935043-06	VP-2_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 12:51	08/06/19
L1935043-07	VP-3_080619	SOIL_VAPOR	BROOKLYN, NEW YORK	08/06/19 12:59	08/06/19

Project Name: 491 WORTMAN AVE.
Project Number: 170329301

Lab Number: L1935043
Report Date: 08/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 491 WORTMAN AVE.
Project Number: 170329301

Lab Number: L1935043
Report Date: 08/13/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 31, 2019. The canister certification results are provided as an addendum.

L1935043-01 through -07: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

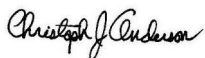
The WG1270780-3 LCS recoveries for 1,2,4-trichlorobenzene (142%) and hexachlorobutadiene (133%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of these analytes.

L1935043-04 & -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

The sample designated VP-1_080619 and VP-5_080619 required a dilution greater than 4X; based on direction from the client the New York Decision Matrix Compounds have been reported by TO15-SIM for this sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Report Date: 08/13/19

Title: Technical Director/Representative

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: 491 WORTMAN AVE.
Project Number: 170329301

Lab Number: L1935043
Report Date: 08/13/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.32 μ m
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.25 μ m
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1 μ L
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLP Pesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1 μ L
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



Sample Delivery Group Summary

Alpha Job Number : L1935043

Received : 06-AUG-2019

Reviewer : Dylan Snook

Account Name : Langan Engineering & Environmental

Project Number : 170329301

Project Name : 491 WORTMAN AVE.

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Present/Intact/NA			

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	YES

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NA

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Oct 29 2019, 01:32 pm

Login Number: L1935043

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 06AUG19 Due Date: 13AUG19

Sample #	Client ID	Mat PR Collected
L1935043-01 VP-6_080619		11 S0 06AUG19 10:54
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. ASP-B Package Due Date: 10/30/19		
ASP-B, CAN-RENT, FLOW-RENT, T015-LL		
L1935043-02 VP-7_080619		11 S0 06AUG19 11:04
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19		
CAN-RENT, FLOW-RENT, T015-LL		
L1935043-03 VP-4_080619		11 S0 06AUG19 11:10
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19		
CAN-RENT, FLOW-RENT, T015-LL		
L1935043-04 VP-1_080619		11 S0 06AUG19 11:14
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19		
CAN-RENT, FLOW-RENT, T015-LL, T015-SIM		
L1935043-05 VP-5_080619		11 S0 06AUG19 13:07
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19		
CAN-RENT, FLOW-RENT, T015-LL, T015-SIM		
L1935043-06 VP-2_080619		11 S0 06AUG19 12:51
If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19		

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Oct 29 2019, 01:32 pm

Login Number: L1935043

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170329301

Received: 06AUG19 Due Date: 13AUG19

Sample # Client ID Mat PR Collected

CAN-RENT, FLOW-RENT, T015-LL

L1935043-07 VP-3_080619

11 S0 06AUG19 12:59

If the soil vapor screen indicates a dilution >4X is needed we will have to add T015 SIM for the 7 NYS DMCS. Contact the PM to add the product and pricing. Package Due Date: 10/30/19

CAN-RENT, FLOW-RENT, T015-LL

Page 2

Logged By: Ben Rao



AIR ANALYSIS

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: LANGAN Engineering

Address: 360 W 31st St

New York, NY

Phone: 2124795400

Fax: datamanagement@langan.com

Email: jrobinson@langan.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

Project Information

Project Name: 491 Wortman Ave

Project Location: BROOKLYN, NY

Project #: 170329301

Project Manager: JAMES ROBINSON

ALPHA Quote #:

Turn-Around Time

☒ Standard

☐ RUSH (only confirmed if pre-approved!)

Date Due:

Time:

Date Rec'd in Lab: 8/7/19

Report Information - Data Deliverables

☐ FAX

☐ ADEX

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☒ EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: (if different than Project Manager)

ALPHA Job #: L1935043

Billing Information

☒ Same as Client Info

PO #:

Regulatory Requirements/Report Limits

State/Fed

Program

Res / Comm

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 S	APH	Fixed G	Sulfides g	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
935043-01	VP-6-080619	8/6/19	9:00	10:54	-29.83	-5.42	SV	KR	2.7L	529	0076	X						
-02	VP-7-080619		9:04	11:04	-30.15	-9.31				2760	0733	X						
-03	VP-4-080619		9:10	11:10	-29.90	-5.81				2738	0271	X						
-04	VP-1-080619		9:15	11:14	-29.95	-5.35				2735	0215	X						
-05	VP-5-080619		11:07	13:07	-29.83	-5.58				1736	0114	X						
-06	VP-2-080619		10:55	12:51	-29.94	-5.07				548	0108	X						
-07	VP-3-080619		11:12	12:59	-29.50	-4.89				1735	0109	X						

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other = Please Specify

Container Type

Relinquished By:

KR

Date/Time

8/6/19 14:38

Received By:

Mullins

Date/Time:

8/6/19 14:38

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Supporting Documentation

Project Name: 491 WORTMAN AVE.

Lab Number: L1935043

Project Number: 170329301

Report Date: 08/13/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1935043-01	VP-6_080619	0076	Flow 3	07/31/19	298116		-	-	-	Pass	18.0	19.2	6
L1935043-01	VP-6_080619	529	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.5	-5.6	-	-	-	-
L1935043-02	VP-7_080619	0733	Flow 4	07/31/19	298116		-	-	-	Pass	17.1	13.7	22
L1935043-02	VP-7_080619	2760	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.7	-9.1	-	-	-	-
L1935043-03	VP-4_080619	0271	Flow 4	07/31/19	298116		-	-	-	Pass	18.0	18.3	2
L1935043-03	VP-4_080619	2738	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.5	-6.1	-	-	-	-
L1935043-04	VP-1_080619	0215	Flow 3	07/31/19	298116		-	-	-	Pass	18.0	18.7	4
L1935043-04	VP-1_080619	2735	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.5	-5.6	-	-	-	-
L1935043-05	VP-5_080619	01141	SV20	07/31/19	298116		-	-	-	Pass	18.6	16.2	14
L1935043-05	VP-5_080619	1736	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.8	-5.7	-	-	-	-
L1935043-06	VP-2_080619	01086	SV20	07/31/19	298116		-	-	-	Pass	21.0	17.5	18
L1935043-06	VP-2_080619	548	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.5	-5.2	-	-	-	-
L1935043-07	VP-3_080619	01096	SV20	07/31/19	298116		-	-	-	Pass	20.1	19.2	5
L1935043-07	VP-3_080619	1735	2.7L Can	07/31/19	298116	L1933446-04	Pass	-29.7	-4.9	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
Client ID: CAN 1747 SHELF 14
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 07/30/19 07:38
Analyst: TS

Date Collected: 07/26/19 16:00
Date Received: 07/29/19
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
 Client ID: CAN 1747 SHELF 14
 Sample Location:

Date Collected: 07/26/19 16:00
 Date Received: 07/29/19
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
 Client ID: CAN 1747 SHELF 14
 Sample Location:

Date Collected: 07/26/19 16:00
 Date Received: 07/29/19
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
 Client ID: CAN 1747 SHELF 14
 Sample Location:

Date Collected: 07/26/19 16:00
 Date Received: 07/29/19
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air								
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
Client ID: CAN 1747 SHELF 14
Sample Location:

Date Collected: 07/26/19 16:00
Date Received: 07/29/19
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
 Client ID: CAN 1747 SHELF 14
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 07/30/19 07:38
 Analyst: TS

Date Collected: 07/26/19 16:00
 Date Received: 07/29/19
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
 Client ID: CAN 1747 SHELF 14
 Sample Location:

Date Collected: 07/26/19 16:00
 Date Received: 07/29/19
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1933446
Report Date: 08/13/19

Air Canister Certification Results

Lab ID: L1933446-04
Client ID: CAN 1747 SHELF 14
Sample Location:

Date Collected: 07/26/19 16:00
Date Received: 07/29/19
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



Organics

Volatile Organics in Air TO-15 Low Level

Volatiles QC Summary

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270780-3 Analysis Date : 08/09/19 14:34 File ID : R167938
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Propylene	10	10.7	107				-	70-130	-
Dichlorodifluoromethane	10	8.83	88				-	70-130	-
Chloromethane	10	10.1	101				-	70-130	-
Freon-114	10	11.2	112				-	70-130	-
Vinyl chloride	10	10.6	106				-	70-130	-
1,3-Butadiene	10	11.2	112				-	70-130	-
Bromomethane	10	10.8	108				-	70-130	-
Chloroethane	10	10.4	104				-	70-130	-
Ethanol	50	40.4	81				-	40-160	-
Vinyl bromide	10	10.9	109				-	70-130	-
Acetone	50	39.4	79				-	40-160	-
Trichlorofluoromethane	10	11.0	110				-	70-130	-
Isopropanol	25	18.8	75				-	40-160	-
1,1-Dichloroethene	10	10.1	101				-	70-130	-
Tertiary butyl Alcohol	10	9.02	90				-	70-130	-
Methylene chloride	10	9.83	98				-	70-130	-
3-Chloropropene	10	9.31	93				-	70-130	-
Carbon disulfide	10	9.45	94				-	70-130	-
Freon-113	10	10.6	106				-	70-130	-
trans-1,2-Dichloroethene	10	9.68	97				-	70-130	-
1,1-Dichloroethane	10	9.89	99				-	70-130	-
Methyl tert butyl ether	10	9.75	98				-	70-130	-
Vinyl acetate	10	9.30	93				-	70-130	-
2-Butanone	10	9.57	96				-	70-130	-
cis-1,2-Dichloroethene	10	10.8	108				-	70-130	-
Ethyl Acetate	10	10.1	101				-	70-130	-



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270780-3 Analysis Date : 08/09/19 14:34 File ID : R167938
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Chloroform	10	10.7	107				-	70-130	-
Tetrahydrofuran	10	9.63	96				-	70-130	-
1,2-Dichloroethane	10	9.99	100				-	70-130	-
n-Hexane	10	8.88	89				-	70-130	-
1,1,1-Trichloroethane	10	9.58	96				-	70-130	-
Benzene	10	9.10	91				-	70-130	-
Carbon tetrachloride	10	10.1	101				-	70-130	-
Cyclohexane	10	8.77	88				-	70-130	-
1,2-Dichloropropane	10	9.15	92				-	70-130	-
Bromodichloromethane	10	9.77	98				-	70-130	-
1,4-Dioxane	10	9.50	95				-	70-130	-
Trichloroethene	10	9.92	99				-	70-130	-
2,2,4-Trimethylpentane	10	9.81	98				-	70-130	-
Heptane	10	8.45	84				-	70-130	-
cis-1,3-Dichloropropene	10	9.94	99				-	70-130	-
4-Methyl-2-pentanone	10	8.79	88				-	70-130	-
trans-1,3-Dichloropropene	10	8.44	84				-	70-130	-
1,1,2-Trichloroethane	10	9.83	98				-	70-130	-
Toluene	10	9.54	95				-	70-130	-
2-Hexanone	10	9.66	97				-	70-130	-
Dibromochloromethane	10	11.1	111				-	70-130	-
1,2-Dibromoethane	10	10.5	105				-	70-130	-
Tetrachloroethene	10	10.4	104				-	70-130	-
Chlorobenzene	10	10.2	102				-	70-130	-
Ethylbenzene	10	9.88	99				-	70-130	-
p/m-Xylene	20	20.0	100				-	70-130	-



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270780-3 Analysis Date : 08/09/19 14:34 File ID : R167938
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Bromoform	10	11.2	112				-	70-130	-
Styrene	10	9.89	99				-	70-130	-
1,1,2,2-Tetrachloroethane	10	10.5	105				-	70-130	-
o-Xylene	10	10.3	103				-	70-130	-
4-Ethyltoluene	10	10.2	102				-	70-130	-
1,3,5-Trimethylbenzene	10	10.3	103				-	70-130	-
1,2,4-Trimethylbenzene	10	10.9	109				-	70-130	-
Benzyl chloride	10	10.3	103				-	70-130	-
1,3-Dichlorobenzene	10	11.1	111				-	70-130	-
1,4-Dichlorobenzene	10	11.3	113				-	70-130	-
1,2-Dichlorobenzene	10	11.1	111				-	70-130	-
1,2,4-Trichlorobenzene	10	14.2	142 Q				-	70-130	-
Hexachlorobutadiene	10	13.3	133 Q				-	70-130	-

Method Blank Summary
Form 4
Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Lab Sample ID	: WG1270780-4	Lab File ID	: R167939
Instrument ID	: AIRPIANO1		
Matrix	: AIR	Analysis Date	: 08/09/19 15:52

Client Sample No.	Lab Sample ID	Analysis Date
WG1270780-3LCS	WG1270780-3	08/09/19 14:34
IA01_073119DUP	WG1270780-5	08/09/19 20:30
VP-6_080619	L1935043-01D	08/09/19 22:05
VP-7_080619	L1935043-02D	08/09/19 22:35
VP-4_080619	L1935043-03D	08/09/19 23:05
VP-1_080619	L1935043-04D	08/09/19 23:38
VP-5_080619	L1935043-05D	08/10/19 00:08
VP-2_080619	L1935043-06D	08/10/19 00:38
VP-3_080619	L1935043-07D	08/10/19 01:08

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1935043
Project Name : 491 WORTMAN AVE.	Project Number : 170329301
Instrument ID : AIRPIANO1	Analysis Date : 07/12/19 19:12
Tune Standard : WG1259556-1	Tune File ID : R167337_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	17.3
75	30.0 - 66.0% of mass 95	44.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	82.1
175	4.0 - 9.0% of mass 174	6.1 (7.5)1
176	93.0 - 101% of mass 174	78.6 (95.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.2	R1207739-1	R167341	07/12/19 21:18
STD0.5	R1207739-2	R167342	07/12/19 21:50
STD1.0	R1207739-3	R167343	07/12/19 22:23
STD5.0	R1207739-4	R167344	07/12/19 22:55
STD10.0	R1207739-5	R167345	07/12/19 23:29
STD20.0	R1207739-7	R167346	07/13/19 00:02
STD50.0	R1207739-6	R167347	07/13/19 00:33
STD100.0	R1207739-8	R167348	07/13/19 01:07
STD10.0	R1207739-9	R167351	07/13/19 10:53

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1935043
Project Name : 491 WORTMAN AVE.	Project Number : 170329301
Instrument ID : AIRPIANO1	Analysis Date : 08/09/19 11:49
Tune Standard : WG1270780-1	Tune File ID : R167934_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	15.6
75	30.0 - 66.0% of mass 95	43.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	86.2
175	4.0 - 9.0% of mass 174	6.5 (7.6)1
176	93.0 - 101% of mass 174	83.3 (96.7)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1270780-2CCAL	WG1270780-2	R167935	08/09/19 12:22
WG1270780-3LCS	WG1270780-3	R167938	08/09/19 14:34
WG1270780-4BLANK	WG1270780-4	R167939	08/09/19 15:52
WG1270780-5DUP	WG1270780-5	R167945	08/09/19 20:30
VP-6_080619	L1935043-01D	R167948	08/09/19 22:05
VP-7_080619	L1935043-02D	R167949	08/09/19 22:35
VP-4_080619	L1935043-03D	R167950	08/09/19 23:05
VP-1_080619	L1935043-04D	R167951	08/09/19 23:38
VP-5_080619	L1935043-05D	R167952	08/10/19 00:08
VP-2_080619	L1935043-06D	R167953	08/10/19 00:38
VP-3_080619	L1935043-07D	R167954	08/10/19 01:08

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Instrument ID	: AIRPIANO1	Analysis Date	: 08/09/19 12:22
Sample No	: WG1270780-2	Lab File ID	: R167935

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1270780-2	158679	10.11	366447	12.35	68000	16.80
Upper Limit	222151	10.44	513026	12.68	95200	17.13
Lower Limit	95207	9.78	219868	12.02	40800	16.47
Sample ID						
WG1270780-3 LCS	148433	10.11	340009	12.35	62325	16.80
WG1270780-4 BLANK	147050	10.11	330373	12.35	60120	16.80
IA01_073119 DUP	121732	10.11	260199	12.35	49875	16.80
VP-6_080619	123643	10.11	265129	12.35	50006	16.80
VP-7_080619	123313	10.11	270196	12.35	51884	16.80
VP-4_080619	121276	10.11	268408	12.35	50828	16.80
VP-1_080619	131018	10.11	282827	12.35	53093	16.80
VP-5_080619	121277	10.11	263869	12.35	50270	16.80
VP-2_080619	119150	10.11	257319	12.35	48819	16.80
VP-3_080619	118477	10.11	259714	12.35	48035	16.80

Area Upper Limit = +40% of internal standard area
Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT
RT Lower Limit = -0.33 minutes of internal standard RT

* Values outside of QC limits





Date Created: 12/17/18
Created By: Jason Hebert
File: PM5830-1
Page: 1

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.2	0.0368	ppbV	70-130			25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.2	0.057	ppbV	70-130			25	25			
1,1,2-Trichloroethane	79-00-5	0.2	0.0726	ppbV	70-130			25	25			
1,1-Dichloroethane	75-34-3	0.2	0.0484	ppbV	70-130			25	25			
1,1-Dichloroethene	75-35-4	0.2	0.0279	ppbV	70-130			25	25			
1,2,3-Trimethylbenzene	526-73-8	0.2	0.086	ppbV	70-130			25	25			
1,2,4-Trichlorobenzene	120-82-1	0.2	0.0505	ppbV	70-130			25	25			
1,2,4-Trimethylbenzene	95-63-6	0.2	0.0587	ppbV	70-130			25	25			
1,2,4,5-Tetramethylbenzene	95-93-2	0.2	0.048	ppbV	70-130			25	25			
1,2-Dibromoethane	106-93-4	0.2	0.0548	ppbV	70-130			25	25			
1,2-Dichlorobenzene	95-50-1	0.2	0.0708	ppbV	70-130			25	25			
1,2-Dichloroethane	107-06-2	0.2	0.0444	ppbV	70-130			25	25			
1,2-Dichloropropane	78-87-5	0.2	0.0651	ppbV	70-130			25	25			
1,3,5-Trimethylbenzene	108-67-8	0.2	0.0624	ppbV	70-130			25	25			
1,3-Butadiene	106-99-0	0.2	0.0488	ppbV	70-130			25	25			
1,3-Dichlorobenzene	541-73-1	0.2	0.0711	ppbV	70-130			25	25			
1,4-Dichlorobenzene	106-46-7	0.2	0.0745	ppbV	70-130			25	25			
1,4-Dioxane	123-91-1	0.2	0.106	ppbV	70-130			25	25			
2,2,4-Trimethylpentane	540-84-1	0.2	0.0494	ppbV	70-130			25	25			
2-Butanone	78-93-3	0.5	0.0638	ppbV	70-130			25	25			
2-Hexanone	591-78-6	0.2	0.087	ppbV	70-130			25	25			
2-Methylthiophene	554-14-3	0.2	0.0649	ppbV	70-130			25	25			
3-Methylthiophene	616-44-4	0.2	0.0565	ppbV	70-130			25	25			
3-Chloropropene	107-05-1	0.2	0.0354	ppbV	70-130			25	25			
2-Ethylthiophene	872-55-9	0.2	0.0553	ppbV	70-130			25	25			
4-Ethyltoluene	622-96-8	0.2	0.0554	ppbV	70-130			25	25			
Acetone	67-64-1	1	0.689	ppbV	70-130			25	25			
Benzene	71-43-2	0.2	0.054	ppbV	70-130			25	25			
Benzyl chloride	100-44-7	0.2	0.0512	ppbV	70-130			25	25			
Benzothiophene	95-15-8	0.5	0.0681	ppbV	70-130			25	25			
Bromodichloromethane	75-27-4	0.2	0.0426	ppbV	70-130			25	25			
Bromoform	75-25-2	0.2	0.0547	ppbV	70-130			25	25			
Bromomethane	74-83-9	0.2	0.0465	ppbV	70-130			25	25			
Carbon disulfide	75-15-0	0.2	0.0354	ppbV	70-130			25	25			
Carbon tetrachloride	56-23-5	0.2	0.0493	ppbV	70-130			25	25			
Chlorobenzene	108-90-7	0.2	0.0579	ppbV	70-130			25	25			
Chloroethane	75-00-3	0.2	0.0923	ppbV	70-130			25	25			
Chloroform	67-66-3	0.2	0.0502	ppbV	70-130			25	25			
Chloromethane	74-87-3	0.2	0.0507	ppbV	70-130			25	25			
cis-1,2-Dichloroethene	156-59-2	0.2	0.138	ppbV	70-130			25	25			
cis-1,3-Dichloropropene	10061-01-5	0.2	0.0622	ppbV	70-130			25	25			
Cyclohexane	110-82-7	0.2	0.0495	ppbV	70-130			25	25			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 12/17/18
Created By: Jason Hebert
File: PM5830-1
Page: 2

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dibromochloromethane	124-48-1	0.2	0.0657	ppbV	70-130			25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0377	ppbV	70-130			25	25			
Ethyl Alcohol	GCDAl06	5	0.531	ppbV	70-130			25	25			
Ethyl Acetate	141-78-6	0.5	0.193	ppbV	70-130			25	25			
Ethylbenzene	100-41-4	0.2	0.057	ppbV	70-130			25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.2	0.0409	ppbV	70-130			25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.2	0.0417	ppbV	70-130			25	25			
Hexachlorobutadiene	87-68-3	0.2	0.062	ppbV	70-130			25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.478	ppbV	70-130			25	25			
Methylene chloride	75-09-2	0.5	0.134	ppbV	70-130			25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.0648	ppbV	70-130			25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0747	ppbV	70-130			25	25			
Methyl Methacrylate	80-62-6	0.5	0.0796	ppbV	70-130			25	25			
p/m-Xylene	179601-23-1	0.4	0.125	ppbV	70-130			25	25			
o-Xylene	95-47-6	0.2	0.0688	ppbV	70-130			25	25			
Xylene (Total)	1330-20-7	0.2	0.0688	ppbV				25	25			
Heptane	142-82-5	0.2	0.0702	ppbV	70-130			25	25			
n-Heptane	142-82-5	0.2	0.0702	ppbV	70-130			25	25			
n-Hexane	110-54-3	0.2	0.0519	ppbV	70-130			25	25			
Propylene	115-07-1	0.5	0.0785	ppbV	70-130			25	25			
Styrene	100-42-5	0.2	0.0639	ppbV	70-130			25	25			
Tetrachloroethene	127-18-4	0.2	0.0663	ppbV	70-130			25	25			
Thiophene	110-02-1	0.2	0.0388	ppbV	70-130			25	25			
Tetrahydrofuran	109-99-9	0.5	0.0829	ppbV	70-130			25	25			
Toluene	108-88-3	0.2	0.0538	ppbV	70-130			25	25			
trans-1,2-Dichloroethene	156-60-5	0.2	0.0638	ppbV	70-130			25	25			
1,2-Dichloroethene (total)	540-59-0	0.2	0.0638	ppbV				25	25			
trans-1,3-Dichloropropene	10061-02-6	0.2	0.0639	ppbV	70-130			25	25			
1,3-Dichloropropene, Total	542-75-6	0.2	0.0622	ppbV				25	25			
Trichloroethene	79-01-6	0.2	0.054	ppbV	70-130			25	25			
Trichlorofluoromethane	75-69-4	0.2	0.0414	ppbV	70-130			25	25			
Vinyl acetate	108-05-4	1	0.0726	ppbV	70-130			25	25			
Vinyl bromide	593-60-2	0.2	0.0573	ppbV	70-130			25	25			
Vinyl chloride	75-01-4	0.2	0.0392	ppbV	70-130			25	25			
Naphthalene	91-20-3	0.2	0.0834	ppbV	70-130			25	25			
Total HC As Hexane	NONE	10	0.0519	ppbV	70-130			25	25			
Total VOCs As Toluene	NONE	10	0.0538	ppbV	70-130			25	25			
Propane	74-98-6	0.5	0.171	ppbV	70-130			25	25			
Acrylonitrile	107-13-1	0.5	0.037	ppbV	70-130			25	25			
Acrolein	107-02-8	0.5	0.0629	ppbV	70-130			25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.2	0.065	ppbV	70-130			25	25			
Isopropylbenzene	98-82-8	0.2	0.0636	ppbV	70-130			25	25			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 12/17/18
Created By: Jason Hebert
File: PM5830-1
Page: 3

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,2,3-Trichloropropane	96-18-4	0.2	0.0477	ppbV	70-130			25	25			
Acetonitrile	75-05-8	0.2	0.0745	ppbV	70-130			25	25			
Bromobenzene	108-86-1	0.2	0.0639	ppbV	70-130			25	25			
Chlorodifluoromethane	75-45-6	0.2	0.0322	ppbV	70-130			25	25			
Dichlorofluoromethane	75-43-4	0.2	0.0531	ppbV	70-130			25	25			
Dibromomethane	74-95-3	0.2	0.0503	ppbV	70-130			25	25			
Pentane	109-66-0	0.2	0.0415	ppbV	70-130			25	25			
Octane	111-65-9	0.2	0.0715	ppbV	70-130			25	25			
Tertiary-Amyl Methyl Ether	994-05-8	0.2	0.0731	ppbV	70-130			25	25			
o-Chlorotoluene	95-49-8	0.2	0.0639	ppbV	70-130			25	25			
p-Chlorotoluene	106-43-4	0.2	0.0702	ppbV	70-130			25	25			
2,2-Dichloropropane	594-20-7	0.2	0.0558	ppbV	70-130			25	25			
1,1-Dichloropropene	563-58-6	0.2	0.0607	ppbV	70-130			25	25			
Isopropyl Ether	108-20-3	0.2	0.0978	ppbV	70-130			25	25			
Ethyl-Tert-Butyl-Ether	637-92-3	0.2	0.0656	ppbV	70-130			25	25			
1,2,3-Trichlorobenzene	87-61-6	0.2	0.064	ppbV	70-130			25	25			
Ethyl ether	60-29-7	0.2	0.0694	ppbV	70-130			25	25			
n-Butylbenzene	104-51-8	0.2	0.0621	ppbV	70-130			25	25			
sec-Butylbenzene	135-98-8	0.2	0.0601	ppbV	70-130			25	25			
tert-Butylbenzene	98-06-6	0.2	0.0644	ppbV	70-130			25	25			
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.0375	ppbV	70-130			25	25			
p-Isopropyltoluene	99-87-6	0.2	0.0809	ppbV	70-130			25	25			
n-Propylbenzene	103-65-1	0.2	0.0624	ppbV	70-130			25	25			
1,3-Dichloropropane	142-28-9	0.2	0.106	ppbV	70-130			25	25			
Methanol	67-56-1	5	1.84	ppbV	70-130			25	25			
Acetaldehyde	75-07-0	2.5	0.455	ppbV	70-130			25	25			
Butane	106-97-8	0.2	0.041	ppbV	70-130			25	25			
Nonane (C9)	111-84-2	0.2	0.0692	ppbV	70-130			25	25			
Decane (C10)	124-18-5	0.2	0.0639	ppbV	70-130			25	25			
Undecane	1120-21-4	0.2	0.0694	ppbV	70-130			25	25			
Indane	496-11-7	0.2	0.0706	ppbV	70-130			25	25			
Indene	95-13-6	0.2	0.059	ppbV	70-130			25	25			
1-Methylnaphthalene	90-12-0	1	0.388	ppbV	70-130			25	25			
Dodecane (C12)	112-40-3	0.2	0.0933	ppbV	70-130			25	25			
Butyl Acetate	123-86-4	0.5	0.166	ppbV	70-130			25	25			
tert-Butyl Alcohol	75-65-0	0.5	0.0552	ppbV	70-130			25	25			
2-Methylnaphthalene	91-57-6	1	0.507	ppbV	70-130			25	25			
1,2-Dichloroethane-d4	17060-07-0									70-130		
Toluene-d8	2037-26-5									70-130		
Bromofluorobenzene	460-00-4									70-130		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Sol/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



Volatiles Sample Data

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-01D
 Client ID : VP-6_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167948
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 10:54
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.500	--	ND	2.47	--	U
74-87-3	Chloromethane	2.90	0.500	--	5.99	1.03	--	
76-14-2	Freon-114	ND	0.500	--	ND	3.49	--	U
75-01-4	Vinyl chloride	ND	0.500	--	ND	1.28	--	U
106-99-0	1,3-Butadiene	ND	0.500	--	ND	1.11	--	U
74-83-9	Bromomethane	ND	0.500	--	ND	1.94	--	U
75-00-3	Chloroethane	ND	0.500	--	ND	1.32	--	U
64-17-5	Ethanol	13.6	12.5	--	25.6	23.6	--	
593-60-2	Vinyl bromide	ND	0.500	--	ND	2.19	--	U
67-64-1	Acetone	39.1	2.50	--	92.9	5.94	--	
75-69-4	Trichlorofluoromethane	ND	0.500	--	ND	2.81	--	U
67-63-0	Isopropanol	1.60	1.25	--	3.93	3.07	--	
75-35-4	1,1-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.25	--	ND	3.79	--	U
75-09-2	Methylene chloride	ND	1.25	--	ND	4.34	--	U
107-05-1	3-Chloropropene	ND	0.500	--	ND	1.57	--	U
75-15-0	Carbon disulfide	0.782	0.500	--	2.44	1.56	--	
76-13-1	Freon-113	ND	0.500	--	ND	3.83	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-34-3	1,1-Dichloroethane	ND	0.500	--	ND	2.02	--	U
1634-04-4	Methyl tert butyl ether	ND	0.500	--	ND	1.80	--	U
78-93-3	2-Butanone	56.0	1.25	--	165	3.69	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
141-78-6	Ethyl Acetate	ND	1.25	--	ND	4.50	--	U
67-66-3	Chloroform	ND	0.500	--	ND	2.44	--	U
109-99-9	Tetrahydrofuran	40.0	1.25	--	118	3.69	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-01D
 Client ID : VP-6_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167948
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 10:54
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.500	--	ND	2.02	--	U
110-54-3	n-Hexane	0.610	0.500	--	2.15	1.76	--	
71-55-6	1,1,1-Trichloroethane	1.24	0.500	--	6.77	2.73	--	
71-43-2	Benzene	ND	0.500	--	ND	1.60	--	U
56-23-5	Carbon tetrachloride	ND	0.500	--	ND	3.15	--	U
110-82-7	Cyclohexane	ND	0.500	--	ND	1.72	--	U
78-87-5	1,2-Dichloropropane	0.978	0.500	--	4.52	2.31	--	
75-27-4	Bromodichloromethane	ND	0.500	--	ND	3.35	--	U
123-91-1	1,4-Dioxane	ND	0.500	--	ND	1.80	--	U
79-01-6	Trichloroethene	183	0.500	--	983	2.69	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--	U
142-82-5	Heptane	ND	0.500	--	ND	2.05	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--	U
108-88-3	Toluene	8.75	0.500	--	33.0	1.88	--	
591-78-6	2-Hexanone	ND	0.500	--	ND	2.05	--	U
124-48-1	Dibromochloromethane	ND	0.500	--	ND	4.26	--	U
106-93-4	1,2-Dibromoethane	ND	0.500	--	ND	3.84	--	U
127-18-4	Tetrachloroethene	14.3	0.500	--	97.0	3.39	--	
108-90-7	Chlorobenzene	ND	0.500	--	ND	2.30	--	U
100-41-4	Ethylbenzene	0.592	0.500	--	2.57	2.17	--	
179601-23-1	p/m-Xylene	2.06	1.00	--	8.95	4.34	--	
75-25-2	Bromoform	ND	0.500	--	ND	5.17	--	U
100-42-5	Styrene	ND	0.500	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-01D
 Client ID : VP-6_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167948
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 10:54
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--	U
95-47-6	o-Xylene	0.682	0.500	--	2.96	2.17	--	
622-96-8	4-Ethyltoluene	ND	0.500	--	ND	2.46	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	--	ND	2.46	--	U
95-63-6	1,2,4-Trimethylbenzene	1.32	0.500	--	6.49	2.46	--	
100-44-7	Benzyl chloride	ND	0.500	--	ND	2.59	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--	U
87-68-3	Hexachlorobutadiene	ND	0.500	--	ND	5.33	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-02D
 Client ID : VP-7_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167949
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:04
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:35
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.500	--	ND	2.47	--	U
74-87-3	Chloromethane	0.532	0.500	--	1.10	1.03	--	
76-14-2	Freon-114	ND	0.500	--	ND	3.49	--	U
75-01-4	Vinyl chloride	ND	0.500	--	ND	1.28	--	U
106-99-0	1,3-Butadiene	ND	0.500	--	ND	1.11	--	U
74-83-9	Bromomethane	ND	0.500	--	ND	1.94	--	U
75-00-3	Chloroethane	ND	0.500	--	ND	1.32	--	U
64-17-5	Ethanol	29.5	12.5	--	55.6	23.6	--	
593-60-2	Vinyl bromide	ND	0.500	--	ND	2.19	--	U
67-64-1	Acetone	106	2.50	--	252	5.94	--	
75-69-4	Trichlorofluoromethane	ND	0.500	--	ND	2.81	--	U
67-63-0	Isopropanol	9.01	1.25	--	22.1	3.07	--	
75-35-4	1,1-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-65-0	Tertiary butyl Alcohol	1.32	1.25	--	4.00	3.79	--	
75-09-2	Methylene chloride	3.49	1.25	--	12.1	4.34	--	
107-05-1	3-Chloropropene	ND	0.500	--	ND	1.57	--	U
75-15-0	Carbon disulfide	1.14	0.500	--	3.55	1.56	--	
76-13-1	Freon-113	ND	0.500	--	ND	3.83	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-34-3	1,1-Dichloroethane	ND	0.500	--	ND	2.02	--	U
1634-04-4	Methyl tert butyl ether	ND	0.500	--	ND	1.80	--	U
78-93-3	2-Butanone	161	1.25	--	475	3.69	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
141-78-6	Ethyl Acetate	7.60	1.25	--	27.4	4.50	--	
67-66-3	Chloroform	ND	0.500	--	ND	2.44	--	U
109-99-9	Tetrahydrofuran	93.4	1.25	--	275	3.69	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-02D
 Client ID : VP-7_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167949
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:04
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:35
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.500	--	ND	2.02	--	U
110-54-3	n-Hexane	ND	0.500	--	ND	1.76	--	U
71-55-6	1,1,1-Trichloroethane	1.57	0.500	--	8.57	2.73	--	
71-43-2	Benzene	ND	0.500	--	ND	1.60	--	U
56-23-5	Carbon tetrachloride	ND	0.500	--	ND	3.15	--	U
110-82-7	Cyclohexane	ND	0.500	--	ND	1.72	--	U
78-87-5	1,2-Dichloropropane	ND	0.500	--	ND	2.31	--	U
75-27-4	Bromodichloromethane	ND	0.500	--	ND	3.35	--	U
123-91-1	1,4-Dioxane	ND	0.500	--	ND	1.80	--	U
79-01-6	Trichloroethene	199	0.500	--	1070	2.69	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--	U
142-82-5	Heptane	2.34	0.500	--	9.59	2.05	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--	U
108-88-3	Toluene	83.6	0.500	--	315	1.88	--	
591-78-6	2-Hexanone	ND	0.500	--	ND	2.05	--	U
124-48-1	Dibromochloromethane	ND	0.500	--	ND	4.26	--	U
106-93-4	1,2-Dibromoethane	ND	0.500	--	ND	3.84	--	U
127-18-4	Tetrachloroethene	4.00	0.500	--	27.1	3.39	--	
108-90-7	Chlorobenzene	ND	0.500	--	ND	2.30	--	U
100-41-4	Ethylbenzene	0.670	0.500	--	2.91	2.17	--	
179601-23-1	p/m-Xylene	2.73	1.00	--	11.9	4.34	--	
75-25-2	Bromoform	ND	0.500	--	ND	5.17	--	U
100-42-5	Styrene	ND	0.500	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-02D
 Client ID : VP-7_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167949
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:04
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 22:35
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--	U
95-47-6	o-Xylene	1.04	0.500	--	4.52	2.17	--	
622-96-8	4-Ethyltoluene	0.712	0.500	--	3.50	2.46	--	
108-67-8	1,3,5-Trimethylbenzene	0.750	0.500	--	3.69	2.46	--	
95-63-6	1,2,4-Trimethylbenzene	2.43	0.500	--	11.9	2.46	--	
100-44-7	Benzyl chloride	ND	0.500	--	ND	2.59	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--	U
87-68-3	Hexachlorobutadiene	ND	0.500	--	ND	5.33	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-03D
 Client ID : VP-4_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167950
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:10
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.500	--	ND	2.47	--	U
74-87-3	Chloromethane	0.562	0.500	--	1.16	1.03	--	
76-14-2	Freon-114	ND	0.500	--	ND	3.49	--	U
75-01-4	Vinyl chloride	ND	0.500	--	ND	1.28	--	U
106-99-0	1,3-Butadiene	ND	0.500	--	ND	1.11	--	U
74-83-9	Bromomethane	ND	0.500	--	ND	1.94	--	U
75-00-3	Chloroethane	ND	0.500	--	ND	1.32	--	U
64-17-5	Ethanol	28.5	12.5	--	53.7	23.6	--	
593-60-2	Vinyl bromide	ND	0.500	--	ND	2.19	--	U
67-64-1	Acetone	94.6	2.50	--	225	5.94	--	
75-69-4	Trichlorofluoromethane	ND	0.500	--	ND	2.81	--	U
67-63-0	Isopropanol	9.34	1.25	--	23.0	3.07	--	
75-35-4	1,1-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.25	--	ND	3.79	--	U
75-09-2	Methylene chloride	ND	1.25	--	ND	4.34	--	U
107-05-1	3-Chloropropene	ND	0.500	--	ND	1.57	--	U
75-15-0	Carbon disulfide	2.28	0.500	--	7.10	1.56	--	
76-13-1	Freon-113	ND	0.500	--	ND	3.83	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
75-34-3	1,1-Dichloroethane	ND	0.500	--	ND	2.02	--	U
1634-04-4	Methyl tert butyl ether	ND	0.500	--	ND	1.80	--	U
78-93-3	2-Butanone	49.1	1.25	--	145	3.69	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--	U
141-78-6	Ethyl Acetate	11.9	1.25	--	42.9	4.50	--	
67-66-3	Chloroform	0.510	0.500	--	2.49	2.44	--	
109-99-9	Tetrahydrofuran	173	1.25	--	510	3.69	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-03D
 Client ID : VP-4_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167950
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:10
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.500	--	ND	2.02	--	U
110-54-3	n-Hexane	ND	0.500	--	ND	1.76	--	U
71-55-6	1,1,1-Trichloroethane	2.23	0.500	--	12.2	2.73	--	
71-43-2	Benzene	ND	0.500	--	ND	1.60	--	U
56-23-5	Carbon tetrachloride	ND	0.500	--	ND	3.15	--	U
110-82-7	Cyclohexane	ND	0.500	--	ND	1.72	--	U
78-87-5	1,2-Dichloropropane	ND	0.500	--	ND	2.31	--	U
75-27-4	Bromodichloromethane	ND	0.500	--	ND	3.35	--	U
123-91-1	1,4-Dioxane	ND	0.500	--	ND	1.80	--	U
79-01-6	Trichloroethene	143	0.500	--	769	2.69	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--	U
142-82-5	Heptane	1.86	0.500	--	7.62	2.05	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--	U
108-88-3	Toluene	83.2	0.500	--	314	1.88	--	
591-78-6	2-Hexanone	ND	0.500	--	ND	2.05	--	U
124-48-1	Dibromochloromethane	ND	0.500	--	ND	4.26	--	U
106-93-4	1,2-Dibromoethane	ND	0.500	--	ND	3.84	--	U
127-18-4	Tetrachloroethene	7.18	0.500	--	48.7	3.39	--	
108-90-7	Chlorobenzene	ND	0.500	--	ND	2.30	--	U
100-41-4	Ethylbenzene	0.875	0.500	--	3.80	2.17	--	
179601-23-1	p/m-Xylene	3.48	1.00	--	15.1	4.34	--	
75-25-2	Bromoform	ND	0.500	--	ND	5.17	--	U
100-42-5	Styrene	ND	0.500	--	ND	2.13	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-03D
 Client ID : VP-4_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167950
 Sample Amount : 100 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:10
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:05
 Dilution Factor : 2.5
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--	U
95-47-6	o-Xylene	1.39	0.500	--	6.04	2.17	--	
622-96-8	4-Ethyltoluene	0.830	0.500	--	4.08	2.46	--	
108-67-8	1,3,5-Trimethylbenzene	0.910	0.500	--	4.47	2.46	--	
95-63-6	1,2,4-Trimethylbenzene	3.02	0.500	--	14.8	2.46	--	
100-44-7	Benzyl chloride	ND	0.500	--	ND	2.59	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--	U
87-68-3	Hexachlorobutadiene	ND	0.500	--	ND	5.33	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-04D
 Client ID : VP-1_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167951
 Sample Amount : 7.24 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:14
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:38
 Dilution Factor : 34.53
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	6.91	--	ND	34.2	--	U
74-87-3	Chloromethane	ND	6.91	--	ND	14.3	--	U
76-14-2	Freon-114	ND	6.91	--	ND	48.3	--	U
106-99-0	1,3-Butadiene	ND	6.91	--	ND	15.3	--	U
74-83-9	Bromomethane	ND	6.91	--	ND	26.8	--	U
75-00-3	Chloroethane	ND	6.91	--	ND	18.2	--	U
64-17-5	Ethanol	ND	173	--	ND	326	--	U
593-60-2	Vinyl bromide	ND	6.91	--	ND	30.2	--	U
67-64-1	Acetone	95.9	34.5	--	228	82.0	--	
75-69-4	Trichlorofluoromethane	ND	6.91	--	ND	38.8	--	U
67-63-0	Isopropanol	ND	17.3	--	ND	42.5	--	U
75-65-0	Tertiary butyl Alcohol	ND	17.3	--	ND	52.4	--	U
75-09-2	Methylene chloride	18.5	17.3	--	64.3	60.1	--	
107-05-1	3-Chloropropene	ND	6.91	--	ND	21.6	--	U
75-15-0	Carbon disulfide	ND	6.91	--	ND	21.5	--	U
76-13-1	Freon-113	ND	6.91	--	ND	53.0	--	U
156-60-5	trans-1,2-Dichloroethene	ND	6.91	--	ND	27.4	--	U
75-34-3	1,1-Dichloroethane	ND	6.91	--	ND	28.0	--	U
1634-04-4	Methyl tert butyl ether	ND	6.91	--	ND	24.9	--	U
78-93-3	2-Butanone	131	17.3	--	386	51.0	--	
141-78-6	Ethyl Acetate	ND	17.3	--	ND	62.3	--	U
67-66-3	Chloroform	ND	6.91	--	ND	33.7	--	U
109-99-9	Tetrahydrofuran	63.8	17.3	--	188	51.0	--	
107-06-2	1,2-Dichloroethane	ND	6.91	--	ND	28.0	--	U
110-54-3	n-Hexane	ND	6.91	--	ND	24.4	--	U
71-43-2	Benzene	ND	6.91	--	ND	22.1	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-04D
 Client ID : VP-1_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167951
 Sample Amount : 7.24 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:14
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:38
 Dilution Factor : 34.53
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	6.91	--	ND	23.8	--	U
78-87-5	1,2-Dichloropropane	ND	6.91	--	ND	31.9	--	U
75-27-4	Bromodichloromethane	ND	6.91	--	ND	46.3	--	U
123-91-1	1,4-Dioxane	ND	6.91	--	ND	24.9	--	U
79-01-6	Trichloroethene	2130	6.91	--	11400	37.1	--	
540-84-1	2,2,4-Trimethylpentane	ND	6.91	--	ND	32.3	--	U
142-82-5	Heptane	ND	6.91	--	ND	28.3	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	6.91	--	ND	31.4	--	U
108-10-1	4-Methyl-2-pentanone	ND	17.3	--	ND	70.9	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	6.91	--	ND	31.4	--	U
79-00-5	1,1,2-Trichloroethane	ND	6.91	--	ND	37.7	--	U
108-88-3	Toluene	83.0	6.91	--	313	26.0	--	
591-78-6	2-Hexanone	ND	6.91	--	ND	28.3	--	U
124-48-1	Dibromochloromethane	ND	6.91	--	ND	58.9	--	U
106-93-4	1,2-Dibromoethane	ND	6.91	--	ND	53.1	--	U
108-90-7	Chlorobenzene	ND	6.91	--	ND	31.8	--	U
100-41-4	Ethylbenzene	ND	6.91	--	ND	30.0	--	U
179601-23-1	p/m-Xylene	ND	13.8	--	ND	59.9	--	U
75-25-2	Bromoform	ND	6.91	--	ND	71.4	--	U
100-42-5	Styrene	ND	6.91	--	ND	29.4	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.91	--	ND	47.5	--	U
95-47-6	o-Xylene	ND	6.91	--	ND	30.0	--	U
622-96-8	4-Ethyltoluene	ND	6.91	--	ND	34.0	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	6.91	--	ND	34.0	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	6.91	--	ND	34.0	--	U
100-44-7	Benzyl chloride	ND	6.91	--	ND	35.8	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-04D
 Client ID : VP-1_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167951
 Sample Amount : 7.24 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:14
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:38
 Dilution Factor : 34.53
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
541-73-1	1,3-Dichlorobenzene	ND	6.91	--	ND	41.5	--	U
106-46-7	1,4-Dichlorobenzene	ND	6.91	--	ND	41.5	--	U
95-50-1	1,2-Dichlorobenzene	ND	6.91	--	ND	41.5	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	6.91	--	ND	51.3	--	U
87-68-3	Hexachlorobutadiene	ND	6.91	--	ND	73.7	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-05D
 Client ID : VP-5_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167952
 Sample Amount : 35.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 13:07
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:08
 Dilution Factor : 7.143
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	1.43	--	ND	7.07	--	U
74-87-3	Chloromethane	ND	1.43	--	ND	2.95	--	U
76-14-2	Freon-114	ND	1.43	--	ND	10.0	--	U
106-99-0	1,3-Butadiene	ND	1.43	--	ND	3.16	--	U
74-83-9	Bromomethane	ND	1.43	--	ND	5.55	--	U
75-00-3	Chloroethane	ND	1.43	--	ND	3.77	--	U
64-17-5	Ethanol	ND	35.7	--	ND	67.3	--	U
593-60-2	Vinyl bromide	ND	1.43	--	ND	6.25	--	U
67-64-1	Acetone	82.2	7.14	--	195	17.0	--	
75-69-4	Trichlorofluoromethane	ND	1.43	--	ND	8.04	--	U
67-63-0	Isopropanol	5.28	3.57	--	13.0	8.78	--	
75-65-0	Tertiary butyl Alcohol	ND	3.57	--	ND	10.8	--	U
75-09-2	Methylene chloride	ND	3.57	--	ND	12.4	--	U
107-05-1	3-Chloropropene	ND	1.43	--	ND	4.48	--	U
75-15-0	Carbon disulfide	3.80	1.43	--	11.8	4.45	--	
76-13-1	Freon-113	ND	1.43	--	ND	11.0	--	U
156-60-5	trans-1,2-Dichloroethene	ND	1.43	--	ND	5.67	--	U
75-34-3	1,1-Dichloroethane	ND	1.43	--	ND	5.79	--	U
1634-04-4	Methyl tert butyl ether	ND	1.43	--	ND	5.16	--	U
78-93-3	2-Butanone	433	3.57	--	1280	10.5	--	
141-78-6	Ethyl Acetate	ND	3.57	--	ND	12.9	--	U
67-66-3	Chloroform	ND	1.43	--	ND	6.98	--	U
109-99-9	Tetrahydrofuran	305	3.57	--	900	10.5	--	
107-06-2	1,2-Dichloroethane	ND	1.43	--	ND	5.79	--	U
110-54-3	n-Hexane	ND	1.43	--	ND	5.04	--	U
71-43-2	Benzene	ND	1.43	--	ND	4.57	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-05D
 Client ID : VP-5_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167952
 Sample Amount : 35.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 13:07
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:08
 Dilution Factor : 7.143
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	1.43	--	ND	4.92	--	U
78-87-5	1,2-Dichloropropane	ND	1.43	--	ND	6.61	--	U
75-27-4	Bromodichloromethane	ND	1.43	--	ND	9.58	--	U
123-91-1	1,4-Dioxane	ND	1.43	--	ND	5.15	--	U
540-84-1	2,2,4-Trimethylpentane	ND	1.43	--	ND	6.68	--	U
142-82-5	Heptane	ND	1.43	--	ND	5.86	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.43	--	ND	6.49	--	U
108-10-1	4-Methyl-2-pentanone	ND	3.57	--	ND	14.6	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.43	--	ND	6.49	--	U
79-00-5	1,1,2-Trichloroethane	ND	1.43	--	ND	7.80	--	U
108-88-3	Toluene	13.4	1.43	--	50.5	5.39	--	
591-78-6	2-Hexanone	ND	1.43	--	ND	5.86	--	U
124-48-1	Dibromochloromethane	ND	1.43	--	ND	12.2	--	U
106-93-4	1,2-Dibromoethane	ND	1.43	--	ND	11.0	--	U
108-90-7	Chlorobenzene	ND	1.43	--	ND	6.59	--	U
100-41-4	Ethylbenzene	ND	1.43	--	ND	6.21	--	U
179601-23-1	p/m-Xylene	ND	2.86	--	ND	12.4	--	U
75-25-2	Bromoform	ND	1.43	--	ND	14.8	--	U
100-42-5	Styrene	ND	1.43	--	ND	6.09	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.43	--	ND	9.82	--	U
95-47-6	o-Xylene	ND	1.43	--	ND	6.21	--	U
622-96-8	4-Ethyltoluene	ND	1.43	--	ND	7.03	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	1.43	--	ND	7.03	--	U
95-63-6	1,2,4-Trimethylbenzene	2.23	1.43	--	11.0	7.03	--	
100-44-7	Benzyl chloride	ND	1.43	--	ND	7.40	--	U
541-73-1	1,3-Dichlorobenzene	ND	1.43	--	ND	8.60	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-05D
 Client ID : VP-5_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167952
 Sample Amount : 35.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 13:07
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:08
 Dilution Factor : 7.143
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	1.43	--	ND	8.60	--	U
95-50-1	1,2-Dichlorobenzene	ND	1.43	--	ND	8.60	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	1.43	--	ND	10.6	--	U
87-68-3	Hexachlorobutadiene	ND	1.43	--	ND	15.3	--	U

Results Summary Form 1 Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-06D
 Client ID : VP-2_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167953
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:51
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:38
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.714	--	ND	3.53	--	U
74-87-3	Chloromethane	0.796	0.714	--	1.64	1.47	--	
76-14-2	Freon-114	ND	0.714	--	ND	4.99	--	U
75-01-4	Vinyl chloride	ND	0.714	--	ND	1.83	--	U
106-99-0	1,3-Butadiene	ND	0.714	--	ND	1.58	--	U
74-83-9	Bromomethane	ND	0.714	--	ND	2.77	--	U
75-00-3	Chloroethane	ND	0.714	--	ND	1.88	--	U
64-17-5	Ethanol	ND	17.8	--	ND	33.5	--	U
593-60-2	Vinyl bromide	ND	0.714	--	ND	3.12	--	U
67-64-1	Acetone	50.5	3.57	--	120	8.48	--	
75-69-4	Trichlorofluoromethane	ND	0.714	--	ND	4.01	--	U
67-63-0	Isopropanol	2.97	1.78	--	7.30	4.38	--	
75-35-4	1,1-Dichloroethene	ND	0.714	--	ND	2.83	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.78	--	ND	5.40	--	U
75-09-2	Methylene chloride	ND	1.78	--	ND	6.18	--	U
107-05-1	3-Chloropropene	ND	0.714	--	ND	2.23	--	U
75-15-0	Carbon disulfide	0.728	0.714	--	2.27	2.22	--	
76-13-1	Freon-113	ND	0.714	--	ND	5.47	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.714	--	ND	2.83	--	U
75-34-3	1,1-Dichloroethane	ND	0.714	--	ND	2.89	--	U
1634-04-4	Methyl tert butyl ether	ND	0.714	--	ND	2.57	--	U
78-93-3	2-Butanone	186	1.78	--	549	5.25	--	
156-59-2	cis-1,2-Dichloroethene	0.718	0.714	--	2.85	2.83	--	
141-78-6	Ethyl Acetate	5.15	1.78	--	18.6	6.41	--	
67-66-3	Chloroform	ND	0.714	--	ND	3.49	--	U
109-99-9	Tetrahydrofuran	109	1.78	--	321	5.25	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-06D
 Client ID : VP-2_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167953
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:51
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:38
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.714	--	ND	2.89	--	U
110-54-3	n-Hexane	ND	0.714	--	ND	2.52	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.714	--	ND	3.90	--	U
71-43-2	Benzene	ND	0.714	--	ND	2.28	--	U
56-23-5	Carbon tetrachloride	ND	0.714	--	ND	4.49	--	U
110-82-7	Cyclohexane	ND	0.714	--	ND	2.46	--	U
78-87-5	1,2-Dichloropropane	ND	0.714	--	ND	3.30	--	U
75-27-4	Bromodichloromethane	ND	0.714	--	ND	4.78	--	U
123-91-1	1,4-Dioxane	ND	0.714	--	ND	2.57	--	U
79-01-6	Trichloroethene	286	0.714	--	1540	3.84	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.714	--	ND	3.33	--	U
142-82-5	Heptane	ND	0.714	--	ND	2.93	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.714	--	ND	3.24	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.78	--	ND	7.29	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.714	--	ND	3.24	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.714	--	ND	3.90	--	U
108-88-3	Toluene	5.14	0.714	--	19.4	2.69	--	
591-78-6	2-Hexanone	ND	0.714	--	ND	2.93	--	U
124-48-1	Dibromochloromethane	ND	0.714	--	ND	6.08	--	U
106-93-4	1,2-Dibromoethane	ND	0.714	--	ND	5.49	--	U
127-18-4	Tetrachloroethene	13.5	0.714	--	91.5	4.84	--	
108-90-7	Chlorobenzene	ND	0.714	--	ND	3.29	--	U
100-41-4	Ethylbenzene	ND	0.714	--	ND	3.10	--	U
179601-23-1	p/m-Xylene	1.46	1.43	--	6.34	6.21	--	
75-25-2	Bromoform	ND	0.714	--	ND	7.38	--	U
100-42-5	Styrene	ND	0.714	--	ND	3.04	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-06D
 Client ID : VP-2_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167953
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:51
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:38
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.714	--	ND	4.90	--	U
95-47-6	o-Xylene	ND	0.714	--	ND	3.10	--	U
622-96-8	4-Ethyltoluene	ND	0.714	--	ND	3.51	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.714	--	ND	3.51	--	U
95-63-6	1,2,4-Trimethylbenzene	1.26	0.714	--	6.19	3.51	--	
100-44-7	Benzyl chloride	ND	0.714	--	ND	3.70	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.714	--	ND	5.30	--	U
87-68-3	Hexachlorobutadiene	ND	0.714	--	ND	7.62	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-07D
 Client ID : VP-3_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167954
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:59
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 01:08
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	0.714	--	ND	3.53	--	U
74-87-3	Chloromethane	0.857	0.714	--	1.77	1.47	--	
76-14-2	Freon-114	ND	0.714	--	ND	4.99	--	U
75-01-4	Vinyl chloride	ND	0.714	--	ND	1.83	--	U
106-99-0	1,3-Butadiene	ND	0.714	--	ND	1.58	--	U
74-83-9	Bromomethane	ND	0.714	--	ND	2.77	--	U
75-00-3	Chloroethane	ND	0.714	--	ND	1.88	--	U
64-17-5	Ethanol	ND	17.8	--	ND	33.5	--	U
593-60-2	Vinyl bromide	ND	0.714	--	ND	3.12	--	U
67-64-1	Acetone	55.2	3.57	--	131	8.48	--	
75-69-4	Trichlorofluoromethane	ND	0.714	--	ND	4.01	--	U
67-63-0	Isopropanol	4.70	1.78	--	11.6	4.38	--	
75-35-4	1,1-Dichloroethene	ND	0.714	--	ND	2.83	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.78	--	ND	5.40	--	U
75-09-2	Methylene chloride	ND	1.78	--	ND	6.18	--	U
107-05-1	3-Chloropropene	ND	0.714	--	ND	2.23	--	U
75-15-0	Carbon disulfide	1.05	0.714	--	3.27	2.22	--	
76-13-1	Freon-113	ND	0.714	--	ND	5.47	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.714	--	ND	2.83	--	U
75-34-3	1,1-Dichloroethane	ND	0.714	--	ND	2.89	--	U
1634-04-4	Methyl tert butyl ether	ND	0.714	--	ND	2.57	--	U
78-93-3	2-Butanone	236	1.78	--	696	5.25	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.714	--	ND	2.83	--	U
141-78-6	Ethyl Acetate	10.6	1.78	--	38.2	6.41	--	
67-66-3	Chloroform	5.93	0.714	--	29.0	3.49	--	
109-99-9	Tetrahydrofuran	177	1.78	--	522	5.25	--	



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-07D
 Client ID : VP-3_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167954
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:59
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 01:08
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.714	--	ND	2.89	--	U
110-54-3	n-Hexane	ND	0.714	--	ND	2.52	--	U
71-55-6	1,1,1-Trichloroethane	0.900	0.714	--	4.91	3.90	--	
71-43-2	Benzene	ND	0.714	--	ND	2.28	--	U
56-23-5	Carbon tetrachloride	ND	0.714	--	ND	4.49	--	U
110-82-7	Cyclohexane	ND	0.714	--	ND	2.46	--	U
78-87-5	1,2-Dichloropropane	ND	0.714	--	ND	3.30	--	U
75-27-4	Bromodichloromethane	ND	0.714	--	ND	4.78	--	U
123-91-1	1,4-Dioxane	ND	0.714	--	ND	2.57	--	U
79-01-6	Trichloroethene	225	0.714	--	1210	3.84	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.714	--	ND	3.33	--	U
142-82-5	Heptane	ND	0.714	--	ND	2.93	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.714	--	ND	3.24	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.78	--	ND	7.29	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.714	--	ND	3.24	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.714	--	ND	3.90	--	U
108-88-3	Toluene	12.0	0.714	--	45.2	2.69	--	
591-78-6	2-Hexanone	ND	0.714	--	ND	2.93	--	U
124-48-1	Dibromochloromethane	ND	0.714	--	ND	6.08	--	U
106-93-4	1,2-Dibromoethane	ND	0.714	--	ND	5.49	--	U
127-18-4	Tetrachloroethene	6.27	0.714	--	42.5	4.84	--	
108-90-7	Chlorobenzene	ND	0.714	--	ND	3.29	--	U
100-41-4	Ethylbenzene	ND	0.714	--	ND	3.10	--	U
179601-23-1	p/m-Xylene	ND	1.43	--	ND	6.21	--	U
75-25-2	Bromoform	ND	0.714	--	ND	7.38	--	U
100-42-5	Styrene	ND	0.714	--	ND	3.04	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-07D
 Client ID : VP-3_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R167954
 Sample Amount : 70.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 12:59
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 01:08
 Dilution Factor : 3.571
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.714	--	ND	4.90	--	U
95-47-6	o-Xylene	ND	0.714	--	ND	3.10	--	U
622-96-8	4-Ethyltoluene	ND	0.714	--	ND	3.51	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.714	--	ND	3.51	--	U
95-63-6	1,2,4-Trimethylbenzene	2.27	0.714	--	11.2	3.51	--	
100-44-7	Benzyl chloride	ND	0.714	--	ND	3.70	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.714	--	ND	4.29	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.714	--	ND	5.30	--	U
87-68-3	Hexachlorobutadiene	ND	0.714	--	ND	7.62	--	U

Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270780-4
 Client ID : WG1270780-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R167939
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 15:52
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	5.00	--	ND	9.42	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270780-4
 Client ID : WG1270780-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R167939
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 15:52
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U



Results Summary

Form 1

Volatile Organics in Air

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270780-4
 Client ID : WG1270780-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R167939
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 15:52
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167948.D
 Acq On : 9 Aug 2019 10:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-01D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:48:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.110	49	123643	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		77.92%	
43) 1,4-difluorobenzene	12.348	114	265129	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		72.35%	
67) chlorobenzene-D5	16.801	54	50006	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		73.54%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	2443M3	0.155	ppbV	
6) chloromethane	4.238	50	6928	1.162	ppbV	95
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.	d	
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.	d	
15) ethanol	5.590	31	20478	5.428	ppbV	97
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.232	43	193449	15.652	ppbV #	99
21) trichlorofluoromethane	6.437	101	1786	0.110	ppbV	99
22) isopropyl alcohol	6.632	45	9097	0.641	ppbV #	87
26) 1,1-dichloroethene	0.000		0	N.D.	d	
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	2555	0.275	ppbV	91
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.796	76	7876	0.313	ppbV #	81
31) Freon 113	0.000		0	N.D.	d	
32) trans-1,2-dichloroethene	8.660	61	665	0.053	ppbV	93
33) 1,1-dichloroethane	0.000		0	N.D.	d	
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.406	43	353505	22.404	ppbV	96
37) cis-1,2-dichloroethene	9.917	61	1276	0.103	ppbV	88
38) Ethyl Acetate	0.000		0	N.D.	d	
39) chloroform	10.270	83	3379	0.163	ppbV	95
40) Tetrahydrofuran	10.749	42	156231	16.006	ppbV	97
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167948.D
 Acq On : 9 Aug 2019 10:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-01D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:48:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	10.164	57	4055	0.244	ppbV	#	61
48) 1,1,1-trichloroethane	11.404	97	7929	0.495	ppbV		89
50) benzene	11.929	78	3770	0.142	ppbV		95
52) carbon tetrachloride	0.000		0	N.D.	d		
53) cyclohexane	12.243	56	571	0.040	ppbV		97
56) 1,2-dichloropropane	12.872	63	4009	0.391	ppbV		96
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	0.000		0	N.D.			
59) trichloroethene	13.139	130	807136	73.345	ppbV		99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d		
62) heptane	0.000		0	N.D.	d		
63) cis-1,3-dichloropropene	0.000		0	N.D.			
64) 4-methyl-2-pentanone	14.209	43	6012	0.289	ppbV		99
65) trans-1,3-dichloropropene	0.000		0	N.D.			
66) 1,1,2-trichloroethane	0.000		0	N.D.			
68) toluene	15.198	91	111041	3.501	ppbV		99
72) 2-hexanone	0.000		0	N.D.	d		
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	16.261	166	79178	5.714	ppbV		96
80) chlorobenzene	0.000		0	N.D.			
81) ethylbenzene	17.134	91	9500	0.237	ppbV		99
83) m+p-xylene	17.268	91	25445	0.826	ppbV		99
84) bromoform	0.000		0	N.D.			
85) styrene	17.567	104	733	0.031	ppbV		98
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.			
87) o-xylene	17.646	91	8448	0.273	ppbV		96
96) 4-ethyl toluene	18.577	105	4915	0.107	ppbV	#	95
97) 1,3,5-trimethylbenzene	18.627	105	5477	0.151	ppbV		99
99) 1,2,4-trimethylbenzene	18.937	105	18265	0.529	ppbV	#	52
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	0.000		0	N.D.	d		
103) 1,4-dichlorobenzene	19.124		0	N.D.			
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	0.000		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167948.D
 Acq On : 9 Aug 2019 10:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-01D,3,100,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:48:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

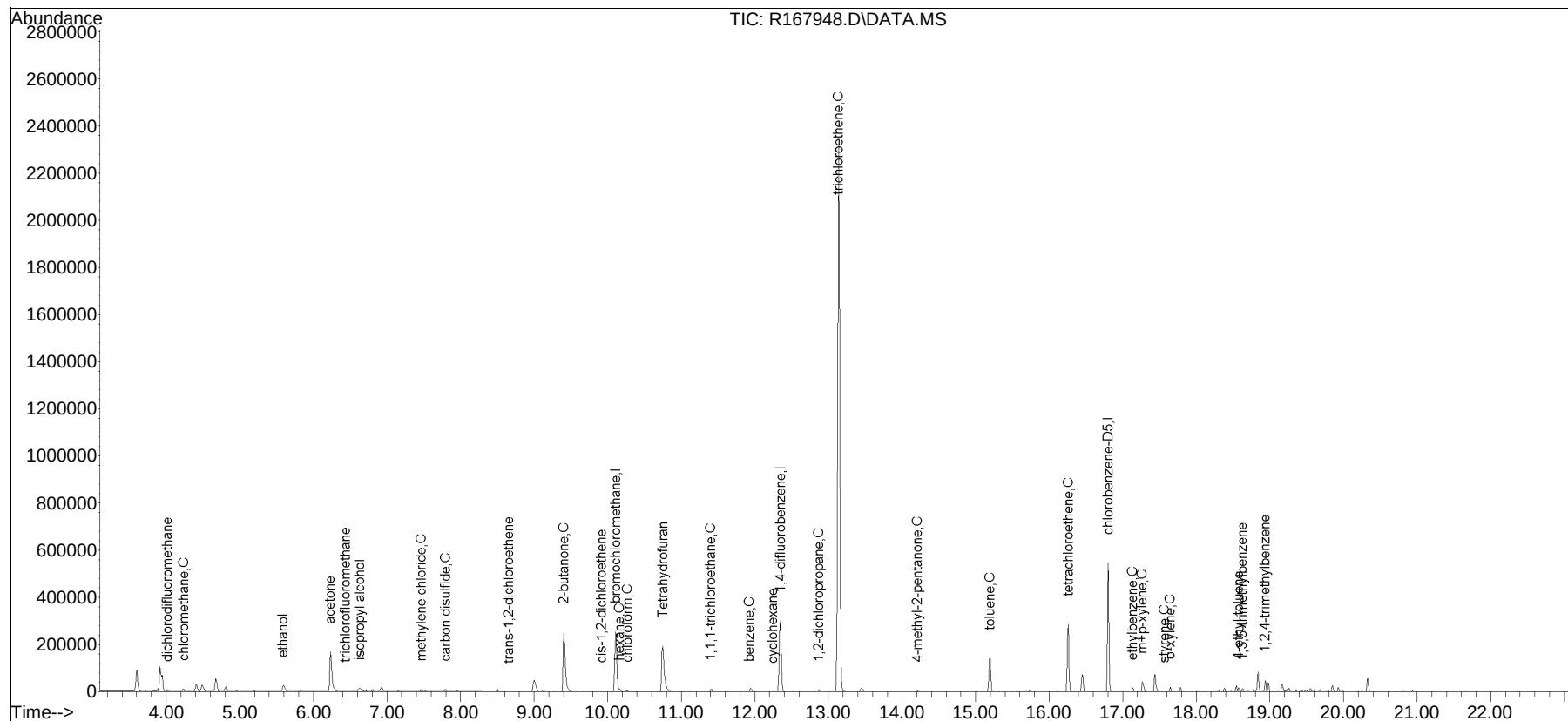
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

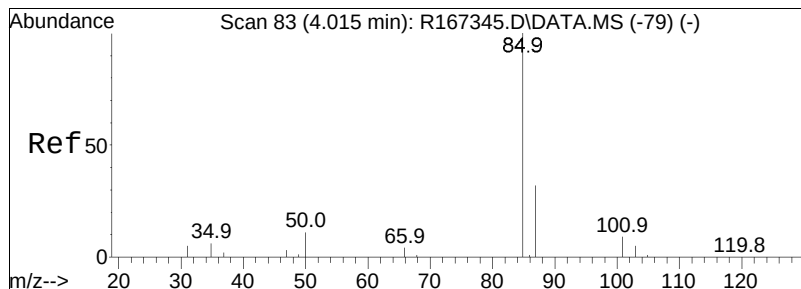
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167948.D
Acq On : 9 Aug 2019 10:05 pm
Operator : AIRPIAN01:EW
Sample : L1935043-01D,3,100,250
Misc : WG1270780,ICAL15961
ALS Vial : 7 Sample Multiplier: 1

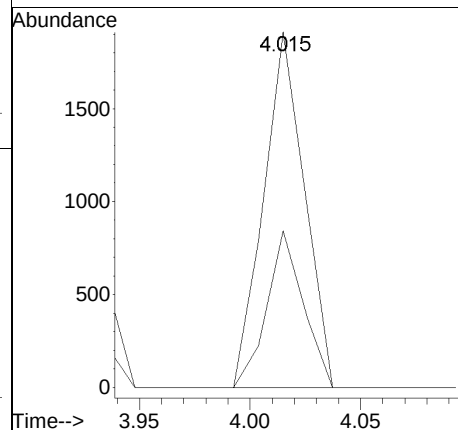
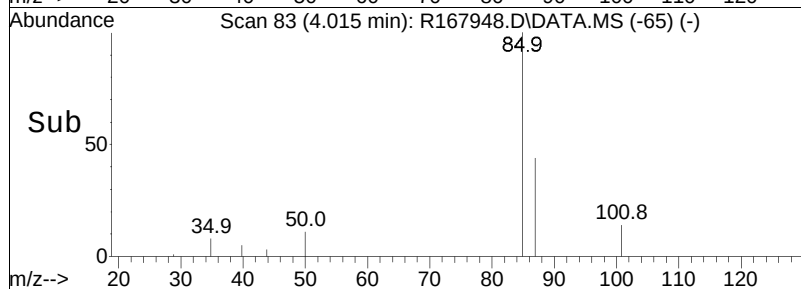
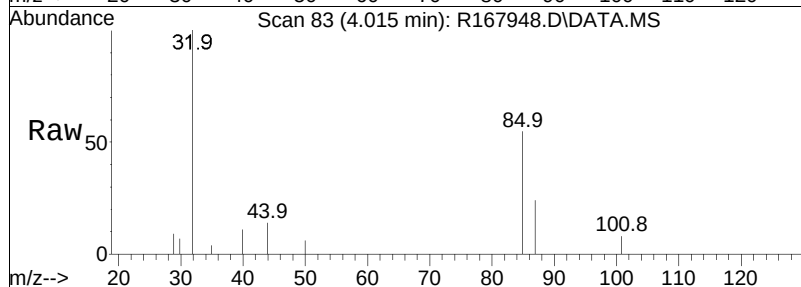
Quant Time: Aug 12 10:48:58 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

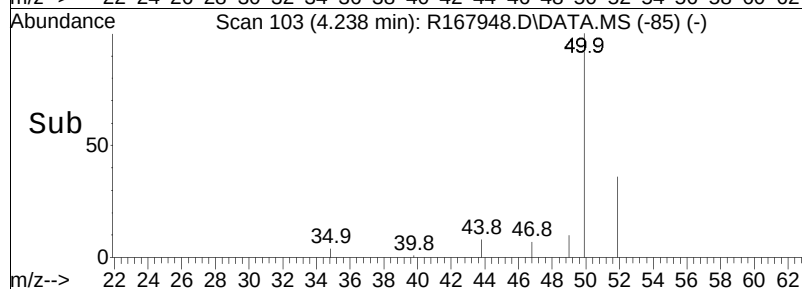
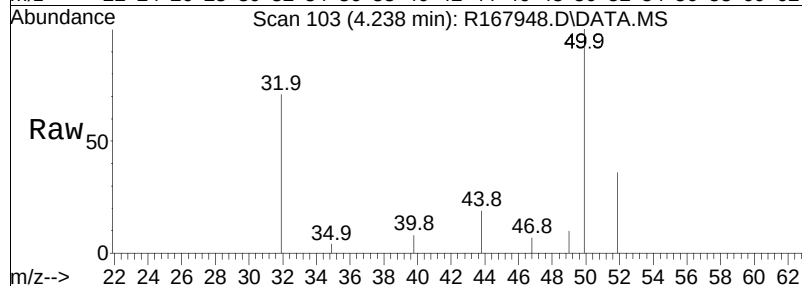
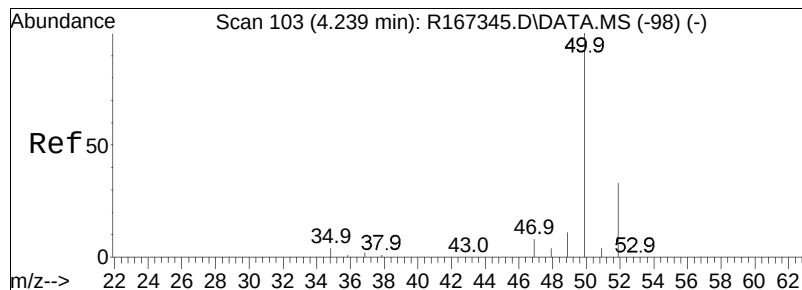




#5
dichlorodifluoromethane
Concen: 0.15 ppbV m
RT: 4.015 min Scan# 83
Delta R.T. -0.000 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

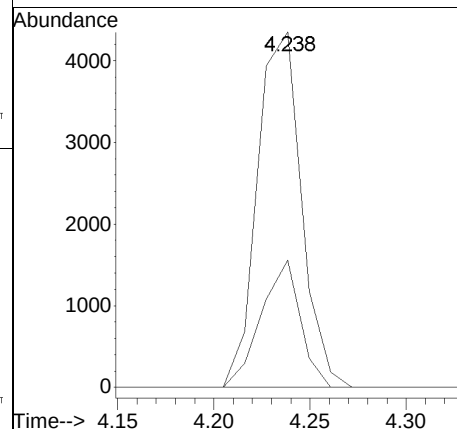
Tgt Ion: 85 Resp: 2443
Ion Ratio Lower Upper
85 100
87 44.1 25.7 38.5#

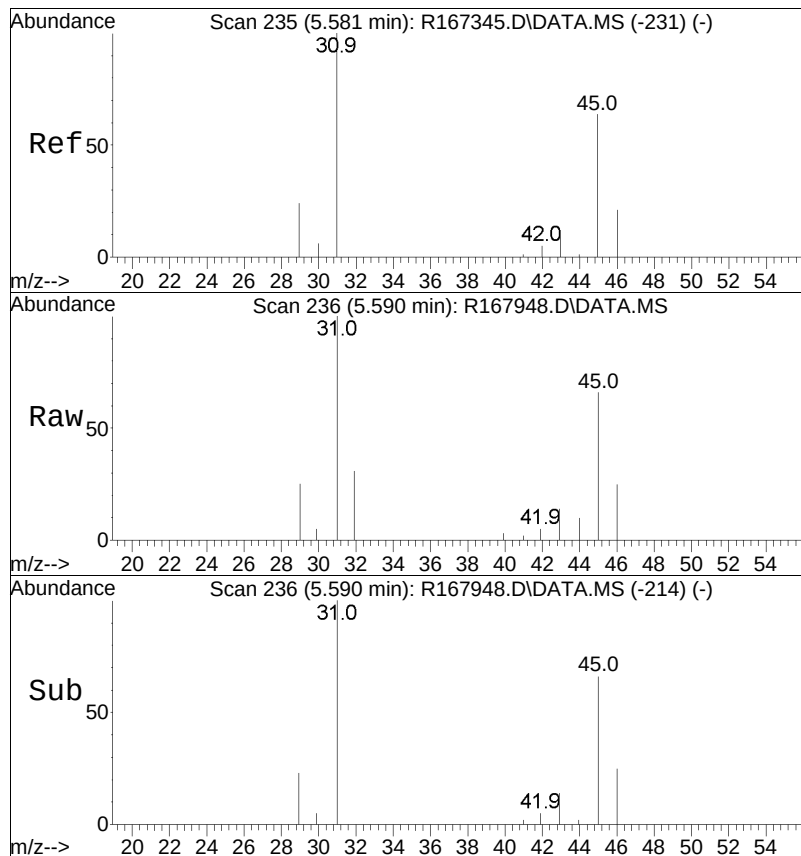




#6
 chloromethane
 Concen: 1.16 ppbV
 RT: 4.238 min Scan# 103
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

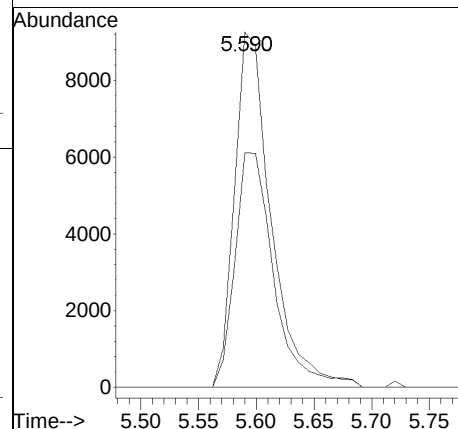
Tgt	Ion	Resp	Lower	Upper
50	100	6928		
52	35.8	26.3	39.5	

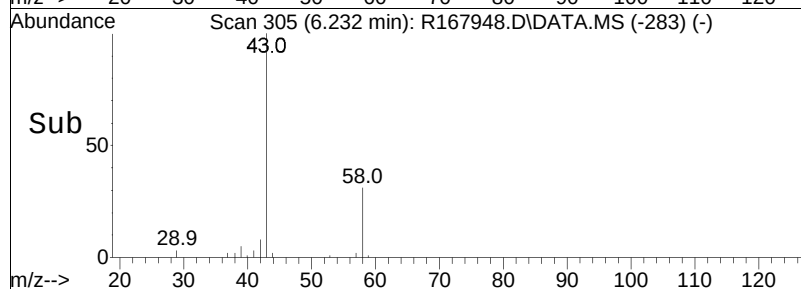
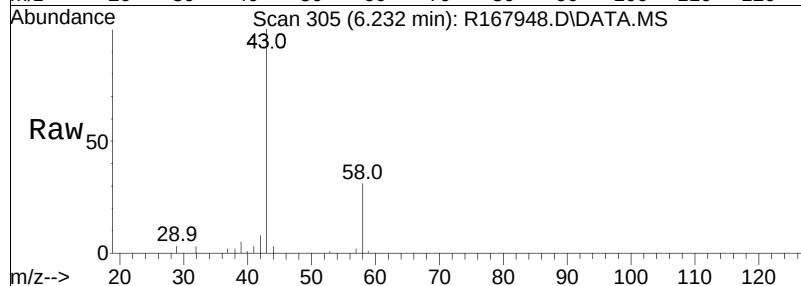
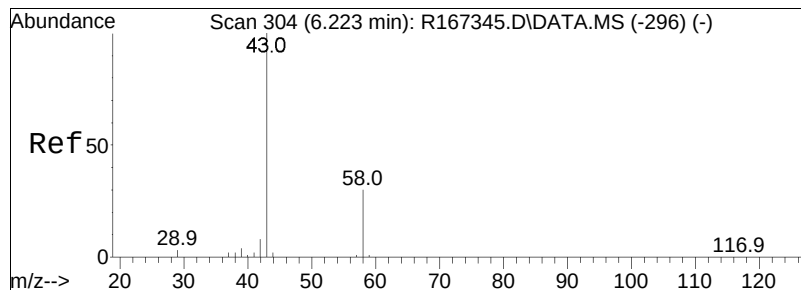




#15
 ethanol
 Concen: 5.43 ppbV
 RT: 5.590 min Scan# 236
 Delta R.T. 0.009 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

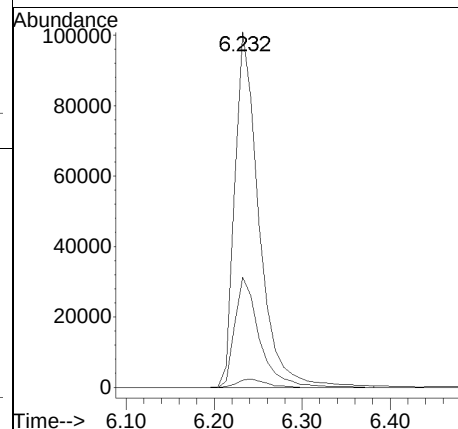
Tgt Ion:	31	Resp:	20478
Ion Ratio	Lower	Upper	
31	100		
45	66.0	50.8	76.2

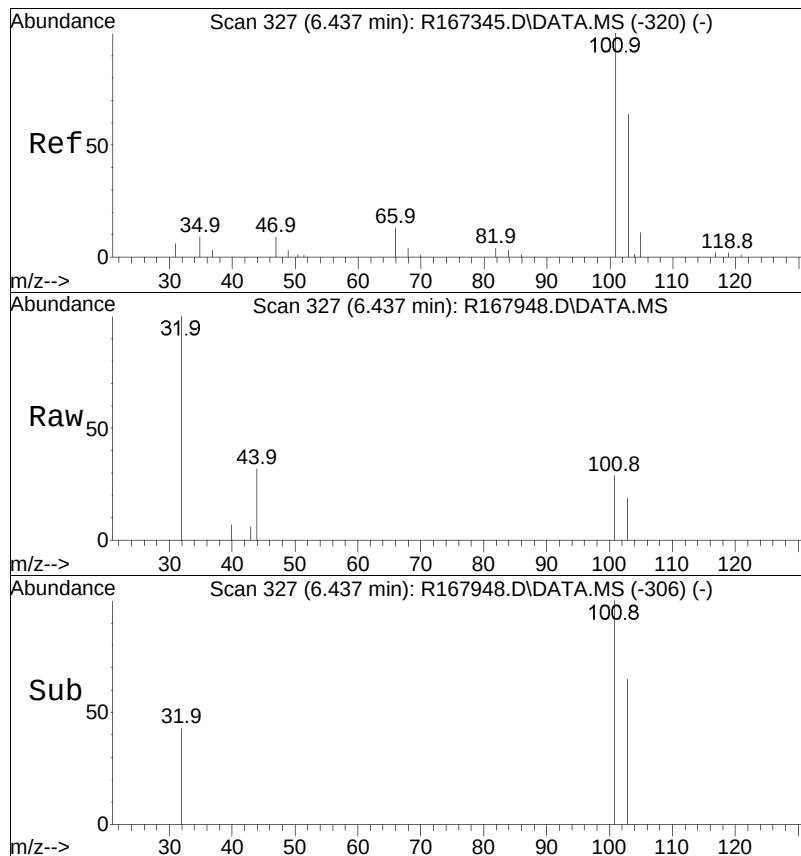




#19
acetone
Concen: 15.65 ppbV
RT: 6.232 min Scan# 305
Delta R.T. 0.009 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

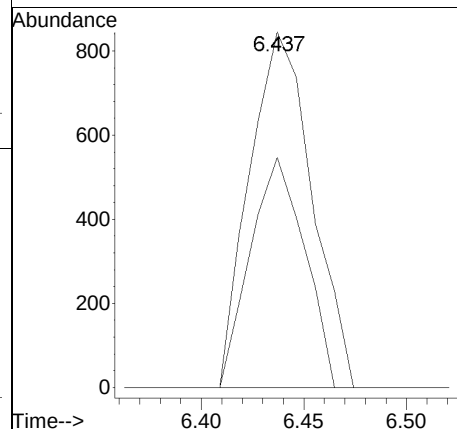
Tgt Ion:	43	58	57	Resp:	193449	Lower	Upper
Ratio	100	31.0	2.0				
		24.2	0.8				
		36.2	1.2				

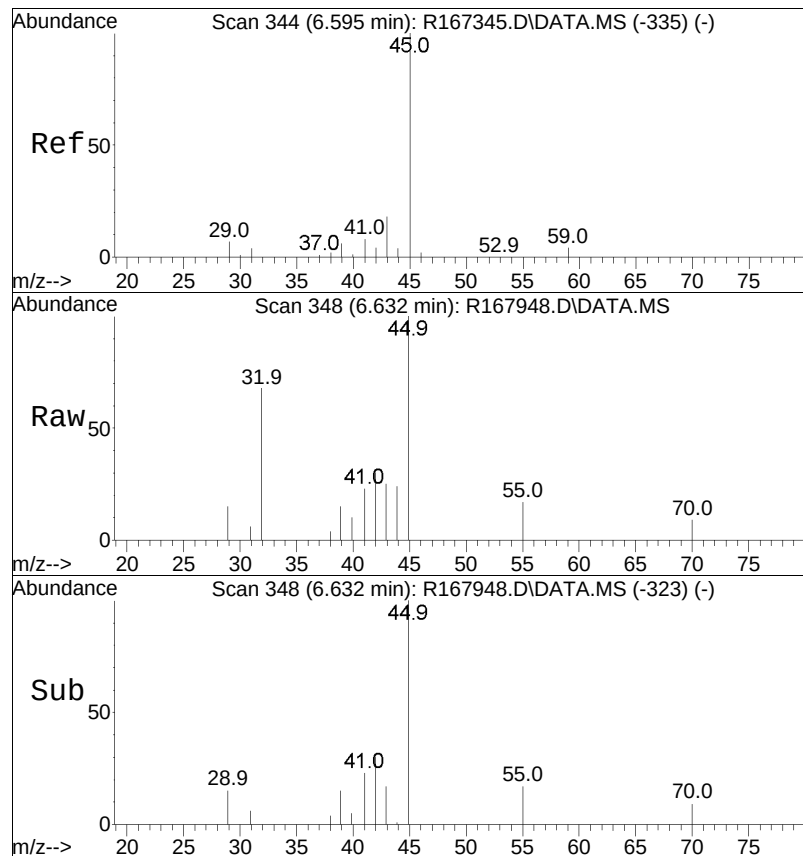




#21
trichlorofluoromethane
Concen: 0.11 ppbV
RT: 6.437 min Scan# 327
Delta R.T. -0.000 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

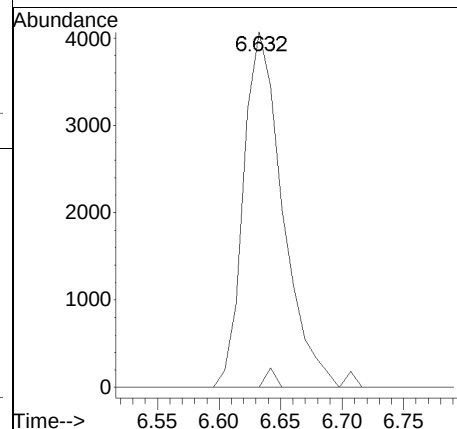
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	64.7	51.1	76.7	

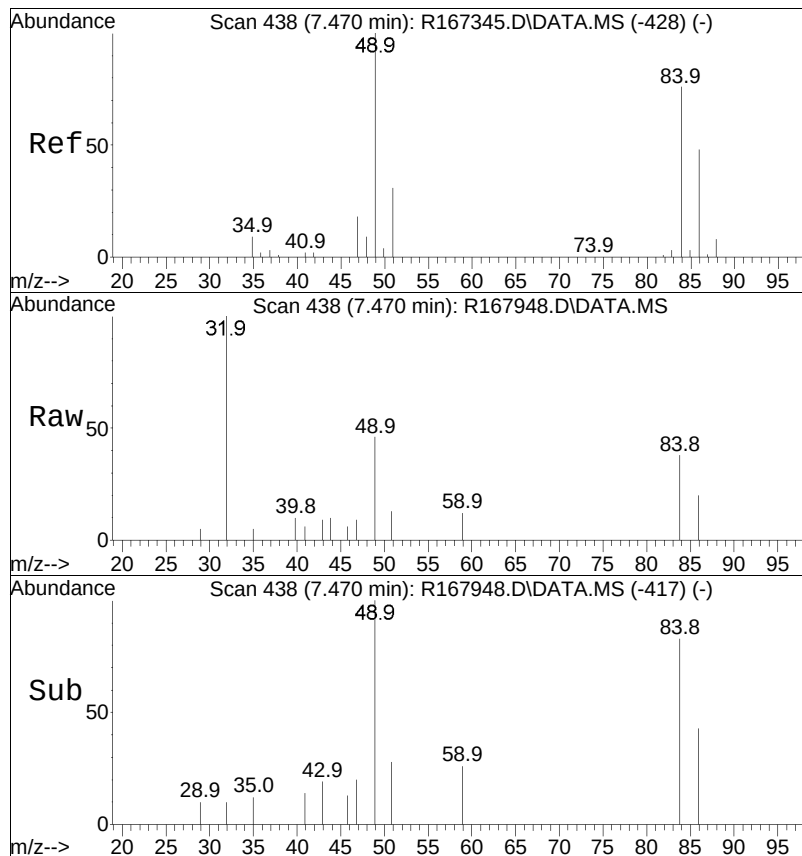




#22
isopropyl alcohol
Concen: 0.64 ppbV
RT: 6.632 min Scan# 348
Delta R.T. 0.037 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

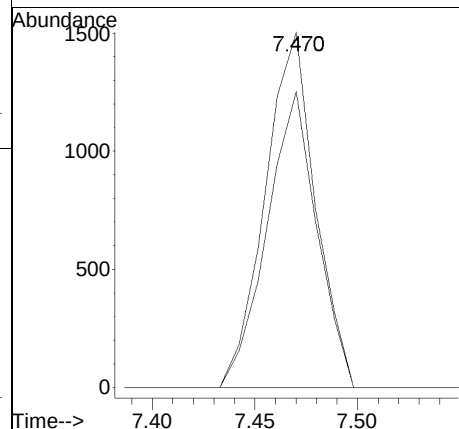
Tgt	Ion	Ratio	Lower	Upper
45	100			
59	0.0	3.4	5.0#	

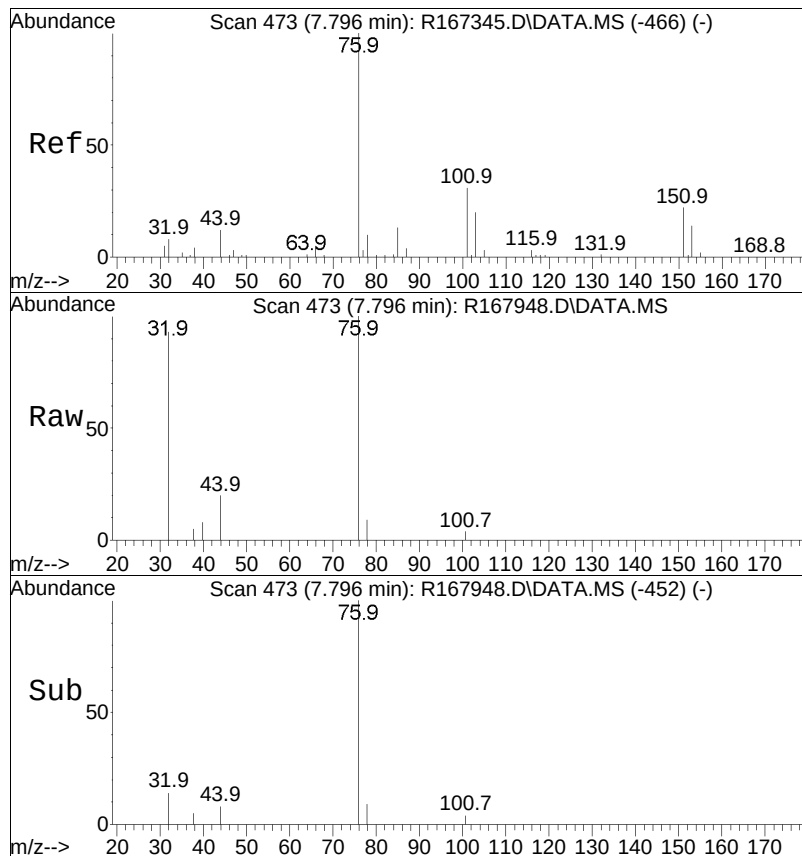




#28
 methylene chloride
 Concen: 0.27 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

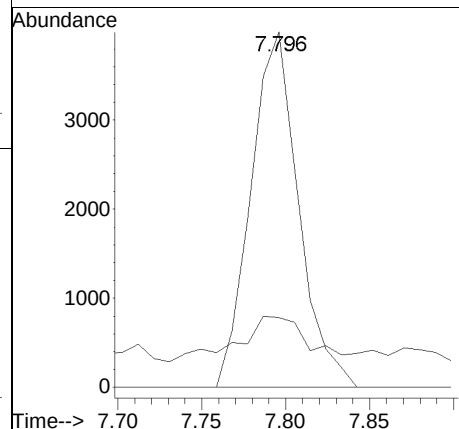
Tgt Ion	Ratio	Lower	Upper
49	100		
84	83.3	60.6	91.0

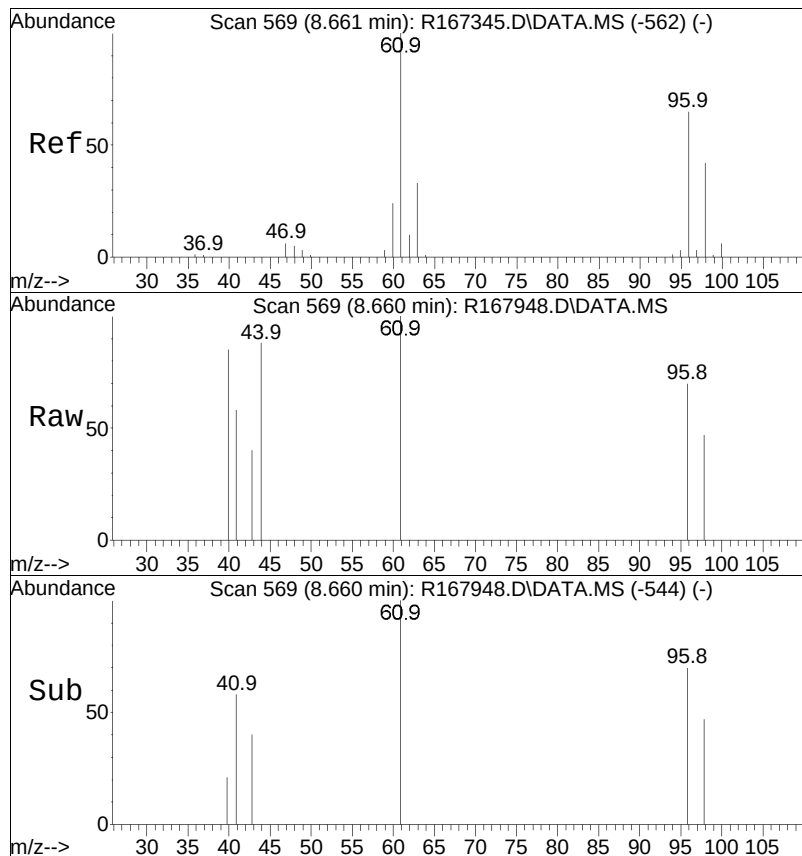




#30
 carbon disulfide
 Concen: 0.31 ppbV
 RT: 7.796 min Scan# 473
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

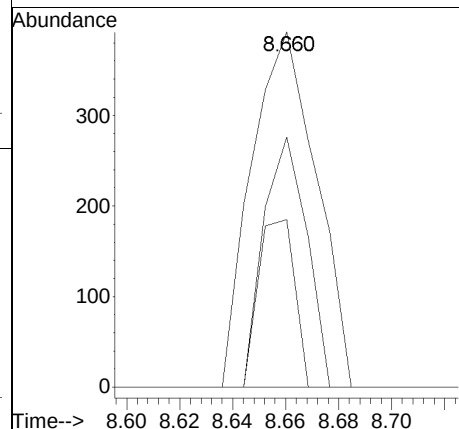
Tgt Ion	Ratio	Lower	Upper
76	100		
44	19.6	9.8	14.8#

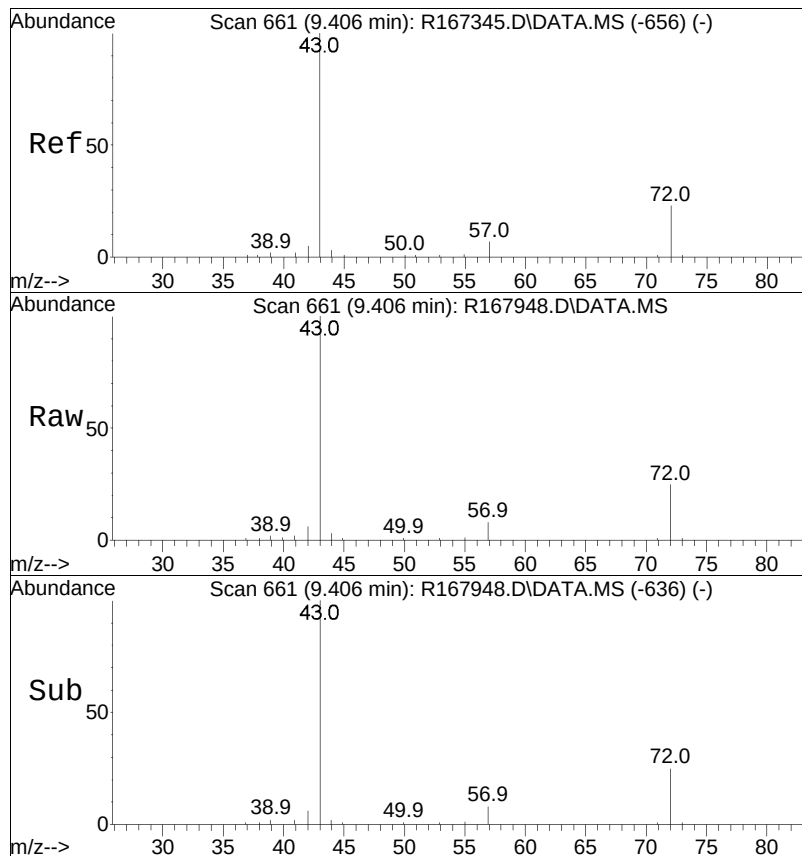




#32
 trans-1,2-dichloroethene
 Concen: 0.05 ppbV
 RT: 8.660 min Scan# 569
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

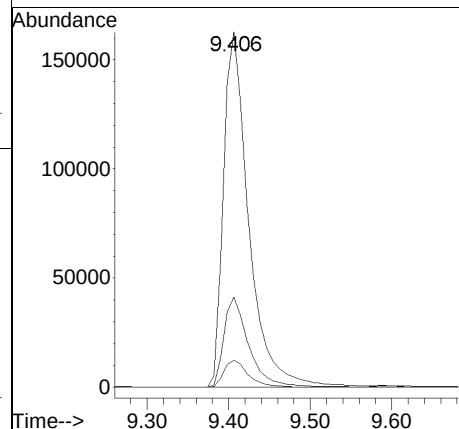
Tgt Ion	Ratio	Lower	Upper
61	100		
96	70.4	52.2	78.4
98	47.2	33.4	50.2

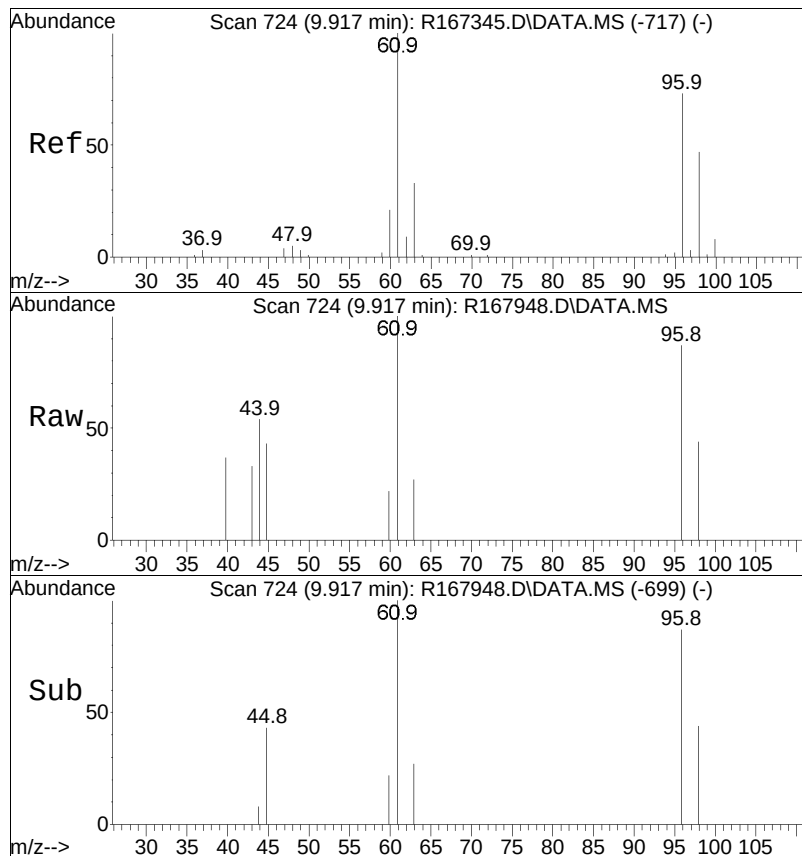




#36
 2-butanone
 Concen: 22.40 ppbV
 RT: 9.406 min Scan# 661
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

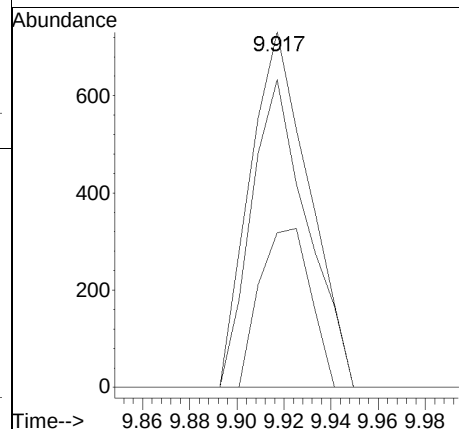
Tgt Ion	Ratio	Lower	Upper
43	100		
72	25.5	18.7	28.1
57	7.6	5.6	8.4

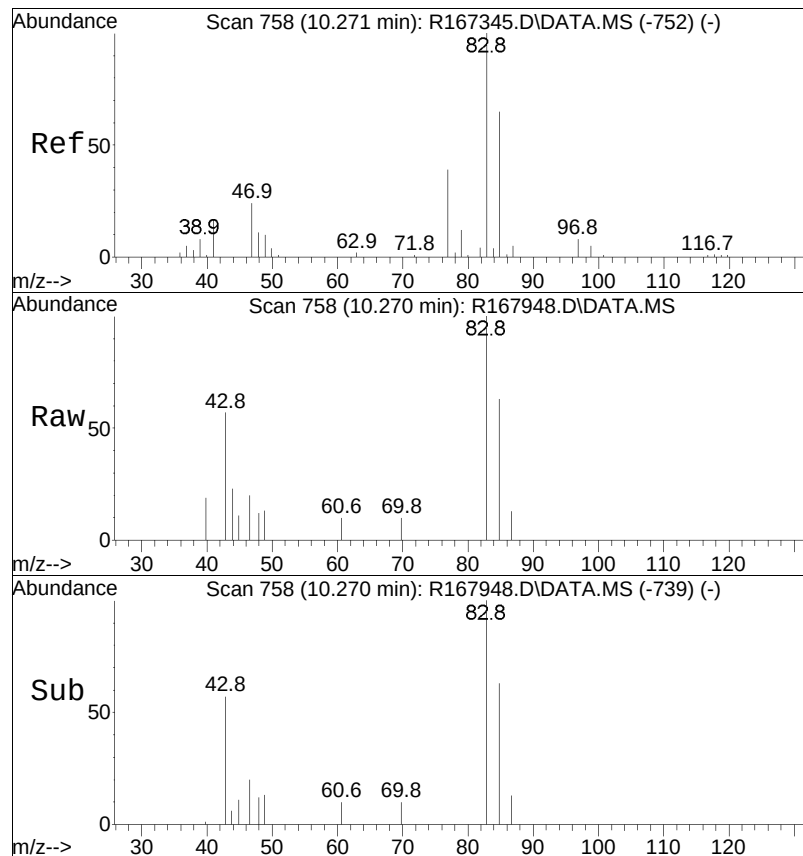




#37
 cis-1,2-dichloroethene
 Concen: 0.10 ppbV
 RT: 9.917 min Scan# 724
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

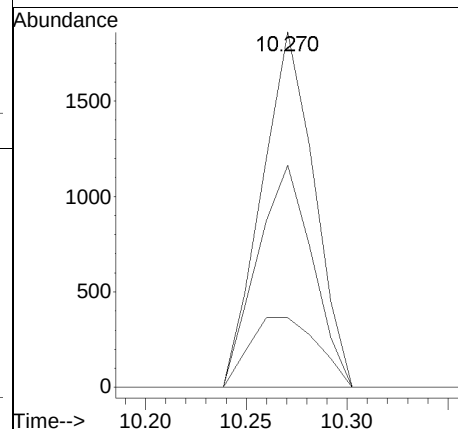
Tgt Ion:	61	Resp:	1276
Ion Ratio	Lower	Upper	
61	100		
96	86.6	58.0	87.0
98	43.5	37.6	56.4

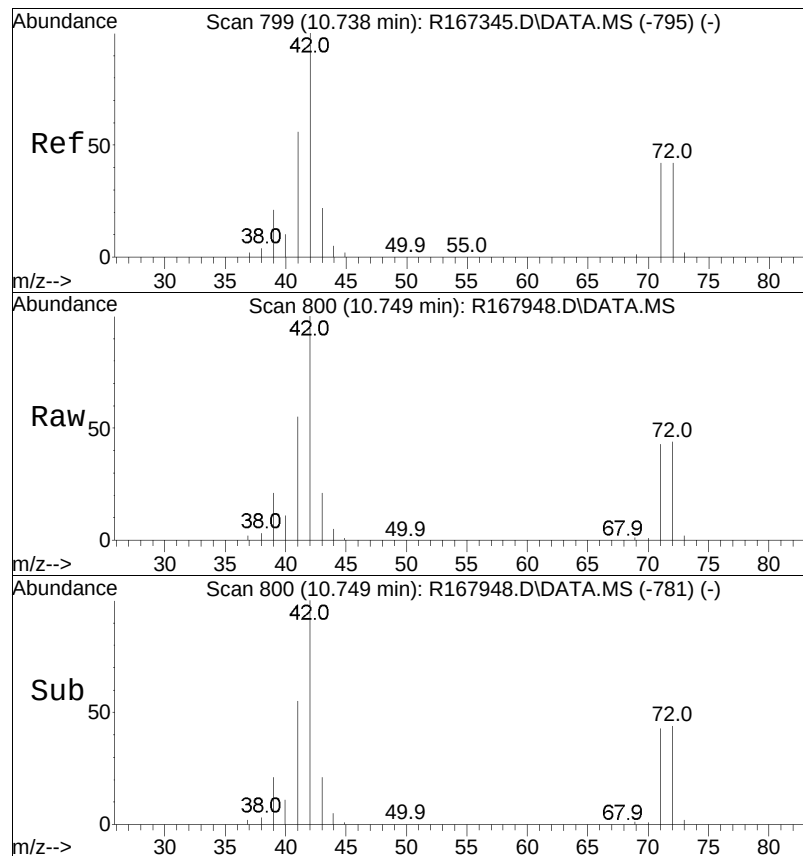




#39
 chloroform
 Concen: 0.16 ppbV
 RT: 10.270 min Scan# 758
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

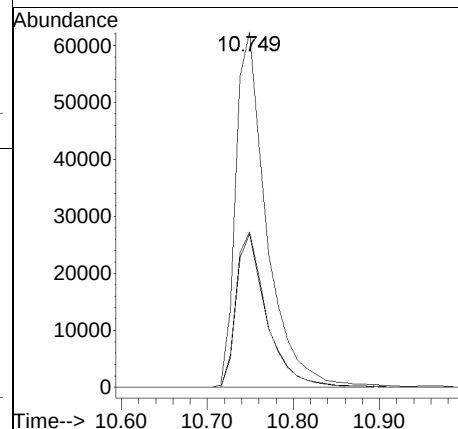
Tgt	Ion	Ratio	Resp	Lower	Upper
83	100		3379		
85	62.5	52.2		78.2	
47	19.6	19.1		28.7	

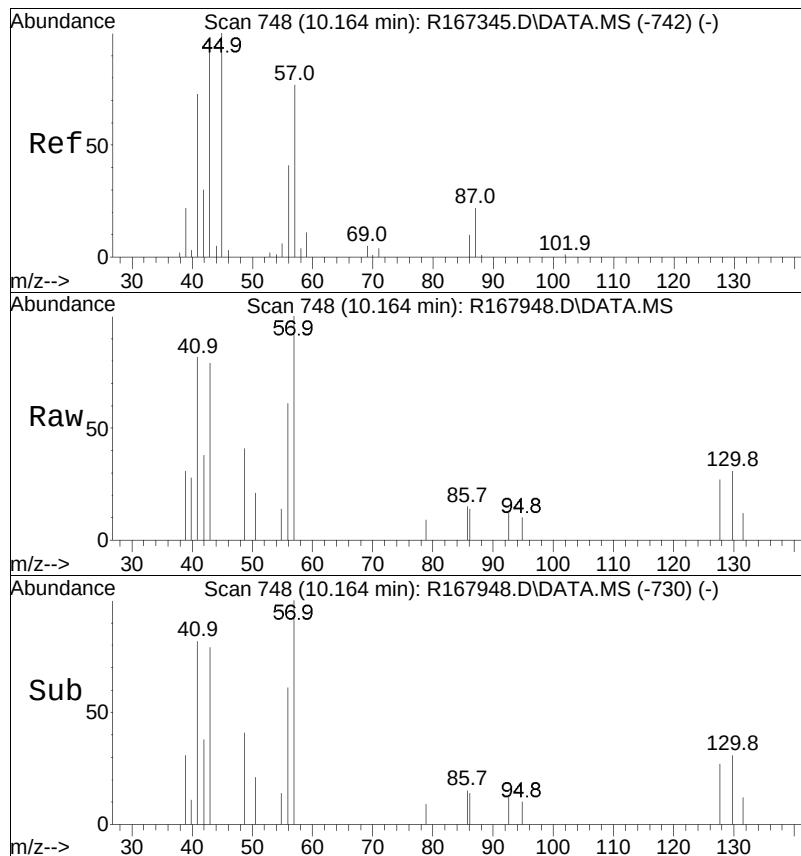




#40
 Tetrahydrofuran
 Concen: 16.01 ppbV
 RT: 10.749 min Scan# 800
 Delta R.T. 0.011 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

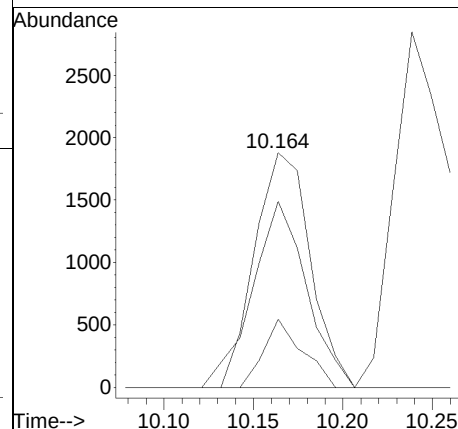
Tgt Ion	Ratio	Lower	Upper
42	100		
71	43.3	33.5	50.3
72	43.8	33.3	49.9

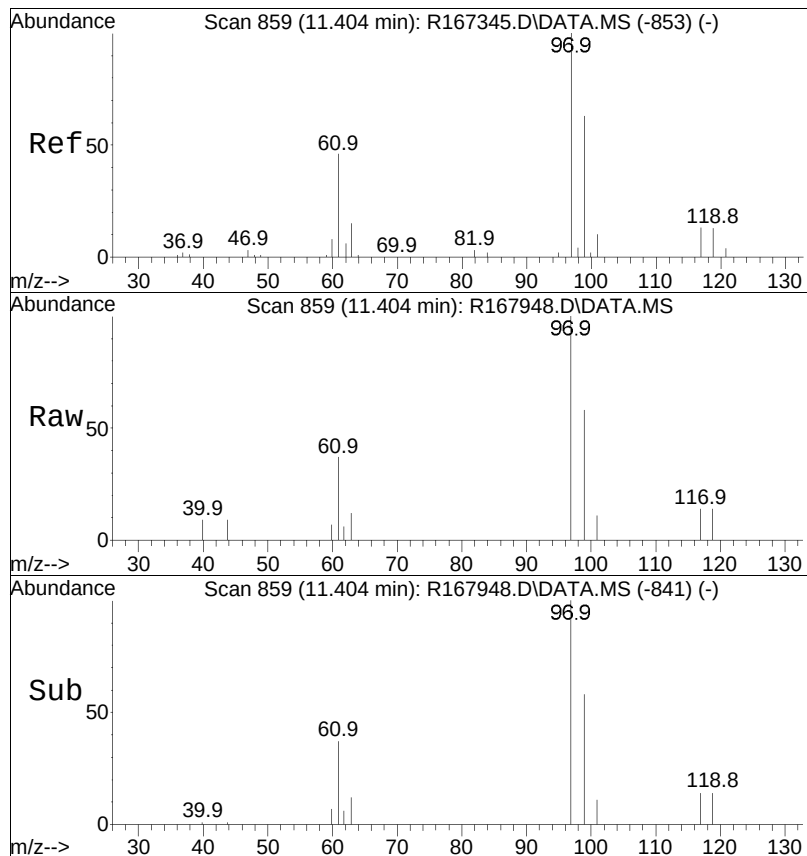




#44
 hexane
 Concen: 0.24 ppbV
 RT: 10.164 min Scan# 748
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

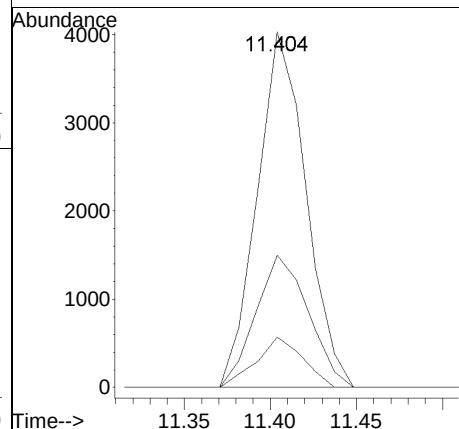
Tgt Ion:	57	Resp:	4055
Ion Ratio	Lower	Upper	
57	100		
43	79.3	98.0	147.0#
86	29.0	10.0	15.0#

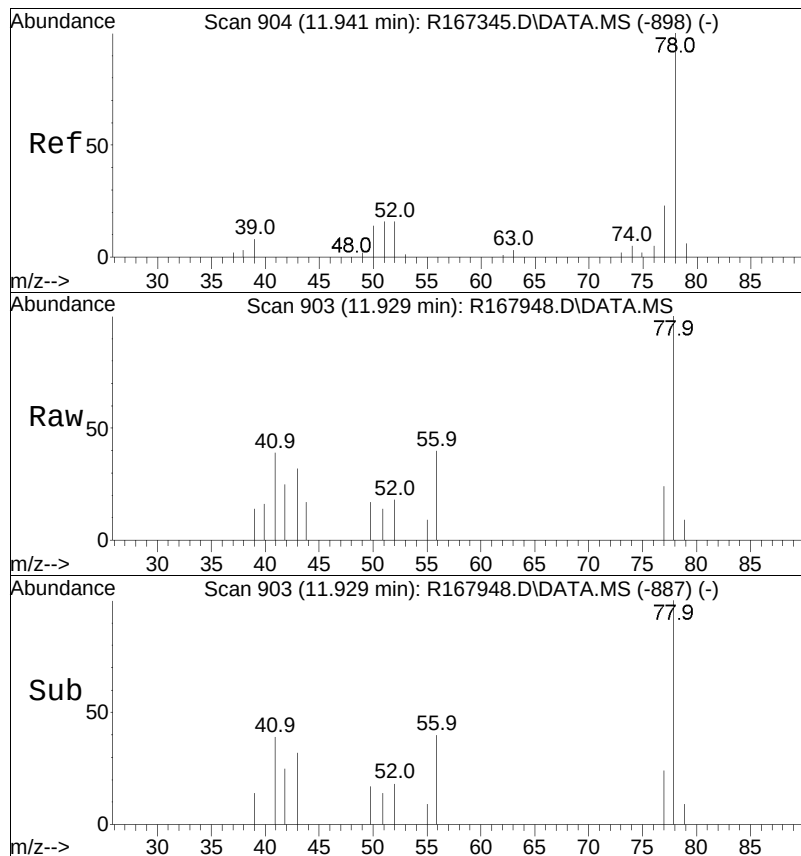




#48
 1,1,1-trichloroethane
 Concen: 0.50 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

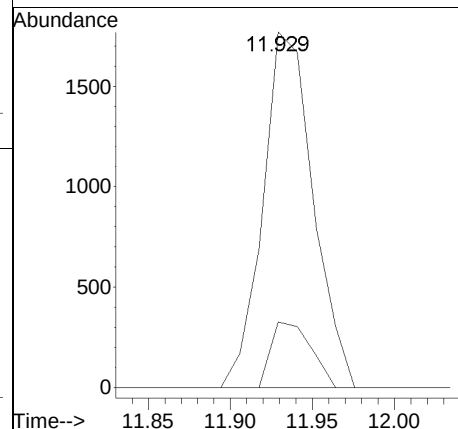
Tgt Ion	Ratio	Resp	Lower	Upper
97	100	7929		
61	37.2		36.6	55.0
119	14.2		10.6	16.0

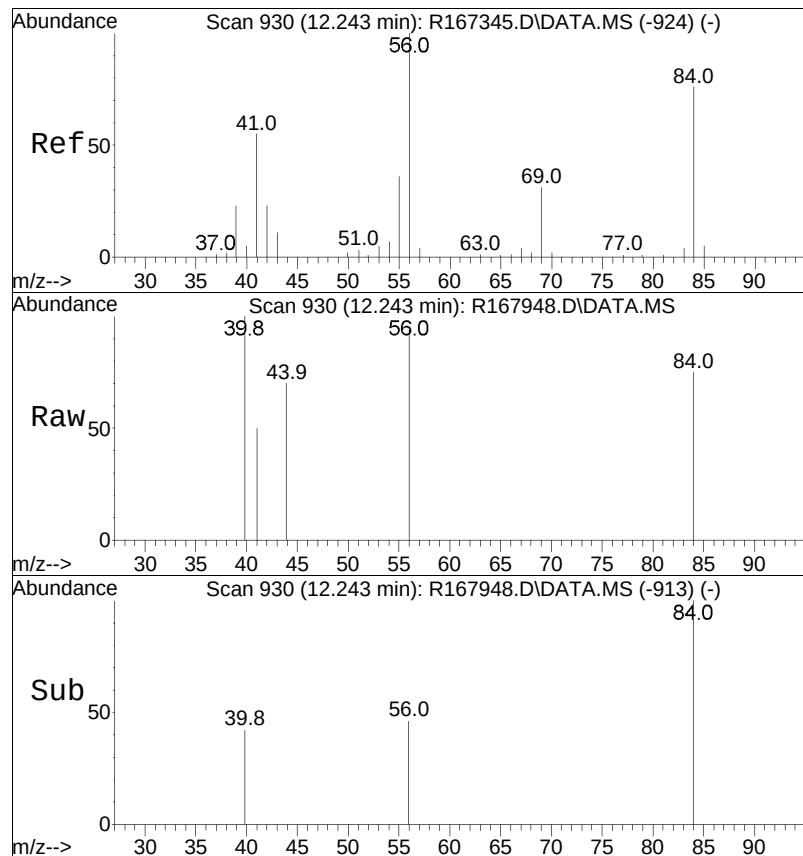




#50
benzene
Concen: 0.14 ppbV
RT: 11.929 min Scan# 903
Delta R.T. -0.012 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

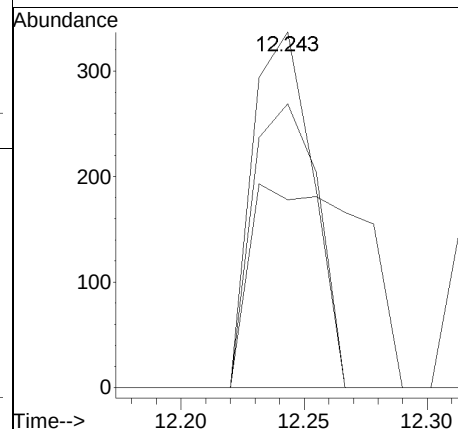
Tgt Ion	Ratio	Lower	Upper
78	100		
52	18.4	13.0	19.4

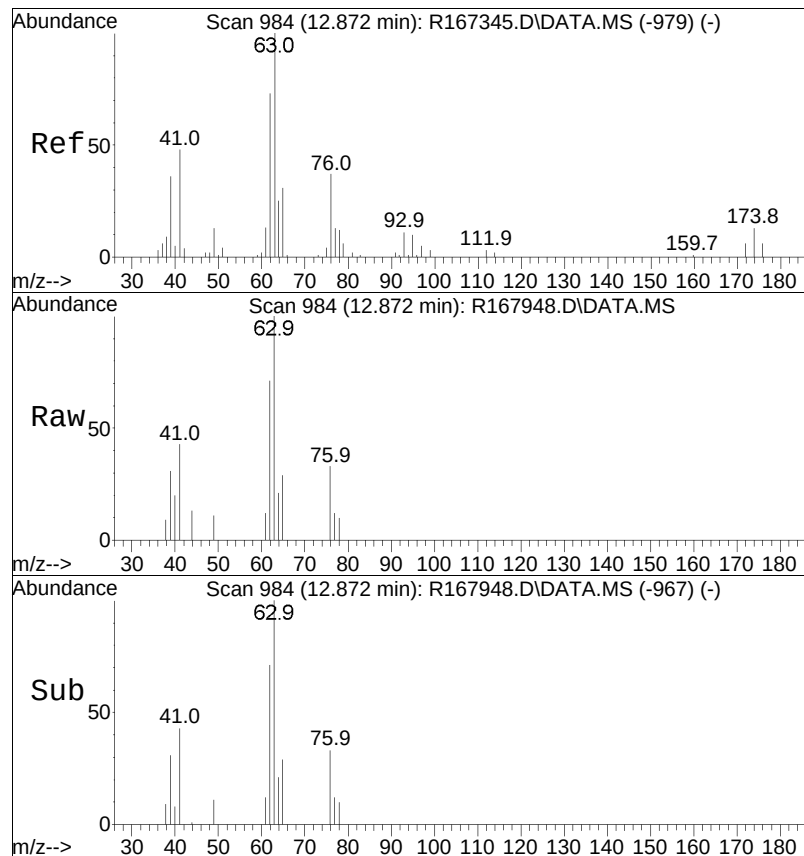




#53
cyclohexane
Concen: 0.04 ppbV
RT: 12.243 min Scan# 930
Delta R.T. -0.000 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

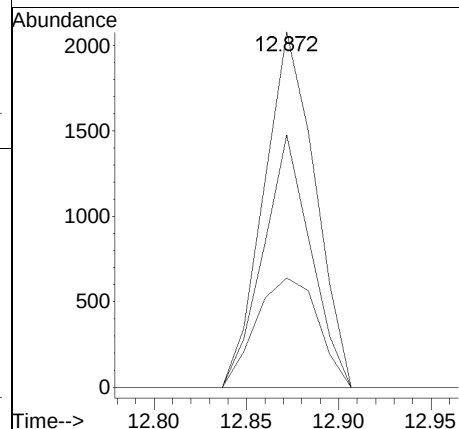
Tgt	Ion: 56	Resp:	571
Ion	Ratio	Lower	Upper
56	100		
84	79.8	61.0	91.6
41	52.8	43.8	65.6

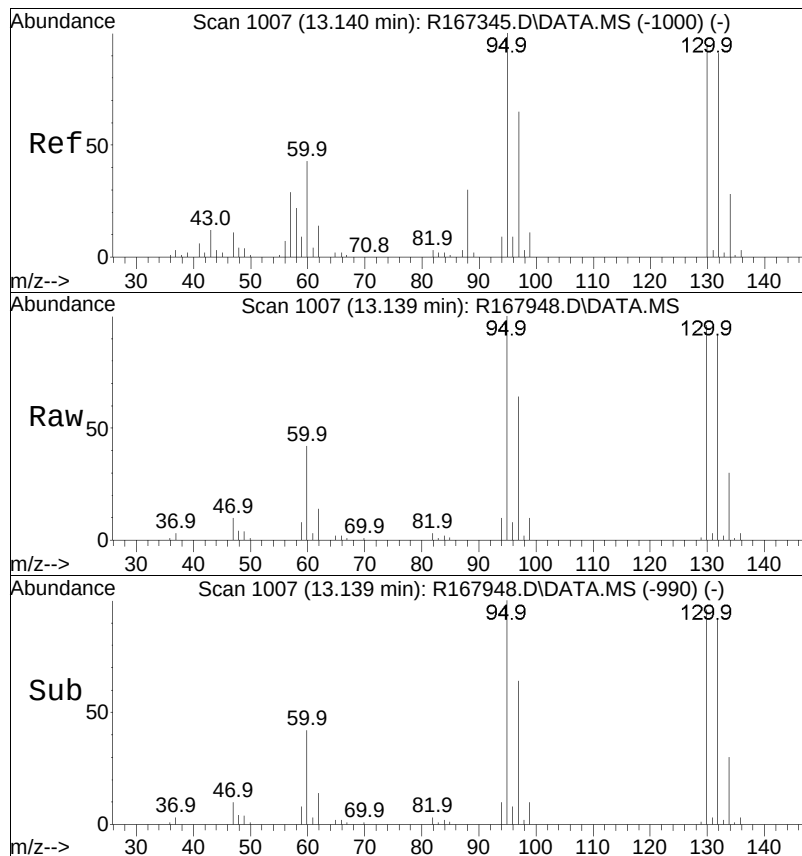




#56
 1,2-dichloropropane
 Concen: 0.39 ppbV
 RT: 12.872 min Scan# 984
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

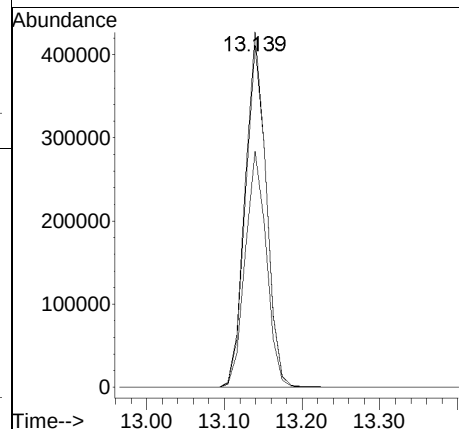
Tgt Ion:	63	Resp:	4009
Ion Ratio	Lower	Upper	
63	100		
62	71.0	58.4	87.6
39	30.8	28.4	42.6

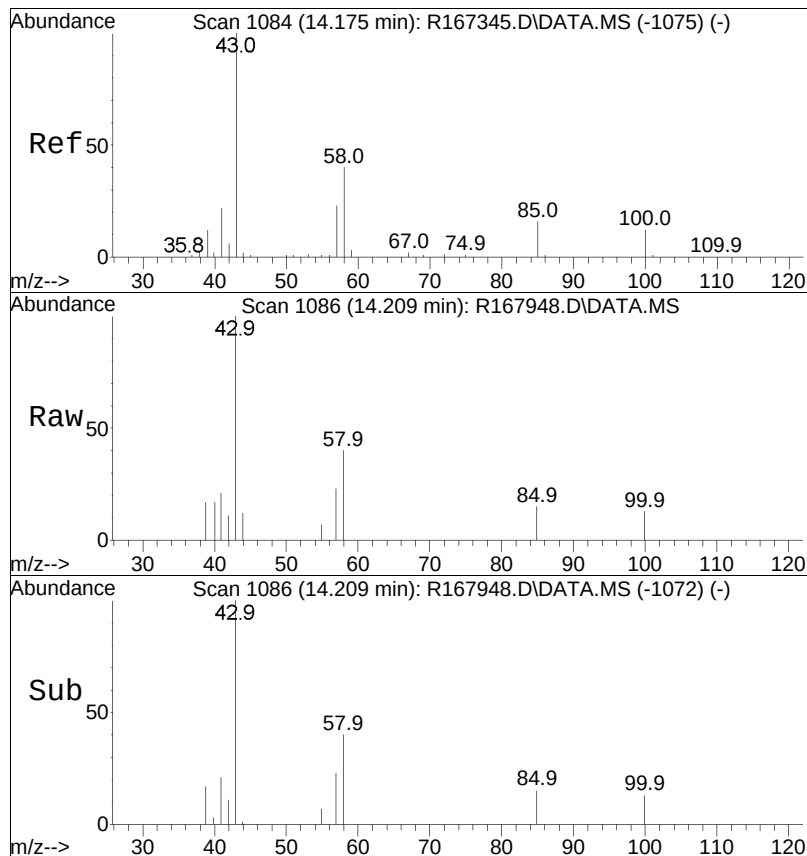




#59
 trichloroethene
 Concen: 73.35 ppbV
 RT: 13.139 min Scan# 1007
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

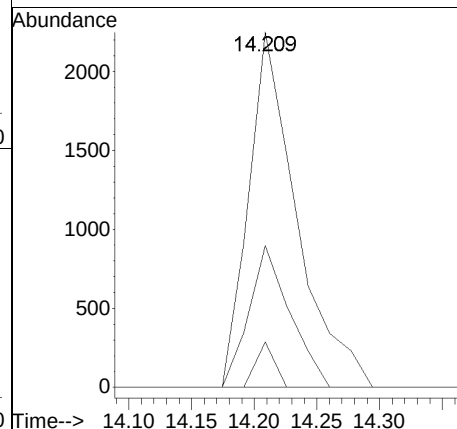
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.3	76.3	114.5
97	66.5	54.5	81.7

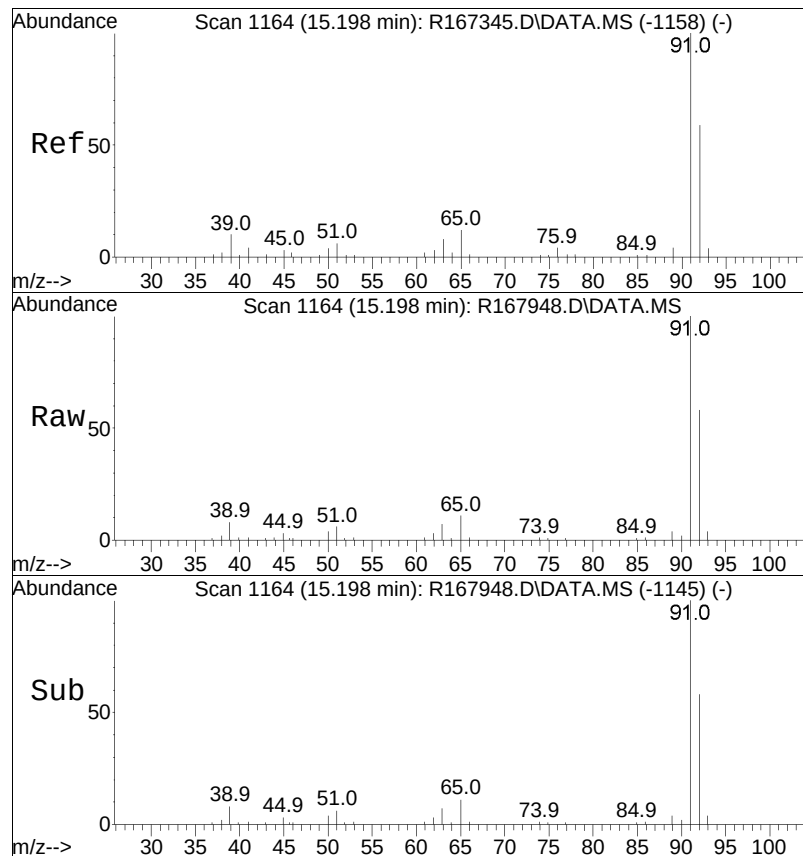




#64
 4-methyl-2-pentanone
 Concen: 0.29 ppbV
 RT: 14.209 min Scan# 1086
 Delta R.T. 0.034 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

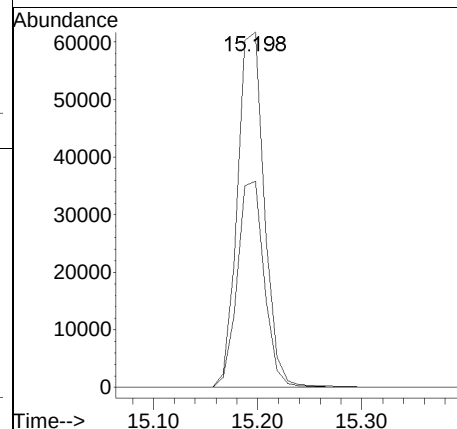
Tgt Ion	Ratio	Lower	Upper
43	100		
58	39.9	32.2	48.4
100	12.8	9.8	14.6

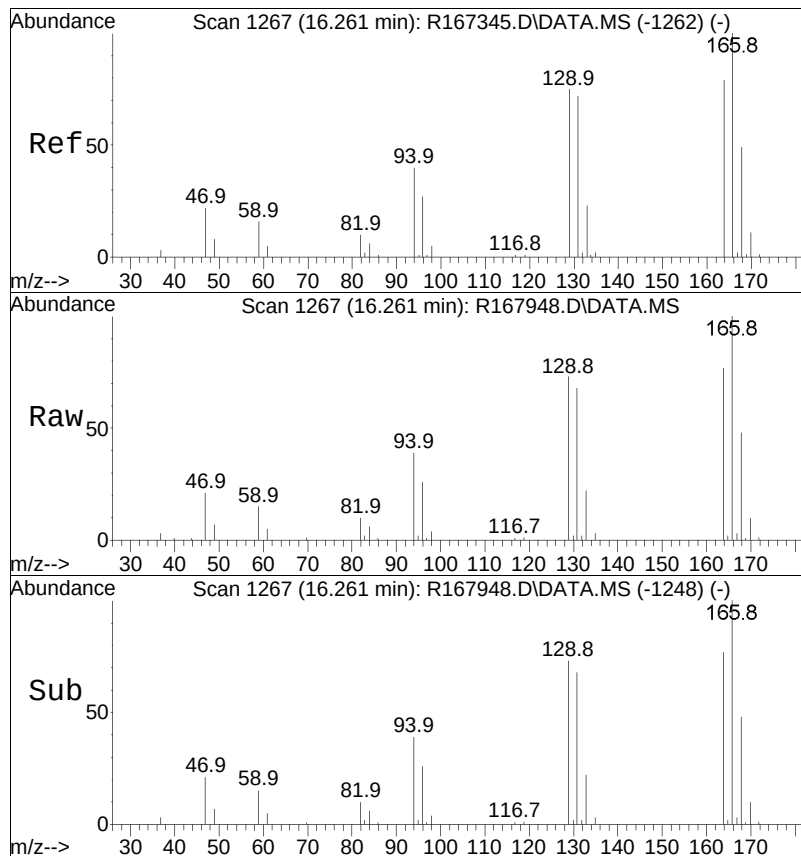




#68
toluene
Concen: 3.50 ppbV
RT: 15.198 min Scan# 1164
Delta R.T. -0.000 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

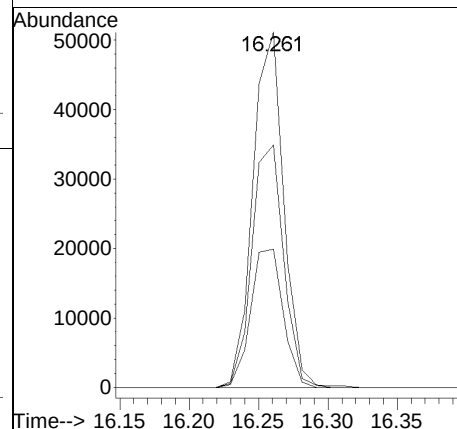
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.0	46.8	70.2

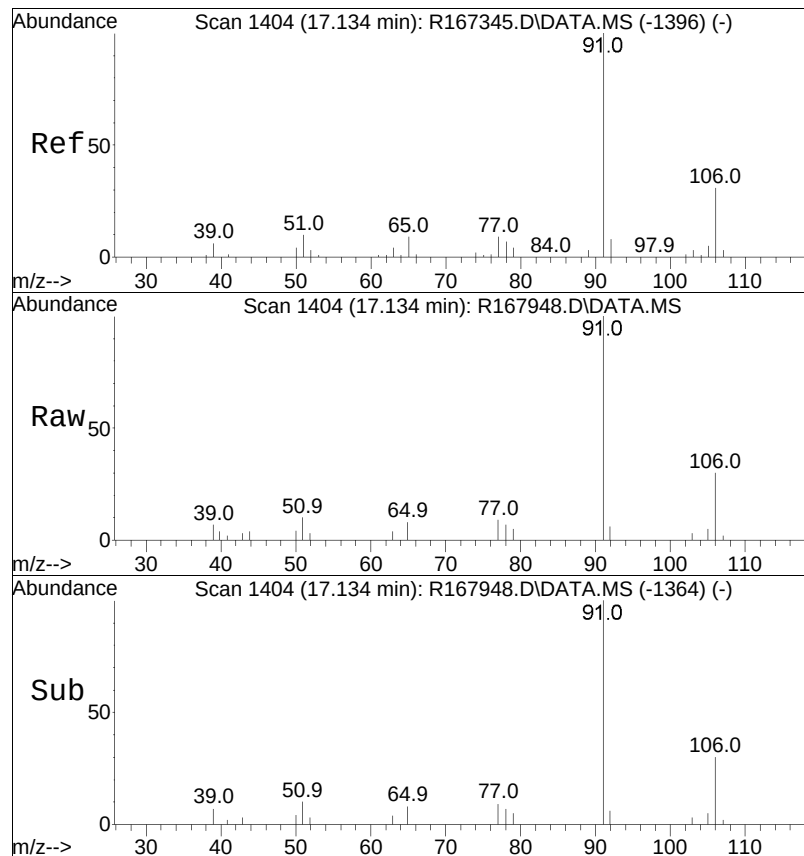




#78
 tetrachloroethene
 Concen: 5.71 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

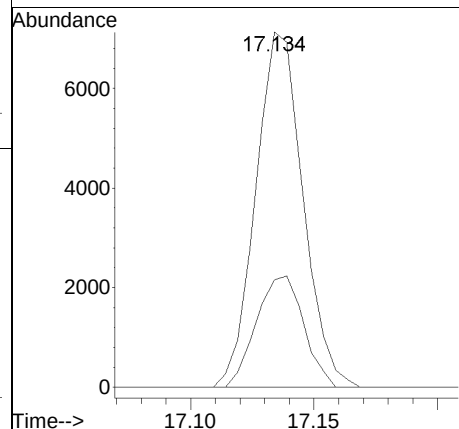
Tgt Ion	Ratio	Lower	Upper
166	100		
131	68.2	57.8	86.8
94	38.9	32.1	48.1

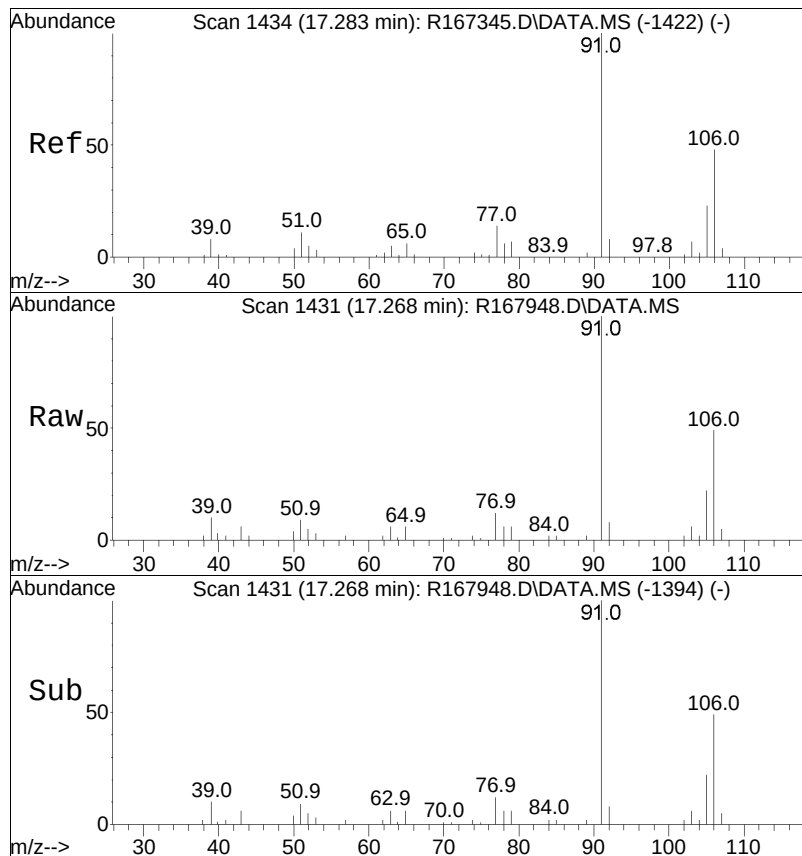




#81
ethylbenzene
Concen: 0.24 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. -0.000 min
Lab File: R167948.D
Acq: 9 Aug 2019 10:05 pm

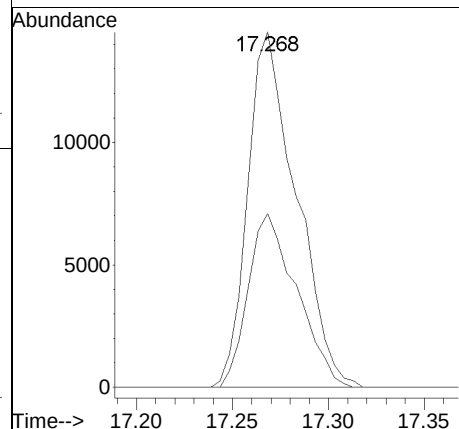
Tgt	Ion	Resp	Lower	Upper
91	100	9500		
106	30.3	24.6	37.0	

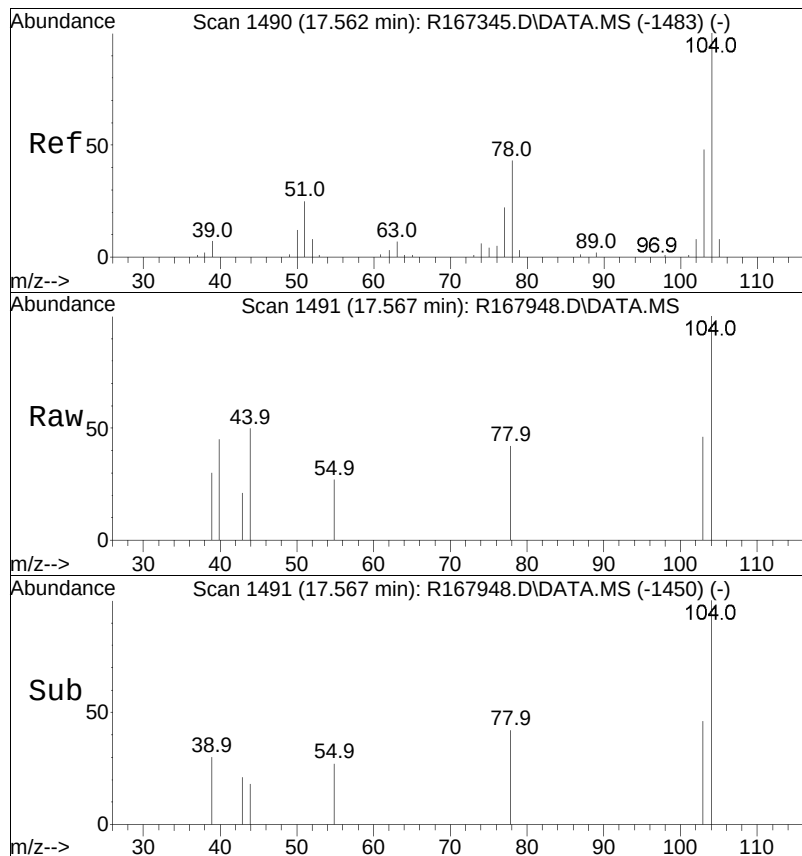




#83
 m+p-xylene
 Concen: 0.83 ppbV
 RT: 17.268 min Scan# 1431
 Delta R.T. -0.015 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

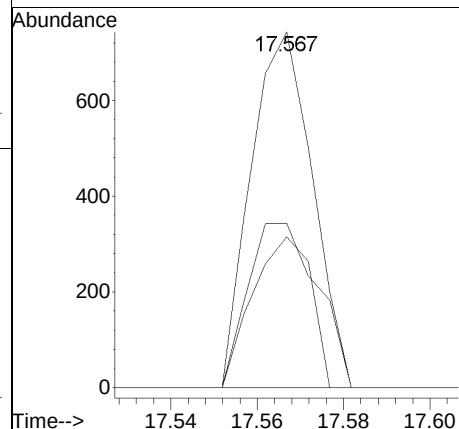
Tgt Ion	Ratio	Lower	Upper
91	100		
106	48.9	38.7	58.1

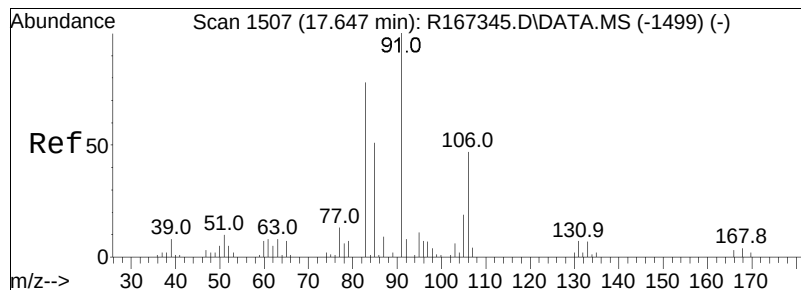




#85
 styrene
 Concen: 0.03 ppbV
 RT: 17.567 min Scan# 1491
 Delta R.T. 0.005 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

Tgt	Ion:104	Resp:	733
Ion	Ratio	Lower	Upper
104	100		
103	46.2	38.3	57.5
78	42.4	34.5	51.7





#87

o-xylene

Concen: 0.27 ppbV

RT: 17.646 min Scan# 1507

Delta R.T. -0.000 min

Lab File: R167948.D

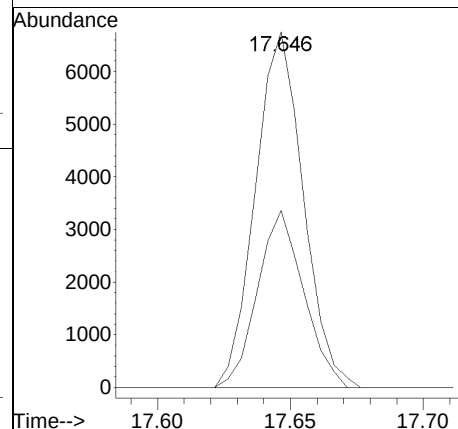
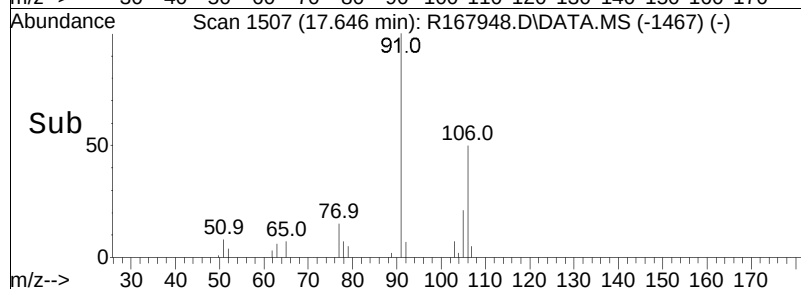
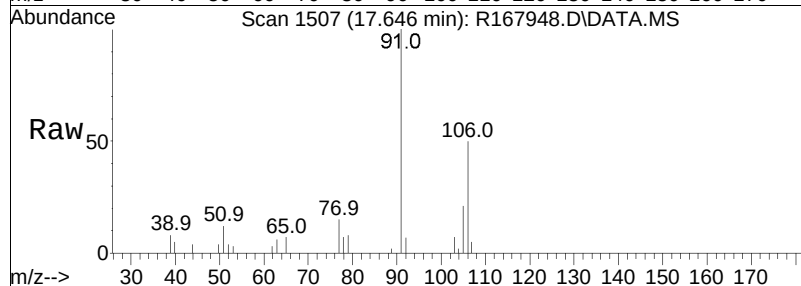
Acq: 9 Aug 2019 10:05 pm

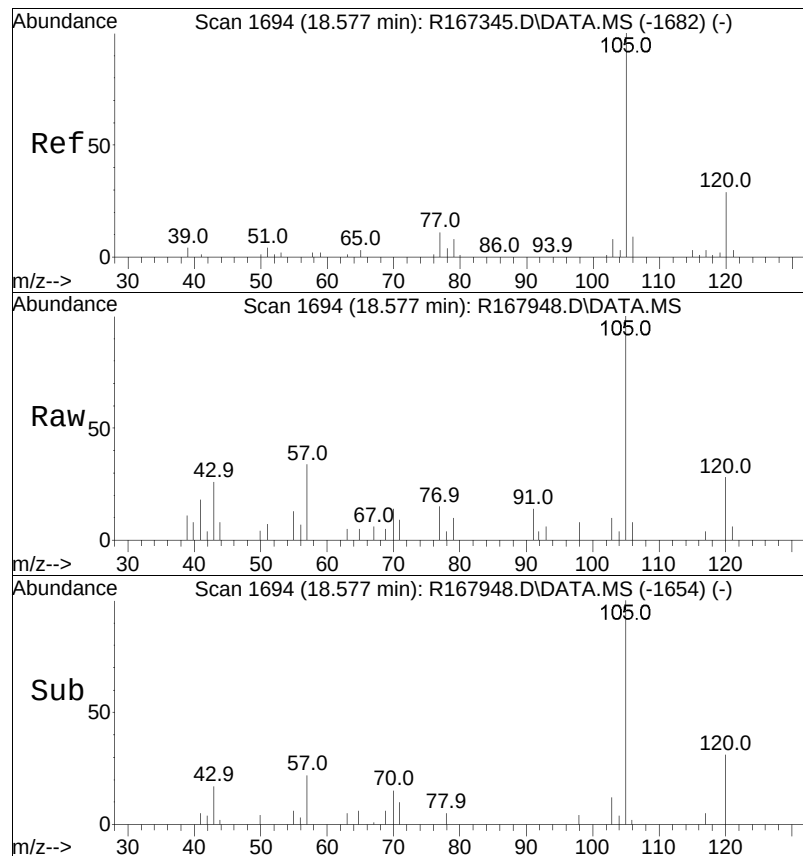
Tgt Ion: 91 Resp: 8448

Ion Ratio Lower Upper

91 100

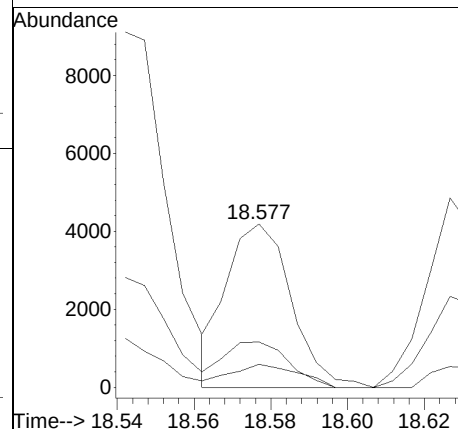
106 49.8 37.9 56.9

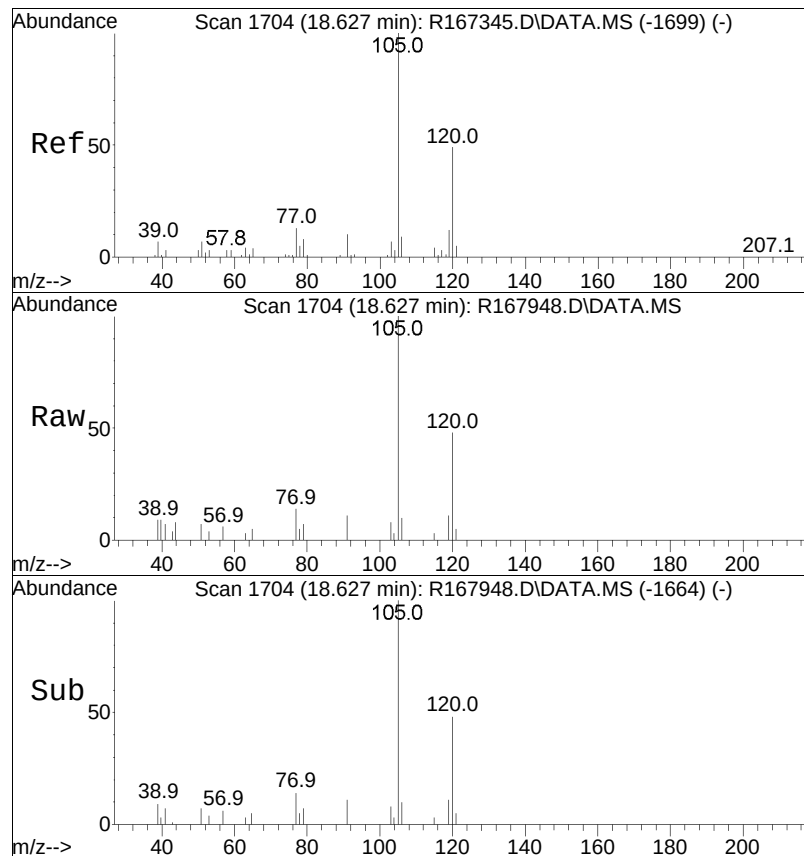




#96
 4-ethyl toluene
 Concen: 0.11 ppbV
 RT: 18.577 min Scan# 1694
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

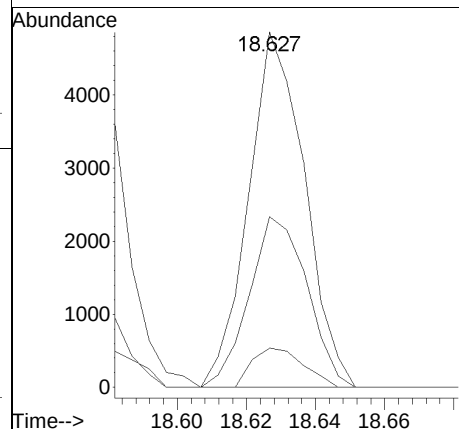
Tgt Ion	Ratio	Lower	Upper
105	100		
120	27.8	23.5	35.3
91	14.2	8.6	12.8

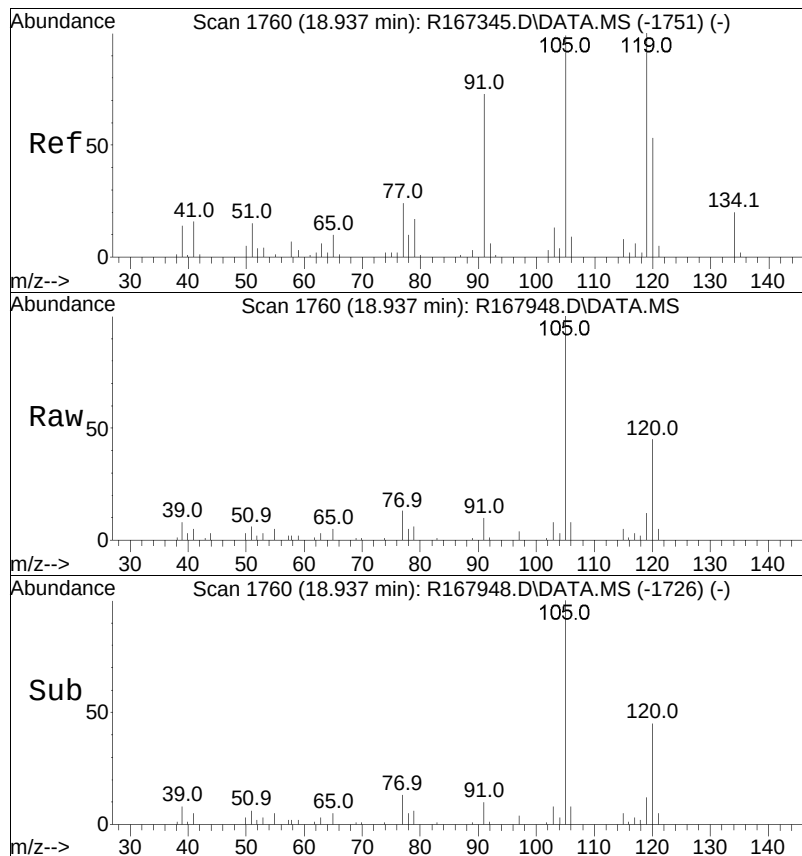




#97
 1,3,5-trimethylbenzene
 Concen: 0.15 ppbV
 RT: 18.627 min Scan# 1704
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

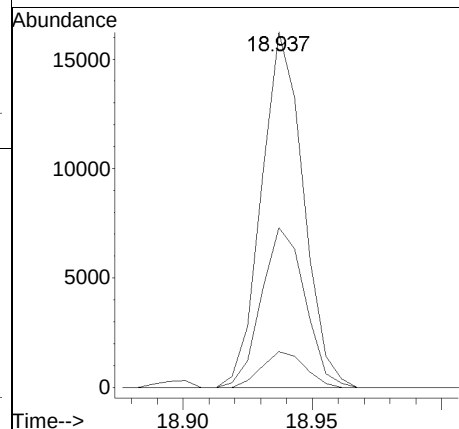
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.0	38.8	58.2
91	11.1	8.1	12.1





#99
 1,2,4-trimethylbenzene
 Concen: 0.53 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. -0.000 min
 Lab File: R167948.D
 Acq: 9 Aug 2019 10:05 pm

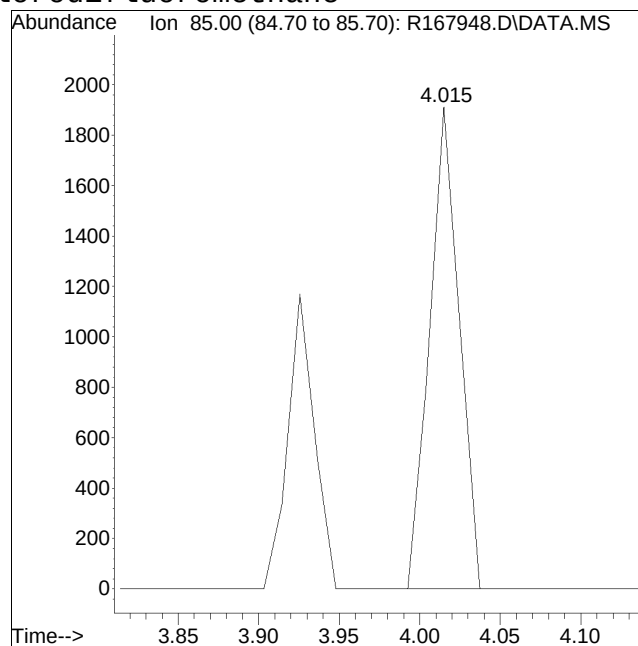
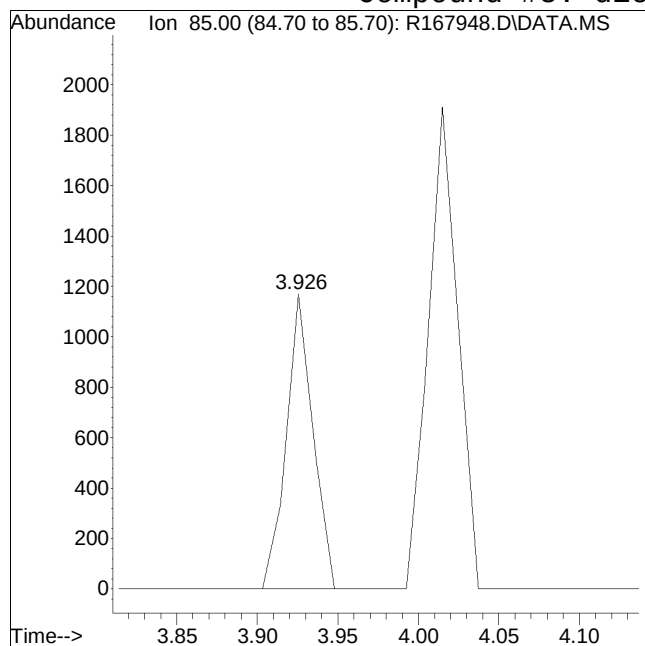
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.0	42.6	63.8
91	10.1	58.7	88.1#



Manual Integration Report

Data Path : O:\Forensics\Data\AIR1\2010Method : TFS1_190712.M
Data File : R167948.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 10:05 pm Instrument : Air Piano 1
Sample : L1935043-01D,3,100,250 Quant Date : 8/10/2019 7:56 am

Compound #5: dichlorodifluoromethane



Original Peak Response = 1344

Manual Peak Response = 2443 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167949.D
 Acq On : 9 Aug 2019 10:35 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-02D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 12 10:51:39 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	123313	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		77.71%	
43) 1,4-difluorobenzene	12.348	114	270196	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		73.73%	
67) chlorobenzene-D5	16.801	54	51884	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		76.30%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	2825	0.180	ppbV	95
6) chloromethane	4.239	50	1267	0.213	ppbV	89
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.581	31	44454	11.815	ppbV	96
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.223	43	522815	42.415	ppbV	95
21) trichlorofluoromethane	6.437	101	1675	0.103	ppbV #	73
22) isopropyl alcohol	6.614	45	51057	3.605	ppbV	99
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	7.424	59	8288	0.530	ppbV	97
28) methylene chloride	7.470	49	12952	1.396	ppbV	90
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.796	76	11409	0.455	ppbV #	87
31) Freon 113	0.000		0	N.D.	d	
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.904	63	763	0.050	ppbV #	42
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.390	43	1013262	64.390	ppbV	97
37) cis-1,2-dichloroethene	9.909	61	1385	0.112	ppbV #	83
38) Ethyl Acetate	10.217	61	10412	3.042	ppbV	74
39) chloroform	10.271	83	4011	0.194	ppbV	90
40) Tetrahydrofuran	10.727	42	363867	37.378	ppbV	96
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167949.D
 Acq On : 9 Aug 2019 10:35 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-02D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 12 10:51:39 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44) hexane	10.164	57	3125	0.184	ppbV	#	55
48) 1,1,1-trichloroethane	11.404	97	10237	0.628	ppbV		95
50) benzene	11.941	78	2796	0.104	ppbV		92
52) carbon tetrachloride	0.000		0	N.D.	d		
53) cyclohexane	12.243	56	1450	0.100	ppbV	#	80
56) 1,2-dichloropropane	12.872	63	1311	0.125	ppbV		91
57) bromodichloromethane	0.000		0	N.D.	d		
58) 1,4-dioxane	0.000		0	N.D.			
59) trichloroethene	13.140	130	894619	79.770	ppbV		99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d		
62) heptane	13.466	43	15875	0.935	ppbV		96
63) cis-1,3-dichloropropene	0.000		0	N.D.			
64) 4-methyl-2-pentanone	14.192	43	5031	0.237	ppbV	#	97
65) trans-1,3-dichloropropene	0.000		0	N.D.			
66) 1,1,2-trichloroethane	0.000		0	N.D.			
68) toluene	15.188	91	1099952	33.429	ppbV		99
72) 2-hexanone	0.000		0	N.D.	d		
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
78) tetrachloroethene	16.261	166	23005	1.600	ppbV		95
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	17.134	91	11149	0.268	ppbV		99
83) m+p-xylene	17.263	91	34862	1.091	ppbV		98
84) bromoform	0.000		0	N.D.			
85) styrene	17.562	104	3879	0.156	ppbV		98
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.647	91	13413	0.418	ppbV		98
96) 4-ethyl toluene	18.572	105	13587	0.285	ppbV		97
97) 1,3,5-trimethylbenzene	18.627	105	11305	0.300	ppbV		99
99) 1,2,4-trimethylbenzene	18.937	105	34836	0.973	ppbV	#	53
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	0.000		0	N.D.	d		
103) 1,4-dichlorobenzene	0.000		0	N.D.	d		
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	0.000		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167949.D
 Acq On : 9 Aug 2019 10:35 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-02D,3,100,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 12 10:51:39 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

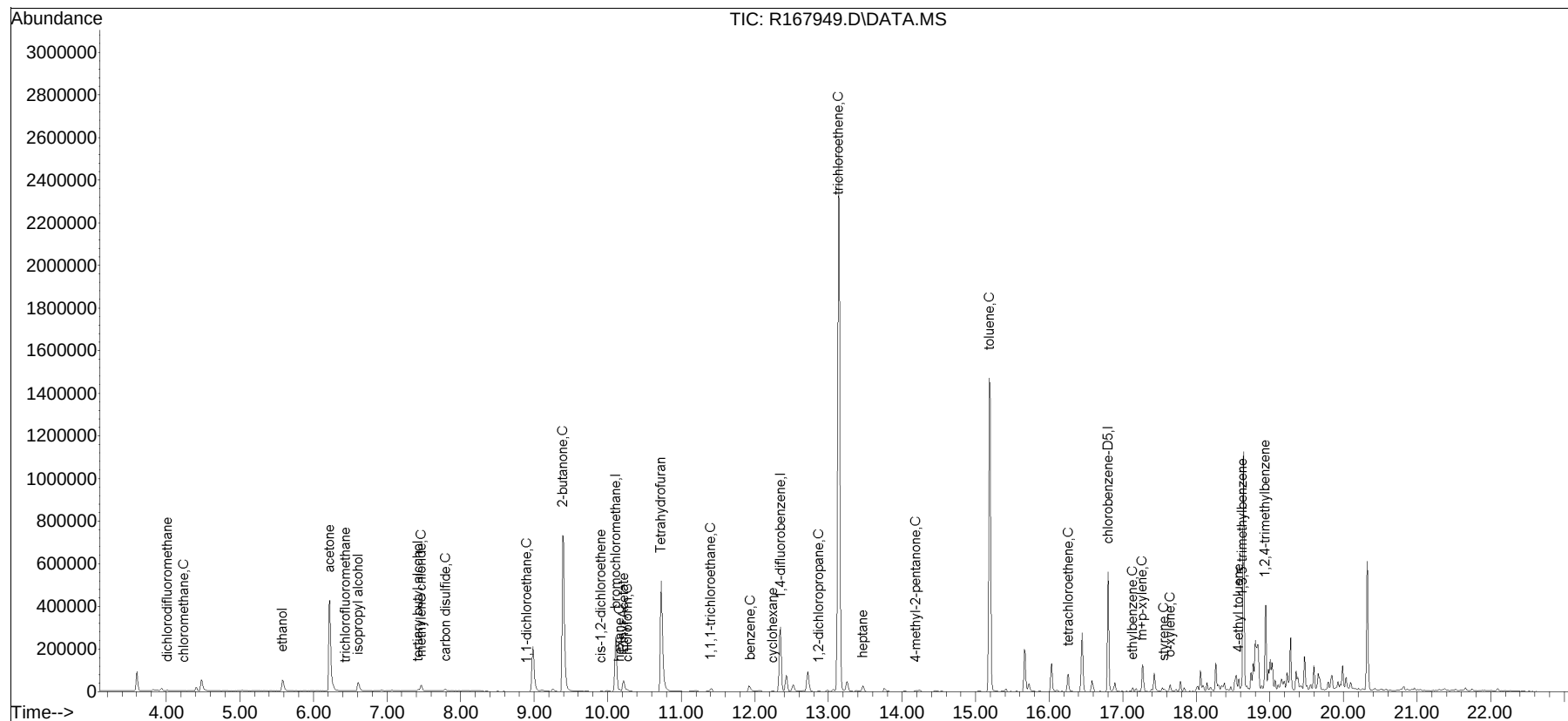
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

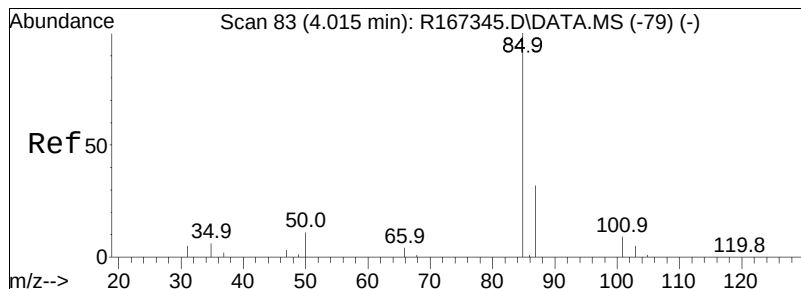
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167949.D
Acq On : 9 Aug 2019 10:35 pm
Operator : AIRPIAN01:EW
Sample : L1935043-02D,3,100,250
Misc : WG1270780,ICAL15961
ALS Vial : 8 Sample Multiplier: 1

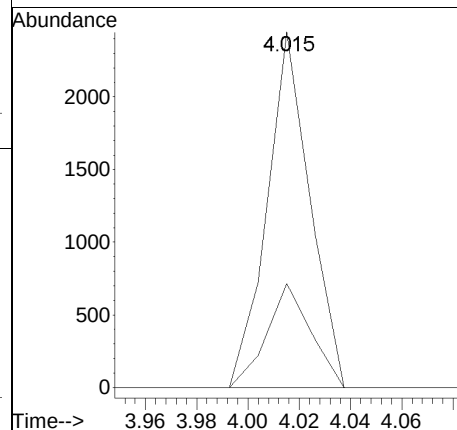
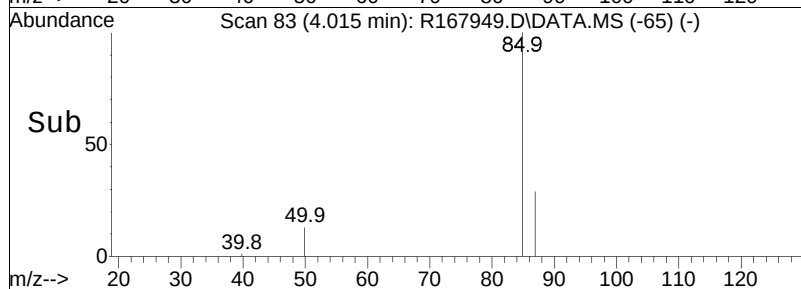
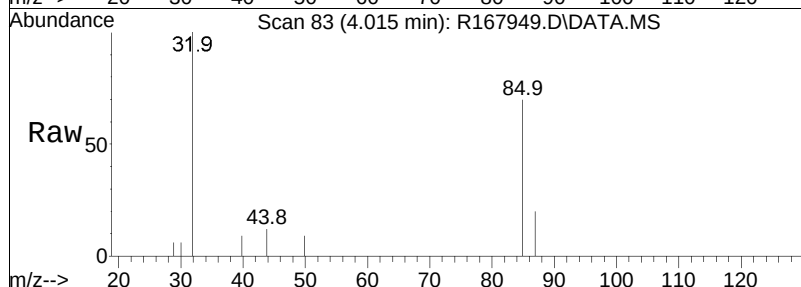
Quant Time: Aug 12 10:51:39 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

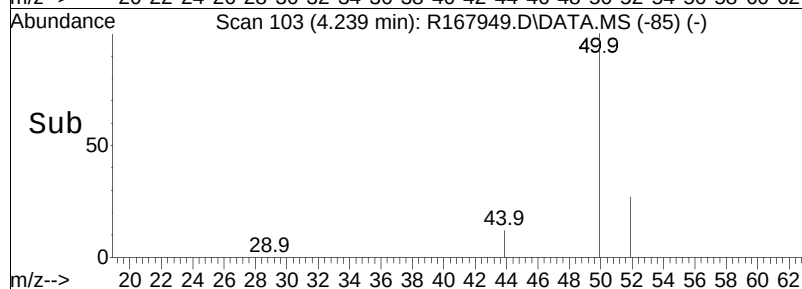
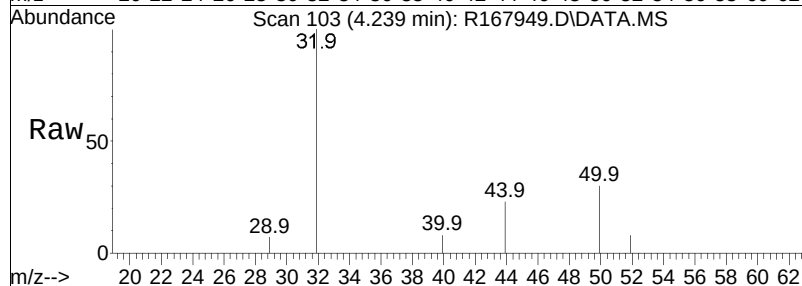
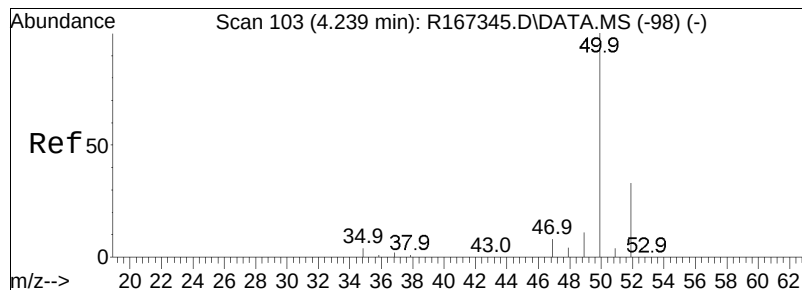




#5
dichlorodifluoromethane
Concen: 0.18 ppbV
RT: 4.015 min Scan# 83
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

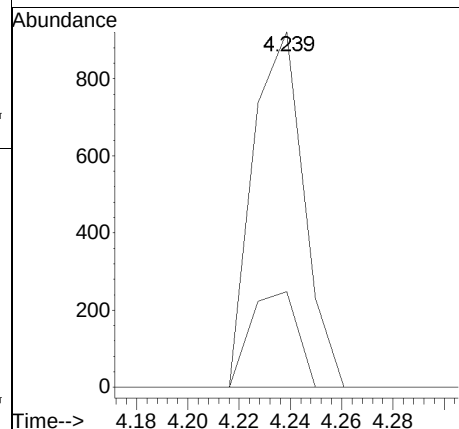
Tgt Ion: 85 Resp: 2825
Ion Ratio Lower Upper
85 100
87 29.3 25.7 38.5

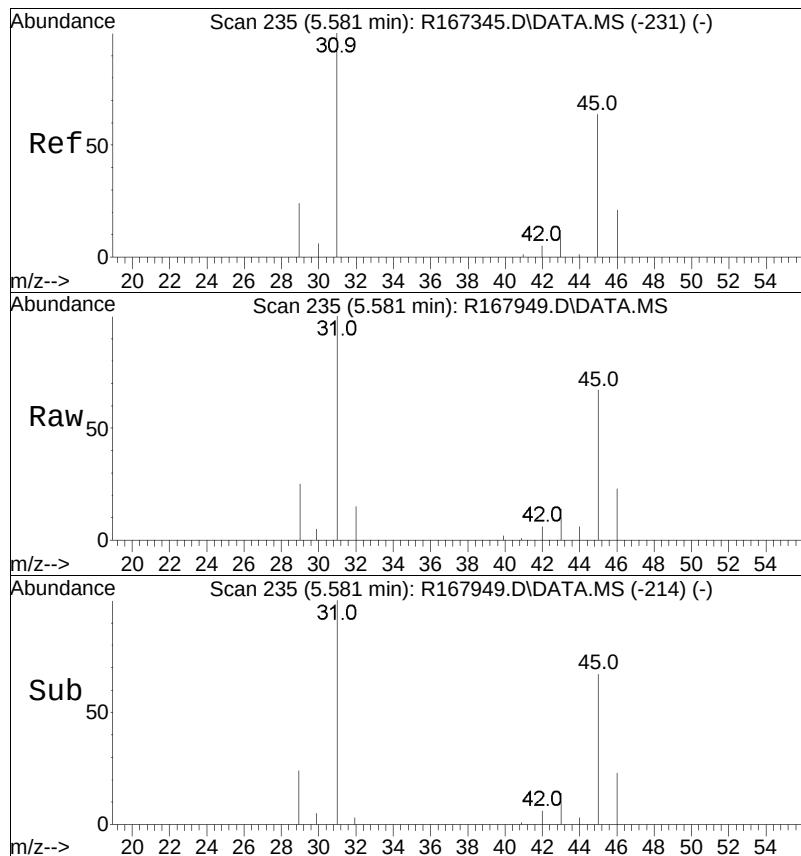




#6
 chloromethane
 Concen: 0.21 ppbV
 RT: 4.239 min Scan# 103
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

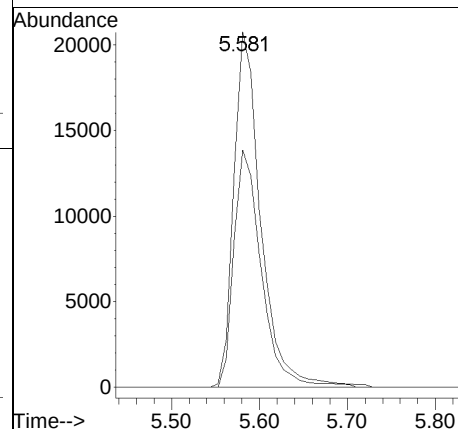
Tgt Ion	Ratio	Lower	Upper
50	100		
52	26.9	26.3	39.5

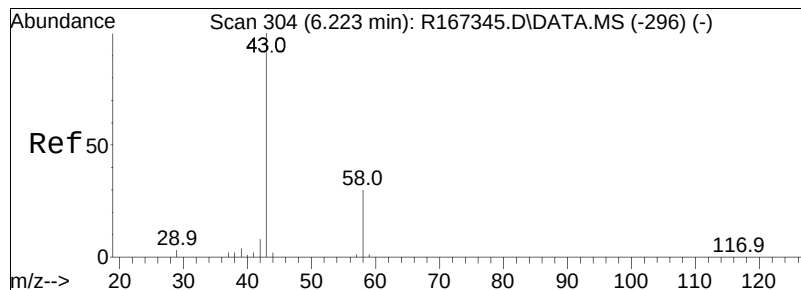




#15
ethanol
Concen: 11.81 ppbV
RT: 5.581 min Scan# 235
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

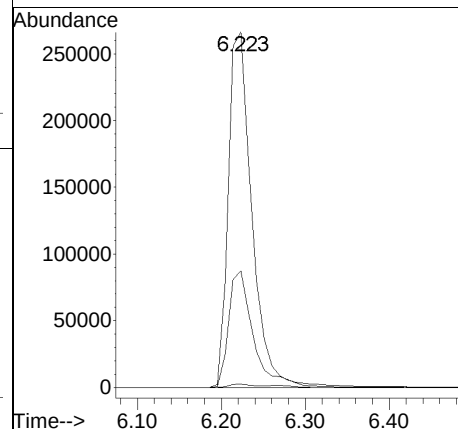
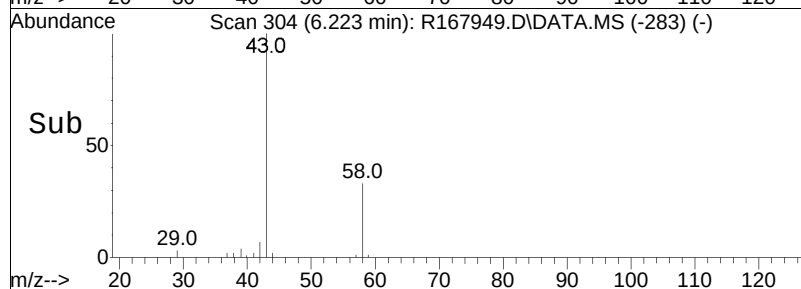
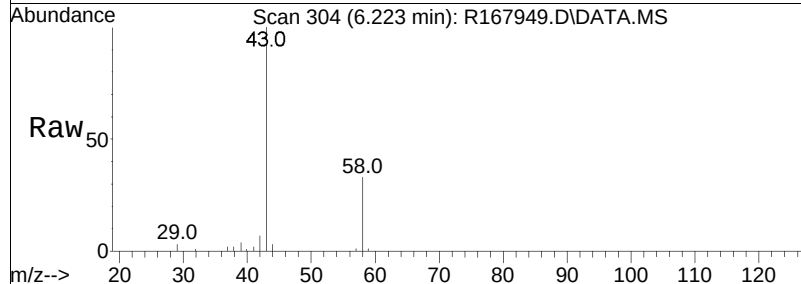
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	66.8	50.8	76.2	

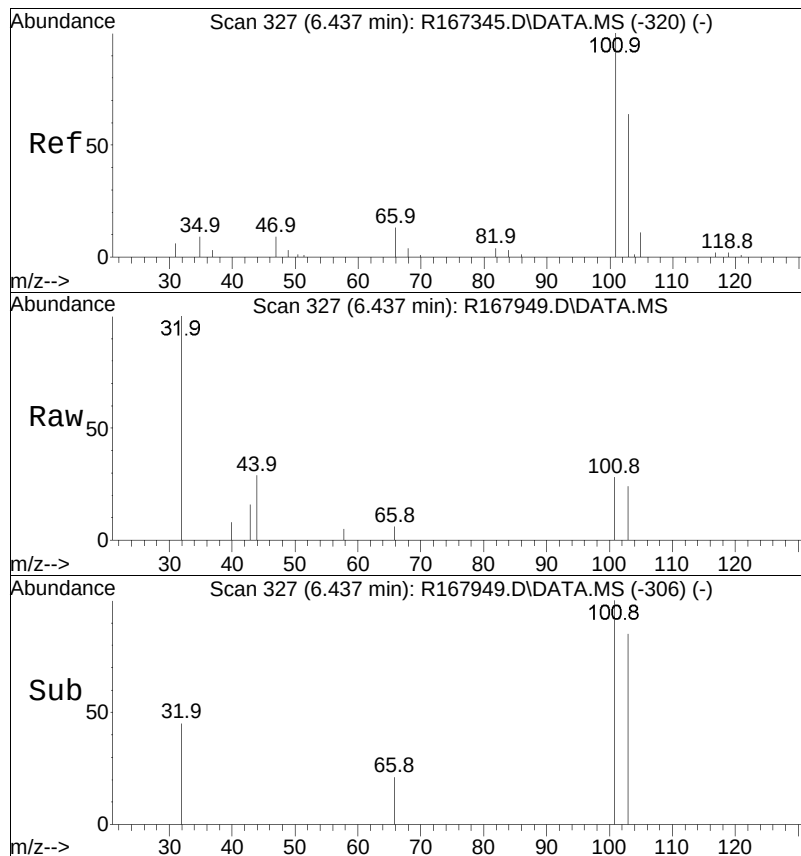




#19
acetone
Concen: 42.41 ppbV
RT: 6.223 min Scan# 304
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

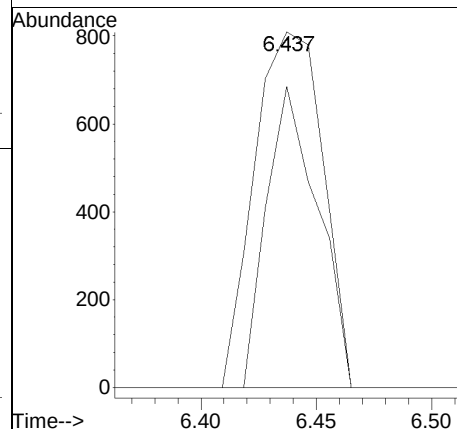
Tgt Ion	Ratio	Lower	Upper
43	100		
58	32.8	24.2	36.2
57	0.9	0.8	1.2

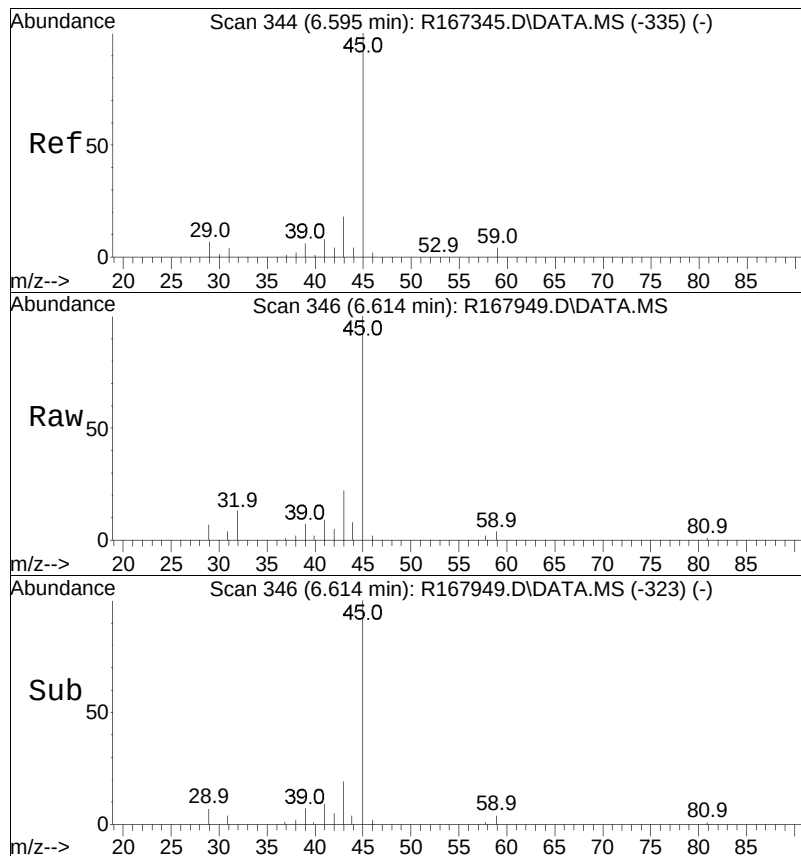




#21
trichlorofluoromethane
Concen: 0.10 ppbV
RT: 6.437 min Scan# 327
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

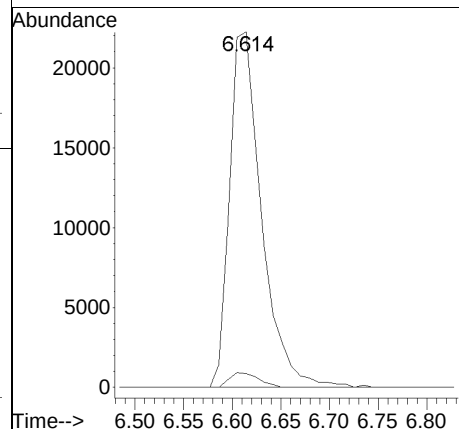
Tgt Ion	Ratio	Lower	Upper
101	100		
103	84.7	51.1	76.7#

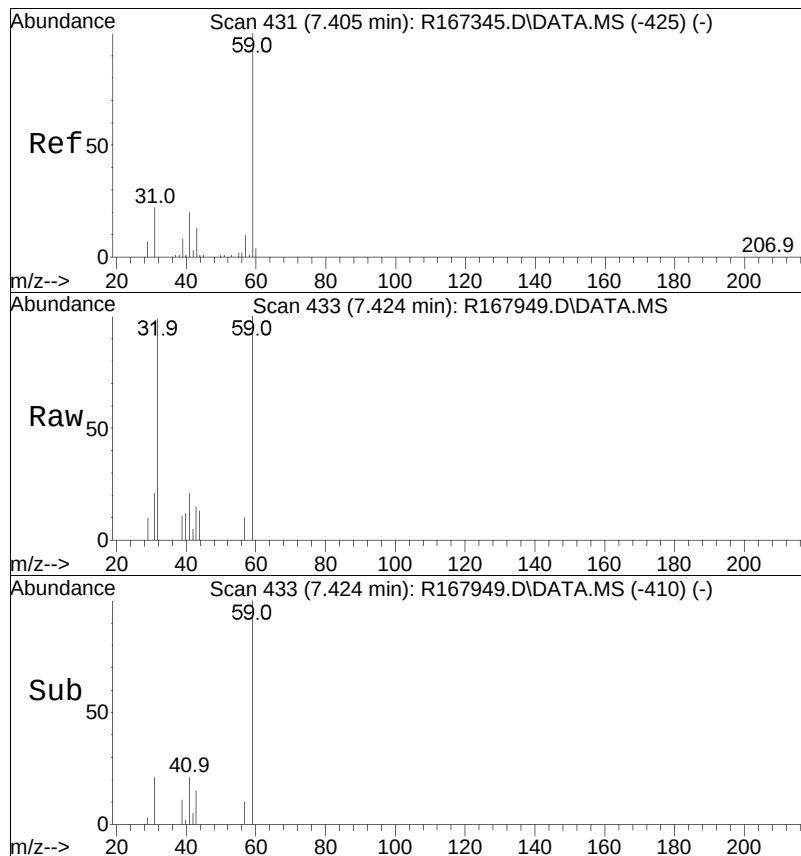




#22
 isopropyl alcohol
 Concen: 3.61 ppbV
 RT: 6.614 min Scan# 346
 Delta R.T. 0.019 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

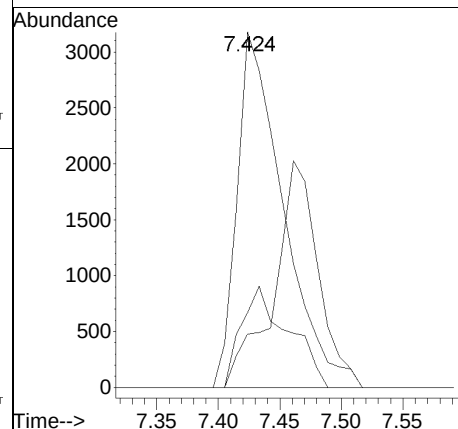
Tgt Ion	Ratio	Lower	Upper
45	100		
59	3.9	3.4	5.0

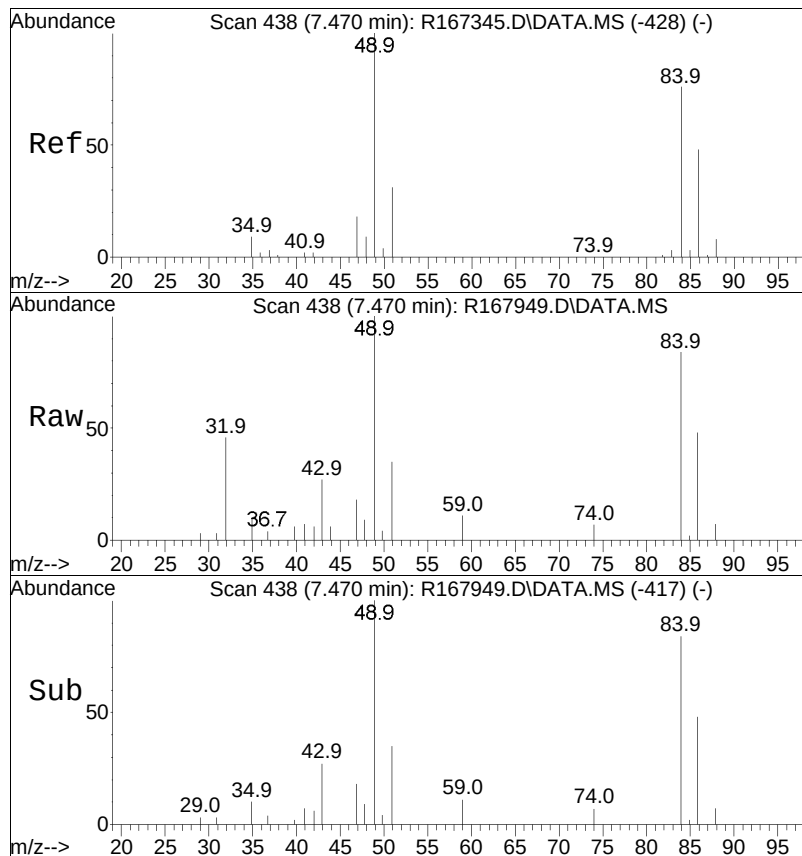




#27
 tertiary butyl alcohol
 Concen: 0.53 ppbV
 RT: 7.424 min Scan# 433
 Delta R.T. 0.019 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

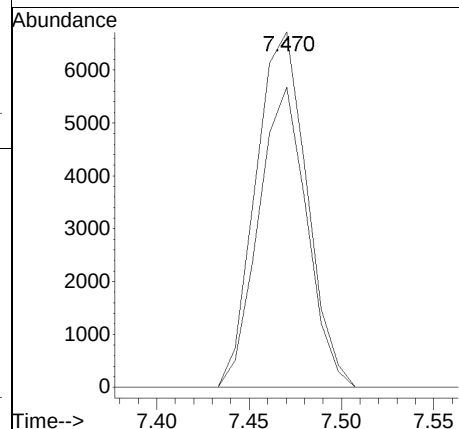
Tgt Ion:	59	Resp:	8288
Ion Ratio	Lower	Upper	
59	100		
41	21.1	16.2	24.2
43	15.0	10.7	16.1

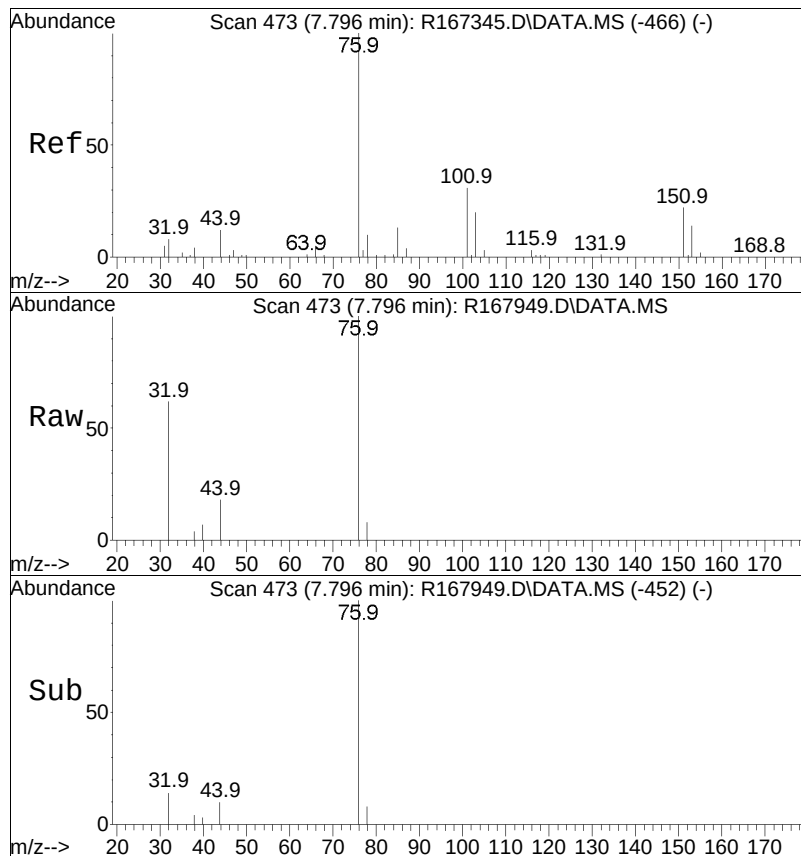




#28
 methylene chloride
 Concen: 1.40 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

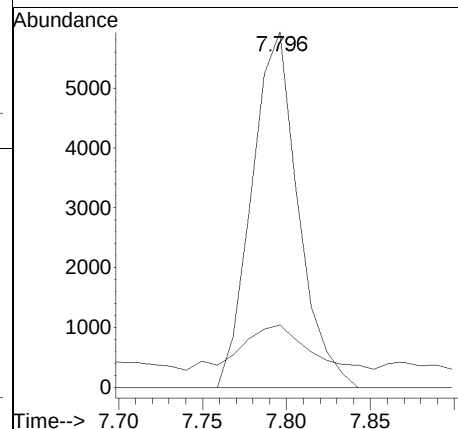
Tgt Ion:	49	84	Ratio	100	84.5	Resp:	12952	Lower	60.6	Upper	91.0

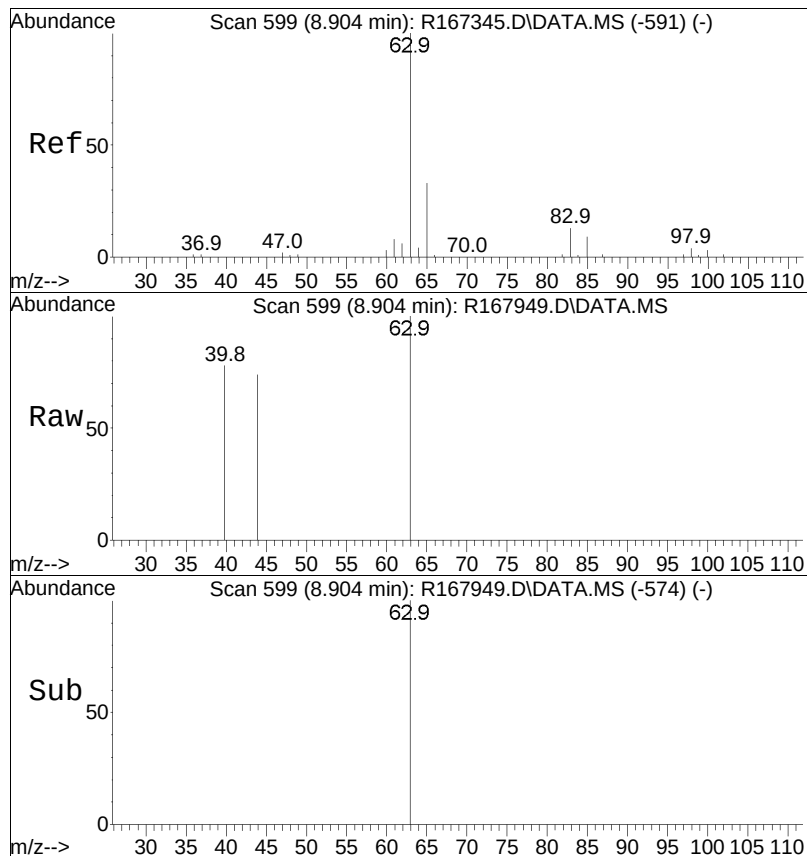




#30
 carbon disulfide
 Concen: 0.45 ppbV
 RT: 7.796 min Scan# 473
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

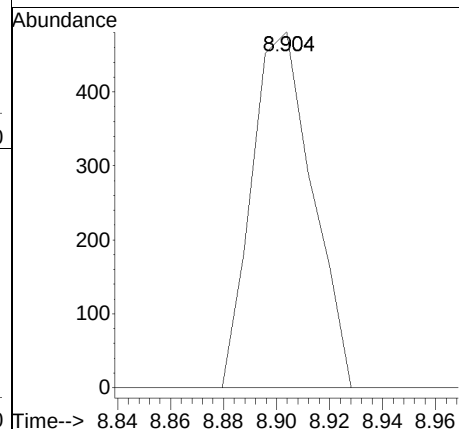
Tgt	Ion	Ratio	Lower	Upper
76	100			
44	17.6		9.8	14.8#

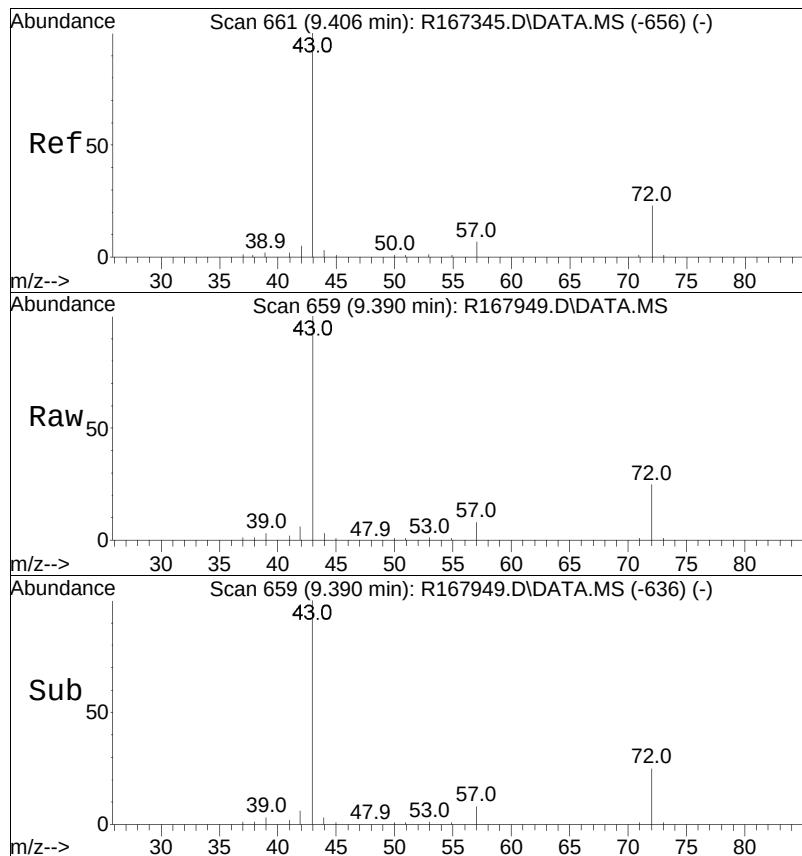




#33
 1,1-dichloroethane
 Concen: 0.05 ppbV
 RT: 8.904 min Scan# 599
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

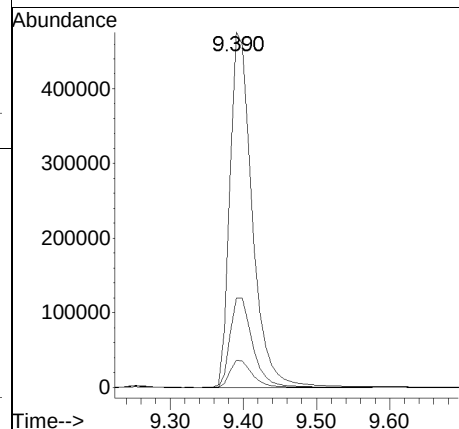
Tgt	Ion	Ratio	Lower	Upper
63	100			
65	0.0	26.0	39.0	

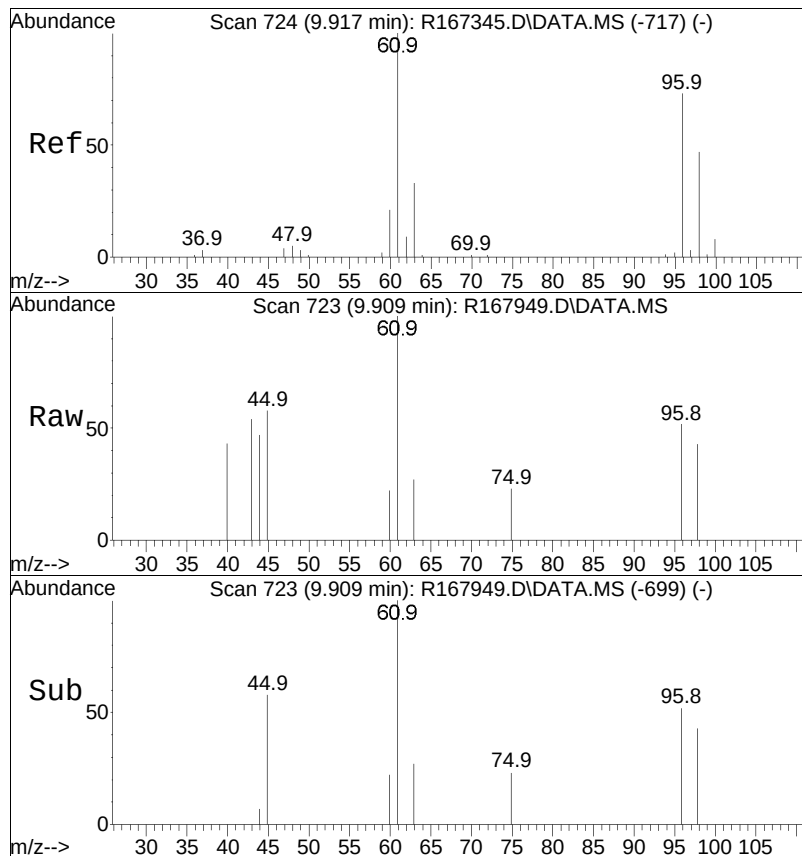




#36
 2-butanone
 Concen: 64.39 ppbV
 RT: 9.390 min Scan# 659
 Delta R.T. -0.016 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

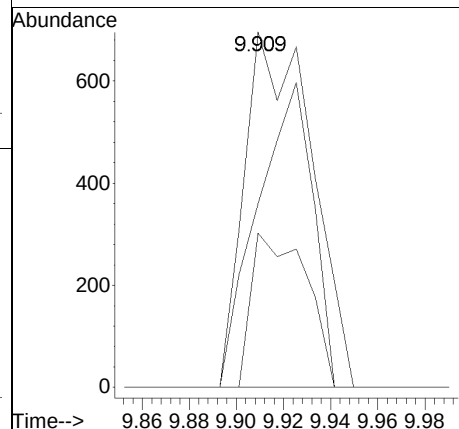
Tgt Ion:	43	Resp:	1013262
Ion Ratio	Lower	Upper	
43	100		
72	25.1	18.7	28.1
57	7.7	5.6	8.4

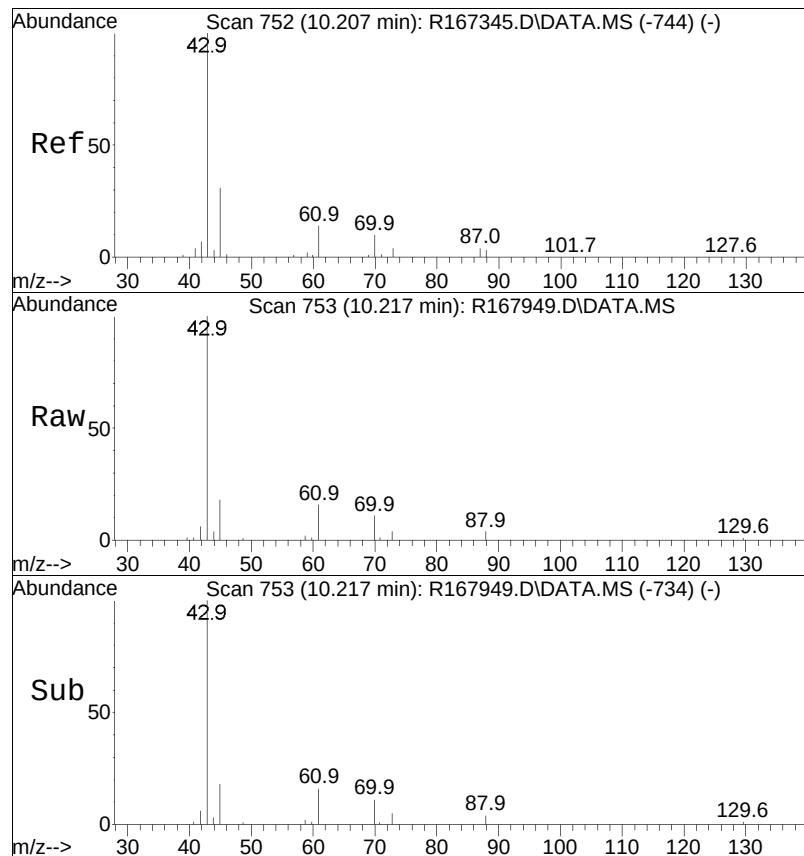




#37
 cis-1,2-dichloroethene
 Concen: 0.11 ppbV
 RT: 9.909 min Scan# 723
 Delta R.T. -0.008 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

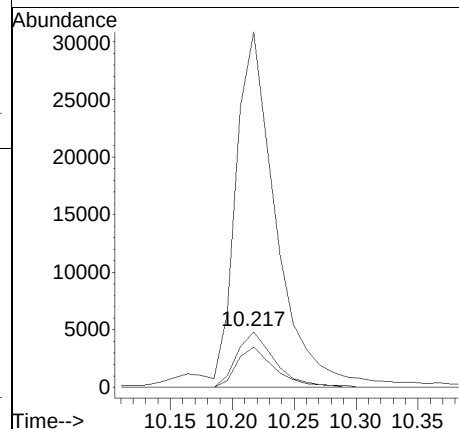
Tgt Ion:	61	Resp:	1385
Ion Ratio	Lower	Upper	
61	100		
96	51.7	58.0	87.0#
98	43.4	37.6	56.4

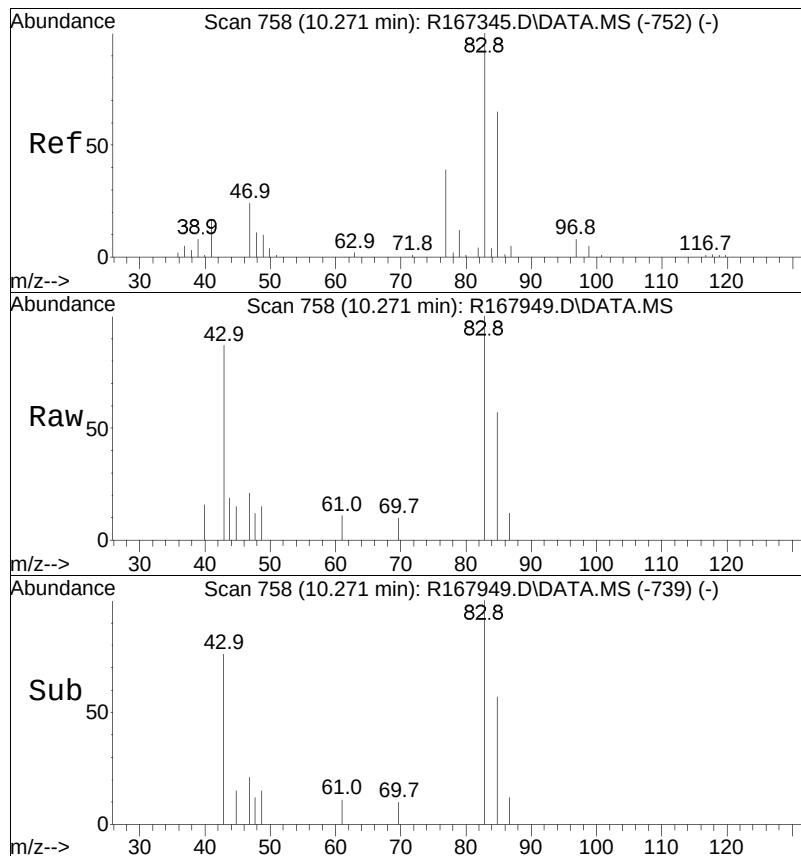




#38
 Ethyl Acetate
 Concen: 3.04 ppbV
 RT: 10.217 min Scan# 753
 Delta R.T. 0.011 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

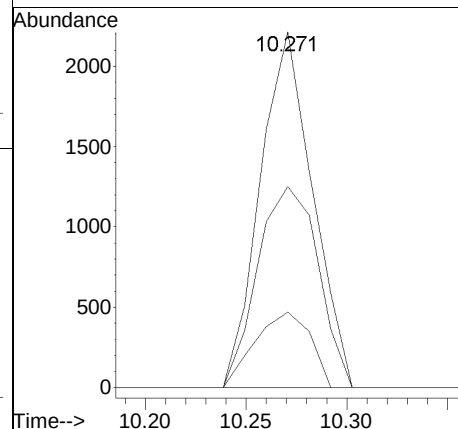
Tgt Ion	Ratio	Lower	Upper
61	100		
70	72.5	61.5	92.3
43	639.2	594.1	891.1

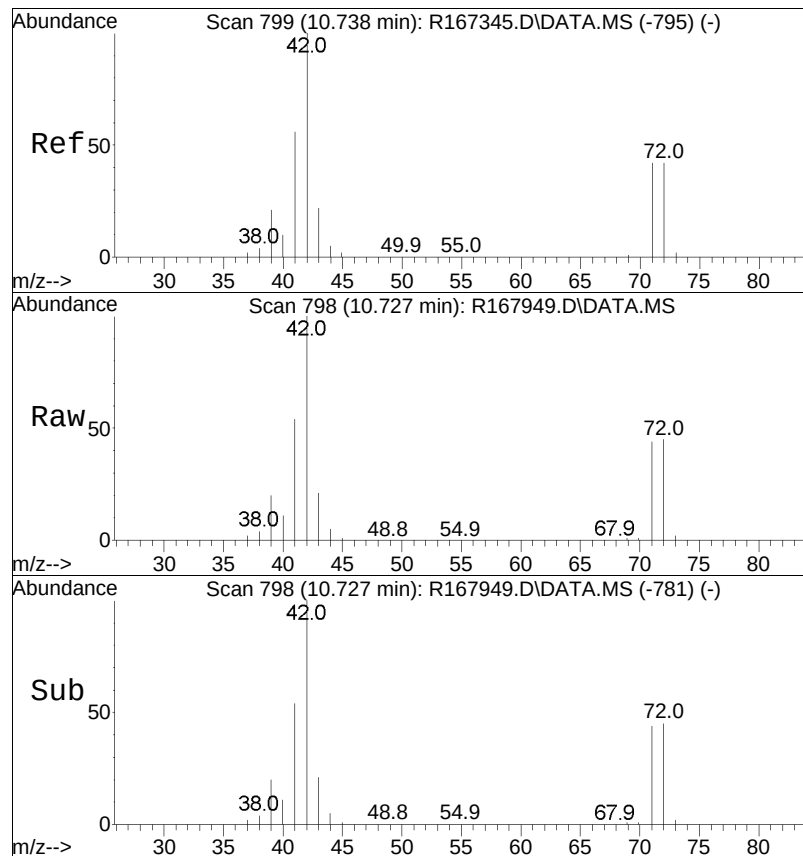




#39
chloroform
Concen: 0.19 ppbV
RT: 10.271 min Scan# 758
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

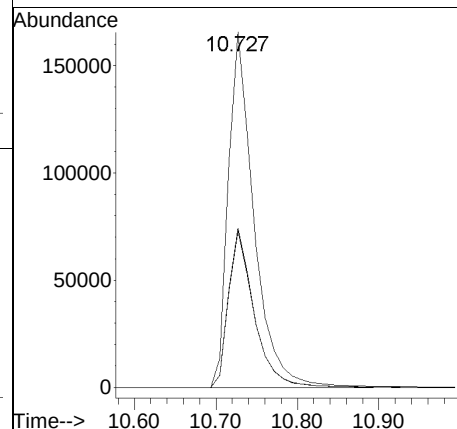
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	4011		
85	56.5		52.2	78.2
47	21.2		19.1	28.7

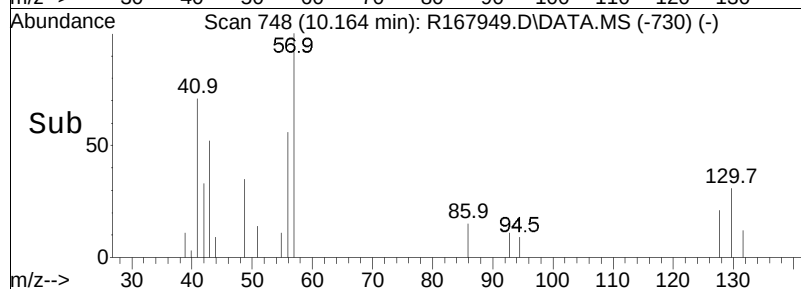
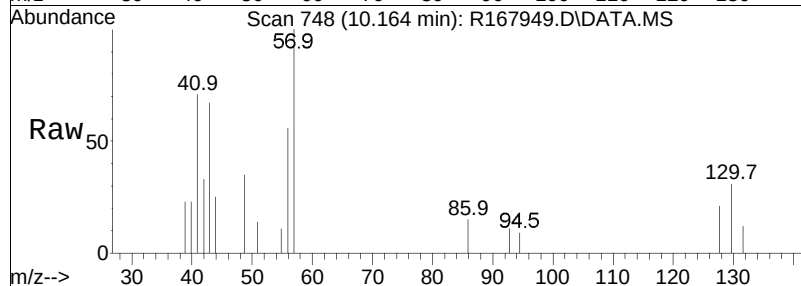
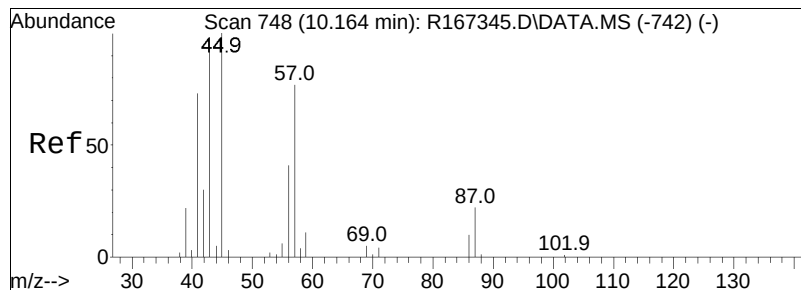




#40
 Tetrahydrofuran
 Concen: 37.38 ppbV
 RT: 10.727 min Scan# 798
 Delta R.T. -0.011 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

Tgt Ion	Ratio	Lower	Upper
42	100		
71	44.1	33.5	50.3
72	44.9	33.3	49.9





#44

hexane

Concen: 0.18 ppbV

RT: 10.164 min Scan# 748

Delta R.T. 0.000 min

Lab File: R167949.D

Acq: 9 Aug 2019 10:35 pm

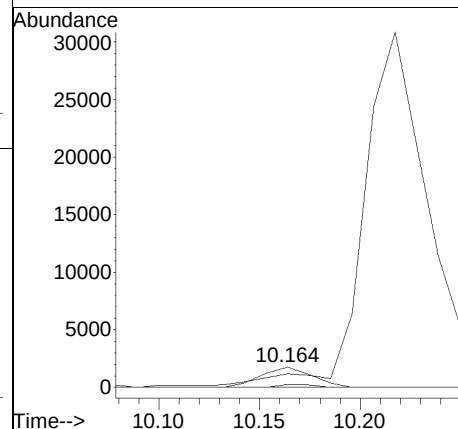
Tgt Ion: 57 Resp: 3125

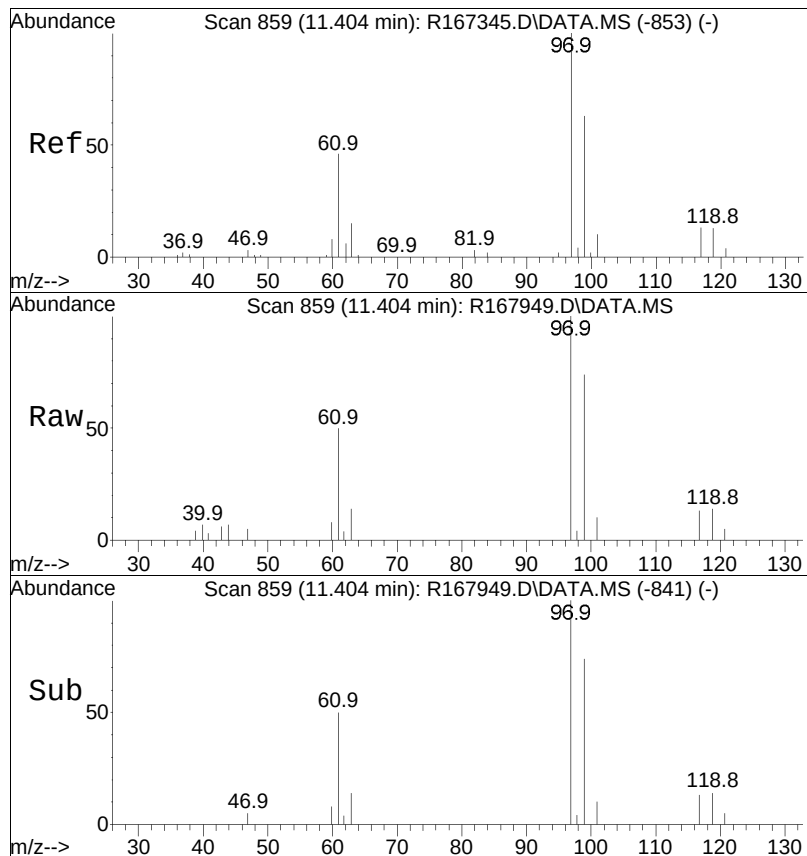
Ion Ratio Lower Upper

57 100

43 67.1 98.0 147.0#

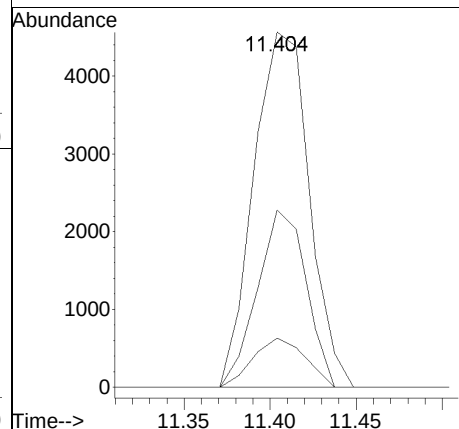
86 15.0 10.0 15.0

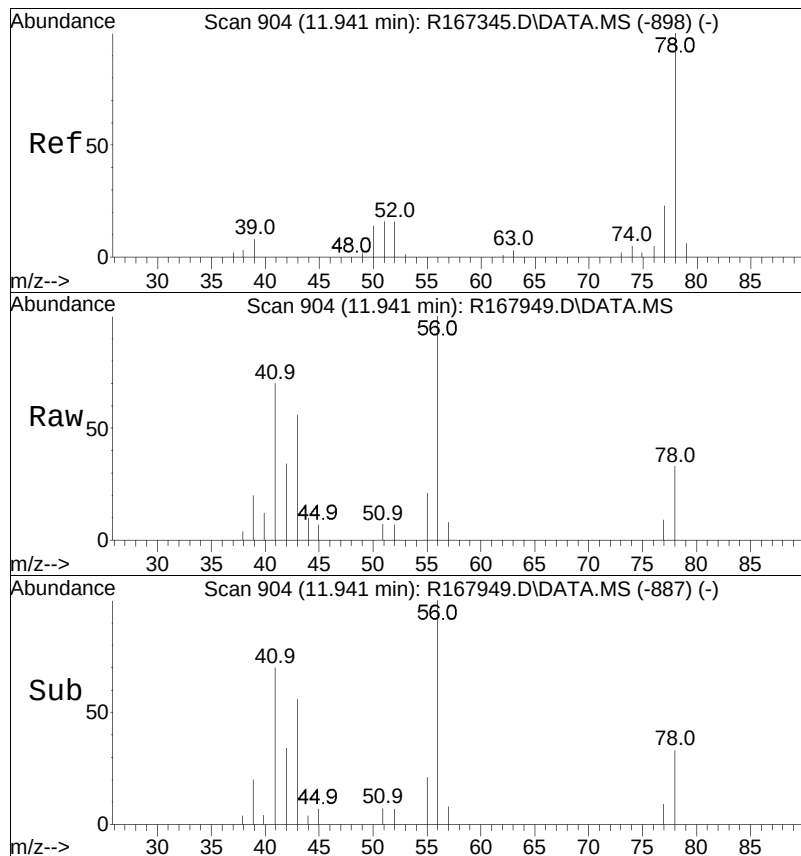




#48
 1,1,1-trichloroethane
 Concen: 0.63 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

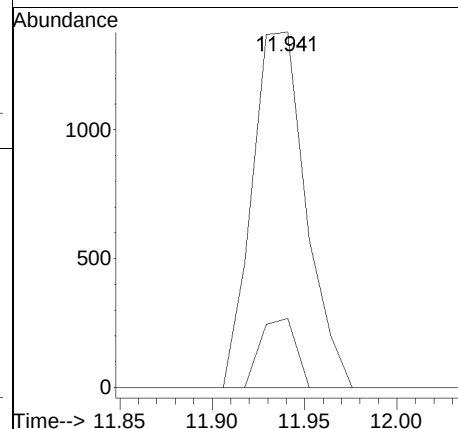
Tgt Ion	Ratio	Lower	Upper
97	100		
61	50.0	36.6	55.0
119	13.9	10.6	16.0

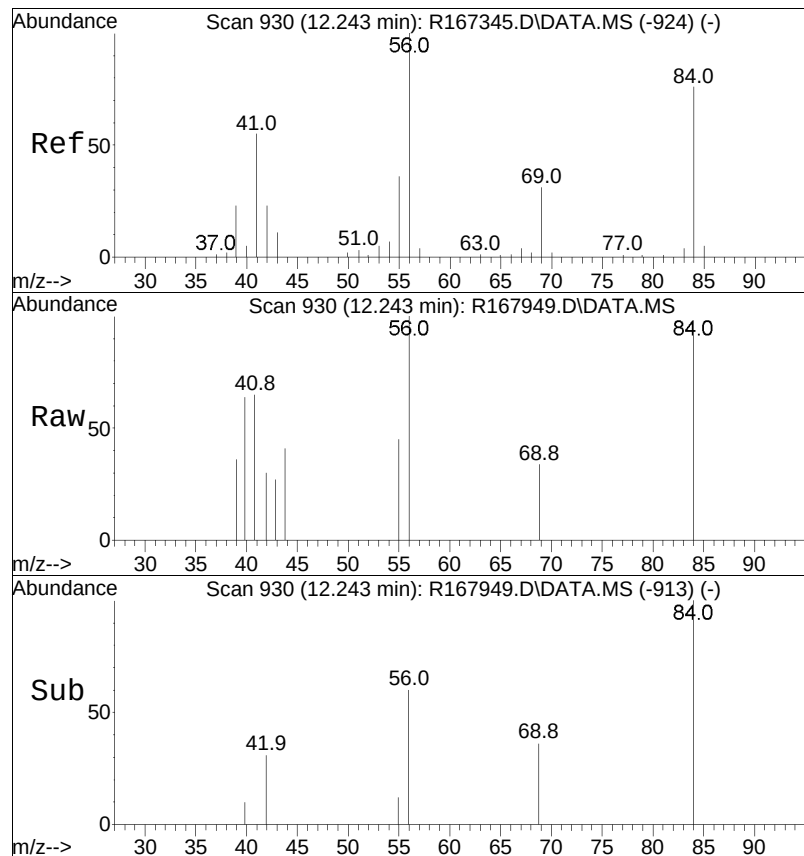




#50
benzene
Concen: 0.10 ppbV
RT: 11.941 min Scan# 904
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

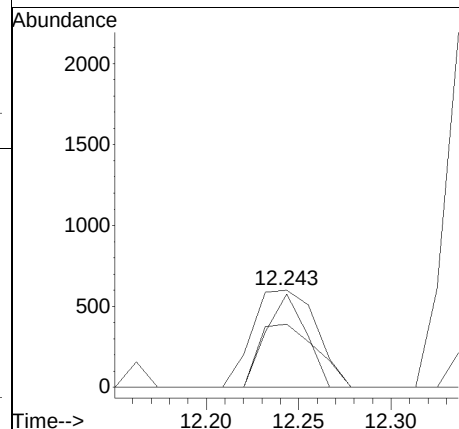
Tgt Ion	Ratio	Lower	Upper
78	100		
52	19.4	13.0	19.4

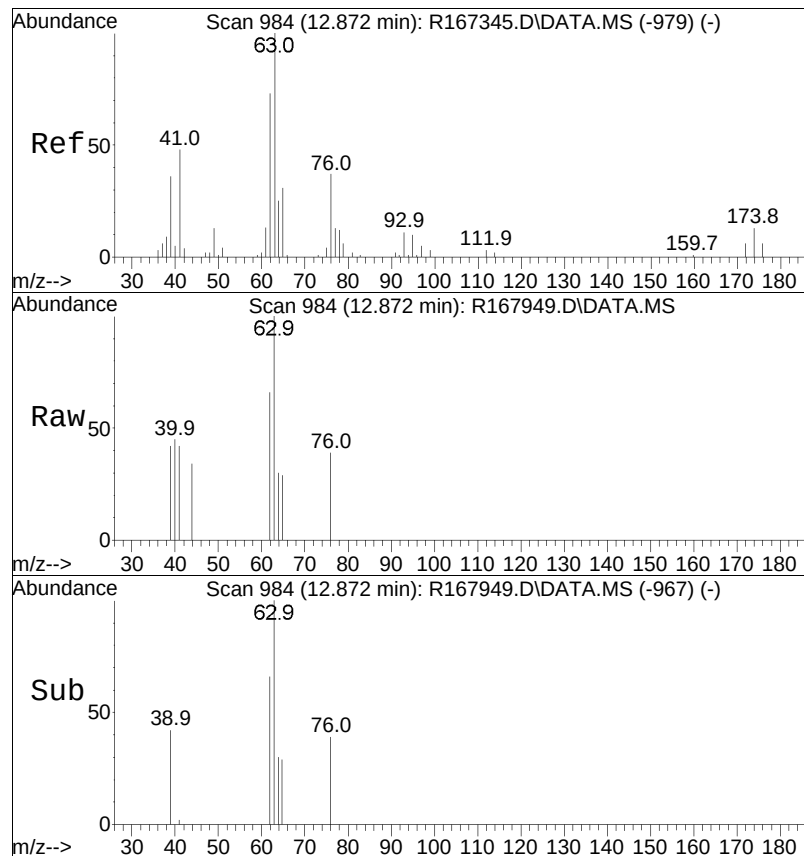




#53
cyclohexane
Concen: 0.10 ppbV
RT: 12.243 min Scan# 930
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

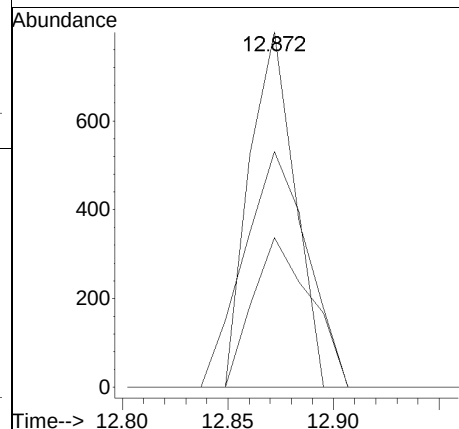
Tgt Ion	Ratio	Lower	Upper
56	100		
84	96.2	61.0	91.6#
41	65.2	43.8	65.6

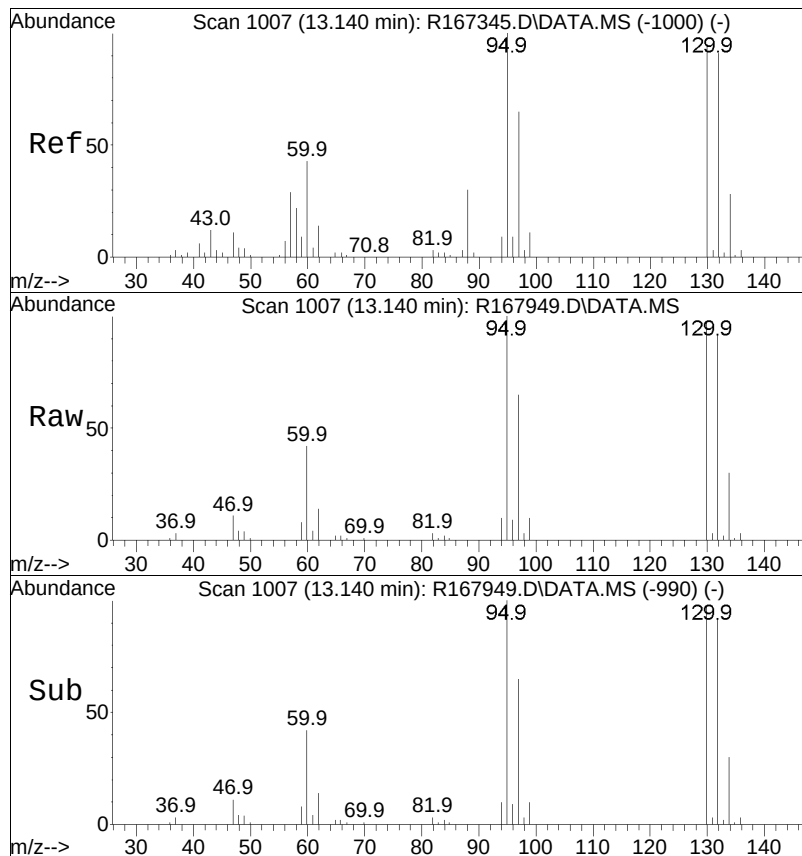




#56
 1,2-dichloropropane
 Concen: 0.13 ppbV
 RT: 12.872 min Scan# 984
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

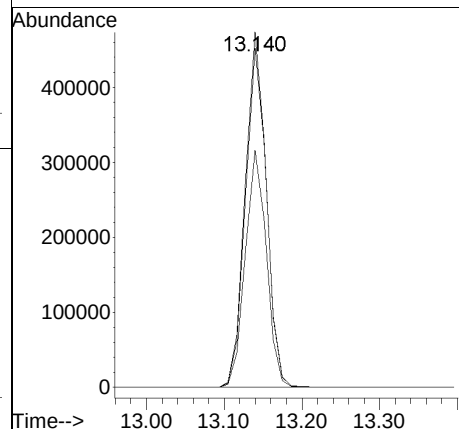
Tgt Ion: 63	Resp: 1311
Ion Ratio	Lower Upper
63 100	
62 66.4	58.4 87.6
39 42.1	28.4 42.6

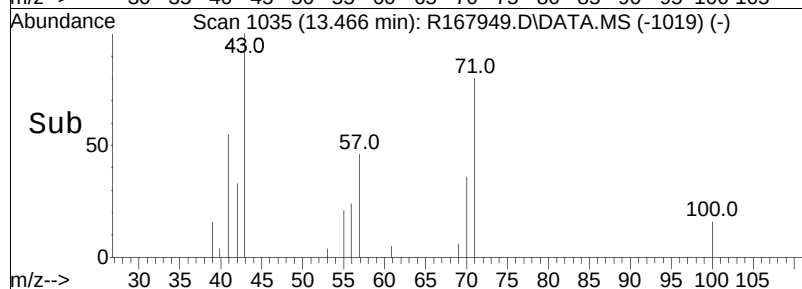
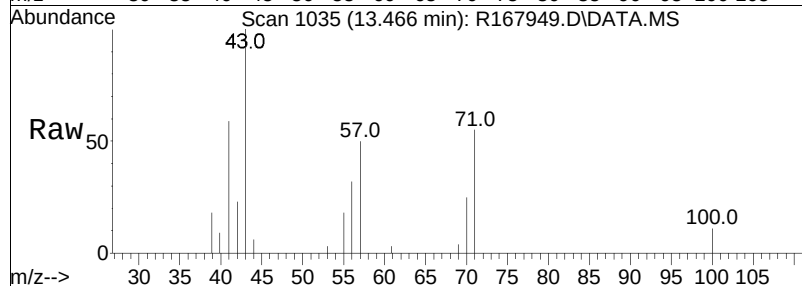
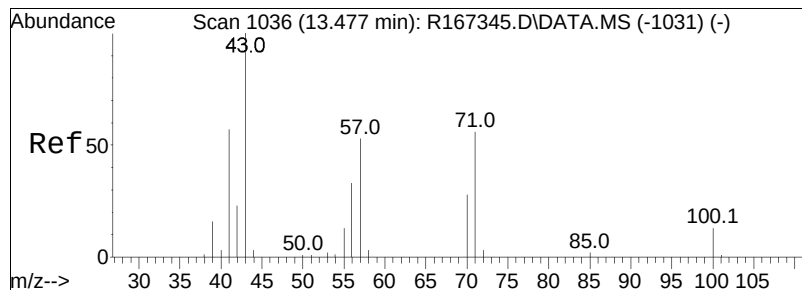




#59
 trichloroethene
 Concen: 79.77 ppbV
 RT: 13.140 min Scan# 1007
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

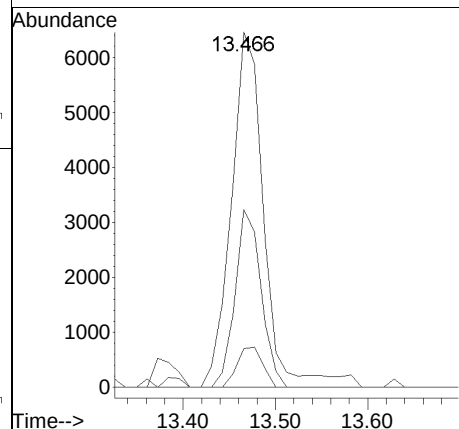
Tgt Ion	Ratio	Lower	Upper
130	100		
132	95.5	76.3	114.5
97	66.7	54.5	81.7

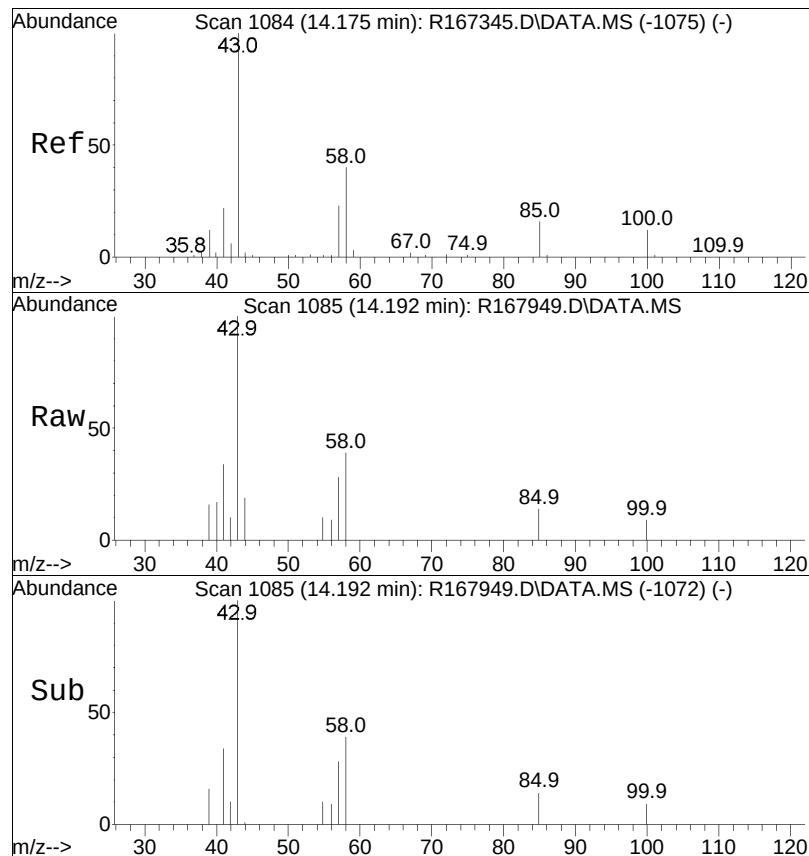




#62
heptane
Concen: 0.94 ppbV
RT: 13.466 min Scan# 1035
Delta R.T. -0.012 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

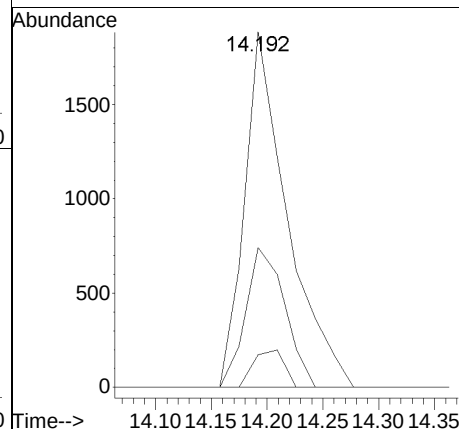
Tgt Ion	Ratio	Lower	Upper
43	100		
57	50.1	42.1	63.1
100	10.9	10.6	15.8

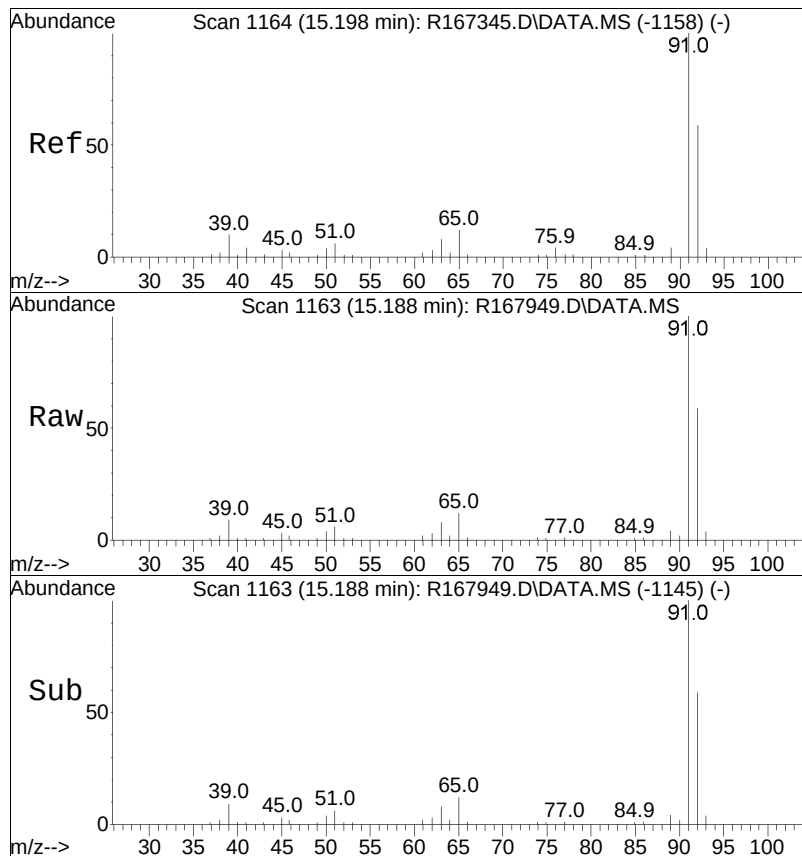




#64
 4-methyl-2-pentanone
 Concen: 0.24 ppbV
 RT: 14.192 min Scan# 1085
 Delta R.T. 0.017 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

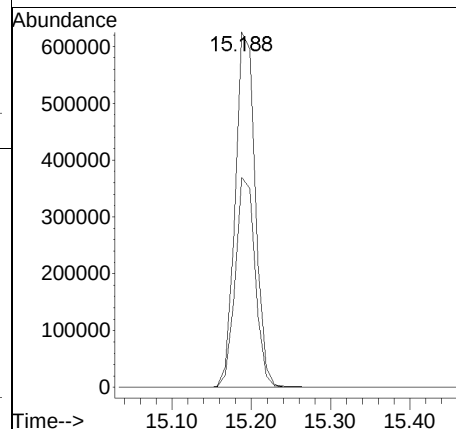
Tgt Ion	Ratio	Lower	Upper
43	100		
58	39.4	32.2	48.4
100	9.2	9.8	14.6

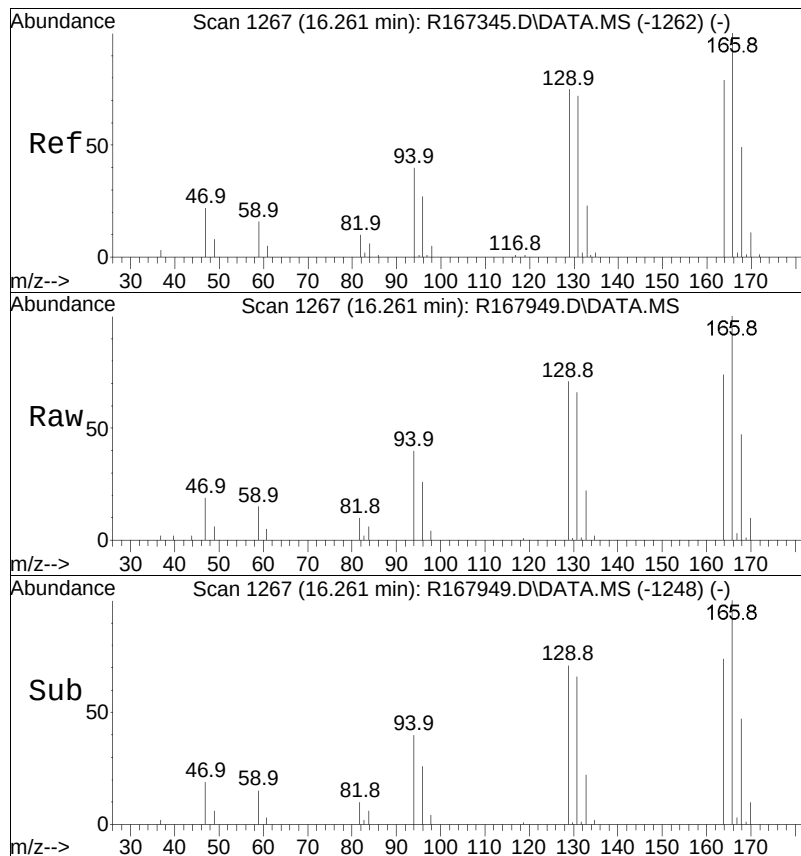




#68
toluene
Concen: 33.43 ppbV
RT: 15.188 min Scan# 1163
Delta R.T. -0.010 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

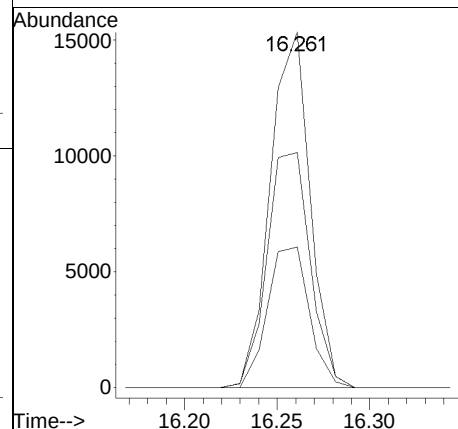
Tgt Ion: 91 Resp: 1099952
Ion Ratio Lower Upper
91 100
92 59.1 46.8 70.2

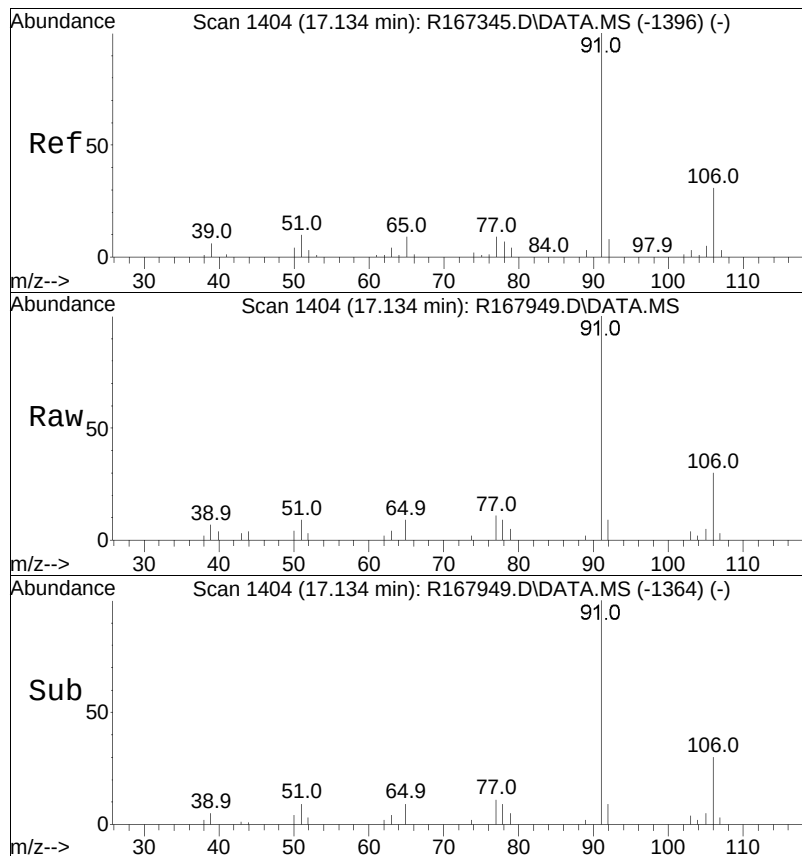




#78
 tetrachloroethene
 Concen: 1.60 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

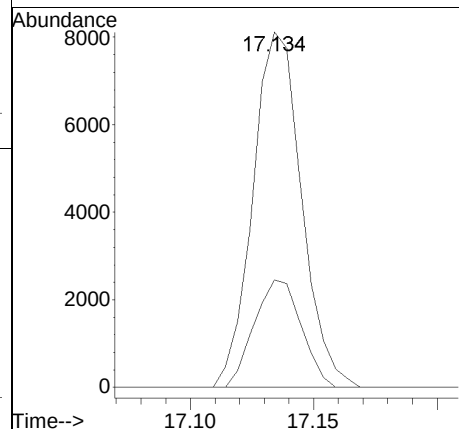
Tgt	Ion:166	Resp:	23005
Ion	Ratio	Lower	Upper
166	100		
131	66.1	57.8	86.8
94	39.5	32.1	48.1

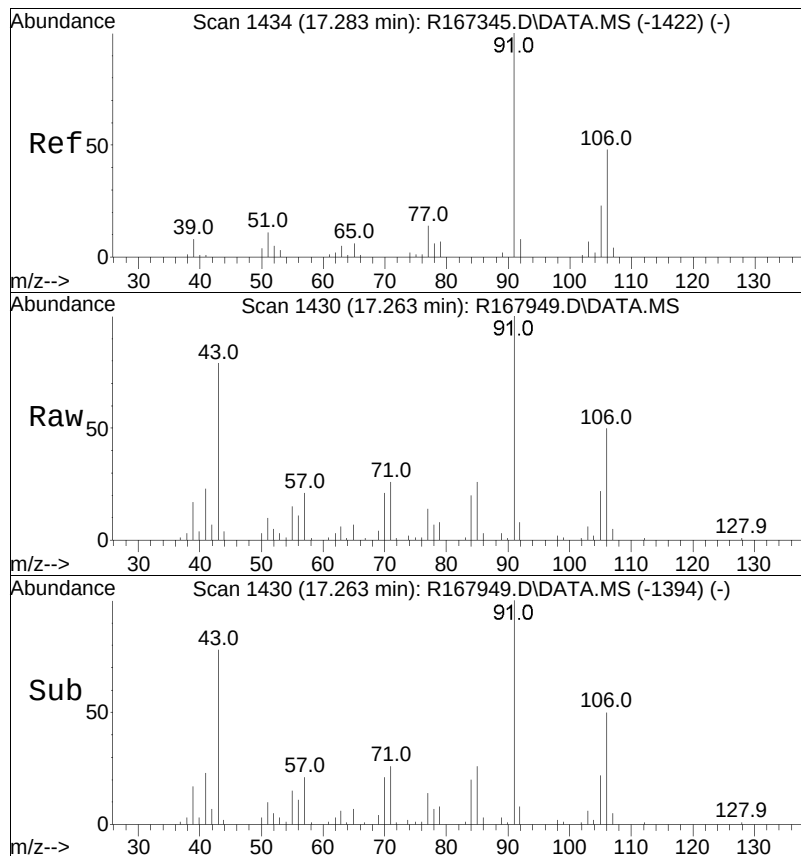




#81
ethylbenzene
Concen: 0.27 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

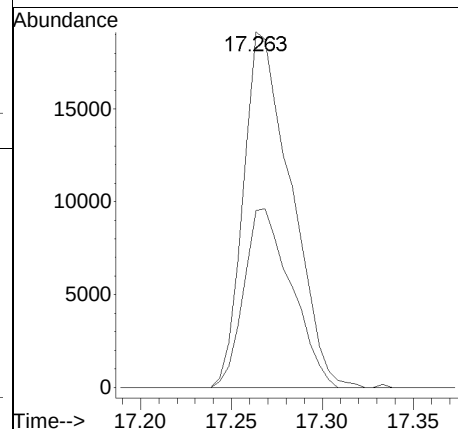
Tgt Ion	Ratio	Lower	Upper
91	100		
106	30.3	24.6	37.0

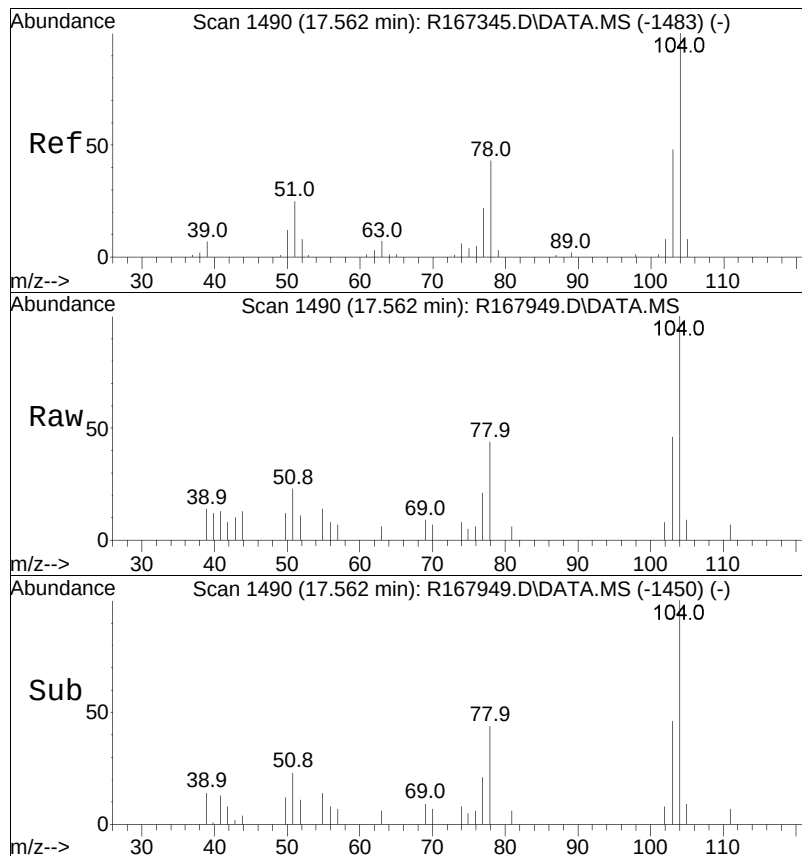




#83
 m+p-xylene
 Concen: 1.09 ppbV
 RT: 17.263 min Scan# 1430
 Delta R.T. -0.020 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

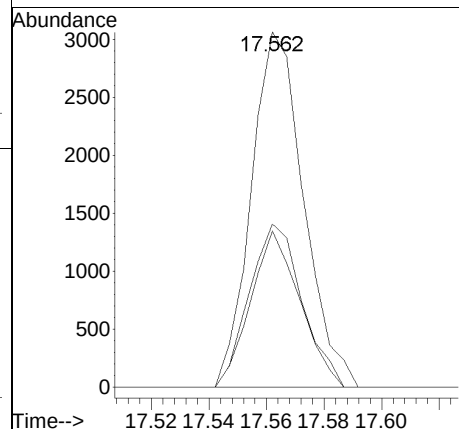
Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.8	38.7	58.1

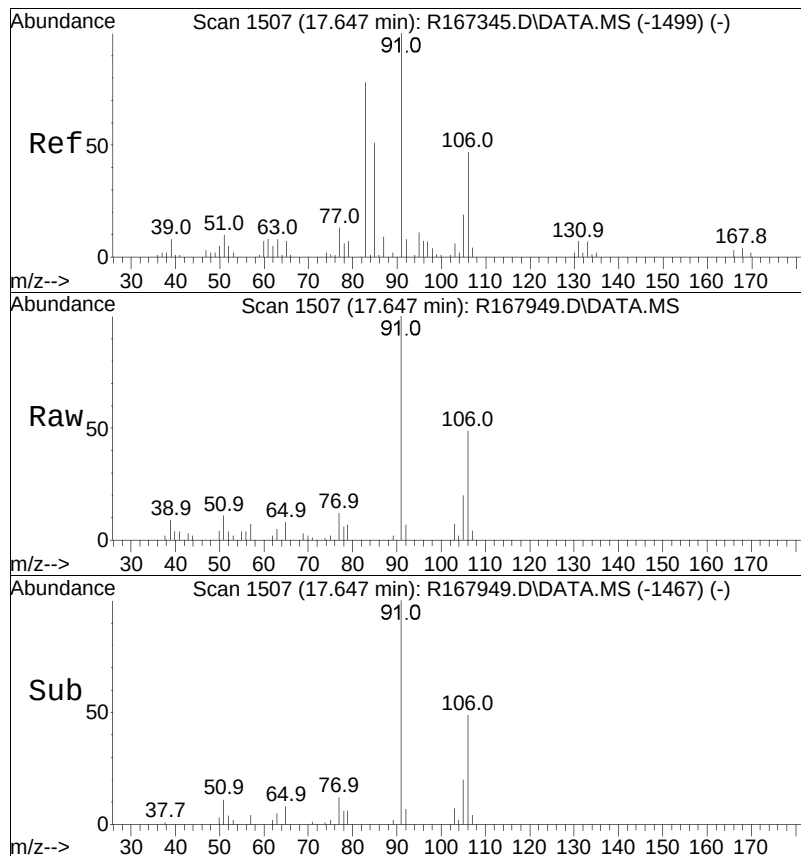




#85
styrene
Concen: 0.16 ppbV
RT: 17.562 min Scan# 1490
Delta R.T. 0.000 min
Lab File: R167949.D
Acq: 9 Aug 2019 10:35 pm

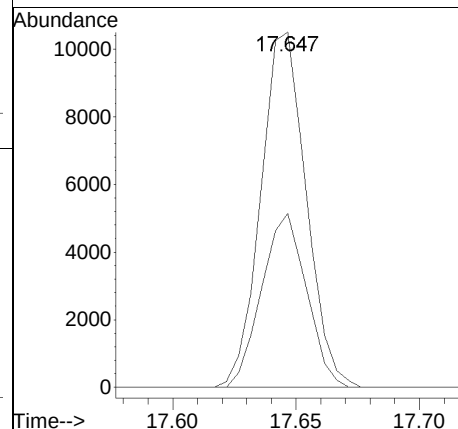
Tgt Ion	Ratio	Lower	Upper
104	100		
103	46.0	38.3	57.5
78	44.0	34.5	51.7

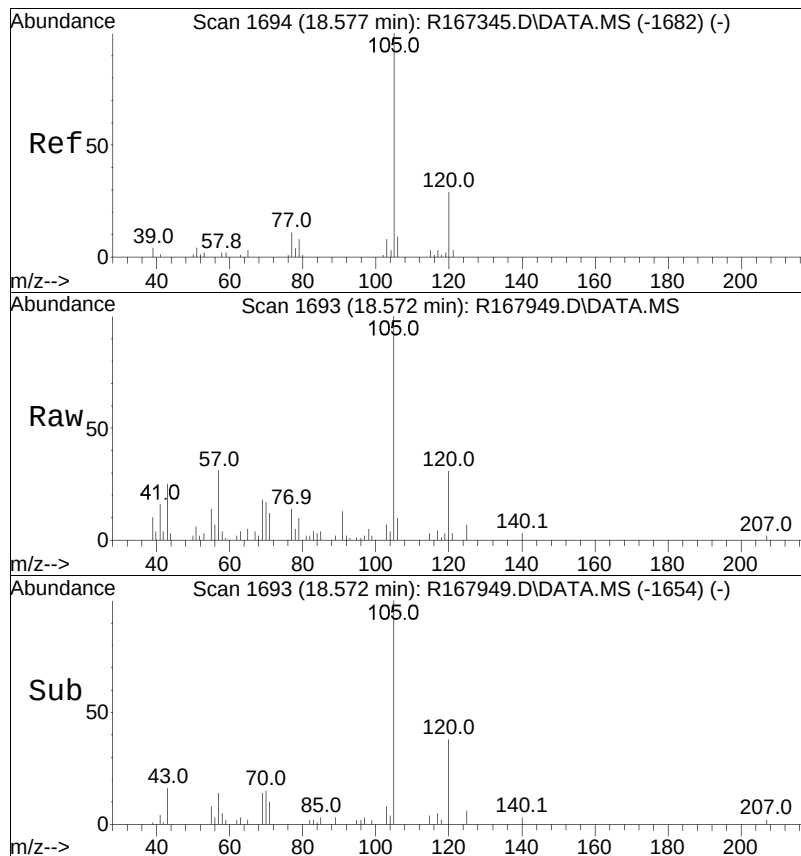




#87
 o-xylene
 Concen: 0.42 ppbV
 RT: 17.647 min Scan# 1507
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

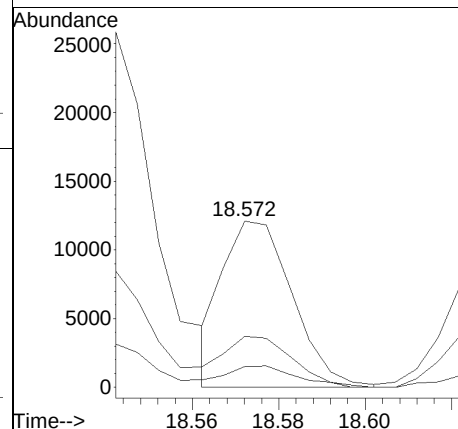
Tgt Ion	91	106	Ratio	Lower	Upper
Resp:	13413				
Ion	100				
Ratio	49.0			37.9	56.9

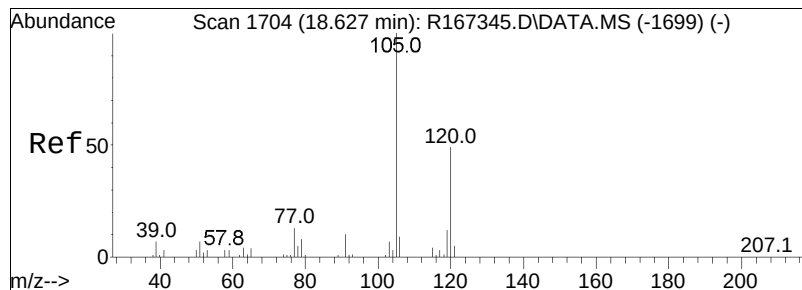




#96
 4-ethyl toluene
 Concen: 0.29 ppbV
 RT: 18.572 min Scan# 1693
 Delta R.T. -0.005 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	30.7	23.5	35.3
91	12.6	8.6	12.8





#97

1,3,5-trimethylbenzene

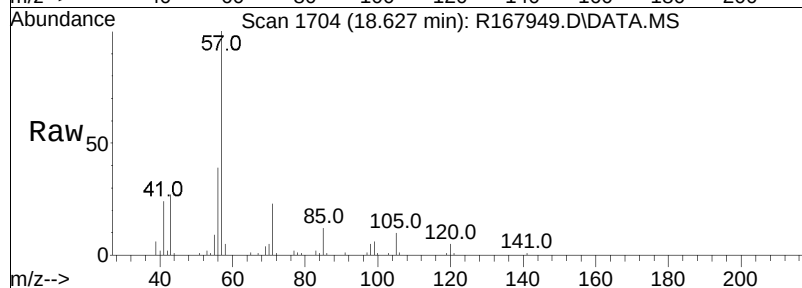
Concen: 0.30 ppbV

RT: 18.627 min Scan# 1704

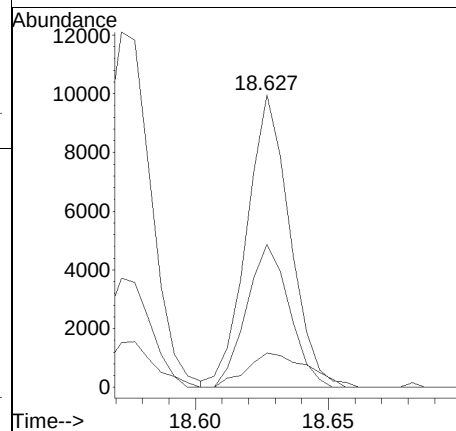
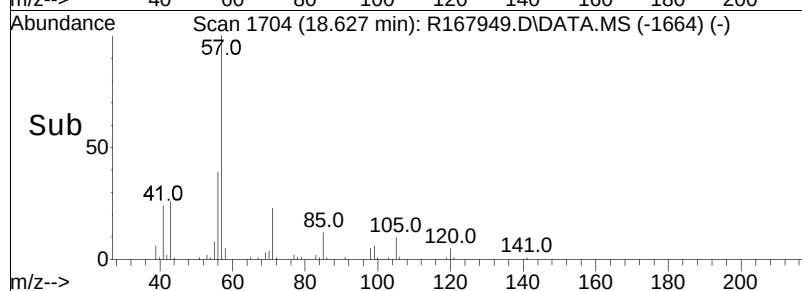
Delta R.T. 0.000 min

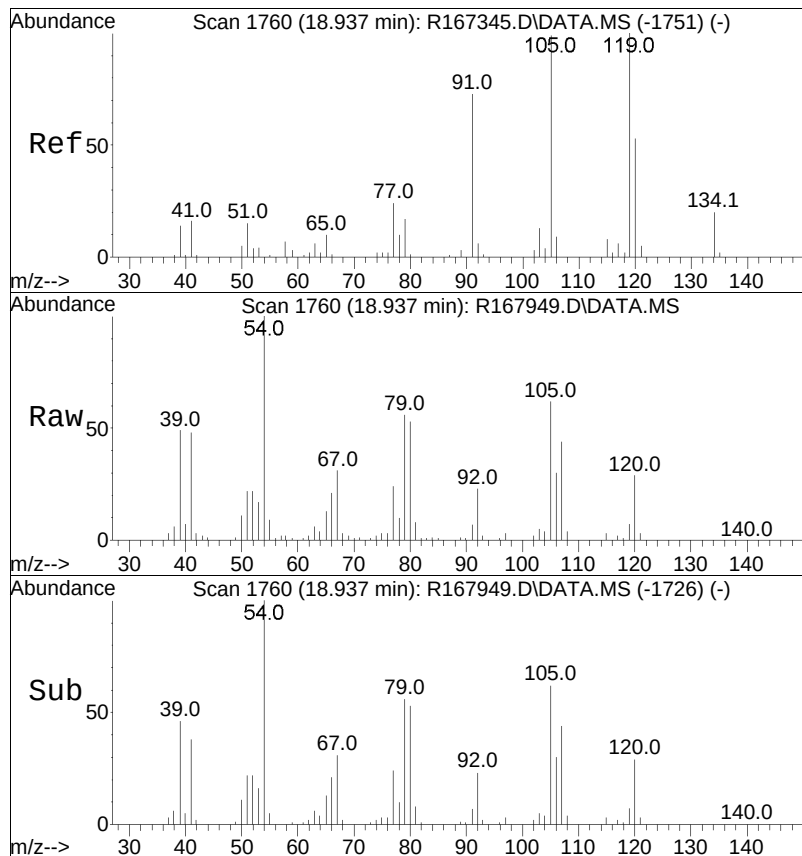
Lab File: R167949.D

Acq: 9 Aug 2019 10:35 pm



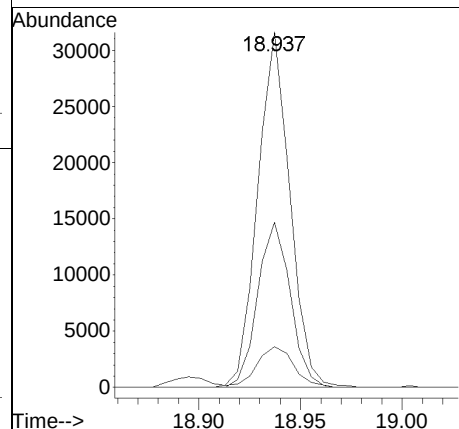
Tgt Ion:	105	Resp:	11305
Ion Ratio	Lower	Upper	
105	100		
120	48.9	38.8	58.2
91	11.7	8.1	12.1





#99
 1,2,4-trimethylbenzene
 Concen: 0.97 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. 0.000 min
 Lab File: R167949.D
 Acq: 9 Aug 2019 10:35 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.5	42.6	63.8
91	11.5	58.7	88.1#



Manual Integration Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
Data File : R167949.D
Date Inj'd : 8/9/2019 10:35 pm
Sample : L1935043-02D,3,100,250
Method : TFS1_190712.M
Operator : AIRPIAN01:EW
Instrument : Air Piano 1
Quant Date : 8/10/2019 7:56 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167950.D
 Acq On : 9 Aug 2019 11:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-03D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 12 10:55:31 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.110	49	121276	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		76.43%	
43) 1,4-difluorobenzene	12.348	114	268408	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		73.25%	
67) chlorobenzene-D5	16.801	54	50828	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		74.75%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	2555	0.165	ppbV	94
6) chloromethane	4.227	50	1319	0.225	ppbV	97
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.581	31	42157	11.392	ppbV	90
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.214	43	458619	37.832	ppbV	97
21) trichlorofluoromethane	6.437	101	1762	0.110	ppbV	85
22) isopropyl alcohol	6.605	45	52054	3.737	ppbV	99
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	1131	0.124	ppbV	100
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.787	76	22554	0.914	ppbV #	89
31) Freon 113	0.000		0	N.D.	d	
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.904	63	2437	0.162	ppbV	97
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.398	43	303723	19.625	ppbV	98
37) cis-1,2-dichloroethene	9.917	61	456M4	0.037	ppbV	
38) Ethyl Acetate	10.217	61	16045	4.766	ppbV	64
39) chloroform	10.271	83	4135	0.204	ppbV	93
40) Tetrahydrofuran	10.727	42	662324	69.180	ppbV	94
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167950.D
 Acq On : 9 Aug 2019 11:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-03D, 3, 100, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 12 10:55:31 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	0.000		0	N.D.	d	
48) 1,1,1-trichloroethane	11.404	97	14451	0.892	ppbV	99
50) benzene	11.941	78	4108	0.153	ppbV	99
52) carbon tetrachloride	0.000		0	N.D.	d	
53) cyclohexane	12.232	56	1652	0.115	ppbV #	82
56) 1,2-dichloropropane	0.000		0	N.D.	d	
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	13.140	130	638009	57.268	ppbV	99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d	
62) heptane	13.465	43	12576M6	0.746	ppbV	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	14.192	43	7853	0.372	ppbV #	98
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.188	91	1072594	33.274	ppbV	99
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
78) tetrachloroethene	16.261	166	40455	2.872	ppbV	99
80) chlorobenzene	0.000		0	N.D.	d	
81) ethylbenzene	17.134	91	14252	0.350	ppbV	96
83) m+p-xylene	17.263	91	43541	1.391	ppbV	99
84) bromoform	0.000		0	N.D.		
85) styrene	17.562	104	4207	0.172	ppbV	95
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d	
87) o-xylene	17.647	91	17437	0.555	ppbV	98
96) 4-ethyl toluene	18.572	105	15486	0.332	ppbV	99
97) 1,3,5-trimethylbenzene	18.627	105	13440	0.364	ppbV	98
99) 1,2,4-trimethylbenzene	18.937	105	42294	1.206	ppbV #	57
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.	d	
103) 1,4-dichlorobenzene	19.118	146	829	0.034	ppbV	91
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167950.D
 Acq On : 9 Aug 2019 11:05 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-03D,3,100,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 12 10:55:31 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

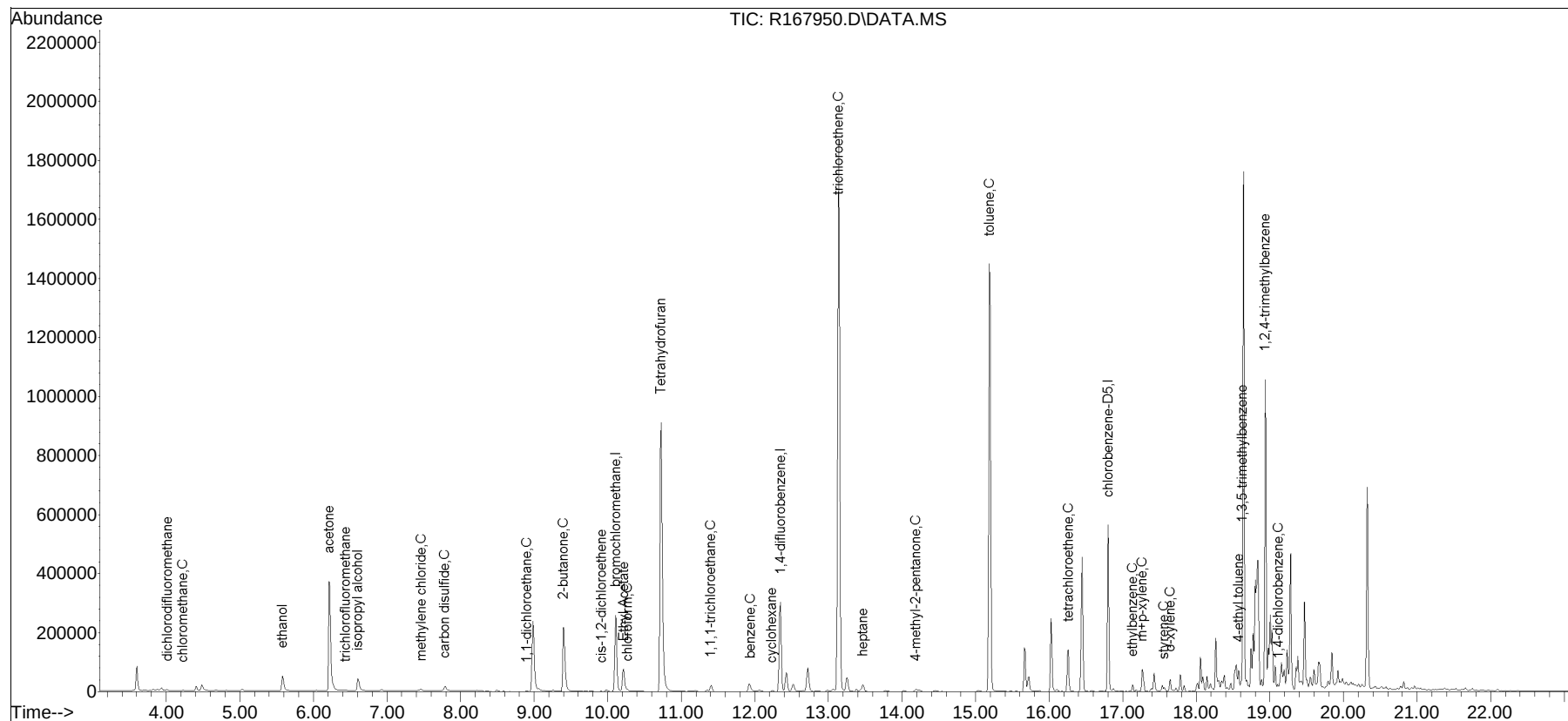
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

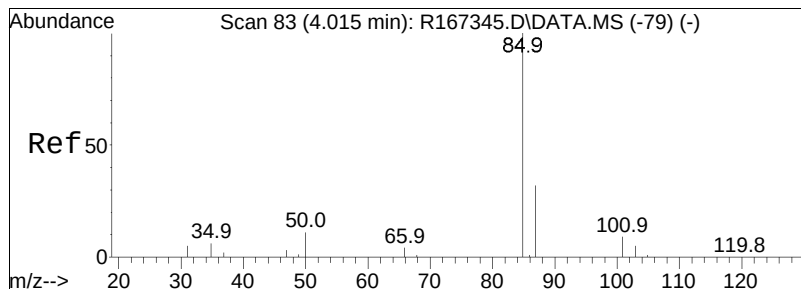
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167950.D
Acq On : 9 Aug 2019 11:05 pm
Operator : AIRPIAN01:EW
Sample : L1935043-03D,3,100,250
Misc : WG1270780,ICAL15961
ALS Vial : 9 Sample Multiplier: 1

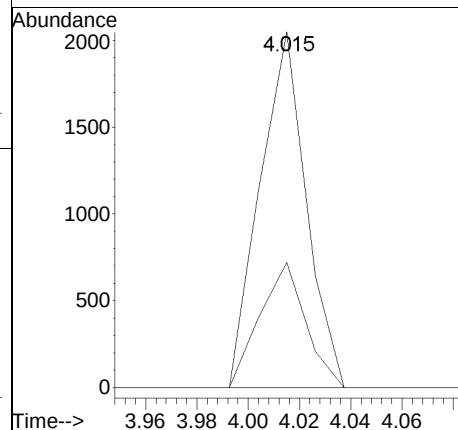
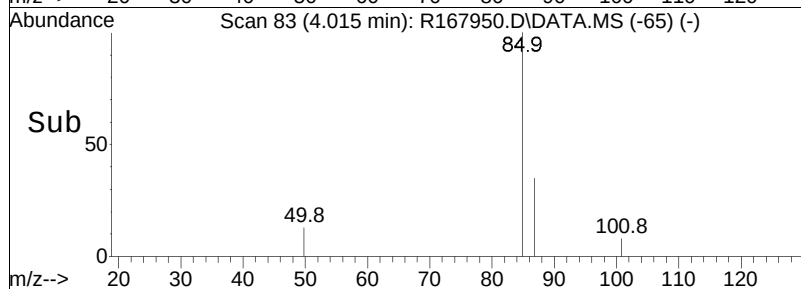
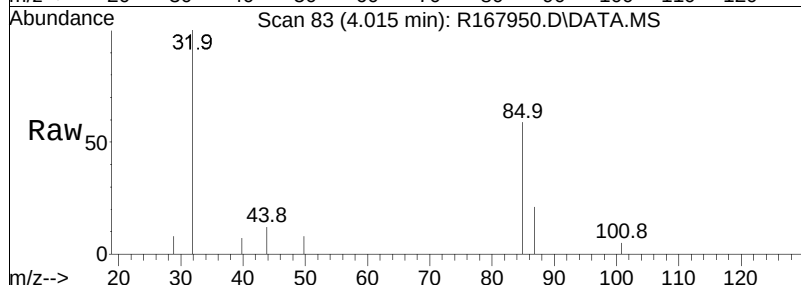
Quant Time: Aug 12 10:55:31 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

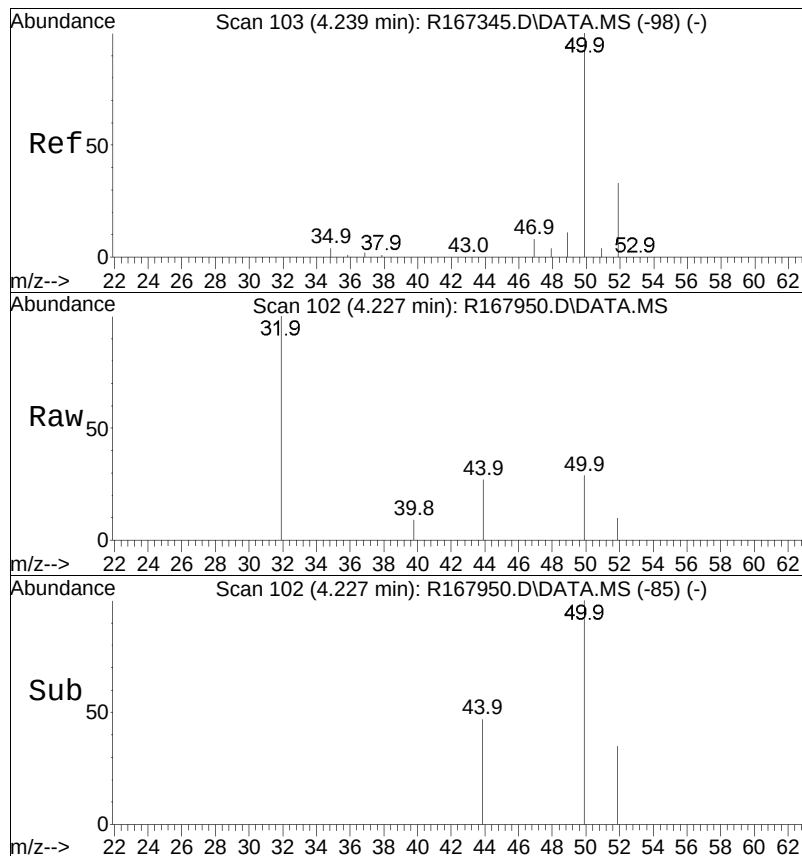




#5
dichlorodifluoromethane
Concen: 0.17 ppbV
RT: 4.015 min Scan# 83
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

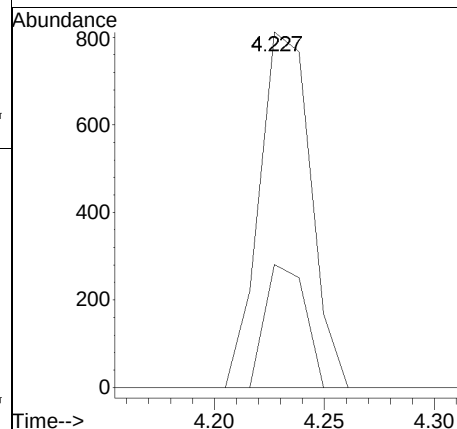
Tgt Ion: 85 Resp: 2555
Ion Ratio Lower Upper
85 100
87 35.2 25.7 38.5

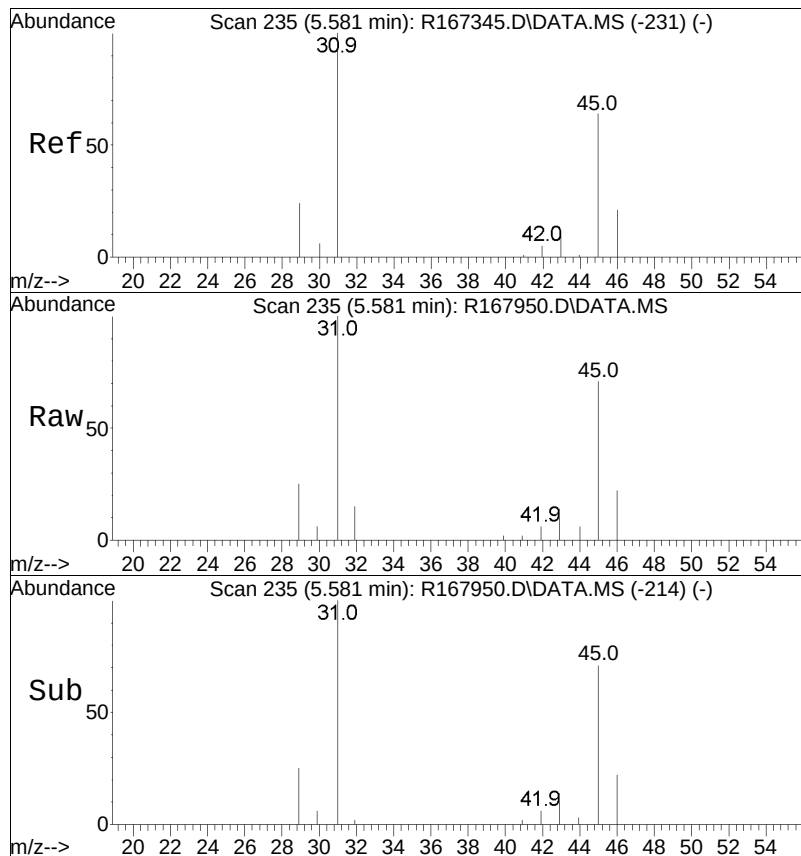




#6
 chloromethane
 Concen: 0.23 ppbV
 RT: 4.227 min Scan# 102
 Delta R.T. -0.011 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

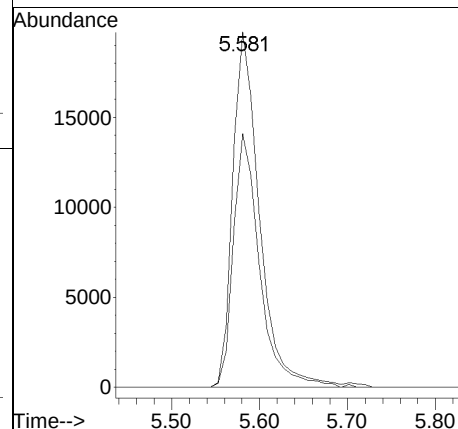
Tgt	Ion	Resp	Lower	Upper
50	100	1319		
52	34.6	26.3	39.5	

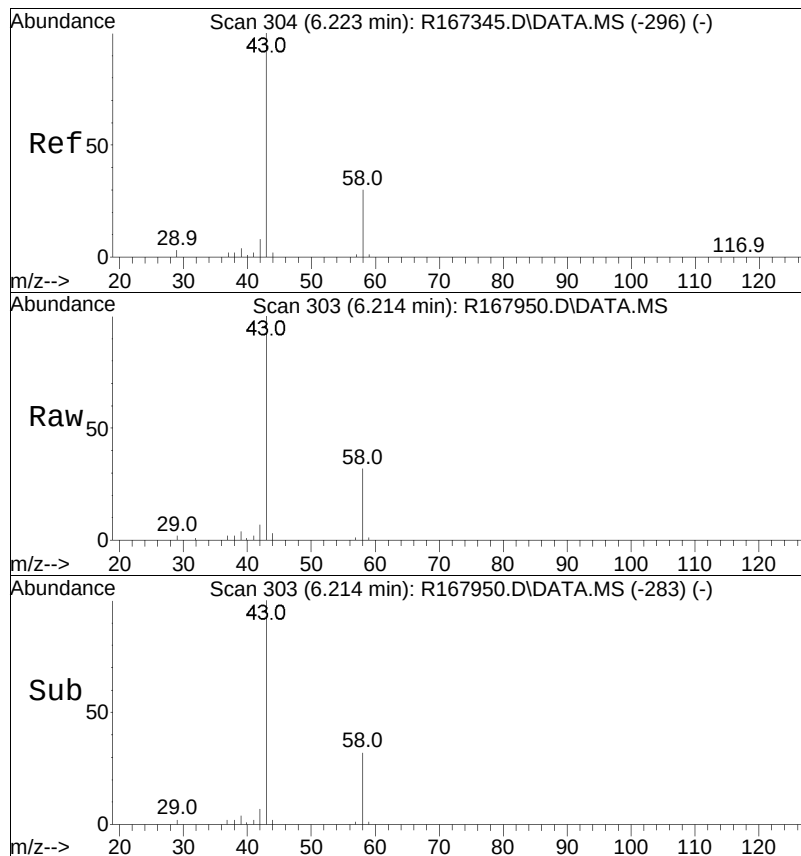




#15
 ethanol
 Concen: 11.39 ppbV
 RT: 5.581 min Scan# 235
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

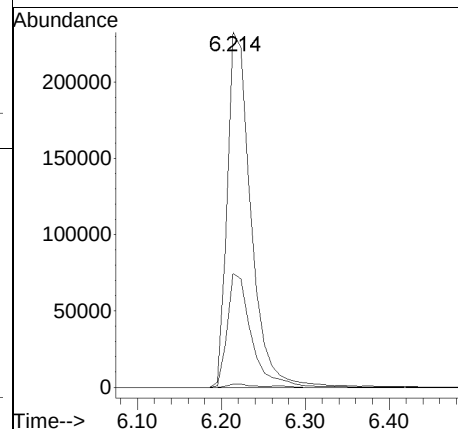
Tgt Ion:	31	45	Ratio	Lower	Upper
Resp:	42157				
Ion Ratio	100	71.4		50.8	76.2

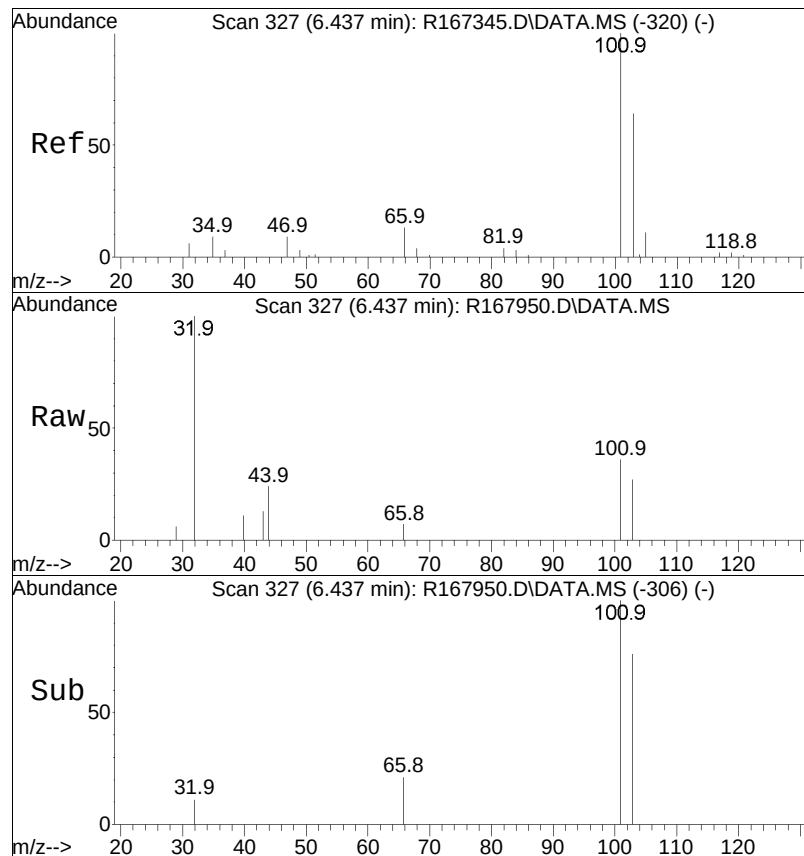




#19
 acetone
 Concen: 37.83 ppbV
 RT: 6.214 min Scan# 303
 Delta R.T. -0.009 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

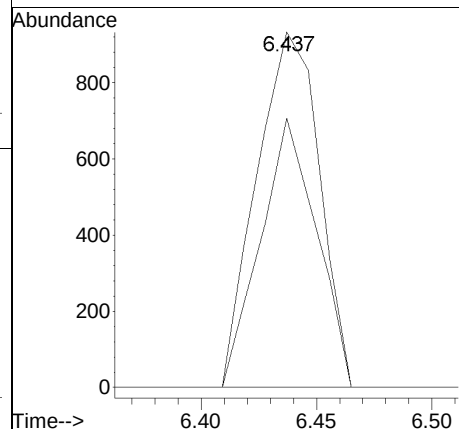
Tgt	Ion: 43	Resp:	458619
Ion	Ratio	Lower	Upper
43	100		
58	32.1	24.2	36.2
57	0.9	0.8	1.2

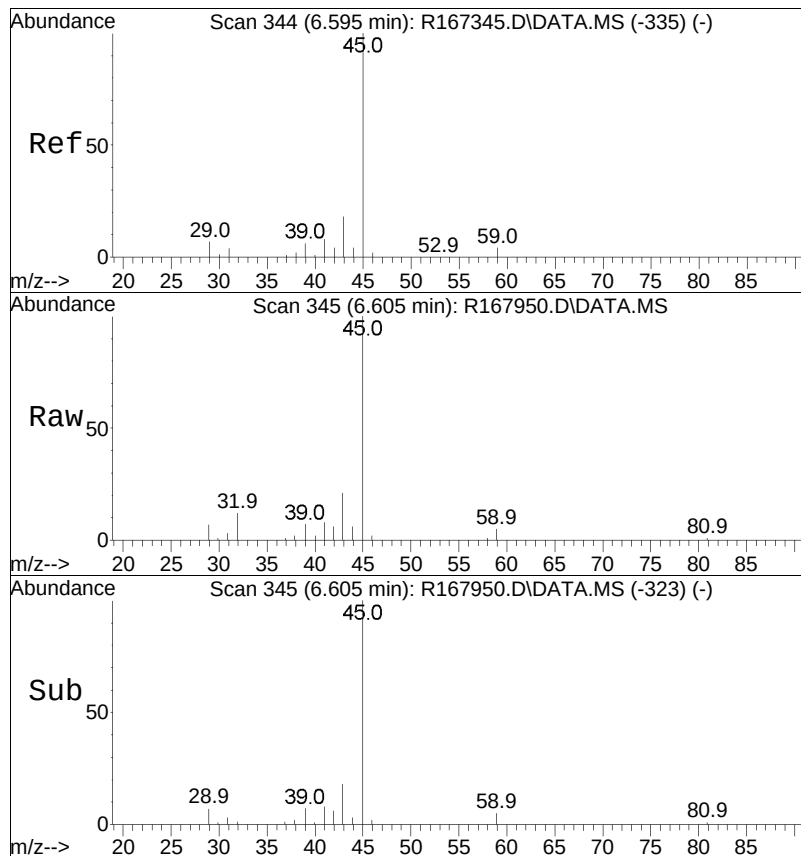




#21
trichlorofluoromethane
Concen: 0.11 ppbV
RT: 6.437 min Scan# 327
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

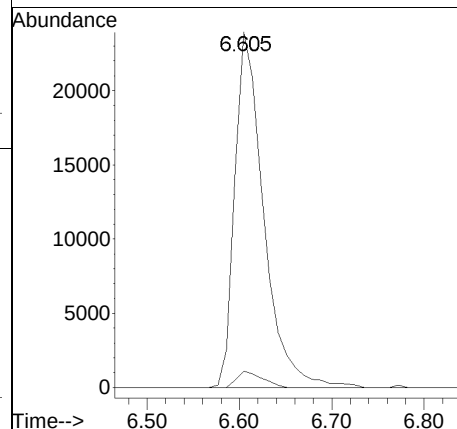
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	75.8	51.1	76.7	

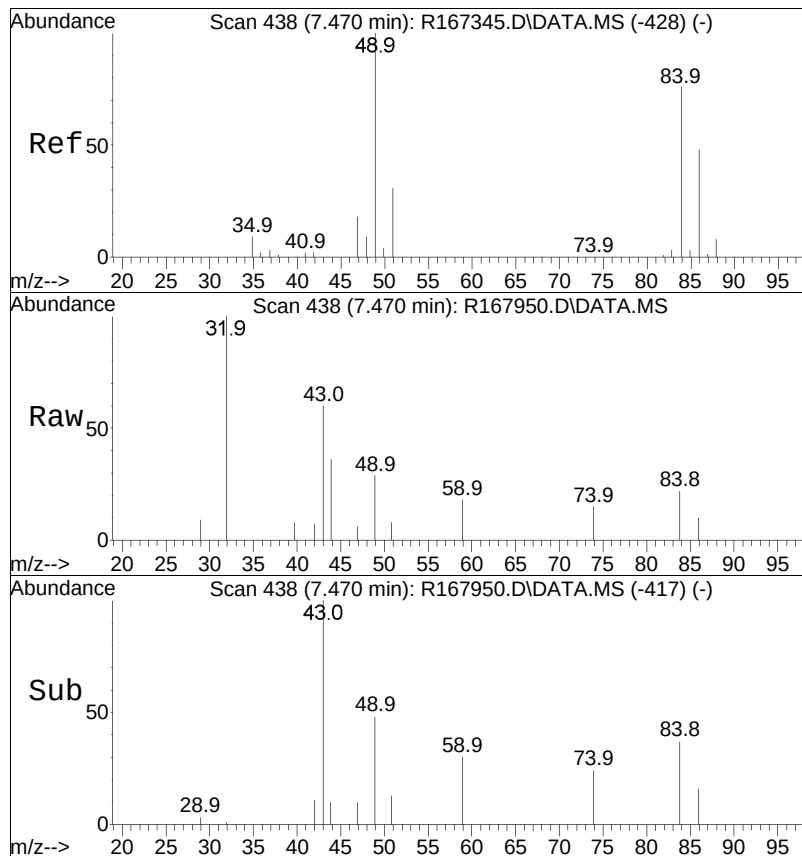




#22
 isopropyl alcohol
 Concen: 3.74 ppbV
 RT: 6.605 min Scan# 345
 Delta R.T. 0.009 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

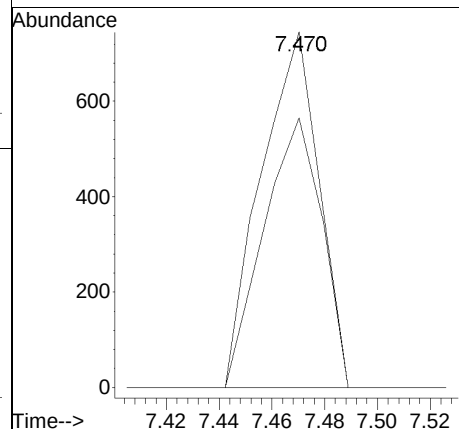
Tgt Ion	Ratio	Lower	Upper
45	100		
59	4.6	3.4	5.0

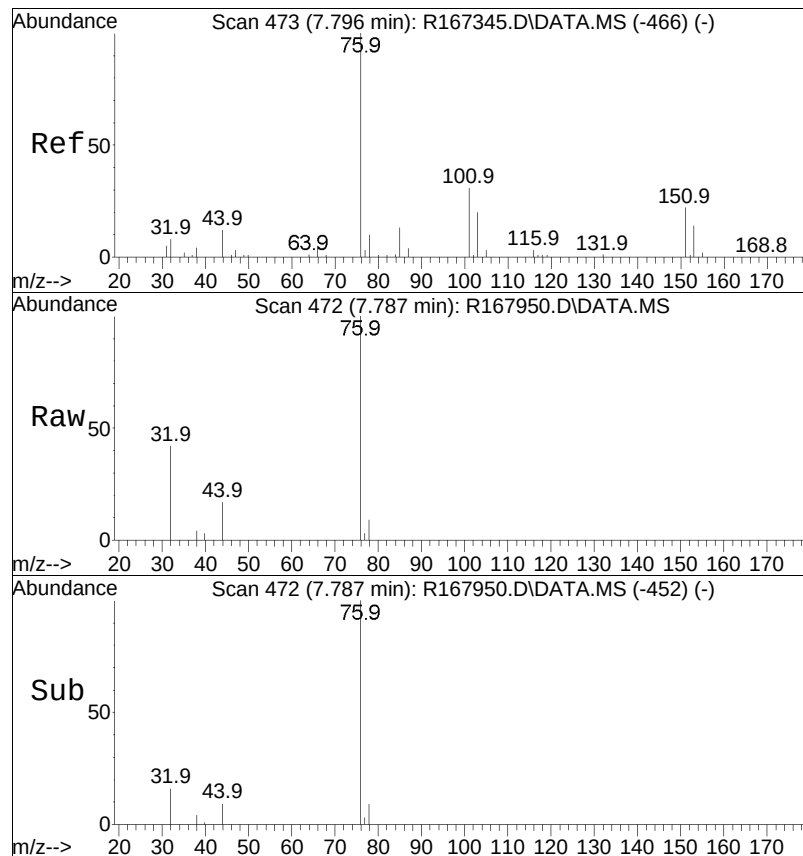




#28
 methylene chloride
 Concen: 0.12 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

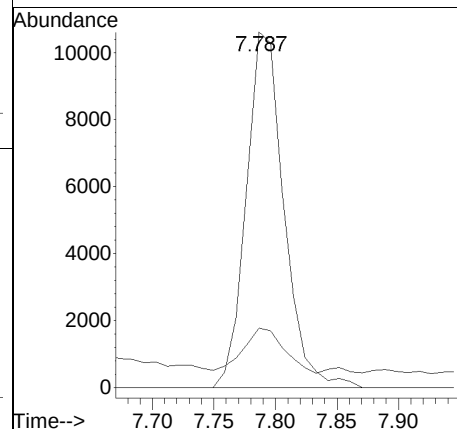
Tgt Ion	Ratio	Lower	Upper
49	100		
84	75.8	60.6	91.0

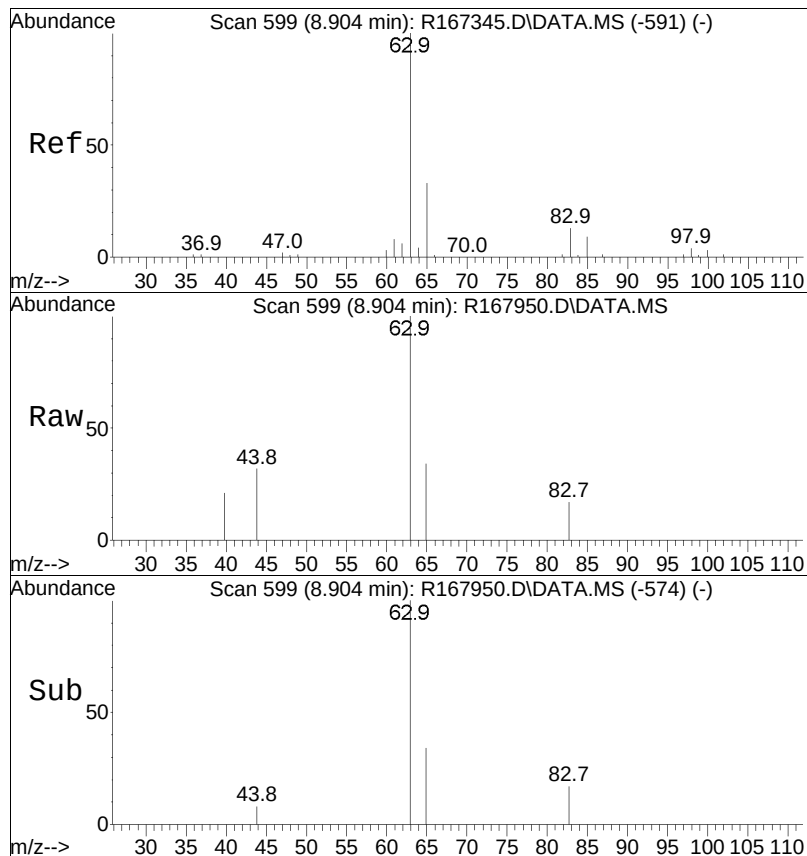




#30
 carbon disulfide
 Concen: 0.91 ppbV
 RT: 7.787 min Scan# 472
 Delta R.T. -0.009 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

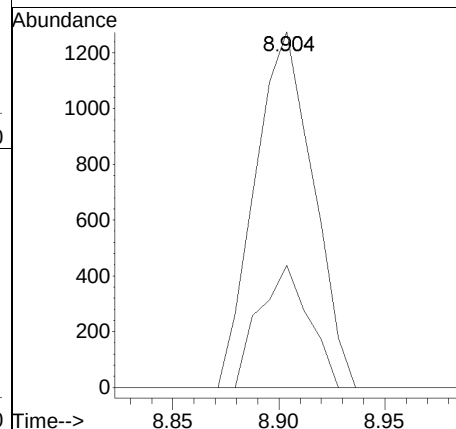
Tgt	Ion	Resp	Lower	Upper
76	100	22554		
44	16.7	9.8	14.8#	

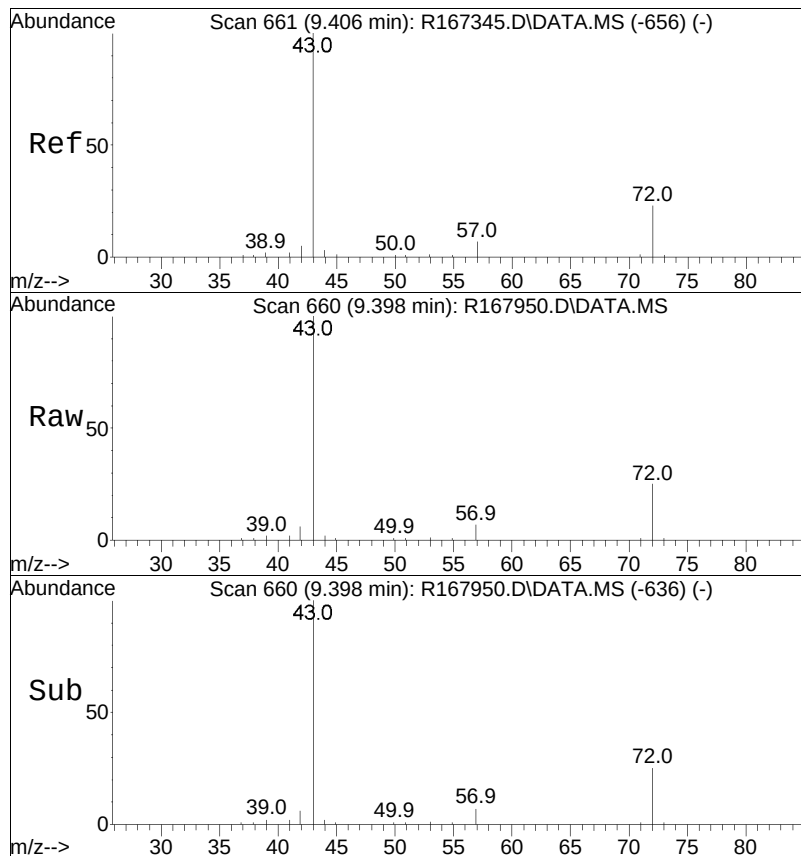




#33
 1,1-dichloroethane
 Concen: 0.16 ppbV
 RT: 8.904 min Scan# 599
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

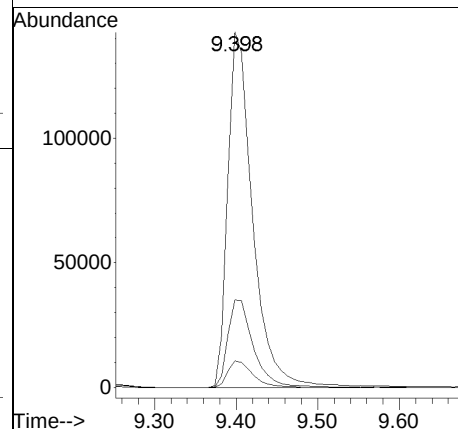
Tgt	Ion	Ratio	Lower	Upper
63	100			
65	34.4	26.0	39.0	

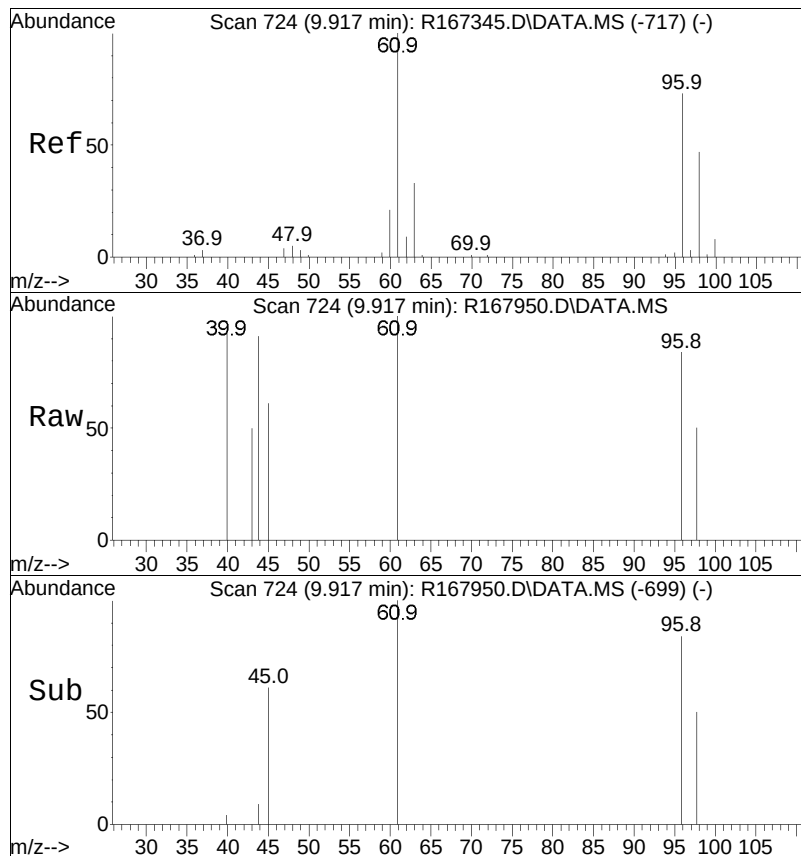




#36
 2-butanone
 Concen: 19.62 ppbV
 RT: 9.398 min Scan# 660
 Delta R.T. -0.008 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

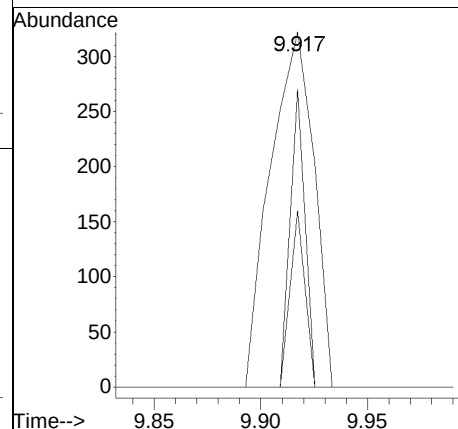
Tgt Ion:	43	Resp:	303723
Ion Ratio	Lower	Upper	
43	100		
72	24.6	18.7	28.1
57	7.5	5.6	8.4

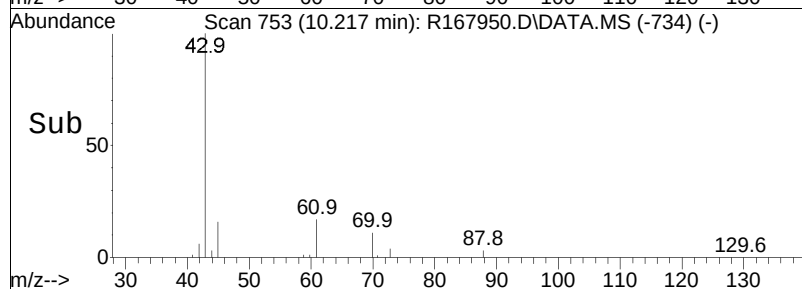
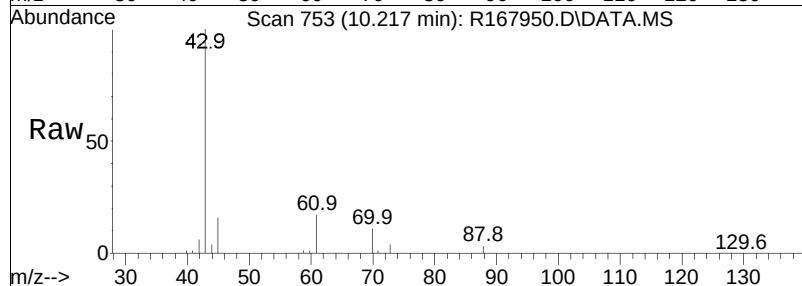
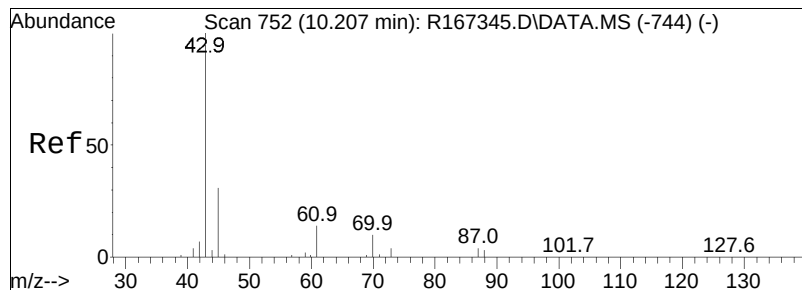




#37
 cis-1,2-dichloroethene
 Concen: 0.04 ppbV m
 RT: 9.917 min Scan# 724
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

Tgt Ion:	61	Resp:	456
Ion Ratio	Lower	Upper	
61	100		
96	83.9	58.0	87.0
98	49.7	37.6	56.4





#38

Ethyl Acetate

Concen: 4.77 ppbV

RT: 10.217 min Scan# 753

Delta R.T. 0.011 min

Lab File: R167950.D

Acq: 9 Aug 2019 11:05 pm

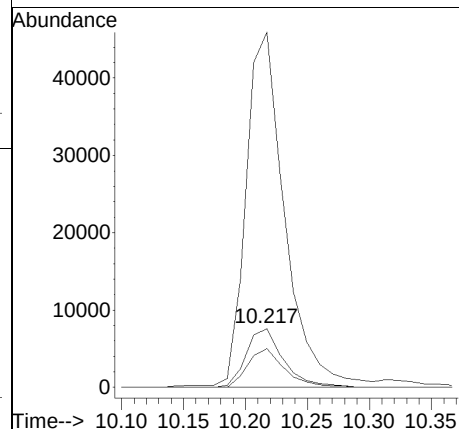
Tgt Ion: 61 Resp: 16045

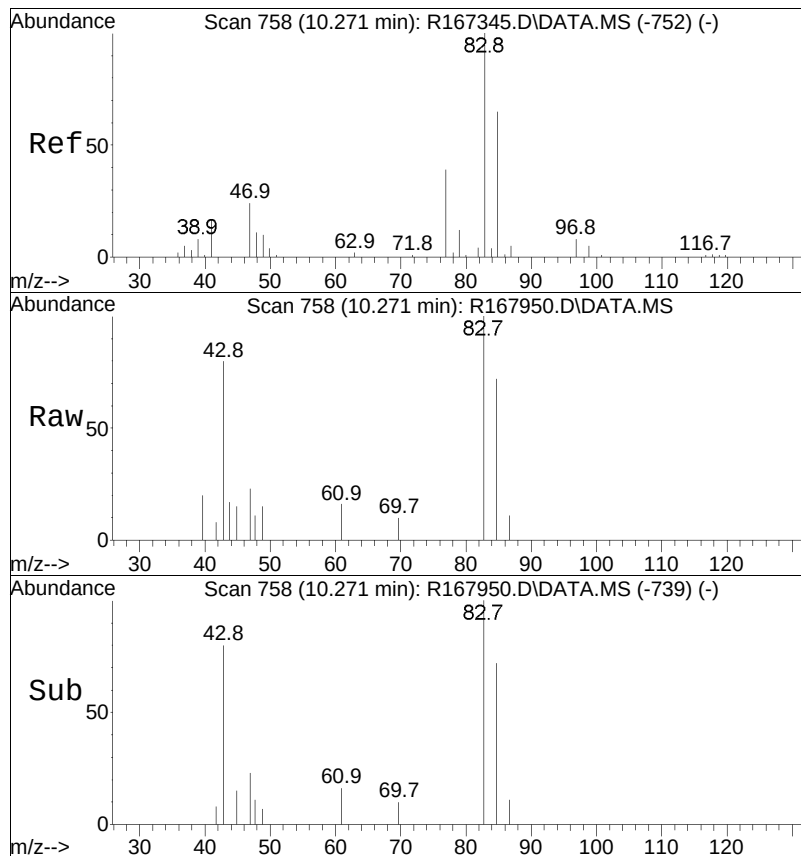
Ion Ratio Lower Upper

61 100

70 66.0 61.5 92.3

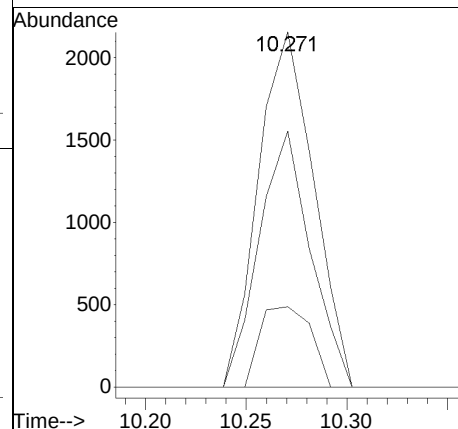
43 604.5 594.1 891.1

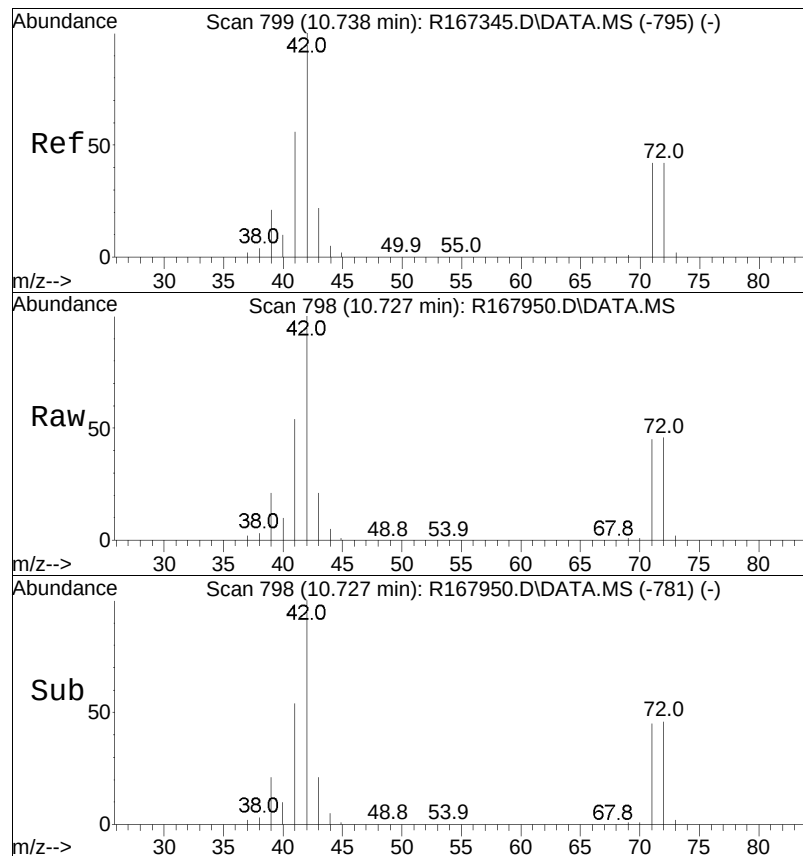




#39
 chloroform
 Concen: 0.20 ppbV
 RT: 10.271 min Scan# 758
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

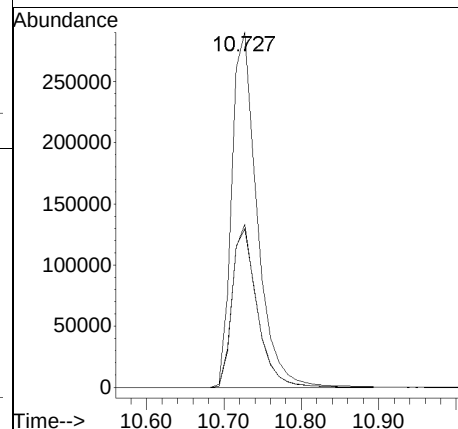
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	4135		
85	72.1		52.2	78.2
47	22.7		19.1	28.7

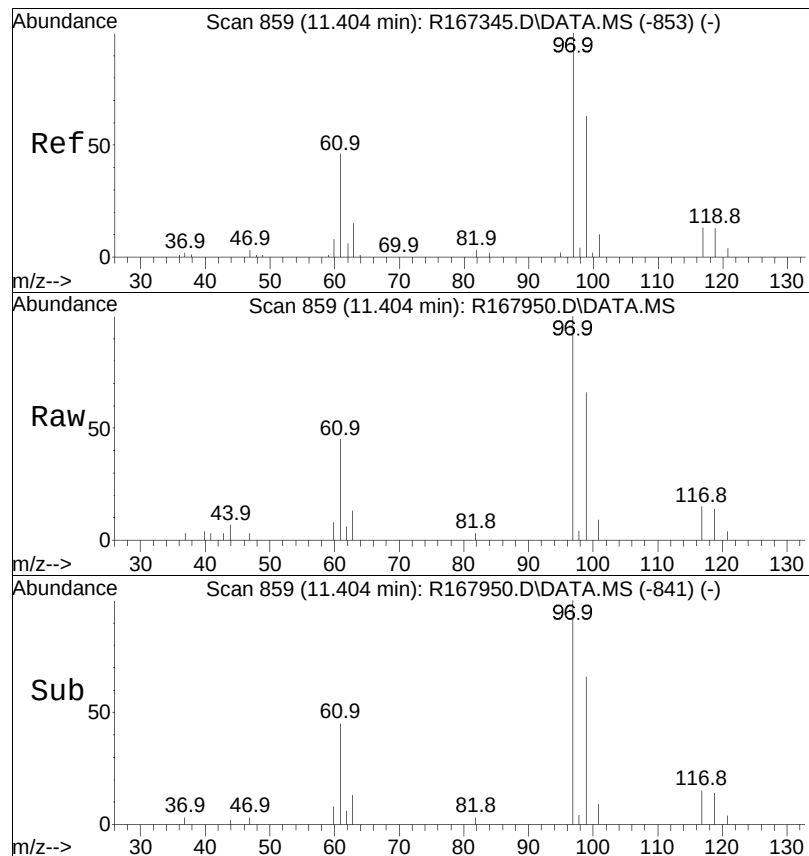




#40
Tetrahydrofuran
Concen: 69.18 ppbV
RT: 10.727 min Scan# 798
Delta R.T. -0.011 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

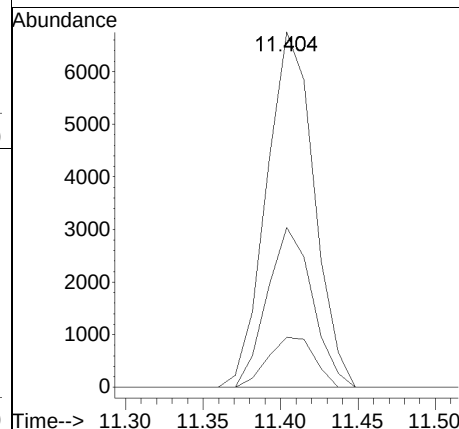
Tgt Ion	Ratio	Lower	Upper
42	100		
71	44.7	33.5	50.3
72	45.9	33.3	49.9

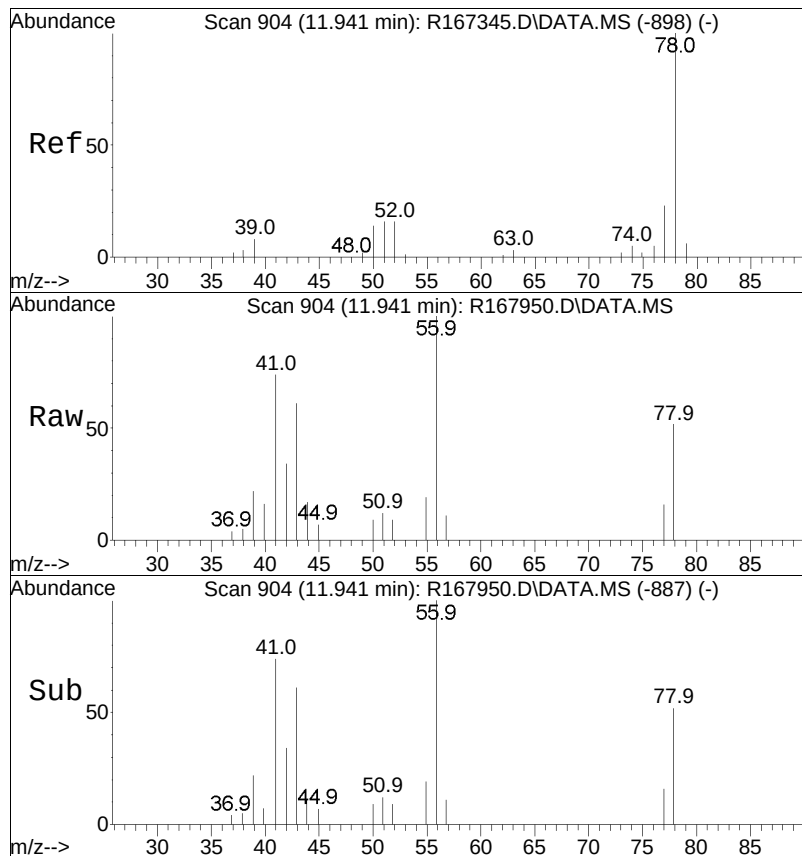




#48
 1,1,1-trichloroethane
 Concen: 0.89 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

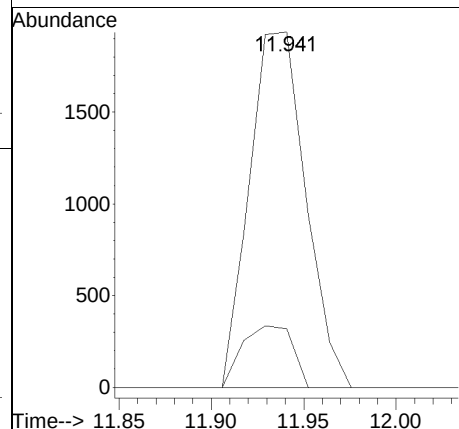
Tgt Ion	Ratio	Resp	Lower	Upper
97	100	14451		
61	45.0		36.6	55.0
119	14.1		10.6	16.0

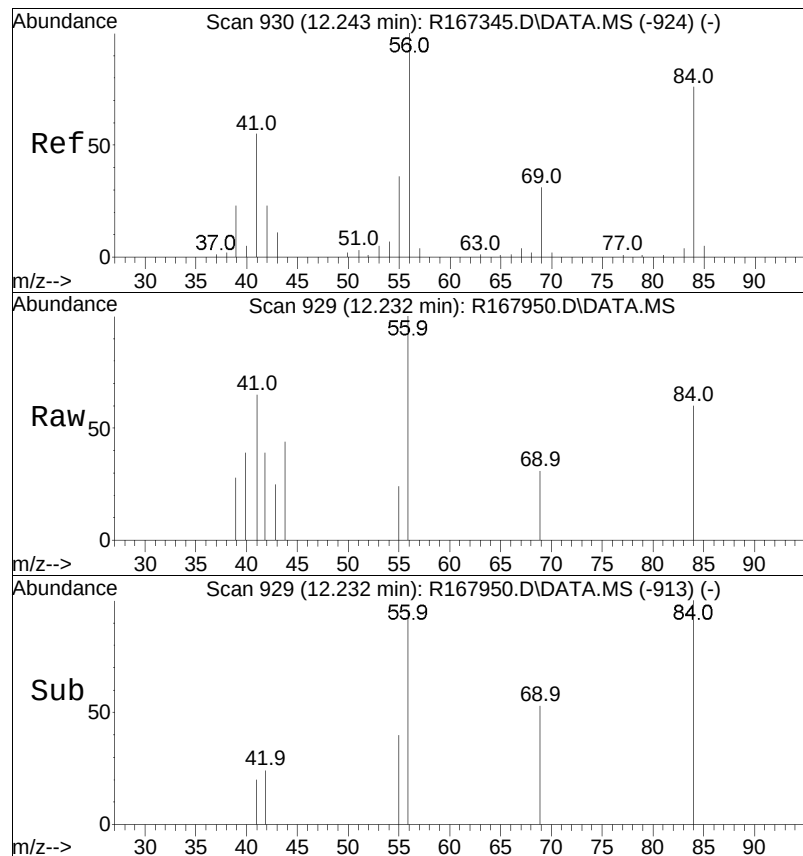




#50
benzene
Concen: 0.15 ppbV
RT: 11.941 min Scan# 904
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

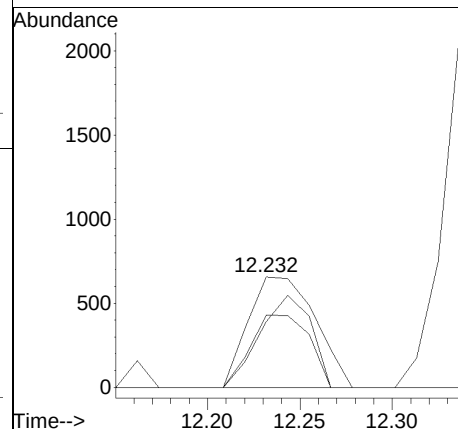
Tgt Ion	Ratio	Lower	Upper
78	100		
52	16.5	13.0	19.4

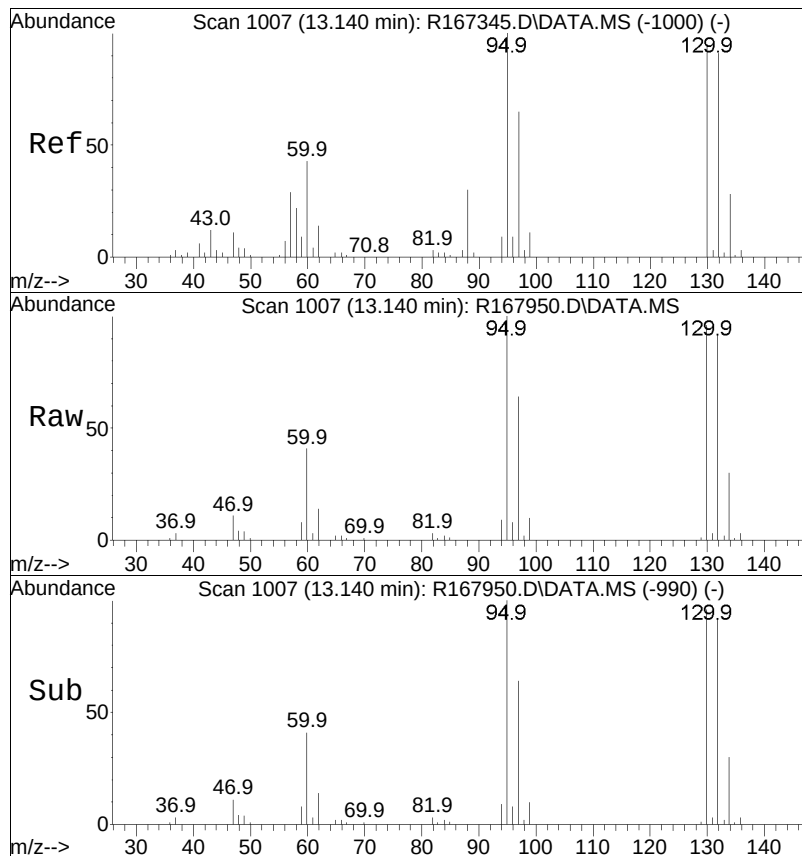




#53
cyclohexane
Concen: 0.12 ppbV
RT: 12.232 min Scan# 929
Delta R.T. -0.012 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

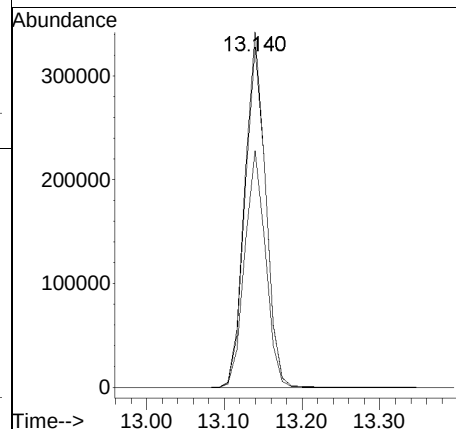
Tgt	Ion	Ratio	Lower	Upper
56	100			
84	59.5	61.0	91.6#	
41	65.3	43.8	65.6	

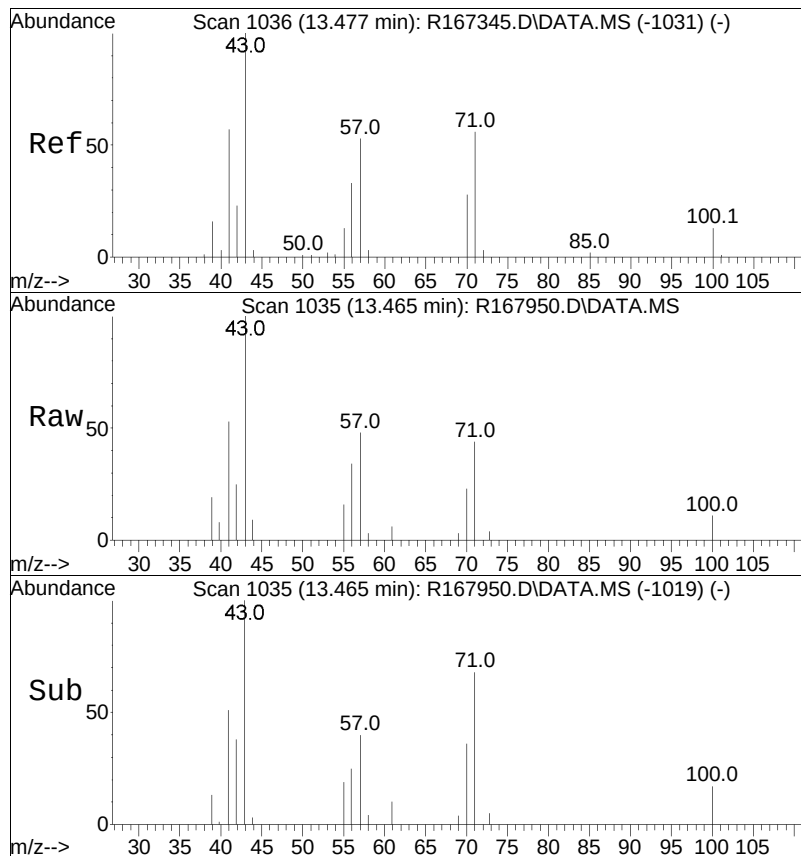




#59
trichloroethene
Concen: 57.27 ppbV
RT: 13.140 min Scan# 1007
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

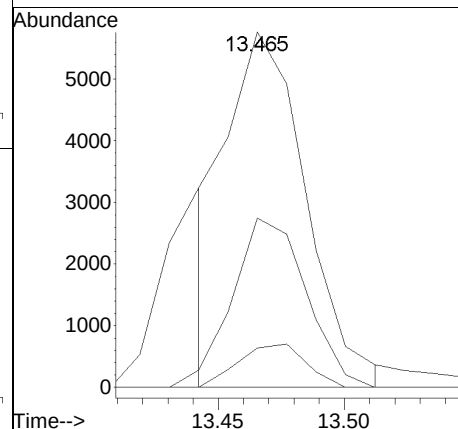
Tgt	Ion:130	Resp:	638009
Ion	Ratio	Lower	Upper
130	100		
132	95.9	76.3	114.5
97	66.7	54.5	81.7

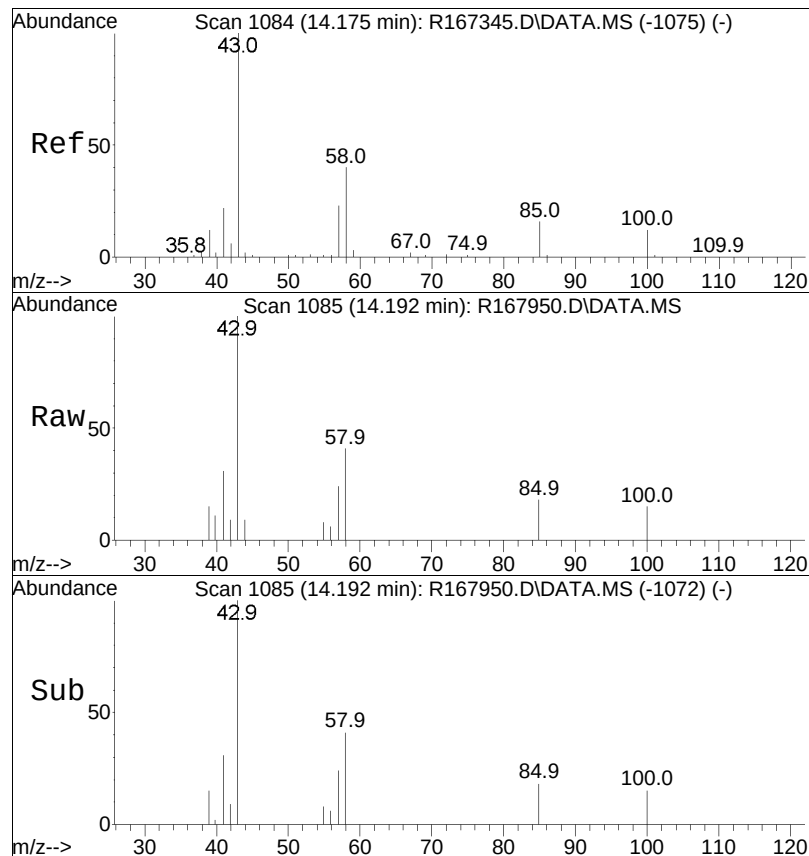




#62
heptane
Concen: 0.75 ppbV m
RT: 13.465 min Scan# 1035
Delta R.T. -0.012 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

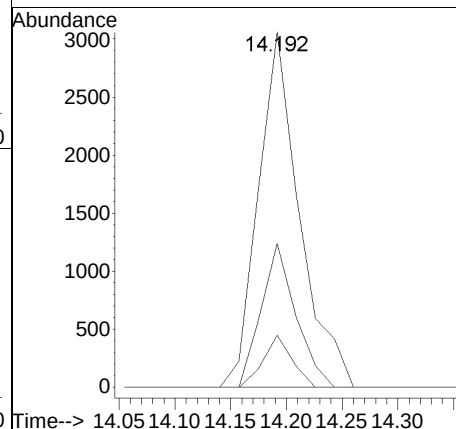
Tgt Ion:	43	57	100	Resp:	12576
Ion Ratio	100	47.6	11.1	Lower	Upper
		42.1	10.6		
		63.1	15.8		

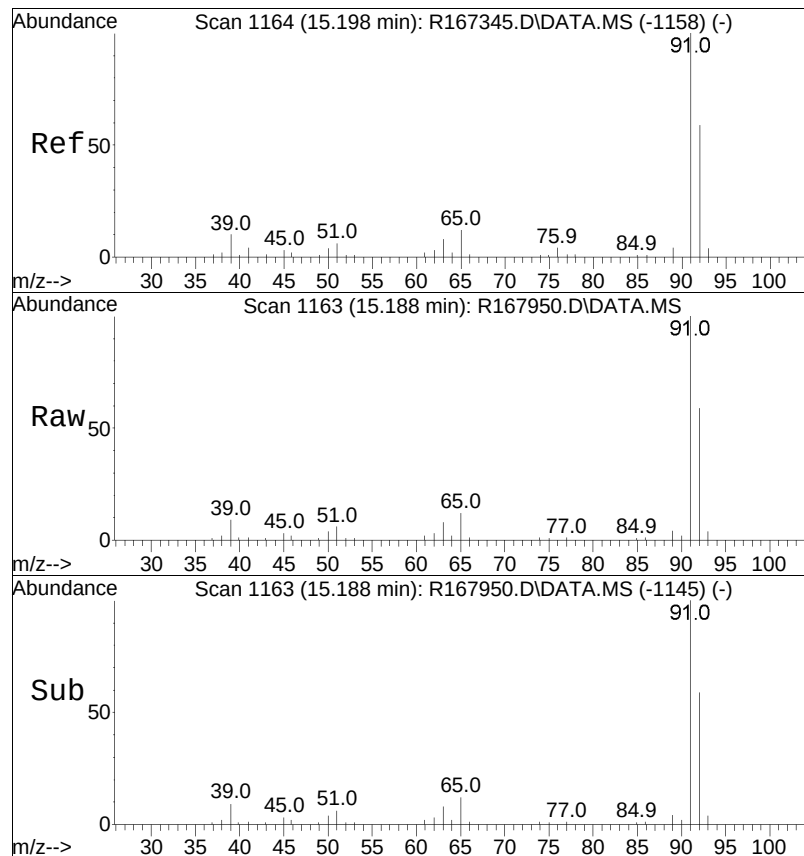




#64
 4-methyl-2-pentanone
 Concen: 0.37 ppbV
 RT: 14.192 min Scan# 1085
 Delta R.T. 0.017 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

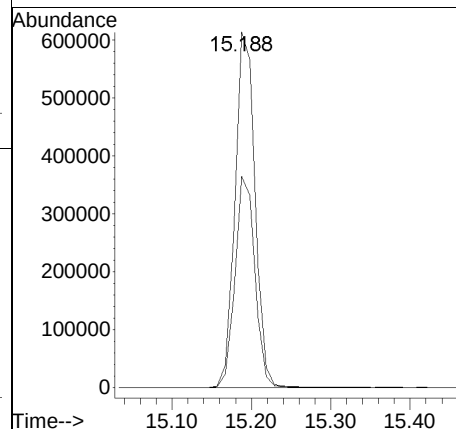
Tgt Ion	Ratio	Lower	Upper
43	100		
58	40.5	32.2	48.4
100	14.7	9.8	14.6

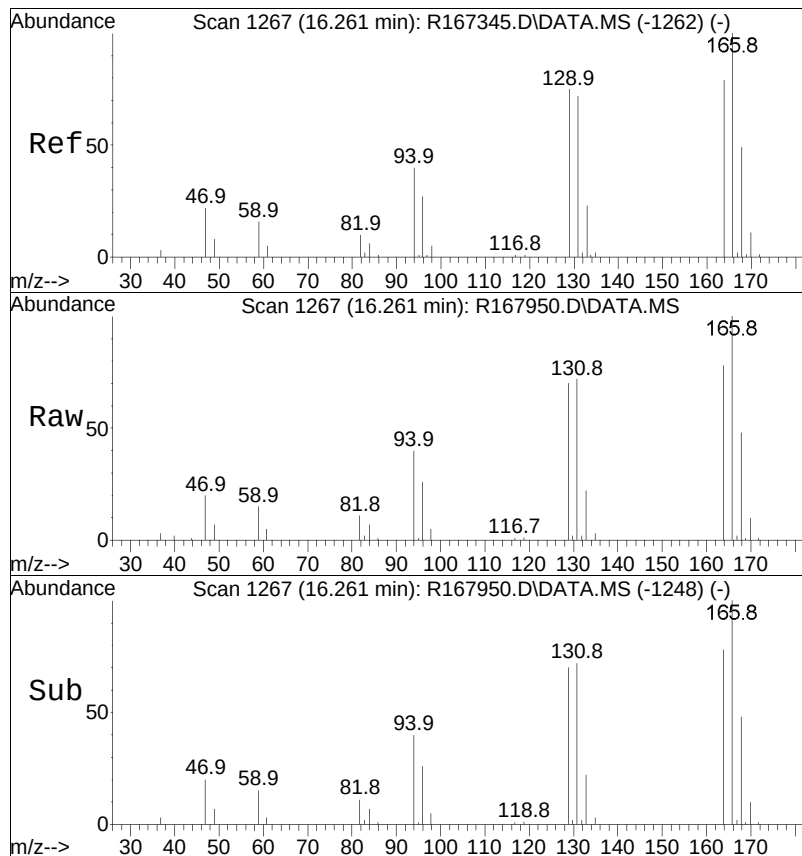




#68
toluene
Concen: 33.27 ppbV
RT: 15.188 min Scan# 1163
Delta R.T. -0.010 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

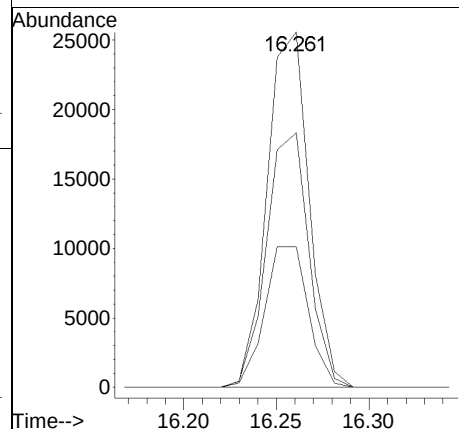
Tgt Ion: 91 Resp: 1072594
Ion Ratio Lower Upper
91 100
92 59.3 46.8 70.2

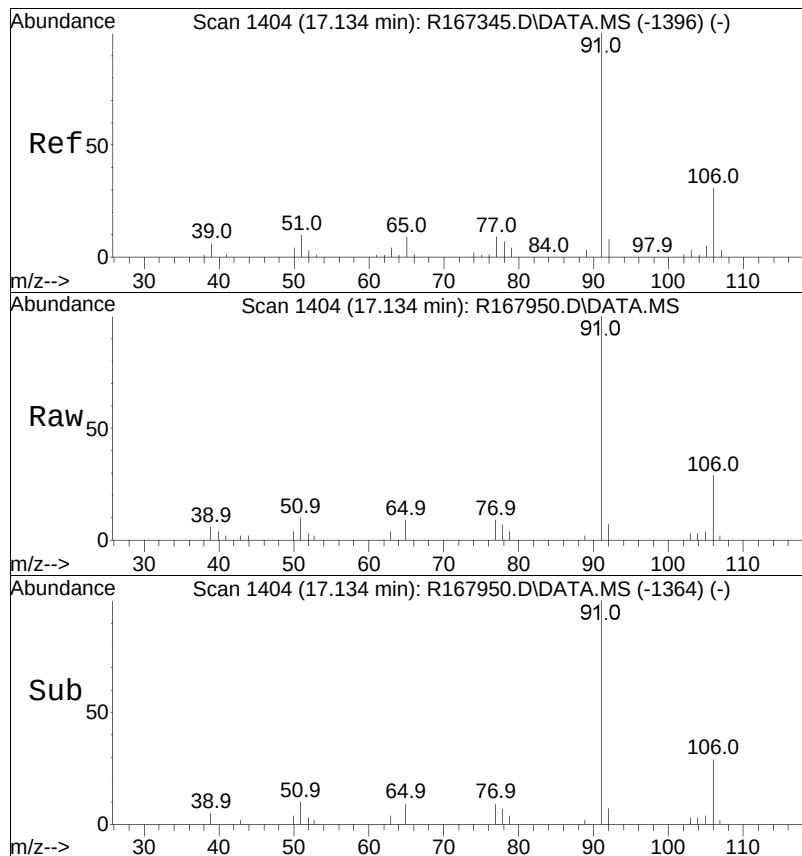




#78
 tetrachloroethene
 Concen: 2.87 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

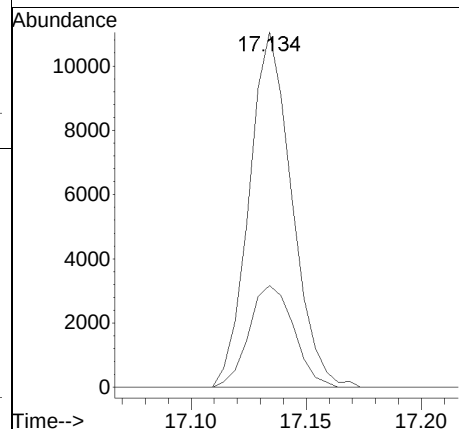
Tgt Ion	Ratio	Lower	Upper
166	100		
131	71.6	57.8	86.8
94	39.6	32.1	48.1

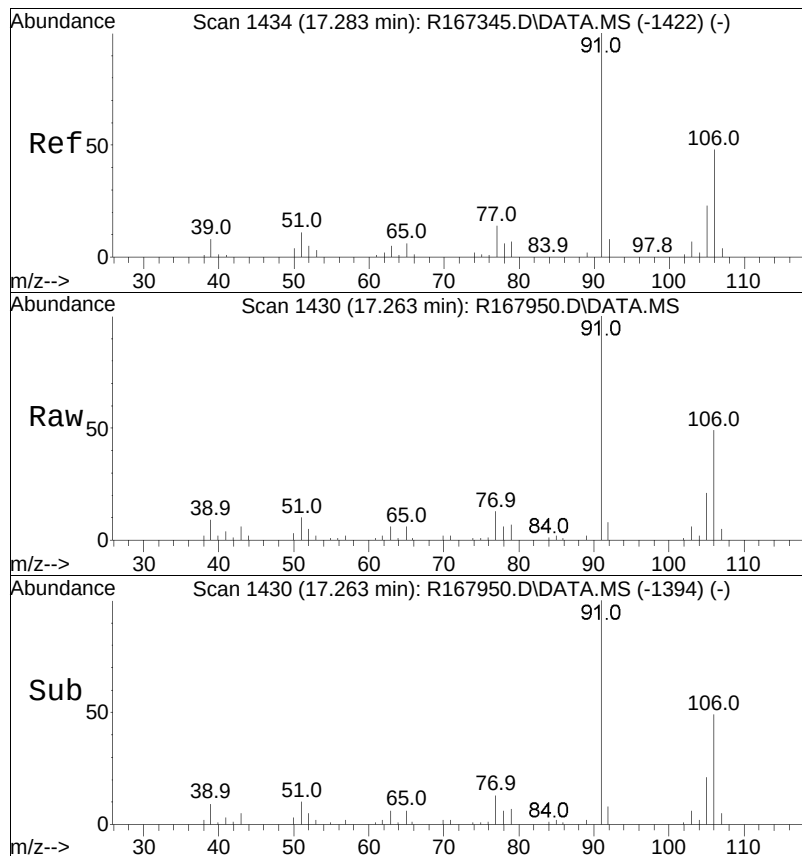




#81
ethylbenzene
Concen: 0.35 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

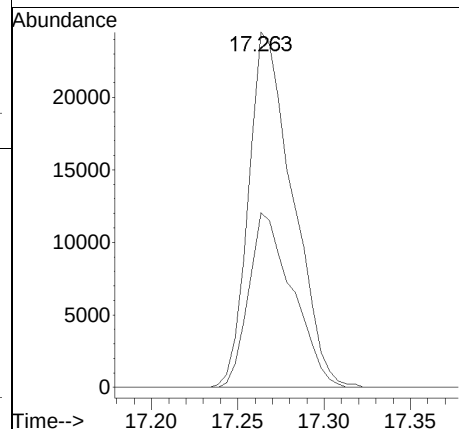
Tgt Ion	Ratio	Lower	Upper
91	100		
106	28.7	24.6	37.0

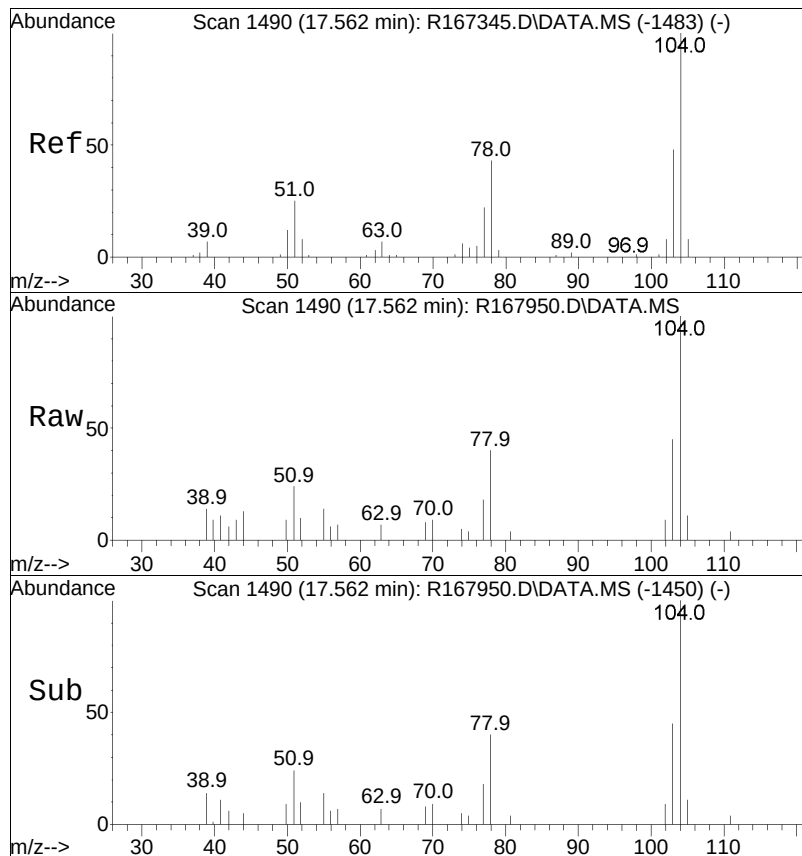




#83
 m+p-xylene
 Concen: 1.39 ppbV
 RT: 17.263 min Scan# 1430
 Delta R.T. -0.020 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

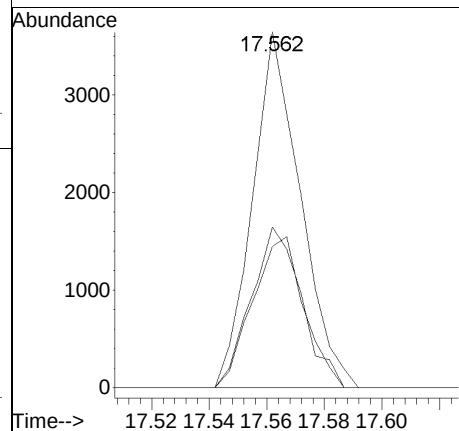
Tgt	Ion	Resp	Lower	Upper
91	100	43541		
106	49.2	38.7	58.1	

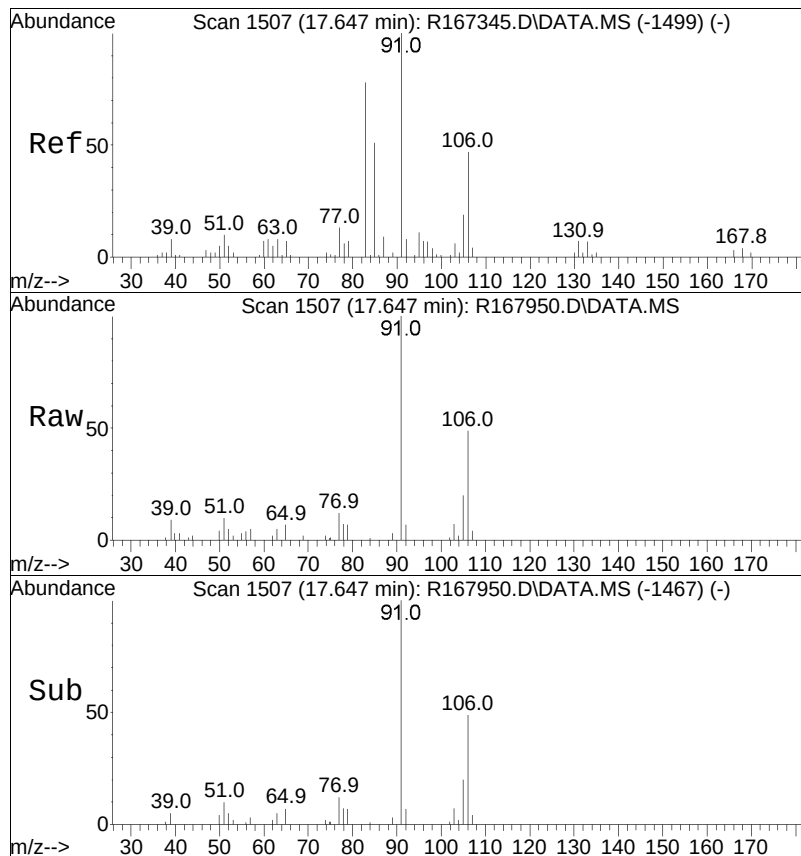




#85
styrene
Concen: 0.17 ppbV
RT: 17.562 min Scan# 1490
Delta R.T. -0.000 min
Lab File: R167950.D
Acq: 9 Aug 2019 11:05 pm

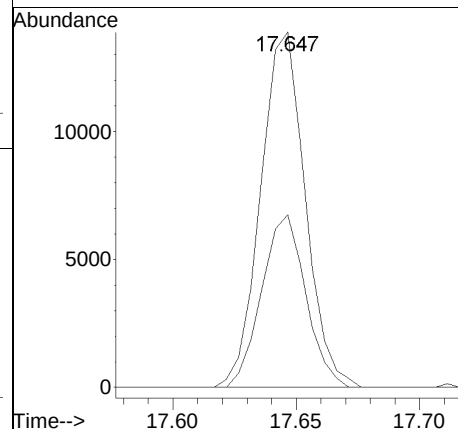
Tgt Ion	Ratio	Lower	Upper
104	100		
103	45.1	38.3	57.5
78	39.7	34.5	51.7

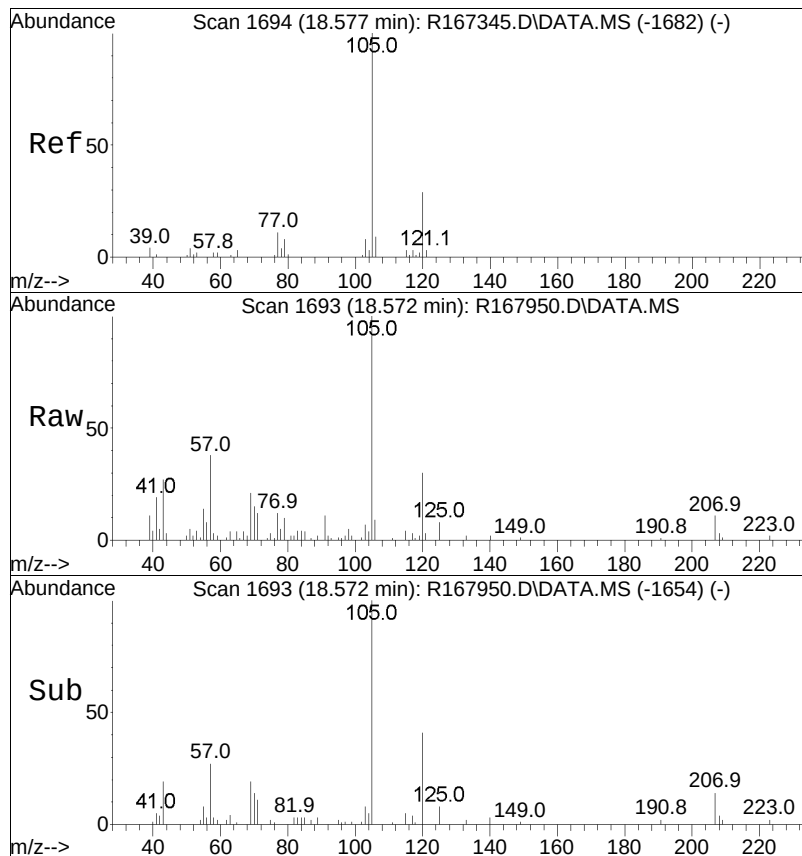




#87
 o-xylene
 Concen: 0.55 ppbV
 RT: 17.647 min Scan# 1507
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

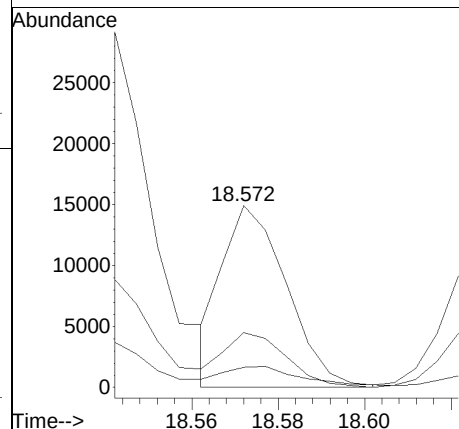
Tgt Ion	91	106	Ratio	Lower	Upper
Resp:	17437				
Ion	100				
Ratio	48.6			37.9	56.9

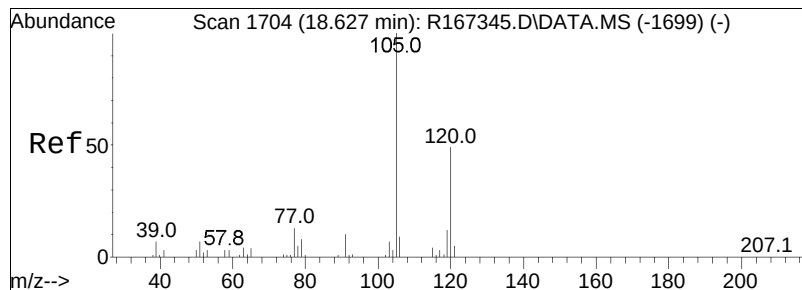




#96
 4-ethyl toluene
 Concen: 0.33 ppbV
 RT: 18.572 min Scan# 1693
 Delta R.T. -0.005 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

Tgt Ion:	105	Resp:	15486
Ion Ratio	Lower	Upper	
105	100		
120	30.1	23.5	35.3
91	11.1	8.6	12.8





#97

1,3,5-trimethylbenzene

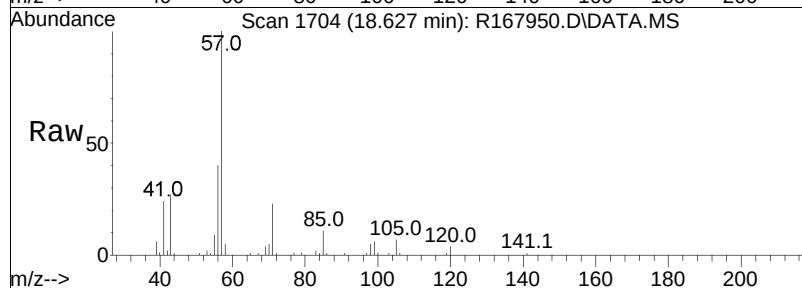
Concen: 0.36 ppbV

RT: 18.627 min Scan# 1704

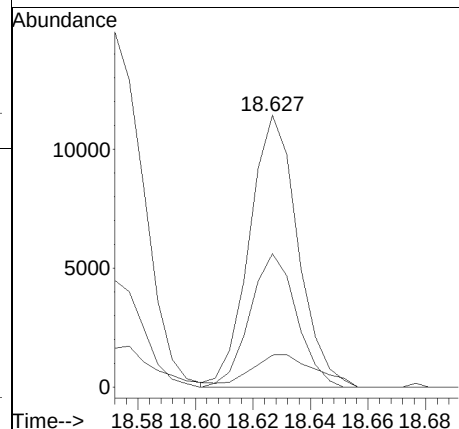
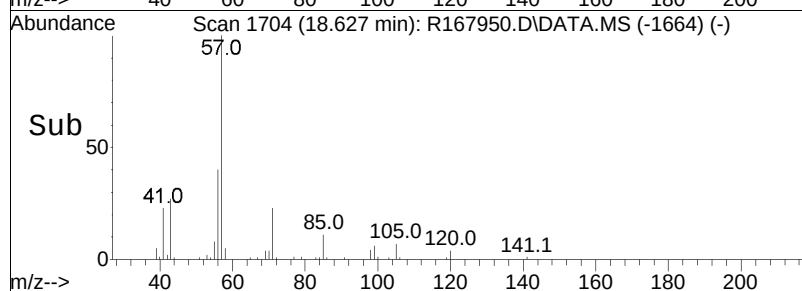
Delta R.T. -0.000 min

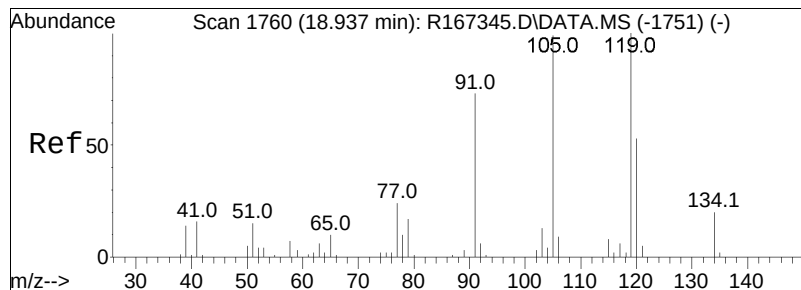
Lab File: R167950.D

Acq: 9 Aug 2019 11:05 pm



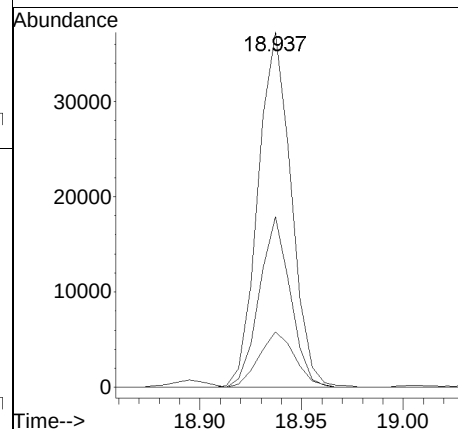
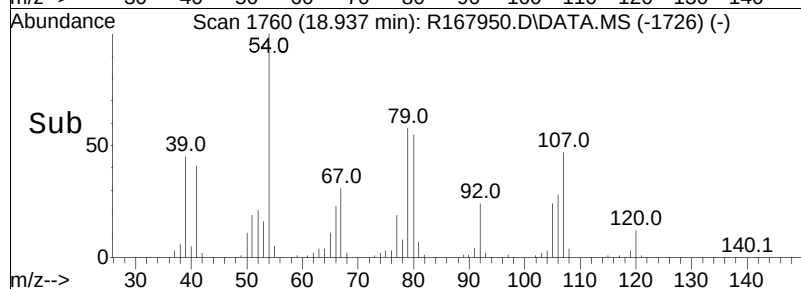
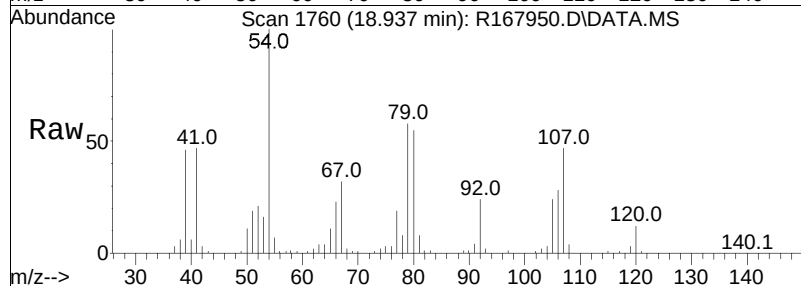
Tgt Ion:	105	Resp:	13440
Ion Ratio	Lower	Upper	
105	100		
120	49.1	38.8	58.2
91	11.9	8.1	12.1

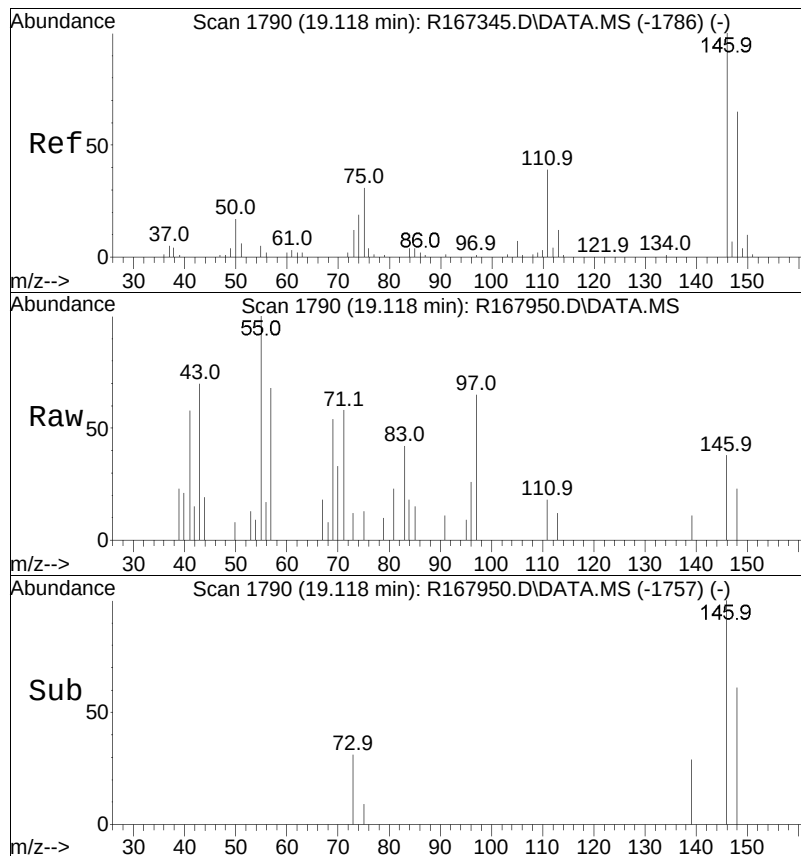




#99
 1,2,4-trimethylbenzene
 Concen: 1.21 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

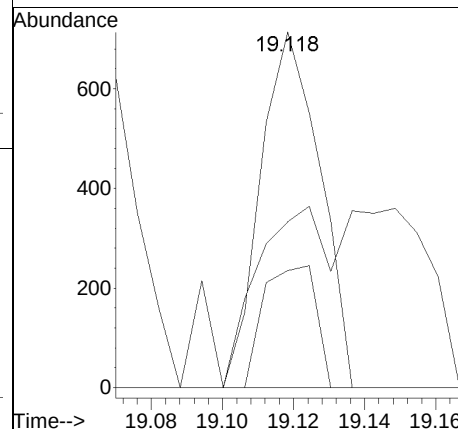
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	42294		
120	48.1		42.6	63.8
91	15.7		58.7	88.1#





#103
 1,4-dichlorobenzene
 Concen: 0.03 ppbV
 RT: 19.118 min Scan# 1790
 Delta R.T. -0.000 min
 Lab File: R167950.D
 Acq: 9 Aug 2019 11:05 pm

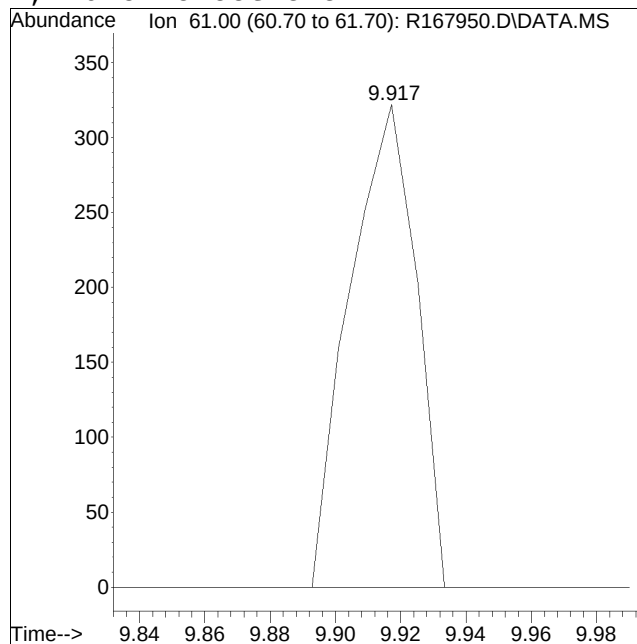
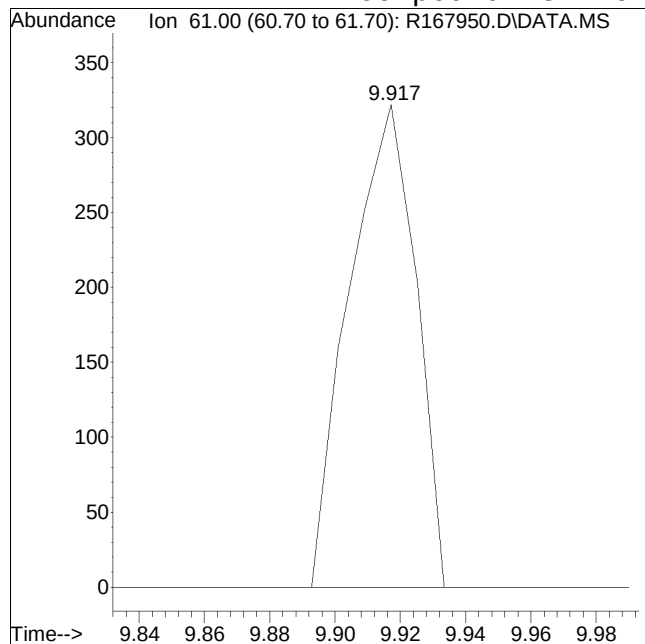
Tgt Ion	Ratio	Lower	Upper
146	100		
111	46.6	31.2	46.8
75	32.9	24.4	36.6



Manual Integration Report

Data Path : O:\Forensics\Data\AIR1\2010Method : TFS1_190712.M
Data File : R167950.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 11:05 pm Instrument : Air Piano 1
Sample : L1935043-03D,3,100,250 Quant Date : 8/10/2019 7:56 am

Compound #37: cis-1,2-dichloroethene



Original Peak Response = 456

Manual Peak Response = 456 M4

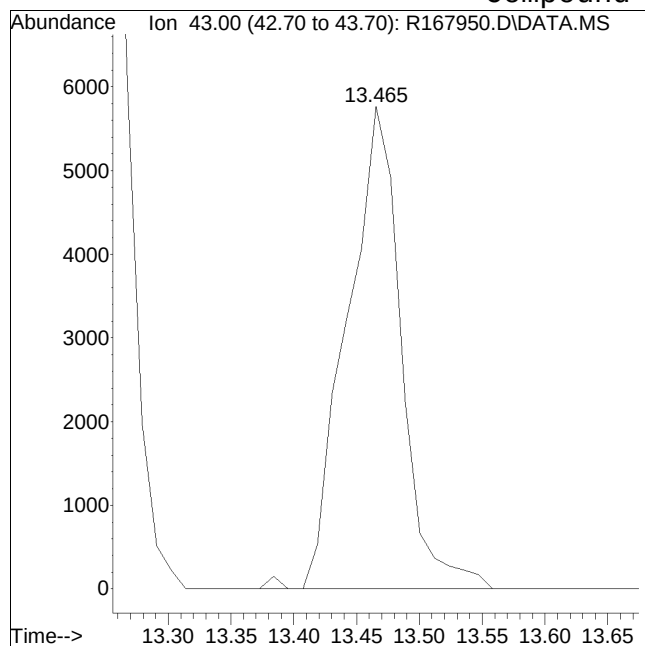
M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\AIR1\20190712.M
Data File : R167950.D
Date Inj'd : 8/9/2019 11:05 pm
Sample : L1935043-03D,3,100,250

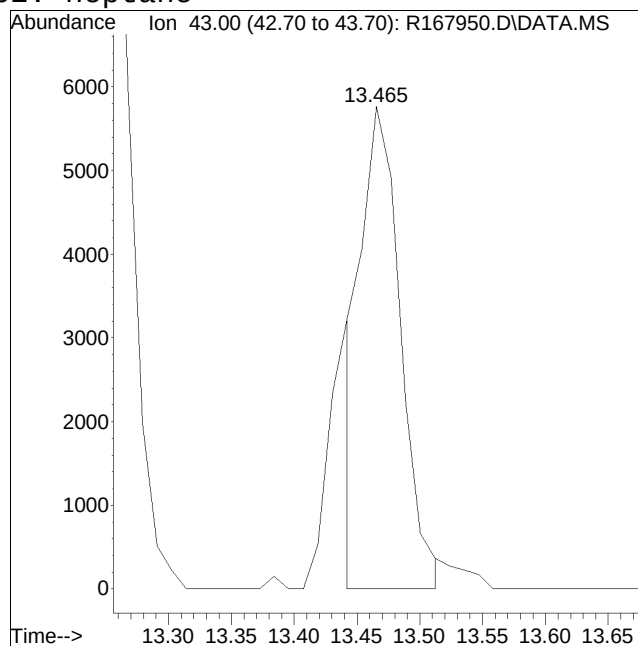
Method : TFS1_190712.M
Operator : AIRPIAN01:EW
Instrument : Air Piano 1
Quant Date : 8/10/2019 7:56 am

Compound #62: heptane



Original Peak Response = 17422

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 12576 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167951.D
 Acq On : 9 Aug 2019 11:38 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-04D,3,7.24,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 12 10:58:40 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM+TCE - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	131018	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		82.57%	
43) 1,4-difluorobenzene	12.348	114	282827	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		77.18%	
67) chlorobenzene-D5	16.801	54	53093	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		78.08%	

System Monitoring Compounds

Target Compounds					Qvalue	
5) dichlorodifluoromethane	0.000		0	N.D.	d	
6) chloromethane	0.000		0	N.D.	d	
7) Freon-114	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.627	31	2975	0.744	ppbV	96
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.279	43	36372	2.777	ppbV #	99
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.	d	
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	5292	0.537	ppbV #	80
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.796	76	927	0.035	ppbV #	1
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.		
36) 2-butanone	9.447	43	63313	3.787	ppbV	98
38) Ethyl Acetate	10.271	61	825	0.227	ppbV #	60
39) chloroform	10.271	83	2145	0.098	ppbV	94
40) Tetrahydrofuran	10.794	42	19120	1.849	ppbV	99
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.	d	
50) benzene	0.000		0	N.D.	d	
53) cyclohexane	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167951.D
 Acq On : 9 Aug 2019 11:38 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-04D,3,7.24,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 12 10:58:40 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM+TCE - .

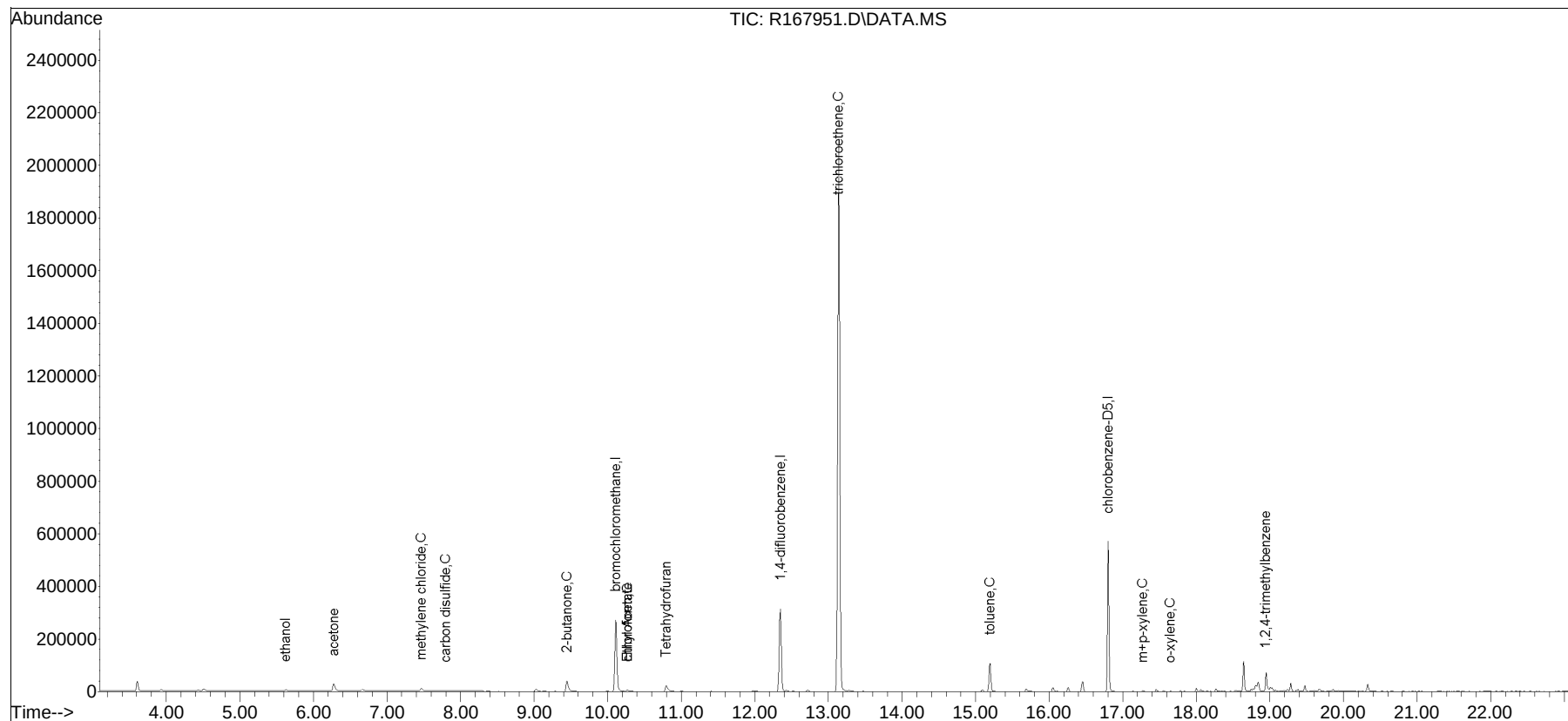
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	13.140	130	723627	61.642	ppbV	99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d	
62) heptane	0.000		0	N.D.	d	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.198	91	80972	2.405	ppbV	99
72) 2-hexanone	0.000		0	N.D.		
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.139		0	N.D.		
83) m+p-xylene	17.273	91	2792	0.085	ppbV	88
84) bromoform	0.000		0	N.D.		
85) styrene	0.000		0	N.D.	d	
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	17.647	91	1138	0.035	ppbV	94
96) 4-ethyl toluene	18.577		0	N.D.		
97) 1,3,5-trimethylbenzene	18.632		0	N.D.		
99) 1,2,4-trimethylbenzene	18.943	105	3199	0.087	ppbV #	49
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.		
103) 1,4-dichlorobenzene	0.000		0	N.D.		
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

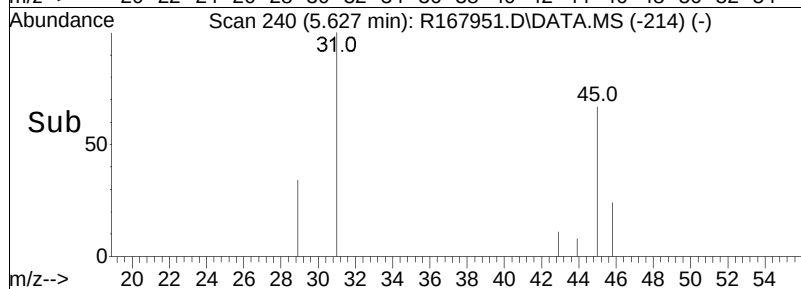
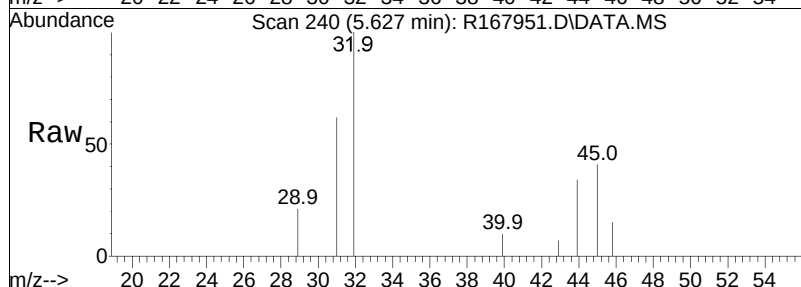
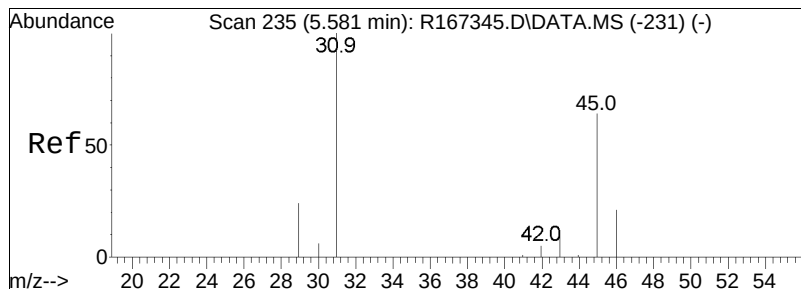
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : T015-NY-7-SIM+TCE - .1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167951.D
Acq On : 9 Aug 2019 11:38 pm
Operator : AIRPIAN01:EW
Sample : L1935043-04D,3,7.24,250
Misc : WG1270780,ICAL15961
ALS Vial : 10 Sample Multiplier: 1

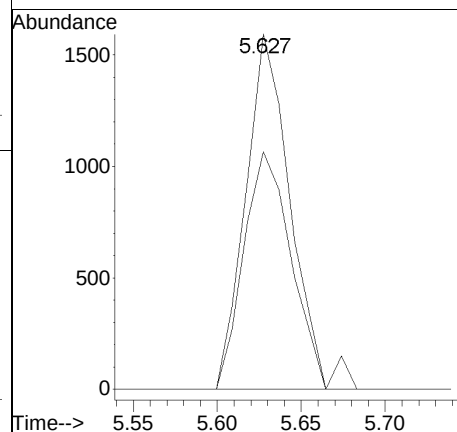
Quant Time: Aug 12 10:58:40 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

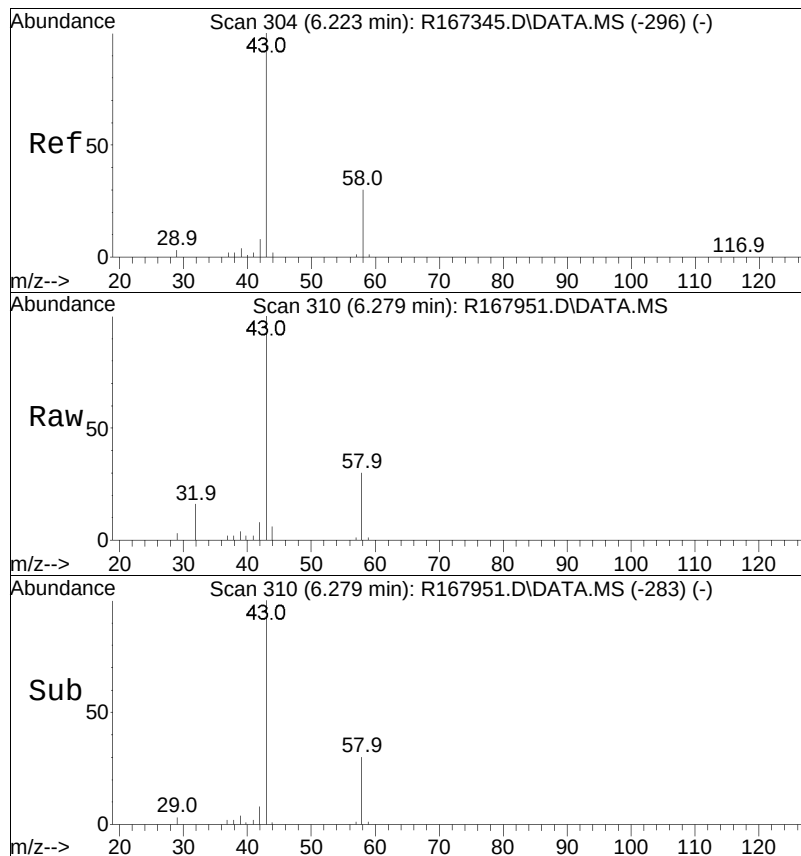




#15
ethanol
Concen: 0.74 ppbV
RT: 5.627 min Scan# 240
Delta R.T. 0.047 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

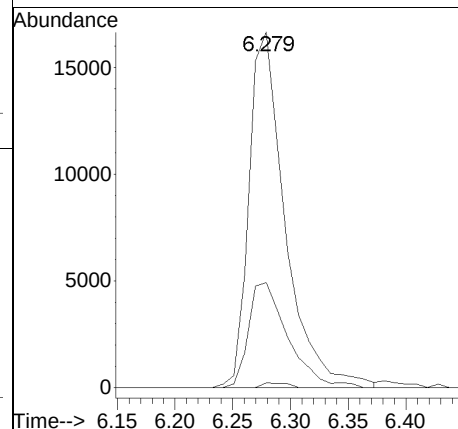
Tgt Ion: 31 Resp: 2975
Ion Ratio Lower Upper
31 100
45 66.9 50.8 76.2

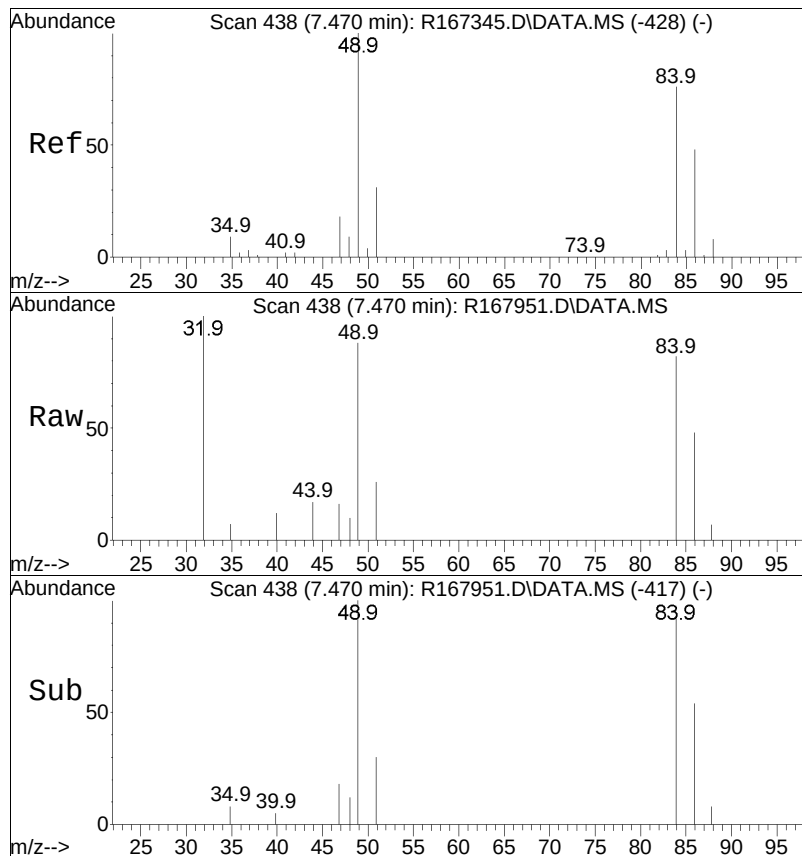




#19
acetone
Concen: 2.78 ppbV
RT: 6.279 min Scan# 310
Delta R.T. 0.056 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

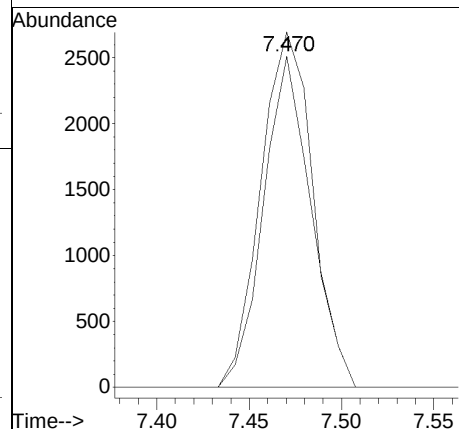
Tgt Ion	Ratio	Lower	Upper
43	100		
58	29.5	24.2	36.2
57	1.3	0.8	1.2#

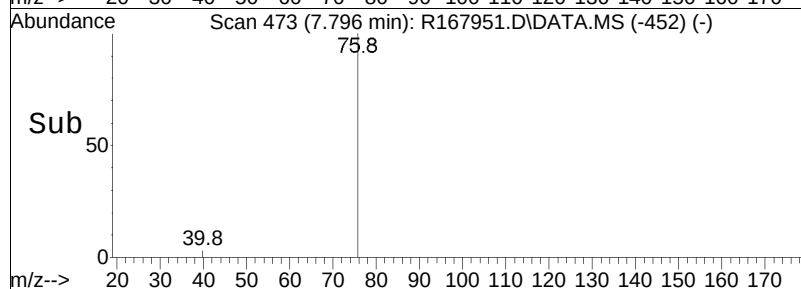
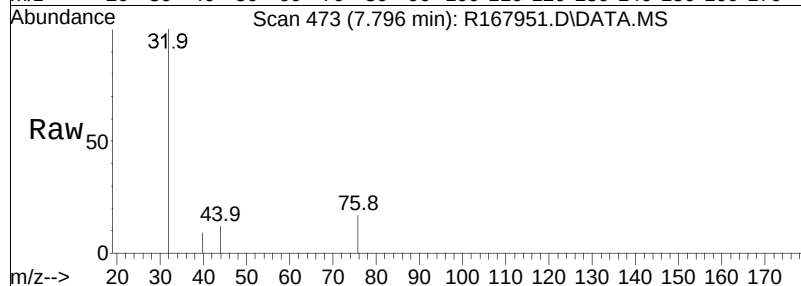
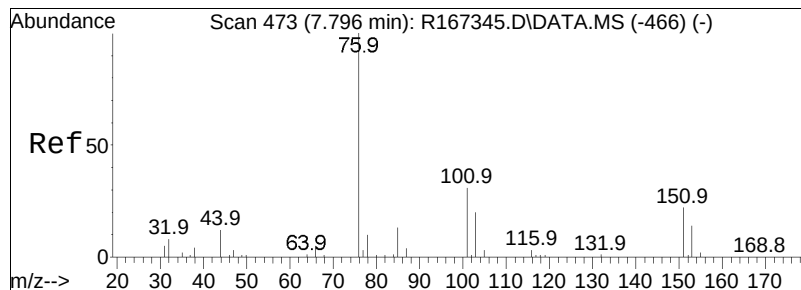




#28
 methylene chloride
 Concen: 0.54 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. 0.000 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

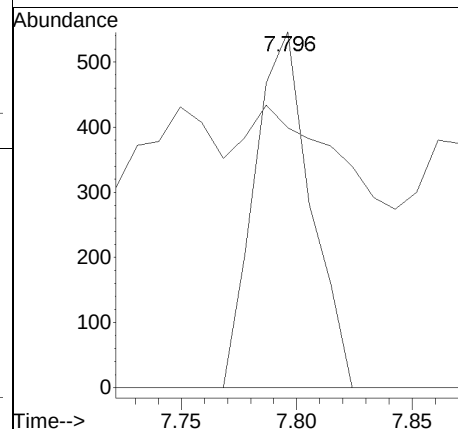
Tgt Ion:	49	Resp:	5292
Ion Ratio	Lower	Upper	
49	100		
84	93.1	60.6	91.0#

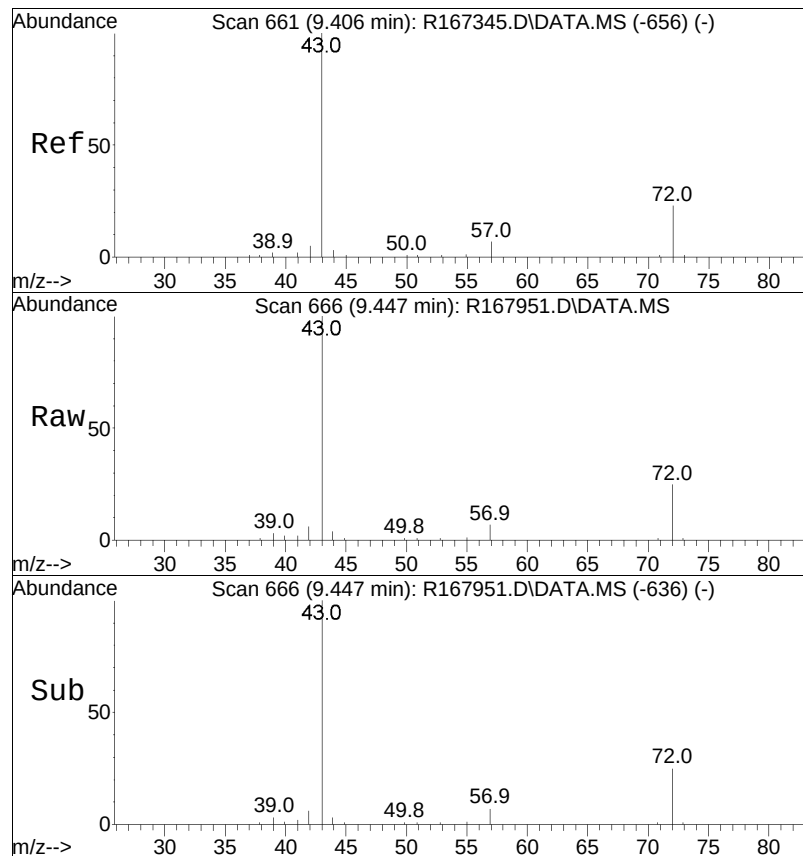




#30
carbon disulfide
Concen: 0.03 ppbV
RT: 7.796 min Scan# 473
Delta R.T. 0.000 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

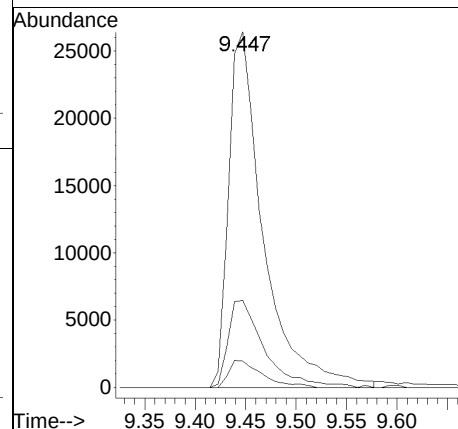
Tgt Ion: 76 Resp: 927
Ion Ratio Lower Upper
76 100
44 73.1 9.8 14.8#

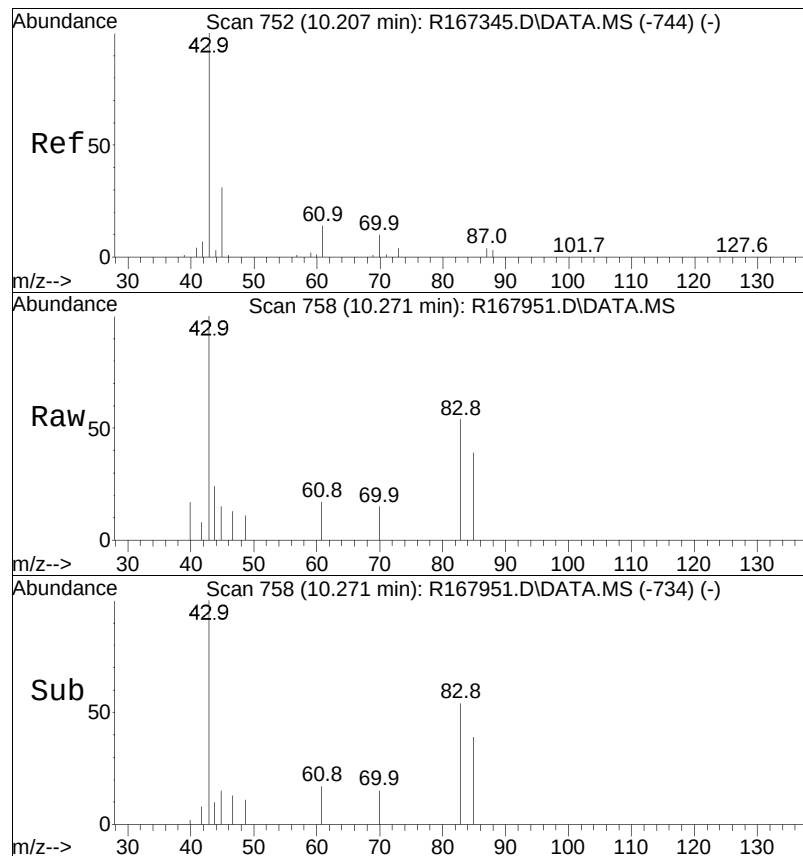




#36
 2-butanone
 Concen: 3.79 ppbV
 RT: 9.447 min Scan# 666
 Delta R.T. 0.041 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

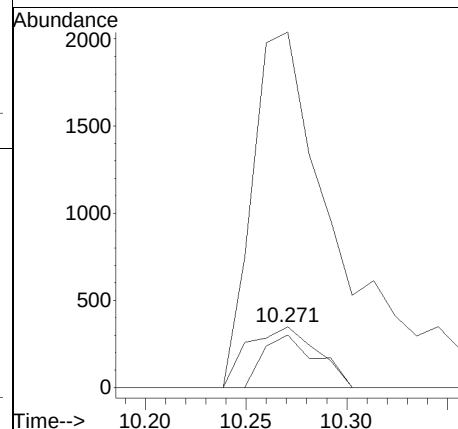
Tgt Ion:	43	Resp:	63313
Ion Ratio	Lower	Upper	
43	100		
72	24.5	18.7	28.1
57	7.4	5.6	8.4

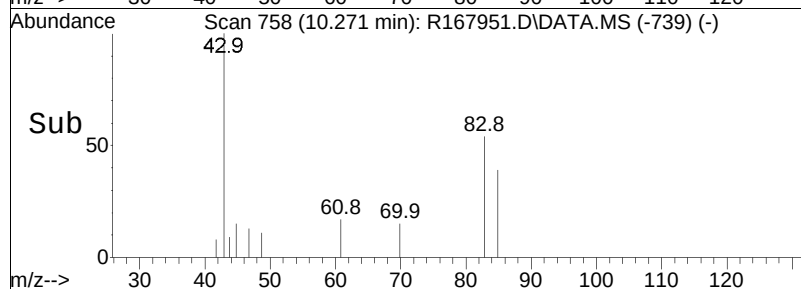
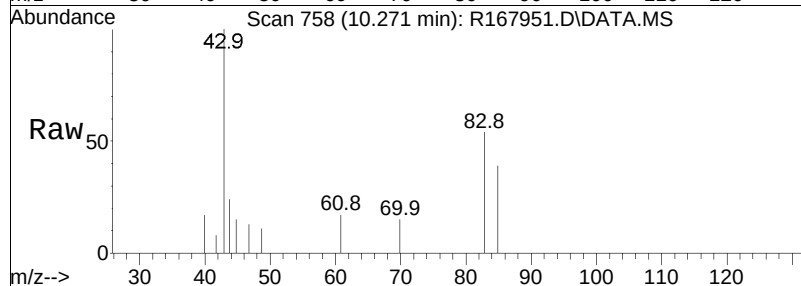
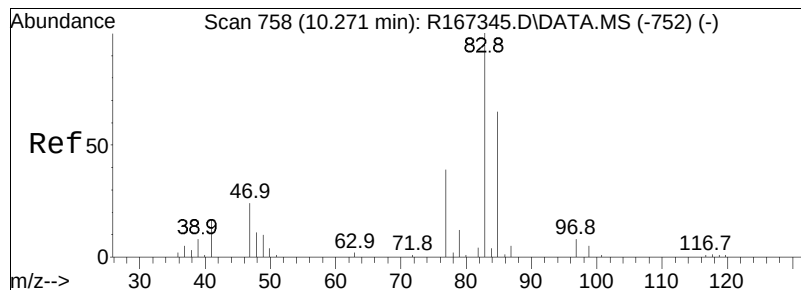




#38
 Ethyl Acetate
 Concen: 0.23 ppbV
 RT: 10.271 min Scan# 758
 Delta R.T. 0.064 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

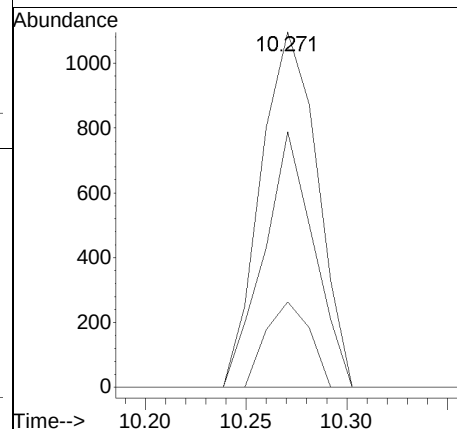
Tgt Ion:	61	Resp:	825
Ion Ratio	Lower	Upper	
61	100		
70	86.5	61.5	92.3
43	586.2	594.1	891.1#

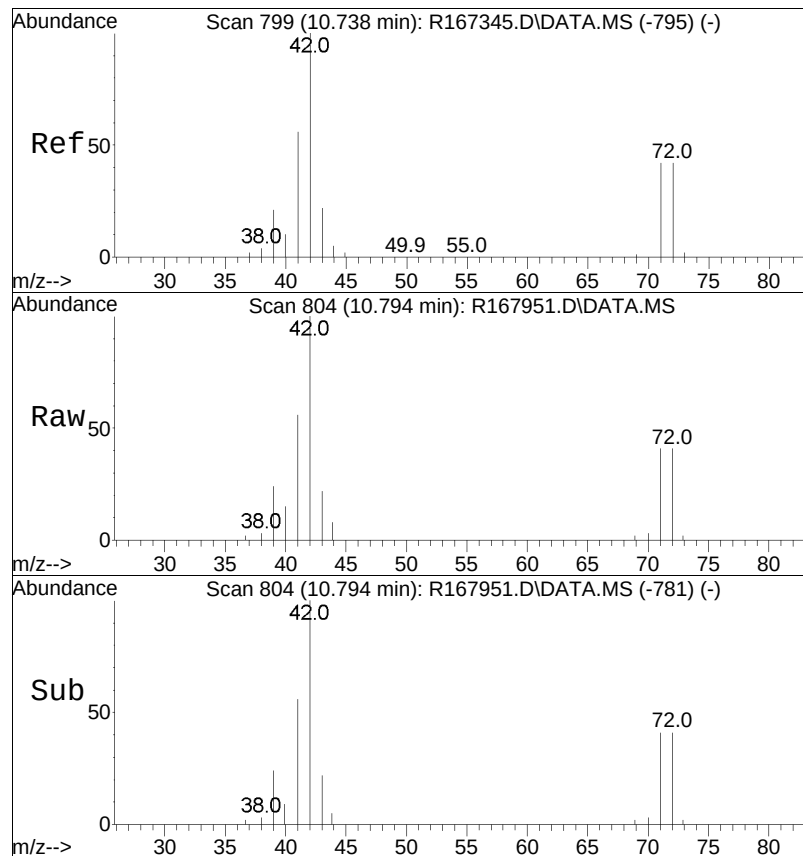




#39
chloroform
Concen: 0.10 ppbV
RT: 10.271 min Scan# 758
Delta R.T. 0.000 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

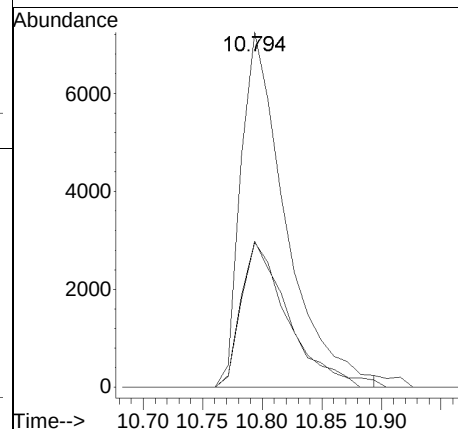
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	2145		
85	71.9		52.2	78.2
47	24.1		19.1	28.7

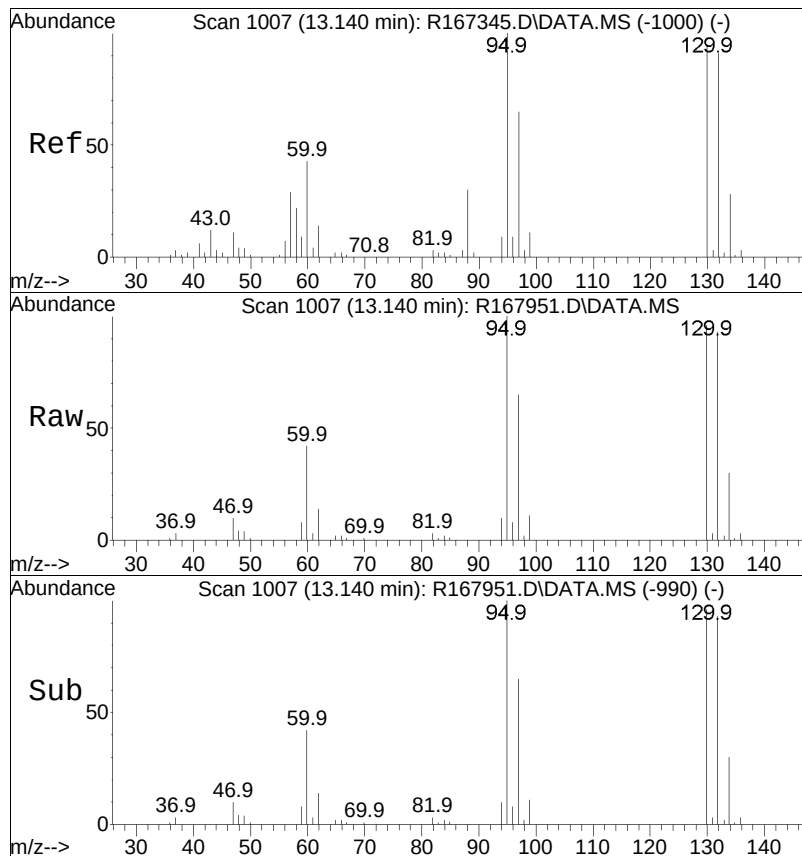




#40
Tetrahydrofuran
Concen: 1.85 ppbV
RT: 10.794 min Scan# 804
Delta R.T. 0.056 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

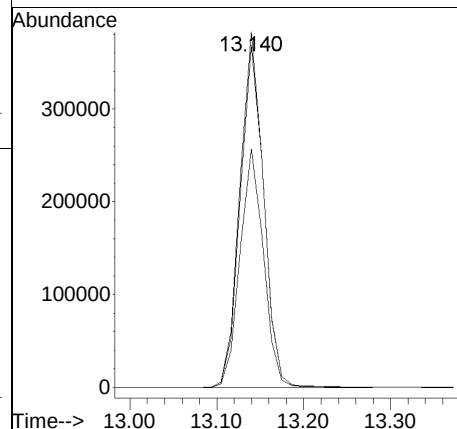
Tgt Ion:	42	Resp:	19120
Ion Ratio	Lower	Upper	
42	100		
71	41.1	33.5	50.3
72	40.8	33.3	49.9

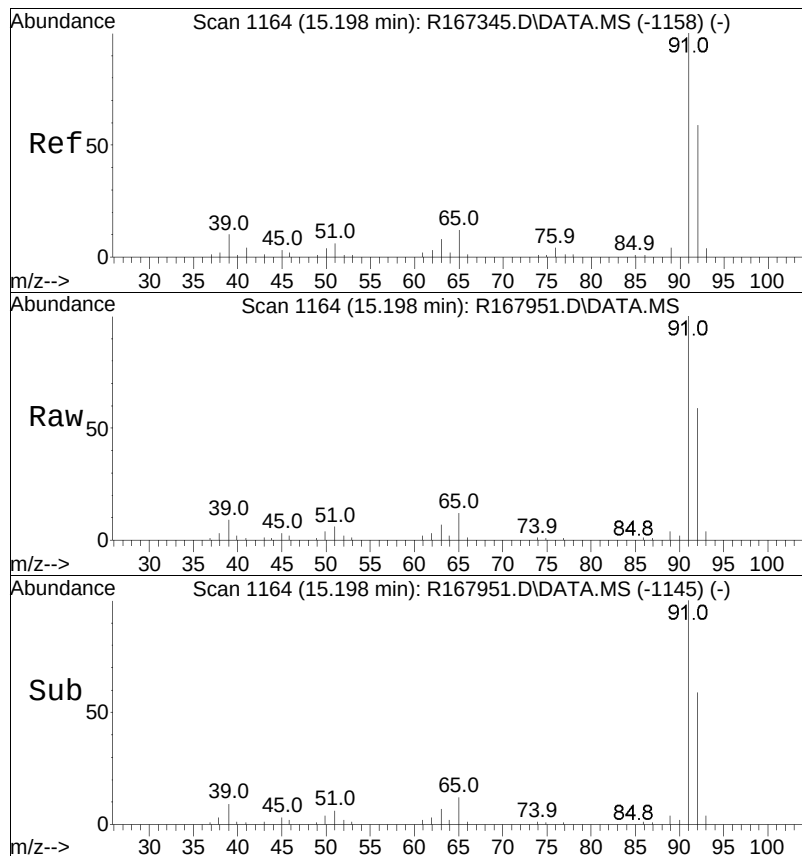




#59
 trichloroethene
 Concen: 61.64 ppbV
 RT: 13.140 min Scan# 1007
 Delta R.T. 0.000 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

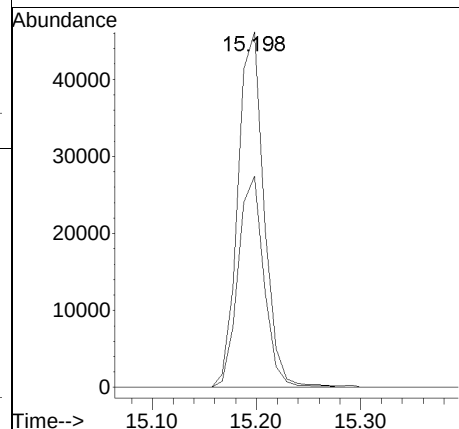
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	723627		
132	96.2		76.3	114.5
97	67.2		54.5	81.7

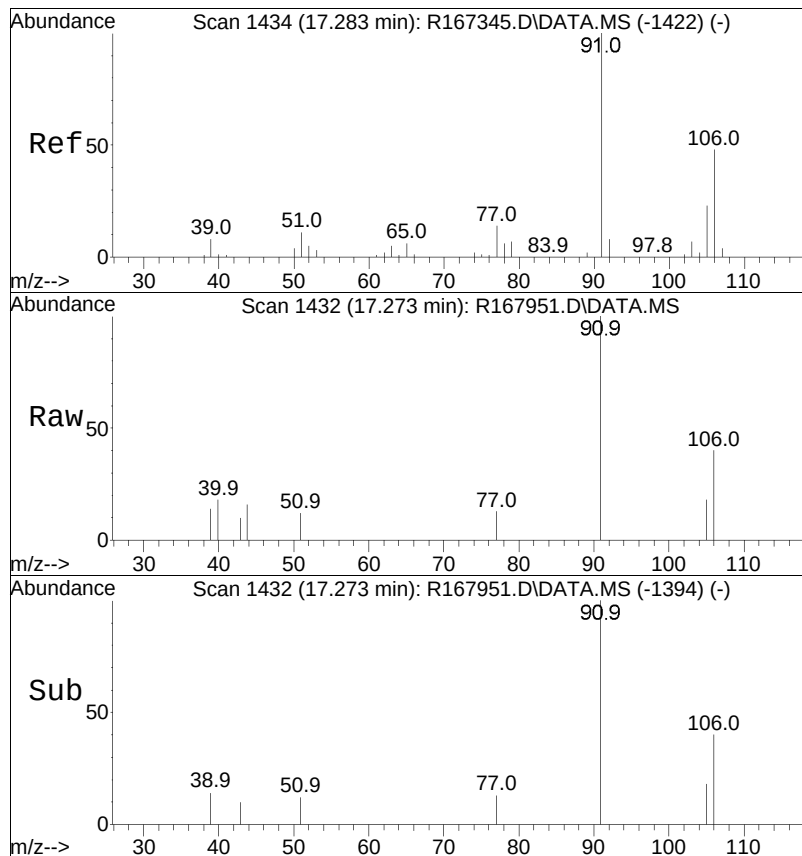




#68
toluene
Concen: 2.40 ppbV
RT: 15.198 min Scan# 1164
Delta R.T. 0.000 min
Lab File: R167951.D
Acq: 9 Aug 2019 11:38 pm

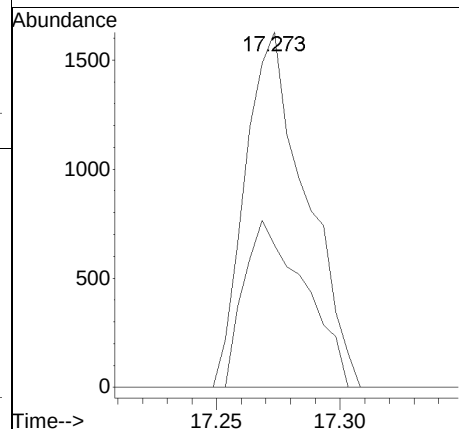
Tgt Ion:	91	Resp:	80972
Ion Ratio	Lower	Upper	
91	100		
92	59.4	46.8	70.2

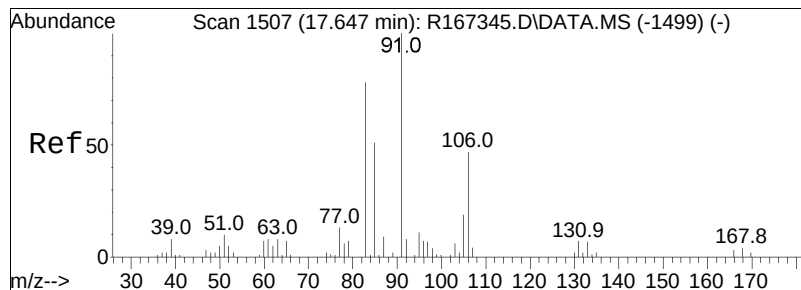




#83
 m+p-xylene
 Concen: 0.09 ppbV
 RT: 17.273 min Scan# 1432
 Delta R.T. -0.010 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	40.0	38.7	58.1





#87

o-xylene

Concen: 0.03 ppbV

RT: 17.647 min Scan# 1507

Delta R.T. -0.000 min

Lab File: R167951.D

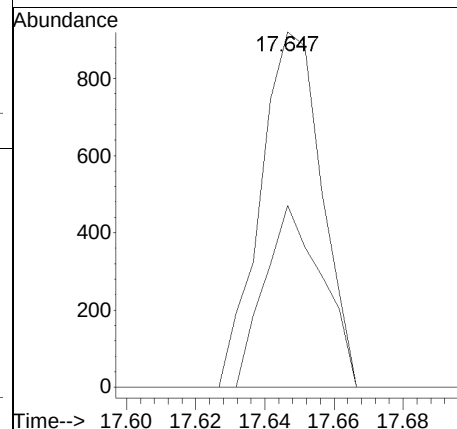
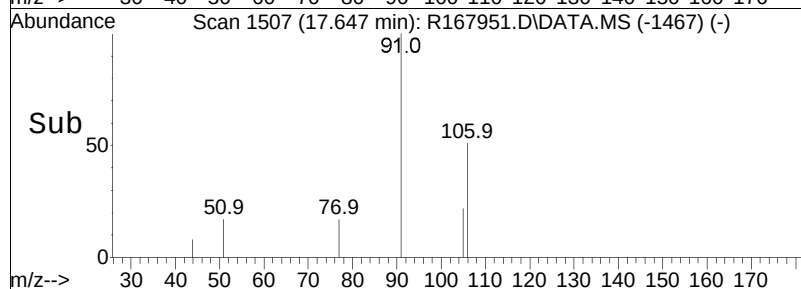
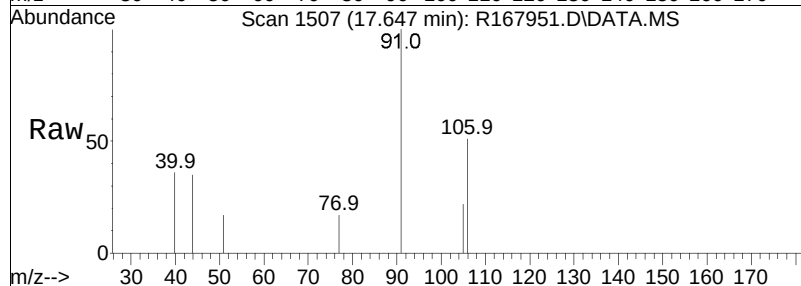
Acq: 9 Aug 2019 11:38 pm

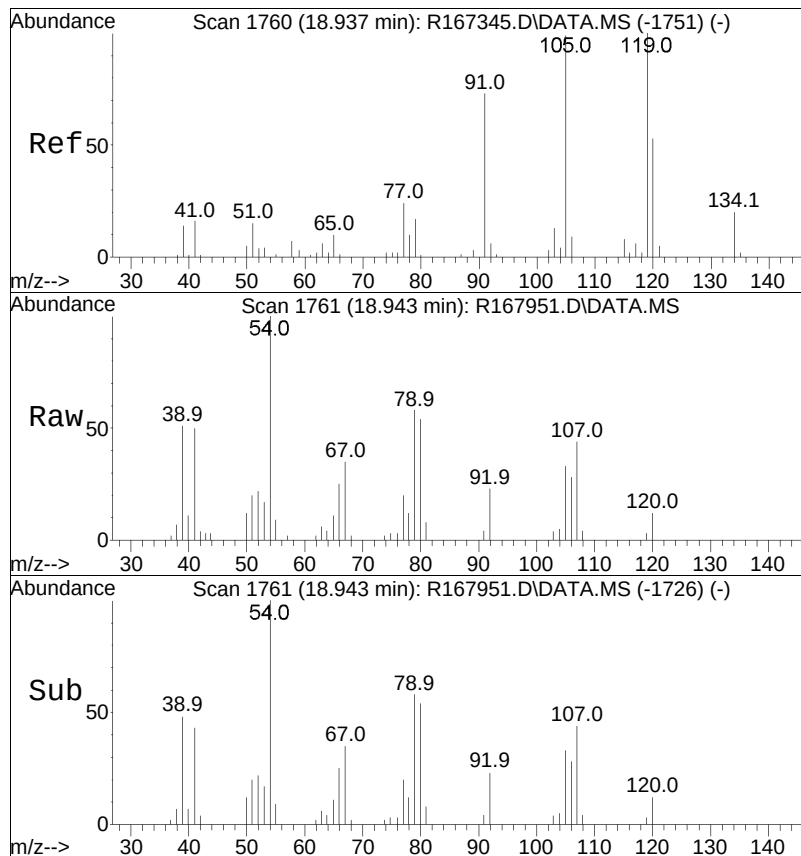
Tgt Ion: 91 Resp: 1138

Ion Ratio Lower Upper

91 100

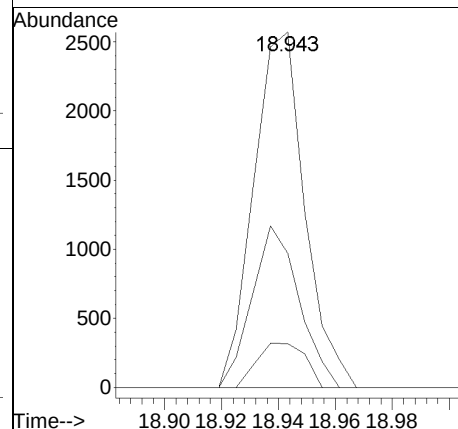
106 51.2 37.9 56.9





#99
 1,2,4-trimethylbenzene
 Concen: 0.09 ppbV
 RT: 18.943 min Scan# 1761
 Delta R.T. 0.006 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	37.7	42.6	63.8#
91	12.3	58.7	88.1#



Manual Integration Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
Data File : R167951.D
Date Inj'd : 8/9/2019 11:38 pm
Sample : L1935043-04D,3,7.24,250
Method : TFS1_190712.M
Operator : AIRPIAN01:EW
Instrument : Air Piano 1
Quant Date : 8/10/2019 7:57 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167952.D
 Acq On : 10 Aug 2019 12:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-05D, 3, 35, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 12 11:04:13 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.110	49	121277	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		76.43%	
43) 1,4-difluorobenzene	12.348	114	263869	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		72.01%	
67) chlorobenzene-D5	16.801	54	50270	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		73.93%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	906	0.059	ppbV	96
6) chloromethane	4.238	50	1024	0.175	ppbV	95
7) Freon-114	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.609	31	5873	1.587	ppbV	95
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.232	43	139585	11.514	ppbV	93
21) trichlorofluoromethane	6.437	101	596	0.037	ppbV	86
22) isopropyl alcohol	6.632	45	10288	0.739	ppbV #	95
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	1106	0.121	ppbV	98
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.796	76	13126	0.532	ppbV #	91
31) Freon 113	0.000		0	N.D.		
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.	d	
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.390	43	938243	60.624	ppbV	96
38) Ethyl Acetate	10.228	61	1494	0.444	ppbV	63
39) chloroform	0.000		0	N.D.	d	
40) Tetrahydrofuran	10.727	42	408527	42.671	ppbV	95
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	0.000		0	N.D.	d	
50) benzene	0.000		0	N.D.	d	
53) cyclohexane	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167952.D
 Acq On : 10 Aug 2019 12:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-05D, 3, 35, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 12 11:04:13 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM - .

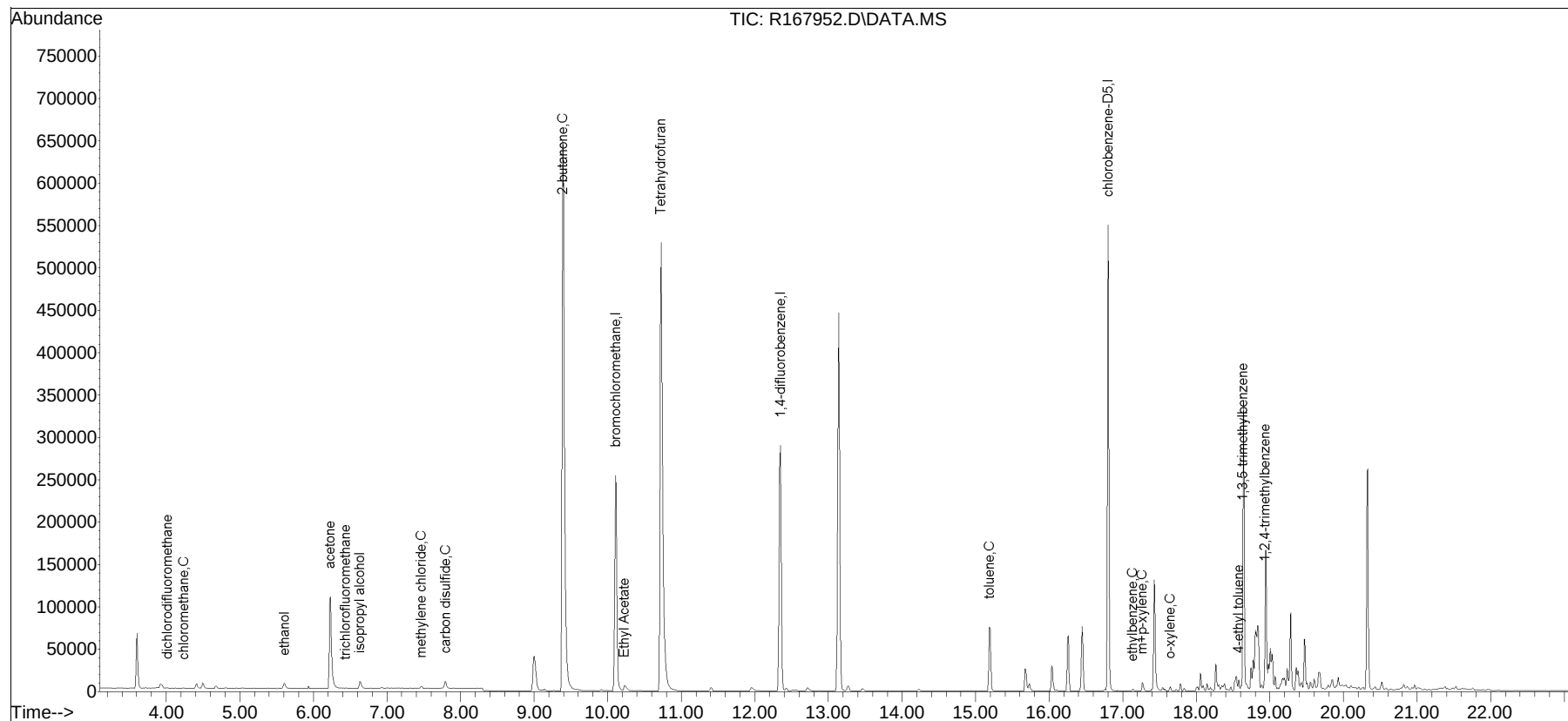
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-dichloropropane	0.000		0	N.D.	d	
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	0.000		0	N.D.		
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d	
62) heptane	0.000		0	N.D.	d	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.188	91	59602	1.870	ppbV	100
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.134	91	2036	0.051	ppbV	99
83) m+p-xylene	17.268	91	6218	0.201	ppbV	89
84) bromoform	0.000		0	N.D.		
85) styrene	0.000		0	N.D.	d	
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	17.646	91	2730	0.088	ppbV	93
96) 4-ethyl toluene	18.572	105	3191	0.069	ppbV	99
97) 1,3,5-trimethylbenzene	18.632	105	3294	0.090	ppbV #	95
99) 1,2,4-trimethylbenzene	18.937	105	10822	0.312	ppbV #	52
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.	d	
103) 1,4-dichlorobenzene	0.000		0	N.D.	d	
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

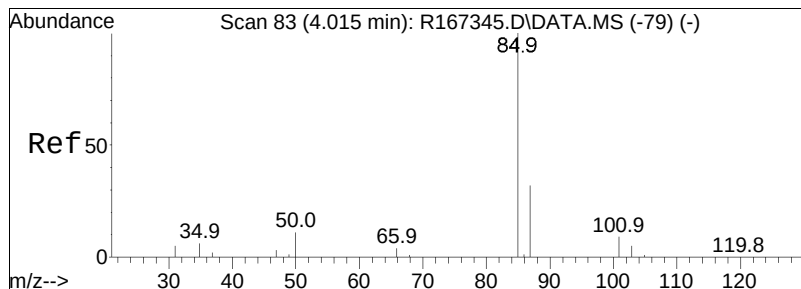
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : T015-NY-7-SIM - .\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167952.D
Acq On : 10 Aug 2019 12:08 am
Operator : AIRPIAN01:EW
Sample : L1935043-05D, 3, 35, 250
Misc : WG1270780, ICAL15961
ALS Vial : 11 Sample Multiplier: 1

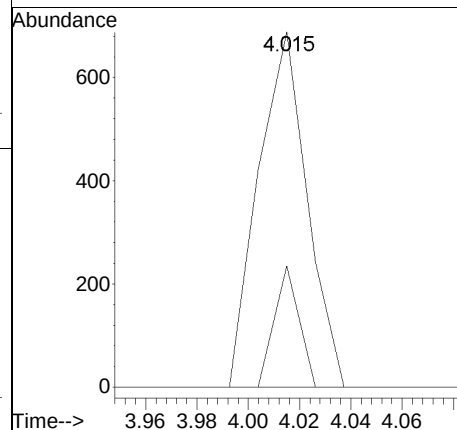
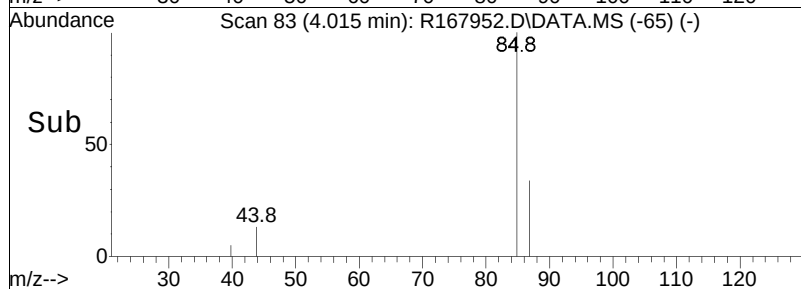
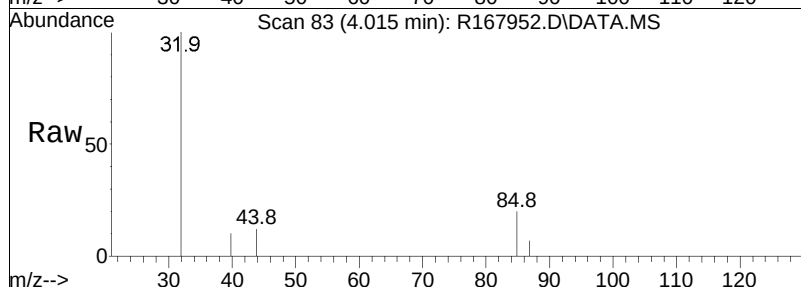
Quant Time: Aug 12 11:04:13 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

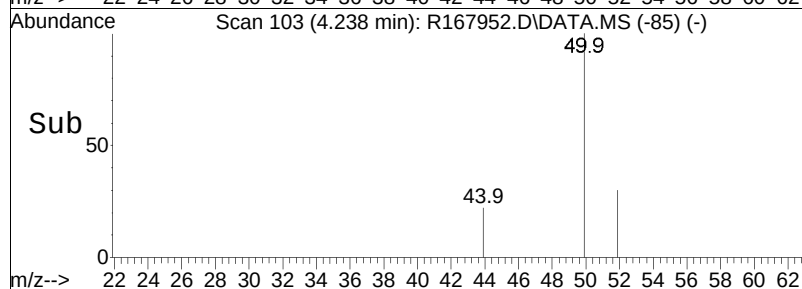
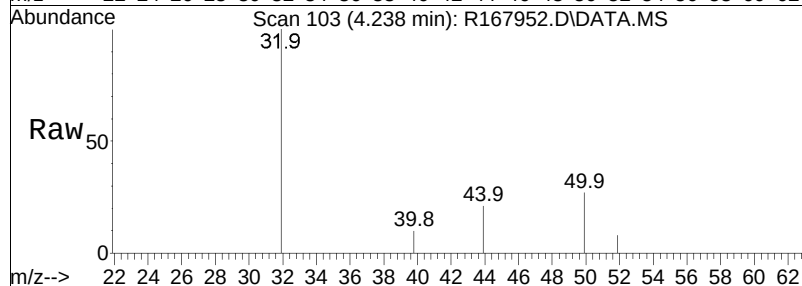
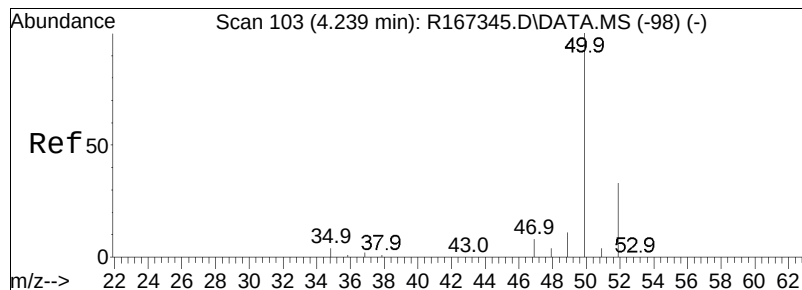




#5
dichlorodifluoromethane
Concen: 0.06 ppbV
RT: 4.015 min Scan# 83
Delta R.T. -0.000 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

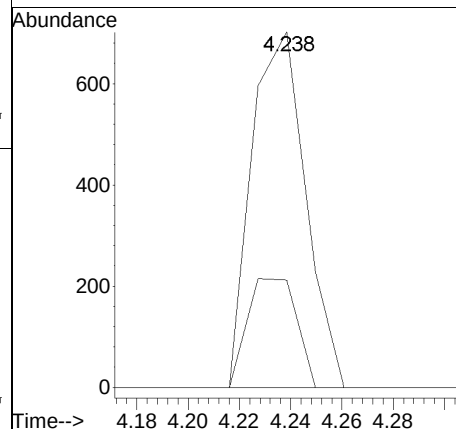
Tgt Ion: 85 Resp: 906
Ion Ratio Lower Upper
85 100
87 34.2 25.7 38.5

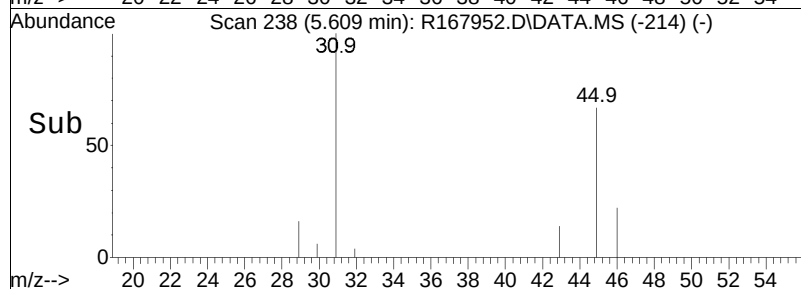
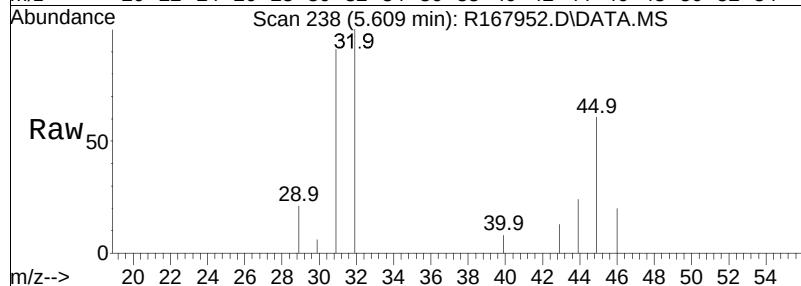
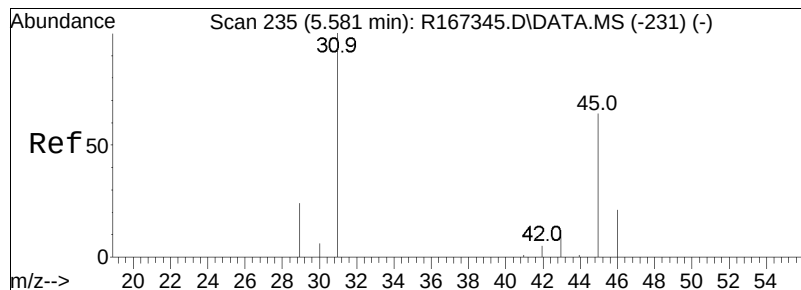




#6
 chloromethane
 Concen: 0.18 ppbV
 RT: 4.238 min Scan# 103
 Delta R.T. -0.000 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

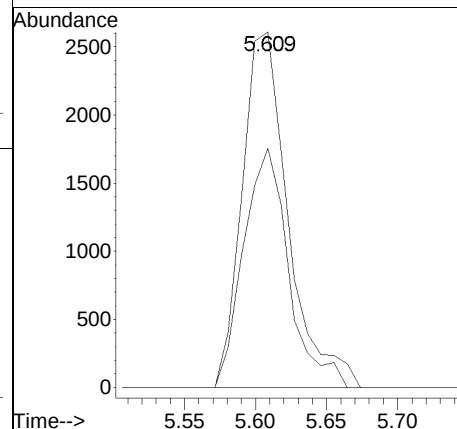
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	30.2	26.3	39.5	

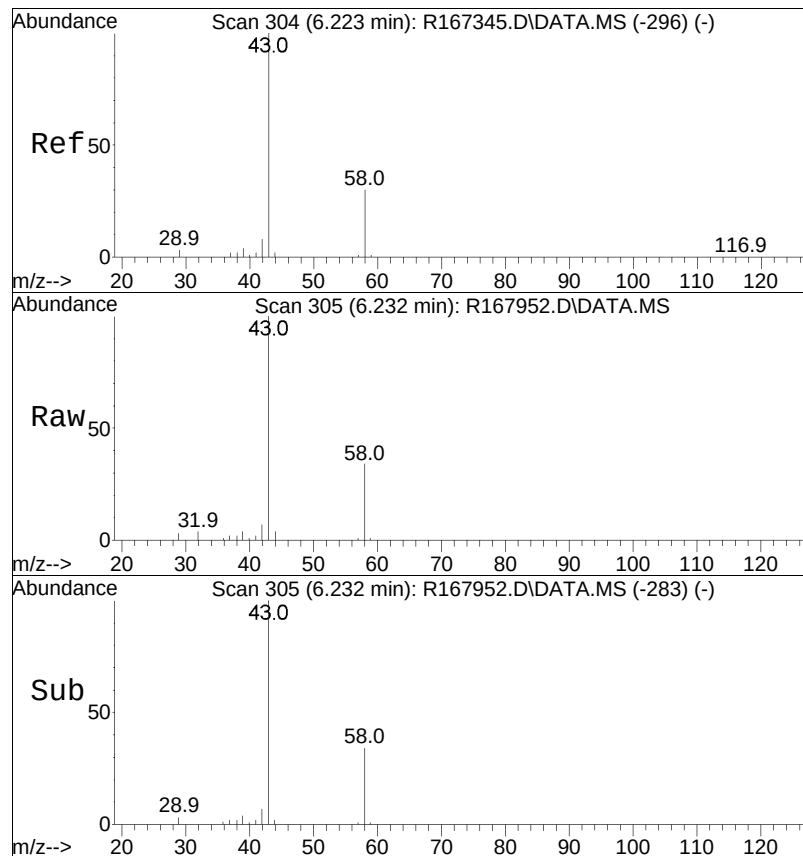




#15
ethanol
Concen: 1.59 ppbV
RT: 5.609 min Scan# 238
Delta R.T. 0.028 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

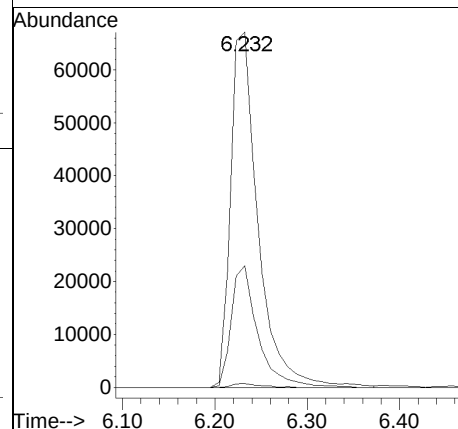
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	67.3	50.8	76.2	

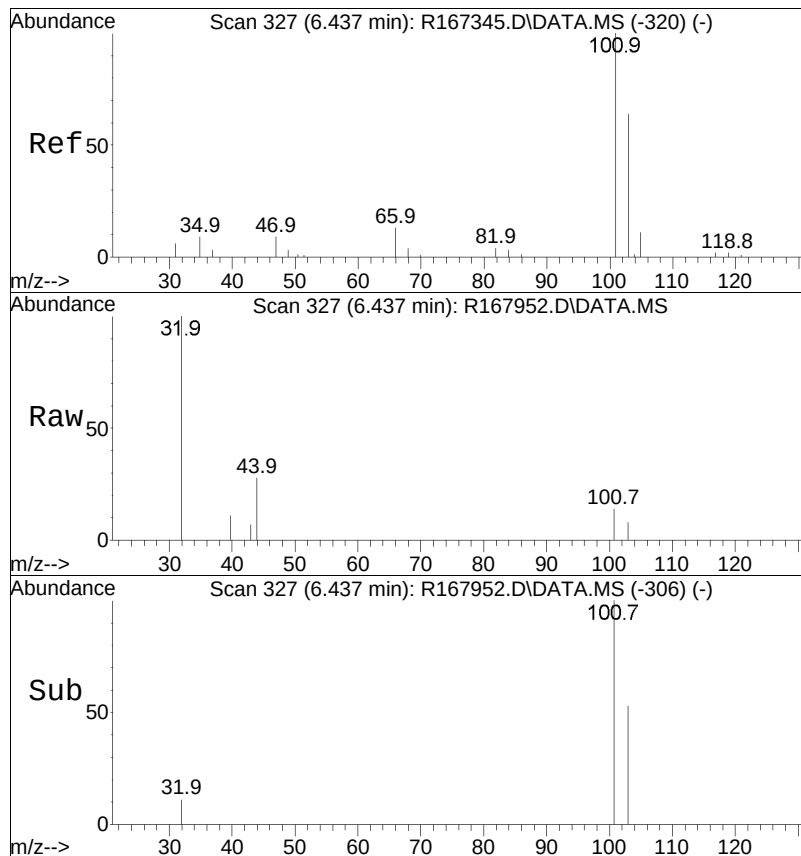




#19
 acetone
 Concen: 11.51 ppbV
 RT: 6.232 min Scan# 305
 Delta R.T. 0.009 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

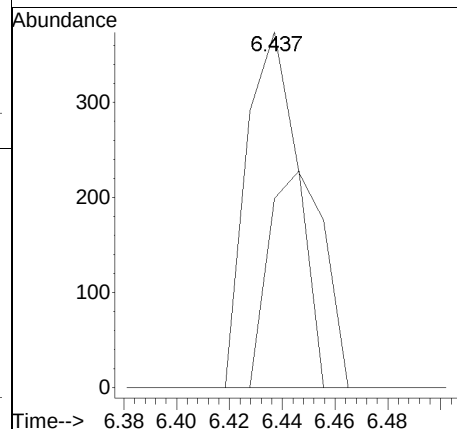
Tgt Ion:	43	Resp:	139585
Ion Ratio	Lower	Upper	
43	100		
58	34.2	24.2	36.2
57	1.1	0.8	1.2

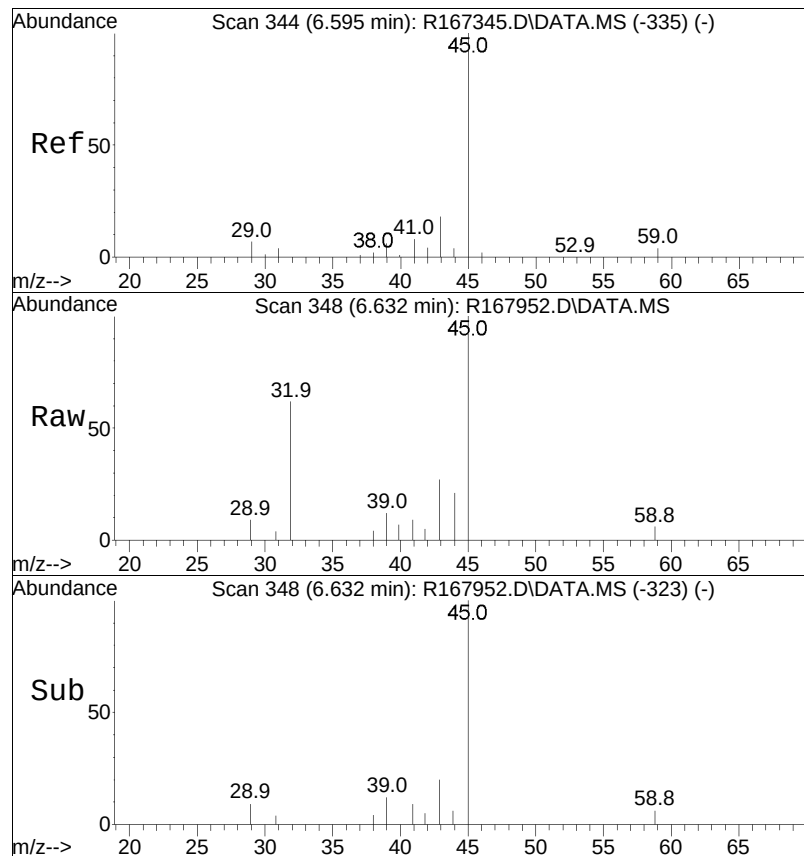




#21
trichlorofluoromethane
Concen: 0.04 ppbV
RT: 6.437 min Scan# 327
Delta R.T. -0.000 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

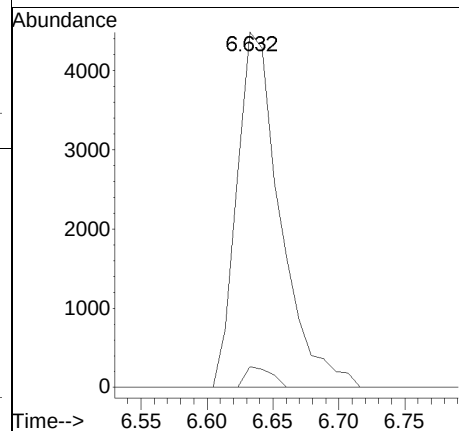
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	53.2	51.1	76.7	

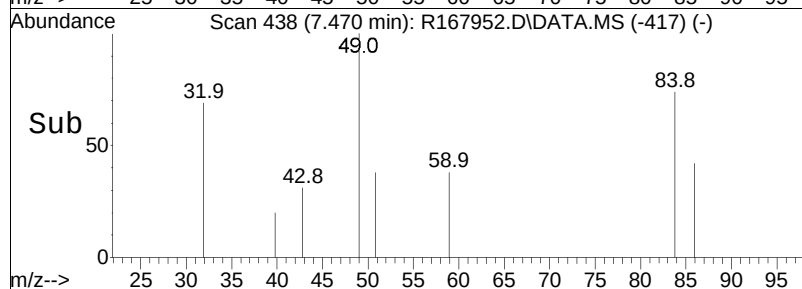
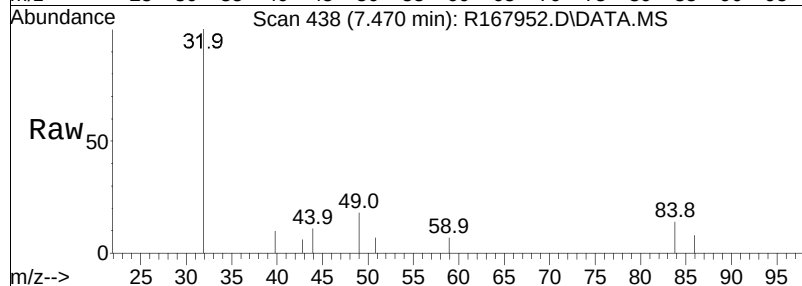
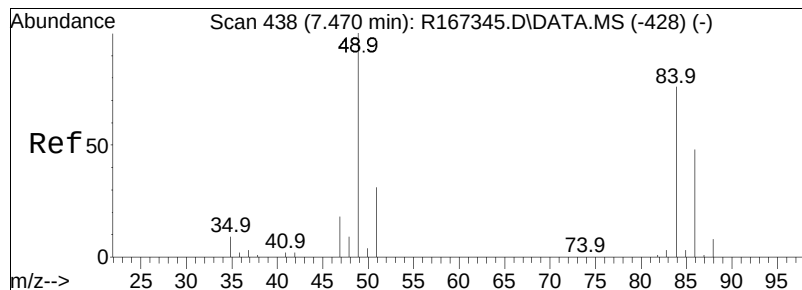




#22
 isopropyl alcohol
 Concen: 0.74 ppbV
 RT: 6.632 min Scan# 348
 Delta R.T. 0.037 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

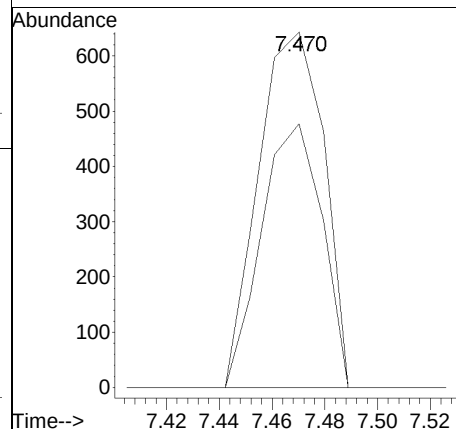
Tgt Ion	Ratio	Lower	Upper
45	100		
59	5.8	3.4	5.0#

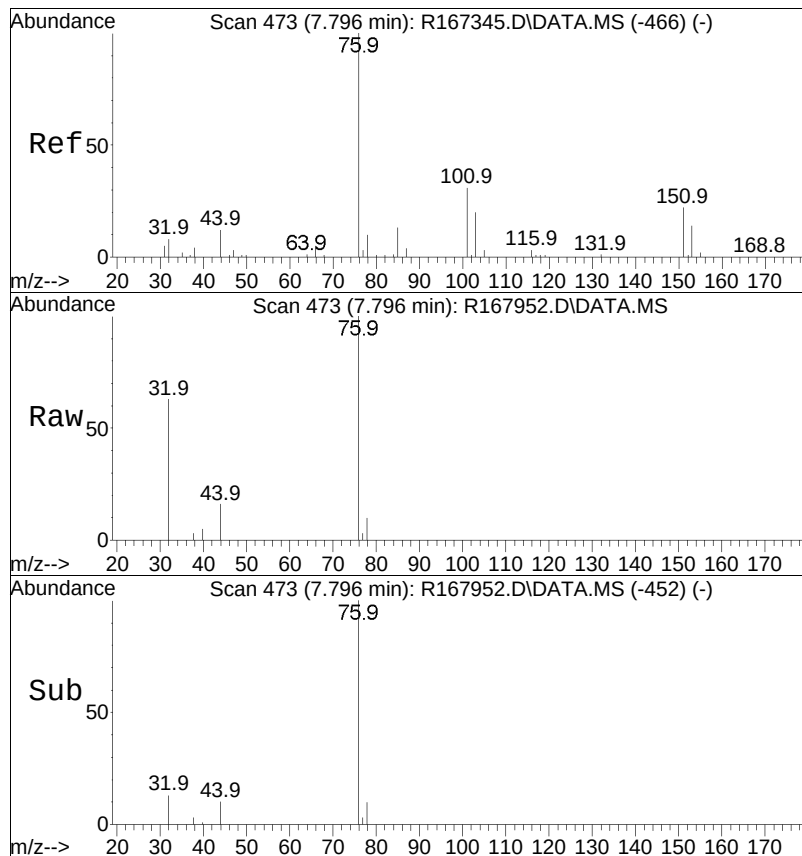




#28
methylene chloride
Concen: 0.12 ppbV
RT: 7.470 min Scan# 438
Delta R.T. -0.000 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

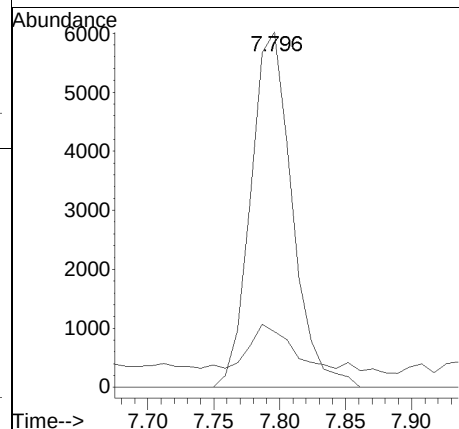
Tgt Ion:	49	84	Ratio	100	74.2	Resp:	1106	Lower	Upper
								60.6	91.0

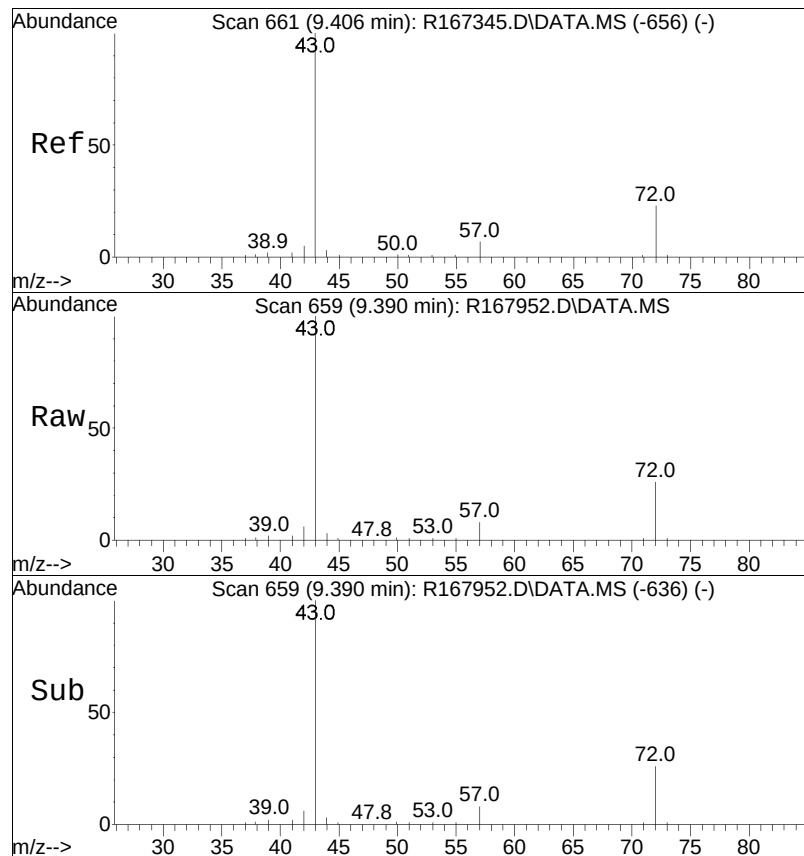




#30
 carbon disulfide
 Concen: 0.53 ppbV
 RT: 7.796 min Scan# 473
 Delta R.T. -0.000 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

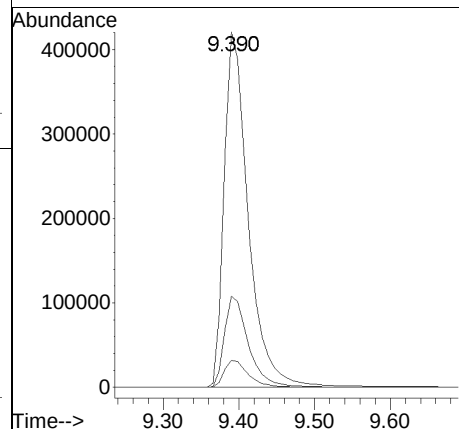
Tgt Ion	Ratio	Lower	Upper
76	100		
44	15.7	9.8	14.8#

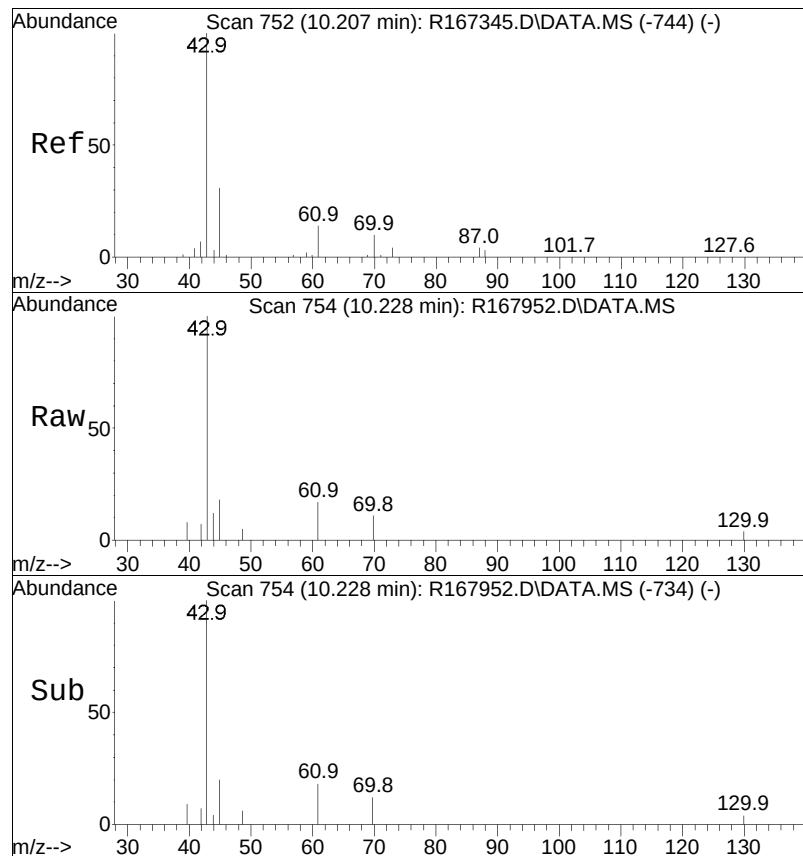




#36
 2-butanone
 Concen: 60.62 ppbV
 RT: 9.390 min Scan# 659
 Delta R.T. -0.016 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

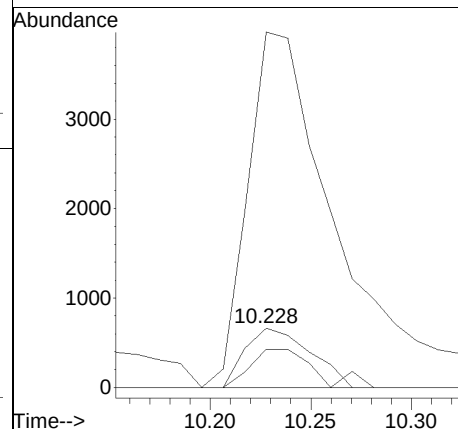
Tgt Ion:	43	Resp:	938243
Ion Ratio	Lower	Upper	
43	100		
72	25.7	18.7	28.1
57	7.6	5.6	8.4

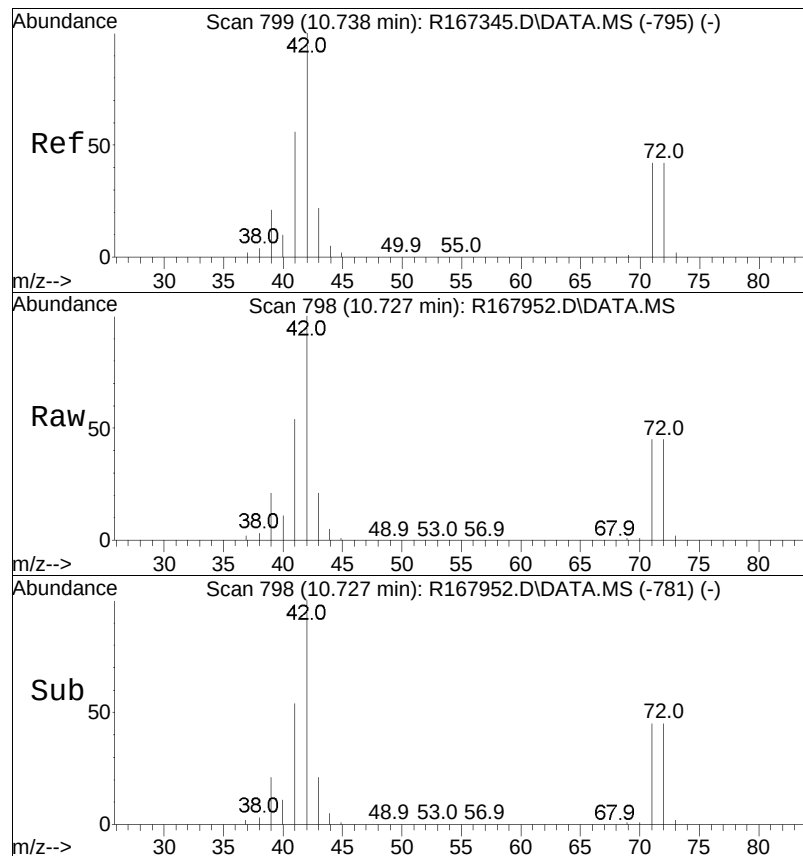




#38
 Ethyl Acetate
 Concen: 0.44 ppbV
 RT: 10.228 min Scan# 754
 Delta R.T. 0.021 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

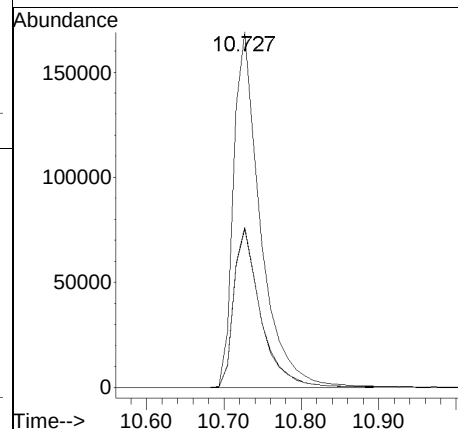
Tgt	Ion	Resp	Lower	Upper
61	100			
70	64.8	61.5	92.3	
43	600.3	594.1	891.1	

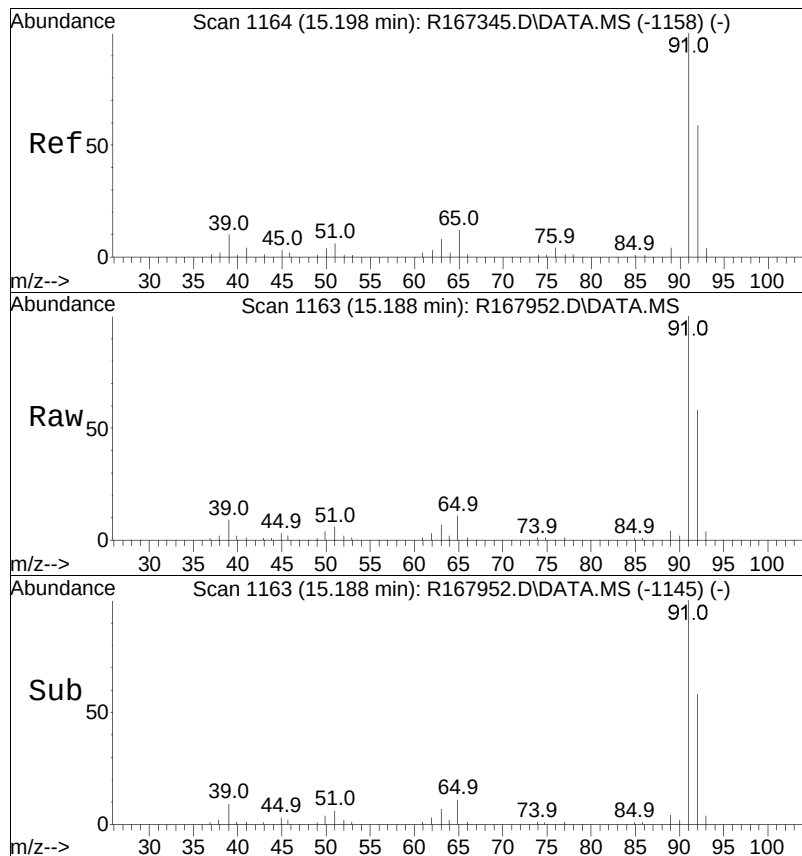




#40
 Tetrahydrofuran
 Concen: 42.67 ppbV
 RT: 10.727 min Scan# 798
 Delta R.T. -0.011 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

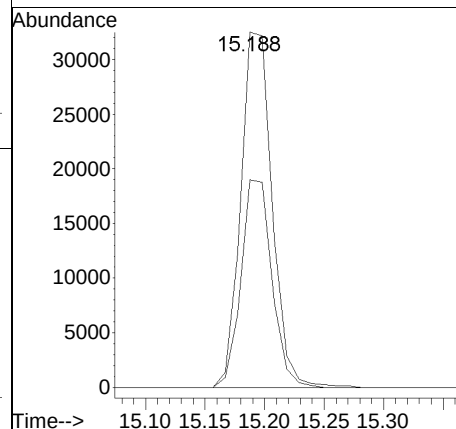
Tgt Ion	Ratio	Resp	Lower	Upper
42	100	408527		
71	44.6		33.5	50.3
72	45.1		33.3	49.9

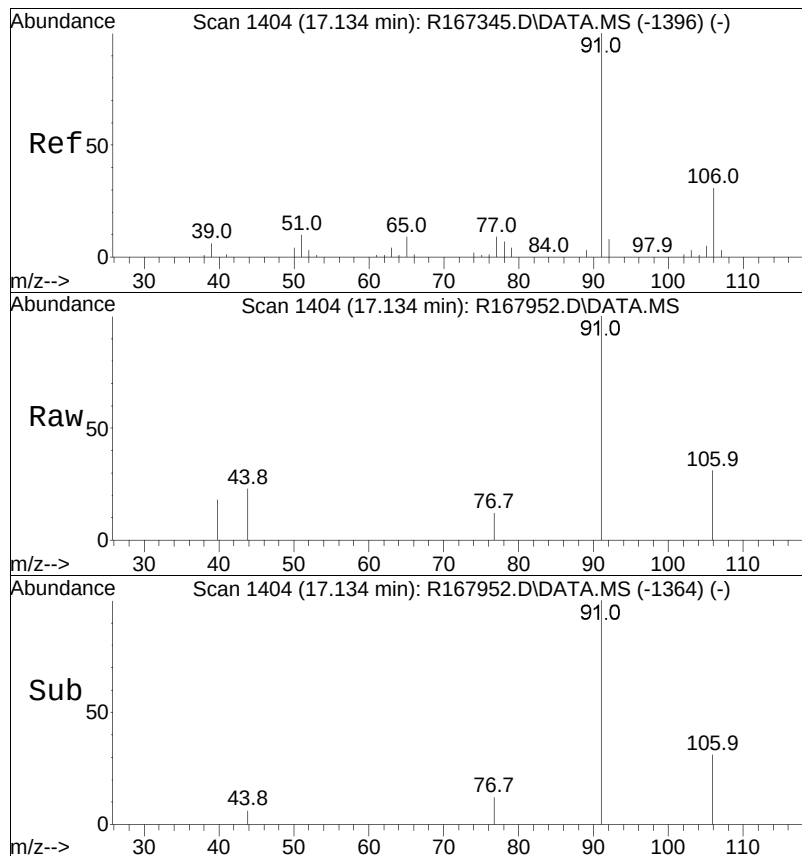




#68
toluene
Concen: 1.87 ppbV
RT: 15.188 min Scan# 1163
Delta R.T. -0.010 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

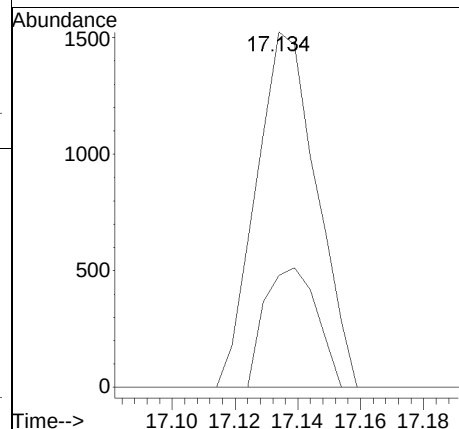
Tgt	Ion	Resp	Lower	Upper
91	100	59602		
92	58.4	46.8	70.2	

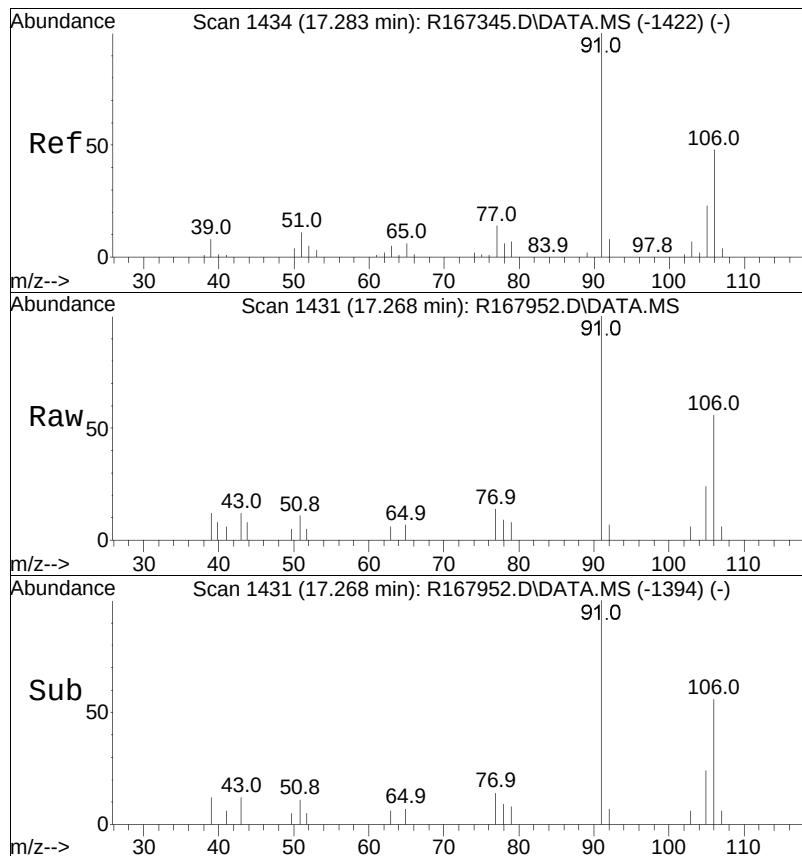




#81
 ethylbenzene
 Concen: 0.05 ppbV
 RT: 17.134 min Scan# 1404
 Delta R.T. -0.000 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

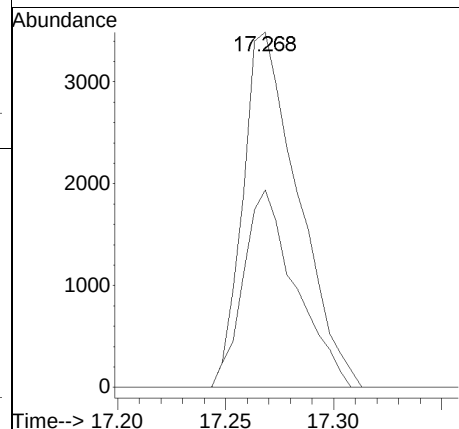
Tgt Ion	Ratio	Lower	Upper
91	100		
106	31.5	24.6	37.0

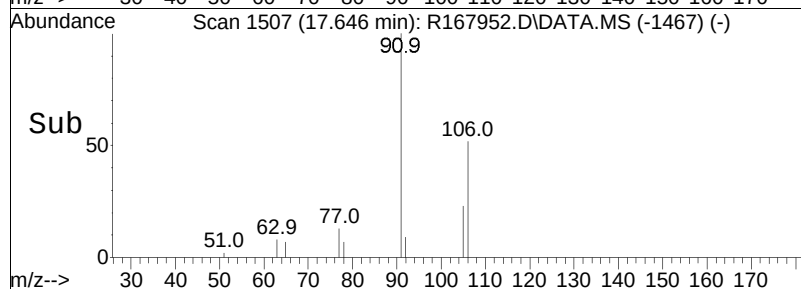
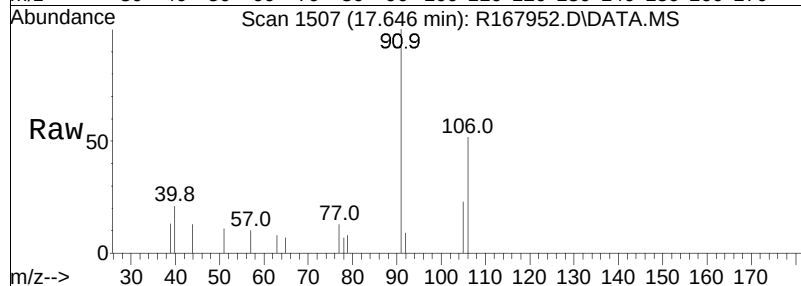
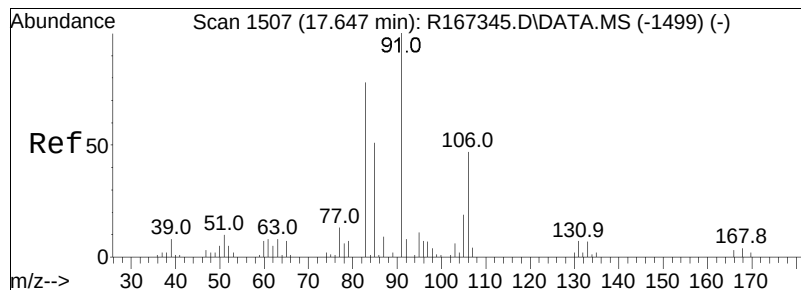




#83
 m+p-xylene
 Concen: 0.20 ppbV
 RT: 17.268 min Scan# 1431
 Delta R.T. -0.015 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

Tgt Ion	Ratio	Lower	Upper
91	100		
106	55.6	38.7	58.1





#87

o-xylene

Concen: 0.09 ppbV

RT: 17.646 min Scan# 1507

Delta R.T. -0.000 min

Lab File: R167952.D

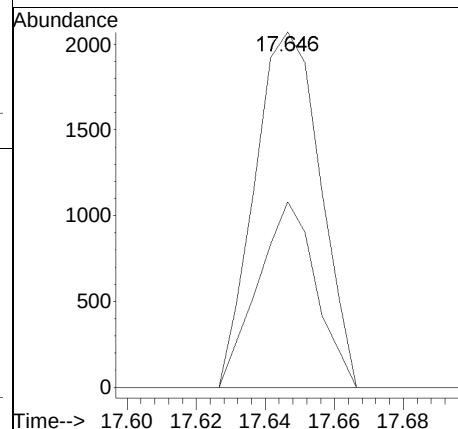
Acq: 10 Aug 2019 12:08 am

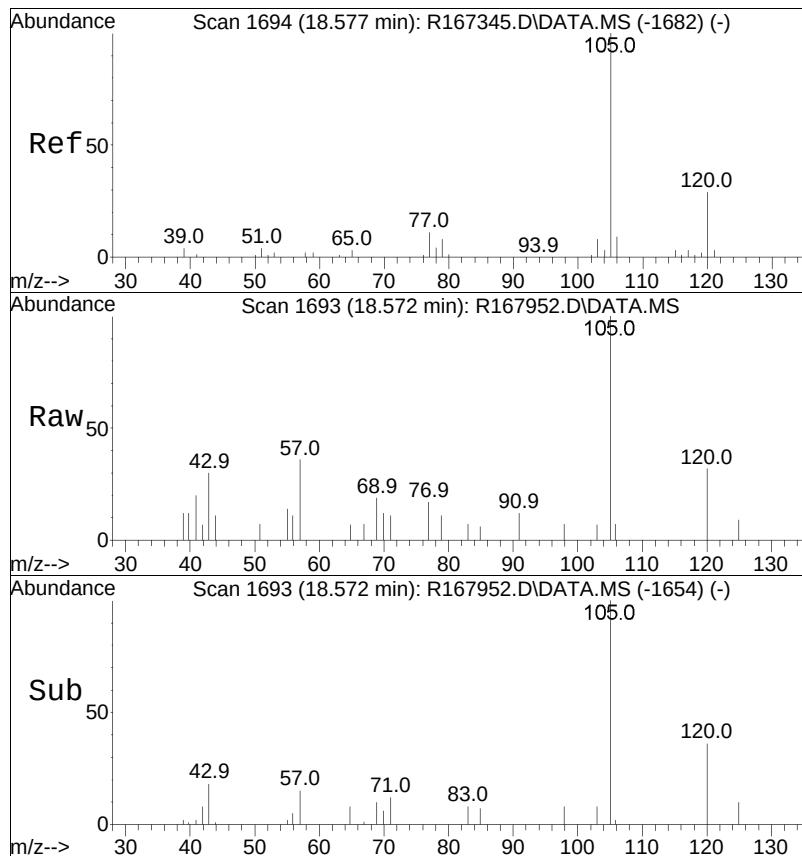
Tgt Ion: 91 Resp: 2730

Ion Ratio Lower Upper

91 100

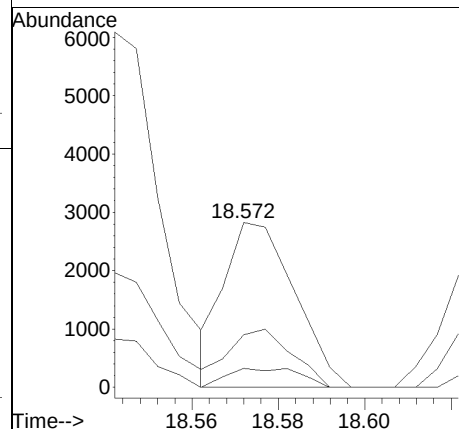
106 52.2 37.9 56.9

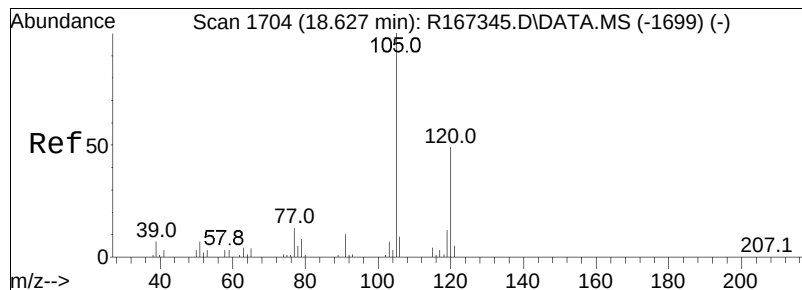




#96
 4-ethyl toluene
 Concen: 0.07 ppbV
 RT: 18.572 min Scan# 1693
 Delta R.T. -0.005 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

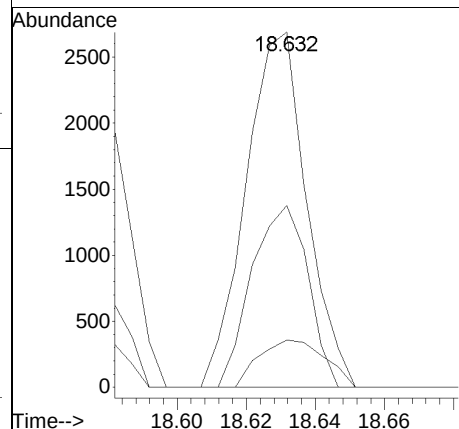
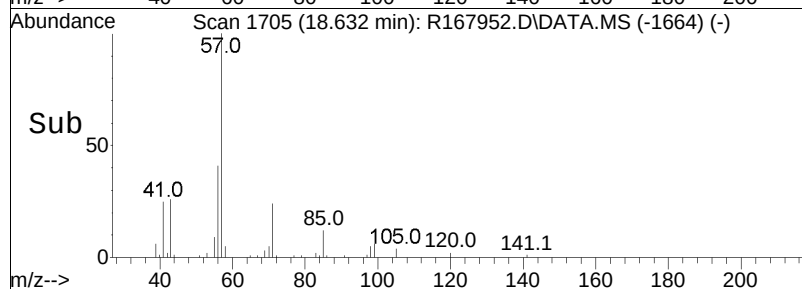
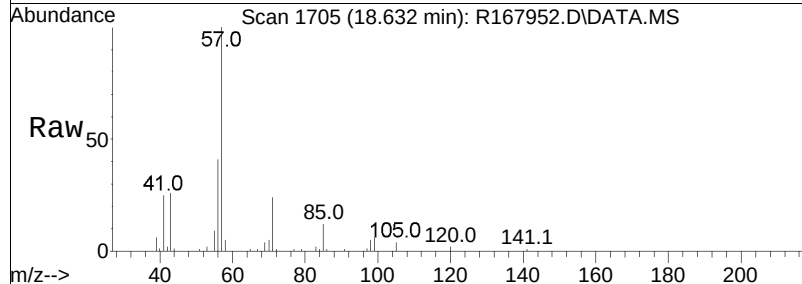
Tgt Ion:	105	Resp:	3191
Ion Ratio	Lower	Upper	
105	100		
120	29.9	23.5	35.3
91	10.8	8.6	12.8

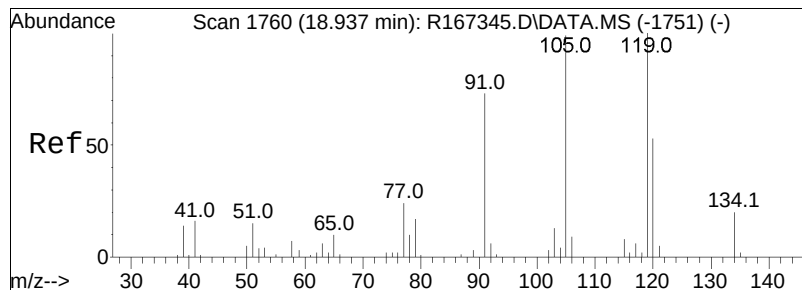




#97
 1,3,5-trimethylbenzene
 Concen: 0.09 ppbV
 RT: 18.632 min Scan# 1705
 Delta R.T. 0.005 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.2	38.8	58.2
91	13.3	8.1	12.1





#99

1,2,4-trimethylbenzene

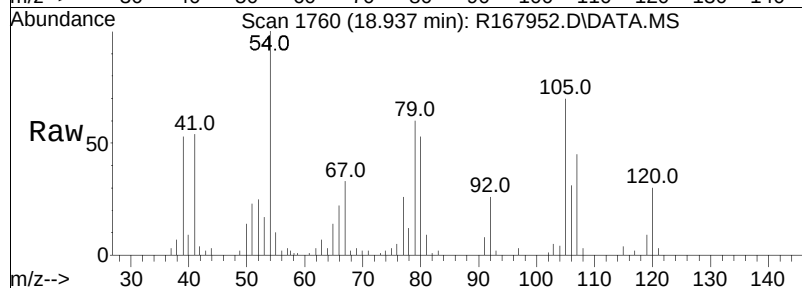
Concen: 0.31 ppbV

RT: 18.937 min Scan# 1760

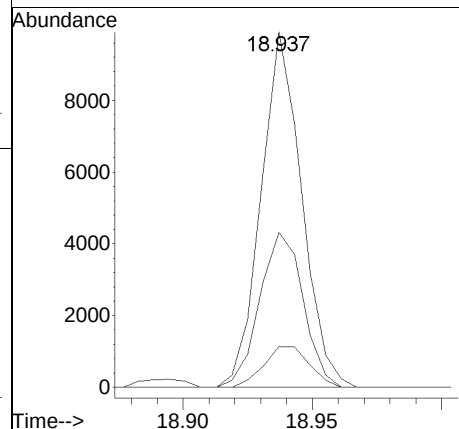
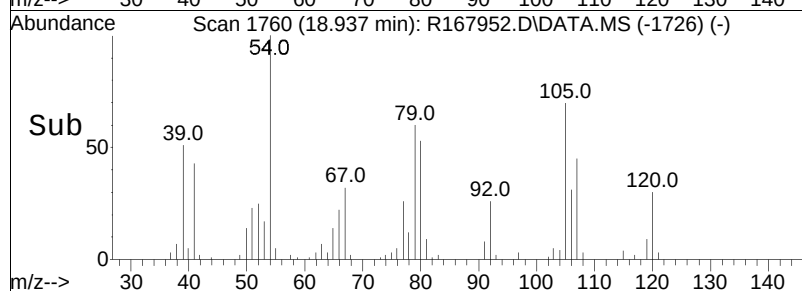
Delta R.T. -0.000 min

Lab File: R167952.D

Acq: 10 Aug 2019 12:08 am



Tgt Ion:	105	Resp:	10822
Ion Ratio	Lower	Upper	
105	100		
120	43.6	42.6	63.8
91	11.5	58.7	88.1#



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TFS1_190712.M
Data File	: R167952.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/10/2019 12:08 am	Instrument	: Air Piano 1
Sample	: L1935043-05D,3,35,250	Quant Date	: 8/10/2019 7:57 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167953.D
 Acq On : 10 Aug 2019 12:38 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-06D, 3, 70, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 12 11:07:26 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	119150	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		75.09%	
43) 1,4-difluorobenzene	12.348	114	257319	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		70.22%	
67) chlorobenzene-D5	16.801	54	48819	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		71.79%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	2400	0.158	ppbV	93
6) chloromethane	4.239	50	1281	0.223	ppbV #	72
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.599	31	7276	2.001	ppbV	99
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.232	43	168586	14.155	ppbV #	97
21) trichlorofluoromethane	6.437	101	1338	0.085	ppbV	98
22) isopropyl alcohol	6.633	45	11382	0.832	ppbV #	95
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	1066	0.119	ppbV	93
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.796	76	4955	0.204	ppbV #	52
31) Freon 113	0.000		0	N.D.	d	
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	0.000		0	N.D.	d	
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.398	43	793372	52.178	ppbV	96
37) cis-1,2-dichloroethene	9.917	61	2410	0.201	ppbV	94
38) Ethyl Acetate	10.228	61	4769	1.442	ppbV	66
39) chloroform	10.271	83	3347	0.168	ppbV	99
40) Tetrahydrofuran	10.738	42	286438	30.452	ppbV	96
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167953.D
 Acq On : 10 Aug 2019 12:38 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-06D, 3, 70, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 12 11:07:26 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	0.000		0	N.D.	d	
48) 1,1,1-trichloroethane	11.404	97	2881	0.185	ppbV	91
50) benzene	0.000		0	N.D.	d	
52) carbon tetrachloride	0.000		0	N.D.		
53) cyclohexane	0.000		0	N.D.	d	
56) 1,2-dichloropropane	12.872	63	1010	0.102	ppbV	87
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	0.000		0	N.D.		
59) trichloroethene	13.140	130	854955	80.049	ppbV	99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d	
62) heptane	0.000		0	N.D.	d	
63) cis-1,3-dichloropropene	0.000		0	N.D.		
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.		
66) 1,1,2-trichloroethane	0.000		0	N.D.		
68) toluene	15.198	91	44551	1.439	ppbV	96
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.		
75) 1,2-dibromoethane	0.000		0	N.D.		
78) tetrachloroethene	16.261	166	51053	3.774	ppbV	98
80) chlorobenzene	0.000		0	N.D.		
81) ethylbenzene	17.134	91	5202	0.133	ppbV	96
83) m+p-xylene	17.268	91	12264	0.408	ppbV	97
84) bromoform	0.000		0	N.D.		
85) styrene	17.567	104	1114	0.048	ppbV	97
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87) o-xylene	17.647	91	4428	0.147	ppbV	97
96) 4-ethyl toluene	18.577	105	3046M3	0.068	ppbV	
97) 1,3,5-trimethylbenzene	18.632	105	3391	0.096	ppbV	96
99) 1,2,4-trimethylbenzene	18.937	105	11858	0.352	ppbV #	53
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.	d	
103) 1,4-dichlorobenzene	0.000		0	N.D.	d	
107) 1,2-dichlorobenzene	0.000		0	N.D.		
115) 1,2,4-trichlorobenzene	0.000		0	N.D.		
119) hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167953.D
 Acq On : 10 Aug 2019 12:38 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-06D,3,70,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 12 11:07:26 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

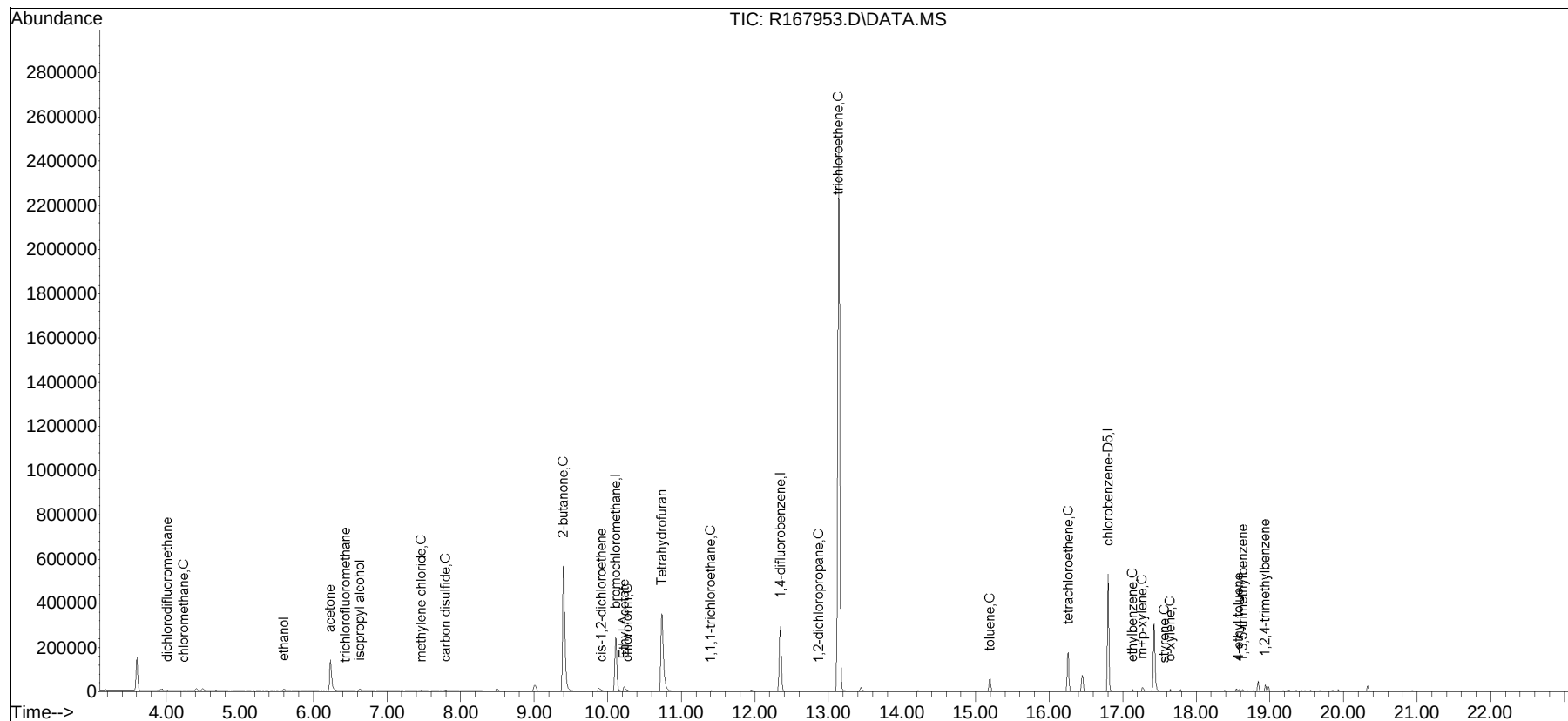
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

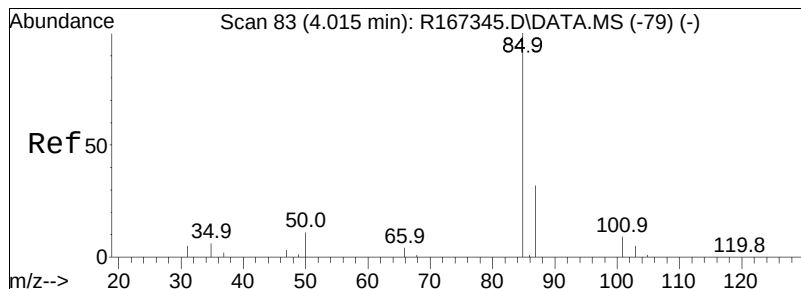
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167953.D
Acq On : 10 Aug 2019 12:38 am
Operator : AIRPIAN01:EW
Sample : L1935043-06D,3,70,250
Misc : WG1270780,ICAL15961
ALS Vial : 12 Sample Multiplier: 1

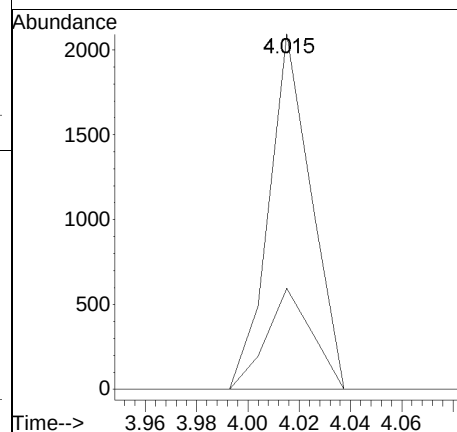
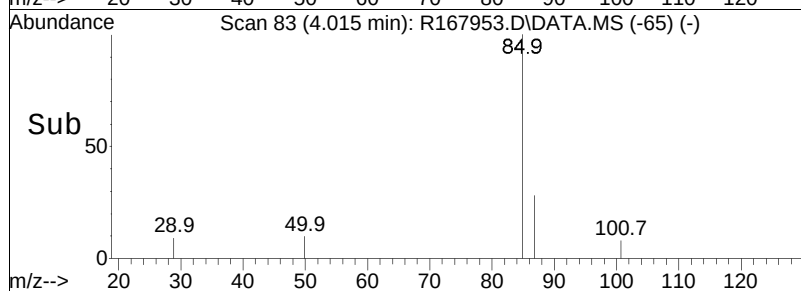
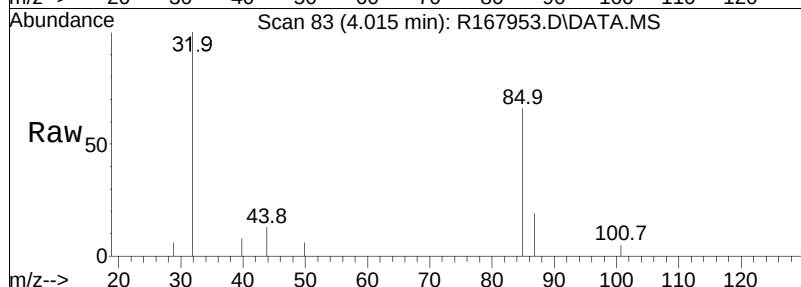
Quant Time: Aug 12 11:07:26 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

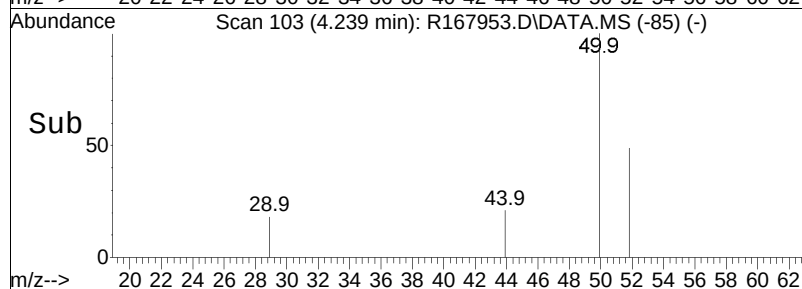
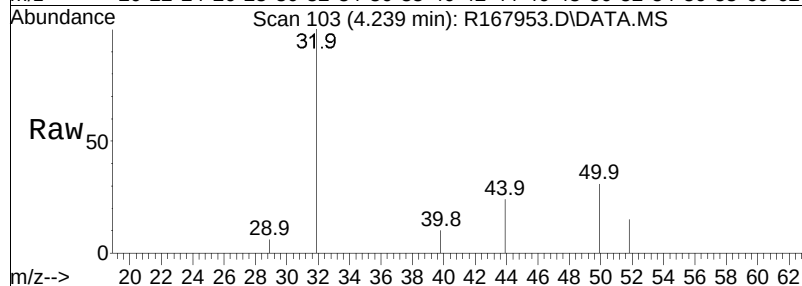
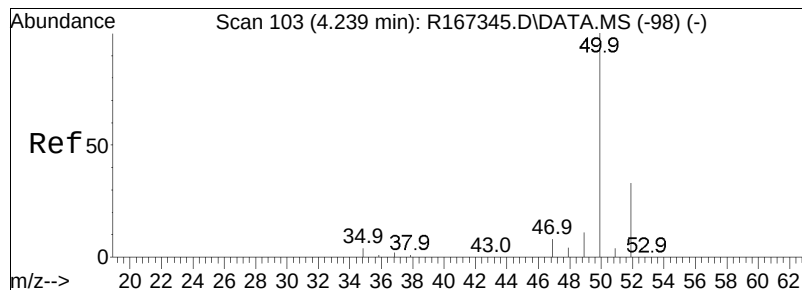




#5
dichlorodifluoromethane
Concen: 0.16 ppbV
RT: 4.015 min Scan# 83
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

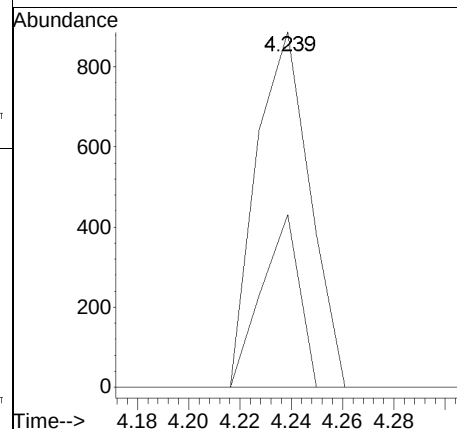
Tgt Ion: 85 Resp: 2400
Ion Ratio Lower Upper
85 100
87 28.4 25.7 38.5

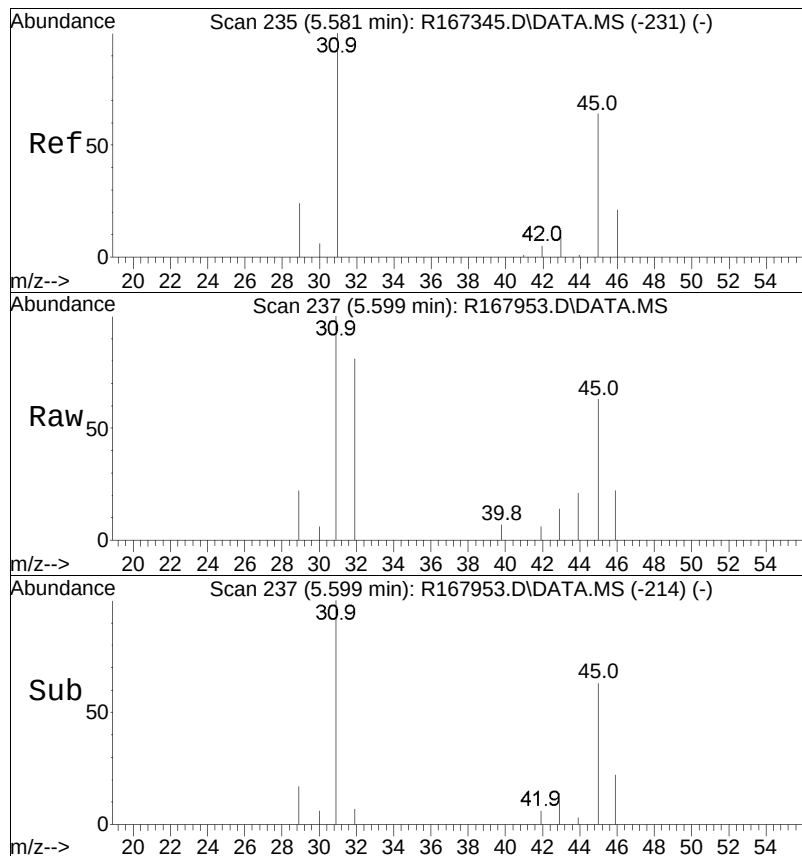




#6
 chloromethane
 Concen: 0.22 ppbV
 RT: 4.239 min Scan# 103
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

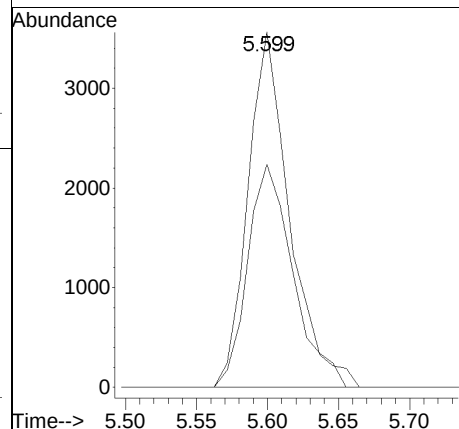
Tgt	Ion	Resp	Lower	Upper
50	100	1281		
52	48.6	26.3	39.5#	

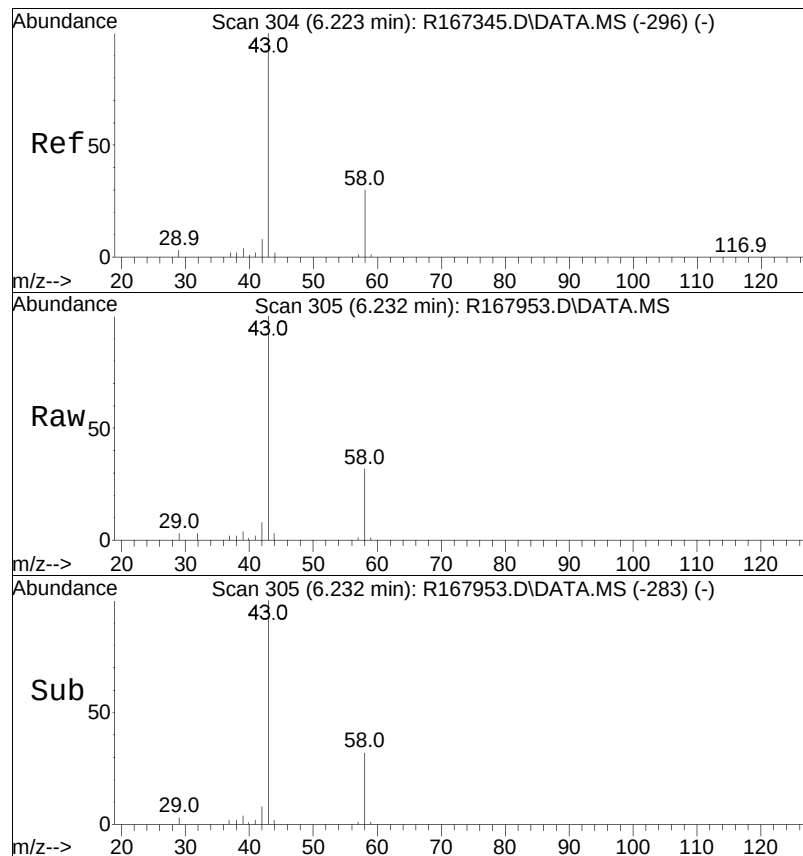




#15
 ethanol
 Concen: 2.00 ppbV
 RT: 5.599 min Scan# 237
 Delta R.T. 0.019 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

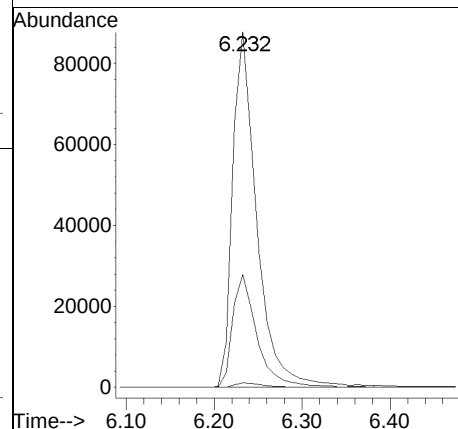
Tgt Ion	Ratio	Lower	Upper
31	100		
45	62.8	50.8	76.2

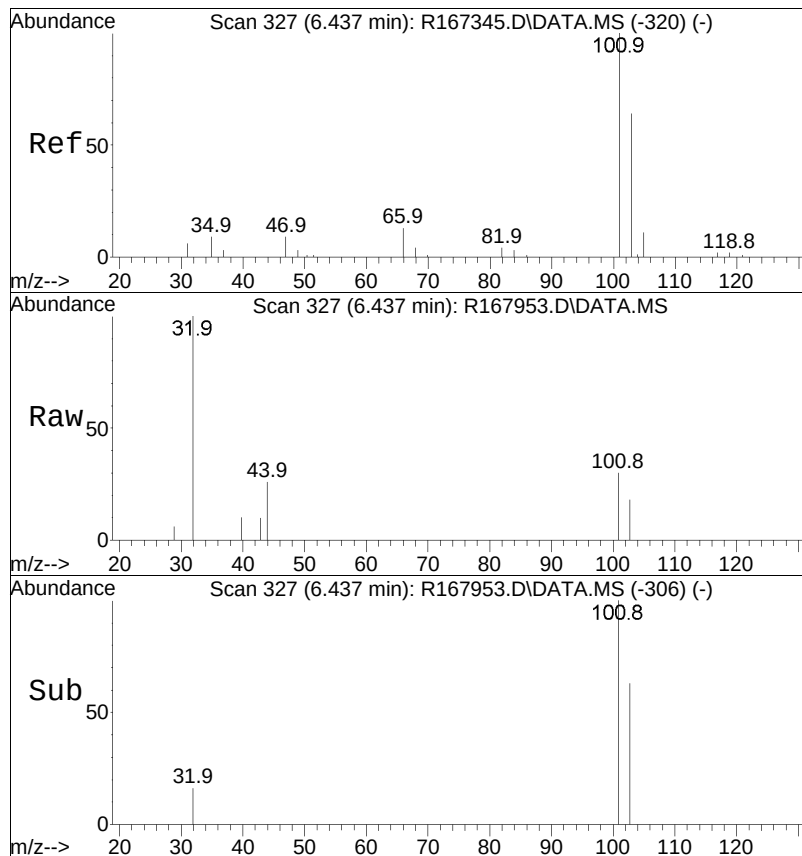




#19
 acetone
 Concen: 14.15 ppbV
 RT: 6.232 min Scan# 305
 Delta R.T. 0.009 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

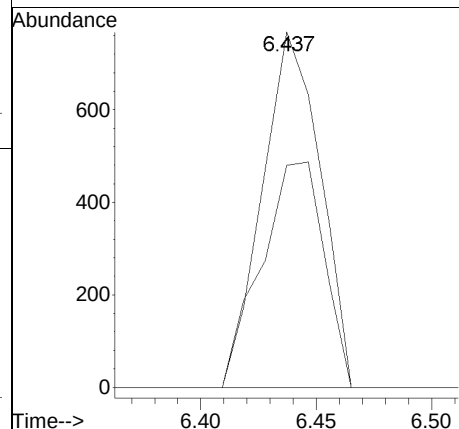
Tgt	Ion: 43	Resp:	168586
Ion	Ratio	Lower	Upper
43	100		
58	31.7	24.2	36.2
57	1.3	0.8	1.2#

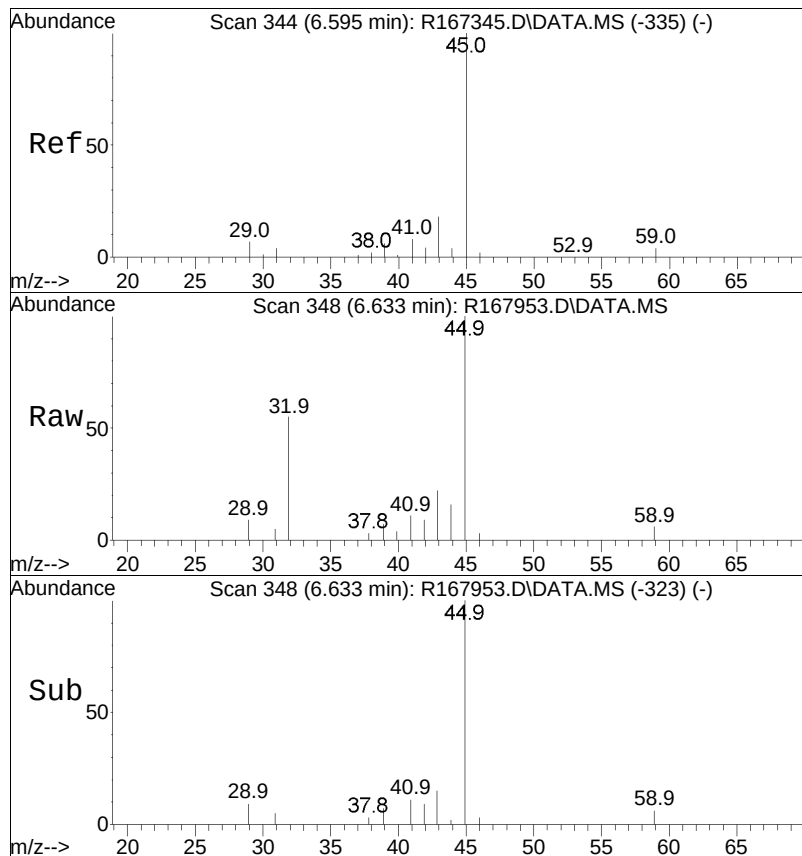




#21
trichlorofluoromethane
Concen: 0.09 ppbV
RT: 6.437 min Scan# 327
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

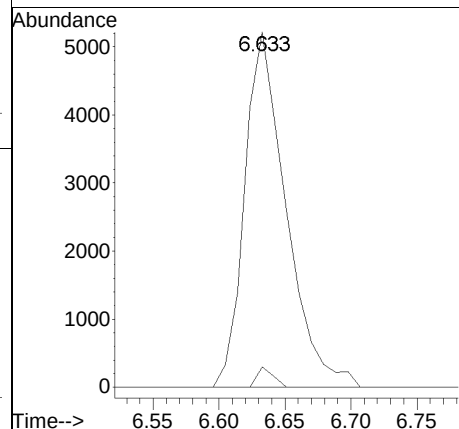
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	103	62.5	51.1	76.7

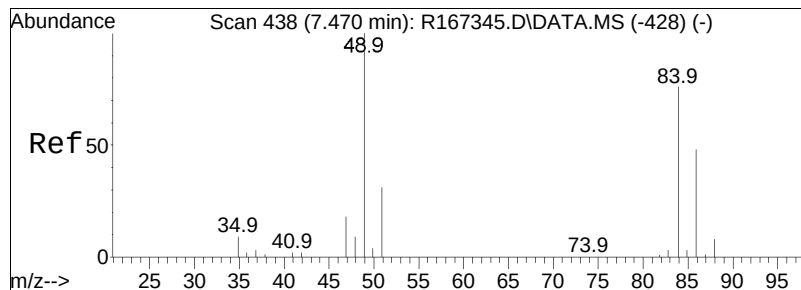




#22
 isopropyl alcohol
 Concen: 0.83 ppbV
 RT: 6.633 min Scan# 348
 Delta R.T. 0.037 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

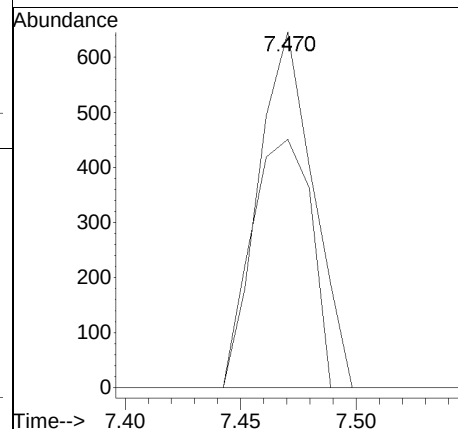
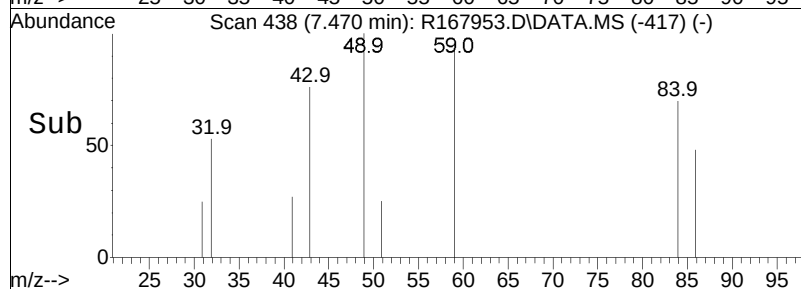
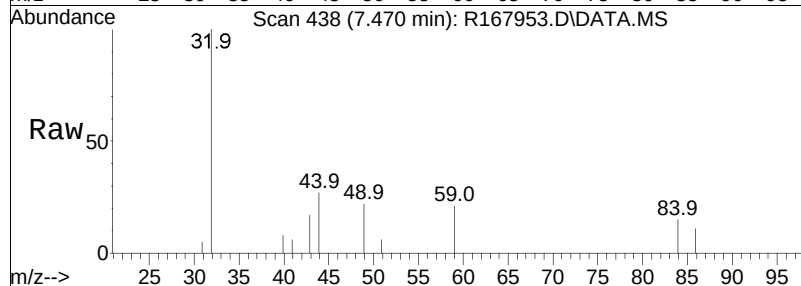
Tgt Ion	Ratio	Lower	Upper
45	100		
59	5.8	3.4	5.0#

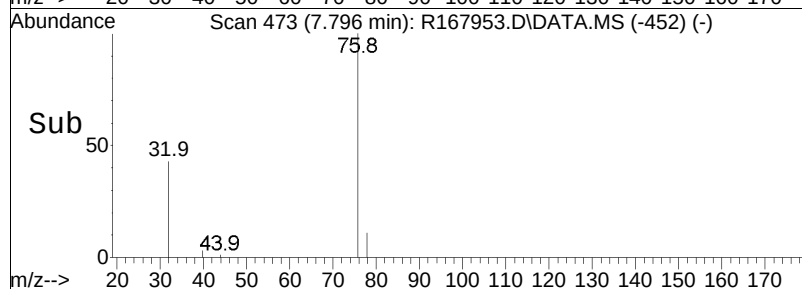
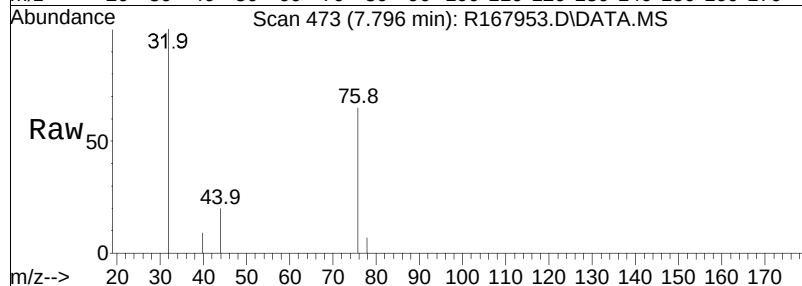
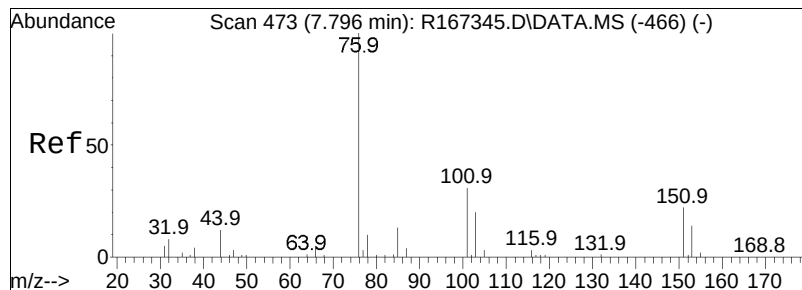




#28
 methylene chloride
 Concen: 0.12 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

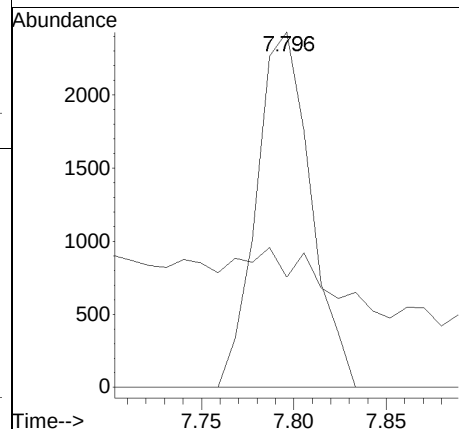
Tgt Ion: 49 Resp: 1066
 Ion Ratio Lower Upper
 49 100
 84 69.8 60.6 91.0

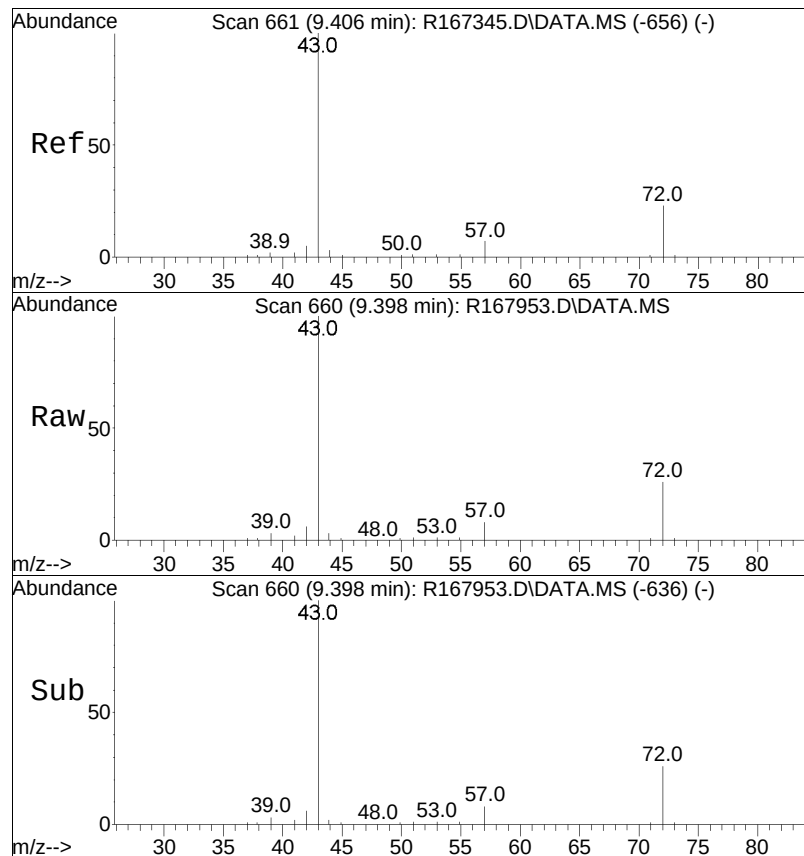




#30
carbon disulfide
Concen: 0.20 ppbV
RT: 7.796 min Scan# 473
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

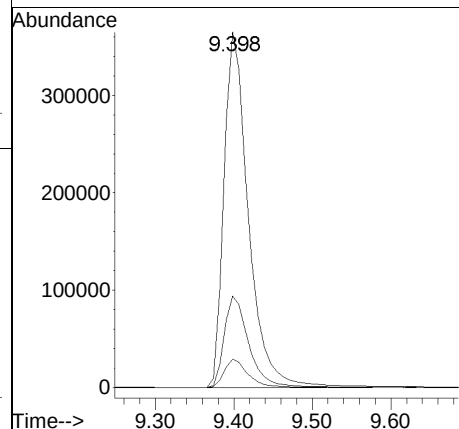
Tgt Ion	Ratio	Lower	Upper
76	100		
44	31.0	9.8	14.8#

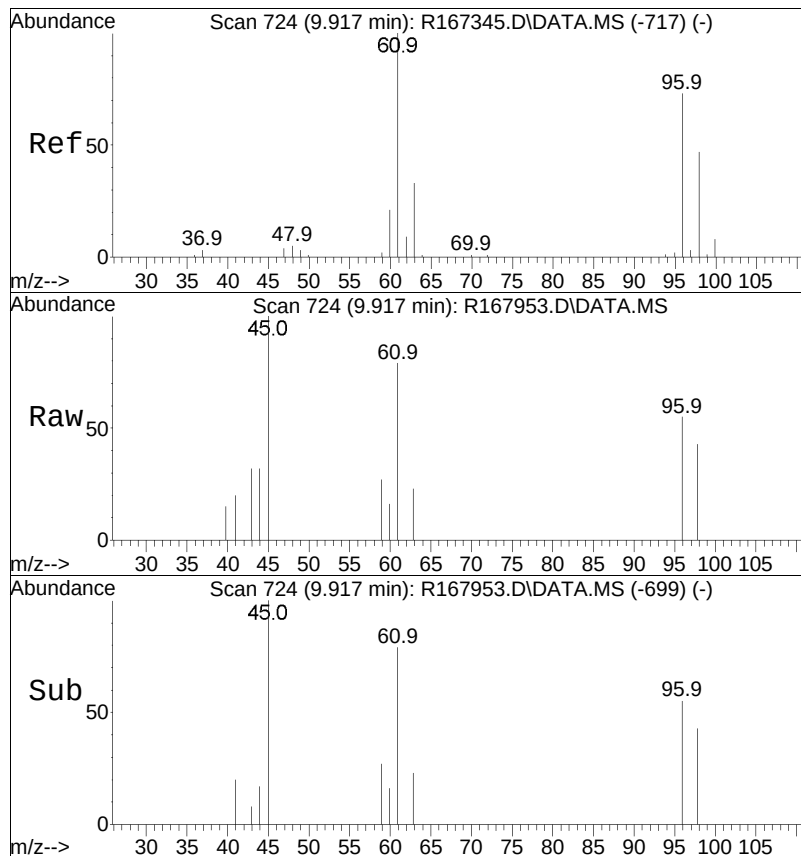




#36
 2-butanone
 Concen: 52.18 ppbV
 RT: 9.398 min Scan# 660
 Delta R.T. -0.008 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

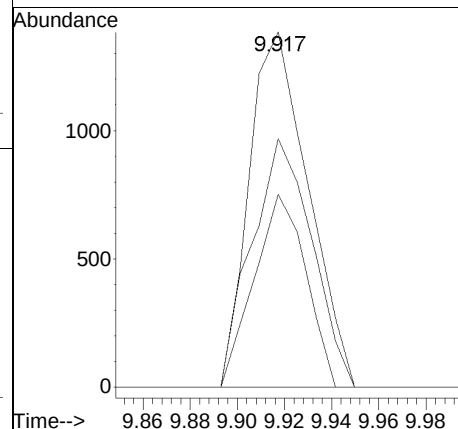
Tgt Ion:	43	Resp:	793372
Ion Ratio	Lower	Upper	
43	100		
72	25.7	18.7	28.1
57	8.0	5.6	8.4

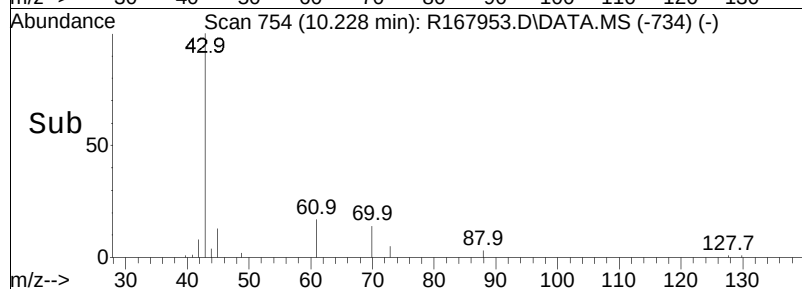
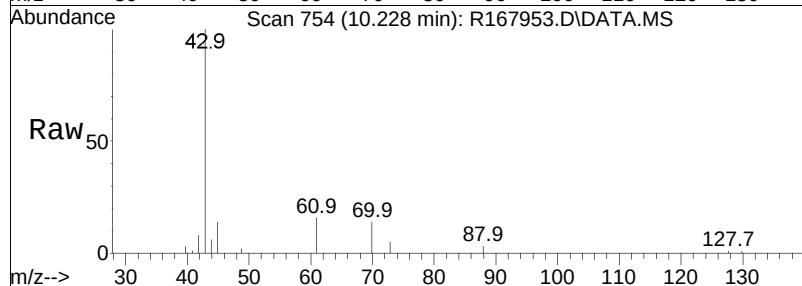
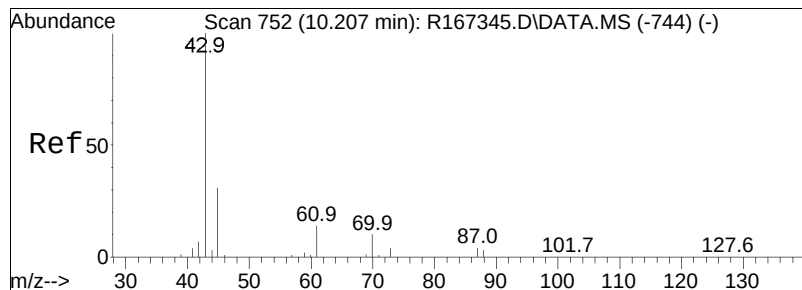




#37
 cis-1,2-dichloroethene
 Concen: 0.20 ppbV
 RT: 9.917 min Scan# 724
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

Tgt Ion:	61	Resp:	2410
Ion Ratio	Lower	Upper	
61	100		
96	70.0	58.0	87.0
98	54.3	37.6	56.4





#38

Ethyl Acetate

Concen: 1.44 ppbV

RT: 10.228 min Scan# 754

Delta R.T. 0.021 min

Lab File: R167953.D

Acq: 10 Aug 2019 12:38 am

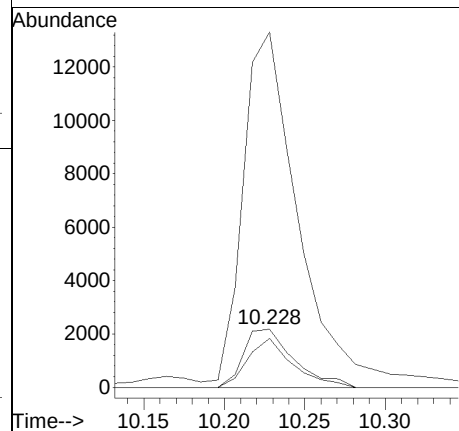
Tgt Ion: 61 Resp: 4769

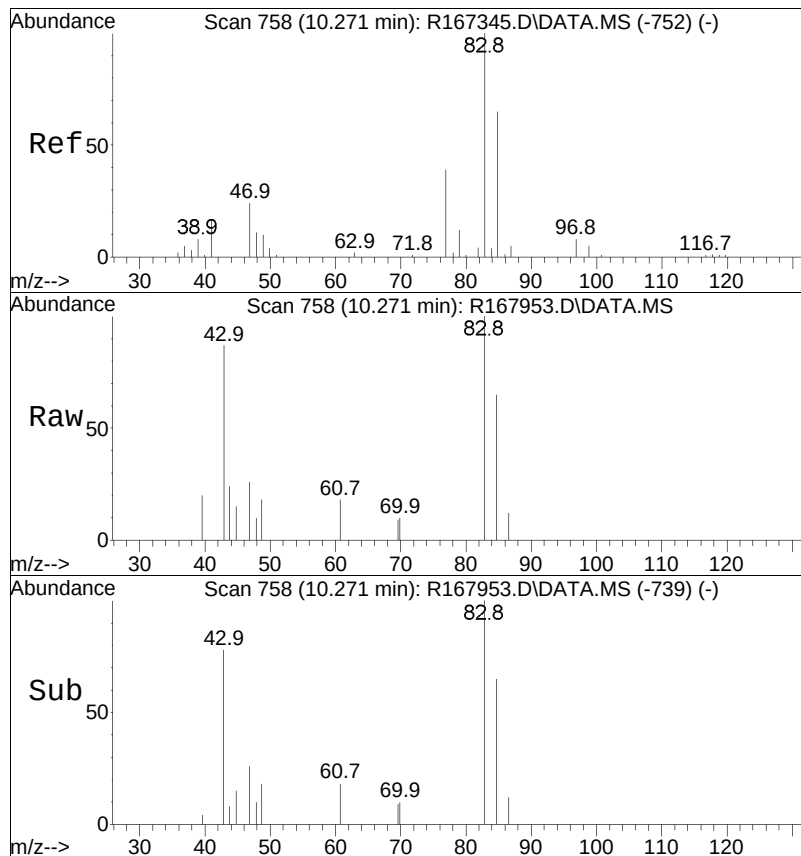
Ion Ratio Lower Upper

61 100

70 84.1 61.5 92.3

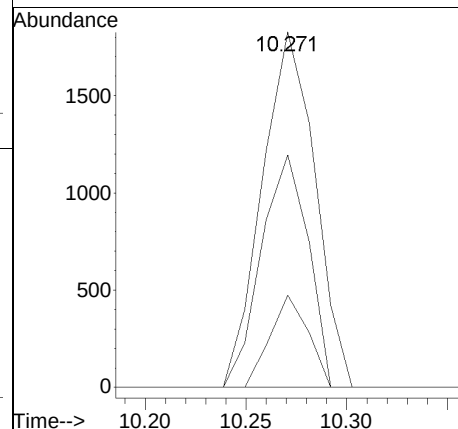
43 610.0 594.1 891.1

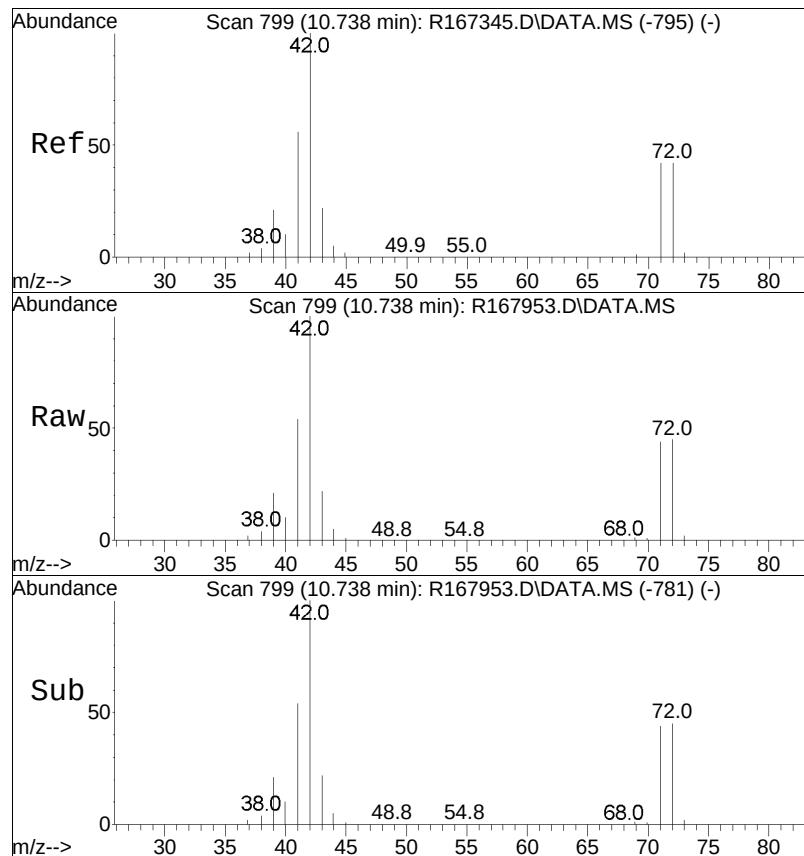




#39
 chloroform
 Concen: 0.17 ppbV
 RT: 10.271 min Scan# 758
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

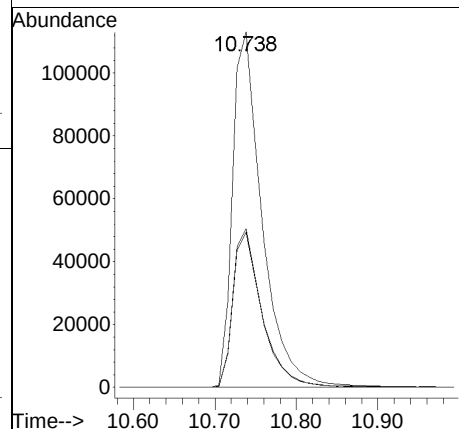
Tgt	Ion	Ratio	Resp	Lower	Upper
83	100		3347		
85	65.4	52.2		78.2	
47	25.9	19.1		28.7	

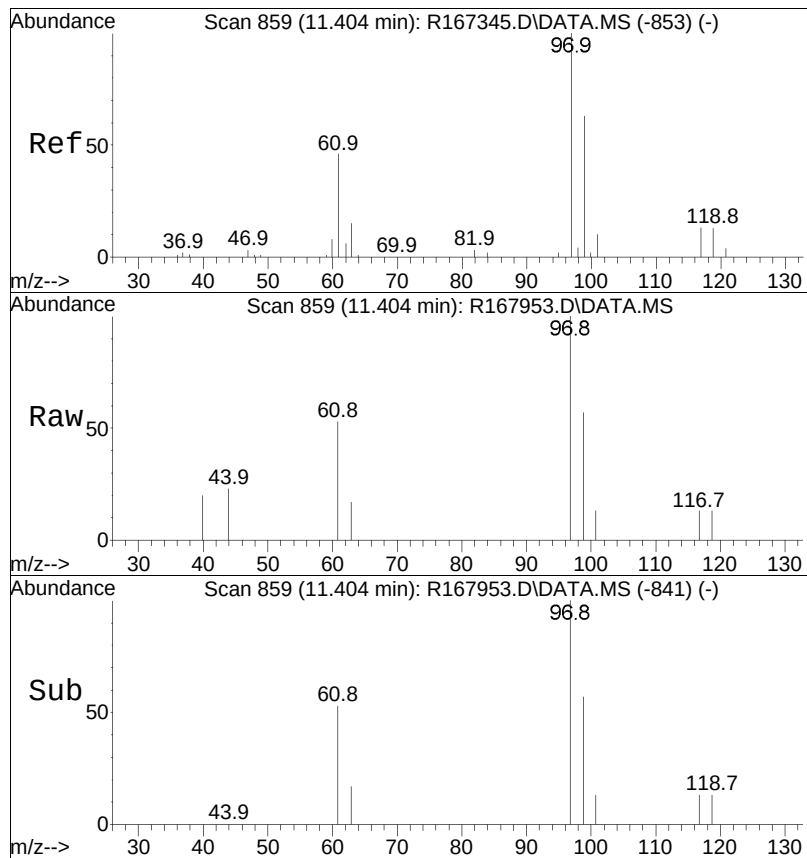




#40
 Tetrahydrofuran
 Concen: 30.45 ppbV
 RT: 10.738 min Scan# 799
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

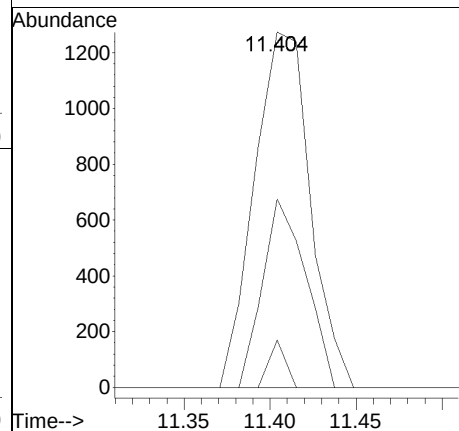
Tgt Ion:	42	Resp:	286438
Ion Ratio	Lower	Upper	
42	100		
71	43.7	33.5	50.3
72	44.7	33.3	49.9

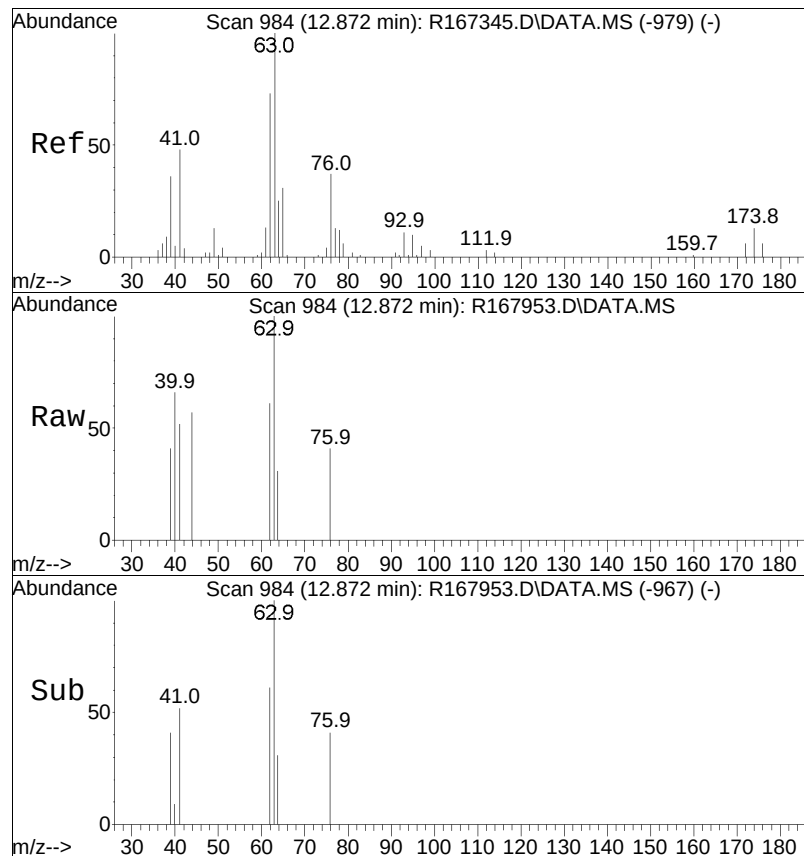




#48
 1,1,1-trichloroethane
 Concen: 0.19 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

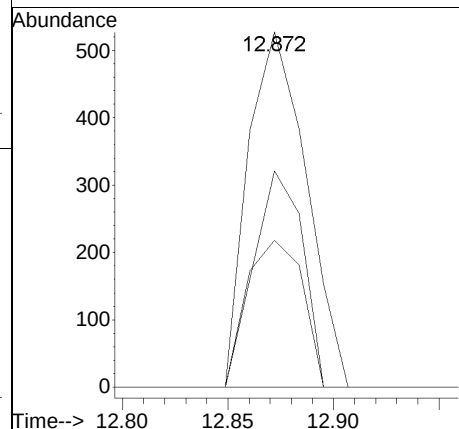
Tgt Ion	Ratio	Resp	Lower	Upper
97	100	2881		
61	53.1		36.6	55.0
119	13.3		10.6	16.0

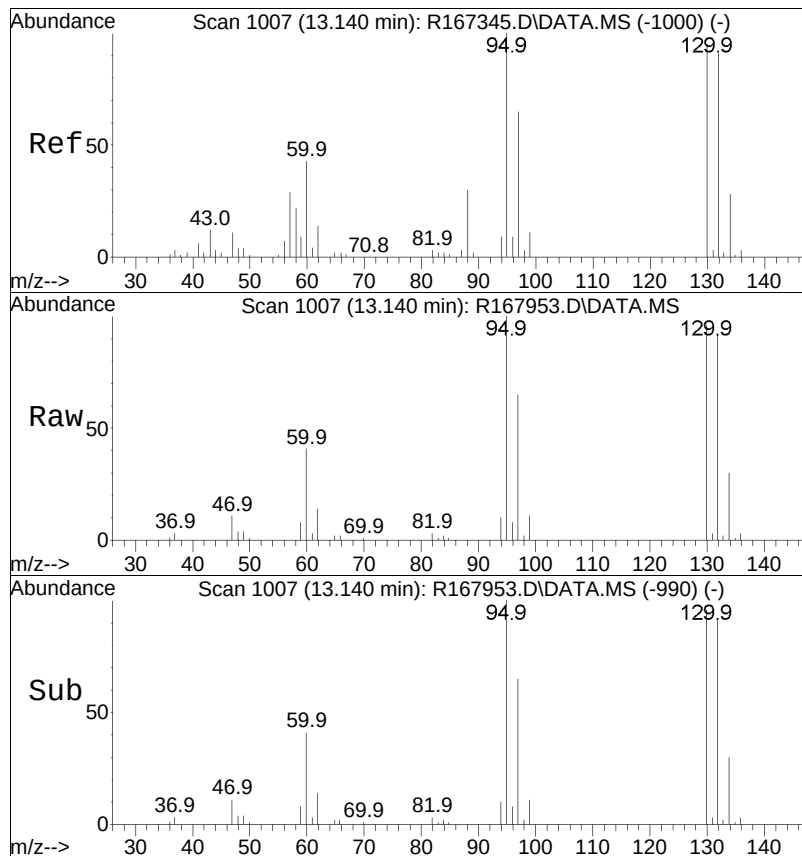




#56
 1,2-dichloropropane
 Concen: 0.10 ppbV
 RT: 12.872 min Scan# 984
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

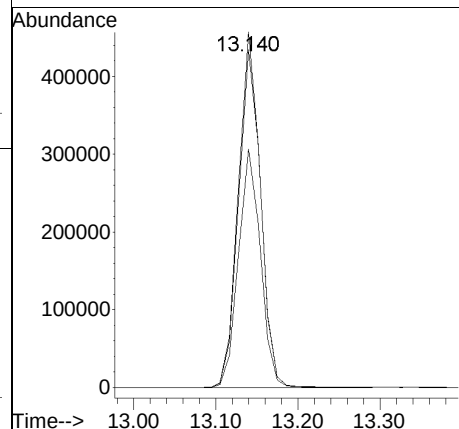
Tgt Ion:	63	Resp:	1010
Ion Ratio	Lower	Upper	
63	100		
62	60.9	58.4	87.6
39	41.4	28.4	42.6

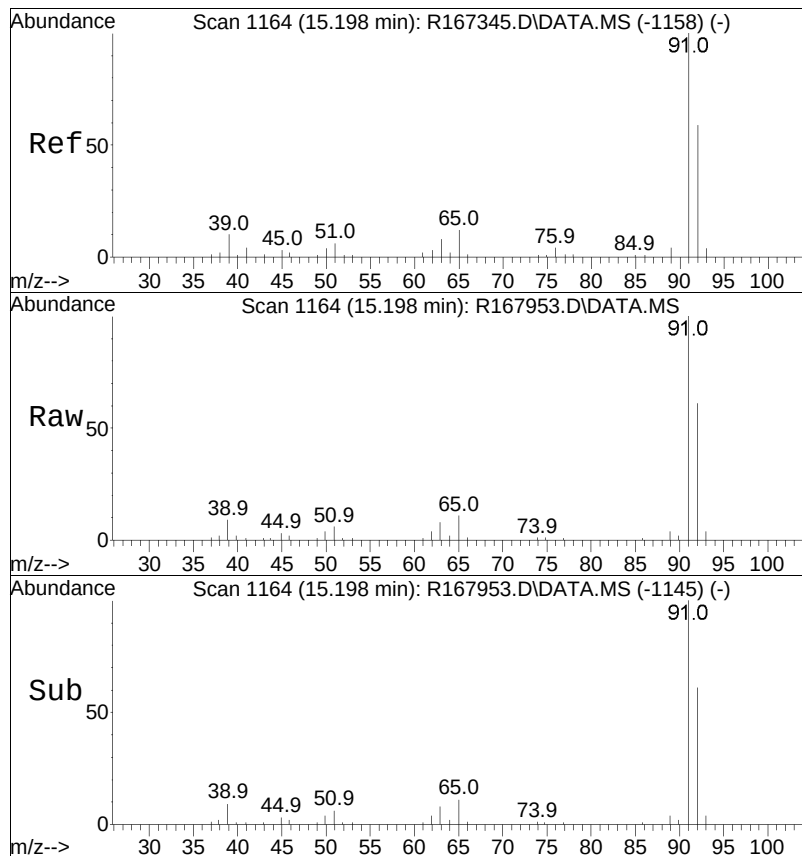




#59
trichloroethene
Concen: 80.05 ppbV
RT: 13.140 min Scan# 1007
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

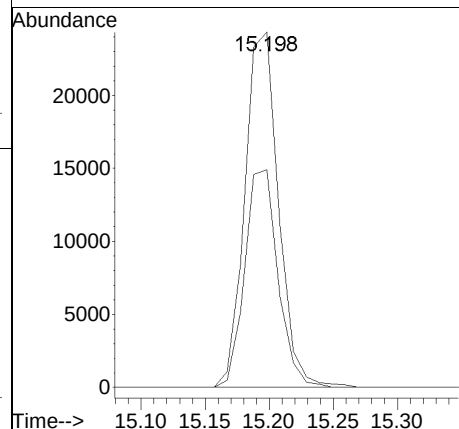
Tgt	Ion	Ratio	Resp	Lower	Upper
130	100		854955		
132	95.0	76.3	114.5		
97	67.1	54.5	81.7		

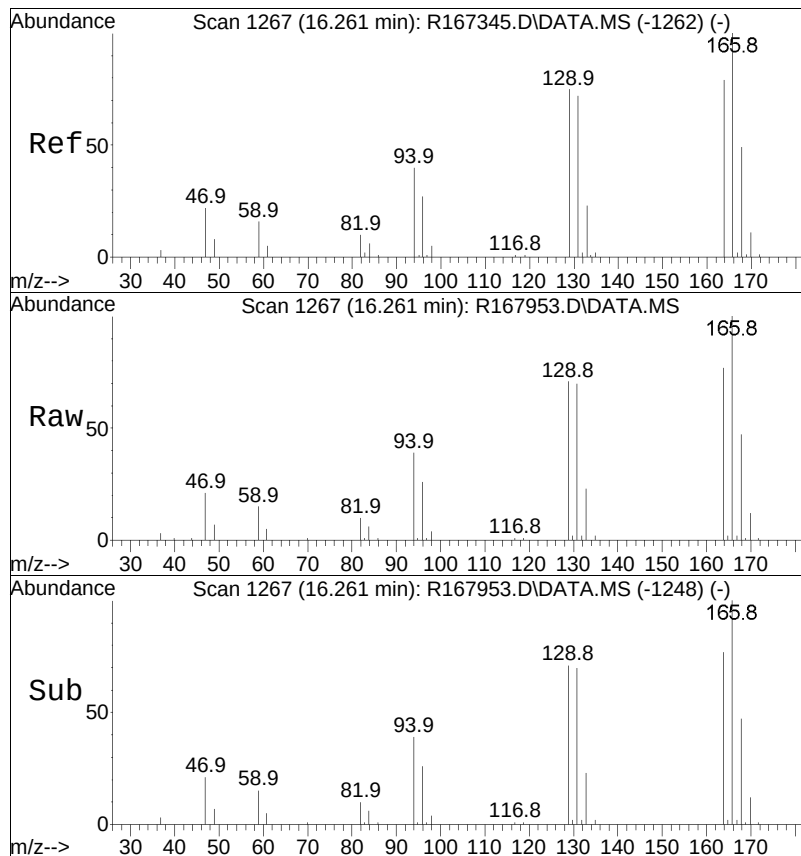




#68
toluene
Concen: 1.44 ppbV
RT: 15.198 min Scan# 1164
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

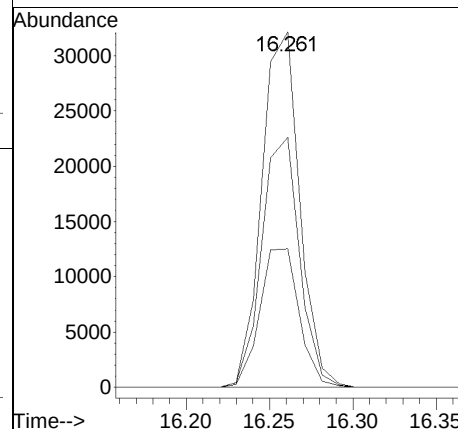
Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.2	46.8	70.2

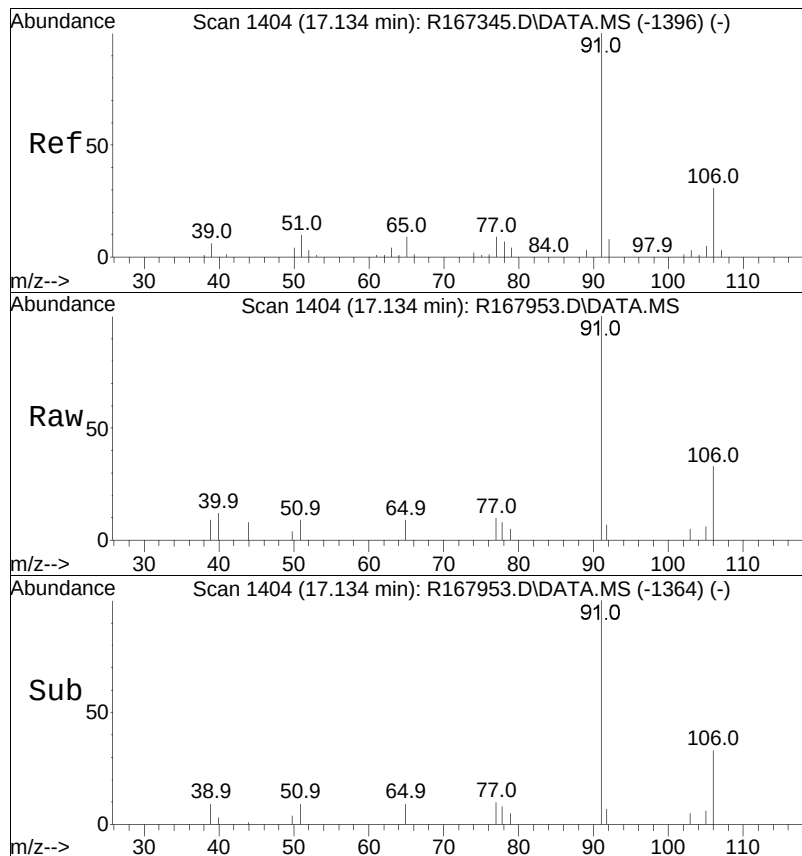




#78
 tetrachloroethene
 Concen: 3.77 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

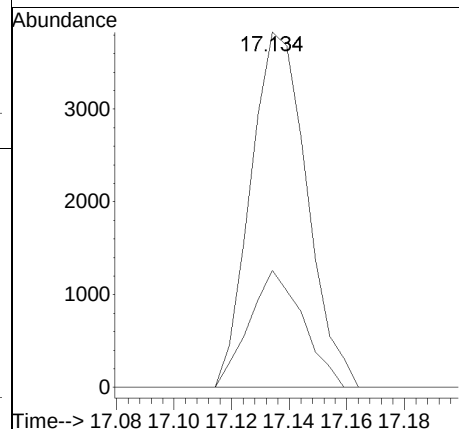
Tgt Ion	Ratio	Lower	Upper
166	100		
131	70.4	57.8	86.8
94	39.0	32.1	48.1

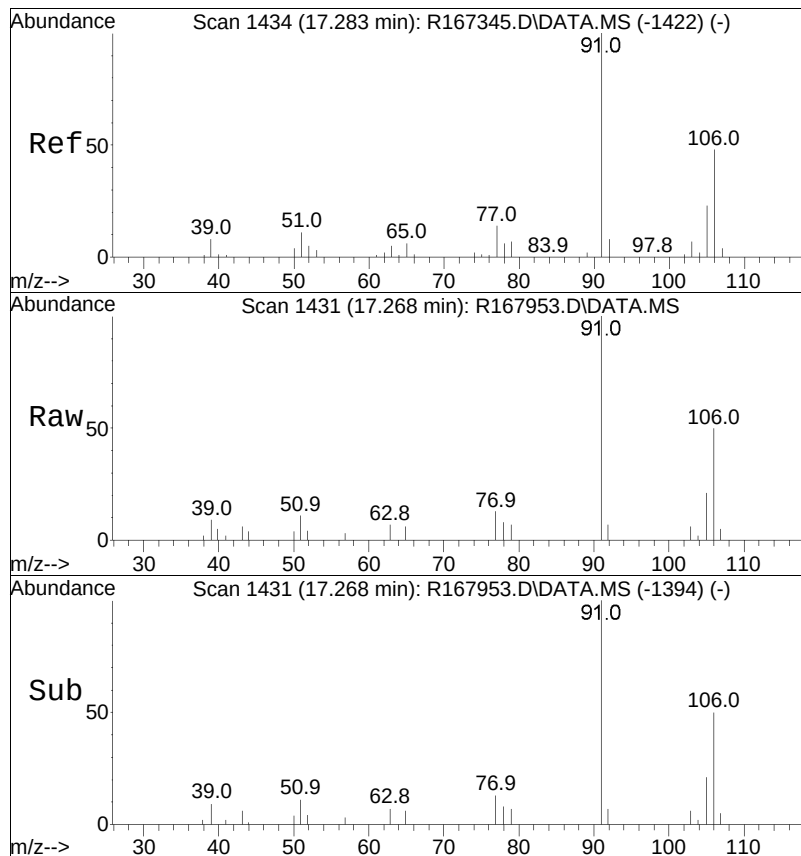




#81
ethylbenzene
Concen: 0.13 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. 0.000 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

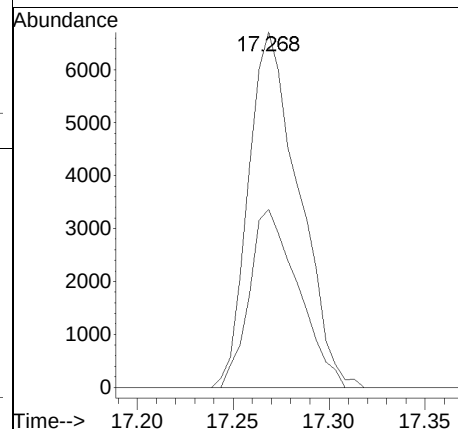
Tgt	Ion	Resp	Lower	Upper
91	100	5202		
106	32.9	24.6	37.0	

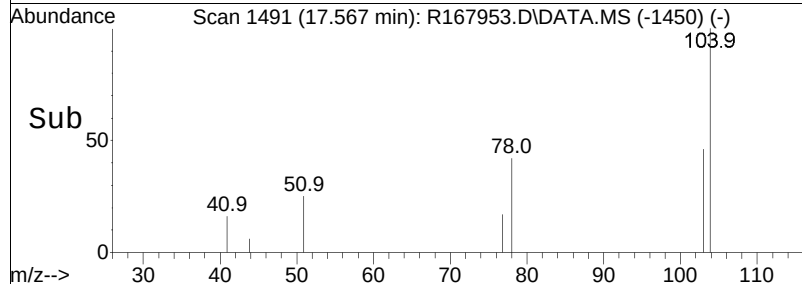
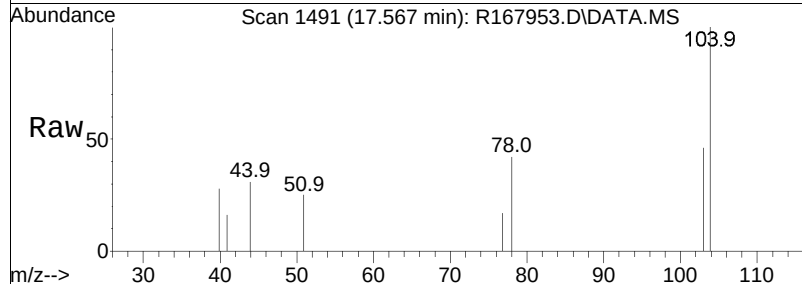
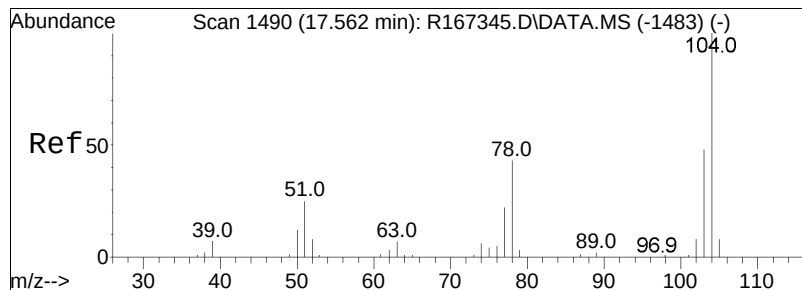




#83
 m+p-xylene
 Concen: 0.41 ppbV
 RT: 17.268 min Scan# 1431
 Delta R.T. -0.015 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

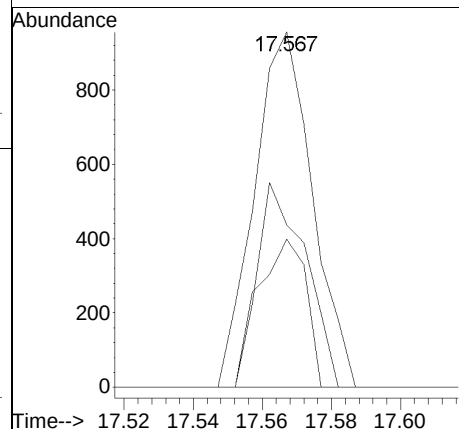
Tgt	Ion	Resp	Lower	Upper
91	100	12264		
106	50.1	38.7	58.1	

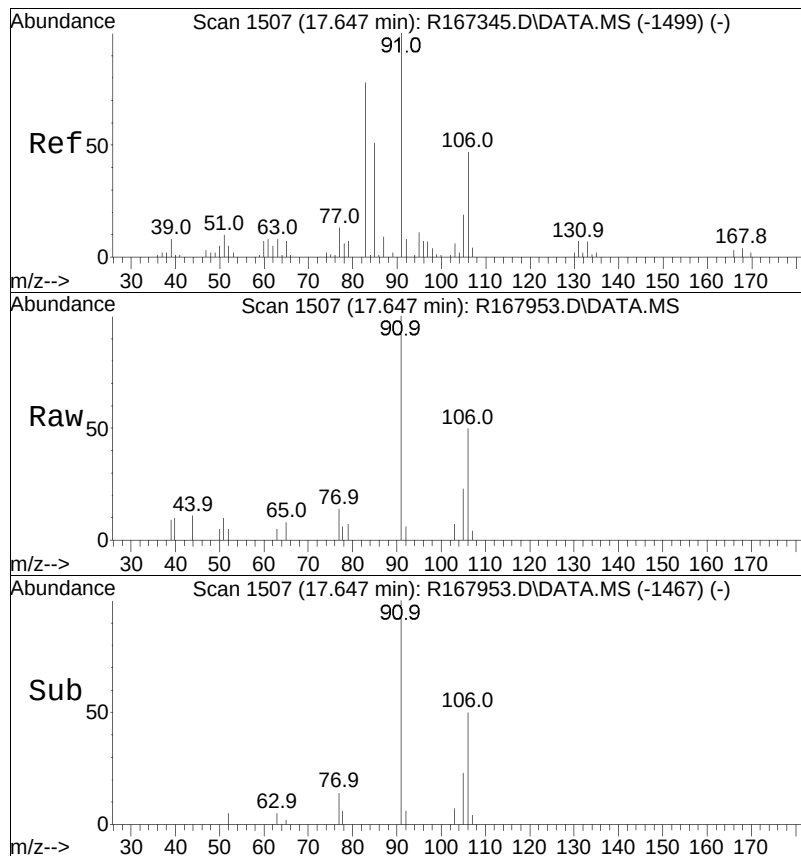




#85
styrene
Concen: 0.05 ppbV
RT: 17.567 min Scan# 1491
Delta R.T. 0.005 min
Lab File: R167953.D
Acq: 10 Aug 2019 12:38 am

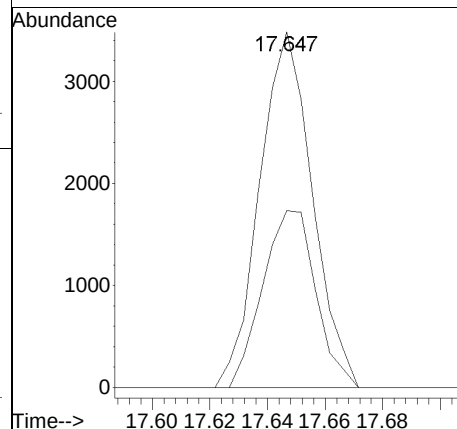
Tgt Ion:	104	Resp:	1114
Ion Ratio	Lower	Upper	
104	100		
103	45.7	38.3	57.5
78	41.6	34.5	51.7

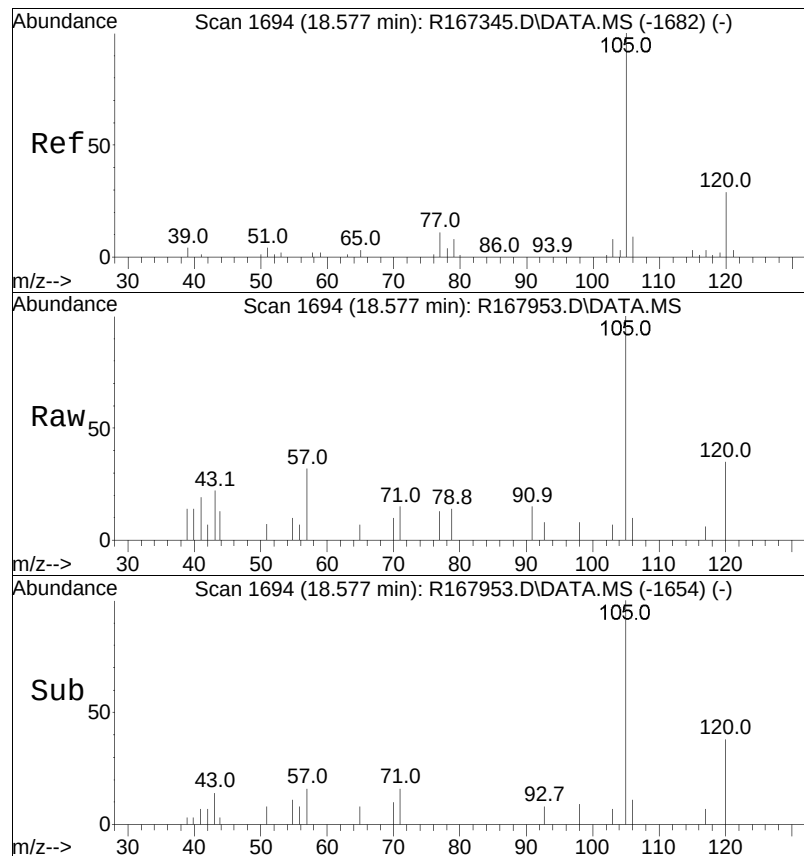




#87
 o-xylene
 Concen: 0.15 ppbV
 RT: 17.647 min Scan# 1507
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

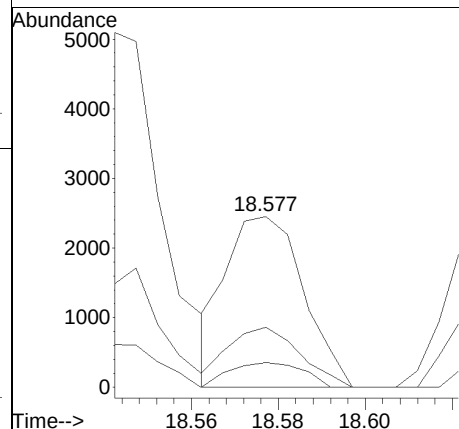
Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.7	37.9	56.9

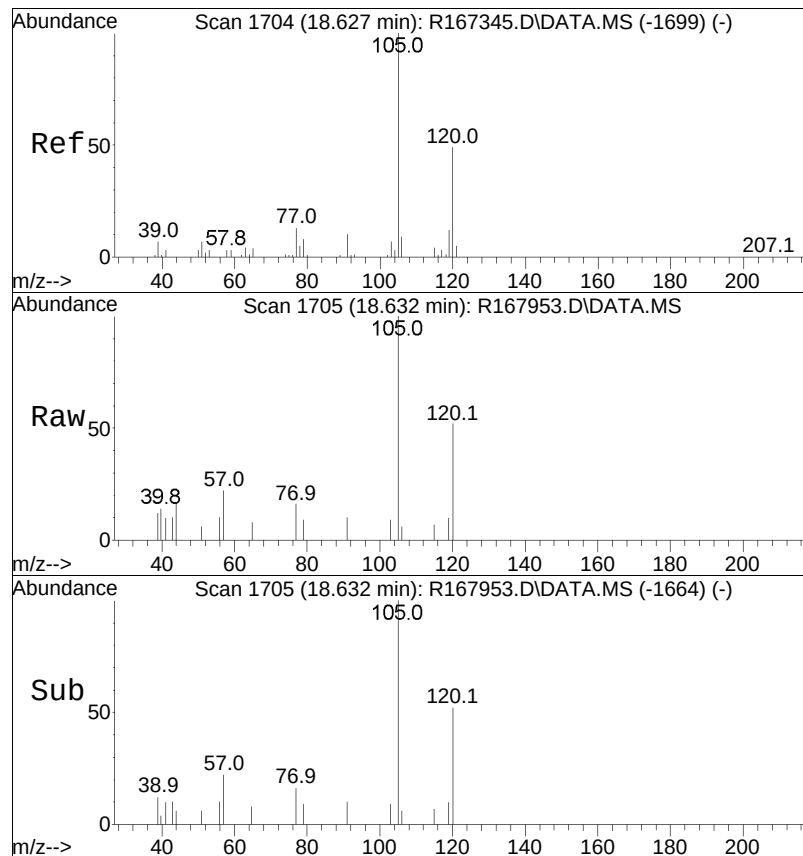




#96
 4-ethyl toluene
 Concen: 0.07 ppbV m
 RT: 18.577 min Scan# 1694
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

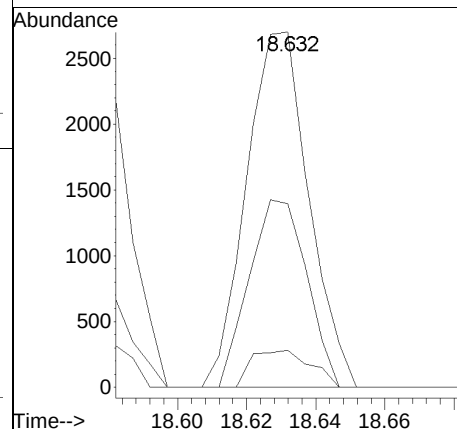
Tgt Ion	Ratio	Lower	Upper
105	100		
120	35.2	23.5	35.3
91	14.6	8.6	12.8

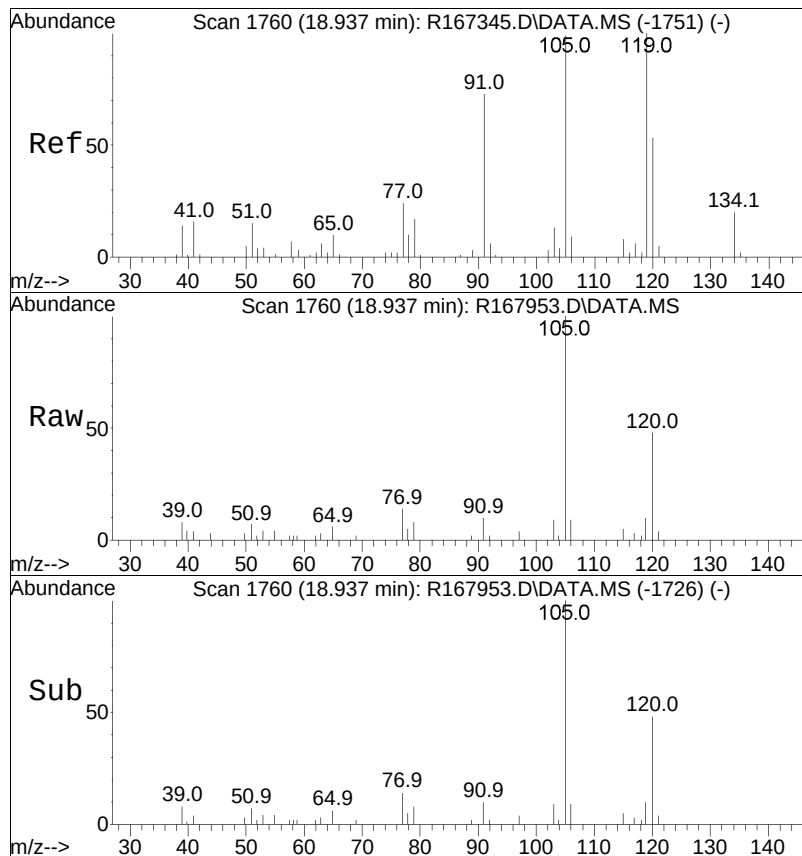




#97
 1,3,5-trimethylbenzene
 Concen: 0.10 ppbV
 RT: 18.632 min Scan# 1705
 Delta R.T. 0.005 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

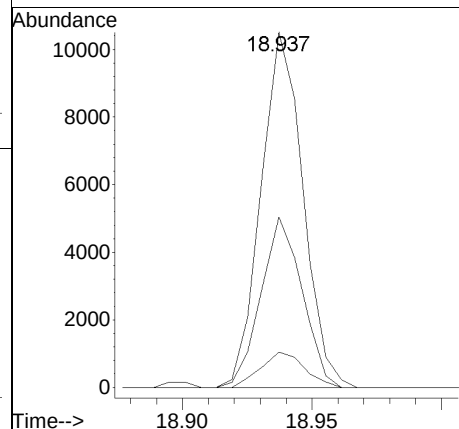
Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.7	38.8	58.2
91	10.4	8.1	12.1





#99
 1,2,4-trimethylbenzene
 Concen: 0.35 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. 0.000 min
 Lab File: R167953.D
 Acq: 10 Aug 2019 12:38 am

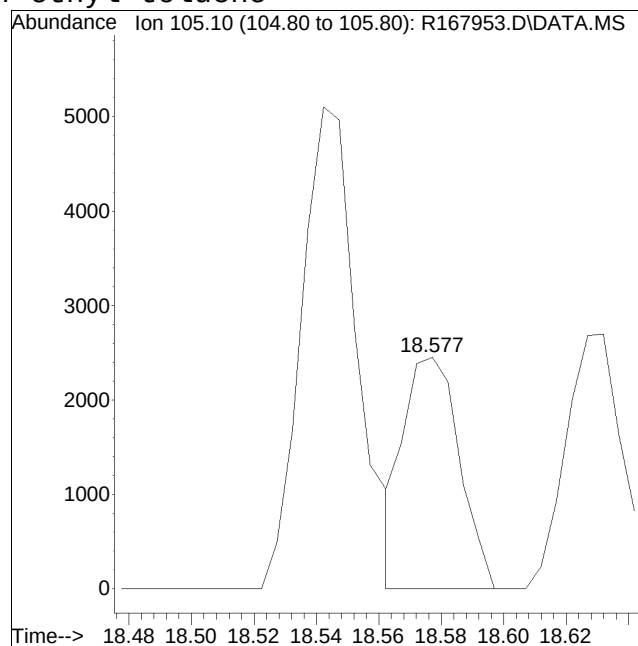
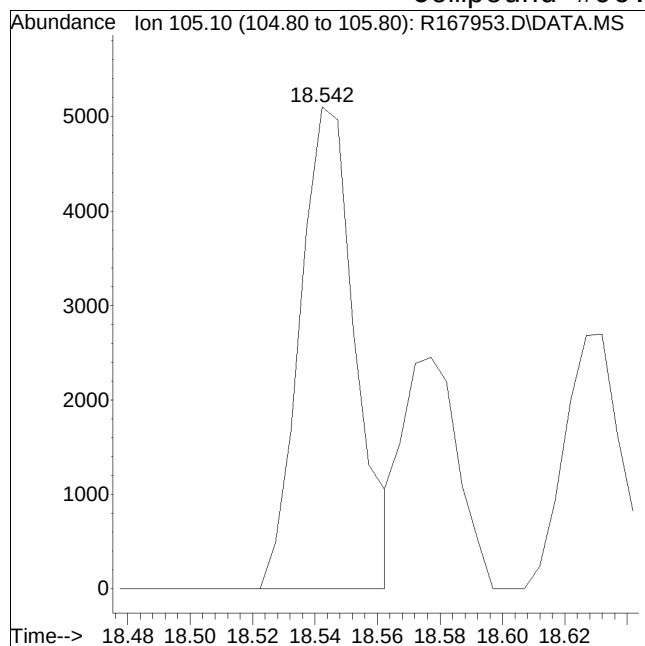
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.0	42.6	63.8
91	9.9	58.7	88.1



Manual Integration Report

Data Path : O:\Forensics\Data\AIR1\2010Method : TFS1_190712.M
Data File : R167953.D Operator : AIRPIAN01:EW
Date Inj'd : 8/10/2019 12:38 am Instrument : Air Piano 1
Sample : L1935043-06D,3,70,250 Quant Date : 8/10/2019 7:58 am

Compound #96: 4-ethyl toluene



Original Peak Response = 6320

Manual Peak Response = 3046 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167954.D
 Acq On : 10 Aug 2019 1:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-07D, 3, 70, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 12 11:10:09 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	118477	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		74.66%	
43) 1,4-difluorobenzene	12.348	114	259714	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		70.87%	
67) chlorobenzene-D5	16.801	54	48035	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		70.64%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	2209	0.146	ppbV	96
6) chloromethane	4.238	50	1369	0.240	ppbV #	87
7) Freon-114	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.590	31	13127	3.631	ppbV	98
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.223	43	183060	15.457	ppbV	96
21) trichlorofluoromethane	6.446	101	1355	0.087	ppbV	85
22) isopropyl alcohol	6.614	45	17887	1.315	ppbV #	97
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	2191	0.246	ppbV	92
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.796	76	7109	0.295	ppbV #	74
31) Freon 113	0.000		0	N.D.	d	
32) trans-1,2-dichloroethene	0.000		0	N.D.		
33) 1,1-dichloroethane	8.904	63	934	0.064	ppbV	97
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.398	43	998281	66.027	ppbV	95
37) cis-1,2-dichloroethene	9.917	61	507	0.043	ppbV	96
38) Ethyl Acetate	10.217	61	9767	2.970	ppbV	63
39) chloroform	10.271	83	32931	1.660	ppbV	99
40) Tetrahydrofuran	10.727	42	463103	49.514	ppbV	94
42) 1,2-dichloroethane	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167954.D
 Acq On : 10 Aug 2019 1:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-07D, 3, 70, 250
 Misc : WG1270780, ICAL15961
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 12 11:10:09 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) hexane	0.000		0	N.D.	d	
48) 1,1,1-trichloroethane	11.404	97	3943	0.252	ppbV	94
50) benzene	11.941	78	1951	0.075	ppbV #	62
52) carbon tetrachloride	0.000		0	N.D.	d	
53) cyclohexane	0.000		0	N.D.	d	
56) 1,2-dichloropropane	12.872	63	746	0.074	ppbV #	76
57) bromodichloromethane	0.000		0	N.D.	d	
58) 1,4-dioxane	0.000		0	N.D.	d	
59) trichloroethene	13.140	130	679141	63.001	ppbV	99
60) 2,2,4-trimethylpentane	0.000		0	N.D.	d	
62) heptane	0.000		0	N.D.	d	
63) cis-1,3-dichloropropene	0.000		0	N.D.	d	
64) 4-methyl-2-pentanone	0.000		0	N.D.	d	
65) trans-1,3-dichloropropene	0.000		0	N.D.	d	
66) 1,1,2-trichloroethane	0.000		0	N.D.	d	
68) toluene	15.188	91	102049	3.350	ppbV	99
72) 2-hexanone	0.000		0	N.D.	d	
74) dibromochloromethane	0.000		0	N.D.	d	
75) 1,2-dibromoethane	0.000		0	N.D.	d	
78) tetrachloroethene	16.261	166	23387	1.757	ppbV	98
80) chlorobenzene	0.000		0	N.D.	d	
81) ethylbenzene	17.134	91	3788	0.098	ppbV	99
83) m+p-xylene	17.268	91	10805	0.365	ppbV	94
84) bromoform	0.000		0	N.D.	d	
85) styrene	17.562	104	1458	0.063	ppbV	89
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d	
87) o-xylene	17.647	91	4976	0.168	ppbV	94
96) 4-ethyl toluene	18.572	105	5564M3	0.126	ppbV	
97) 1,3,5-trimethylbenzene	18.627	105	5611	0.161	ppbV #	96
99) 1,2,4-trimethylbenzene	18.937	105	21051	0.635	ppbV #	54
101) Benzyl Chloride	0.000		0	N.D.	d	
102) 1,3-dichlorobenzene	0.000		0	N.D.	d	
103) 1,4-dichlorobenzene	0.000		0	N.D.	d	
107) 1,2-dichlorobenzene	0.000		0	N.D.	d	
115) 1,2,4-trichlorobenzene	0.000		0	N.D.	d	
119) hexachlorobutadiene	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167954.D
 Acq On : 10 Aug 2019 1:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-07D,3,70,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 12 11:10:09 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

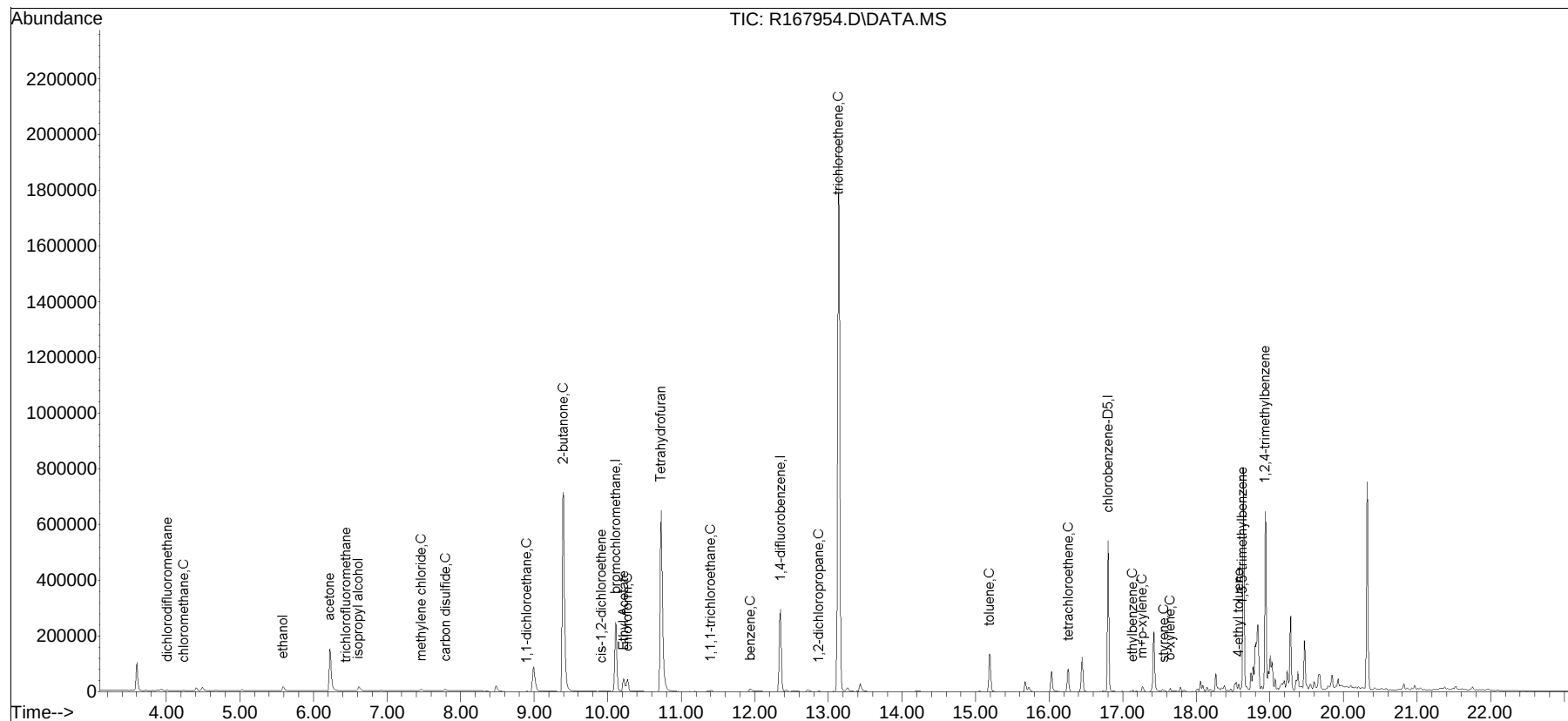
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY - .

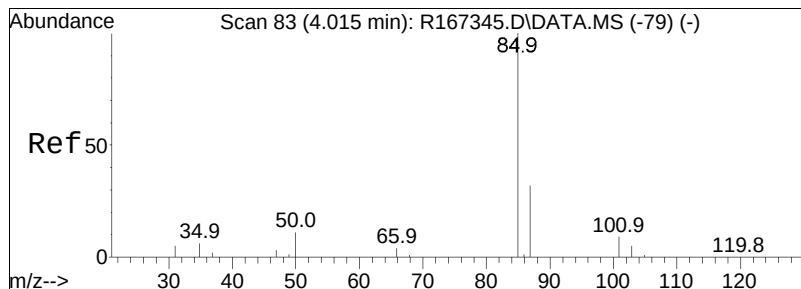
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Sub List : T015-NY - .s\Data\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167954.D
Acq On : 10 Aug 2019 1:08 am
Operator : AIRPIAN01:EW
Sample : L1935043-07D,3,70,250
Misc : WG1270780,ICAL15961
ALS Vial : 13 Sample Multiplier: 1

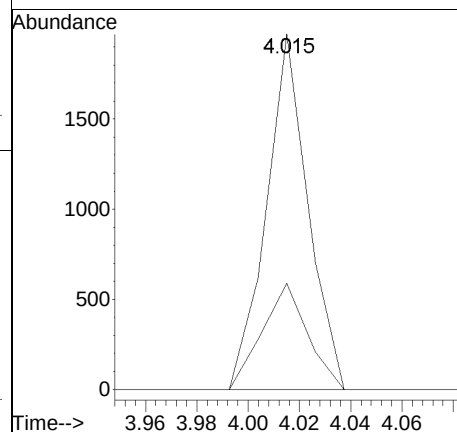
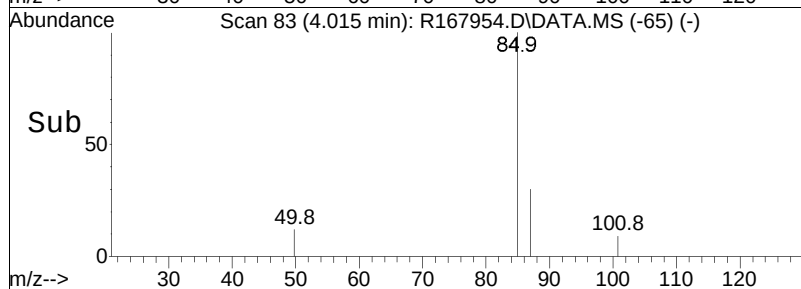
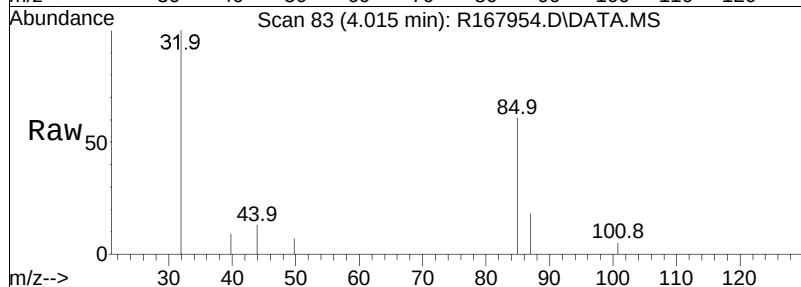
Quant Time: Aug 12 11:10:09 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

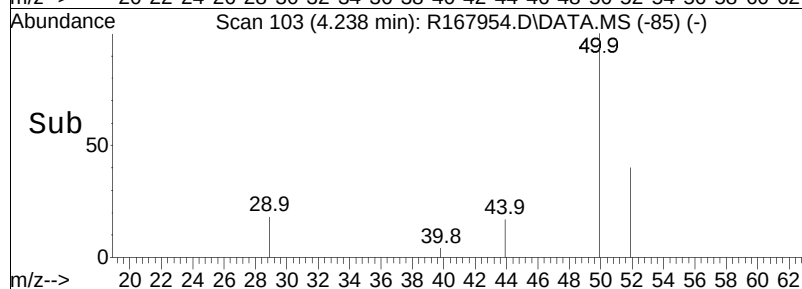
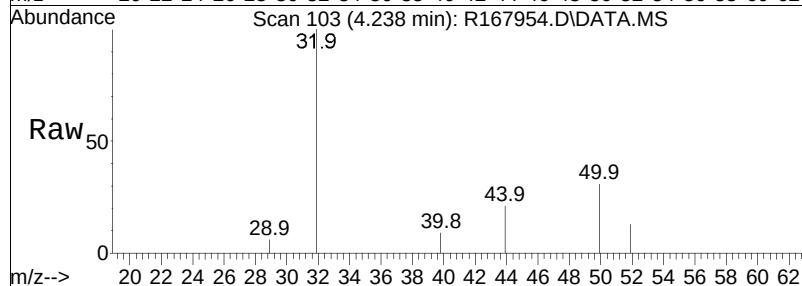
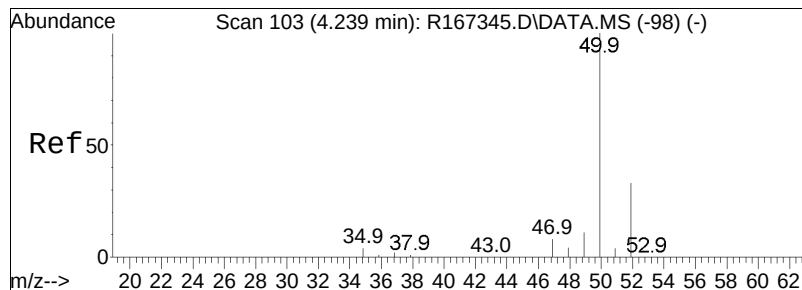




#5
dichlorodifluoromethane
Concen: 0.15 ppbV
RT: 4.015 min Scan# 83
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

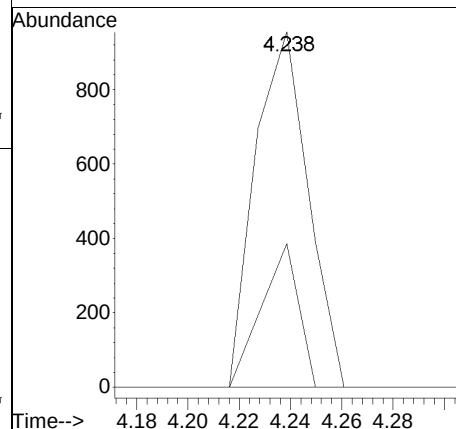
Tgt Ion: 85 Resp: 2209
Ion Ratio Lower Upper
85 100
87 29.9 25.7 38.5

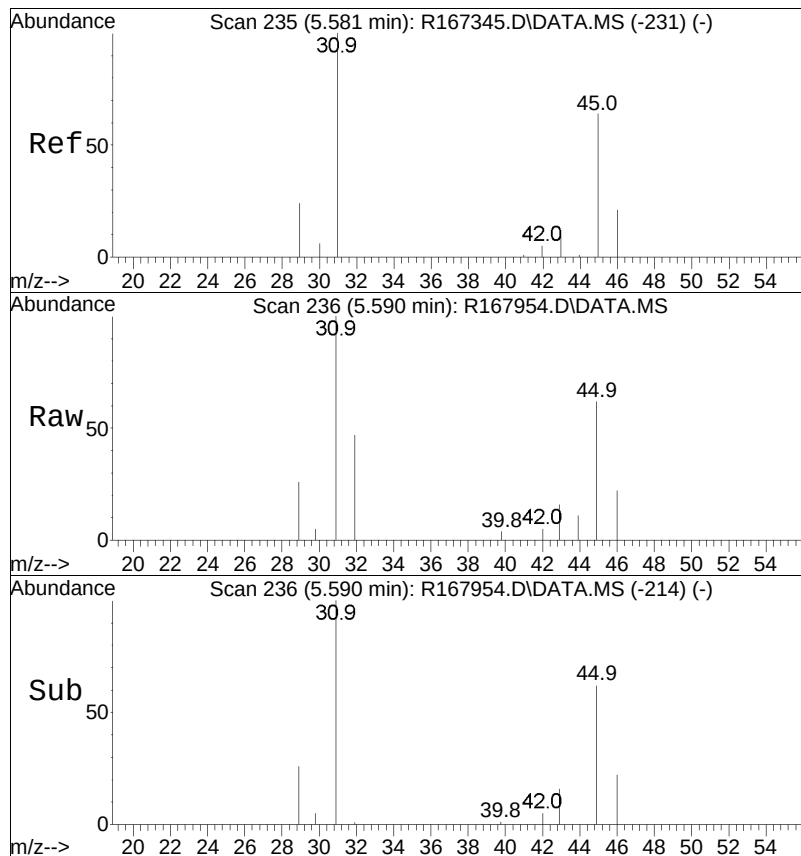




#6
 chloromethane
 Concen: 0.24 ppbV
 RT: 4.238 min Scan# 103
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

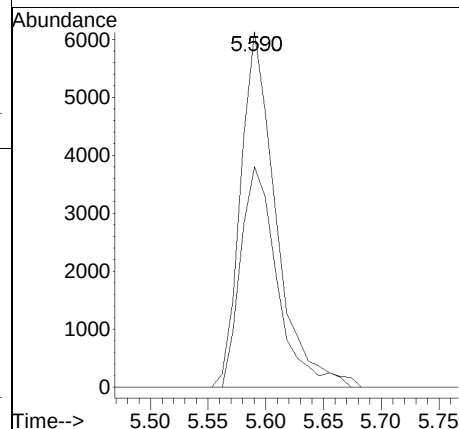
Tgt Ion	Ratio	Lower	Upper
50	100		
52	40.4	26.3	39.5#

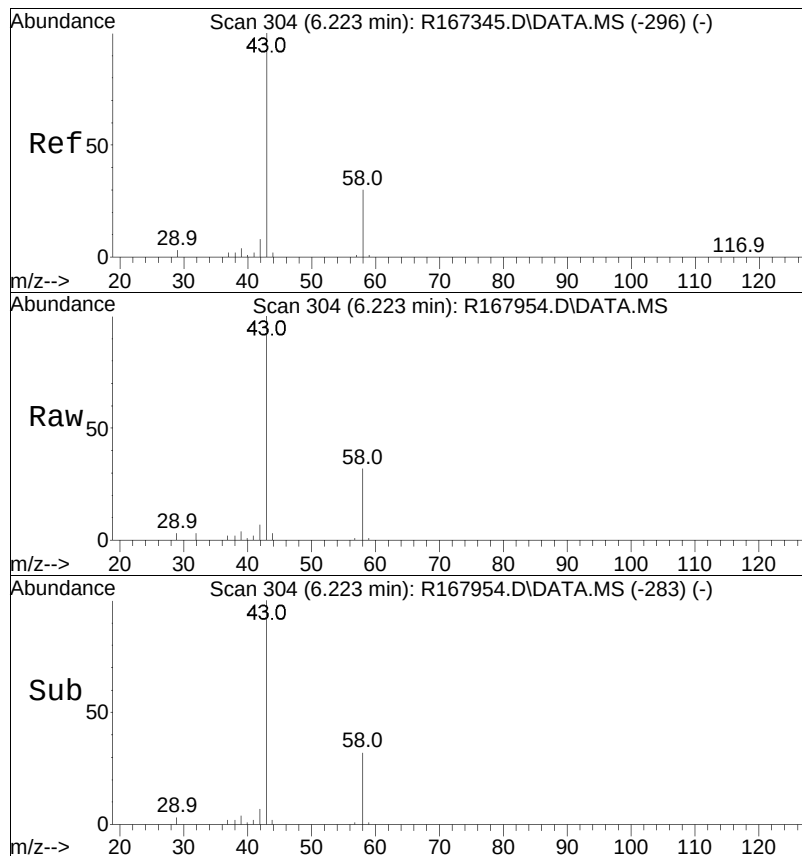




#15
 ethanol
 Concen: 3.63 ppbV
 RT: 5.590 min Scan# 236
 Delta R.T. 0.009 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

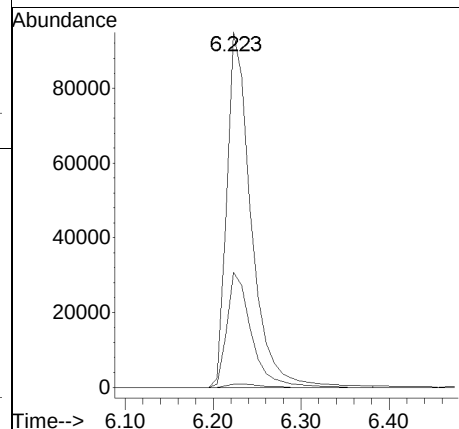
Tgt Ion	Ratio	Lower	Upper
31	100		
45	62.1	50.8	76.2

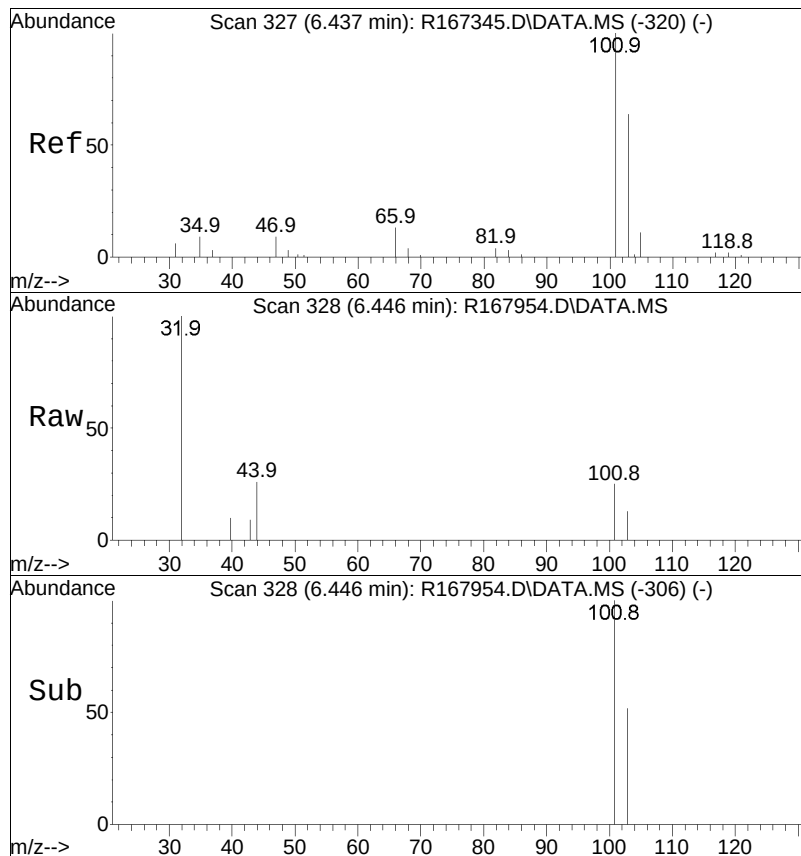




#19
acetone
Concen: 15.46 ppbV
RT: 6.223 min Scan# 304
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

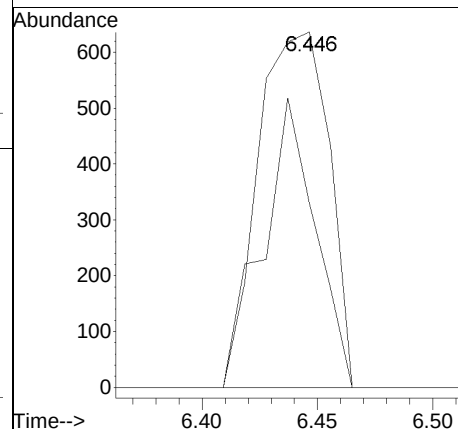
Tgt	Ion	Ratio	Resp	Lower	Upper
43	100		183060		
58	32.4			24.2	36.2
57	0.9			0.8	1.2

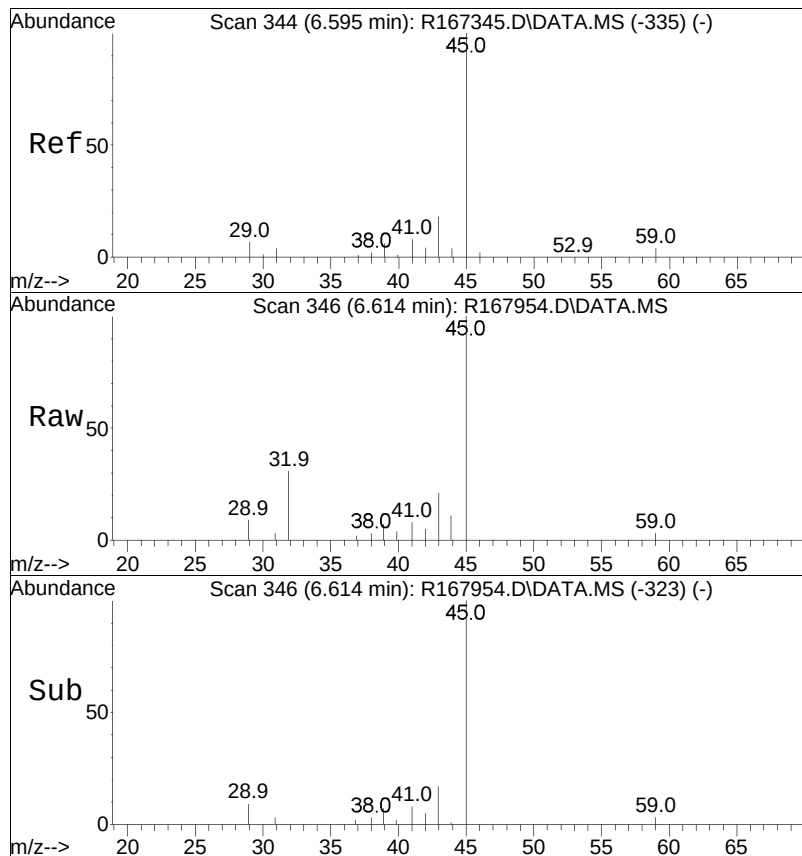




#21
trichlorofluoromethane
Concen: 0.09 ppbV
RT: 6.446 min Scan# 328
Delta R.T. 0.009 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

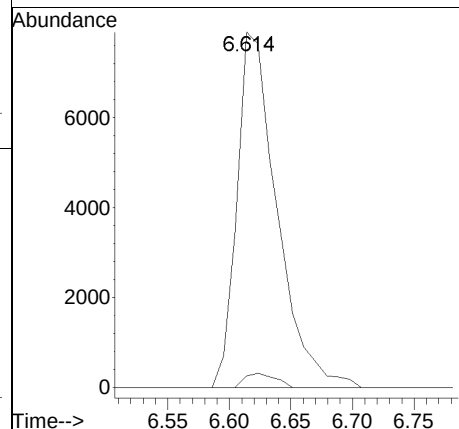
Tgt Ion	Ratio	Lower	Upper
101	100		
103	52.0	51.1	76.7

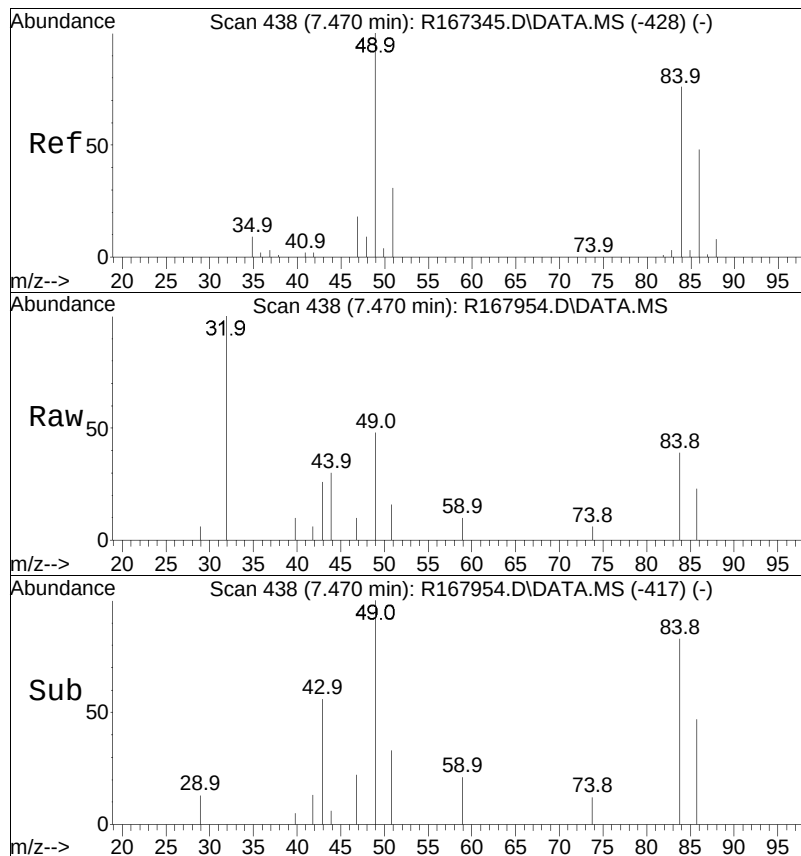




#22
 isopropyl alcohol
 Concen: 1.31 ppbV
 RT: 6.614 min Scan# 346
 Delta R.T. 0.019 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

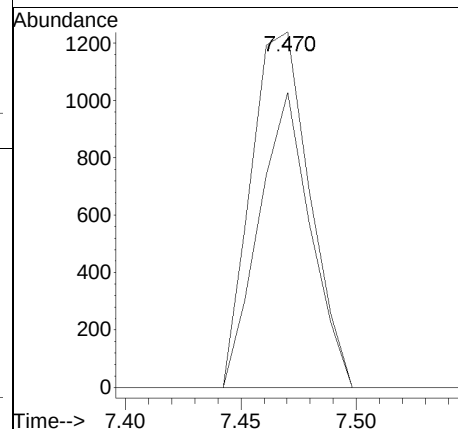
Tgt Ion	Ratio	Lower	Upper
45	100		
59	3.2	3.4	5.0#

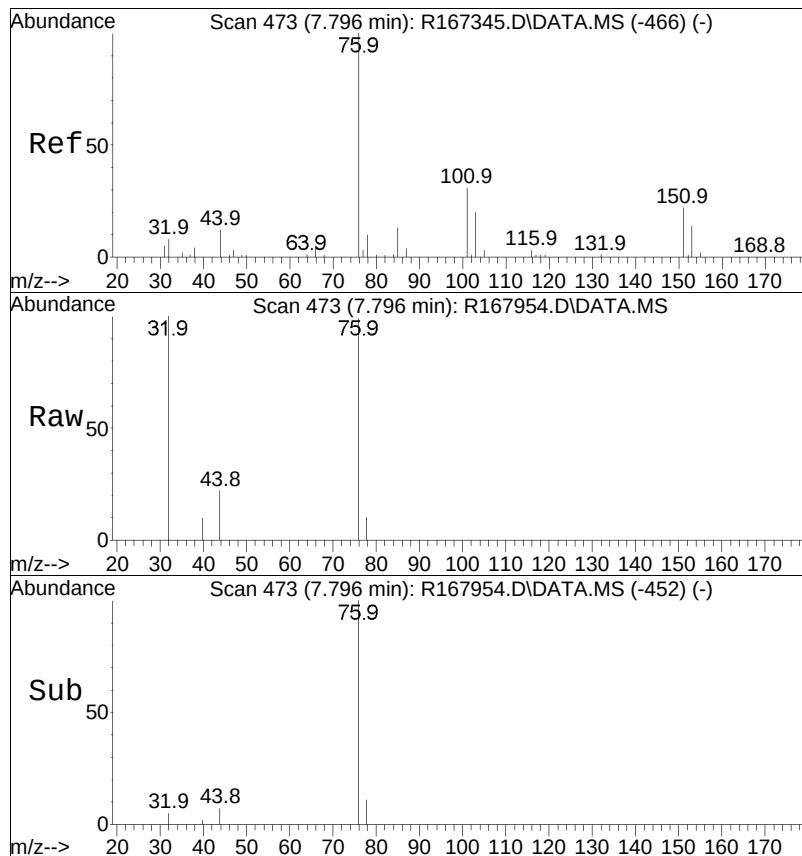




#28
 methylene chloride
 Concen: 0.25 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

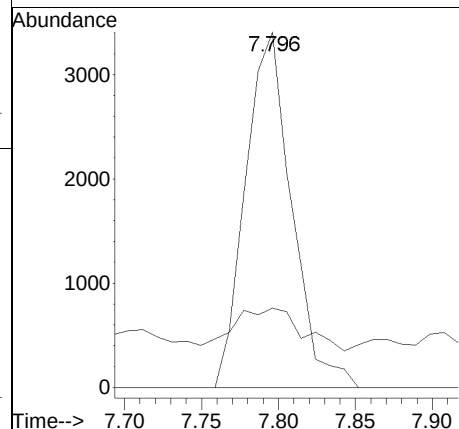
Tgt Ion	Ratio	Lower	Upper
49	100		
84	83.0	60.6	91.0

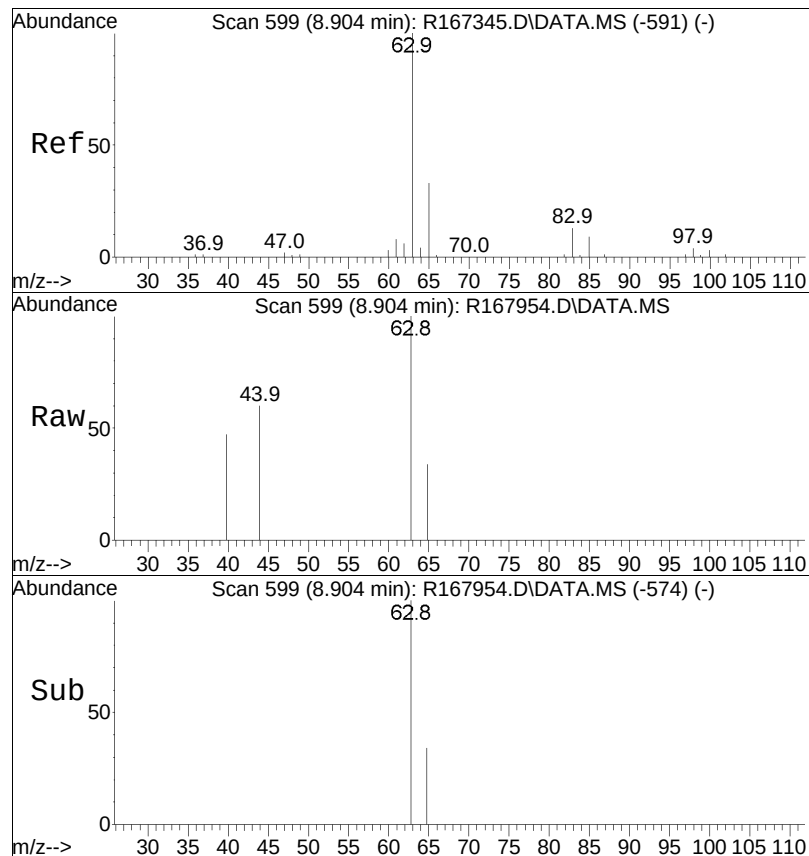




#30
carbon disulfide
Concen: 0.29 ppbV
RT: 7.796 min Scan# 473
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

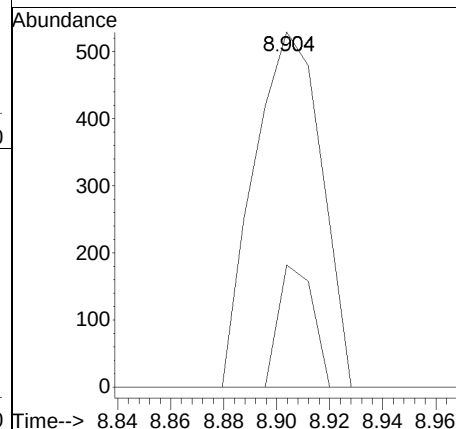
Tgt Ion	Ratio	Lower	Upper
76	100		
44	22.3	9.8	14.8#

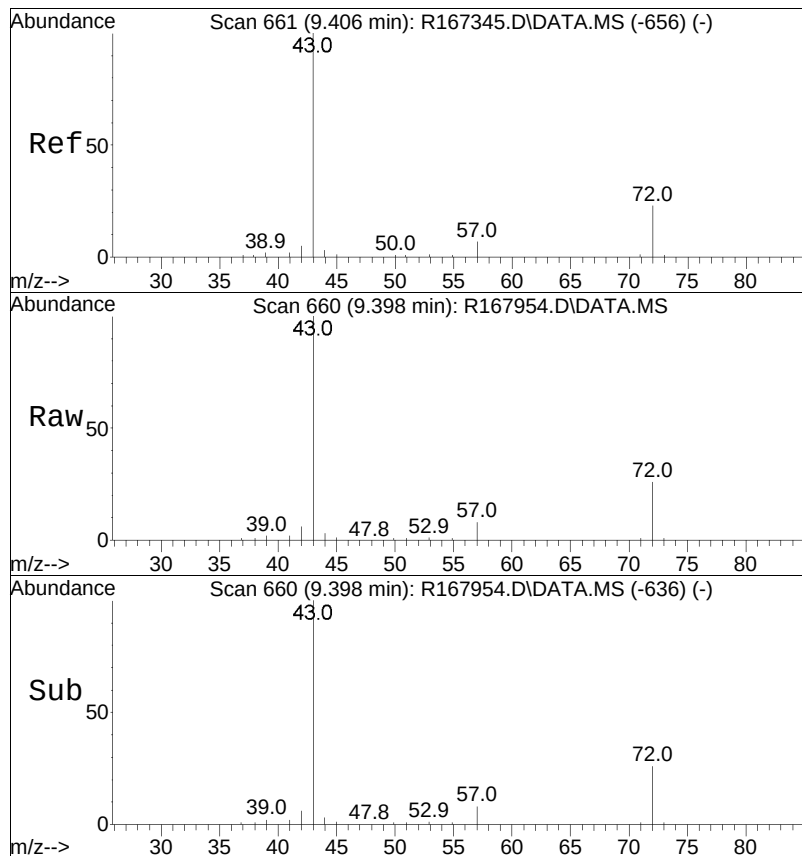




#33
 1,1-dichloroethane
 Concen: 0.06 ppbV
 RT: 8.904 min Scan# 599
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

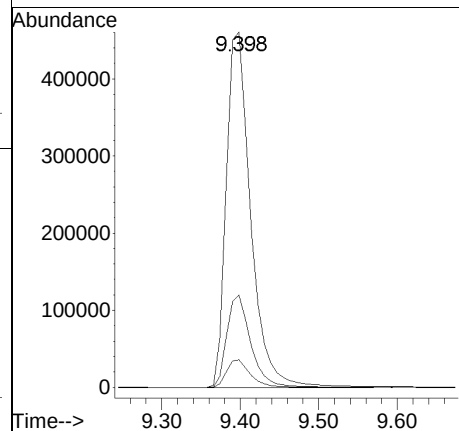
Tgt	Ion	Ratio	Lower	Upper
63	100			
65	34.4	26.0	39.0	

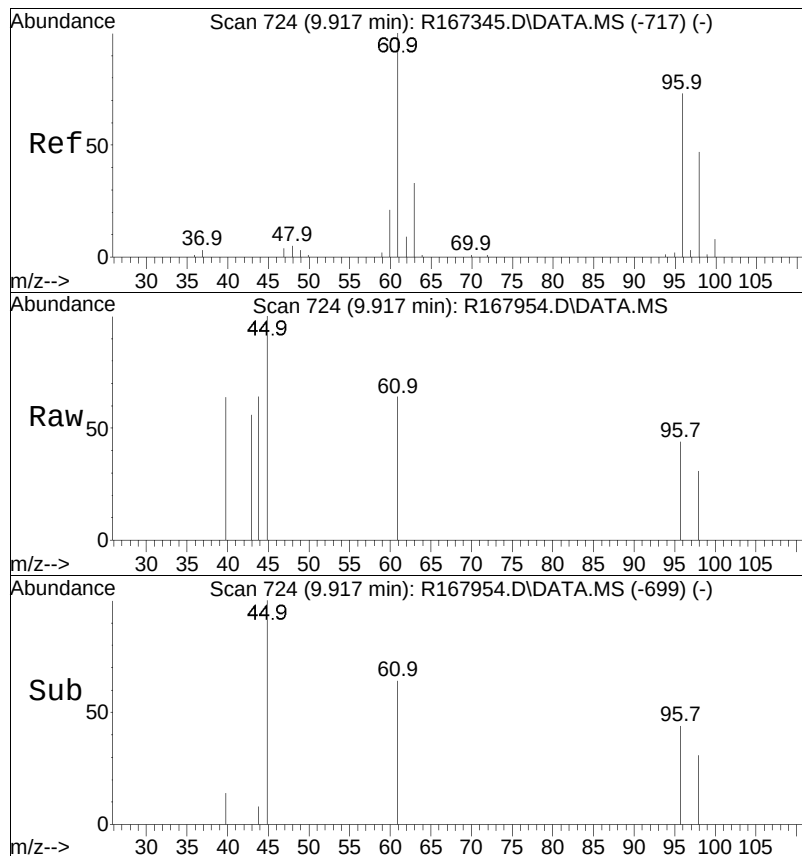




#36
 2-butanone
 Concen: 66.03 ppbV
 RT: 9.398 min Scan# 660
 Delta R.T. -0.008 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

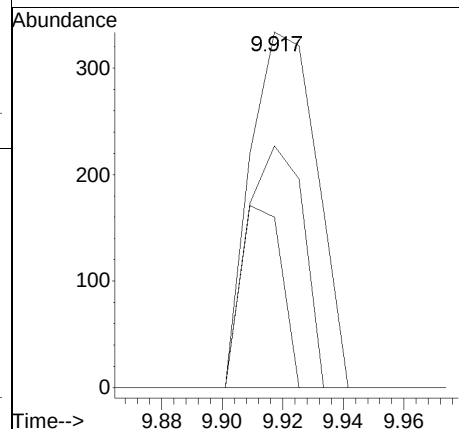
Tgt Ion:	43	Resp:	998281
Ion Ratio	Lower	Upper	
43	100		
72	26.0	18.7	28.1
57	7.8	5.6	8.4

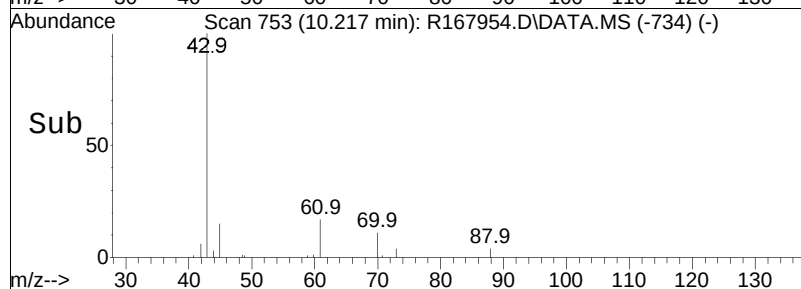
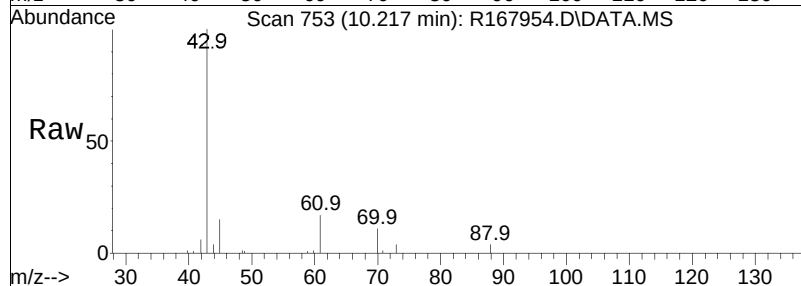
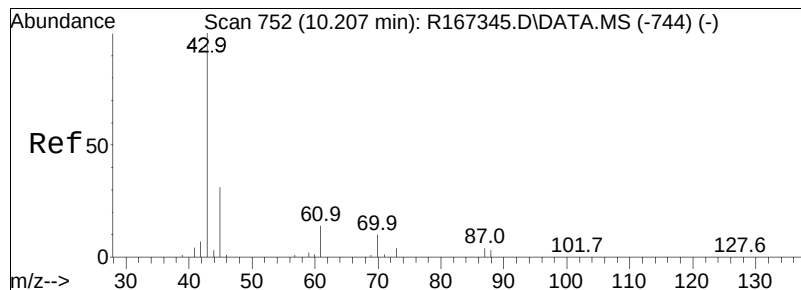




#37
 cis-1,2-dichloroethene
 Concen: 0.04 ppbV
 RT: 9.917 min Scan# 724
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

Tgt	Ion: 61	Resp:	507
Ion	Ratio	Lower	Upper
61	100		
96	68.0	58.0	87.0
98	47.9	37.6	56.4





#38

Ethyl Acetate

Concen: 2.97 ppbV

RT: 10.217 min Scan# 753

Delta R.T. 0.011 min

Lab File: R167954.D

Acq: 10 Aug 2019 1:08 am

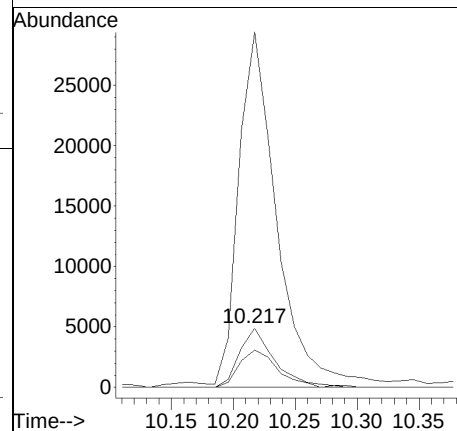
Tgt Ion: 61 Resp: 9767

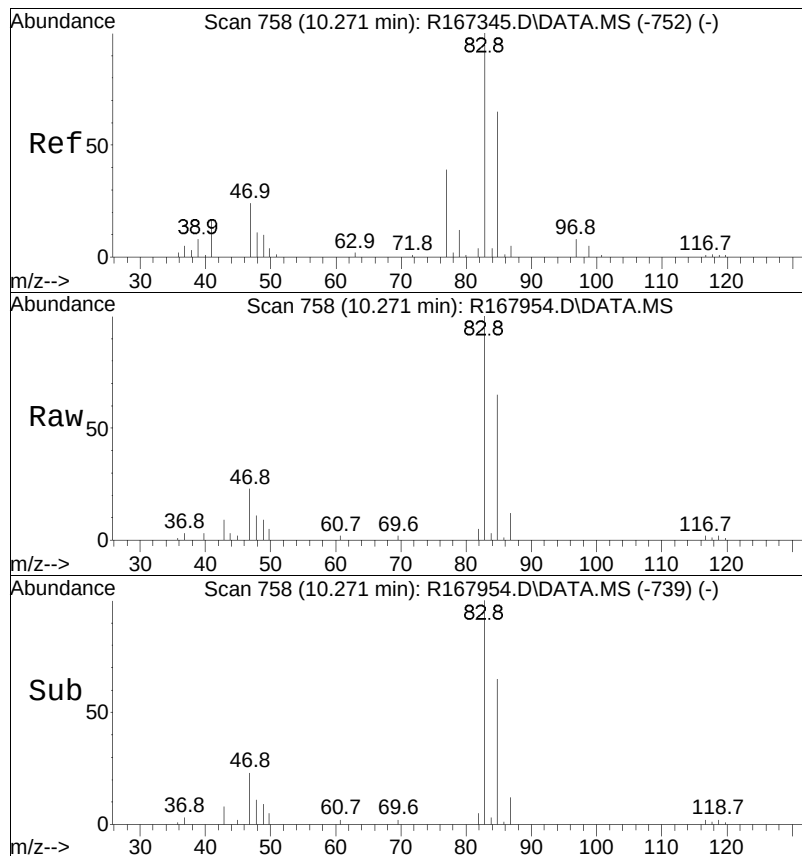
Ion Ratio Lower Upper

61 100

70 63.2 61.5 92.3

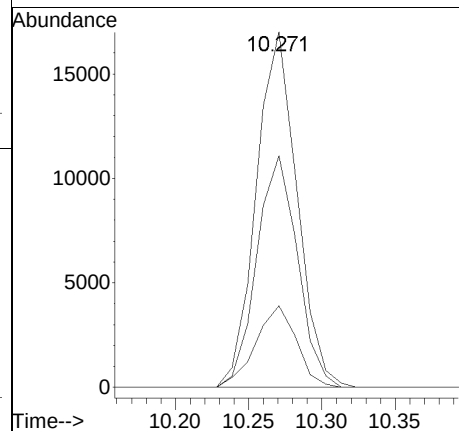
43 600.4 594.1 891.1

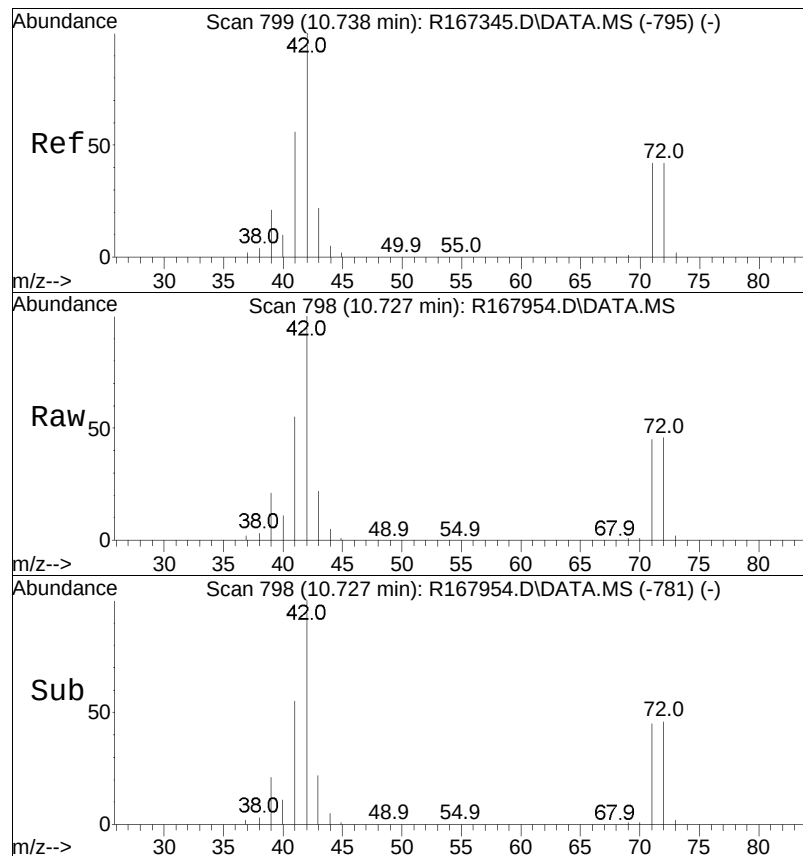




#39
chloroform
Concen: 1.66 ppbV
RT: 10.271 min Scan# 758
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

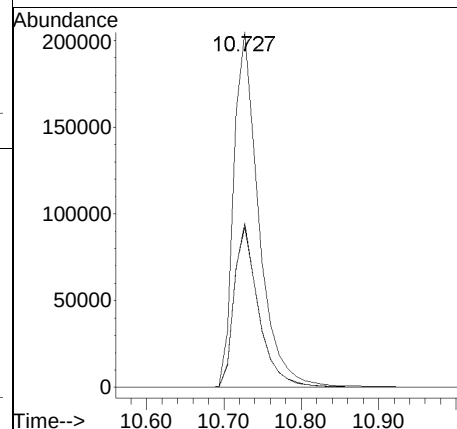
Tgt	Ion	Ratio	Lower	Upper
83	100			
85	65.2	52.2	78.2	
47	23.0	19.1	28.7	

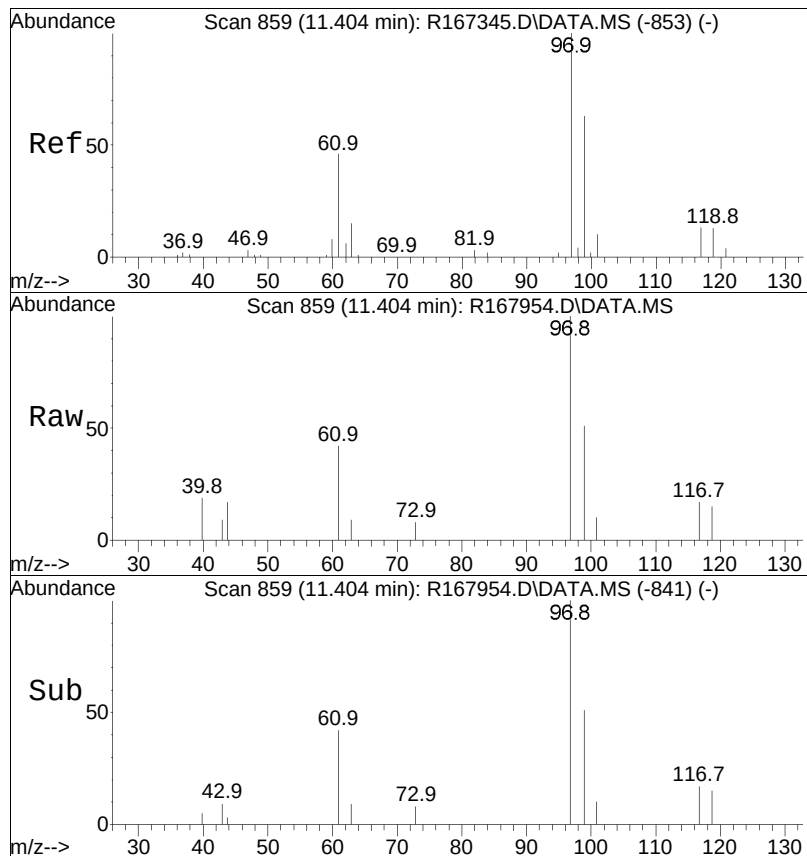




#40
Tetrahydrofuran
Concen: 49.51 ppbV
RT: 10.727 min Scan# 798
Delta R.T. -0.011 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

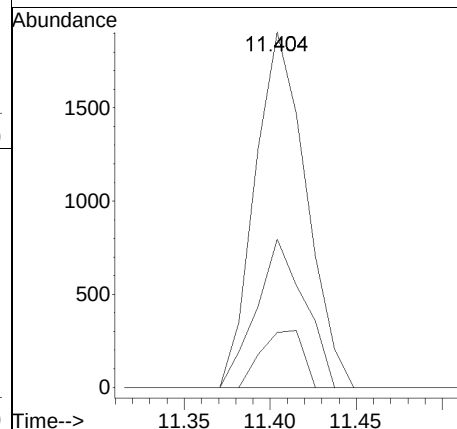
Tgt Ion	Ratio	Lower	Upper
42	100		
71	45.1	33.5	50.3
72	46.2	33.3	49.9

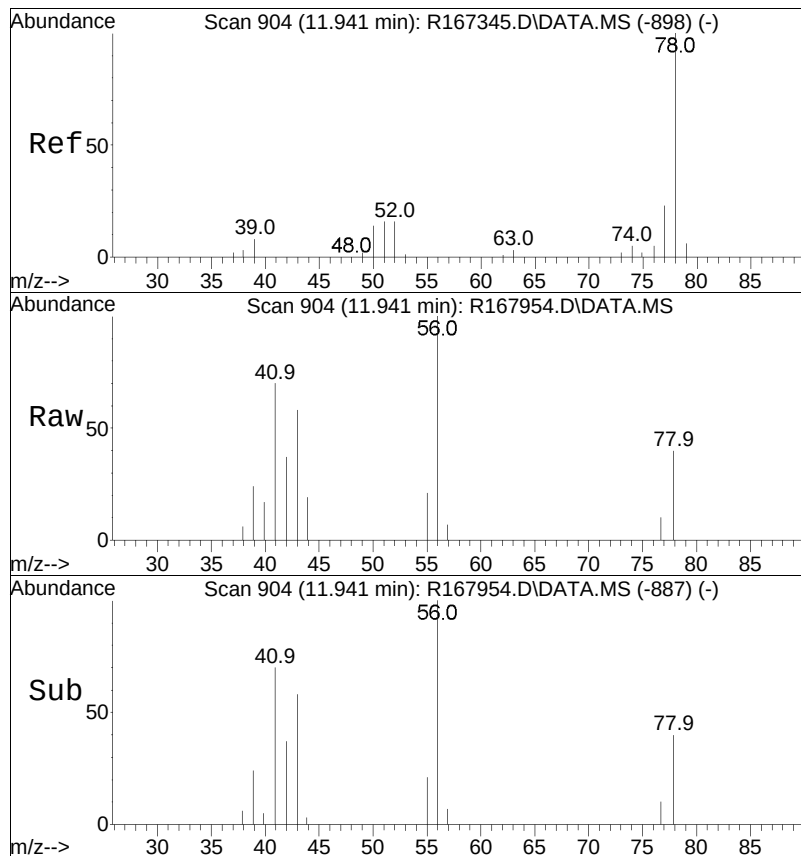




#48
 1,1,1-trichloroethane
 Concen: 0.25 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

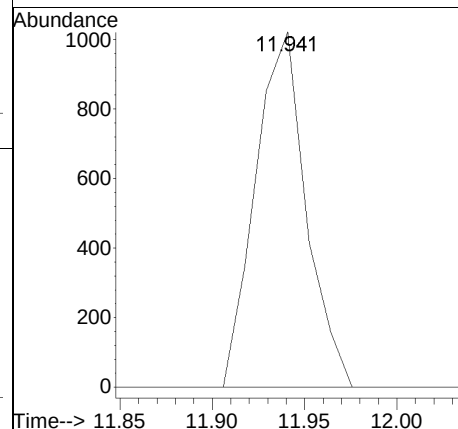
Tgt Ion	Ratio	Lower	Upper
97	100		
61	41.7	36.6	55.0
119	15.5	10.6	16.0

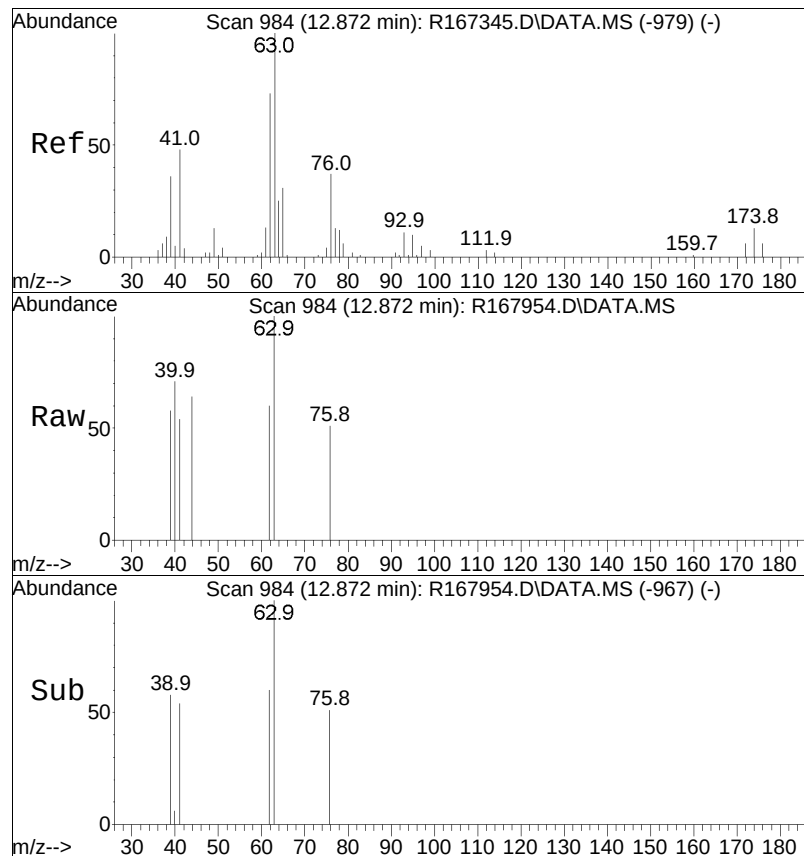




#50
benzene
Concen: 0.08 ppbV
RT: 11.941 min Scan# 904
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

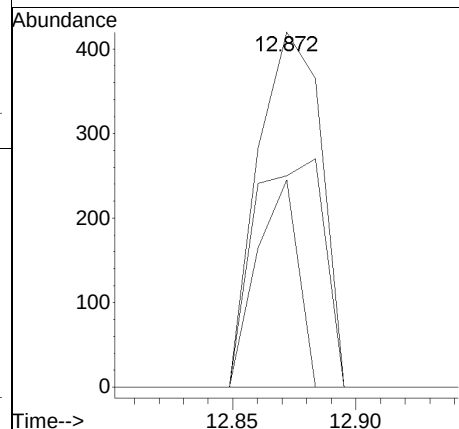
Tgt Ion	Ratio	Lower	Upper
78	100		
52	0.0	13.0	19.4#

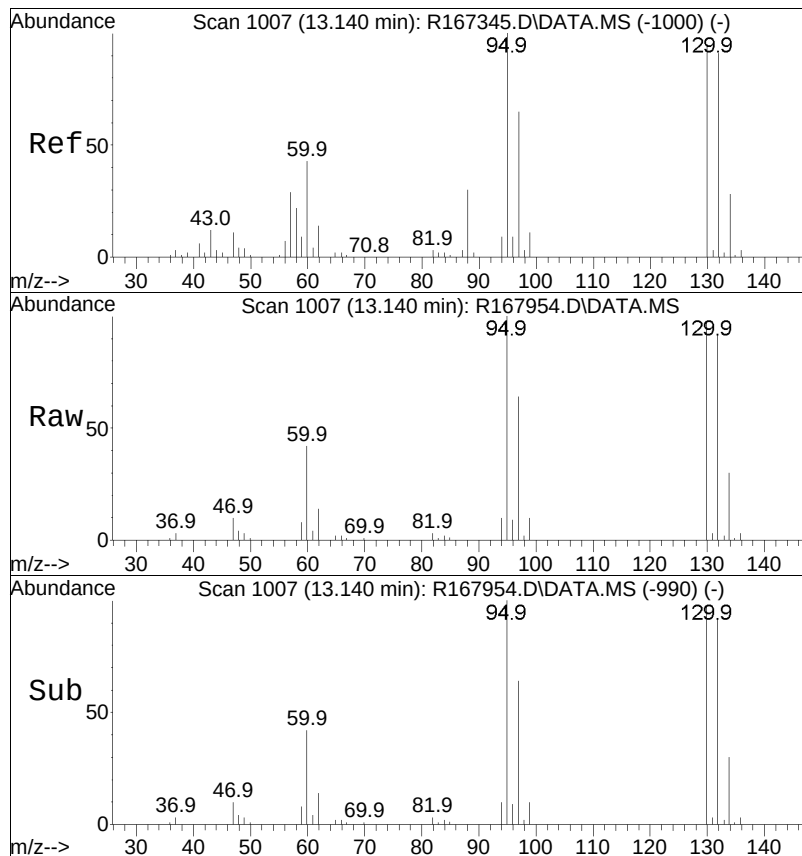




#56
 1,2-dichloropropane
 Concen: 0.07 ppbV
 RT: 12.872 min Scan# 984
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

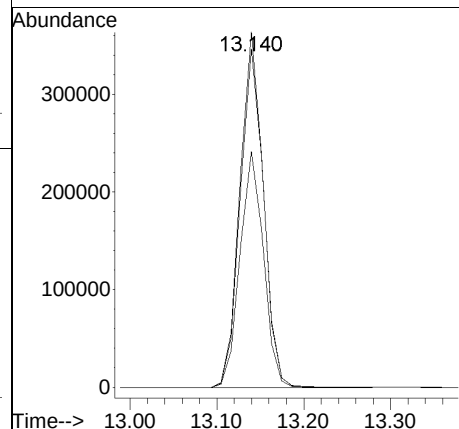
Tgt	Ion: 63	Resp:	746
Ion	Ratio	Lower	Upper
63	100		
62	59.5	58.4	87.6
39	58.3	28.4	42.6#

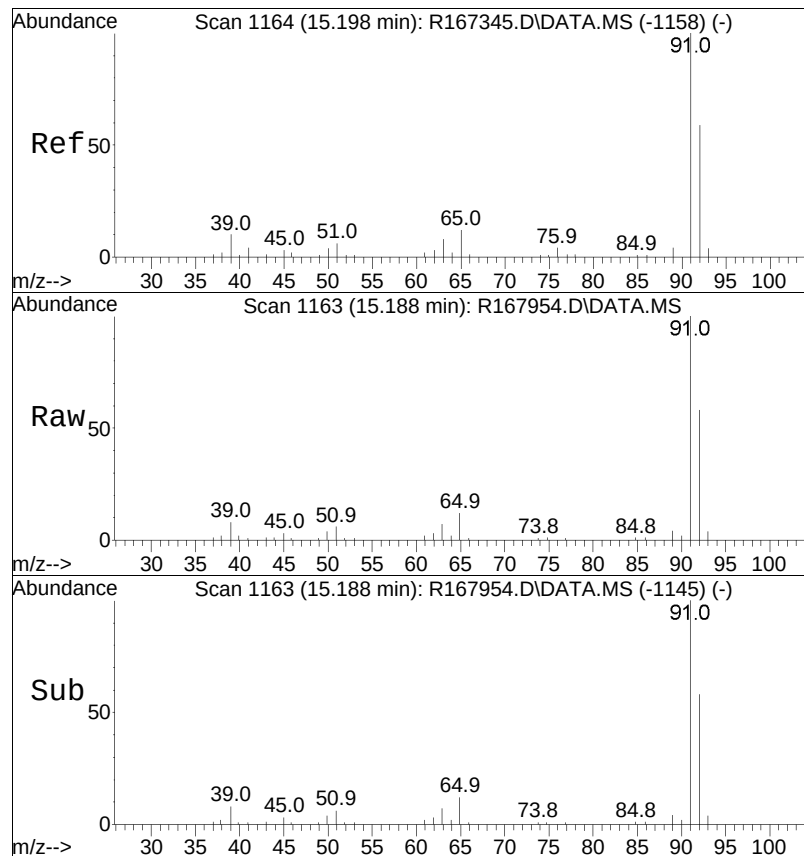




#59
 trichloroethene
 Concen: 63.00 ppbV
 RT: 13.140 min Scan# 1007
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

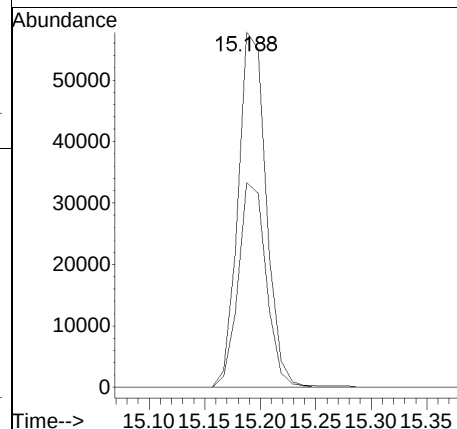
Tgt	Ion	Ratio	Resp	Lower	Upper
130	100		679141		
132	95.3	76.3	114.5		
97	66.4	54.5	81.7		

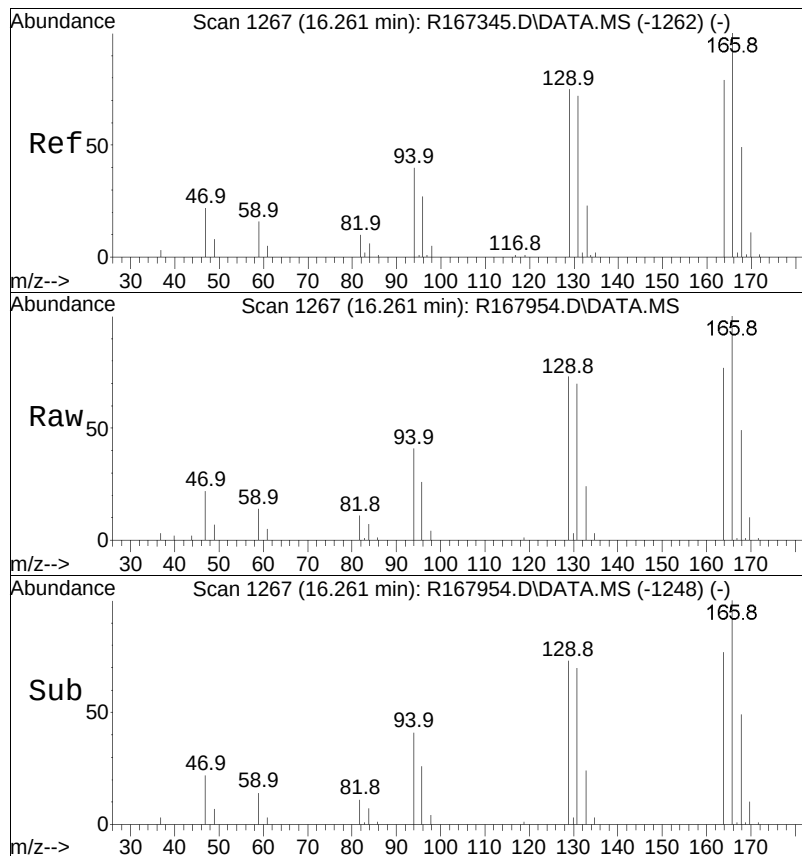




#68
 toluene
 Concen: 3.35 ppbV
 RT: 15.188 min Scan# 1163
 Delta R.T. -0.010 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

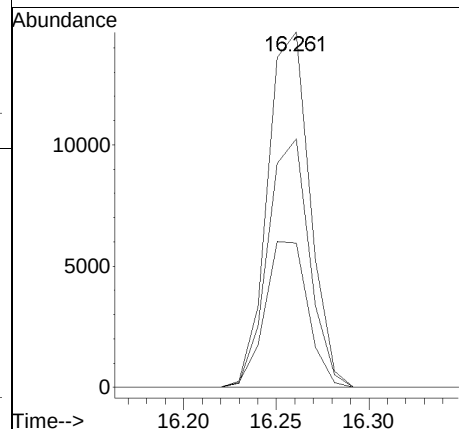
Tgt Ion	Ratio	Lower	Upper
91	100		
92	57.6	46.8	70.2

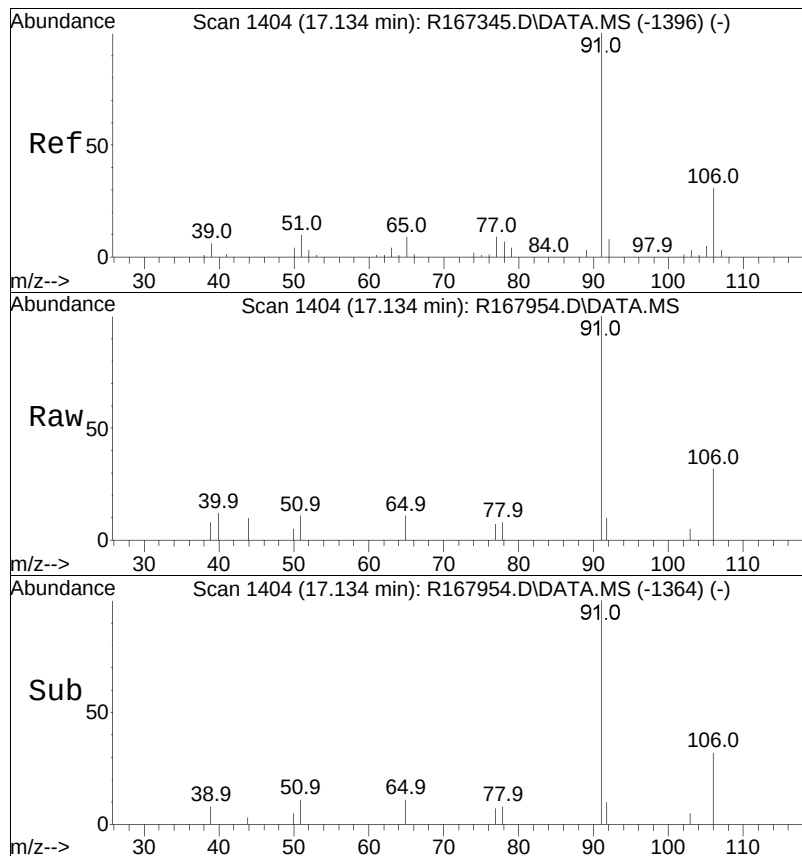




#78
 tetrachloroethene
 Concen: 1.76 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

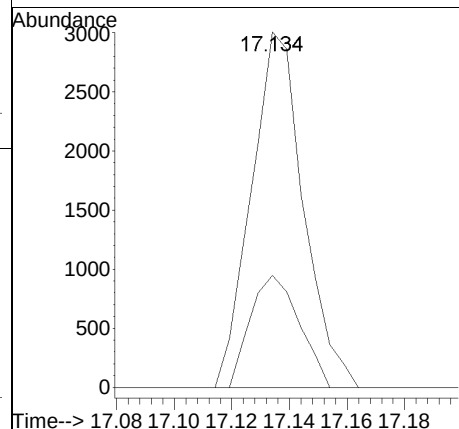
Tgt	Ion:166	Resp:	23387
Ion	Ratio	Lower	Upper
166	100		
131	69.9	57.8	86.8
94	40.6	32.1	48.1

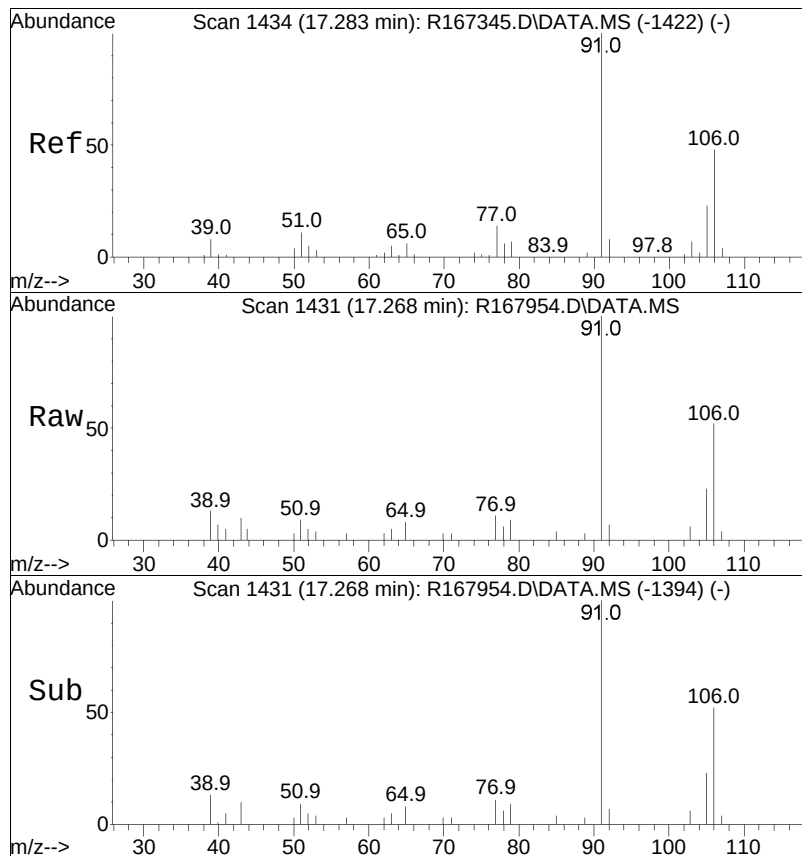




#81
ethylbenzene
Concen: 0.10 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

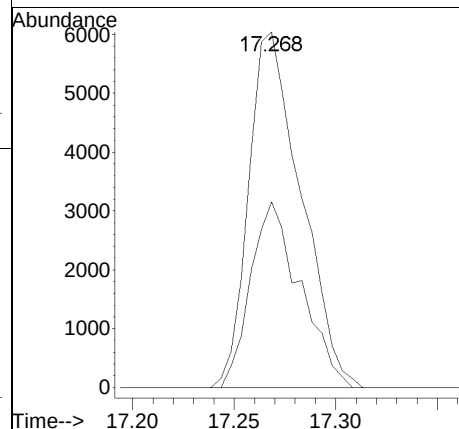
Tgt Ion	Ion	Ratio	Lower	Upper
91	100			
106	31.5	24.6	37.0	

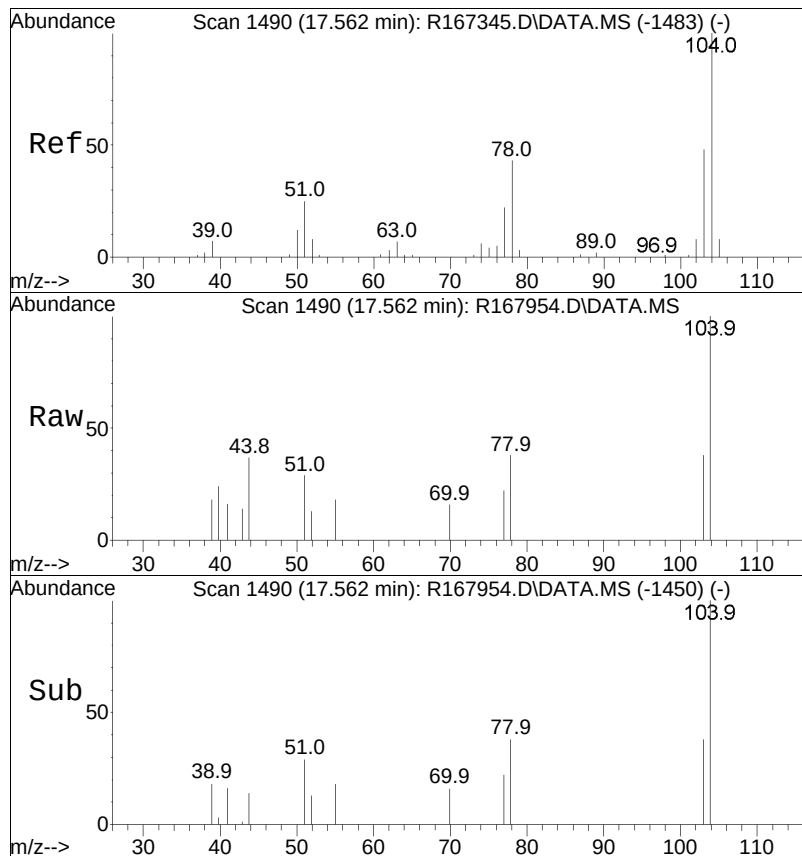




#83
 m+p-xylene
 Concen: 0.37 ppbV
 RT: 17.268 min Scan# 1431
 Delta R.T. -0.015 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

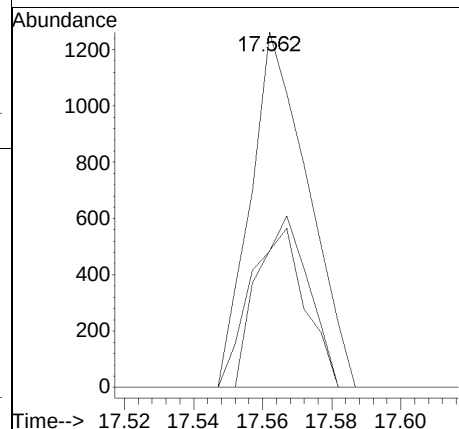
Tgt Ion: 91 Resp: 10805
 Ion Ratio Lower Upper
 91 100
 106 52.2 38.7 58.1

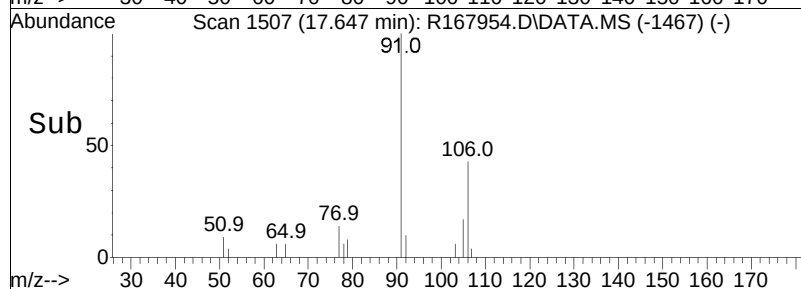
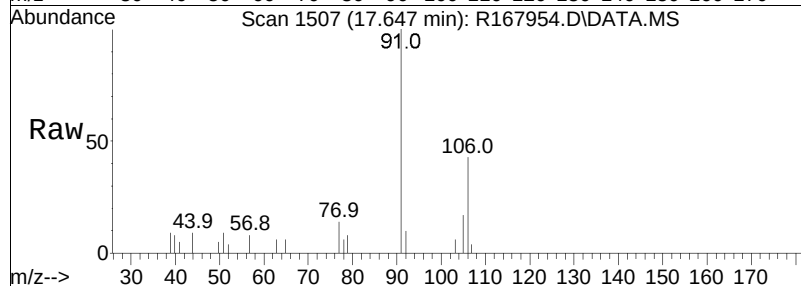
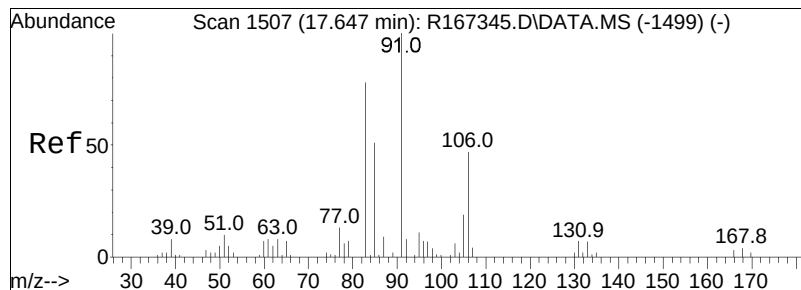




#85
styrene
Concen: 0.06 ppbV
RT: 17.562 min Scan# 1490
Delta R.T. -0.000 min
Lab File: R167954.D
Acq: 10 Aug 2019 1:08 am

Tgt Ion	Ratio	Lower	Upper
104	100		
103	38.3	38.3	57.5
78	38.5	34.5	51.7





#87

o-xylene

Concen: 0.17 ppbV

RT: 17.647 min Scan# 1507

Delta R.T. -0.000 min

Lab File: R167954.D

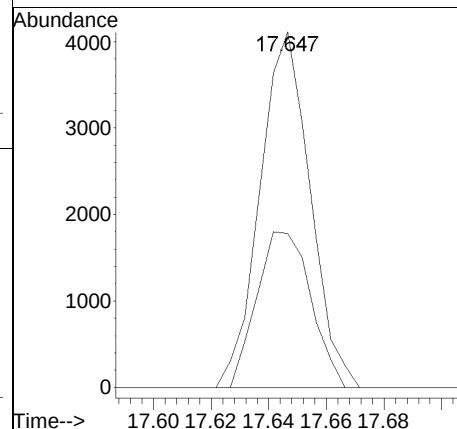
Acq: 10 Aug 2019 1:08 am

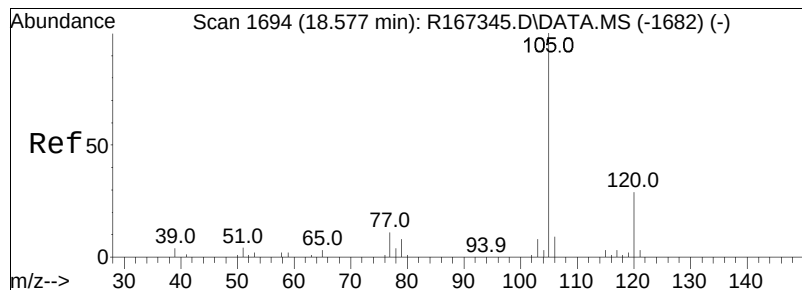
Tgt Ion: 91 Resp: 4976

Ion Ratio Lower Upper

91 100

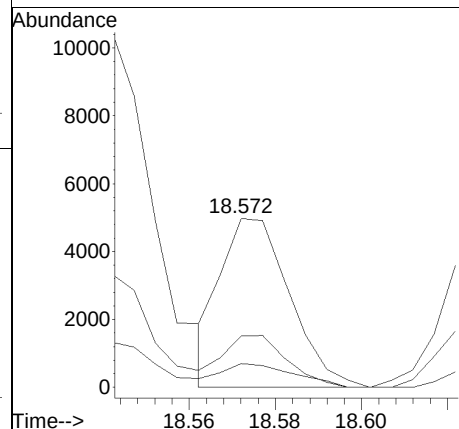
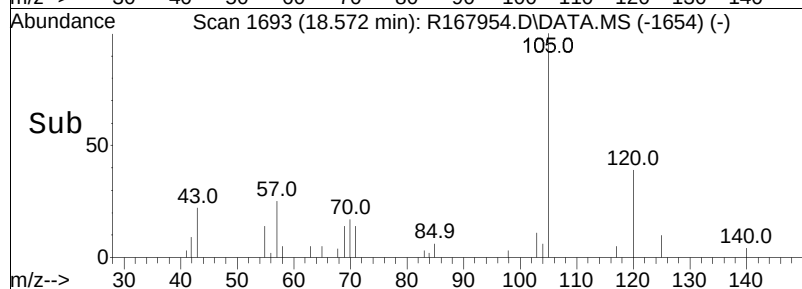
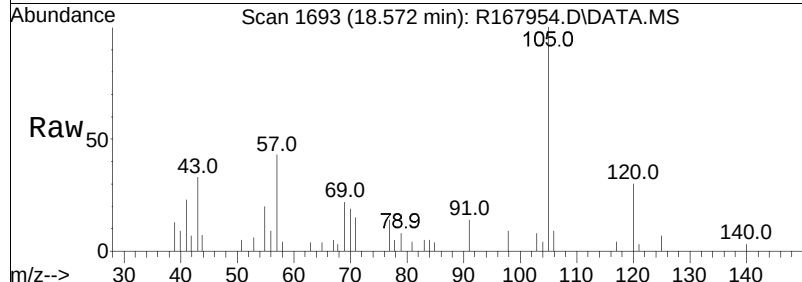
106 43.3 37.9 56.9

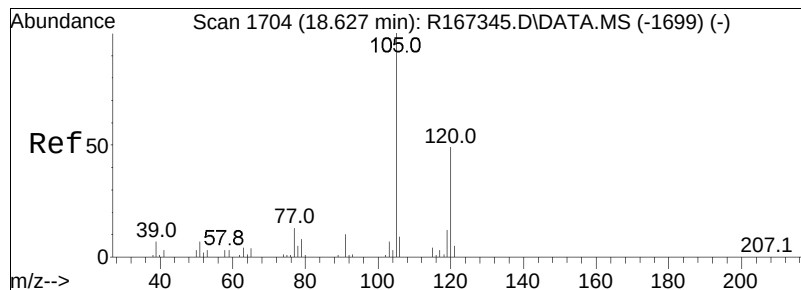




#96
 4-ethyl toluene
 Concen: 0.13 ppbV m
 RT: 18.572 min Scan# 1693
 Delta R.T. -0.005 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	30.4	23.5	35.3
91	14.1	8.6	12.8





#97

1,3,5-trimethylbenzene

Concen: 0.16 ppbV

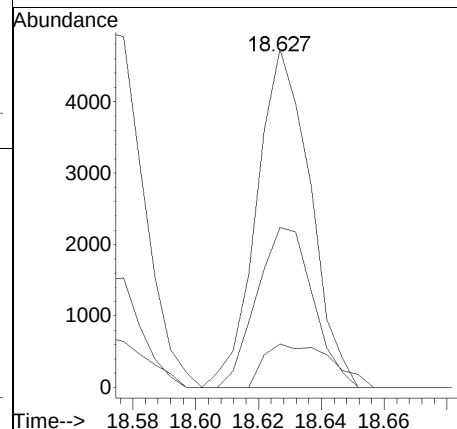
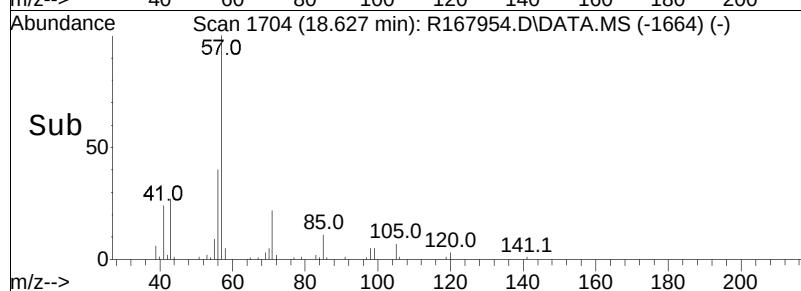
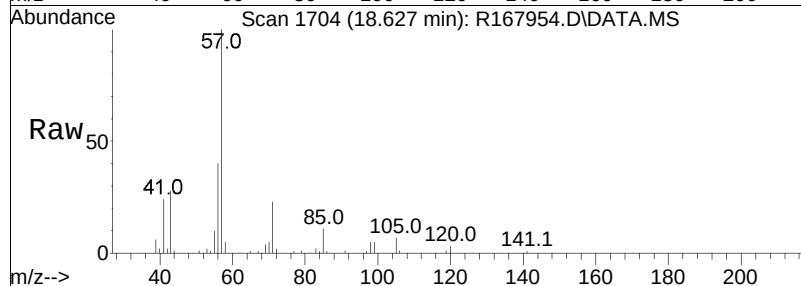
RT: 18.627 min Scan# 1704

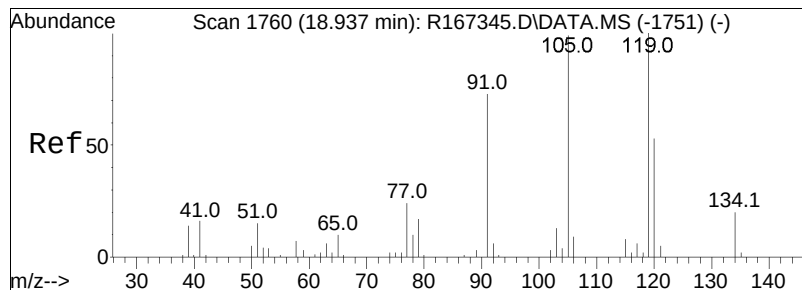
Delta R.T. -0.000 min

Lab File: R167954.D

Acq: 10 Aug 2019 1:08 am

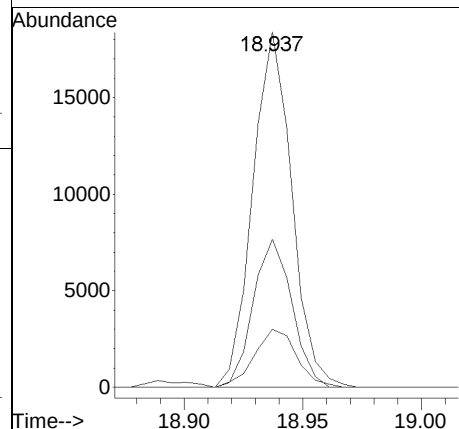
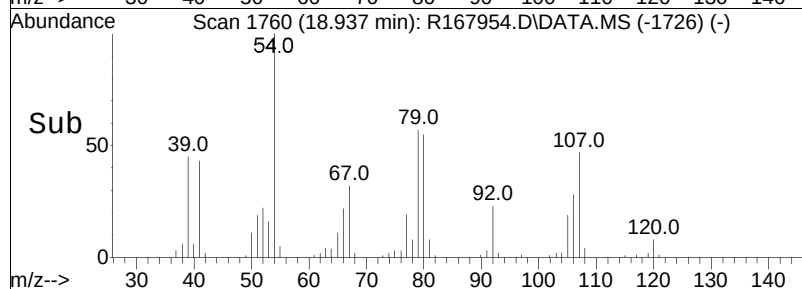
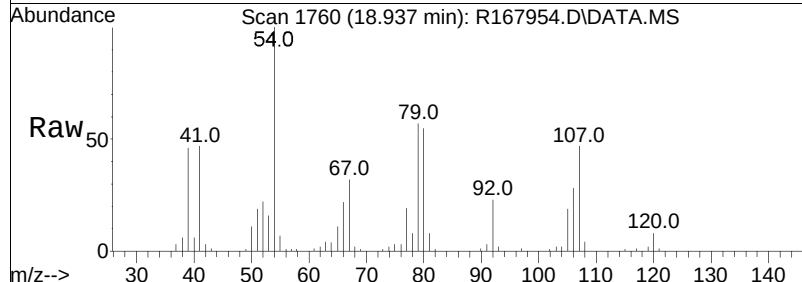
Tgt	Ion:105	Resp:	5611
Ion	Ratio	Lower	Upper
105	100		
120	47.3	38.8	58.2
91	16.2	8.1	12.1#





#99
 1,2,4-trimethylbenzene
 Concen: 0.64 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. -0.000 min
 Lab File: R167954.D
 Acq: 10 Aug 2019 1:08 am

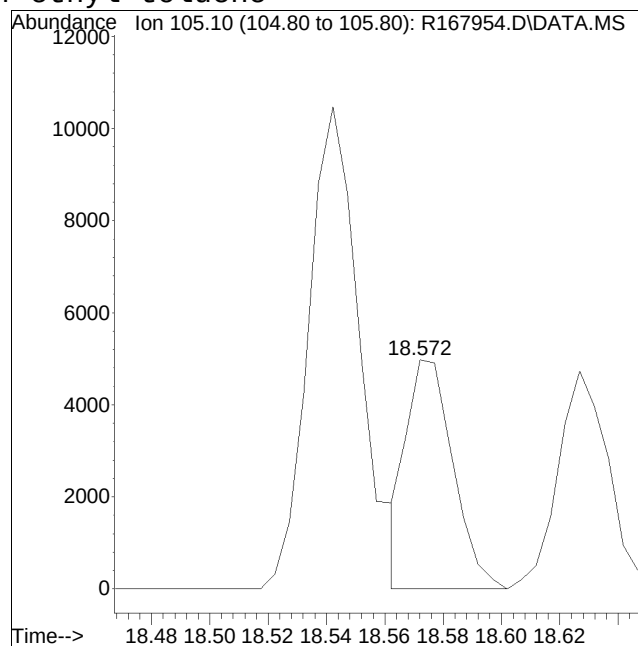
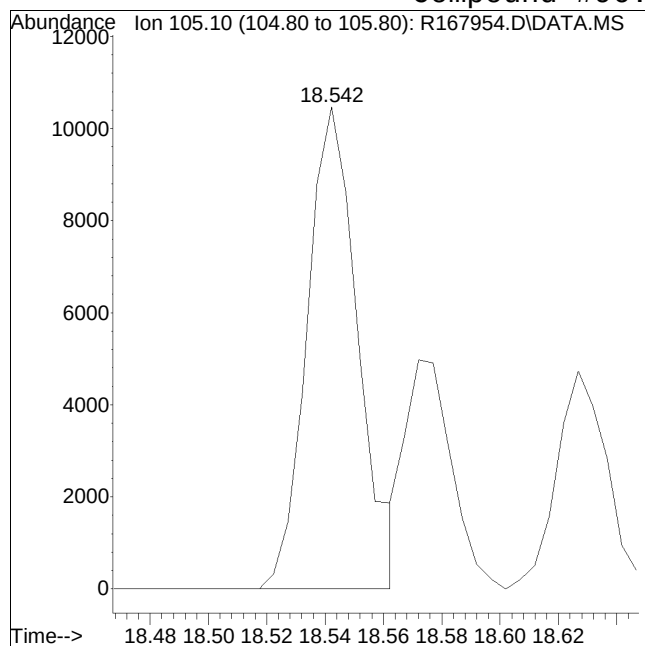
Tgt Ion	Ratio	Lower	Upper
105	100		
120	41.7	42.6	63.8#
91	16.4	58.7	88.1#



Manual Integration Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
Data File : R167954.D
Date Inj'd : 8/10/2019 1:08 am
Sample : L1935043-07D,3,70,250
Method : TFS1_190712.M
Operator : AIRPIAN01:EW
Instrument : Air Piano 1
Quant Date : 8/10/2019 7:58 am

Compound #96: 4-ethyl toluene



Original Peak Response = 12716

Manual Peak Response = 5564 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 21:18 07/13/19 01:07
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15961

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1) I bromochloromethane	-----ISTD-----									
2) chlorodifluoromethane	1.109	1.054	1.019	0.921	0.879	0.971	0.805	0.712	0.9337	14.15
3) propylene		0.524	0.534	0.450	0.427	0.501	0.393	0.340	0.4528	15.83
4) propane		0.426	0.415	0.387	0.358	0.396	0.327	0.281	0.3701	13.97
5) dichlorodifluoromethane	1.503	1.397	1.339	1.289	1.145	1.394	1.175	0.965	1.2759	13.52
6) C chloromethane	0.586	0.526	0.513	0.468	0.447	0.494	0.437	0.388	0.4824	12.65
7) Freon-114	1.813	1.663	1.585	1.487	1.433	1.549	1.315	1.125	1.4964	14.14
8) C methanol			0.171	0.156	0.146	0.157	0.135	0.127	0.1487	10.97
9) C vinyl chloride	0.641	0.585	0.598	0.549	0.528	0.588	0.507	0.468	0.5580	9.99
10) C 1,3-butadiene	0.526	0.441	0.416	0.427	0.410	0.436	0.377	0.328	0.4202	13.46
11) butane	0.686	0.578	0.438	0.380	0.357	0.341	0.383	0.323	0.4356	29.63
12) C acetaldehyde		0.283	0.277	0.250	0.239	0.261	0.223	0.194	0.2467	12.57
13) C bromomethane	0.718	0.604	0.598	0.549	0.522	0.576	0.494	0.440	0.5627	14.85
14) C chloroethane	0.329	0.302	0.280	0.264	0.252	0.283	0.243	0.220	0.2717	12.71
15) ethanol			0.342	0.320	0.302	0.333	0.284	0.250	0.3051	11.22
16) dichlorofluoromethane	1.427	1.306	1.291	1.170	1.131	1.261	1.073	0.955	1.2016	12.45
17) C vinyl bromide	0.614	0.581	0.588	0.549	0.523	0.589	0.500	0.444	0.5485	10.34
18) C acrolein		0.239	0.248	0.219	0.212	0.234	0.204	0.185	0.2202	9.92
19) acetone	1.280	1.094	1.079	0.976	0.953	1.029	0.855	0.730	0.9996	16.51
20) C acetonitrile	0.542	0.494	0.439	0.435	0.419	0.454	0.383	0.347	0.4391	13.87
21) trichlorofluoromethane	1.594	1.403	1.375	1.284	1.249	1.388	1.187	1.067	1.3184	12.09
22) isopropyl alcohol	1.919	1.284	1.188	1.037	0.991	1.068	0.905	0.795	1.1485	30.18#
23) C acrylonitrile	0.485	0.507	0.423	0.376	0.375	0.425	0.360	0.329	0.4099	15.10
24) pentane	1.475	1.092	0.925	0.833	0.815	0.907	0.766	0.677	0.9360	26.70
25) ethyl ether	0.821	0.742	0.646	0.555	0.555	0.588	0.510	0.450	0.6082	20.19
26) C 1,1-dichloroethene	1.263	1.093	1.018	0.884	0.992	1.092	0.930	0.828	1.0128	13.63
27) tertiary butyl alcohol		1.352	1.385	1.281	1.240	1.388	1.183	1.054	1.2690	9.62
28) C methylene chloride		0.842	0.832	0.756	0.741	0.807	0.682	0.606	0.7521	11.38
29) C 3-chloropropene	1.102	0.944	0.899	0.828	0.805	0.877	0.743	0.661	0.8575	15.56
30) C carbon disulfide	2.461	2.243	2.172	1.997	1.930	2.128	1.800	1.553	2.0354	13.80
31) Freon 113	1.508	1.327	1.379	1.263	1.227	1.363	1.153	1.017	1.2797	11.80
32) trans-1,2-dichloroethene	1.146	1.085	1.074	1.013	0.996	1.091	0.921	0.829	1.0195	10.15
33) C 1,1-dichloroethane	1.508	1.338	1.278	1.222	1.183	1.296	1.104	0.995	1.2404	12.49
34) C MTBE	2.072	1.948	1.871	1.772	1.704	1.905	1.610	1.457	1.7924	11.06
35) C vinyl acetate			1.150	1.172	1.254	1.447	1.278	1.188	1.2480	8.76
36) C 2-butanone		1.236	1.305	1.323	1.305	1.433	1.228	1.102	1.2761	8.01



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 21:18 07/13/19 01:07
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15961

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
37)	cis-1,2-dichloroethene	0.994	0.977	0.957	1.065	1.029	1.146	0.986	0.879	1.0042	7.85
38)	Ethyl Acetate		0.362	0.238	0.270	0.272	0.304	0.259	0.238	0.2776	15.69
39) C	chloroform	1.969	1.770	1.832	1.673	1.609	1.762	1.487	1.292	1.6744	12.65
40)	Tetrahydrofuran	0.900	0.889	0.887	0.727	0.735	0.840	0.708	0.630	0.7894	12.98
41)	2,2-dichloropropane	1.681	1.531	1.515	1.406	1.382	1.520	1.294	1.147	1.4345	11.47
42) C	1,2-dichloroethane	0.964	0.878	0.906	0.841	0.816	0.911	0.774	0.695	0.8481	10.14
43) I	1,4-difluorobenzene	-----ISTD-----									
44) C	hexane	0.746	0.705	0.667	0.619	0.593	0.654	0.546	0.488	0.6271	13.42
45)	diisopropyl ether	0.469	0.324	0.321	0.309	0.291	0.332	0.277	0.257	0.3224	19.96
46)	tert-butyl ethyl ether	1.123	1.044	1.026	0.968	0.955	1.071	0.911	0.841	0.9923	9.23
47) s	1,2-dichloroethane-D4	0.359	0.357	0.361	0.353	0.353	0.391	0.358	0.343	0.3595	3.88
48) C	1,1,1-trichloroethane	0.700	0.637	0.632	0.577	0.567	0.644	0.560	0.512	0.6036	9.96
49)	1,1-dichloropropene	0.515	0.542	0.522	0.471	0.463	0.521	0.451	0.406	0.4864	9.46
50) C	benzene	1.136	1.050	1.054	0.983	0.959	1.058	0.920	0.832	0.9989	9.55
51)	thiophene	2.465	2.288	2.273	2.064	1.950	2.180	1.778	1.459	2.0572	15.69
52) C	carbon tetrachloride	0.634	0.620	0.632	0.571	0.556	0.627	0.536	0.475	0.5813	9.90
53)	cyclohexane	0.669	0.574	0.557	0.515	0.494	0.553	0.476	0.436	0.5343	13.38
54)	tert-amyl methyl ether	1.047	0.991	0.948	0.905	0.892	0.995	0.861	0.782	0.9275	9.18
55)	dibromomethane	0.420	0.389	0.391	0.366	0.369	0.411	0.354	0.319	0.3774	8.62
56) C	1,2-dichloropropane	0.469	0.409	0.410	0.381	0.360	0.406	0.347	0.311	0.3867	12.46
57)	bromodichloromethane	0.750	0.713	0.759	0.726	0.711	0.787	0.675	0.617	0.7173	7.38
58) C	1,4-dioxane	0.228	0.214	0.212	0.219	0.215	0.244	0.212	0.189	0.2165	7.17
59) C	trichloroethene	0.459	0.447	0.434	0.408	0.403	0.449	0.383	0.338	0.4151	9.81
60) C	2,2,4-trimethylpentane	1.983	1.808	1.812	1.663	1.601	1.749	1.492	1.298	1.6756	12.73
61)	methyl methacrylate		0.568	0.581	0.566	0.551	0.617	0.530	0.480	0.5563	7.72
62)	heptane	0.779	0.711	0.687	0.611	0.578	0.637	0.543	0.480	0.6283	15.37
63) C	cis-1,3-dichloropropene	0.577	0.546	0.565	0.534	0.526	0.593	0.511	0.477	0.5412	6.94
64) C	4-methyl-2-pentanone		0.862	0.818	0.800	0.782	0.853	0.725	0.662	0.7858	9.08
65)	trans-1,3-dichloropropene	0.575	0.503	0.524	0.514	0.515	0.593	0.515	0.479	0.5272	7.13
66) C	1,1,2-trichloroethane	0.462	0.418	0.419	0.404	0.395	0.442	0.375	0.342	0.4070	9.28
67) I	chlorobenzene-D5	-----ISTD-----									
68) C	toluene	7.361	6.731	6.675	6.134	5.984	6.683	5.800	5.367	6.3419	10.03
69) s	toluene-D8	5.601	5.573	5.703	5.661	5.647	6.281	5.825	5.961	5.7816	4.12
70)	2-methylthiophene	2.225	2.055	2.052	1.881	1.795	1.930	1.584	1.266	1.8485	16.43
71)	1,3-dichloropropane	3.350	2.880	3.004	2.787	2.688	3.019	2.674	2.437	2.8549	9.69
72)	2-hexanone	4.210	3.989	4.066	3.927	3.580	3.763	3.059	2.567	3.6450	15.44



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 21:18 07/13/19 01:07
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15961

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
73)	3-methylthiophene	2.259	2.156	2.135	1.907	1.804	1.931	1.542	1.193	1.8660	18.99
74)	dibromochloromethane	3.884	3.597	3.674	3.579	3.555	4.123	3.555	3.297	3.6580	6.76
75) C	1,2-dibromoethane	3.493	3.431	3.393	3.246	3.261	3.718	3.255	2.982	3.3474	6.47
76)	butyl acetate		0.692	0.712	0.635	0.636	0.714	0.628	0.577	0.6561	7.79
77)	octane	2.073	1.791	1.872	1.723	1.682	1.857	1.634	1.492	1.7655	9.94
78) C	tetrachloroethene	3.047	2.890	2.842	2.669	2.642	3.049	2.671	2.358	2.7711	8.41
79)	1,1,1,2-tetrachloroethane	2.687	2.563	2.511	2.341	2.316	2.679	2.292	2.021	2.4262	9.35
80) C	chlorobenzene	5.486	5.030	4.982	4.629	4.566	5.222	4.449	3.919	4.7853	10.35
81) C	ethylbenzene	9.191	8.450	8.319	7.777	7.656	8.586	7.362	6.719	8.0074	9.77
82)	2-ethylthiophene	2.540	2.439	2.400	2.141	2.090	2.185	1.700	1.291	2.0982	19.91
83) C	m+p-xylene	7.166	6.677	6.445	6.072	5.899	6.544	5.633	4.829	6.1582	11.70
84) C	bromoform	3.695	3.510	3.459	3.539	3.537	4.132	3.604	3.188	3.5830	7.42
85) C	styrene	5.251	4.850	4.998	4.710	4.667	5.292	4.552	4.076	4.7994	8.25
86) C	1,1,2,2-tetrachloroethane	5.581	5.289	5.115	4.883	4.783	5.064	4.213	3.316	4.7805	14.93
87) C	o-xylene	7.151	6.886	6.600	6.213	6.000	6.625	5.482	4.502	6.1824	13.88
88)	1,2,3-trichloropropane	4.225	4.023	3.953	3.716	3.545	4.023	3.500	3.179	3.7705	9.21
89)	nonane	5.478	5.006	5.021	4.549	4.348	4.792	4.002	3.382	4.5723	14.44
90) s	bromofluorobenzene	3.444	3.506	3.572	3.560	3.611	4.113	3.732	3.831	3.6713	5.91
91) C	isopropylbenzene	9.383	8.887	8.766	8.237	8.028	8.890	7.563	6.541	8.2869	10.98
92)	bromobenzene	5.142	4.799	4.896	4.517	4.341	4.912	4.282	3.818	4.5884	9.41
93)	2-chlorotoluene	2.422	2.324	2.338	2.209	2.126	2.373	2.051	1.769	2.2017	9.81
94)	n-propylbenzene	2.584	2.381	2.497	2.334	2.287	2.517	2.151	1.822	2.3215	10.56
95)	4-chlorotoluene	7.298	6.786	7.072	6.544	6.435	6.759	6.048	5.260	6.5254	9.79
96)	4-ethyl toluene	1.045	0.953	0.980	0.930	0.891	0.974	0.844	0.730	0.9182	10.57
97)	1,3,5-trimethylbenzene	8.415	7.781	7.654	7.272	6.897	7.542	6.735	5.883	7.2724	10.58
98)	tert-butylbenzene	8.366	8.079	7.897	7.320	7.269	7.321	6.203	4.985	7.1800	15.39
99)	1,2,4-trimethylbenzene	8.006	7.585	7.514	7.089	7.085	7.080	6.025	4.817	6.9003	14.77
100)	decane	5.217	5.391	5.492	5.240	5.093	5.081	4.448	3.763	4.9656	11.65
101) C	Benzyl Chloride	5.850	6.077	6.236	6.429	6.620	7.085	6.562	5.692	6.3189	7.15
102)	1,3-dichlorobenzene	5.077	5.085	5.181	4.940	4.922	5.105	4.630	3.931	4.8589	8.48
103) C	1,4-dichlorobenzene	5.078	5.079	5.106	4.996	4.951	5.105	4.646	3.832	4.8490	9.04
104)	sec-butylbenzene	1.178	1.127	1.140	1.065	1.039	1.050	0.924	0.747	1.0337	13.50
105)	1,2,3-trimethylbenzene	8.032	7.941	7.804	7.355	7.260	7.244	6.534	5.416	7.1982	12.05
106)	p-isopropyltoluene	1.024	0.982	1.001	0.951	0.923	0.906	0.809	0.645	0.9051	13.76
107)	1,2-dichlorobenzene	4.851	4.809	4.859	4.780	4.688	4.836	4.520	4.037	4.6724	6.01
108)	n-butylbenzene	8.074	9.005	9.407	9.015	8.856	8.455	7.842	6.871	8.4407	9.72



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 21:18 07/13/19 01:07
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15961

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
109)	indan	8.461	8.402	8.527	8.172	7.978	8.044	7.349	6.293	7.9033	9.50
110)	indene	6.842	6.700	6.836	6.816	6.779	6.747	6.331	5.591	6.5800	6.58
111) C	1,2-dibromo-3-chloropropane	2.052	2.258	2.300	2.315	2.319	2.182	2.191	2.126	2.2177	4.38
112)	undecane	3.175	4.966	5.835	6.085	6.036	4.956	4.652	4.129	4.9792	20.31
113)	1,2,4,5-tetramethylbenzene	0.888	1.009	1.103	1.041	1.040	0.889	0.875	0.799	0.9556	11.13
114)	dodecane	0.973	1.980	3.500	5.829	6.490	4.285	3.698	3.302	3.7571	48.49#
115) C	1,2,4-trichlorobenzene	1.852	2.828	3.408	4.030	4.344	3.139	3.133	2.856	3.1986	23.99
116)	naphthalene	0.498	0.730	0.893	0.981	1.052	0.745	0.767	0.790	0.8070	21.21
117)	1,2,3-trichlorobenzene	1.504	2.708	3.243	3.920	4.257	2.940	3.001	3.216	3.0987	26.68
118)	benzothiophene		6.937	9.166	8.427	9.302	8.815	8.944	9.084	8.6677	9.39
119) C	hexachlorobutadiene	2.388	2.747	3.216	3.334	3.553	2.624	2.607	2.634	2.8879	14.52
120)	2-methylnaphthalene			0.499	0.620	0.924	0.896	0.929	1.068	0.8225	26.25
121)	1-methylnaphthalene			1.102	1.393	1.807	1.583	1.523	1.660	1.5114	16.10

Response Factor Report Air Piano 1

Method Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Method File : TFS1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
-----		-----									
1) I	bromochloromethane	-----ISTD-----									
2)	chlorodifluoromethane	1.109	1.054	1.019	0.921	0.879	0.971	0.805	0.712	0.9337	14.15
3)	propylene		0.524	0.534	0.450	0.427	0.501	0.393	0.340	0.4528	15.83
4)	propane		0.426	0.415	0.387	0.358	0.396	0.327	0.281	0.3701	13.97
5)	dichlorodifluoromethane	1.503	1.397	1.339	1.289	1.145	1.394	1.175	0.965	1.2759	13.52
6) C	chloromethane	0.586	0.526	0.513	0.468	0.447	0.494	0.437	0.388	0.4824	12.65
7)	Freon-114	1.813	1.663	1.585	1.487	1.433	1.549	1.315	1.125	1.4964	14.14
8) C	methanol			0.171	0.156	0.146	0.157	0.135	0.127	0.1487	10.97
9) C	vinyl chloride	0.641	0.585	0.598	0.549	0.528	0.588	0.507	0.468	0.5580	9.99
10) C	1,3-butadiene	0.526	0.441	0.416	0.427	0.410	0.436	0.377	0.328	0.4202	13.46
11)	butane	0.686	0.578	0.438	0.380	0.357	0.341	0.383	0.323	0.4356	29.63
12) C	acetaldehyde		0.283	0.277	0.250	0.239	0.261	0.223	0.194	0.2467	12.57
13) C	bromomethane	0.718	0.604	0.598	0.549	0.522	0.576	0.494	0.440	0.5627	14.85
14) C	chloroethane	0.329	0.302	0.280	0.264	0.252	0.283	0.243	0.220	0.2717	12.71
15)	ethanol			0.342	0.320	0.302	0.333	0.284	0.250	0.3051	11.22
16)	dichlorofluoromethane	1.427	1.306	1.291	1.170	1.131	1.261	1.073	0.955	1.2016	12.45
17) C	vinyl bromide	0.614	0.581	0.588	0.549	0.523	0.589	0.500	0.444	0.5485	10.34
18) C	acrolein		0.239	0.248	0.219	0.212	0.234	0.204	0.185	0.2202	9.92
19)	acetone	1.280	1.094	1.079	0.976	0.953	1.029	0.855	0.730	0.9996	16.51
20) C	acetonitrile	0.542	0.494	0.439	0.435	0.419	0.454	0.383	0.347	0.4391	13.87
21)	trichlorofluoromethane	1.594	1.403	1.375	1.284	1.249	1.388	1.187	1.067	1.3184	12.09
22)	isopropyl alcohol	1.919	1.284	1.188	1.037	0.991	1.068	0.905	0.795	1.1485	30.18#
23) C	acrylonitrile	0.485	0.507	0.423	0.376	0.375	0.425	0.360	0.329	0.4099	15.10
24)	pentane	1.475	1.092	0.925	0.833	0.815	0.907	0.766	0.677	0.9360	26.70
25)	ethyl ether	0.821	0.742	0.646	0.555	0.555	0.588	0.510	0.450	0.6082	20.19
26) C	1,1-dichloroethene	1.263	1.093	1.018	0.884	0.992	1.092	0.930	0.828	1.0128	13.63
27)	tertiary butyl alcohol		1.352	1.385	1.281	1.240	1.388	1.183	1.054	1.2690	9.62
28) C	methylene chloride		0.842	0.832	0.756	0.741	0.807	0.682	0.606	0.7521	11.38
29) C	3-chloropropene	1.102	0.944	0.899	0.828	0.805	0.877	0.743	0.661	0.8575	15.56
30) C	carbon disulfide	2.461	2.243	2.172	1.997	1.930	2.128	1.800	1.553	2.0354	13.80
31)	Freon 113	1.508	1.327	1.379	1.263	1.227	1.363	1.153	1.017	1.2797	11.80

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Method File : TFS1_190712.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)	trans-1,2-dichloroethene	1.146	1.085	1.074	1.013	0.996	1.091	0.921	0.829	1.0195	10.15
33) C	1,1-dichloroethane	1.508	1.338	1.278	1.222	1.183	1.296	1.104	0.995	1.2404	12.49
34) C	MTBE	2.072	1.948	1.871	1.772	1.704	1.905	1.610	1.457	1.7924	11.06
35) C	vinyl acetate			1.150	1.172	1.254	1.447	1.278	1.188	1.2480	8.76
36) C	2-butanone		1.236	1.305	1.323	1.305	1.433	1.228	1.102	1.2761	8.01
37)	cis-1,2-dichloroethene	0.994	0.977	0.957	1.065	1.029	1.146	0.986	0.879	1.0042	7.85
38)	Ethyl Acetate		0.362	0.238	0.270	0.272	0.304	0.259	0.238	0.2776	15.69
39) C	chloroform	1.969	1.770	1.832	1.673	1.609	1.762	1.487	1.292	1.6744	12.65
40)	Tetrahydrofuran	0.900	0.889	0.887	0.727	0.735	0.840	0.708	0.630	0.7894	12.98
41)	2,2-dichloropropane	1.681	1.531	1.515	1.406	1.382	1.520	1.294	1.147	1.4345	11.47
42) C	1,2-dichloroethane	0.964	0.878	0.906	0.841	0.816	0.911	0.774	0.695	0.8481	10.14
43) I	1,4-difluorobenzene	-----ISTD-----									
44) C	hexane	0.746	0.705	0.667	0.619	0.593	0.654	0.546	0.488	0.6271	13.42
45)	diisopropyl ether	0.469	0.324	0.321	0.309	0.291	0.332	0.277	0.257	0.3224	19.96
46)	tert-butyl ethyl ether	1.123	1.044	1.026	0.968	0.955	1.071	0.911	0.841	0.9923	9.23
47) s	1,2-dichloroethane-D4	0.359	0.357	0.361	0.353	0.353	0.391	0.358	0.343	0.3595	3.88
48) C	1,1,1-trichloroethane	0.700	0.637	0.632	0.577	0.567	0.644	0.560	0.512	0.6036	9.96
49)	1,1-dichloropropene	0.515	0.542	0.522	0.471	0.463	0.521	0.451	0.406	0.4864	9.46
50) C	benzene	1.136	1.050	1.054	0.983	0.959	1.058	0.920	0.832	0.9989	9.55
51)	thiophene	2.465	2.288	2.273	2.064	1.950	2.180	1.778	1.459	2.0572	15.69
52) C	carbon tetrachloride	0.634	0.620	0.632	0.571	0.556	0.627	0.536	0.475	0.5813	9.90
53)	cyclohexane	0.669	0.574	0.557	0.515	0.494	0.553	0.476	0.436	0.5343	13.38
54)	tert-amyl methyl ether	1.047	0.991	0.948	0.905	0.892	0.995	0.861	0.782	0.9275	9.18
55)	dibromomethane	0.420	0.389	0.391	0.366	0.369	0.411	0.354	0.319	0.3774	8.62
56) C	1,2-dichloropropane	0.469	0.409	0.410	0.381	0.360	0.406	0.347	0.311	0.3867	12.46
57)	bromodichloromethane	0.750	0.713	0.759	0.726	0.711	0.787	0.675	0.617	0.7173	7.38
58) C	1,4-dioxane	0.228	0.214	0.212	0.219	0.215	0.244	0.212	0.189	0.2165	7.17
59) C	trichloroethene	0.459	0.447	0.434	0.408	0.403	0.449	0.383	0.338	0.4151	9.81
60) C	2,2,4-trimethylpentane	1.983	1.808	1.812	1.663	1.601	1.749	1.492	1.298	1.6756	12.73
61)	methyl methacrylate		0.568	0.581	0.566	0.551	0.617	0.530	0.480	0.5563	7.72
62)	heptane	0.779	0.711	0.687	0.611	0.578	0.637	0.543	0.480	0.6283	15.37

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Method File : TFS1_190712.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63) C	cis-1,3-dichloropropene	0.577	0.546	0.565	0.534	0.526	0.593	0.511	0.477	0.5412	6.94
64) C	4-methyl-2-pentanone		0.862	0.818	0.800	0.782	0.853	0.725	0.662	0.7858	9.08
65)	trans-1,3-dichloropropene	0.575	0.503	0.524	0.514	0.515	0.593	0.515	0.479	0.5272	7.13
66) C	1,1,2-trichloroethane	0.462	0.418	0.419	0.404	0.395	0.442	0.375	0.342	0.4070	9.28
67) I	chlorobenzene-D5	-----ISTD-----									
68) C	toluene	7.361	6.731	6.675	6.134	5.984	6.683	5.800	5.367	6.3419	10.03
69) s	toluene-D8	5.601	5.573	5.703	5.661	5.647	6.281	5.825	5.961	5.7816	4.12
70)	2-methylthiophene	2.225	2.055	2.052	1.881	1.795	1.930	1.584	1.266	1.8485	16.43
71)	1,3-dichloropropane	3.350	2.880	3.004	2.787	2.688	3.019	2.674	2.437	2.8549	9.69
72)	2-hexanone	4.210	3.989	4.066	3.927	3.580	3.763	3.059	2.567	3.6450	15.44
73)	3-methylthiophene	2.259	2.156	2.135	1.907	1.804	1.931	1.542	1.193	1.8660	18.99
74)	dibromochloromethane	3.884	3.597	3.674	3.579	3.555	4.123	3.555	3.297	3.6580	6.76
75) C	1,2-dibromoethane	3.493	3.431	3.393	3.246	3.261	3.718	3.255	2.982	3.3474	6.47
76)	butyl acetate		0.692	0.712	0.635	0.636	0.714	0.628	0.577	0.6561	7.79
77)	octane	2.073	1.791	1.872	1.723	1.682	1.857	1.634	1.492	1.7655	9.94
78) C	tetrachloroethene	3.047	2.890	2.842	2.669	2.642	3.049	2.671	2.358	2.7711	8.41
79)	1,1,1,2-tetrachloroethane	2.687	2.563	2.511	2.341	2.316	2.679	2.292	2.021	2.4262	9.35
80) C	chlorobenzene	5.486	5.030	4.982	4.629	4.566	5.222	4.449	3.919	4.7853	10.35
81) C	ethylbenzene	9.191	8.450	8.319	7.777	7.656	8.586	7.362	6.719	8.0074	9.77
82)	2-ethylthiophene	2.540	2.439	2.400	2.141	2.090	2.185	1.700	1.291	2.0982	19.91
83) C	m+p-xylene	7.166	6.677	6.445	6.072	5.899	6.544	5.633	4.829	6.1582	11.70
84) C	bromoform	3.695	3.510	3.459	3.539	3.537	4.132	3.604	3.188	3.5830	7.42
85) C	styrene	5.251	4.850	4.998	4.710	4.667	5.292	4.552	4.076	4.7994	8.25
86) C	1,1,2,2-tetrachloroethane	5.581	5.289	5.115	4.883	4.783	5.064	4.213	3.316	4.7805	14.93
87) C	o-xylene	7.151	6.886	6.600	6.213	6.000	6.625	5.482	4.502	6.1824	13.88
88)	1,2,3-trichloropropane	4.225	4.023	3.953	3.716	3.545	4.023	3.500	3.179	3.7705	9.21
89)	nonane	5.478	5.006	5.021	4.549	4.348	4.792	4.002	3.382	4.5723	14.44
90) s	bromofluorobenzene	3.444	3.506	3.572	3.560	3.611	4.113	3.732	3.831	3.6713	5.91
91) C	isopropylbenzene	9.383	8.887	8.766	8.237	8.028	8.890	7.563	6.541	8.2869	10.98
92)	bromobenzene	5.142	4.799	4.896	4.517	4.341	4.912	4.282	3.818	4.5884	9.41
93)	2-chlorotoluene	2.422	2.324	2.338	2.209	2.126	2.373	2.051	1.769	2.2017	9.81

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Method File : TFS1_190712.M
 Title : TO-14A/TO-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019
 Response Via : Initial Calibration

Calibration Files

0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D 5.0 =R167344.D 10 =R167345.D 20 =R167346.D
 50 =R167347.D 100 =R167348.D

Compound		0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)	n-propylbenzene	2.584	2.381	2.497	2.334	2.287	2.517	2.151	1.822	2.3215	10.56
95)	4-chlorotoluene	7.298	6.786	7.072	6.544	6.435	6.759	6.048	5.260	6.5254	9.79
96)	4-ethyl toluene	1.045	0.953	0.980	0.930	0.891	0.974	0.844	0.730	0.9182	10.57
97)	1,3,5-trimethylbenzene	8.415	7.781	7.654	7.272	6.897	7.542	6.735	5.883	7.2724	10.58
98)	tert-butylbenzene	8.366	8.079	7.897	7.320	7.269	7.321	6.203	4.985	7.1800	15.39
99)	1,2,4-trimethylbenzene	8.006	7.585	7.514	7.089	7.085	7.080	6.025	4.817	6.9003	14.77
100)	decane	5.217	5.391	5.492	5.240	5.093	5.081	4.448	3.763	4.9656	11.65
101) C	Benzyl Chloride	5.850	6.077	6.236	6.429	6.620	7.085	6.562	5.692	6.3189	7.15
102)	1,3-dichlorobenzene	5.077	5.085	5.181	4.940	4.922	5.105	4.630	3.931	4.8589	8.48
103) C	1,4-dichlorobenzene	5.078	5.079	5.106	4.996	4.951	5.105	4.646	3.832	4.8490	9.04
104)	sec-butylbenzene	1.178	1.127	1.140	1.065	1.039	1.050	0.924	0.747	1.0337	13.50
105)	1,2,3-trimethylbenzene	8.032	7.941	7.804	7.355	7.260	7.244	6.534	5.416	7.1982	12.05
106)	p-isopropyltoluene	1.024	0.982	1.001	0.951	0.923	0.906	0.809	0.645	0.9051	13.76
107)	1,2-dichlorobenzene	4.851	4.809	4.859	4.780	4.688	4.836	4.520	4.037	4.6724	6.01
108)	n-butylbenzene	8.074	9.005	9.407	9.015	8.856	8.455	7.842	6.871	8.4407	9.72
109)	indan	8.461	8.402	8.527	8.172	7.978	8.044	7.349	6.293	7.9033	9.50
110)	indene	6.842	6.700	6.836	6.816	6.779	6.747	6.331	5.591	6.5800	6.58
111) C	1,2-dibromo-3-chloropropane	2.052	2.258	2.300	2.315	2.319	2.182	2.191	2.126	2.2177	4.38
112)	undecane	3.175	4.966	5.835	6.085	6.036	4.956	4.652	4.129	4.9792	20.31
113)	1,2,4,5-tetramethylbenzene	0.888	1.009	1.103	1.041	1.040	0.889	0.875	0.799	0.9556	11.13
114)	dodecane	0.973	1.980	3.500	5.829	6.490	4.285	3.698	3.302	3.7571	48.49#
115) C	1,2,4-trichlorobenzene	1.852	2.828	3.408	4.030	4.344	3.139	3.133	2.856	3.1986	23.99
116)	naphthalene	0.498	0.730	0.893	0.981	1.052	0.745	0.767	0.790	0.8070	21.21
117)	1,2,3-trichlorobenzene	1.504	2.708	3.243	3.920	4.257	2.940	3.001	3.216	3.0987	26.68
118)	benzothiophene		6.937	9.166	8.427	9.302	8.815	8.944	9.084	8.6677	9.39
119) C	hexachlorobutadiene	2.388	2.747	3.216	3.334	3.553	2.624	2.607	2.634	2.8879	14.52
120)	2-methylnaphthalene			0.499	0.620	0.924	0.896	0.929	1.068	0.8225	26.25
121)	1-methylnaphthalene			1.102	1.393	1.807	1.583	1.523	1.660	1.5114	16.10

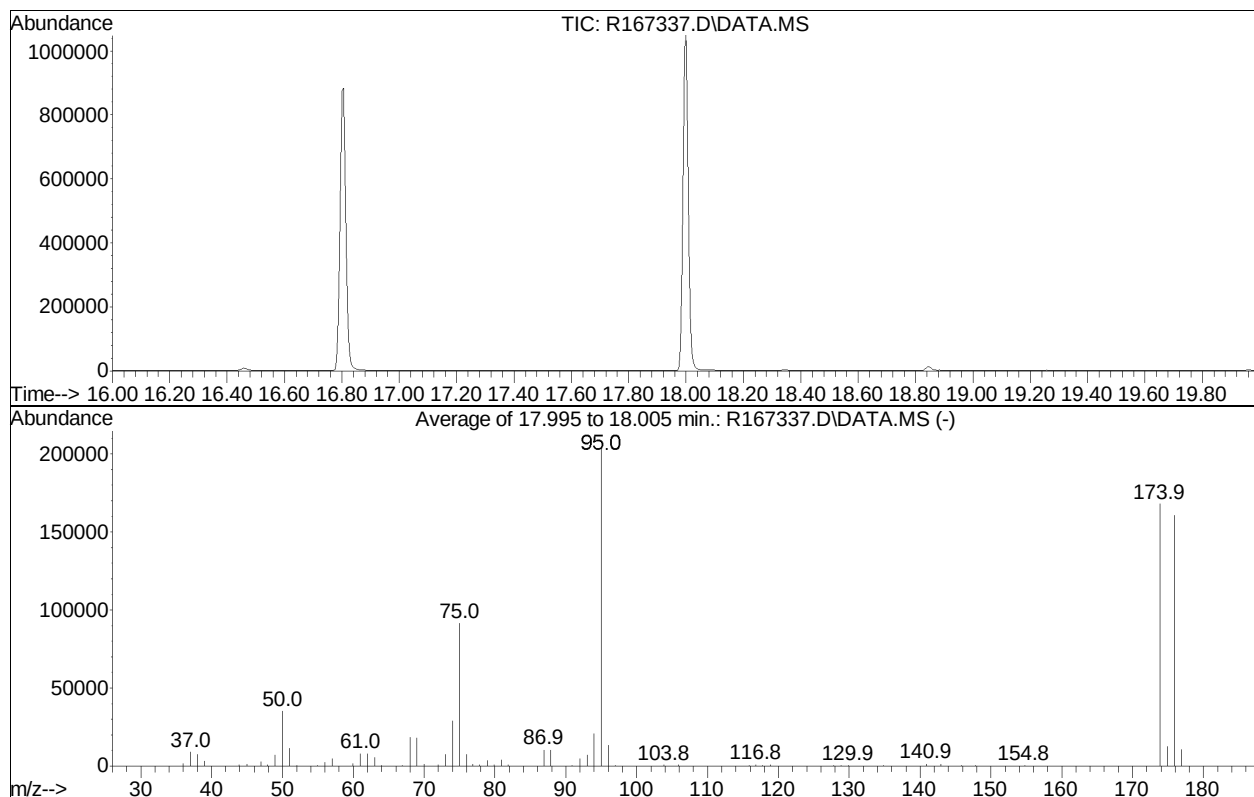
(#) = Out of Range

BFB

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167337.D
 Acq On : 12 Jul 2019 7:12 pm
 Operator : AIRPIAN01:AR
 Sample : WG1259556-1
 Misc : WG1259556
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019



AutoFind: Scans 1577, 1578, 1579; Background Corrected with Scan 1569

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	35445	PASS
75	95	30	66	44.7	91544	PASS
95	95	100	100	100.0	204715	PASS
96	95	5	9	6.6	13471	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.1	168064	PASS
175	174	4	9	7.5	12536	PASS
176	174	93	101	95.7	160832	PASS
177	176	5	9	6.6	10552	PASS

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.2
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:23:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	212246	10.000	ppbV	0.00
Standard Area = 214810			Recovery =		98.81%	
43) 1,4-difluorobenzene	12.348	114	446627	10.000	ppbV	0.00
Standard Area = 453122			Recovery =		98.57%	
67) chlorobenzene-D5	16.801	54	87420	10.000	ppbV	0.00
Standard Area = 87523			Recovery =		99.88%	
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.993	65	160461	10.168	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.68%	
69) toluene-D8	15.095	98	489672	9.920	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.20%	
90) bromofluorobenzene	17.995	95	301103	9.539	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		95.39%	
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	4706	0.252	ppbV	98
3) propylene	3.926	41	2866M6	0.316	ppbV	
4) propane	3.948	29	2234M6	0.294	ppbV	
5) dichlorodifluoromethane	4.015	85	6378	0.263	ppbV	98
6) chloromethane	4.239	50	2486	0.262	ppbV	95
7) Freon-114	4.384	85	7696	0.253	ppbV	96
8) methanol	4.507	31	4485	1.445	ppbV #	1
9) vinyl chloride	4.540	62	2721	0.243	ppbV	95
10) 1,3-butadiene	4.741	54	2231	0.256	ppbV	89
11) butane	4.818	43	2911	0.384	ppbV	96
12) acetaldehyde	4.428	29	7040	1.388	ppbV #	74
13) bromomethane	5.115	94	3049	0.275	ppbV	94
14) chloroethane	5.367	64	1397	0.262	ppbV	95
15) ethanol	5.627	31	9143	1.429	ppbV	98
16) dichlorofluoromethane	5.525	67	6057	0.252	ppbV	97
17) vinyl bromide	5.860	106	2607	0.235	ppbV	89
18) acrolein	6.074	56	1374	0.306	ppbV #	53
19) acetone	6.288	43	27168	1.343	ppbV #	99
20) acetonitrile	5.907	41	2301	0.259	ppbV #	25
21) trichlorofluoromethane	6.437	101	6766	0.255	ppbV	97
22) isopropyl alcohol	6.670	45	20363	0.968	ppbV	99
23) acrylonitrile	6.893	53	2060	0.259	ppbV #	86
24) pentane	6.931	43	6260M1	0.362	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.2
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:23:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.033	31	3484	0.296	ppbV	91
26) 1,1-dichloroethene	7.284	61	5363	0.255	ppbV	90
27) tertiary butyl alcohol	7.498	59	5962	0.226	ppbV #	90
28) methylene chloride	7.470	49	4057	0.258	ppbV	94
29) 3-chloropropene	7.619	41	4679	0.274	ppbV	98
30) carbon disulfide	7.796	76	10445	0.255	ppbV #	48
31) Freon 113	7.815	101	6403	0.246	ppbV	94
32) trans-1,2-dichloroethene	8.661	61	4863	0.230	ppbV	94
33) 1,1-dichloroethane	8.904	63	6401	0.255	ppbV	98
34) MTBE	9.058	73	8797	0.243	ppbV	97
35) vinyl acetate	9.163	43	2886M4	0.108	ppbV	
36) 2-butanone	9.496	43	8015M3	0.289	ppbV	
37) cis-1,2-dichloroethene	9.917	61	4219	0.193	ppbV	89
38) Ethyl Acetate	10.292	61	1983	0.343	ppbV #	1
39) chloroform	10.271	83	8360	0.245	ppbV	97
40) Tetrahydrofuran	10.849	42	3822	0.245	ppbV #	84
41) 2,2-dichloropropane	10.292	77	7136	0.243	ppbV	98
42) 1,2-dichloroethane	11.127	62	4093	0.236	ppbV #	94
44) hexane	10.164	57	6661	0.252	ppbV #	57
45) diisopropyl ether	10.228	87	4185	0.322	ppbV	97
46) tert-butyl ethyl ether	10.849	59	10030	0.235	ppbV #	91
48) 1,1,1-trichloroethane	11.404	97	6255	0.247	ppbV	97
49) 1,1-dichloropropene	11.766	75	4604	0.222	ppbV	98
50) benzene	11.941	78	10143	0.237	ppbV #	91
51) thiophene	12.092	84	22018	0.253	ppbV	96
52) carbon tetrachloride	12.104	117	5659	0.228	ppbV	97
53) cyclohexane	12.243	56	5977	0.271	ppbV	92
54) tert-amyl methyl ether	12.663	73	9351	0.235	ppbV #	87
55) dibromomethane	12.849	93	3750	0.228	ppbV	88
56) 1,2-dichloropropane	12.872	63	4189	0.260	ppbV	98
57) bromodichloromethane	13.105	83	6699	0.211	ppbV	95
58) 1,4-dioxane	13.256	88	2039	0.213	ppbV #	72
59) trichloroethene	13.140	130	4097	0.227	ppbV	98
60) 2,2,4-trimethylpentane	13.175	57	17717	0.248	ppbV	96
61) methyl methacrylate	13.396	41	5010	0.203	ppbV	94
62) heptane	13.477	43	6960	0.270	ppbV	93
63) cis-1,3-dichloropropene	14.140	75	5156	0.219	ppbV	93
64) 4-methyl-2-pentanone	14.226	43	8670M1	0.248	ppbV	
65) trans-1,3-dichloropropene	14.734	75	5132	0.223	ppbV	96
66) 1,1,2-trichloroethane	14.919	97	4126	0.234	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.2
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:23:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	12870	0.246	ppbV	96
70) 2-methylthiophene	15.260	97	38910	0.248	ppbV	99
71) 1,3-dichloropropane	15.229	76	5858	0.249	ppbV	93
72) 2-hexanone	15.497	43	7361	0.235	ppbV #	76
73) 3-methylthiophene	15.435	97	39490	0.250	ppbV	99
74) dibromochloromethane	15.621	129	6790	0.218	ppbV	97
75) 1,2-dibromoethane	15.848	107	6108	0.214	ppbV	99
76) butyl acetate	16.054	73	1102	0.198	ppbV	90
77) octane	16.106	85	3625	0.247	ppbV	88
78) tetrachloroethene	16.261	166	5328	0.231	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.826	131	4698	0.232	ppbV	97
80) chlorobenzene	16.841	112	9592	0.240	ppbV	94
81) ethylbenzene	17.139	91	16069	0.240	ppbV	94
82) 2-ethylthiophene	17.174	97	44406	0.243	ppbV	99
83) m+p-xylene	17.283	91	25059	0.486	ppbV	98
84) bromoform	17.358	173	6460	0.209	ppbV	99
85) styrene	17.567	104	9180	0.225	ppbV	92
86) 1,1,2,2-tetrachloroethane	17.647	83	9758	0.233	ppbV	93
87) o-xylene	17.647	91	12502	0.238	ppbV	96
88) 1,2,3-trichloropropane	17.751	75	7387	0.238	ppbV	97
89) nonane	17.786	43	9577	0.252	ppbV #	98
91) isopropylbenzene	18.089	105	16406	0.234	ppbV	97
92) bromobenzene	18.174	77	8991	0.237	ppbV	96
93) 2-chlorotoluene	18.458	126	4235	0.228	ppbV	90
94) n-propylbenzene	18.473	120	4517	0.226	ppbV	90
95) 4-chlorotoluene	18.507	91	12760	0.227	ppbV	96
96) 4-ethyl toluene	18.577	105	18271	0.235	ppbV	97
97) 1,3,5-trimethylbenzene	18.632	105	14713	0.244	ppbV	100
98) tert-butylbenzene	18.937	119	14627	0.230	ppbV	98
99) 1,2,4-trimethylbenzene	18.937	105	13998	0.226	ppbV	95
100) decane	18.980	57	9122	0.205	ppbV	95
101) Benzyl Chloride	19.058	91	10229	0.177	ppbV	99
102) 1,3-dichlorobenzene	19.076	146	8876	0.206	ppbV	96
103) 1,4-dichlorobenzene	19.125	146	8879	0.205	ppbV	94
104) sec-butylbenzene	19.137	105	20600	0.227	ppbV	99
105) 1,2,3-trimethylbenzene	19.263	105	14044	0.221	ppbV	98
106) p-isopropyltoluene	19.251	119	17897	0.222	ppbV	96
107) 1,2-dichlorobenzene	19.384	146	8481	0.207	ppbV	97
108) n-butylbenzene	19.572	91	14116	0.182	ppbV	99
109) indan	19.427	117	14794	0.212	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.2
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:23:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

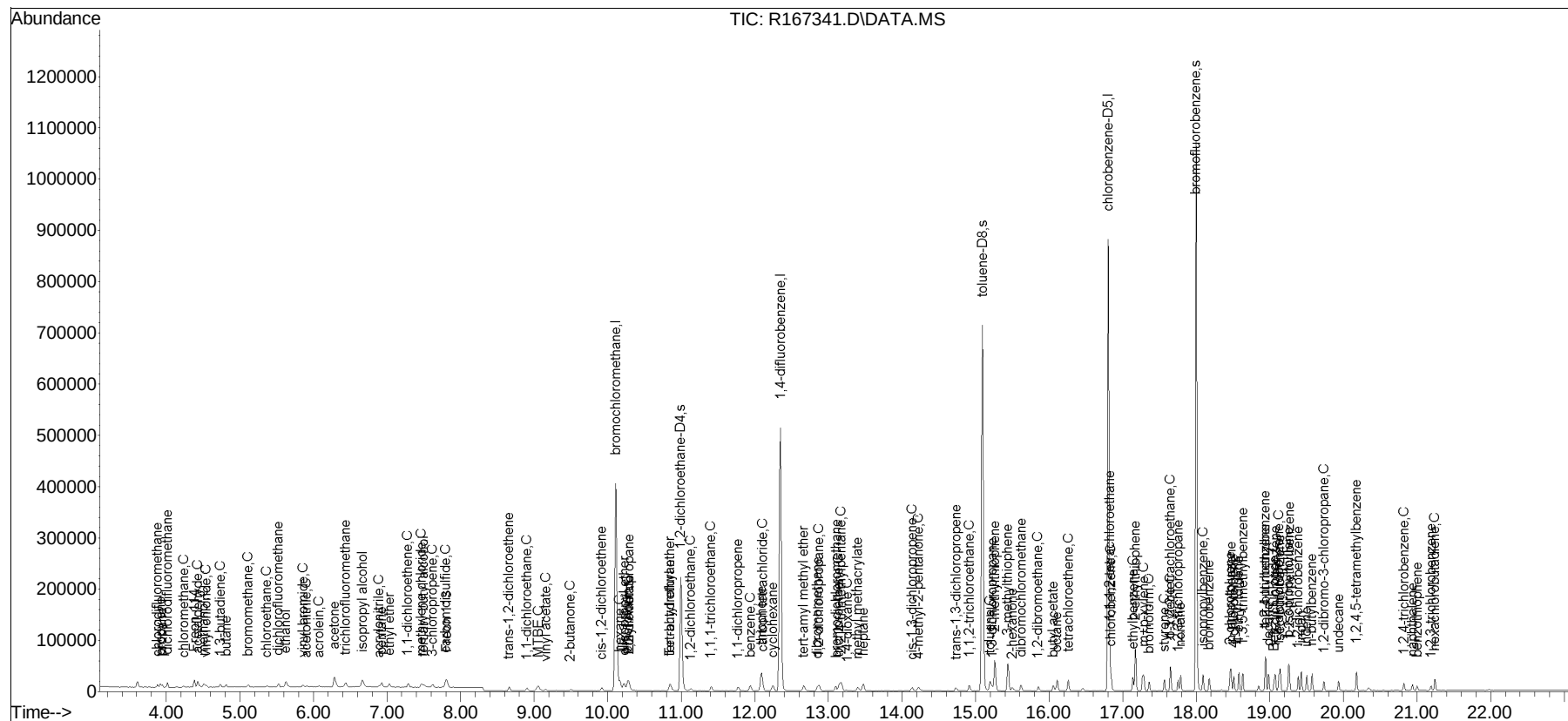
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.499	115	11962	0.202	ppbV	97
111) 1,2-dibromo-3-chloropr...	19.735	75	3587	0.177	ppbV	98
112) undecane	19.934	57	5551	0.105	ppbV	93
113) 1,2,4,5-tetramethylben...	20.176	119	15518	0.171	ppbV	98
114) dodecane	20.820		0	N.D.		
115) 1,2,4-trichlorobenzene	20.820	180	3238	0.085	ppbV #	91
116) naphthalene	20.940	128	8712	0.095	ppbV	99
117) 1,2,3-trichlorobenzene	21.192	180	2629	0.071	ppbV	91
118) benzothiophene	21.000	134	6556	0.081	ppbV #	98
119) hexachlorobutadiene	21.240	225	4176	0.134	ppbV #	88
120) 2-methylnaphthalene	0.000		0	N.D.		
121) 1-methylnaphthalene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167341.D
Acq On    : 12 Jul 2019    9:18 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD0.2
Misc      : WG1259556
ALS Vial  : 6    Sample Multiplier: 1
```

Quant Time: Jul 13 07:23:12 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 06:46:25 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:04:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	213185	10.000	ppbV	0.00
Standard Area = 214810			Recovery =		99.24%	
43) 1,4-difluorobenzene	12.348	114	446484	10.000	ppbV	0.00
Standard Area = 453122			Recovery =		98.54%	
67) chlorobenzene-D5	16.801	54	86978	10.000	ppbV	0.00
Standard Area = 87523			Recovery =		99.38%	
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.993	65	159476	10.109	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.09%	
69) toluene-D8	15.095	98	484714	9.869	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.69%	
90) bromofluorobenzene	17.995	95	304973	9.711	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.11%	
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	11234	0.599	ppbV	100
3) propylene	3.926	41	5586M6	0.613	ppbV	
4) propane	3.948	29	4536	0.594	ppbV	98
5) dichlorodifluoromethane	4.015	85	14896	0.610	ppbV	95
6) chloromethane	4.238	50	5607	0.588	ppbV	94
7) Freon-114	4.384	85	17729	0.580	ppbV	97
8) methanol	4.507	31	10149	3.256	ppbV #	36
9) vinyl chloride	4.540	62	6236	0.554	ppbV	98
10) 1,3-butadiene	4.741	54	4701	0.538	ppbV	96
11) butane	4.818	43	6161	0.810	ppbV #	90
12) acetaldehyde	4.428	29	15058	2.956	ppbV #	87
13) bromomethane	5.115	94	6436	0.578	ppbV	91
14) chloroethane	5.367	64	3219	0.600	ppbV	98
15) ethanol	5.618	31	18705	2.910	ppbV	99
16) dichlorofluoromethane	5.525	67	13920	0.577	ppbV	97
17) vinyl bromide	5.860	106	6188	0.555	ppbV	97
18) acrolein	6.065	56	2549	0.565	ppbV #	83
19) acetone	6.270	43	58315	2.870	ppbV #	99
20) acetonitrile	5.897	41	5268	0.590	ppbV #	74
21) trichlorofluoromethane	6.446	101	14954	0.562	ppbV	100
22) isopropyl alcohol	6.651	45	34213	1.620	ppbV	99
23) acrylonitrile	6.884	53	5400	0.675	ppbV	99
24) pentane	6.930	43	11637	0.670	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:04:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.023	31	7914	0.669	ppbV	97
26) 1,1-dichloroethene	7.293	61	11650	0.551	ppbV	98
27) tertiary butyl alcohol	7.480	59	14414	0.545	ppbV #	92
28) methylene chloride	7.470	49	8979	0.569	ppbV	95
29) 3-chloropropene	7.619	41	10062	0.586	ppbV	94
30) carbon disulfide	7.796	76	23908	0.581	ppbV #	80
31) Freon 113	7.815	101	14149	0.541	ppbV	96
32) trans-1,2-dichloroethene	8.660	61	11561	0.544	ppbV	98
33) 1,1-dichloroethane	8.904	63	14259	0.565	ppbV	96
34) MTBE	9.042	73	20760	0.572	ppbV	97
35) vinyl acetate	9.147	43	12667	0.474	ppbV	100
36) 2-butanone	9.471	43	13180	0.474	ppbV #	94
37) cis-1,2-dichloroethene	9.917	61	10412	0.475	ppbV	94
38) Ethyl Acetate	10.281	61	3855M6	0.664	ppbV	
39) chloroform	10.271	83	18872	0.550	ppbV	98
40) Tetrahydrofuran	10.816	42	9478	0.605	ppbV	95
41) 2,2-dichloropropane	10.292	77	16314	0.554	ppbV	95
42) 1,2-dichloroethane	11.126	62	9355	0.538	ppbV	95
44) hexane	10.164	57	15738	0.595	ppbV #	57
45) diisopropyl ether	10.207	87	7228	0.557	ppbV	85
46) tert-butyl ethyl ether	10.838	59	23299	0.546	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	14220	0.561	ppbV	98
49) 1,1-dichloropropene	11.778	75	12098	0.585	ppbV	97
50) benzene	11.941	78	23445	0.548	ppbV	99
51) thiophene	12.092	84	51083	0.587	ppbV	96
52) carbon tetrachloride	12.104	117	13838	0.558	ppbV	96
53) cyclohexane	12.243	56	12814	0.581	ppbV	96
54) tert-amyl methyl ether	12.651	73	22116	0.556	ppbV	99
55) dibromomethane	12.849	93	8689	0.528	ppbV	95
56) 1,2-dichloropropane	12.872	63	9137	0.568	ppbV	96
57) bromodichloromethane	13.093	83	15923	0.501	ppbV	97
58) 1,4-dioxane	13.221	88	4770	0.498	ppbV	84
59) trichloroethene	13.140	130	9970	0.554	ppbV	93
60) 2,2,4-trimethylpentane	13.174	57	40357	0.565	ppbV	99
61) methyl methacrylate	13.384	41	12690	0.515	ppbV	96
62) heptane	13.477	43	15872	0.615	ppbV	99
63) cis-1,3-dichloropropene	14.140	75	12190	0.519	ppbV	95
64) 4-methyl-2-pentanone	14.209	43	19241	0.551	ppbV	97
65) trans-1,3-dichloropropene	14.723	75	11237	0.489	ppbV	99
66) 1,1,2-trichloroethane	14.909	97	9337	0.530	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:04:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	29274	0.562	ppbV	95
70) 2-methylthiophene	15.260	97	89385	0.573	ppbV	98
71) 1,3-dichloropropane	15.219	76	12523	0.536	ppbV	99
72) 2-hexanone	15.487	43	17349	0.557	ppbV #	80
73) 3-methylthiophene	15.435	97	93775	0.598	ppbV	99
74) dibromochloromethane	15.621	129	15642	0.506	ppbV	99
75) 1,2-dibromoethane	15.848	107	14919	0.526	ppbV	97
76) butyl acetate	16.044	73	3009	0.544	ppbV	77
77) octane	16.106	85	7789	0.532	ppbV	97
78) tetrachloroethene	16.261	166	12569	0.547	ppbV	94
79) 1,1,1,2-tetrachloroethane	16.821	131	11148	0.553	ppbV	97
80) chlorobenzene	16.840	112	21873	0.551	ppbV	97
81) ethylbenzene	17.139	91	36748	0.552	ppbV	99
82) 2-ethylthiophene	17.174	97	106074	0.584	ppbV	99
83) m+p-xylene	17.283	91	58078	1.132	ppbV	99
84) bromoform	17.358	173	15266	0.496	ppbV	96
85) styrene	17.562	104	21091	0.520	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.647	83	23000	0.553	ppbV	99
87) o-xylene	17.647	91	29947	0.574	ppbV	96
88) 1,2,3-trichloropropane	17.751	75	17497	0.568	ppbV	97
89) nonane	17.786	43	21770	0.576	ppbV	97
91) isopropylbenzene	18.089	105	38647	0.554	ppbV	99
92) bromobenzene	18.174	77	20872	0.553	ppbV	99
93) 2-chlorotoluene	18.458	126	10107	0.546	ppbV	93
94) n-propylbenzene	18.473	120	10354	0.520	ppbV	82
95) 4-chlorotoluene	18.507	91	29511	0.527	ppbV	98
96) 4-ethyl toluene	18.577	105	41464	0.535	ppbV	99
97) 1,3,5-trimethylbenzene	18.632	105	33839	0.564	ppbV	99
98) tert-butylbenzene	18.937	119	35136	0.556	ppbV	98
99) 1,2,4-trimethylbenzene	18.937	105	32988	0.535	ppbV	95
100) decane	18.979	57	23444	0.529	ppbV	94
101) Benzyl Chloride	19.058	91	26428	0.459	ppbV	100
102) 1,3-dichlorobenzene	19.070	146	22112	0.516	ppbV	96
103) 1,4-dichlorobenzene	19.124	146	22087	0.513	ppbV	97
104) sec-butylbenzene	19.136	105	49026	0.543	ppbV	100
105) 1,2,3-trimethylbenzene	19.263	105	34535	0.547	ppbV	99
106) p-isopropyltoluene	19.251	119	42695	0.532	ppbV	99
107) 1,2-dichlorobenzene	19.384	146	20912	0.513	ppbV	97
108) n-butylbenzene	19.571	91	39163	0.508	ppbV	99
109) indan	19.426	117	36538	0.527	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD0.5
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:04:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

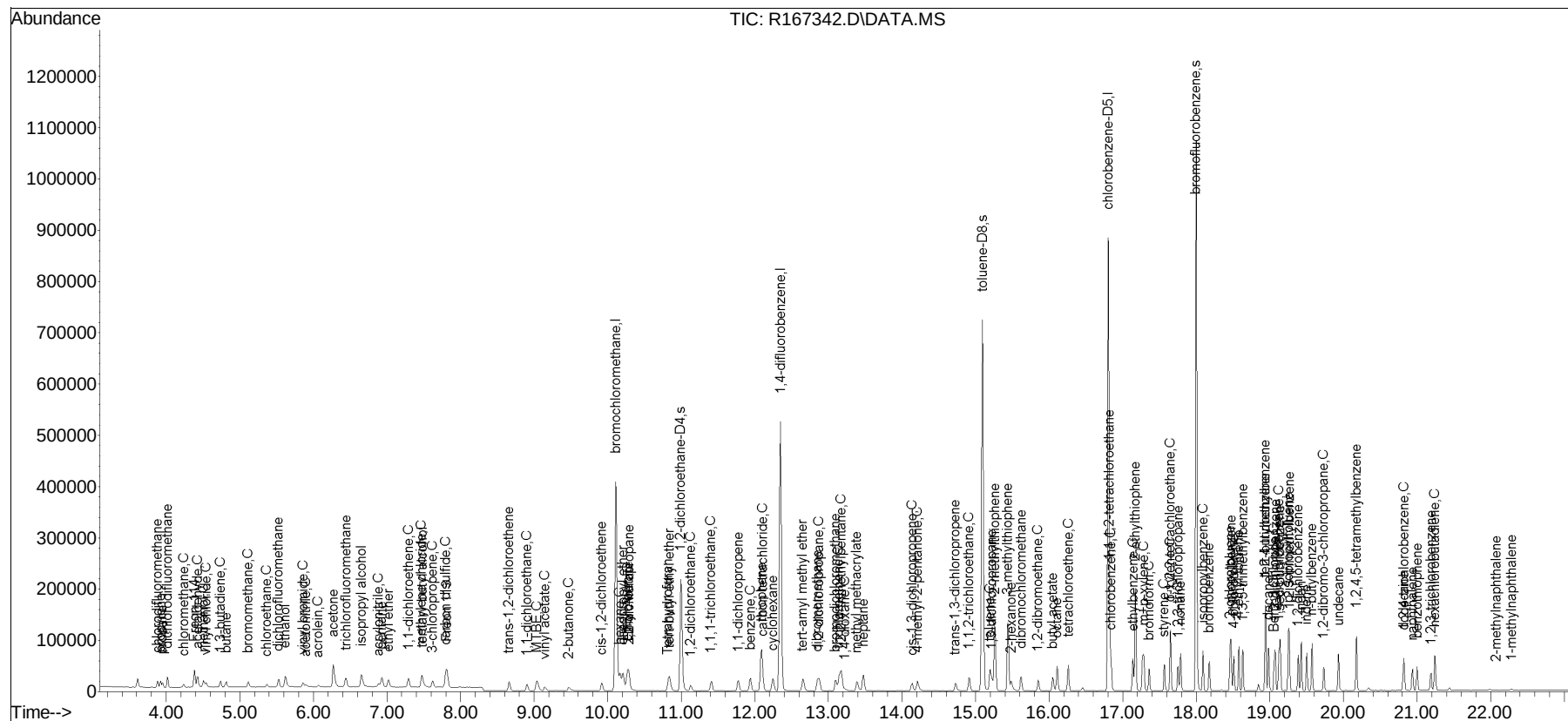
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	indene	19.499	115	29136	0.494	ppbV	98
111)	1,2-dibromo-3-chloropr...	19.729	75	9818	0.487	ppbV	91
112)	undecane	19.934	57	21596	0.411	ppbV	97
113)	1,2,4,5-tetramethylben...	20.176	119	43895	0.485	ppbV	99
114)	dodecane	20.820	57	8609	0.153	ppbV	94
115)	1,2,4-trichlorobenzene	20.820	180	12298	0.325	ppbV	94
116)	naphthalene	20.940	128	31741	0.347	ppbV	97
117)	1,2,3-trichlorobenzene	21.192	180	11778	0.318	ppbV	96
118)	benzothiophene	21.000	134	30167	0.373	ppbV	98
119)	hexachlorobutadiene	21.240	225	11946	0.387	ppbV #	91
120)	2-methylnaphthalene	22.080	142	313	0.039	ppbV #	39
121)	1-methylnaphthalene	22.284	142	1540	0.098	ppbV	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167342.D
Acq On    : 12 Jul 2019    9:50 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD0.5
Misc      : WG1259556
ALS Vial  : 6    Sample Multiplier: 1
```

Quant Time: Jul 13 07:04:41 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 06:46:25 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:07:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	210420	10.000	ppbV	0.00
Standard Area = 214810			Recovery =		97.96%	
43) 1,4-difluorobenzene	12.348	114	444701	10.000	ppbV	0.00
Standard Area = 453122			Recovery =		98.14%	
67) chlorobenzene-D5	16.801	54	85950	10.000	ppbV	0.00
Standard Area = 87523			Recovery =		98.20%	
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.993	65	160632	10.223	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		102.23%	
69) toluene-D8	15.095	98	490215	10.101	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.01%	
90) bromofluorobenzene	17.995	95	306984	9.892	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.92%	
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	21435	1.158	ppbV	97
3) propylene	3.914	41	11227M6	1.249	ppbV	
4) propane	3.948	29	8737	1.159	ppbV	94
5) dichlorodifluoromethane	4.015	85	28177	1.170	ppbV	98
6) chloromethane	4.238	50	10801	1.148	ppbV	97
7) Freon-114	4.384	85	33358	1.106	ppbV	99
8) methanol	4.495	31	18035	5.862	ppbV #	56
9) vinyl chloride	4.540	62	12586	1.134	ppbV	97
10) 1,3-butadiene	4.730	54	8760	1.015	ppbV	94
11) butane	4.818	43	9212	1.227	ppbV	97
12) acetaldehyde	4.417	29	29155	5.798	ppbV	94
13) bromomethane	5.115	94	12584	1.145	ppbV	99
14) chloroethane	5.367	64	5899	1.115	ppbV	99
15) ethanol	5.609	31	36005	5.675	ppbV	100
16) dichlorofluoromethane	5.525	67	27158	1.141	ppbV	94
17) vinyl bromide	5.860	106	12376	1.124	ppbV	89
18) acrolein	6.055	56	5214	1.170	ppbV #	89
19) acetone	6.251	43	113513	5.660	ppbV	99
20) acetonitrile	5.888	41	9241	1.048	ppbV	87
21) trichlorofluoromethane	6.437	101	28938	1.101	ppbV	99
22) isopropyl alcohol	6.633	45	62509	2.999	ppbV	98
23) acrylonitrile	6.875	53	8894	1.127	ppbV	98
24) pentane	6.930	43	19460	1.135	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:07:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	7.005	31	13585	1.164	ppbV	95
26) 1,1-dichloroethene	7.293	61	21424	1.026	ppbV	99
27) tertiary butyl alcohol	7.461	59	29153	1.117	ppbV	96
28) methylene chloride	7.470	49	17499	1.123	ppbV	96
29) 3-chloropropene	7.619	41	18910	1.116	ppbV	94
30) carbon disulfide	7.796	76	45702	1.126	ppbV #	85
31) Freon 113	7.815	101	29021	1.124	ppbV	98
32) trans-1,2-dichloroethene	8.660	61	22607	1.078	ppbV	98
33) 1,1-dichloroethane	8.904	63	26886	1.080	ppbV	100
34) MTBE	9.025	73	39365	1.098	ppbV	99
35) vinyl acetate	9.131	43	24190	0.917	ppbV #	95
36) 2-butanone	9.447	43	27466	1.000	ppbV	99
37) cis-1,2-dichloroethene	9.917	61	20147	0.931	ppbV	92
38) Ethyl Acetate	10.239	61	5004	0.873	ppbV	84
39) chloroform	10.271	83	38545	1.138	ppbV	98
40) Tetrahydrofuran	10.793	42	18673	1.208	ppbV	99
41) 2,2-dichloropropane	10.292	77	31874	1.096	ppbV	100
42) 1,2-dichloroethane	11.126	62	19067	1.111	ppbV	99
44) hexane	10.164	57	29663	1.126	ppbV #	60
45) diisopropyl ether	10.196	87	14287	1.106	ppbV	97
46) tert-butyl ethyl ether	10.827	59	45646	1.075	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	28103	1.114	ppbV	98
49) 1,1-dichloropropene	11.778	75	23203	1.126	ppbV	97
50) benzene	11.941	78	46868	1.099	ppbV	100
51) thiophene	12.080	84	101085	1.166	ppbV	98
52) carbon tetrachloride	12.104	117	28115	1.138	ppbV	95
53) cyclohexane	12.243	56	24786	1.128	ppbV	96
54) tert-amyl methyl ether	12.639	73	42166	1.063	ppbV	97
55) dibromomethane	12.849	93	17367	1.059	ppbV	97
56) 1,2-dichloropropane	12.872	63	18227	1.138	ppbV	99
57) bromodichloromethane	13.093	83	33766	1.067	ppbV	98
58) 1,4-dioxane	13.198	88	9408	0.986	ppbV	96
59) trichloroethene	13.140	130	19300	1.076	ppbV	100
60) 2,2,4-trimethylpentane	13.174	57	80578	1.132	ppbV	97
61) methyl methacrylate	13.384	41	25840	1.054	ppbV	97
62) heptane	13.477	43	30570	1.190	ppbV	100
63) cis-1,3-dichloropropene	14.140	75	25106	1.073	ppbV	99
64) 4-methyl-2-pentanone	14.192	43	36364	1.046	ppbV	99
65) trans-1,3-dichloropropene	14.723	75	23299	1.018	ppbV	98
66) 1,1,2-trichloroethane	14.909	97	18645	1.063	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:07:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	57368	1.115	ppbV	99
70) 2-methylthiophene	15.260	97	176333	1.143	ppbV	99
71) 1,3-dichloropropane	15.219	76	25817	1.118	ppbV	96
72) 2-hexanone	15.466	43	34943	1.136	ppbV #	81
73) 3-methylthiophene	15.435	97	183541	1.184	ppbV	99
74) dibromochloromethane	15.611	129	31576	1.033	ppbV	99
75) 1,2-dibromoethane	15.848	107	29163	1.041	ppbV	99
76) butyl acetate	16.044	73	6120	1.120	ppbV	84
77) octane	16.106	85	16087	1.113	ppbV	95
78) tetrachloroethene	16.261	166	24430	1.076	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.821	131	21578	1.084	ppbV	96
80) chlorobenzene	16.840	112	42820	1.091	ppbV	98
81) ethylbenzene	17.134	91	71502	1.087	ppbV	99
82) 2-ethylthiophene	17.169	97	206275	1.148	ppbV	98
83) m+p-xylene	17.268	91	110795	2.185	ppbV	100
84) bromoform	17.358	173	29730	0.978	ppbV	99
85) styrene	17.562	104	42959	1.071	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.647	83	43964	1.070	ppbV	99
87) o-xylene	17.647	91	56727	1.100	ppbV	99
88) 1,2,3-trichloropropane	17.746	75	33977	1.115	ppbV	96
89) nonane	17.786	43	43159	1.155	ppbV	99
91) isopropylbenzene	18.089	105	75347	1.092	ppbV	98
92) bromobenzene	18.174	77	42078	1.128	ppbV	97
93) 2-chlorotoluene	18.458	126	20092	1.099	ppbV	97
94) n-propylbenzene	18.472	120	21460	1.092	ppbV	91
95) 4-chlorotoluene	18.507	91	60787	1.099	ppbV	99
96) 4-ethyl toluene	18.577	105	84189	1.100	ppbV	99
97) 1,3,5-trimethylbenzene	18.632	105	65784	1.110	ppbV	99
98) tert-butylbenzene	18.937	119	67879	1.086	ppbV	98
99) 1,2,4-trimethylbenzene	18.937	105	64584	1.061	ppbV	95
100) decane	18.979	57	47201	1.078	ppbV	97
101) Benzyl Chloride	19.058	91	53595	0.942	ppbV	98
102) 1,3-dichlorobenzene	19.070	146	44531	1.053	ppbV	97
103) 1,4-dichlorobenzene	19.118	146	43884	1.031	ppbV	98
104) sec-butylbenzene	19.136	105	97945	1.097	ppbV	100
105) 1,2,3-trimethylbenzene	19.263	105	67073	1.075	ppbV	100
106) p-isopropyltoluene	19.251	119	86054	1.085	ppbV	99
107) 1,2-dichlorobenzene	19.384	146	41764	1.036	ppbV	99
108) n-butylbenzene	19.571	91	80856	1.062	ppbV	99
109) indan	19.426	117	73291	1.069	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD1.0
 Misc : WG1259556
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 13 07:07:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

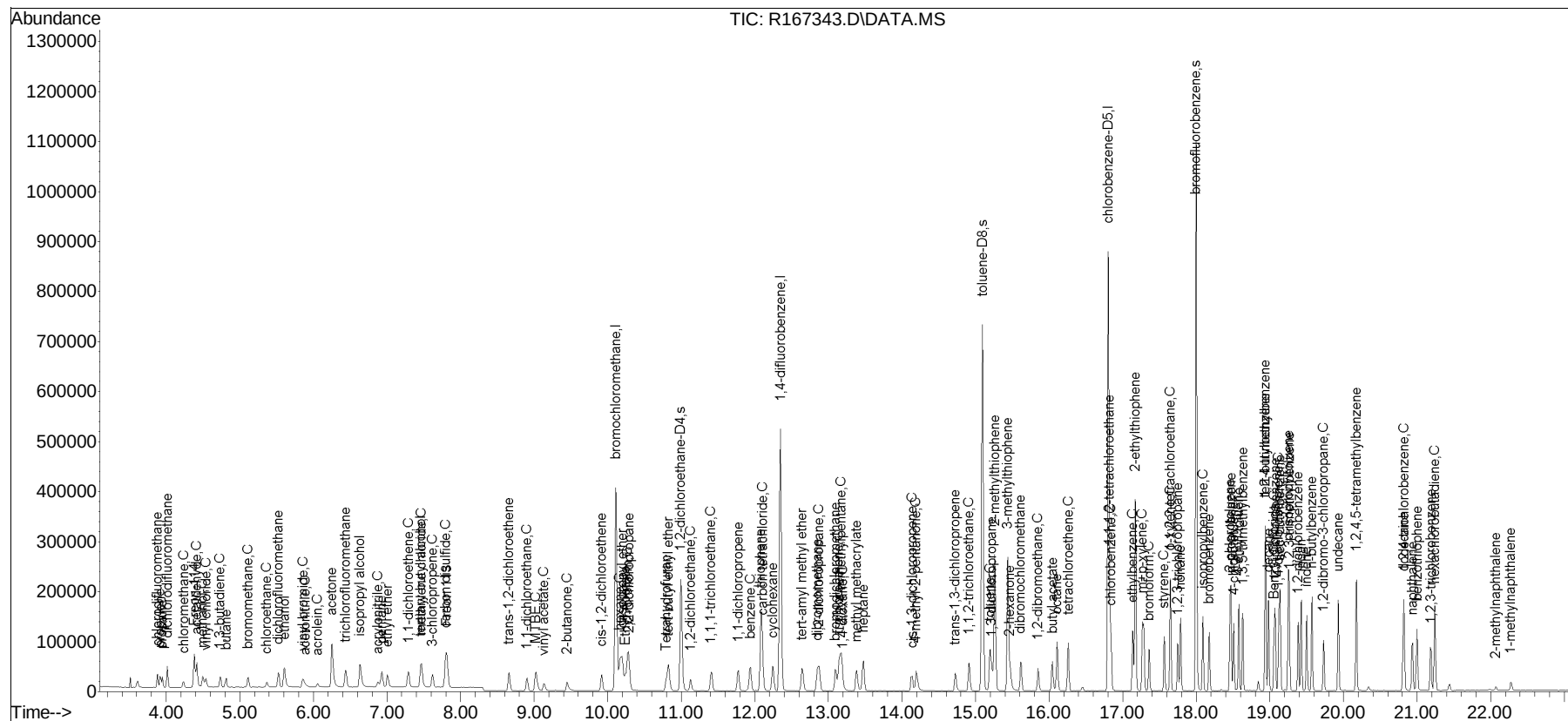
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	indene	19.499	115	58753	1.008	ppbV	99
111)	1,2-dibromo-3-chloropr...	19.729	75	19767	0.992	ppbV	96
112)	undecane	19.928	57	50151	0.967	ppbV	99
113)	1,2,4,5-tetramethylben...	20.176	119	94845	1.061	ppbV	100
114)	dodecane	20.820	57	30085	0.539	ppbV	93
115)	1,2,4-trichlorobenzene	20.820	180	29292	0.785	ppbV	96
116)	naphthalene	20.940	128	76736	0.848	ppbV	100
117)	1,2,3-trichlorobenzene	21.192	180	27876	0.762	ppbV	95
118)	benzothiophene	21.000	134	78786	0.985	ppbV	99
119)	hexachlorobutadiene	21.240	225	27639	0.905	ppbV	97
120)	2-methylnaphthalene	22.068	142	4290	0.540	ppbV	98
121)	1-methylnaphthalene	22.272	142	9473	0.610	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167343.D
Acq On    : 12 Jul 2019  10:23 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD1.0
Misc      : WG1259556
ALS Vial  : 6      Sample Multiplier: 1
```

Quant Time: Jul 13 07:07:10 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 06:46:25 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 07:10:44 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	212402	10.000	ppbV	0.00
Standard Area = 214810			Recovery =	98.88%		
43) 1,4-difluorobenzene	12.348	114	450022	10.000	ppbV	0.00
Standard Area = 453122			Recovery =	99.32%		
67) chlorobenzene-D5	16.801	54	87650	10.000	ppbV	0.00
Standard Area = 87523			Recovery =	100.15%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.993	65	158970	9.998	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.98%		
69) toluene-D8	15.095	98	496213	10.026	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.26%		
90) bromofluorobenzene	17.995	95	312069	9.861	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.61%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	97832	5.237	ppbV	99
3) propylene	3.915	41	47794M6	5.266	ppbV	
4) propane	3.948	29	41137	5.405	ppbV	96
5) dichlorodifluoromethane	4.015	85	136907	5.632	ppbV	100
6) chloromethane	4.239	50	49658	5.229	ppbV	100
7) Freon-114	4.384	85	157964	5.189	ppbV	99
8) methanol	4.484	31	83095	26.757	ppbV	93
9) vinyl chloride	4.540	62	58293	5.202	ppbV	100
10) 1,3-butadiene	4.730	54	45395	5.211	ppbV	99
11) butane	4.818	43	40325	5.322	ppbV	99
12) acetaldehyde	4.406	29	132649	26.133	ppbV	99
13) bromomethane	5.115	94	58322	5.257	ppbV	98
14) chloroethane	5.367	64	28085	5.257	ppbV	93
15) ethanol	5.581	31	169970	26.539	ppbV	100
16) dichlorofluoromethane	5.525	67	124216	5.169	ppbV	99
17) vinyl bromide	5.860	106	58286	5.245	ppbV	95
18) acrolein	6.046	56	23218	5.163	ppbV	97
19) acetone	6.223	43	518393	25.606	ppbV	99
20) acetonitrile	5.869	41	46165	5.187	ppbV	97
21) trichlorofluoromethane	6.437	101	136387	5.143	ppbV	99
22) isopropyl alcohol	6.605	45	275424	13.089	ppbV	99
23) acrylonitrile	6.865	53	39938M6	5.013	ppbV	
24) pentane	6.930	43	88439	5.110	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 07:10:44 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.986	31	58898	5.001	ppbV	98
26) 1,1-dichloroethene	7.293	61	93896	4.455	ppbV	98
27) tertiary butyl alcohol	7.414	59	136013	5.163	ppbV	99
28) methylene chloride	7.470	49	80240	5.099	ppbV	99
29) 3-chloropropene	7.619	41	87986	5.145	ppbV	99
30) carbon disulfide	7.796	76	212094	5.175	ppbV	98
31) Freon 113	7.815	101	134181	5.150	ppbV	99
32) trans-1,2-dichloroethene	8.652	61	107631	5.087	ppbV	97
33) 1,1-dichloroethane	8.904	63	129753	5.163	ppbV	98
34) MTBE	9.001	73	188180	5.200	ppbV	99
35) vinyl acetate	9.123	43	124419	4.672	ppbV	98
36) 2-butanone	9.415	43	140510	5.068	ppbV	99
37) cis-1,2-dichloroethene	9.917	61	113131	5.177	ppbV	98
38) Ethyl Acetate	10.217	61	28693	4.960	ppbV	84
39) chloroform	10.271	83	177671	5.197	ppbV	98
40) Tetrahydrofuran	10.749	42	77201M6	4.946	ppbV	
41) 2,2-dichloropropane	10.292	77	149354	5.089	ppbV	99
42) 1,2-dichloroethane	11.127	62	89300	5.153	ppbV	99
44) hexane	10.164	57	139232	5.220	ppbV	89
45) diisopropyl ether	10.185	87	69601	5.323	ppbV	96
46) tert-butyl ethyl ether	10.805	59	217809	5.067	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	129817	5.085	ppbV	99
49) 1,1-dichloropropene	11.766	75	105962	5.080	ppbV	97
50) benzene	11.941	78	221079	5.123	ppbV	99
51) thiophene	12.081	84	464527	5.293	ppbV	99
52) carbon tetrachloride	12.104	117	128457	5.137	ppbV	100
53) cyclohexane	12.243	56	115852	5.211	ppbV	99
54) tert-amyl methyl ether	12.628	73	203537	5.072	ppbV	98
55) dibromomethane	12.849	93	82419	4.966	ppbV	98
56) 1,2-dichloropropane	12.872	63	85742	5.289	ppbV	98
57) bromodichloromethane	13.093	83	163286	5.100	ppbV	99
58) 1,4-dioxane	13.163	88	49332	5.108	ppbV #	78
59) trichloroethene	13.140	130	91778	5.057	ppbV	98
60) 2,2,4-trimethylpentane	13.175	57	374084	5.193	ppbV	100
61) methyl methacrylate	13.372	41	127342	5.132	ppbV	100
62) heptane	13.477	43	137587	5.292	ppbV	99
63) cis-1,3-dichloropropene	14.123	75	120178	5.076	ppbV	99
64) 4-methyl-2-pentanone	14.175	43	180097	5.120	ppbV	100
65) trans-1,3-dichloropropene	14.723	75	115590	4.991	ppbV	98
66) 1,1,2-trichloroethane	14.909	97	90866	5.117	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 07:10:44 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	268814	5.125	ppbV	100
70) 2-methylthiophene	15.260	97	824265	5.239	ppbV	100
71) 1,3-dichloropropane	15.219	76	122139	5.185	ppbV	98
72) 2-hexanone	15.456	43	172092	5.485	ppbV #	85
73) 3-methylthiophene	15.435	97	835865	5.287	ppbV	100
74) dibromochloromethane	15.611	129	156863	5.034	ppbV	99
75) 1,2-dibromoethane	15.848	107	142269	4.978	ppbV	99
76) butyl acetate	16.034	73	27825	4.993	ppbV	94
77) octane	16.106	85	75503	5.122	ppbV	99
78) tetrachloroethene	16.261	166	116985	5.052	ppbV	100
79) 1,1,1,2-tetrachloroethane	16.821	131	102579	5.054	ppbV	99
80) chlorobenzene	16.840	112	202859	5.069	ppbV	99
81) ethylbenzene	17.134	91	340831	5.079	ppbV	99
82) 2-ethylthiophene	17.169	97	938318	5.122	ppbV	99
83) m+p-xylene	17.283	91	532244	10.295	ppbV	99
84) bromoform	17.358	173	155110	5.003	ppbV	99
85) styrene	17.562	104	206420	5.047	ppbV	100
86) 1,1,2,2-tetrachloroethane	17.647	83	214009	5.105	ppbV	99
87) o-xylene	17.647	91	272274	5.178	ppbV	100
88) 1,2,3-trichloropropane	17.746	75	162862	5.242	ppbV	99
89) nonane	17.786	43	199381	5.232	ppbV	100
91) isopropylbenzene	18.089	105	360983	5.130	ppbV	100
92) bromobenzene	18.174	77	197940	5.203	ppbV	100
93) 2-chlorotoluene	18.458	126	96823	5.195	ppbV	92
94) n-propylbenzene	18.468	120	102291	5.102	ppbV	66
95) 4-chlorotoluene	18.507	91	286787	5.085	ppbV	99
96) 4-ethyl toluene	18.577	105	407414	5.219	ppbV	100
97) 1,3,5-trimethylbenzene	18.627	105	318695	5.272	ppbV	100
98) tert-butylbenzene	18.937	119	320785	5.035	ppbV	100
99) 1,2,4-trimethylbenzene	18.937	105	310681	5.003	ppbV	99
100) decane	18.979	57	229647	5.144	ppbV	100
101) Benzyl Chloride	19.052	91	281760	4.856	ppbV	98
102) 1,3-dichlorobenzene	19.070	146	216496	5.018	ppbV	99
103) 1,4-dichlorobenzene	19.118	146	218955	5.046	ppbV	98
104) sec-butylbenzene	19.137	105	466767	5.126	ppbV	99
105) 1,2,3-trimethylbenzene	19.263	105	322332	5.066	ppbV	100
106) p-isopropyltoluene	19.251	119	416624	5.150	ppbV	99
107) 1,2-dichlorobenzene	19.384	146	209483	5.098	ppbV	100
108) n-butylbenzene	19.572	91	395084	5.090	ppbV	99
109) indan	19.427	117	358140	5.122	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD5.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 07:10:44 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

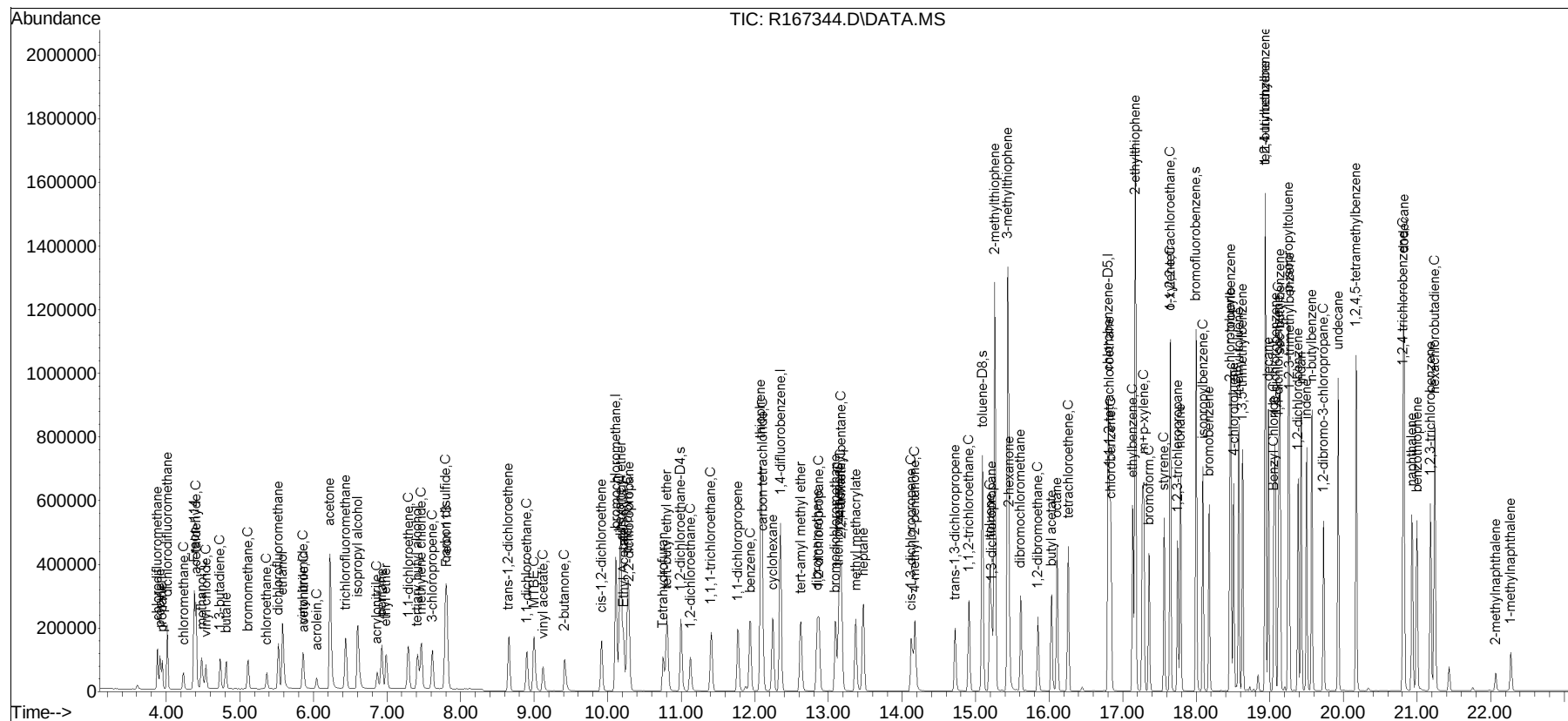
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.499	115	298726	5.028	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.729	75	101439	4.991	ppbV	99
112) undecane	19.928	57	266673	5.041	ppbV	100
113) 1,2,4,5-tetramethylben...	20.170	119	456177	5.003	ppbV	98
114) dodecane	20.820	57	255472	4.491	ppbV	100
115) 1,2,4-trichlorobenzene	20.808	180	176596	4.638	ppbV	99
116) naphthalene	20.928	128	430130	4.663	ppbV	100
117) 1,2,3-trichlorobenzene	21.180	180	171798	4.604	ppbV	99
118) benzothiophene	21.000	134	369314	4.530	ppbV	99
119) hexachlorobutadiene	21.240	225	146102	4.691	ppbV	98
120) 2-methylnaphthalene	22.068	142	27150	3.351	ppbV	99
121) 1-methylnaphthalene	22.272	142	61057	3.854	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167344.D
Acq On    : 12 Jul 2019  10:55 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD5.0
Misc      : WG1259556
ALS Vial  : 7      Sample Multiplier: 1
```

Quant Time: Jul 13 07:10:44 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 06:46:25 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 06:45:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Apr 17 00:54:15 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	214810	10.000	ppbV	0.00
Standard Area = 214810			Recovery =	100.00%		
43) 1,4-difluorobenzene	12.348	114	453122	10.000	ppbV	0.00
Standard Area = 453122			Recovery =	100.00%		
67) chlorobenzene-D5	16.801	54	87523	10.000	ppbV	-0.01
Standard Area = 87523			Recovery =	100.00%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.993	65	160102	10.739	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.39%		
69) toluene-D8	15.095	98	494206	11.053	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	110.53%		
90) bromofluorobenzene	17.995	95	316022	11.149	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	111.49%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	188917	10.299	ppbV	100
3) propylene	3.915	41	91793M6	10.885	ppbV	
4) propane	3.948	29	76975	10.478	ppbV	98
5) dichlorodifluoromethane	4.015	85	245860	10.213	ppbV	98
6) chloromethane	4.239	50	96036	9.819	ppbV	98
7) Freon-114	4.384	85	307883	9.765	ppbV	98
8) methanol	4.473	31	157037	34.076	ppbV	98
9) vinyl chloride	4.540	62	113334	9.900	ppbV	100
10) 1,3-butadiene	4.730	54	88098	10.713	ppbV	95
11) butane	4.818	43	76627	6.219	ppbV	97
12) acetaldehyde	4.406	29	256670	49.601	ppbV	94
13) bromomethane	5.115	94	112204	9.161	ppbV	99
14) chloroethane	5.367	64	54033	10.558	ppbV	93
15) ethanol	5.581	31	323854	42.310	ppbV	100
16) dichlorofluoromethane	5.525	67	243012	9.777	ppbV	100
17) vinyl bromide	5.860	106	112377	9.550	ppbV	98
18) acrolein	6.037	56	45478	10.193	ppbV	97
19) acetone	6.223	43	1023727	51.365	ppbV	96
20) acetonitrile	5.869	41	90012	10.510	ppbV	99
21) trichlorofluoromethane	6.437	101	268202	9.458	ppbV	99
22) isopropyl alcohol	6.595	45	532010	25.612	ppbV	99
23) acrylonitrile	6.865	53	80574M6	9.827	ppbV	
24) pentane	6.930	43	175039	9.339	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 06:45:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Apr 17 00:54:15 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.986	31	119116	10.240	ppbV	96
26) 1,1-dichloroethene	7.293	61	213136	11.328	ppbV	99
27) tertiary butyl alcohol	7.405	59	266407	11.501	ppbV	99
28) methylene chloride	7.470	49	159135	11.325	ppbV	96
29) 3-chloropropene	7.619	41	172965	11.481	ppbV	97
30) carbon disulfide	7.796	76	414510	11.215	ppbV	98
31) Freon 113	7.815	101	263501	10.568	ppbV	98
32) trans-1,2-dichloroethene	8.661	61	213998	10.926	ppbV	99
33) 1,1-dichloroethane	8.904	63	254166	10.804	ppbV	99
34) MTBE	8.993	73	366016	11.039	ppbV	98
35) vinyl acetate	9.115	43	269333	10.605	ppbV	98
36) 2-butanone	9.406	43	280419	10.775	ppbV	98
37) cis-1,2-dichloroethene	9.917	61	221009	11.457	ppbV	99
38) Ethyl Acetate	10.207	61	58508	11.118	ppbV	81
39) chloroform	10.271	83	345734	10.269	ppbV	99
40) Tetrahydrofuran	10.738	42	157855M6	10.619	ppbV	
41) 2,2-dichloropropane	10.292	77	296814	10.585	ppbV	99
42) 1,2-dichloroethane	11.127	62	175255	10.485	ppbV	99
44) hexane	10.164	57	268543	10.952	ppbV	81
45) diisopropyl ether	10.175	87	131656	10.570	ppbV	98
46) tert-butyl ethyl ether	10.805	59	432849	10.979	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	257041	10.024	ppbV	98
49) 1,1-dichloropropene	11.766	75	210004	10.417	ppbV	97
50) benzene	11.941	78	434510	10.888	ppbV	98
51) thiophene	12.081	84	883709	10.436	ppbV	97
52) carbon tetrachloride	12.104	117	251800	9.672	ppbV	97
53) cyclohexane	12.243	56	223862	10.885	ppbV	97
54) tert-amyl methyl ether	12.616	73	404032	10.837	ppbV	99
55) dibromomethane	12.849	93	167114	10.019	ppbV	99
56) 1,2-dichloropropane	12.872	63	163223	10.623	ppbV	99
57) bromodichloromethane	13.093	83	322382	10.138	ppbV	99
58) 1,4-dioxane	13.151	88	97241	11.062	ppbV	91
59) trichloroethene	13.140	130	182744	10.260	ppbV	100
60) 2,2,4-trimethylpentane	13.175	57	725299	10.854	ppbV	99
61) methyl methacrylate	13.361	41	249866	10.684	ppbV	97
62) heptane	13.477	43	261801	10.276	ppbV	98
63) cis-1,3-dichloropropene	14.123	75	238402	10.909	ppbV	99
64) 4-methyl-2-pentanone	14.175	43	354142	10.964	ppbV	98
65) trans-1,3-dichloropropene	14.723	75	233209	10.720	ppbV	99
66) 1,1,2-trichloroethane	14.909	97	178785	10.507	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 06:45:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Wed Apr 17 00:54:15 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	523780	10.625	ppbV	99
70) 2-methylthiophene	15.260	97	1570901	10.464	ppbV	99
71) 1,3-dichloropropane	15.219	76	235239	10.705	ppbV	97
72) 2-hexanone	15.446	43	313289	10.439	ppbV #	91
73) 3-methylthiophene	15.435	97	1578838	10.446	ppbV	99
74) dibromochloromethane	15.611	129	311170	9.562	ppbV	99
75) 1,2-dibromoethane	15.848	107	285406	10.107	ppbV	100
76) butyl acetate	16.023	73	55650	12.258	ppbV	73
77) octane	16.106	85	147190	11.322	ppbV	98
78) tetrachloroethene	16.261	166	231211	9.943	ppbV	97
79) 1,1,1,2-tetrachloroethane	16.821	131	202684	9.914	ppbV	98
80) chlorobenzene	16.841	112	399620	10.419	ppbV	99
81) ethylbenzene	17.134	91	670115	10.631	ppbV	99
82) 2-ethylthiophene	17.174	97	1829167	10.597	ppbV	99
83) m+p-xylene	17.283	91	1032520	21.301	ppbV	99
84) bromoform	17.358	173	309599	9.421	ppbV	99
85) styrene	17.562	104	408440	10.900	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.647	83	418591	10.395	ppbV	99
87) o-xylene	17.647	91	525114	10.526	ppbV	98
88) 1,2,3-trichloropropane	17.746	75	310241	10.344	ppbV	98
89) nonane	17.786	43	380561	10.627	ppbV	99
91) isopropylbenzene	18.089	105	702599	10.724	ppbV	98
92) bromobenzene	18.174	77	379901	10.373	ppbV	96
93) 2-chlorotoluene	18.458	126	186115M3	9.994	ppbV	
94) n-propylbenzene	18.473	120	200206	10.809	ppbV	84
95) 4-chlorotoluene	18.507	91	563193	10.815	ppbV	99
96) 4-ethyl toluene	18.577	105	779518	10.539	ppbV	99
97) 1,3,5-trimethylbenzene	18.627	105	603670	10.329	ppbV	99
98) tert-butylbenzene	18.937	119	636240	10.903	ppbV	98
99) 1,2,4-trimethylbenzene	18.937	105	620138	10.927	ppbV	99
100) decane	18.979	57	445753	11.277	ppbV #	100
101) Benzyl Chloride	19.052	91	579436	10.975	ppbV	98
102) 1,3-dichlorobenzene	19.070	146	430827M3	10.315	ppbV	
103) 1,4-dichlorobenzene	19.118	146	433300	10.349	ppbV	95
104) sec-butylbenzene	19.137	105	909196	10.864	ppbV	100
105) 1,2,3-trimethylbenzene	19.263	105	635400	10.735	ppbV	95
106) p-isopropyltoluene	19.251	119	807789	10.923	ppbV	98
107) 1,2-dichlorobenzene	19.384	146	410336	10.247	ppbV	99
108) n-butylbenzene	19.572	91	775095	10.957	ppbV	95
109) indan	19.427	117	698266	10.836	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 06:45:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Wed Apr 17 00:54:15 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

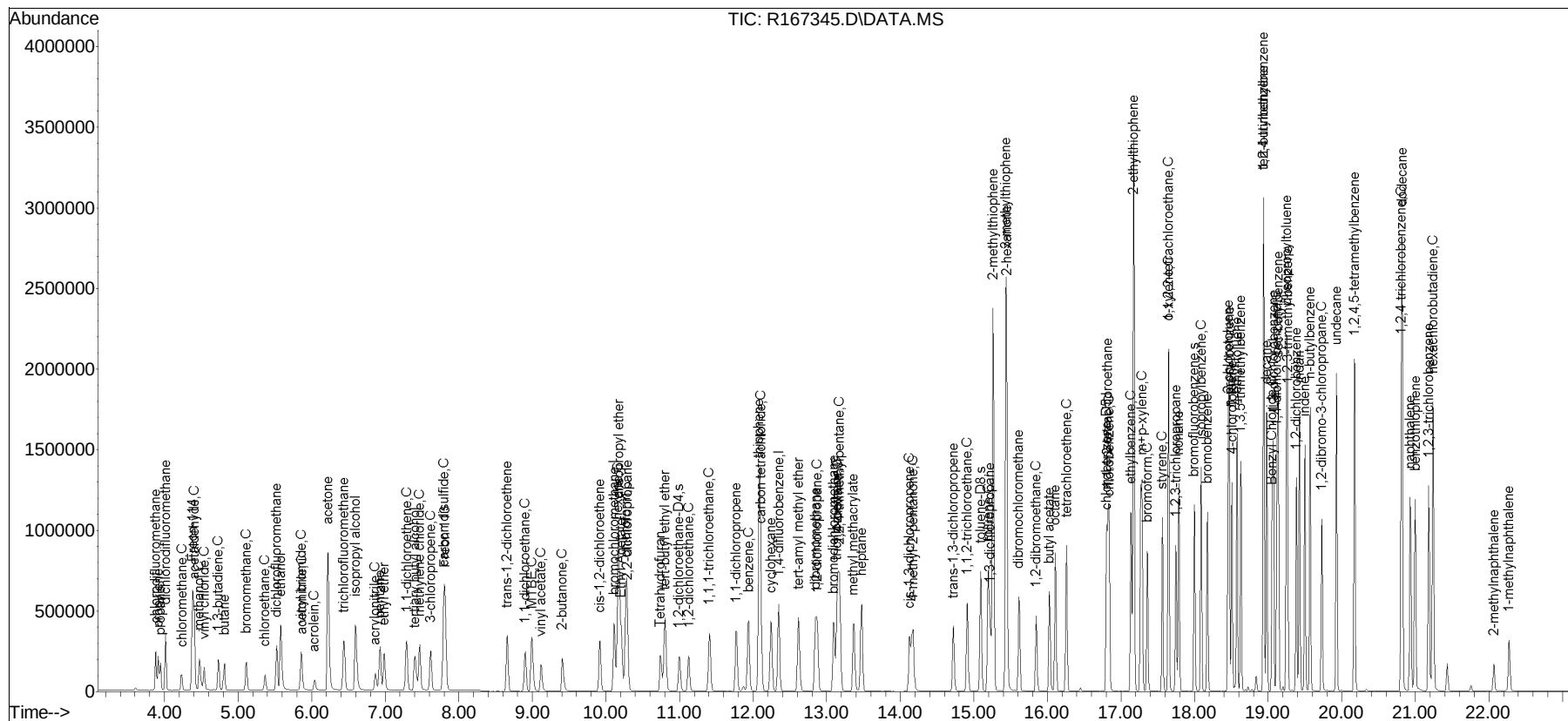
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.499	115	593294	10.889	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.729	75	202962	10.941	ppbV	96
112) undecane	19.928	57	528282	12.636	ppbV #	98
113) 1,2,4,5-tetramethylben...	20.176	119	910400	11.035	ppbV	100
114) dodecane	20.820	57	568015	14.825	ppbV	99
115) 1,2,4-trichlorobenzene	20.808	180	380190	12.071	ppbV	98
116) naphthalene	20.928	128	921097	11.131	ppbV	100
117) 1,2,3-trichlorobenzene	21.180	180	372623	12.573	ppbV	97
118) benzothiophene	21.000	134	814122	11.498	ppbV	100
119) hexachlorobutadiene	21.240	225	310983	11.290	ppbV	97
120) 2-methylnaphthalene	22.068	142	80901	9.085	ppbV	100
121) 1-methylnaphthalene	22.272	142	158179	9.165	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed 0712T_ICAL\R167345.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167345.D
Acq On : 12 Jul 2019 11:29 pm
Operator : AIRPIAN01:AR
Sample : IT015-LLSTD10.0
Misc : WG1259556
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 13 06:45:18 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Wed Apr 17 00:54:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD20.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:14:27 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	299782	10.000	ppbV	0.00
Standard Area = 214810			Recovery = 139.56%			
43) 1,4-difluorobenzene	12.348	114	618825	10.000	ppbV	0.00
Standard Area = 453122			Recovery = 136.57%			
67) chlorobenzene-D5	16.801	54	117491	10.000	ppbV	0.00
Standard Area = 87523			Recovery = 134.24%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.004	65	242060	11.071	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.71%			
69) toluene-D8	15.095	98	737906	11.123	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.23%			
90) bromofluorobenzene	18.000	95	483294	11.392	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.92%			
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	581965	22.074	ppbV	100
3) propylene	3.915	41	300338M6	23.445	ppbV	
4) propane	3.948	29	237560	22.114	ppbV	99
5) dichlorodifluoromethane	4.015	85	835888	24.362	ppbV	99
6) chloromethane	4.227	50	296270	22.106	ppbV	100
7) Freon-114	4.384	85	928547	21.611	ppbV	97
8) methanol	4.473	31	470388	107.318	ppbV	97
9) vinyl chloride	4.540	62	352437	22.283	ppbV	99
10) 1,3-butadiene	4.730	54	261454	21.266	ppbV	96
11) butane	4.818	43	204451	19.119	ppbV	99
12) acetaldehyde	4.395	29	781731	109.119	ppbV	96
13) bromomethane	5.106	94	345171	22.043	ppbV	100
14) chloroethane	5.367	64	169645	22.497	ppbV	95
15) ethanol	5.581	31	998390	110.451	ppbV	100
16) dichlorofluoromethane	5.525	67	756192	22.297	ppbV	100
17) vinyl bromide	5.851	106	353354	22.531	ppbV	97
18) acrolein	6.037	56	140454	22.130	ppbV	98
19) acetone	6.214	43	3083576	107.917	ppbV	98
20) acetonitrile	5.860	41	272390	21.684	ppbV	98
21) trichlorofluoromethane	6.437	101	832445	22.240	ppbV	100
22) isopropyl alcohol	6.595	45	1601467	53.925	ppbV	100
23) acrylonitrile	6.865	53	254541M6	22.637	ppbV	
24) pentane	6.930	43	543718	22.258	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD20.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:14:27 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.977	31	352395	21.199	ppbV	99
26) 1,1-dichloroethene	7.284	61	655012	22.021	ppbV	99
27) tertiary butyl alcohol	7.387	59	832164	22.383	ppbV	99
28) methylene chloride	7.470	49	483896	21.789	ppbV	99
29) 3-chloropropene	7.619	41	525679	21.778	ppbV	98
30) carbon disulfide	7.787	76	1276077	22.059	ppbV	99
31) Freon 113	7.815	101	816998	22.217	ppbV	98
32) trans-1,2-dichloroethene	8.661	61	654352	21.910	ppbV	99
33) 1,1-dichloroethane	8.904	63	776837	21.901	ppbV	100
34) MTBE	8.985	73	1142454	22.366	ppbV	99
35) vinyl acetate	9.115	43	867610	23.083	ppbV	100
36) 2-butanone	9.398	43	858929	21.948	ppbV	98
37) cis-1,2-dichloroethene	9.917	61	687050	22.275	ppbV	99
38) Ethyl Acetate	10.207	61	182515	22.353	ppbV	85
39) chloroform	10.271	83	1056244	21.891	ppbV	99
40) Tetrahydrofuran	10.727	42	503366M6	22.849	ppbV	
41) 2,2-dichloropropane	10.292	77	911419	22.003	ppbV	100
42) 1,2-dichloroethane	11.127	62	546149	22.330	ppbV	100
44) hexane	10.164	57	809190	22.064	ppbV	94
45) diisopropyl ether	10.175	87	410713	22.843	ppbV	94
46) tert-butyl ethyl ether	10.805	59	1325159	22.417	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	796797	22.698	ppbV	99
49) 1,1-dichloropropene	11.778	75	644593	22.475	ppbV	97
50) benzene	11.941	78	1309813	22.073	ppbV	100
51) thiophene	12.092	84	2697788	22.354	ppbV	97
52) carbon tetrachloride	12.104	117	776614	22.584	ppbV	99
53) cyclohexane	12.243	56	684803	22.399	ppbV	98
54) tert-amyl methyl ether	12.616	73	1231824	22.324	ppbV	99
55) dibromomethane	12.849	93	509178	22.310	ppbV	99
56) 1,2-dichloropropane	12.872	63	502727	22.553	ppbV	99
57) bromodichloromethane	13.105	83	973869	22.120	ppbV	98
58) 1,4-dioxane	13.140	88	301660	22.715	ppbV	88
59) trichloroethene	13.140	130	556171	22.285	ppbV	99
60) 2,2,4-trimethylpentane	13.175	57	2164124	21.848	ppbV	99
61) methyl methacrylate	13.361	41	763820	22.384	ppbV	99
62) heptane	13.477	43	788046	22.041	ppbV	100
63) cis-1,3-dichloropropene	14.123	75	733932	22.542	ppbV	99
64) 4-methyl-2-pentanone	14.157	43	1055157	21.817	ppbV	99
65) trans-1,3-dichloropropene	14.723	75	733396	23.027	ppbV	99
66) 1,1,2-trichloroethane	14.909	97	546560	22.385	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD20.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:14:27 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	1570475	22.336	ppbV	99
70) 2-methylthiophene	15.270	97	4535147	21.506	ppbV	99
71) 1,3-dichloropropane	15.229	76	709468	22.467	ppbV	99
72) 2-hexanone	15.446	43	884160	21.023	ppbV	94
73) 3-methylthiophene	15.446	97	4538399	21.413	ppbV	99
74) dibromochloromethane	15.621	129	968731	23.191	ppbV	99
75) 1,2-dibromoethane	15.848	107	873767	22.806	ppbV	99
76) butyl acetate	16.023	73	167730	22.452	ppbV	95
77) octane	16.106	85	436272	22.080	ppbV	98
78) tetrachloroethene	16.261	166	716354	23.080	ppbV	99
79) 1,1,1,2-tetrachloroethane	16.826	131	629596	23.140	ppbV	98
80) chlorobenzene	16.841	112	1227142	22.875	ppbV	99
81) ethylbenzene	17.139	91	2017521	22.428	ppbV	99
82) 2-ethylthiophene	17.174	97	5135151	20.913	ppbV	99
83) m+p-xylene	17.283	91	3075327	44.375	ppbV	99
84) bromoform	17.358	173	970851	23.360	ppbV	99
85) styrene	17.562	104	1243488	22.679	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.647	83	1189869	21.175	ppbV	100
87) o-xylene	17.647	91	1556865	22.086	ppbV	99
88) 1,2,3-trichloropropane	17.746	75	945319	22.698	ppbV	100
89) nonane	17.786	43	1126058	22.042	ppbV	99
91) isopropylbenzene	18.089	105	2088947	22.148	ppbV	99
92) bromobenzene	18.174	77	1154292	22.634	ppbV	100
93) 2-chlorotoluene	18.458	126	557695	22.322	ppbV	83
94) n-propylbenzene	18.473	120	591395	22.005	ppbV	96
95) 4-chlorotoluene	18.507	91	1588346	21.009	ppbV	100
96) 4-ethyl toluene	18.577	105	2288261	21.867	ppbV	99
97) 1,3,5-trimethylbenzene	18.632	105	1772241	21.870	ppbV	99
98) tert-butylbenzene	18.937	119	1720315	20.142	ppbV	99
99) 1,2,4-trimethylbenzene	18.943	105	1663567	19.983	ppbV	95
100) decane	18.979	57	1193936	19.953	ppbV	99
101) Benzyl Chloride	19.058	91	1664813	21.403	ppbV	98
102) 1,3-dichlorobenzene	19.070	146	1199689	20.744	ppbV	97
103) 1,4-dichlorobenzene	19.124	146	1199517	20.622	ppbV	98
104) sec-butylbenzene	19.137	105	2467042	20.213	ppbV	99
105) 1,2,3-trimethylbenzene	19.263	105	1702200	19.956	ppbV	100
106) p-isopropyltoluene	19.251	119	2129781	19.641	ppbV	99
107) 1,2-dichlorobenzene	19.384	146	1136415	20.631	ppbV	98
108) n-butylbenzene	19.572	91	1986865	19.095	ppbV	100
109) indan	19.427	117	1890226	20.166	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD20.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:14:27 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

110)	indene	19.499	115	1585376	19.906	ppbV	99
111)	1,2-dibromo-3-chloropr...	19.729	75	512666	18.816	ppbV	100
112)	undecane	19.928	57	1164543	16.421	ppbV	99
113)	1,2,4,5-tetramethylben...	20.176	119	2089165	17.095	ppbV	99
114)	dodecane	20.820	57	1006953	13.206	ppbV	99
115)	1,2,4-trichlorobenzene	20.808	180	737542	14.451	ppbV	100
116)	naphthalene	20.928	128	1750108	14.154	ppbV	100
117)	1,2,3-trichlorobenzene	21.180	180	690730	13.809	ppbV	99
118)	benzothiophene	21.000	134	2071264	18.952	ppbV	99
119)	hexachlorobutadiene	21.240	225	616639	14.771	ppbV	99
120)	2-methylnaphthalene	22.068	142	210447	19.378	ppbV	97
121)	1-methylnaphthalene	22.272	142	371920	17.515	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD50.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:17:11 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.121	49	227672	10.000	ppbV	0.01
Standard Area = 214810			Recovery = 105.99%			
43) 1,4-difluorobenzene	12.348	114	464442	10.000	ppbV	0.00
Standard Area = 453122			Recovery = 102.50%			
67) chlorobenzene-D5	16.806	54	86854	10.000	ppbV	0.00
Standard Area = 87523			Recovery = 99.24%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.005	65	166216	10.129	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.29%			
69) toluene-D8	15.095	98	505967	10.317	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.17%			
90) bromofluorobenzene	18.000	95	324178	10.337	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.37%			
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	916449	45.770	ppbV	99
3) propylene	3.915	41	447905M6	46.039	ppbV	
4) propane	3.948	29	372288	45.632	ppbV	99
5) dichlorodifluoromethane	4.015	85	1337969	51.346	ppbV	99
6) chloromethane	4.239	50	497369	48.864	ppbV	99
7) Freon-114	4.384	85	1497216	45.882	ppbV	99
8) methanol	4.473	31	766715	230.328	ppbV	97
9) vinyl chloride	4.540	62	577701	48.094	ppbV	100
10) 1,3-butadiene	4.741	54	429213	45.968	ppbV	94
11) butane	4.818	43	436424	53.737	ppbV	99
12) acetaldehyde	4.406	29	1270565	233.527	ppbV	98
13) bromomethane	5.116	94	562242	47.278	ppbV	99
14) chloroethane	5.367	64	277076	48.382	ppbV	96
15) ethanol	5.590	31	1613627	235.055	ppbV	100
16) dichlorofluoromethane	5.525	67	1220959	47.404	ppbV	99
17) vinyl bromide	5.860	106	568873	47.762	ppbV	98
18) acrolein	6.037	56	232640	48.265	ppbV	98
19) acetone	6.223	43	4867571	224.307	ppbV	98
20) acetonitrile	5.869	41	436164	45.719	ppbV	99
21) trichlorofluoromethane	6.437	101	1350796	47.520	ppbV	100
22) isopropyl alcohol	6.605	45	2576368	114.228	ppbV	100
23) acrylonitrile	6.875	53	409973M6	48.007	ppbV	
24) pentane	6.931	43	871561M6	46.979	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD50.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:17:11 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.977	31	580606	45.989	ppbV	99
26) 1,1-dichloroethene	7.294	61	1059042	46.881	ppbV	100
27) tertiary butyl alcohol	7.396	59	1346439	47.685	ppbV	99
28) methylene chloride	7.470	49	776089	46.014	ppbV	99
29) 3-chloropropene	7.619	41	845734	46.134	ppbV	98
30) carbon disulfide	7.796	76	2049128	46.642	ppbV	98
31) Freon 113	7.815	101	1312886	47.010	ppbV	97
32) trans-1,2-dichloroethene	8.661	61	1048870	46.244	ppbV	99
33) 1,1-dichloroethane	8.904	63	1256964	46.661	ppbV	99
34) MTBE	8.985	73	1833101	47.253	ppbV	99
35) vinyl acetate	9.123	43	1455113	50.974	ppbV	99
36) 2-butanone	9.398	43	1398396	47.051	ppbV	100
37) cis-1,2-dichloroethene	9.917	61	1122836	47.935	ppbV	99
38) Ethyl Acetate	10.207	61	294620	47.511	ppbV	96
39) chloroform	10.281	83	1692483	46.188	ppbV	99
40) Tetrahydrofuran	10.727	42	805460M6	48.143	ppbV	
41) 2,2-dichloropropane	10.292	77	1473383	46.836	ppbV	99
42) 1,2-dichloroethane	11.127	62	881185	47.440	ppbV	99
44) hexane	10.164	57	1268247	46.076	ppbV	98
45) diisopropyl ether	10.175	87	643144	47.660	ppbV	94
46) tert-butyl ethyl ether	10.805	59	2114862	47.668	ppbV	99
48) 1,1,1-trichloroethane	11.415	97	1300488	49.361	ppbV	98
49) 1,1-dichloropropene	11.778	75	1047224	48.651	ppbV	99
50) benzene	11.941	78	2135699	47.954	ppbV	100
51) thiophene	12.092	84	4128579	45.580	ppbV	99
52) carbon tetrachloride	12.116	117	1244651	48.225	ppbV	98
53) cyclohexane	12.244	56	1105897	48.197	ppbV	98
54) tert-amyl methyl ether	12.616	73	1999286	48.277	ppbV	100
55) dibromomethane	12.849	93	822335	48.009	ppbV	98
56) 1,2-dichloropropane	12.872	63	805893	48.170	ppbV	99
57) bromodichloromethane	13.105	83	1567588	47.440	ppbV	99
58) 1,4-dioxane	13.140	88	492312	49.394	ppbV	88
59) trichloroethene	13.151	130	888541	47.437	ppbV	100
60) 2,2,4-trimethylpentane	13.175	57	3464877	46.607	ppbV	98
61) methyl methacrylate	13.373	41	1231315	48.078	ppbV	98
62) heptane	13.477	43	1260992	46.992	ppbV	99
63) cis-1,3-dichloropropene	14.123	75	1187587	48.600	ppbV	99
64) 4-methyl-2-pentanone	14.158	43	1682769	46.359	ppbV	98
65) trans-1,3-dichloropropene	14.723	75	1196966	50.075	ppbV	99
66) 1,1,2-trichloroethane	14.920	97	870145	47.484	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD50.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:17:11 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.198	91	2518790	48.459	ppbV	99
70) 2-methylthiophene	15.270	97	6877096	44.115	ppbV	99
71) 1,3-dichloropropane	15.229	76	1161246	49.745	ppbV	100
72) 2-hexanone	15.446	43	1328402	42.728	ppbV	97
73) 3-methylthiophene	15.446	97	6697611	42.748	ppbV	99
74) dibromochloromethane	15.621	129	1543919	49.999	ppbV	100
75) 1,2-dibromoethane	15.848	107	1413480	49.907	ppbV	99
76) butyl acetate	16.024	73	272578	49.358	ppbV	94
77) octane	16.116	85	709740	48.591	ppbV	90
78) tetrachloroethene	16.261	166	1159989	50.557	ppbV	98
79) 1,1,1,2-tetrachloroethane	16.826	131	995280	49.483	ppbV	99
80) chlorobenzene	16.846	112	1932089	48.721	ppbV	98
81) ethylbenzene	17.139	91	3197036	48.076	ppbV	99
82) 2-ethylthiophene	17.179	97	7381681	40.666	ppbV	99
83) m+p-xylene	17.288	91	4892173	95.492	ppbV	99
84) bromoform	17.363	173	1565002	50.939	ppbV	97
85) styrene	17.567	104	1976865	48.773	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.647	83	1829653	44.046	ppbV	98
87) o-xylene	17.652	91	2380788	45.688	ppbV	99
88) 1,2,3-trichloropropane	17.751	75	1519770	49.364	ppbV	99
89) nonane	17.786	43	1737805	46.016	ppbV	100
91) isopropylbenzene	18.090	105	3284584	47.109	ppbV	99
92) bromobenzene	18.179	77	1859752	49.331	ppbV	96
93) 2-chlorotoluene	18.458	126	890588	48.220	ppbV	68
94) n-propylbenzene	18.473	120	934007	47.012	ppbV	98
95) 4-chlorotoluene	18.512	91	2626656	46.998	ppbV	99
96) 4-ethyl toluene	18.577	105	3664506	47.372	ppbV	98
97) 1,3,5-trimethylbenzene	18.632	105	2924703	48.822	ppbV	99
98) tert-butylbenzene	18.943	119	2693664	42.663	ppbV	100
99) 1,2,4-trimethylbenzene	18.943	105	2616590	42.519	ppbV	98
100) decane	18.986	57	1931617	43.668	ppbV	97
101) Benzyl Chloride	19.058	91	2849639	49.558	ppbV	98
102) 1,3-dichlorobenzene	19.076	146	2010879	47.034	ppbV	98
103) 1,4-dichlorobenzene	19.125	146	2017632	46.923	ppbV	99
104) sec-butylbenzene	19.143	105	4011563	44.462	ppbV	97
105) 1,2,3-trimethylbenzene	19.264	105	2837647	45.003	ppbV	97
106) p-isopropyltoluene	19.251	119	3514305	43.840	ppbV	98
107) 1,2-dichlorobenzene	19.384	146	1962786	48.202	ppbV	96
108) n-butylbenzene	19.572	91	3405597	44.276	ppbV	98
109) indan	19.427	117	3191518	46.058	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD50.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:17:11 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.499	115	2749325	46.697	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.729	75	951611	47.247	ppbV	97
112) undecane	19.928	57	2020297	38.537	ppbV	99
113) 1,2,4,5-tetramethylben...	20.176	119	3797954	42.039	ppbV	99
114) dodecane	20.820	57	1605748	28.487	ppbV	99
115) 1,2,4-trichlorobenzene	20.820	180	1360778	36.068	ppbV	97
116) naphthalene	20.940	128	3331053	36.443	ppbV	100
117) 1,2,3-trichlorobenzene	21.180	180	1303260	35.245	ppbV	99
118) benzothiophene	21.000	134	3883908	48.074	ppbV	98
119) hexachlorobutadiene	21.240	225	1132057	36.683	ppbV	99
120) 2-methylnaphthalene	22.068	142	403226	50.226	ppbV	98
121) 1-methylnaphthalene	22.272	142	661601	42.148	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167347.D
Acq On    : 13 Jul 2019 12:33 am
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD50.0
Misc      : WG1259556
ALS Vial  : 8      Sample Multiplier: 1
```

[illegible]

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167348.D
 Acq On : 13 Jul 2019 1:07 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD100.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:19:15 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.121	49	242739	10.000	ppbV	0.01
Standard Area = 214810			Recovery =	113.00%		
43) 1,4-difluorobenzene	12.348	114	480358	10.000	ppbV	0.00
Standard Area = 453122			Recovery =	106.01%		
67) chlorobenzene-D5	16.806	54	87232	10.000	ppbV	0.00
Standard Area = 87523			Recovery =	99.67%		
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	11.005	65	164721	9.705	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.05%		
69) toluene-D8	15.095	98	520012	10.557	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.57%		
90) bromofluorobenzene	18.000	95	334175	10.610	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.10%		
Target Compounds						
					Qvalue	
2) chlorodifluoromethane	3.881	51	1729135	80.998	ppbV	98
3) propylene	3.915	41	825206M6	79.555	ppbV	
4) propane	3.948	29	682001	78.406	ppbV	97
5) dichlorodifluoromethane	4.015	85	2342014	84.298	ppbV	98
6) chloromethane	4.239	50	942099	86.812	ppbV	100
7) Freon-114	4.384	85	2730804	78.491	ppbV	98
8) methanol	4.484	31	1537330	433.162	ppbV	96
9) vinyl chloride	4.540	62	1136433	88.736	ppbV	100
10) 1,3-butadiene	4.741	54	795253	79.883	ppbV	95
11) butane	4.818	43	783111	90.439	ppbV	97
12) acetaldehyde	4.406	29	2358856	406.641	ppbV	95
13) bromomethane	5.116	94	1068695	84.287	ppbV	98
14) chloroethane	5.367	64	533918	87.444	ppbV	96
15) ethanol	5.609	31	3038820	415.184	ppbV	99
16) dichlorofluoromethane	5.534	67	2317088	84.378	ppbV	100
17) vinyl bromide	5.860	106	1077681	84.865	ppbV	98
18) acrolein	6.037	56	449793	87.524	ppbV	99
19) acetone	6.232	43	8865006	383.160	ppbV	96
20) acetonitrile	5.879	41	841235	82.705	ppbV	100
21) trichlorofluoromethane	6.447	101	2590441	85.473	ppbV	98
22) isopropyl alcohol	6.633	45	4825956	200.687	ppbV	100
23) acrylonitrile	6.884	53	798111M6	87.656	ppbV	
24) pentane	6.931	43	1642265M6	83.028	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167348.D
 Acq On : 13 Jul 2019 1:07 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD100.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:19:15 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.986	31	1091649	81.101	ppbV	98
26) 1,1-dichloroethene	7.294	61	2010844	83.490	ppbV	99
27) tertiary butyl alcohol	7.415	59	2558046	84.972	ppbV	100
28) methylene chloride	7.480	49	1470595	81.779	ppbV	98
29) 3-chloropropene	7.629	41	1605254	82.130	ppbV	97
30) carbon disulfide	7.796	76	3768833	80.461	ppbV	100
31) Freon 113	7.815	101	2467794	82.878	ppbV	96
32) trans-1,2-dichloroethene	8.661	61	2011481	83.180	ppbV	98
33) 1,1-dichloroethane	8.912	63	2414415	84.064	ppbV	99
34) MTBE	8.985	73	3536912	85.514	ppbV	99
35) vinyl acetate	9.123	43	2883477	94.742	ppbV	100
36) 2-butanone	9.407	43	2674107	84.389	ppbV	98
37) cis-1,2-dichloroethene	9.925	61	2133606	85.432	ppbV	98
38) Ethyl Acetate	10.217	61	577427	87.337	ppbV	82
39) chloroform	10.281	83	3136938	80.293	ppbV	99
40) Tetrahydrofuran	10.727	42	1528217	85.673	ppbV	98
41) 2,2-dichloropropane	10.303	77	2785175	83.039	ppbV	99
42) 1,2-dichloroethane	11.138	62	1686559	85.162	ppbV	99
44) hexane	10.175	57	2344352	82.349	ppbV	91
45) diisopropyl ether	10.185	87	1233902	88.408	ppbV	89
46) tert-butyl ethyl ether	10.805	59	4037499	87.989	ppbV	99
48) 1,1,1-trichloroethane	11.415	97	2457035	90.169	ppbV	99
49) 1,1-dichloropropene	11.778	75	1950597	87.617	ppbV	99
50) benzene	11.941	78	3998444	86.804	ppbV	100
51) thiophene	12.104	84	7006433	74.789	ppbV	100
52) carbon tetrachloride	12.116	117	2279443	85.393	ppbV	99
53) cyclohexane	12.255	56	2092086	88.155	ppbV	97
54) tert-amyl methyl ether	12.616	73	3754848	87.665	ppbV	100
55) dibromomethane	12.860	93	1532378	86.497	ppbV	97
56) 1,2-dichloropropane	12.884	63	1493065	86.287	ppbV	98
57) bromodichloromethane	13.105	83	2963881	86.724	ppbV	100
58) 1,4-dioxane	13.140	88	908853	88.165	ppbV	86
59) trichloroethene	13.151	130	1623995	83.828	ppbV	99
60) 2,2,4-trimethylpentane	13.186	57	6233984	81.077	ppbV	97
61) methyl methacrylate	13.372	41	2305720	87.046	ppbV	98
62) heptane	13.477	43	2305065	83.054	ppbV	100
63) cis-1,3-dichloropropene	14.140	75	2290280	90.621	ppbV	99
64) 4-methyl-2-pentanone	14.175	43	3180401	84.714	ppbV	99
65) trans-1,3-dichloropropene	14.734	75	2301043	93.074	ppbV	99
66) 1,1,2-trichloroethane	14.920	97	1640509	86.556	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167348.D
 Acq On : 13 Jul 2019 1:07 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD100.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:19:15 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	15.208	91	4681562	89.678	ppbV	99
70) 2-methylthiophene	15.281	97	11045365	70.547	ppbV #	97
71) 1,3-dichloropropane	15.239	76	2125892	90.673	ppbV	99
72) 2-hexanone	15.446	43	2239558	71.724	ppbV #	92
73) 3-methylthiophene	15.466	97	10403630	66.114	ppbV	98
74) dibromochloromethane	15.621	129	2876390	92.746	ppbV	100
75) 1,2-dibromoethane	15.858	107	2601145	91.442	ppbV	99
76) butyl acetate	16.034	73	503180	90.720	ppbV	89
77) octane	16.116	85	1301925	88.747	ppbV	85
78) tetrachloroethene	16.261	166	2056923	89.260	ppbV	95
79) 1,1,1,2-tetrachloroethane	16.831	131	1762674	87.257	ppbV	98
80) chlorobenzene	16.851	112	3418415	85.827	ppbV	97
81) ethylbenzene	17.144	91	5860810	87.752	ppbV	98
82) 2-ethylthiophene	17.189	97	11261156	61.770	ppbV #	97
83) m+p-xylene	17.293	91	8425683	163.751	ppbV	100
84) bromoform	17.373	173	2781094	90.129	ppbV	97
85) styrene	17.572	104	3555648	87.345	ppbV	97
86) 1,1,2,2-tetrachloroethane	17.652	83	2892925	69.342	ppbV	100
87) o-xylene	17.657	91	3927176	75.037	ppbV	97
88) 1,2,3-trichloropropane	17.751	75	2773007	89.681	ppbV	97
89) nonane	17.791	43	2950149	77.780	ppbV	98
91) isopropylbenzene	18.094	105	5705539	81.477	ppbV	98
92) bromobenzene	18.179	77	3330637	87.964	ppbV	100
93) 2-chlorotoluene	18.463	126	1543546	83.212	ppbV	72
94) n-propylbenzene	18.478	120	1589435	79.655	ppbV	82
95) 4-chlorotoluene	18.512	91	4588743	81.749	ppbV	99
96) 4-ethyl toluene	18.582	105	6368336	81.968	ppbV	97
97) 1,3,5-trimethylbenzene	18.637	105	5132028	85.297	ppbV	99
98) tert-butylbenzene	18.943	119	4348288	68.572	ppbV	100
99) 1,2,4-trimethylbenzene	18.949	105	4202257	67.989	ppbV	92
100) decane	18.986	57	3282306	73.881	ppbV	98
101) Benzyl Chloride	19.064	91	4964848	85.970	ppbV	96
102) 1,3-dichlorobenzene	19.082	146	3428832	79.853	ppbV	95
103) 1,4-dichlorobenzene	19.131	146	3342433	77.396	ppbV	96
104) sec-butylbenzene	19.143	105	6517009	71.918	ppbV	96
105) 1,2,3-trimethylbenzene	19.270	105	4724119	74.597	ppbV	99
106) p-isopropyltoluene	19.257	119	5623327	69.846	ppbV	98
107) 1,2-dichlorobenzene	19.390	146	3521256	86.100	ppbV	93
108) n-butylbenzene	19.578	91	5993875	77.589	ppbV	95
109) indan	19.433	117	5489181	78.874	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167348.D
 Acq On : 13 Jul 2019 1:07 am
 Operator : AIRPIAN01:AR
 Sample : IT015-LLSTD100.0
 Misc : WG1259556
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 13 07:19:15 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 06:46:25 2019
 Response via : Initial Calibration

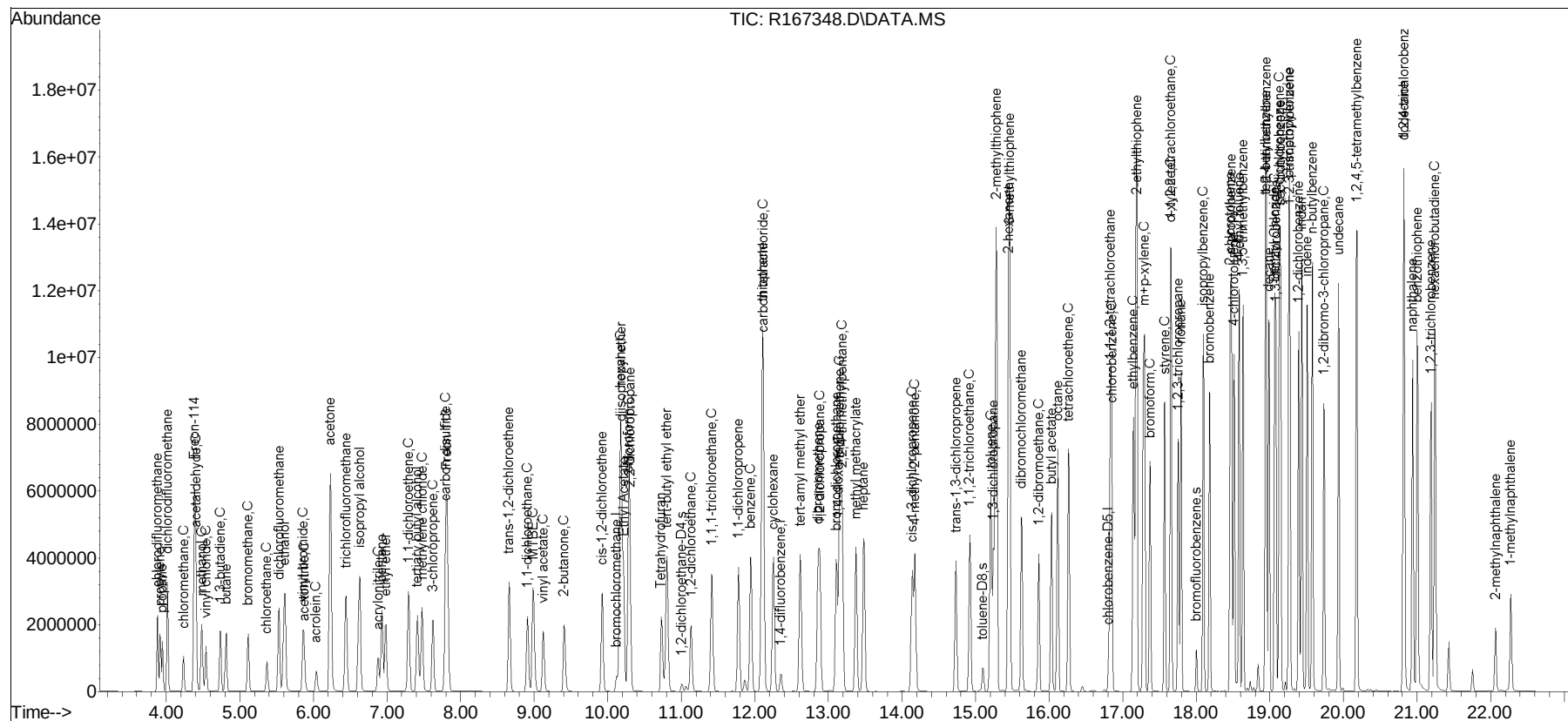
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	indene	19.505	115	4876742	82.472	ppbV	98
111)	1,2-dibromo-3-chloropr...	19.735	75	1854612	91.682	ppbV	97
112)	undecane	19.934	57	3602165	68.414	ppbV	98
113)	1,2,4,5-tetramethylben...	20.182	119	6973735	76.856	ppbV	98
114)	dodecane	20.820	57	2880130	50.874	ppbV	99
115)	1,2,4-trichlorobenzene	20.820	180	2490956	65.737	ppbV	99
116)	naphthalene	20.940	128	6888004	75.030	ppbV	97
117)	1,2,3-trichlorobenzene	21.192	180	2805600	75.544	ppbV	98
118)	benzothiophene	21.000	134	7924175	97.659	ppbV #	95
119)	hexachlorobutadiene	21.240	225	2297722	74.132	ppbV	98
120)	2-methylnaphthalene	22.068	142	931669	115.546	ppbV	99
121)	1-methylnaphthalene	22.272	142	1447628	91.824	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167348.D
Acq On    : 13 Jul 2019    1:07 am
Operator  : AIRPIAN01:AR
Sample    : IT015-LLSTD100.0
Misc      : WG1259556
ALS Vial  : 8    Sample Multiplier: 1
```

Quant Time: Jul 13 07:19:15 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 06:46:25 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	101	0.00
2	chlorodifluoromethane	0.934	0.804	13.9	93	0.00
3	propylene	0.453	0.479	-5.7	113	0.00
4	propane	0.370	0.329	11.1	93	0.00
5	dichlorodifluoromethane	1.276	1.279	-0.2	113	0.00
6 C	chloromethane	0.482	0.455	5.6	103	0.00
7	Freon-114	1.496	1.456	2.7	103	0.00
8 C	methanol	0.149	0.122	18.1	84	0.00
9 C	vinyl chloride	0.558	0.531	4.8	102	0.00
10 C	1,3-butadiene	0.420	0.435	-3.6	107	0.01
11	butane	0.436	0.398	8.7	113	0.00
13 C	bromomethane	0.563	0.536	4.8	104	0.00
14 C	chloroethane	0.272	0.259	4.8	104	0.00
15	ethanol	0.305	0.269	11.8	90	0.00
16	dichlorofluoromethane	1.202	1.055	12.2	94	0.00
17 C	vinyl bromide	0.548	0.526	4.0	102	0.00
18 C	acrolein	0.220	0.198	10.0	95	0.00
19	acetone	1.000	0.794	20.6	84	0.00
20 C	acetonitrile	0.439	0.399	9.1	96	0.00
21	trichlorofluoromethane	1.318	1.265	4.0	102	0.00
22	isopropyl alcohol	1.148	0.885	22.9	90	0.00
23 C	acrylonitrile	0.410	0.424	-3.4	114	0.00
24	pentane	0.936	0.933	0.3	116	0.00
25	ethyl ether	0.608	0.616	-1.3	112	0.00
26 C	1,1-dichloroethene	1.013	1.010	0.3	103	0.00
27	tertiary butyl alcohol	1.269	1.223	3.6	100	0.00
28 C	methylene chloride	0.752	0.744	1.1	102	0.00
29 C	3-chloropropene	0.857	0.858	-0.1	108	0.00
30 C	carbon disulfide	2.035	1.826	10.3	96	0.00
31	Freon 113	1.280	1.266	1.1	104	0.00
32	trans-1,2-dichloroethene	1.019	0.967	5.1	98	0.00
33 C	1,1-dichloroethane	1.240	1.190	4.0	102	0.00
34 C	MTBE	1.792	1.768	1.3	105	0.00
35 C	vinyl acetate	1.248	1.288	-3.2	104	0.00
36 C	2-butanone	1.276	1.288	-0.9	100	0.00
37	cis-1,2-dichloroethene	1.004	1.070	-6.6	105	0.00
38	Ethyl Acetate	0.278	0.285	-2.5	106	0.00
39 C	chloroform	1.674	1.677	-0.2	105	0.00
40	Tetrahydrofuran	0.789	0.722	8.5	99	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	1.435	1.319	8.1	97	0.00
42 C	1,2-dichloroethane	0.848	0.829	2.2	103	0.00
43 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
44 C	hexane	0.627	0.598	4.6	104	0.00
45	diisopropyl ether	0.322	0.278	13.7	99	0.00
46	tert-butyl ethyl ether	0.992	0.891	10.2	96	0.00
48 C	1,1,1-trichloroethane	0.604	0.576	4.6	104	0.00
49	1,1-dichloropropene	0.486	0.457	6.0	101	0.00
50 C	benzene	0.999	0.940	5.9	101	0.00
52 C	carbon tetrachloride	0.581	0.582	-0.2	108	0.00
53	cyclohexane	0.534	0.511	4.3	106	0.00
54	tert-amyl methyl ether	0.927	0.860	7.2	99	0.00
55	dibromomethane	0.377	0.350	7.2	98	0.00
56 C	1,2-dichloropropane	0.387	0.371	4.1	106	0.00
57	bromodichloromethane	0.717	0.713	0.6	103	0.00
58 C	1,4-dioxane	0.217	0.214	1.4	103	0.00
59 C	trichloroethene	0.415	0.406	2.2	104	0.00
60 C	2,2,4-trimethylpentane	1.676	1.712	-2.1	110	0.00
61	methyl methacrylate	0.556	0.390	29.9	73	0.00
62	heptane	0.628	0.604	3.8	107	0.00
63 C	cis-1,3-dichloropropene	0.541	0.565	-4.4	110	0.00
64 C	4-methyl-2-pentanone	0.786	0.787	-0.1	104	-0.02
65	trans-1,3-dichloropropene	0.527	0.471	10.6	94	0.00
66 C	1,1,2-trichloroethane	0.407	0.411	-1.0	107	0.00
67 I	chlorobenzene-D5	1.000	1.000	0.0	101	0.00
68 C	toluene	6.342	6.172	2.7	105	0.00
71	1,3-dichloropropane	2.855	2.594	9.1	98	0.00
72	2-hexanone	3.645	3.841	-5.4	109	0.00
74	dibromochloromethane	3.658	3.820	-4.4	109	0.00
75 C	1,2-dibromoethane	3.347	3.362	-0.4	105	0.00
76	butyl acetate	0.656	0.596	9.1	95	0.00
77	octane	1.766	1.619	8.3	98	0.00
78 C	tetrachloroethene	2.771	2.759	0.4	106	0.00
79	1,1,1,2-tetrachloroethane	2.426	2.232	8.0	98	0.00
80 C	chlorobenzene	4.785	4.713	1.5	105	0.00
81 C	ethylbenzene	8.007	7.907	1.2	105	0.00
83 C	m+p-xylene	6.158	6.177	-0.3	106	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84 C	bromoform	3.583	3.775	-5.4	108	0.00
85 C	styrene	4.799	4.771	0.6	104	0.00
86 C	1,1,2,2-tetrachloroethane	4.780	4.965	-3.9	105	0.00
87 C	o-xylene	6.182	6.267	-1.4	106	0.00
88	1,2,3-trichloropropane	3.770	3.465	8.1	99	0.00
89	nonane	4.572	4.181	8.6	98	0.00
91 C	isopropylbenzene	8.287	7.985	3.6	101	0.00
92	bromobenzene	4.588	4.291	6.5	100	0.00
93	2-chlorotoluene	2.202	2.084	5.4	99	0.00
94	n-propylbenzene	2.322	2.222	4.3	99	0.00
95	4-chlorotoluene	6.525	6.113	6.3	96	0.00
96	4-ethyl toluene	9.182	9.208	-0.3	105	0.00
97	1,3,5-trimethylbenzene	7.272	7.363	-1.3	108	0.00
98	tert-butylbenzene	7.180	7.019	2.2	98	0.00
99	1,2,4-trimethylbenzene	6.900	7.341	-6.4	105	0.00
100	decane	4.966	4.854	2.3	97	0.00
101 C	Benzyl Chloride	6.319	6.887	-9.0	106	0.00
102	1,3-dichlorobenzene	4.859	5.136	-5.7	106	0.00
103 C	1,4-dichlorobenzene	4.849	5.151	-6.2	106	0.00
104	sec-butylbenzene	10.337	9.975	3.5	97	0.00
106	p-isopropyltoluene	9.051	8.107	10.4	89	0.00
107	1,2-dichlorobenzene	4.672	4.936	-5.7	107	0.00
108	n-butylbenzene	8.441	8.742	-3.6	100	0.00
111 C	1,2-dibromo-3-chloropropane	2.218	2.243	-1.1	98	0.00
112	undecane	4.979	5.759	-15.7	97	0.00
114	dodecane	3.757	5.565	-48.1#	87	0.00
115 C	1,2,4-trichlorobenzene	3.199	4.369	-36.6#	102	0.00
116	naphthalene	8.070	9.462	-17.2	91	0.00
117	1,2,3-trichlorobenzene	3.099	3.812	-23.0	91	0.00
119 C	hexachlorobutadiene	2.888	3.606	-24.9	103	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.110	49	217246	10.000	ppbV	0.00
Standard Area = 214810			Recovery = 101.13%			
43) 1,4-difluorobenzene	12.348	114	466087	10.000	ppbV	0.00
Standard Area = 453122			Recovery = 102.86%			
67) chlorobenzene-D5	16.801	54	88796	10.000	ppbV	0.00
Standard Area = 87523			Recovery = 101.45%			

System Monitoring Compounds

Target Compounds					Qvalue	
2) chlorodifluoromethane	3.881	51	174761	8.615	ppbV	99
3) propylene	3.914	41	104061M6	10.580	ppbV	
4) propane	3.948	29	71556	8.900	ppbV	97
5) dichlorodifluoromethane	4.015	85	277853	10.024	ppbV	98
6) chloromethane	4.238	50	98873	9.435	ppbV	98
7) Freon-114	4.384	85	316336	9.731	ppbV	99
8) methanol	4.473	31	132092	40.881	ppbV	97
9) vinyl chloride	4.540	62	115301	9.511	ppbV	97
10) 1,3-butadiene	4.741	54	94415	10.344	ppbV	92
11) butane	4.817	43	86369	9.126	ppbV	99
13) bromomethane	5.115	94	116503	9.531	ppbV	99
14) chloroethane	5.367	64	56283	9.535	ppbV	96
15) ethanol	5.581	31	292574	44.137	ppbV	99
16) dichlorofluoromethane	5.525	67	229279	8.783	ppbV	99
17) vinyl bromide	5.860	106	114337	9.596	ppbV	99
18) acrolein	6.046	56	43085	9.008	ppbV	98
19) acetone	6.223	43	862179	39.703	ppbV	100
20) acetonitrile	5.869	41	86676	9.085	ppbV	98
21) trichlorofluoromethane	6.437	101	274739	9.592	ppbV	99
22) isopropyl alcohol	6.595	45	480908	19.274	ppbV	100
23) acrylonitrile	6.865	53	92078M6	10.340	ppbV	
24) pentane	6.930	43	202608	9.964	ppbV	98
25) ethyl ether	6.986	31	133715	10.120	ppbV	99
26) 1,1-dichloroethene	7.293	61	219369	9.971	ppbV	100
27) tertiary butyl alcohol	7.396	59	265732	9.639	ppbV	99
28) methylene chloride	7.470	49	161673	9.894	ppbV	98
29) 3-chloropropene	7.619	41	186303	10.001	ppbV	98
30) carbon disulfide	7.796	76	396779	8.973	ppbV	99
31) Freon 113	7.815	101	274938	9.889	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.660	61	210156	9.489	ppbV	99
33) 1,1-dichloroethane	8.904	63	258622	9.598	ppbV	100
34) MTBE	8.993	73	384100	9.864	ppbV	98
35) vinyl acetate	9.114	43	279736	10.317	ppbV	100
36) 2-butanone	9.406	43	279878	10.095	ppbV	99
37) cis-1,2-dichloroethene	9.917	61	232387	10.652	ppbV	100
38) Ethyl Acetate	10.206	61	62002	10.281	ppbV	89
39) chloroform	10.270	83	364282	10.015	ppbV	100
40) Tetrahydrofuran	10.738	42	156910M6	9.149	ppbV	
41) 2,2-dichloropropane	10.292	77	286606	9.197	ppbV	99
42) 1,2-dichloroethane	11.126	62	180141	9.778	ppbV	100
44) hexane	10.164	57	278632	9.532	ppbV	99
45) diisopropyl ether	10.174	87	129774	8.637	ppbV	100
46) tert-butyl ethyl ether	10.805	59	415302	8.980	ppbV	99
48) 1,1,1-trichloroethane	11.404	97	268467	9.543	ppbV	99
49) 1,1-dichloropropene	11.766	75	213093	9.399	ppbV	98
50) benzene	11.941	78	438183	9.411	ppbV	99
52) carbon tetrachloride	12.104	117	271108	10.007	ppbV	98
53) cyclohexane	12.243	56	238346	9.571	ppbV	99
54) tert-amyl methyl ether	12.616	73	400933	9.275	ppbV	98
55) dibromomethane	12.849	93	163171	9.276	ppbV	97
56) 1,2-dichloropropane	12.872	63	172709	9.583	ppbV	99
57) bromodichloromethane	13.093	83	332395	9.942	ppbV	100
58) 1,4-dioxane	13.151	88	99914	9.900	ppbV	98
59) trichloroethene	13.139	130	189168	9.778	ppbV	99
60) 2,2,4-trimethylpentane	13.174	57	797797	10.215	ppbV	99
61) methyl methacrylate	13.361	41	181806	7.012	ppbV	100
62) heptane	13.477	43	281407	9.609	ppbV	98
63) cis-1,3-dichloropropene	14.123	75	263334	10.440	ppbV	99
64) 4-methyl-2-pentanone	14.157	43	366810	10.015	ppbV	99
65) trans-1,3-dichloropropene	14.723	75	219621	8.939	ppbV	100
66) 1,1,2-trichloroethane	14.909	97	191503	10.096	ppbV	98
68) toluene	15.198	91	548010	9.731	ppbV	99
71) 1,3-dichloropropane	15.219	76	230361	9.087	ppbV	100
72) 2-hexanone	15.446	43	341053	10.537	ppbV #	81
74) dibromochloromethane	15.611	129	339223	10.444	ppbV	99
75) 1,2-dibromoethane	15.848	107	298532	10.044	ppbV	100
76) butyl acetate	16.023	73	52927	9.084	ppbV	95
77) octane	16.106	85	143736	9.169	ppbV	99
78) tetrachloroethene	16.261	166	244974	9.956	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
 Data File : R167351.D
 Acq On : 13 Jul 2019 10:53 am
 Operator : AIRPIAN01:AR
 Sample : CT015-LLSTD10.0
 Misc : WG1259556
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\R167345.D
 Sub List : Default-LCS-AP2 - All compounds listed

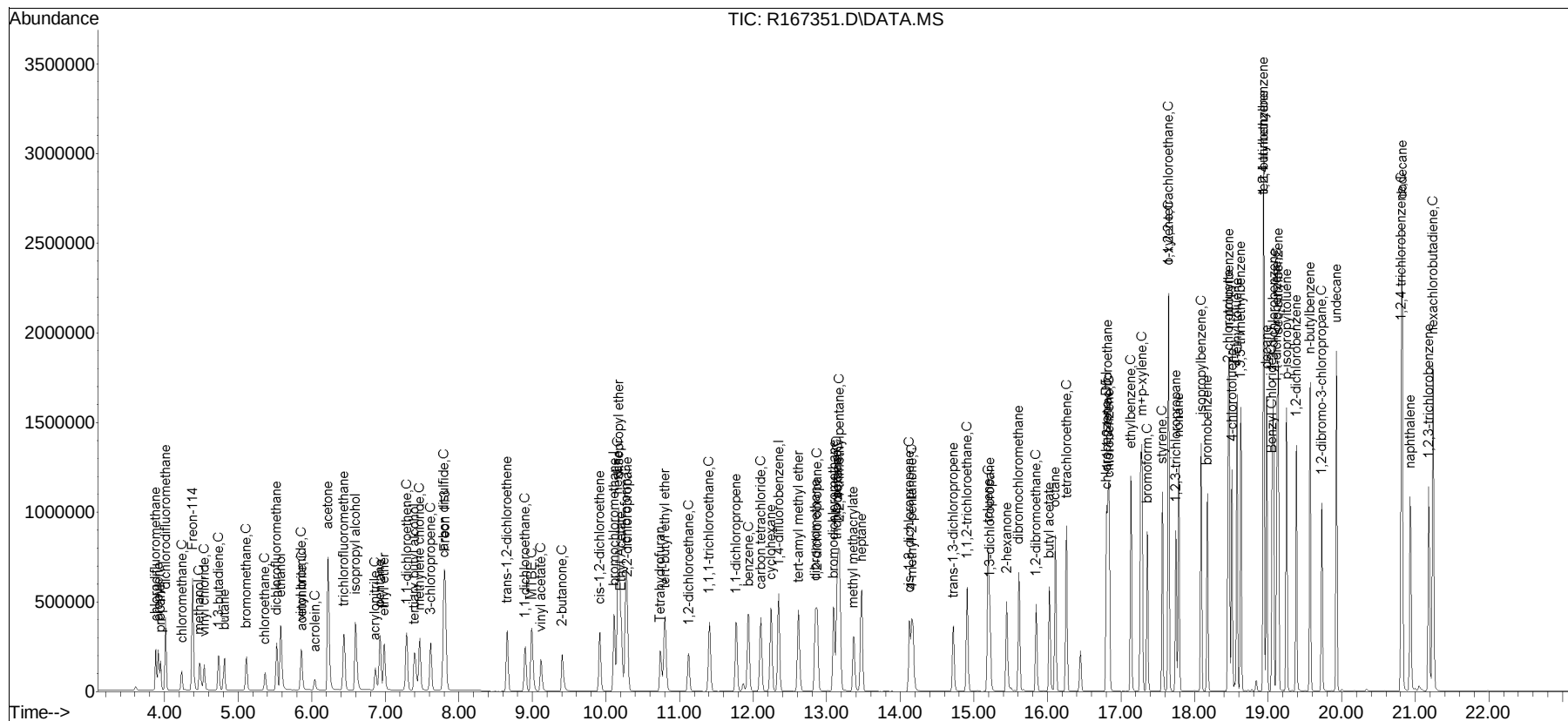
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	16.820	131	198199	9.200	ppbV	99
80)	chlorobenzene	16.840	112	418501	9.849	ppbV	99
81)	ethylbenzene	17.134	91	702142	9.875	ppbV	100
83)	m+p-xylene	17.283	91	1097004	20.061	ppbV	98
84)	bromoform	17.358	173	335162	10.534	ppbV	99
85)	styrene	17.562	104	423632	9.940	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.646	83	440882	10.386	ppbV	99
87)	o-xylene	17.646	91	556482	10.137	ppbV	99
88)	1,2,3-trichloropropane	17.746	75	307685	9.190	ppbV	99
89)	nonane	17.786	43	371290	9.145	ppbV	100
91)	isopropylbenzene	18.089	105	709044	9.636	ppbV	100
92)	bromobenzene	18.174	77	381057	9.353	ppbV	99
93)	2-chlorotoluene	18.457	126	185082	9.467	ppbV	99
94)	n-propylbenzene	18.467	120	197308	9.571	ppbV	73
95)	4-chlorotoluene	18.507	91	542783	9.368	ppbV	99
96)	4-ethyl toluene	18.577	105	817592	10.027	ppbV	100
97)	1,3,5-trimethylbenzene	18.627	105	653827	10.125	ppbV	99
98)	tert-butylbenzene	18.937	119	623255	9.776	ppbV	99
99)	1,2,4-trimethylbenzene	18.937	105	651893	10.639	ppbV	95
100)	decane	18.979	57	430993	9.775	ppbV	98
101)	Benzyl Chloride	19.052	91	611556	10.899	ppbV	99
102)	1,3-dichlorobenzene	19.070	146	456049	10.570	ppbV	99
103)	1,4-dichlorobenzene	19.118	146	457395	10.623	ppbV	100
104)	sec-butylbenzene	19.136	105	885777	9.650	ppbV	100
106)	p-isopropyltoluene	19.251	119	719830	8.957	ppbV	99
107)	1,2-dichlorobenzene	19.384	146	438325	10.565	ppbV	100
108)	n-butylbenzene	19.571	91	776213	10.356	ppbV	100
111)	1,2-dibromo-3-chloropr...	19.728	75	199188	10.115	ppbV	98
112)	undecane	19.928	57	511365	11.566	ppbV	100
114)	dodecane	20.820	57	494181	14.813	ppbV	99
115)	1,2,4-trichlorobenzene	20.808	180	387919	13.658	ppbV	99
116)	naphthalene	20.928	128	840228	11.725	ppbV	100
117)	1,2,3-trichlorobenzene	21.180	180	338471	12.301	ppbV	99
119)	hexachlorobutadiene	21.240	225	320239	12.488	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listedAL\R167345.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\
Data File : R167351.D
Acq On : 13 Jul 2019 10:53 am
Operator : AIRPIAN01:AR
Sample : CT015-LLSTD10.0
Misc : WG1259556
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 13 11:26:41 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712T_ICAL\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration



TFS1_190712.M Sat Jul 13 11:39:00 2019

Page: 4

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Instrument ID : AIRPIANO1
 Lab File ID : R167935
 Sample No : WG1270780-2
 Channel :

Lab Number : L1935043
 Project Number : 170329301
 Calibration Date : 08/09/19 12:22
 Init. Calib. Date(s) : 07/12/19 07/13/19
 Init. Calib. Times : 21:18 01:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	74	0
chlorodifluoromethane	0.934	0.899	-	3.7	30	75	0
propylene	0.453	0.437	-	3.5	30	76	0
propane	0.37	0.322	-	13	30	66	0
dichlorodifluoromethane	1.276	1.126	-	11.8	30	73	0
chloromethane	0.482	0.46	-	4.6	30	76	-.01
Freon-114	1.496	1.638	-	-9.5	30	84	-.01
methanol	0.149	0.124	-	16.8	30	62	0
vinyl chloride	0.558	0.579	-	-3.8	30	81	0
1,3-butadiene	0.42	0.443	-	-5.5	30	80	0
butane	0.436	0.287	-	34.2*	30	59	0
bromomethane	0.563	0.607	-	-7.8	30	86	0
chloroethane	0.272	0.278	-	-2.2	30	82	0
ethanol	0.305	0.256	-	16.1	30	63	0
dichlorofluoromethane	1.202	1.236	-	-2.8	30	81	0
vinyl bromide	0.548	0.605	-	-10.4	30	85	0
acrolein	0.22	0.214	-	2.7	30	75	0
acetone	1	0.917	-	8.3	30	71	0
acetonitrile	0.439	0.389	-	11.4	30	69	0
trichlorofluoromethane	1.318	1.401	-	-6.3	30	83	0
isopropyl alcohol	1.148	0.952	-	17.1	30	71	0
acrylonitrile	0.41	0.401	-	2.2	30	79	0
pentane	0.936	0.799	-	14.6	30	72	0
ethyl ether	0.608	0.47	-	22.7	30	63	0
1,1-dichloroethene	1.013	0.914	-	9.8	30	68	0
tertiary butyl alcohol	1.269	1.108	-	12.7	30	66	0
methylene chloride	0.752	0.678	-	9.8	30	68	0
3-chloropropene	0.857	0.749	-	12.6	30	69	0
carbon disulfide	2.035	2.075	-	-2	30	79	0
Freon 113	1.28	1.354	-	-5.8	30	82	0
trans-1,2-dichloroethene	1.019	1.012	-	0.7	30	75	0
1,1-dichloroethane	1.24	1.232	-	0.6	30	77	0
MTBE	1.792	1.758	-	1.9	30	76	0
vinyl acetate	1.248	1.143	-	8.4	30	67	0
2-butanone	1.276	1.23	-	3.6	30	70	0
cis-1,2-dichloroethene	1.004	1.056	-	-5.2	30	76	0
Ethyl Acetate	0.278	0.286	-	-2.9	30	78	0
chloroform	1.674	1.741	-	-4	30	80	0
Tetrahydrofuran	0.789	0.781	-	1	30	79	0
2,2-dichloropropane	1.435	1.405	-	2.1	30	75	-.01
1,2-dichloroethane	0.848	0.835	-	1.5	30	76	-.01
1,4-difluorobenzene	1	1	-	0	30	81	0
hexane	0.627	0.555	-	11.5	30	76	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Instrument ID : AIRPIANO1
 Lab File ID : R167935
 Sample No : WG1270780-2
 Channel :

Lab Number : L1935043
 Project Number : 170329301
 Calibration Date : 08/09/19 12:22
 Init. Calib. Date(s) : 07/12/19 07/13/19
 Init. Calib. Times : 21:18 01:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
diisopropyl ether	0.322	0.292	-	9.3	30	81	0
tert-butyl ethyl ether	0.992	0.866	-	12.7	30	73	0
1,1,1-trichloroethane	0.604	0.569	-	5.8	30	81	0
1,1-dichloropropene	0.486	0.438	-	9.9	30	76	0
benzene	0.999	0.924	-	7.5	30	78	-.01
carbon tetrachloride	0.581	0.56	-	3.6	30	82	0
cyclohexane	0.534	0.455	-	14.8	30	74	0
tert-amyl methyl ether	0.927	0.83	-	10.5	30	75	0
dibromomethane	0.377	0.365	-	3.2	30	80	0
1,2-dichloropropane	0.387	0.351	-	9.3	30	79	0
bromodichloromethane	0.717	0.684	-	4.6	30	78	0
1,4-dioxane	0.217	0.207	-	4.6	30	78	0
trichloroethene	0.415	0.41	-	1.2	30	82	0
2,2,4-trimethylpentane	1.676	1.496	-	10.7	30	76	0
methyl methacrylate	0.556	0.474	-	14.7	30	69	0
heptane	0.628	0.511	-	18.6	30	72	-.01
cis-1,3-dichloropropene	0.541	0.499	-	7.8	30	77	0
4-methyl-2-pentanone	0.786	0.665	-	15.4	30	69	-.02
trans-1,3-dichloropropene	0.527	0.49	-	7	30	77	0
1,1,2-trichloroethane	0.407	0.393	-	3.4	30	81	0
chlorobenzene-D5	1	1	-	0	30	78	0
toluene	6.342	6.051	-	4.6	30	79	0
1,3-dichloropropane	2.855	2.734	-	4.2	30	79	0
2-hexanone	3.645	3.288	-	9.8	30	71	0
dibromochloromethane	3.658	3.819	-	-4.4	30	83	0
1,2-dibromoethane	3.347	3.496	-	-4.5	30	83	0
butyl acetate	0.656	0.628	-	4.3	30	77	0
octane	1.766	1.741	-	1.4	30	80	0
tetrachloroethene	2.771	2.89	-	-4.3	30	85	0
1,1,1,2-tetrachloroethane	2.426	2.486	-	-2.5	30	83	0
chlorobenzene	4.785	4.882	-	-2	30	83	0
ethylbenzene	8.007	7.879	-	1.6	30	80	0
m+p-xylene	6.158	6.046	-	1.8	30	80	-.01
bromoform	3.583	3.964	-	-10.6	30	87	0
styrene	4.799	4.81	-	-0.2	30	80	0
1,1,2,2-tetrachloroethane	4.78	4.986	-	-4.3	30	81	0
o-xylene	6.182	6.281	-	-1.6	30	81	0
1,2,3-trichloropropane	3.77	3.674	-	2.5	30	81	0
nonane	4.572	4.053	-	11.4	30	72	0
isopropylbenzene	8.287	8.369	-	-1	30	81	0
bromobenzene	4.588	4.428	-	3.5	30	79	0
2-chlorotoluene	2.202	2.29	-	-4	30	84	0
n-propylbenzene	2.322	2.471	-	-6.4	30	84	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Lab File ID : R167935
Sample No : WG1270780-2
Channel :

Lab Number : L1935043
Project Number : 170329301
Calibration Date : 08/09/19 12:22
Init. Calib. Date(s) : 07/12/19 07/13/19
Init. Calib. Times : 21:18 01:07

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4-chlorotoluene	6.525	6.445	-	1.2	30	78	0
4-ethyl toluene	9.182	9.372	-	-2.1	30	82	0
1,3,5-trimethylbenzene	7.272	7.399	-	-1.7	30	83	0
tert-butylbenzene	7.18	7.671	-	-6.8	30	82	0
1,2,4-trimethylbenzene	6.9	7.408	-	-7.4	30	81	0
decane	4.966	4.899	-	1.3	30	75	0
Benzyl Chloride	6.319	6.461	-	-2.2	30	76	0
1,3-dichlorobenzene	4.859	5.35	-	-10.1	30	84	0
1,4-dichlorobenzene	4.849	5.459	-	-12.6	30	86	0
sec-butylbenzene	10.337	10.962	-	-6	30	82	0
p-isopropyltoluene	9.051	9.668	-	-6.8	30	81	0
1,2-dichlorobenzene	4.672	5.188	-	-11	30	86	0
n-butylbenzene	8.441	9.187	-	-8.8	30	81	0
1,2-dibromo-3-chloropropan	2.218	2.185	-	1.5	30	73	0
undecane	4.979	5.769	-	-15.9	30	74	0
dodecane	3.757	5.663	-	-50.7*	30	68	0
1,2,4-trichlorobenzene	3.199	4.578	-	-43.1*	30	82	0
naphthalene	8.07	10.232	-	-26.8	30	76	0
1,2,3-trichlorobenzene	3.099	4.335	-	-39.9*	30	79	0
hexachlorobutadiene	2.888	3.921	-	-35.8*	30	86	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	74	0.00
2	chlorodifluoromethane	0.934	0.899	3.7	75	0.00
3	propylene	0.453	0.437	3.5	76	0.00
4	propane	0.370	0.322	13.0	66	0.00
5	dichlorodifluoromethane	1.276	1.126	11.8	73	0.00
6 C	chloromethane	0.482	0.460	4.6	76	-0.01
7	Freon-114	1.496	1.638	-9.5	84	-0.01
8 C	methanol	0.149	0.124	16.8	62	0.00
9 C	vinyl chloride	0.558	0.579	-3.8	81	0.00
10 C	1,3-butadiene	0.420	0.443	-5.5	80	0.00
11	butane	0.436	0.287	34.2#	59#	0.00
13 C	bromomethane	0.563	0.607	-7.8	86	0.00
14 C	chloroethane	0.272	0.278	-2.2	82	0.00
15	ethanol	0.305	0.256	16.1	63	0.00
16	dichlorofluoromethane	1.202	1.236	-2.8	81	0.00
17 C	vinyl bromide	0.548	0.605	-10.4	85	0.00
18 C	acrolein	0.220	0.214	2.7	75	0.00
19	acetone	1.000	0.917	8.3	71	0.00
20 C	acetonitrile	0.439	0.389	11.4	69	0.00
21	trichlorofluoromethane	1.318	1.401	-6.3	83	0.00
22	isopropyl alcohol	1.148	0.952	17.1	71	0.00
23 C	acrylonitrile	0.410	0.401	2.2	79	0.00
24	pentane	0.936	0.799	14.6	72	0.00
25	ethyl ether	0.608	0.470	22.7	63	0.00
26 C	1,1-dichloroethene	1.013	0.914	9.8	68	0.00
27	tertiary butyl alcohol	1.269	1.108	12.7	66	0.00
28 C	methylene chloride	0.752	0.678	9.8	68	0.00
29 C	3-chloropropene	0.857	0.749	12.6	69	0.00
30 C	carbon disulfide	2.035	2.075	-2.0	79	0.00
31	Freon 113	1.280	1.354	-5.8	82	0.00
32	trans-1,2-dichloroethene	1.019	1.012	0.7	75	0.00
33 C	1,1-dichloroethane	1.240	1.232	0.6	77	0.00
34 C	MTBE	1.792	1.758	1.9	76	0.00
35 C	vinyl acetate	1.248	1.143	8.4	67	0.00
36 C	2-butanone	1.276	1.230	3.6	70	0.00
37	cis-1,2-dichloroethene	1.004	1.056	-5.2	76	0.00
38	Ethyl Acetate	0.278	0.286	-2.9	78	0.00
39 C	chloroform	1.674	1.741	-4.0	80	0.00
40	Tetrahydrofuran	0.789	0.781	1.0	79	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	1.435	1.405	2.1	75	-0.01
42 C	1,2-dichloroethane	0.848	0.835	1.5	76	-0.01
43 I	1,4-difluorobenzene	1.000	1.000	0.0	81	0.00
44 C	hexane	0.627	0.555	11.5	76	0.00
45	diisopropyl ether	0.322	0.292	9.3	81	0.00
46	tert-butyl ethyl ether	0.992	0.866	12.7	73	0.00
48 C	1,1,1-trichloroethane	0.604	0.569	5.8	81	0.00
49	1,1-dichloropropene	0.486	0.438	9.9	76	0.00
50 C	benzene	0.999	0.924	7.5	78	-0.01
52 C	carbon tetrachloride	0.581	0.560	3.6	82	0.00
53	cyclohexane	0.534	0.455	14.8	74	0.00
54	tert-amyl methyl ether	0.927	0.830	10.5	75	0.00
55	dibromomethane	0.377	0.365	3.2	80	0.00
56 C	1,2-dichloropropane	0.387	0.351	9.3	79	0.00
57	bromodichloromethane	0.717	0.684	4.6	78	0.00
58 C	1,4-dioxane	0.217	0.207	4.6	78	0.00
59 C	trichloroethene	0.415	0.410	1.2	82	0.00
60 C	2,2,4-trimethylpentane	1.676	1.496	10.7	76	0.00
61	methyl methacrylate	0.556	0.474	14.7	69	0.00
62	heptane	0.628	0.511	18.6	72	-0.01
63 C	cis-1,3-dichloropropene	0.541	0.499	7.8	77	0.00
64 C	4-methyl-2-pentanone	0.786	0.665	15.4	69	-0.02
65	trans-1,3-dichloropropene	0.527	0.490	7.0	77	0.00
66 C	1,1,2-trichloroethane	0.407	0.393	3.4	81	0.00
67 I	chlorobenzene-D5	1.000	1.000	0.0	78	0.00
68 C	toluene	6.342	6.051	4.6	79	0.00
71	1,3-dichloropropane	2.855	2.734	4.2	79	0.00
72	2-hexanone	3.645	3.288	9.8	71	0.00
74	dibromochloromethane	3.658	3.819	-4.4	83	0.00
75 C	1,2-dibromoethane	3.347	3.496	-4.5	83	0.00
76	butyl acetate	0.656	0.628	4.3	77	0.00
77	octane	1.766	1.741	1.4	80	0.00
78 C	tetrachloroethene	2.771	2.890	-4.3	85	0.00
79	1,1,1,2-tetrachloroethane	2.426	2.486	-2.5	83	0.00
80 C	chlorobenzene	4.785	4.882	-2.0	83	0.00
81 C	ethylbenzene	8.007	7.879	1.6	80	0.00
83 C	m+p-xylene	6.158	6.046	1.8	80	-0.01

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84 C	bromoform	3.583	3.964	-10.6	87	0.00
85 C	styrene	4.799	4.810	-0.2	80	0.00
86 C	1,1,2,2-tetrachloroethane	4.780	4.986	-4.3	81	0.00
87 C	o-xylene	6.182	6.281	-1.6	81	0.00
88	1,2,3-trichloropropane	3.770	3.674	2.5	81	0.00
89	nonane	4.572	4.053	11.4	72	0.00
91 C	isopropylbenzene	8.287	8.369	-1.0	81	0.00
92	bromobenzene	4.588	4.428	3.5	79	0.00
93	2-chlorotoluene	2.202	2.290	-4.0	84	0.00
94	n-propylbenzene	2.322	2.471	-6.4	84	0.00
95	4-chlorotoluene	6.525	6.445	1.2	78	0.00
96	4-ethyl toluene	9.182	9.372	-2.1	82	0.00
97	1,3,5-trimethylbenzene	7.272	7.399	-1.7	83	0.00
98	tert-butylbenzene	7.180	7.671	-6.8	82	0.00
99	1,2,4-trimethylbenzene	6.900	7.408	-7.4	81	0.00
100	decane	4.966	4.899	1.3	75	0.00
101 C	Benzyl Chloride	6.319	6.461	-2.2	76	0.00
102	1,3-dichlorobenzene	4.859	5.350	-10.1	84	0.00
103 C	1,4-dichlorobenzene	4.849	5.459	-12.6	86	0.00
104	sec-butylbenzene	10.337	10.962	-6.0	82	0.00
106	p-isopropyltoluene	9.051	9.668	-6.8	81	0.00
107	1,2-dichlorobenzene	4.672	5.188	-11.0	86	0.00
108	n-butylbenzene	8.441	9.187	-8.8	81	0.00
111 C	1,2-dibromo-3-chloropropane	2.218	2.185	1.5	73	0.00
112	undecane	4.979	5.769	-15.9	74	0.00
114	dodecane	3.757	5.663	-50.7#	68	0.00
115 C	1,2,4-trichlorobenzene	3.199	4.578	-43.1#	82	0.00
116	naphthalene	8.070	10.232	-26.8	76	0.00
117	1,2,3-trichlorobenzene	3.099	4.335	-39.9#	79	0.00
119 C	hexachlorobutadiene	2.888	3.921	-35.8#	86	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	158679	10.000	ppbV	0.00
43) 1,4-difluorobenzene	12.348	114	366447	10.000	ppbV	0.00
67) chlorobenzene-D5	16.801	54	68000	10.000	ppbV	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) chlorodifluoromethane	3.881	51	142615	9.625	ppbV	99
3) propylene	3.915	41	69323M6	9.649	ppbV	
4) propane	3.948	29	51070	8.696	ppbV	91
5) dichlorodifluoromethane	4.015	85	178664	8.825	ppbV	99
6) chloromethane	4.227	50	72922	9.527	ppbV	99
7) Freon-114	4.373	85	259957	10.948	ppbV	99
8) methanol	4.473	31	98068	41.553	ppbV	99
9) vinyl chloride	4.540	62	91838	10.372	ppbV	99
10) 1,3-butadiene	4.730	54	70270	10.540	ppbV	87
11) butane	4.818	43	45517	6.585	ppbV	99
13) bromomethane	5.106	94	96375	10.794	ppbV	100
14) chloroethane	5.367	64	44091	10.226	ppbV	99
15) ethanol	5.572	31	203331	41.996	ppbV	91
16) dichlorofluoromethane	5.525	67	196115	10.286	ppbV	98
17) vinyl bromide	5.851	106	95969	11.027	ppbV	97
18) acrolein	6.037	56	34026	9.739	ppbV	94
19) acetone	6.214	43	727902	45.891	ppbV	96
20) acetonitrile	5.860	41	61756	8.862	ppbV	98
21) trichlorofluoromethane	6.437	101	222357	10.629	ppbV	99
22) isopropyl alcohol	6.595	45	377691	20.725	ppbV	100
23) acrylonitrile	6.865	53	63621	9.781	ppbV	98
24) pentane	6.930	43	126813	8.538	ppbV #	96
25) ethyl ether	6.986	31	74507	7.721	ppbV #	87
26) 1,1-dichloroethene	7.284	61	144960	9.020	ppbV	97
27) tertiary butyl alcohol	7.396	59	175822	8.731	ppbV	98
28) methylene chloride	7.470	49	107643	9.019	ppbV	91
29) 3-chloropropene	7.619	41	118920	8.740	ppbV	95
30) carbon disulfide	7.787	76	329206	10.193	ppbV	95
31) Freon 113	7.805	101	214807	10.578	ppbV	98
32) trans-1,2-dichloroethene	8.652	61	160541	9.924	ppbV	95
33) 1,1-dichloroethane	8.904	63	195458	9.931	ppbV	99
34) MTBE	8.993	73	278956	9.808	ppbV	97
35) vinyl acetate	9.115	43	181305	9.155	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2-butanone	9.406	43	195108	9.635	ppbV	95
37) cis-1,2-dichloroethene	9.917	61	167644	10.521	ppbV	94
38) Ethyl Acetate	10.207	61	45384	10.303	ppbV	77
39) chloroform	10.271	83	276229	10.397	ppbV	98
40) Tetrahydrofuran	10.738	42	123985	9.898	ppbV	94
41) 2,2-dichloropropane	10.281	77	222892	9.792	ppbV	94
42) 1,2-dichloroethane	11.115	62	132460	9.843	ppbV	99
44) hexane	10.164	57	203242	8.844	ppbV	98
45) diisopropyl ether	10.175	87	107018	9.059	ppbV	86
46) tert-butyl ethyl ether	10.805	59	317462	8.731	ppbV	97
48) 1,1,1-trichloroethane	11.404	97	208331	9.419	ppbV	97
49) 1,1-dichloropropene	11.766	75	160629	9.012	ppbV	91
50) benzene	11.929	78	338615	9.250	ppbV	98
52) carbon tetrachloride	12.104	117	205223	9.635	ppbV	98
53) cyclohexane	12.243	56	166584	8.508	ppbV	92
54) tert-amyl methyl ether	12.616	73	304050	8.946	ppbV	96
55) dibromomethane	12.849	93	133586	9.659	ppbV	95
56) 1,2-dichloropropane	12.872	63	128616	9.077	ppbV	96
57) bromodichloromethane	13.093	83	250648	9.535	ppbV	100
58) 1,4-dioxane	13.151	88	75898	9.565	ppbV	97
59) trichloroethene	13.140	130	150262	9.879	ppbV	98
60) 2,2,4-trimethylpentane	13.175	57	548199	8.928	ppbV	97
61) methyl methacrylate	13.361	41	173634	8.517	ppbV	90
62) heptane	13.466	43	187422	8.140	ppbV	97
63) cis-1,3-dichloropropene	14.123	75	182942	9.225	ppbV	92
64) 4-methyl-2-pentanone	14.157	43	243837	8.468	ppbV	98
65) trans-1,3-dichloropropene	14.723	75	179453	9.290	ppbV	94
66) 1,1,2-trichloroethane	14.909	97	144132	9.665	ppbV	97
68) toluene	15.198	91	411481	9.542	ppbV	100
71) 1,3-dichloropropane	15.219	76	185934	9.578	ppbV	91
72) 2-hexanone	15.446	43	223611	9.022	ppbV	96
74) dibromochloromethane	15.611	129	259672	10.439	ppbV	100
75) 1,2-dibromoethane	15.848	107	237750	10.445	ppbV	100
76) butyl acetate	16.024	73	42705	9.571	ppbV	85
77) octane	16.106	85	118370	9.860	ppbV	85
78) tetrachloroethene	16.261	166	196530	10.430	ppbV	96
79) 1,1,1,2-tetrachloroethane	16.821	131	169047	10.247	ppbV	98
80) chlorobenzene	16.836	112	331967	10.202	ppbV	99
81) ethylbenzene	17.134	91	535774	9.840	ppbV	98
83) m+p-xylene	17.268	91	822222	19.635	ppbV	97
84) bromoform	17.358	173	269579	11.064	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167935.D
 Acq On : 9 Aug 2019 12:22 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-2,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 09 13:51:24 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

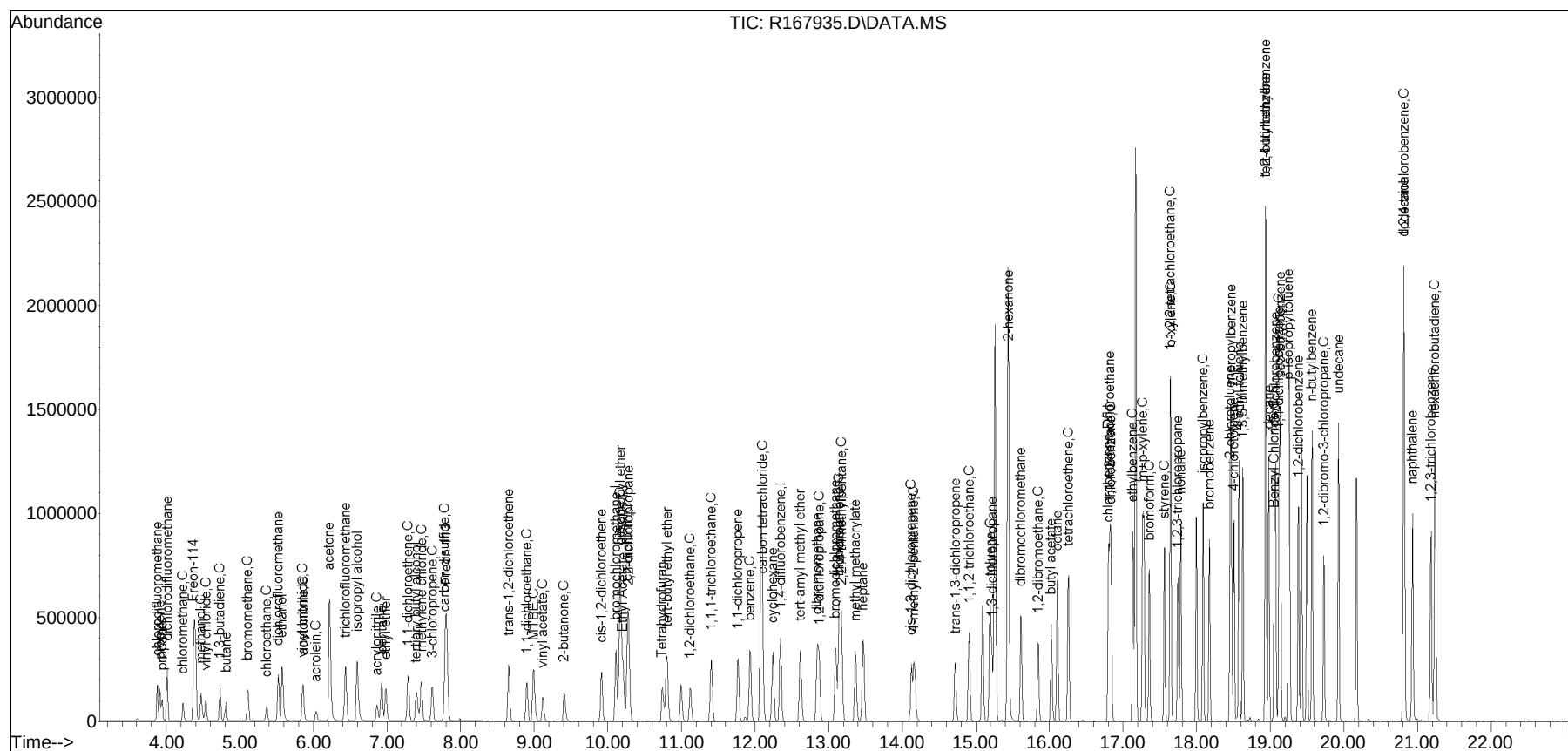
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85)	styrene	17.562	104	327102	10.023	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.642	83	339064	10.430	ppbV	99
87)	o-xylene	17.647	91	427093	10.159	ppbV	99
88)	1,2,3-trichloropropane	17.746	75	249856	9.745	ppbV	96
89)	nonane	17.786	43	275636	8.865	ppbV #	95
91)	isopropylbenzene	18.089	105	569092	10.099	ppbV	99
92)	bromobenzene	18.174	77	301130	9.651	ppbV	91
93)	2-chlorotoluene	18.453	126	155707	10.400	ppbV	67
94)	n-propylbenzene	18.468	120	168011	10.643	ppbV	87
95)	4-chlorotoluene	18.507	91	438239	9.876	ppbV	98
96)	4-ethyl toluene	18.577	105	637288	10.206	ppbV	98
97)	1,3,5-trimethylbenzene	18.627	105	503104	10.174	ppbV	99
98)	tert-butylbenzene	18.937	119	521625	10.684	ppbV	99
99)	1,2,4-trimethylbenzene	18.937	105	503760	10.736	ppbV	95
100)	decane	18.979	57	333139	9.866	ppbV	95
101)	Benzyl Chloride	19.052	91	439335	10.225	ppbV	99
102)	1,3-dichlorobenzene	19.070	146	363827	11.012	ppbV	96
103)	1,4-dichlorobenzene	19.118	146	371181	11.257	ppbV	95
104)	sec-butylbenzene	19.137	105	745430	10.605	ppbV	99
106)	p-isopropyltoluene	19.245	119	657411	10.682	ppbV	99
107)	1,2-dichlorobenzene	19.384	146	352778	11.103	ppbV	96
108)	n-butylbenzene	19.566	91	624683	10.884	ppbV	98
111)	1,2-dibromo-3-chloropr...	19.729	75	148571	9.852	ppbV	89
112)	undecane	19.928	57	392291	11.586	ppbV	96
114)	dodecane	20.814	57	385061	15.072	ppbV	95
115)	1,2,4-trichlorobenzene	20.814	180	311273	14.311	ppbV	97
116)	naphthalene	20.934	128	695747	12.678	ppbV	98
117)	1,2,3-trichlorobenzene	21.186	180	294762	13.989	ppbV	97
119)	hexachlorobutadiene	21.234	225	266610	13.577	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167935.D
Acq On    : 9 Aug 2019 12:22 pm
Operator  : AIRPIAN01:EW
Sample    : WG1270780-2,3,250,250
Misc      : WG1270780,ICAL15961
ALS Vial  : 2 Sample Multiplier: 1
```

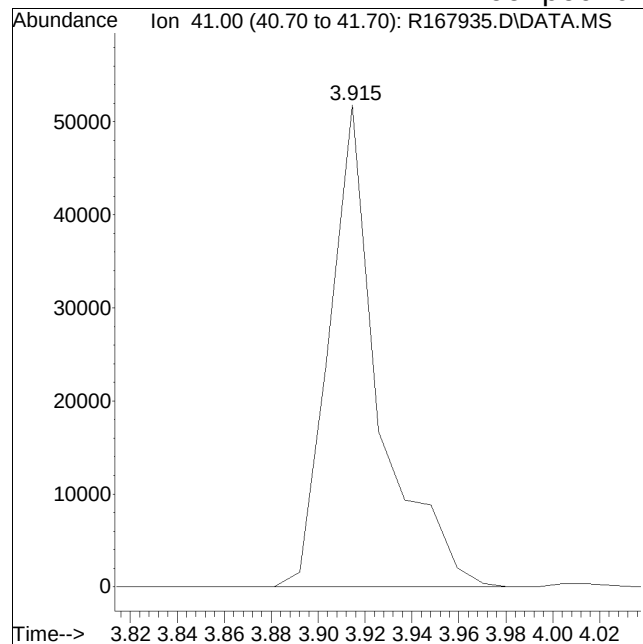
Quant Time: Aug 09 13:51:24 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration



Manual Integration Report

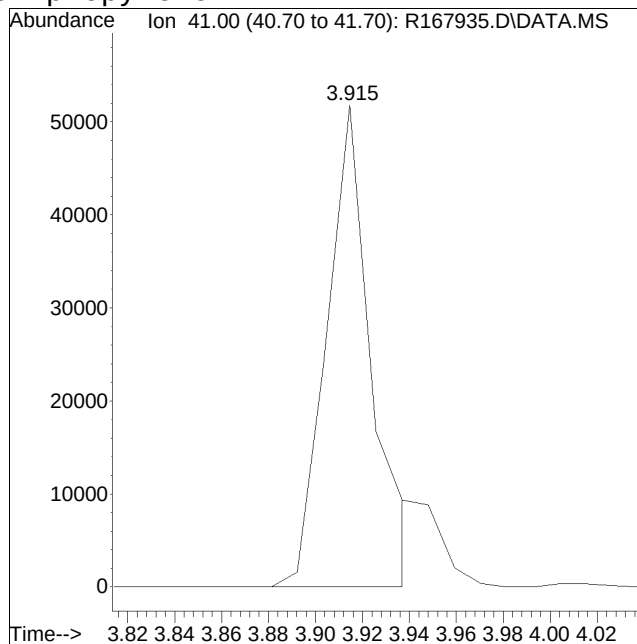
Data Path : 0:\Forensics\Data\AIR1\201QMethod : TFS1_190712.M
Data File : R167935.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 12:22 pm Instrument : Air Piano 1
Sample : WG1270780-2,3,250,250 Quant Date : 8/9/2019 1:50 pm

Compound #3: propylene



Original Peak Response = 76863

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



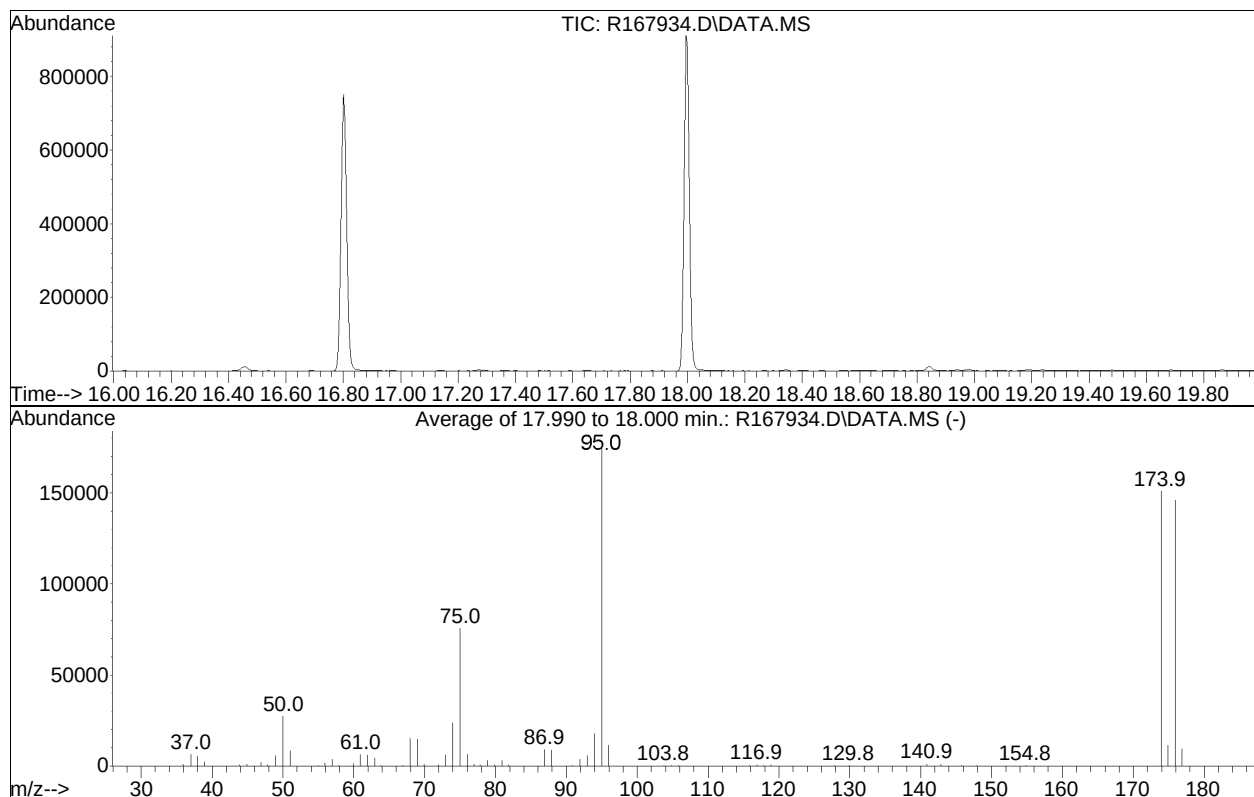
Manual Peak Response = 69323 M6

BFB

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167934.D
 Acq On : 9 Aug 2019 11:49 am
 Operator : AIRPIAN01:EW
 Sample : WG1270780-1,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Sat Jul 13 07:25:05 2019



AutoFind: Scans 1576, 1577, 1578; Background Corrected with Scan 1569

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.6	27429	PASS
75	95	30	66	43.2	75717	PASS
95	95	100	100	100.0	175360	PASS
96	95	5	9	6.5	11483	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.2	151112	PASS
175	174	4	9	7.6	11467	PASS
176	174	93	101	96.7	146147	PASS
177	176	5	9	6.6	9678	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167939.D
 Acq On : 9 Aug 2019 3:52 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-4,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:56:47 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.110	49	147050	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		92.67%	
43) 1,4-difluorobenzene	12.348	114	330373	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		90.16%	
67) chlorobenzene-D5	16.801	54	60120	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		88.41%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue	#
3) propylene	3.914	41	454	0.068	ppbV		80
5) dichlorodifluoromethane	0.000		0	N.D.			
6) chloromethane	0.000		0	N.D.			
7) Freon-114	0.000		0	N.D.			
9) vinyl chloride	0.000		0	N.D.			
10) 1,3-butadiene	0.000		0	N.D.			
13) bromomethane	0.000		0	N.D.			
14) chloroethane	0.000		0	N.D.			
15) ethanol	5.609	31	193	0.043	ppbV		18
17) vinyl bromide	0.000		0	N.D.			
19) acetone	6.297	43	1269	0.086	ppbV		99
21) trichlorofluoromethane	0.000		0	N.D.			
22) isopropyl alcohol	6.660	45	2949	0.175	ppbV		87
26) 1,1-dichloroethene	0.000		0	N.D.			
27) tertiary butyl alcohol	0.000		0	N.D.			
28) methylene chloride	7.470		0	N.D.			
29) 3-chloropropene	0.000		0	N.D.			
30) carbon disulfide	7.796		0	N.D.			
31) Freon 113	0.000		0	N.D.			
32) trans-1,2-dichloroethene	0.000		0	N.D.			
33) 1,1-dichloroethane	0.000		0	N.D.			
34) MTBE	0.000		0	N.D.			
35) vinyl acetate	9.139		0	N.D.			
36) 2-butanone	9.293		0	N.D.			
37) cis-1,2-dichloroethene	0.000		0	N.D.			
38) Ethyl Acetate	0.000		0	N.D.			
39) chloroform	0.000		0	N.D.			

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167939.D
 Acq On : 9 Aug 2019 3:52 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-4,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:56:47 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Tetrahydrofuran	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	14.260		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	0.000		0		N.D.	
72) 2-hexanone	0.000		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
78) tetrachloroethene	0.000		0		N.D.	
80) chlorobenzene	0.000		0		N.D.	
81) ethylbenzene	17.139		0		N.D.	
83) m+p-xylene	17.293		0		N.D.	
84) bromoform	0.000		0		N.D.	
85) styrene	0.000		0		N.D.	
86) 1,1,2,2-tetrachloroethane	0.000		0		N.D.	
87) o-xylene	17.646		0		N.D.	
96) 4-ethyl toluene	18.582		0		N.D.	
97) 1,3,5-trimethylbenzene	18.632		0		N.D.	
99) 1,2,4-trimethylbenzene	18.943		0		N.D.	
101) Benzyl Chloride	19.058		0		N.D.	
102) 1,3-dichlorobenzene	19.076		0		N.D.	
103) 1,4-dichlorobenzene	19.124		0		N.D.	
107) 1,2-dichlorobenzene	19.384		0		N.D.	
115) 1,2,4-trichlorobenzene	20.814	180	804	0.042	ppbV #	73
119) hexachlorobutadiene	21.246		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167939.D
 Acq On : 9 Aug 2019 3:52 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-4,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:56:47 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Sub List : Default-LCS-AP2 - All compounds listed67935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\

Data File : R167939.D

Acq On : 9 Aug 2019 3:52 pm

Operator : AIRPIAN01:EW

Sample : WG1270780-4,3,250,250

Misc : WG1270780,ICAL15961

ALS Vial : 1 Sample Multiplier: 1

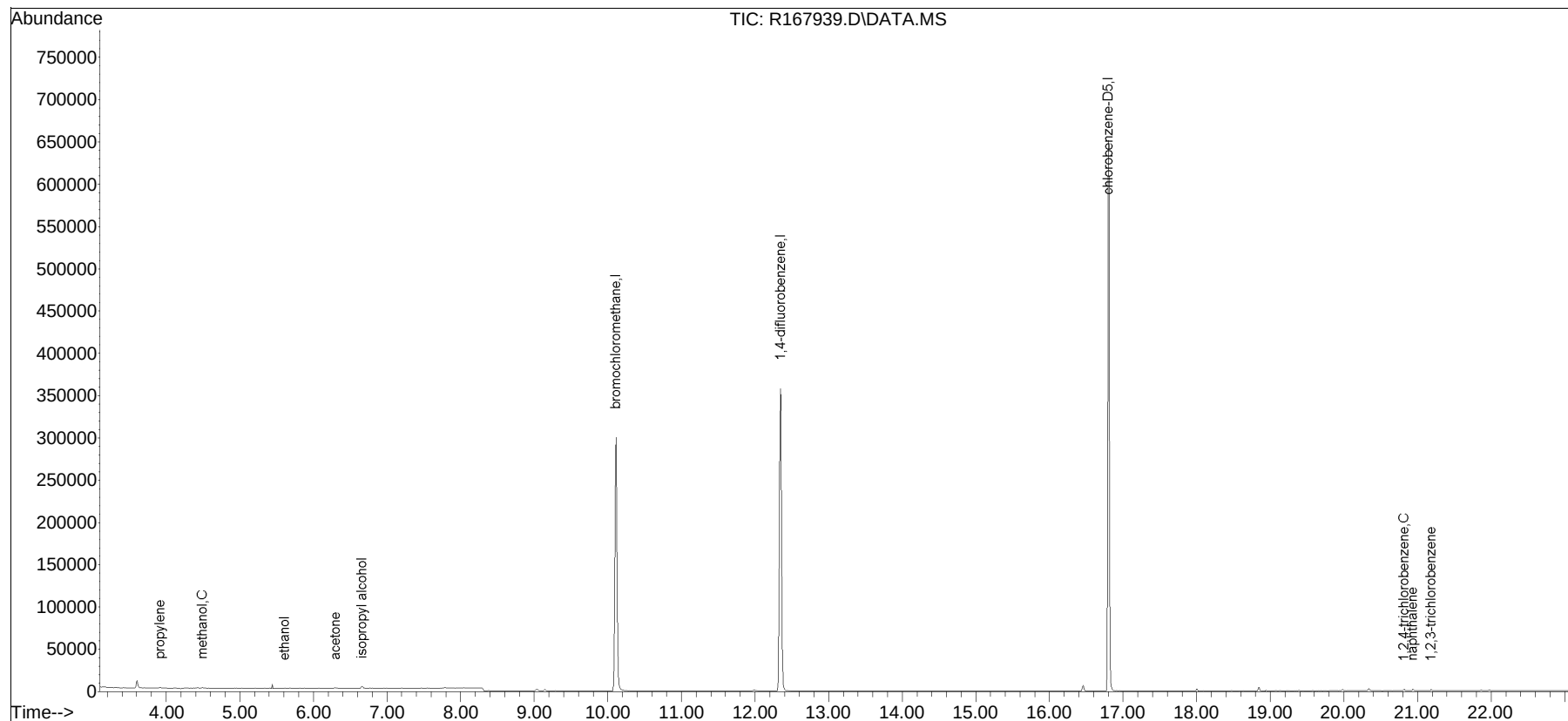
Quant Time: Aug 09 16:56:47 2019

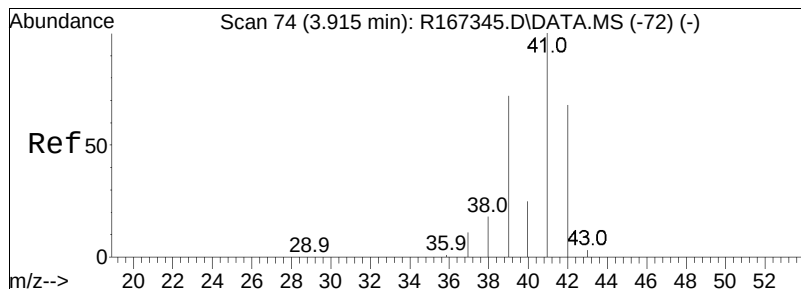
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M

Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis

QLast Update : Sat Jul 13 07:24:01 2019

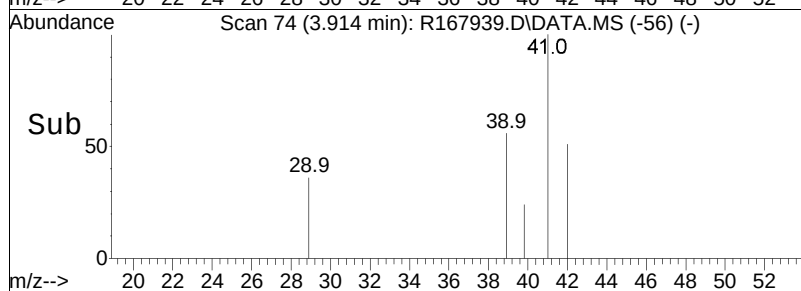
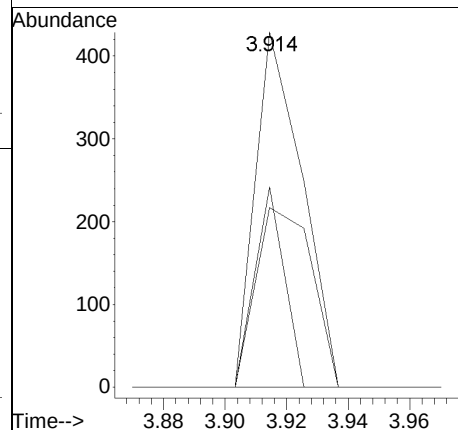
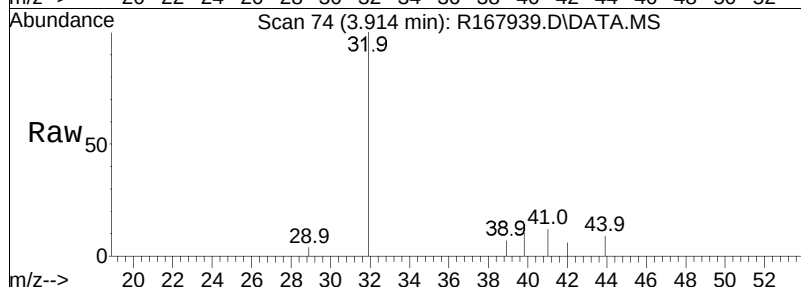
Response via : Initial Calibration

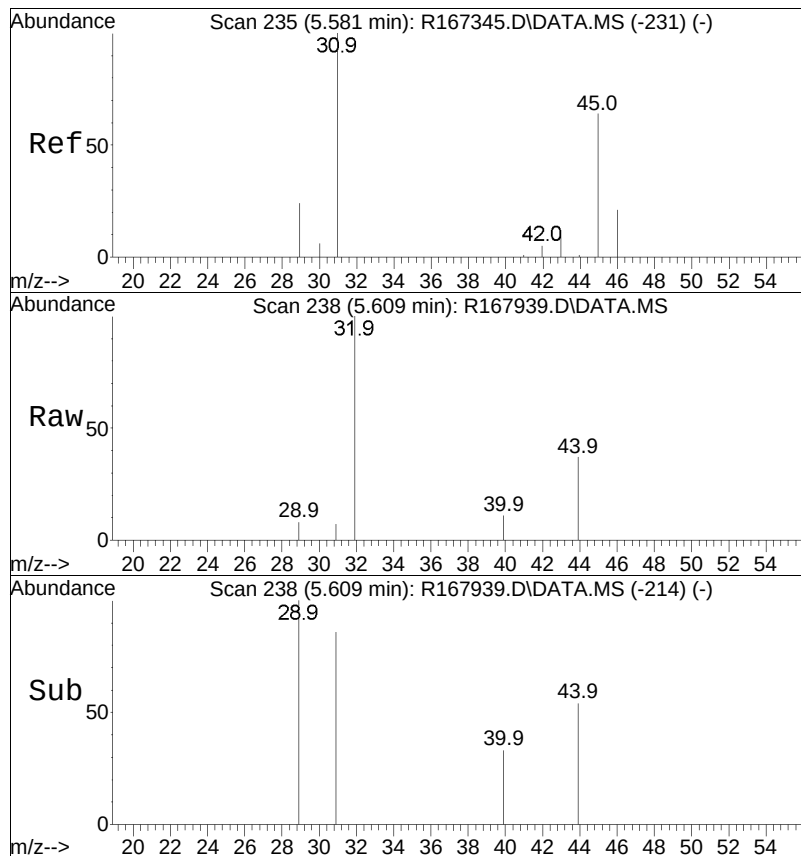




#3
propylene
Concen: 0.07 ppbV
RT: 3.914 min Scan# 74
Delta R.T. -0.000 min
Lab File: R167939.D
Acq: 9 Aug 2019 3:52 pm

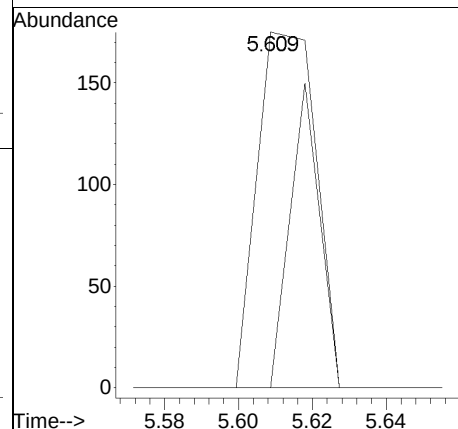
Tgt Ion:	41	Resp:	454
Ion Ratio	Lower	Upper	
41	100		
42	50.6	54.6	81.8#
39	56.4	57.8	86.8#

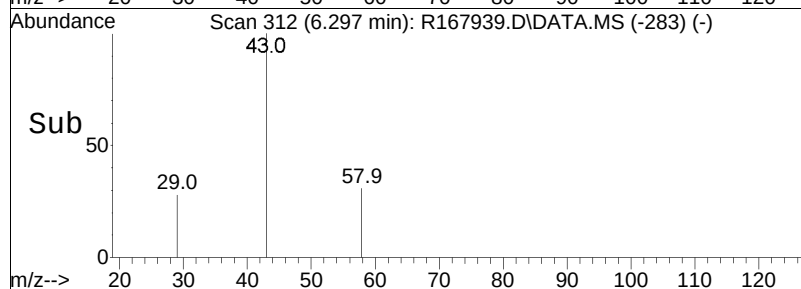
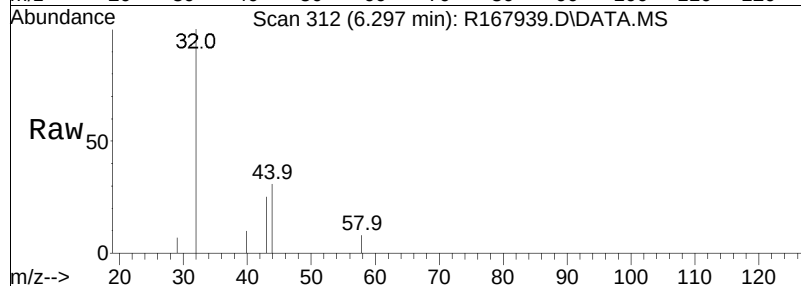
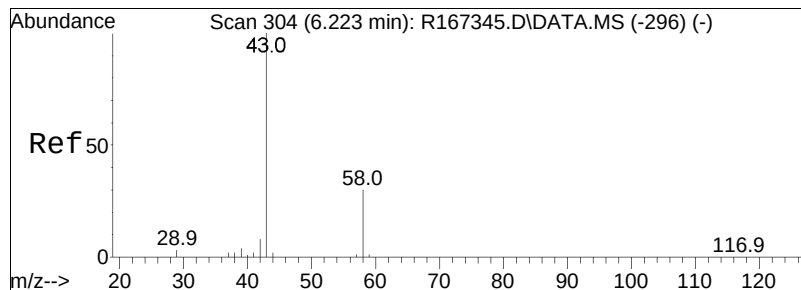




#15
 ethanol
 Concen: 0.04 ppbV
 RT: 5.609 min Scan# 238
 Delta R.T. 0.028 min
 Lab File: R167939.D
 Acq: 9 Aug 2019 3:52 pm

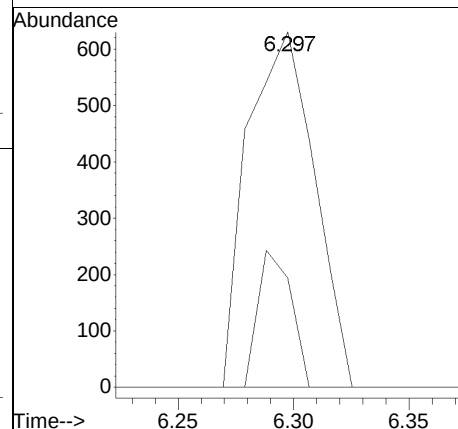
Tgt Ion	Ratio	Lower	Upper
31	100		
45	0.0	50.8	76.2#

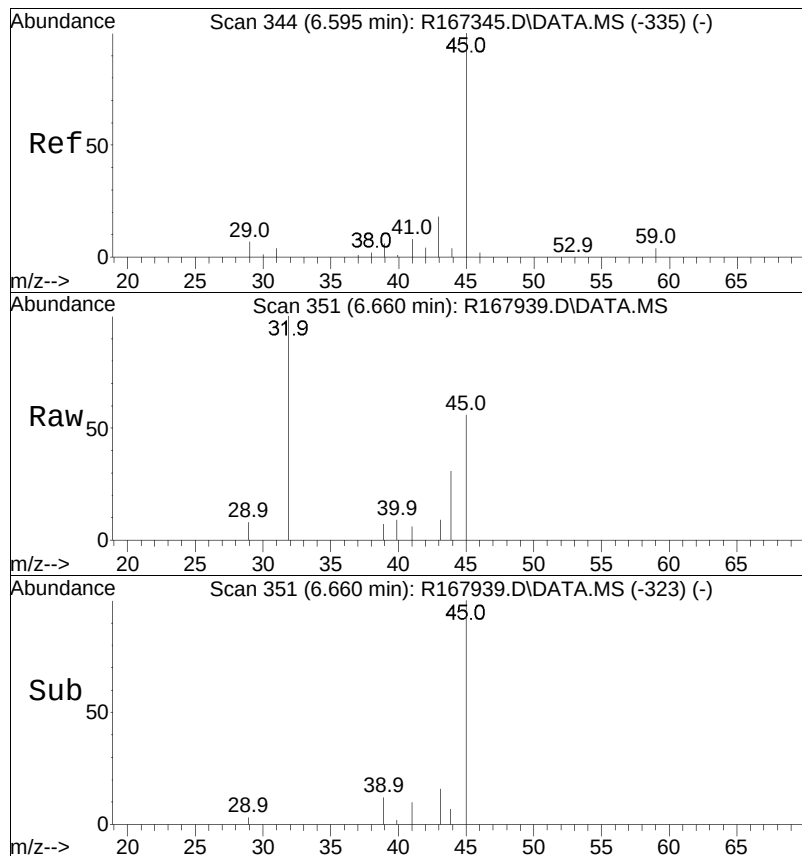




#19
acetone
Concen: 0.09 ppbV
RT: 6.297 min Scan# 312
Delta R.T. 0.074 min
Lab File: R167939.D
Acq: 9 Aug 2019 3:52 pm

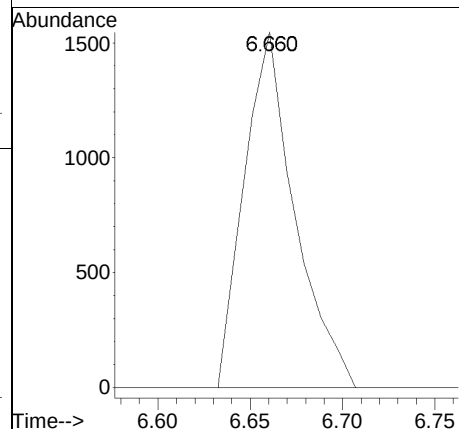
Tgt Ion	Ratio	Lower	Upper
43	100		
58	30.8	24.2	36.2
57	0.0	0.8	1.2#

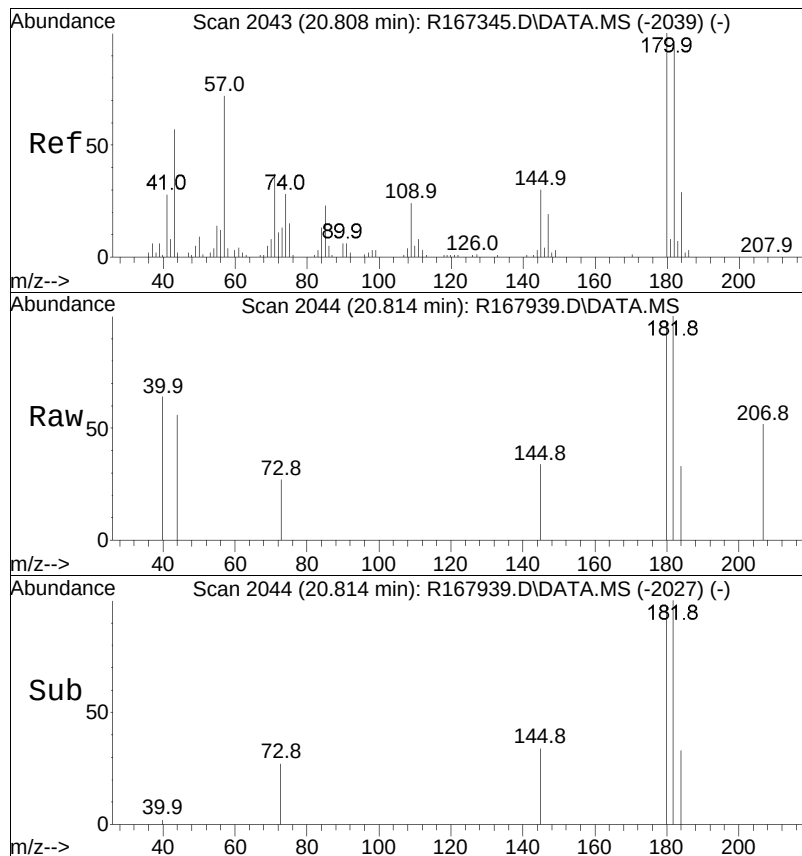




#22
 isopropyl alcohol
 Concen: 0.17 ppbV
 RT: 6.660 min Scan# 351
 Delta R.T. 0.065 min
 Lab File: R167939.D
 Acq: 9 Aug 2019 3:52 pm

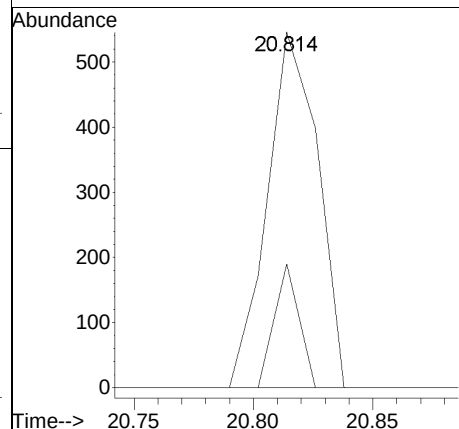
Tgt Ion	Ratio	Lower	Upper
45	100		
59	0.0	3.4	5.0#





#115
 1,2,4-trichlorobenzene
 Concen: 0.04 ppbV
 RT: 20.814 min Scan# 2044
 Delta R.T. 0.006 min
 Lab File: R167939.D
 Acq: 9 Aug 2019 3:52 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
145	34.8	23.9	35.9
109	0.0	19.4	29.2#



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TFS1_190712.M
Data File	: R167939.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/9/2019 3:52 pm	Instrument	: Air Piano 1
Sample	: WG1270780-4,3,250,250	Quant Date	: 8/9/2019 4:56 pm

There are no manual integrations or false positives in this file.

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	69	0.00
2	chlorodifluoromethane	10.000	8.949	10.5	66	0.00
3	propylene	10.000	10.671	-6.7	78	0.00
4	propane	10.000	7.806	21.9	56	0.00
5	dichlorodifluoromethane	10.000	8.826	11.7	68	0.00
6 C	chloromethane	10.000	10.095	-1.0	75	0.00
7	Freon-114	10.000	11.215	-12.1	81	0.00
8 C	methanol	50.000	41.012	18.0	58	0.00
9 C	vinyl chloride	10.000	10.603	-6.0	77	0.00
10 C	1,3-butadiene	10.000	11.252	-12.5	80	0.00
11	butane	10.000	8.156	18.4	69	0.00
13 C	bromomethane	10.000	10.829	-8.3	81	0.00
14 C	chloroethane	10.000	10.408	-4.1	78	0.00
15	ethanol	50.000	40.399	19.2	56	0.00
16	dichlorofluoromethane	10.000	9.598	4.0	70	0.00
17 C	vinyl bromide	10.000	10.931	-9.3	79	0.00
18 C	acrolein	10.000	9.054	9.5	65	0.00
19	acetone	50.000	39.355	21.3	57	0.00
20 C	acetonitrile	10.000	8.802	12.0	64	0.00
21	trichlorofluoromethane	10.000	11.013	-10.1	80	0.00
22	isopropyl alcohol	25.000	18.807	24.8	60	0.00
23 C	acrylonitrile	10.000	9.473	5.3	72	0.00
24	pentane	10.000	8.186	18.1	65	0.00
25	ethyl ether	10.000	7.519	24.8	57	0.00
26 C	1,1-dichloroethene	10.000	10.088	-0.9	71	0.00
27	tertiary butyl alcohol	10.000	9.019	9.8	64	0.00
28 C	methylene chloride	10.000	9.827	1.7	69	0.00
29 C	3-chloropropene	10.000	9.308	6.9	68	0.00
30 C	carbon disulfide	10.000	9.454	5.5	69	0.00
31	Freon 113	10.000	10.564	-5.6	76	0.00
32	trans-1,2-dichloroethene	10.000	9.679	3.2	68	0.00
33 C	1,1-dichloroethane	10.000	9.889	1.1	72	0.00
34 C	MTBE	10.000	9.748	2.5	71	0.00
35 C	vinyl acetate	10.000	9.299	7.0	64	0.00
36 C	2-butanone	10.000	9.570	4.3	65	0.00
37	cis-1,2-dichloroethene	10.000	10.786	-7.9	73	0.00
38	Ethyl Acetate	10.000	10.105	-1.1	71	0.00
39 C	chloroform	10.000	10.749	-7.5	77	0.00
40	Tetrahydrofuran	10.000	9.626	3.7	71	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	10.000	9.227	7.7	66	-0.01
42 C	1,2-dichloroethane	10.000	9.989	0.1	72	0.00
43 I	1,4-difluorobenzene	10.000	10.000	0.0	75	0.00
44 C	hexane	10.000	8.877	11.2	70	0.00
45	diisopropyl ether	10.000	8.215	17.9	68	0.00
46	tert-butyl ethyl ether	10.000	8.126	18.7	63	0.00
48 C	1,1,1-trichloroethane	10.000	9.580	4.2	76	0.00
49	1,1-dichloropropene	10.000	8.898	11.0	70	0.00
50 C	benzene	10.000	9.095	9.0	71	-0.01
52 C	carbon tetrachloride	10.000	10.098	-1.0	79	0.00
53	cyclohexane	10.000	8.771	12.3	71	0.00
54	tert-amyl methyl ether	10.000	8.292	17.1	65	0.00
55	dibromomethane	10.000	9.241	7.6	71	0.00
56 C	1,2-dichloropropane	10.000	9.151	8.5	74	0.00
57	bromodichloromethane	10.000	9.770	2.3	74	0.00
58 C	1,4-dioxane	10.000	9.504	5.0	72	0.00
59 C	trichloroethene	10.000	9.918	0.8	77	0.00
60 C	2,2,4-trimethylpentane	10.000	9.806	1.9	77	0.00
61	methyl methacrylate	10.000	5.988	40.1#	45	0.00
62	heptane	10.000	8.446	15.5	69	0.00
63 C	cis-1,3-dichloropropene	10.000	9.942	0.6	77	0.00
64 C	4-methyl-2-pentanone	10.000	8.794	12.1	66	-0.02
65	trans-1,3-dichloropropene	10.000	8.437	15.6	65	0.00
66 C	1,1,2-trichloroethane	10.000	9.826	1.7	76	0.00
67 I	chlorobenzene-D5	10.000	10.000	0.0	71	0.00
68 C	toluene	10.000	9.543	4.6	72	0.00
71	1,3-dichloropropane	10.000	9.018	9.8	68	0.00
72	2-hexanone	10.000	9.657	3.4	70	0.00
74	dibromochloromethane	10.000	11.092	-10.9	81	0.00
75 C	1,2-dibromoethane	10.000	10.534	-5.3	77	0.00
76	butyl acetate	10.000	9.013	9.9	66	0.00
77	octane	10.000	9.252	7.5	69	0.00
78 C	tetrachloroethene	10.000	10.384	-3.8	78	0.00
79	1,1,1,2-tetrachloroethane	10.000	9.676	3.2	72	0.00
80 C	chlorobenzene	10.000	10.238	-2.4	76	0.00
81 C	ethylbenzene	10.000	9.880	1.2	74	0.00
83 C	m+p-xylene	20.000	20.011	-0.1	74	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84 C	bromoform	10.000	11.212	-12.1	81	0.00
85 C	styrene	10.000	9.892	1.1	72	0.00
86 C	1,1,2,2-tetrachloroethane	10.000	10.522	-5.2	75	0.00
87 C	o-xylene	10.000	10.295	-2.9	76	0.00
88	1,2,3-trichloropropane	10.000	9.198	8.0	70	0.00
89	nonane	10.000	8.568	14.3	64	0.00
91 C	isopropylbenzene	10.000	9.925	0.7	73	0.00
92	bromobenzene	10.000	9.276	7.2	70	0.00
93	2-chlorotoluene	10.000	9.885	1.2	73	0.00
94	n-propylbenzene	10.000	10.029	-0.3	72	0.00
95	4-chlorotoluene	10.000	9.513	4.9	69	0.00
96	4-ethyl toluene	10.000	10.229	-2.3	75	0.00
97	1,3,5-trimethylbenzene	10.000	10.322	-3.2	78	0.00
98	tert-butylbenzene	10.000	10.146	-1.5	71	0.00
99	1,2,4-trimethylbenzene	10.000	10.901	-9.0	76	0.00
100	decane	10.000	9.514	4.9	66	0.00
101 C	Benzyl Chloride	10.000	10.266	-2.7	70	0.00
102	1,3-dichlorobenzene	10.000	11.140	-11.4	78	0.00
103 C	1,4-dichlorobenzene	10.000	11.270	-12.7	79	0.00
104	sec-butylbenzene	10.000	10.116	-1.2	72	0.00
106	p-isopropyltoluene	10.000	9.442	5.6	66	0.00
107	1,2-dichlorobenzene	10.000	11.147	-11.5	79	0.00
108	n-butylbenzene	10.000	10.628	-6.3	72	0.00
111 C	1,2-dibromo-3-chloropropane	10.000	9.724	2.8	66	0.00
112	undecane	10.000	11.377	-13.8	67	0.00
114	dodecane	10.000	13.919	-39.2#	57	0.00
115 C	1,2,4-trichlorobenzene	10.000	14.257	-42.6#	75	0.00
116	naphthalene	10.000	12.113	-21.1	66	0.00
117	1,2,3-trichlorobenzene	10.000	13.011	-30.1#	67	0.00
119 C	hexachlorobutadiene	10.000	13.334	-33.3#	77	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.111	49	148433	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		93.54%	
43) 1,4-difluorobenzene	12.348	114	340009	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		92.79%	
67) chlorobenzene-D5	16.801	54	62325	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		91.65%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) propylene	3.915	41	71714M6	10.671	ppbV	
5) dichlorodifluoromethane	4.015	85	167155	8.826	ppbV	98
6) chloromethane	4.239	50	72276	10.095	ppbV	98
7) Freon-114	4.384	85	249092	11.215	ppbV	96
9) vinyl chloride	4.540	62	87821	10.603	ppbV	100
10) 1,3-butadiene	4.730	54	70172	11.252	ppbV	89
13) bromomethane	5.116	94	90445	10.829	ppbV	100
14) chloroethane	5.367	64	41976	10.408	ppbV	99
15) ethanol	5.581	31	182969	40.399	ppbV	91
17) vinyl bromide	5.860	106	88989	10.931	ppbV	99
19) acetone	6.223	43	583922	39.355	ppbV	97
21) trichlorofluoromethane	6.437	101	215508	11.013	ppbV	100
22) isopropyl alcohol	6.595	45	320606	18.807	ppbV	99
26) 1,1-dichloroethene	7.284	61	151655	10.088	ppbV	99
27) tertiary butyl alcohol	7.405	59	169896	9.019	ppbV	98
28) methylene chloride	7.470	49	109712	9.827	ppbV	95
29) 3-chloropropene	7.619	41	118463	9.308	ppbV	97
30) carbon disulfide	7.796	76	285616	9.454	ppbV	98
31) Freon 113	7.815	101	200662	10.564	ppbV	97
32) trans-1,2-dichloroethene	8.661	61	146471	9.679	ppbV	96
33) 1,1-dichloroethane	8.904	63	182058	9.889	ppbV	98
34) MTBE	8.993	73	259357	9.748	ppbV	97
35) vinyl acetate	9.115	43	172269	9.299	ppbV	97
36) 2-butanone	9.407	43	181270	9.570	ppbV	97
37) cis-1,2-dichloroethene	9.917	61	160775	10.786	ppbV	95
38) Ethyl Acetate	10.207	61	41634	10.105	ppbV	82
39) chloroform	10.271	83	267149	10.749	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Tetrahydrofuran	10.738	42	112790	9.626	ppbV	95
42) 1,2-dichloroethane	11.127	62	125748	9.989	ppbV	99
44) hexane	10.164	57	189290	8.877	ppbV	91
48) 1,1,1-trichloroethane	11.404	97	196597	9.580	ppbV	96
50) benzene	11.929	78	308895	9.095	ppbV	98
52) carbon tetrachloride	12.104	117	199577	10.098	ppbV	97
53) cyclohexane	12.244	56	159350	8.771	ppbV	95
56) 1,2-dichloropropane	12.872	63	120314	9.151	ppbV	98
57) bromodichloromethane	13.093	83	238280	9.770	ppbV	98
58) 1,4-dioxane	13.151	88	69971	9.504	ppbV	98
59) trichloroethene	13.140	130	139962	9.918	ppbV	98
60) 2,2,4-trimethylpentane	13.175	57	558648	9.806	ppbV	96
62) heptane	13.477	43	180434	8.446	ppbV	99
63) cis-1,3-dichloropropene	14.123	75	182927	9.942	ppbV	93
64) 4-methyl-2-pentanone	14.158	43	234962	8.794	ppbV	98
65) trans-1,3-dichloropropene	14.723	75	151225	8.437	ppbV	94
66) 1,1,2-trichloroethane	14.909	97	135960	9.826	ppbV	97
68) toluene	15.198	91	377211	9.543	ppbV	100
72) 2-hexanone	15.446	43	219373	9.657	ppbV #	85
74) dibromochloromethane	15.611	129	252870	11.092	ppbV	99
75) 1,2-dibromoethane	15.848	107	219775	10.534	ppbV	99
78) tetrachloroethene	16.261	166	179334	10.384	ppbV	97
80) chlorobenzene	16.841	112	305344	10.238	ppbV	98
81) ethylbenzene	17.134	91	493060	9.880	ppbV	98
83) m+p-xylene	17.283	91	768047	20.011	ppbV	98
84) bromoform	17.358	173	250384	11.212	ppbV	99
85) styrene	17.562	104	295898	9.892	ppbV	98
86) 1,1,2,2-tetrachloroethane	17.647	83	313489	10.522	ppbV	99
87) o-xylene	17.647	91	396692	10.295	ppbV	99
96) 4-ethyl toluene	18.577	105	585374	10.229	ppbV	99
97) 1,3,5-trimethylbenzene	18.627	105	467849	10.322	ppbV	99
99) 1,2,4-trimethylbenzene	18.937	105	468803	10.901	ppbV	94
101) Benzyl Chloride	19.052	91	404288	10.266	ppbV	99
102) 1,3-dichlorobenzene	19.070	146	337354	11.140	ppbV	97
103) 1,4-dichlorobenzene	19.118	146	340593	11.270	ppbV	97
107) 1,2-dichlorobenzene	19.384	146	324611	11.147	ppbV	96
115) 1,2,4-trichlorobenzene	20.814	180	284219	14.257	ppbV	97
119) hexachlorobutadiene	21.246	225	240003	13.334	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167938.D
 Acq On : 9 Aug 2019 2:34 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-3,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : Default-LCS-AP2 - All compounds listed

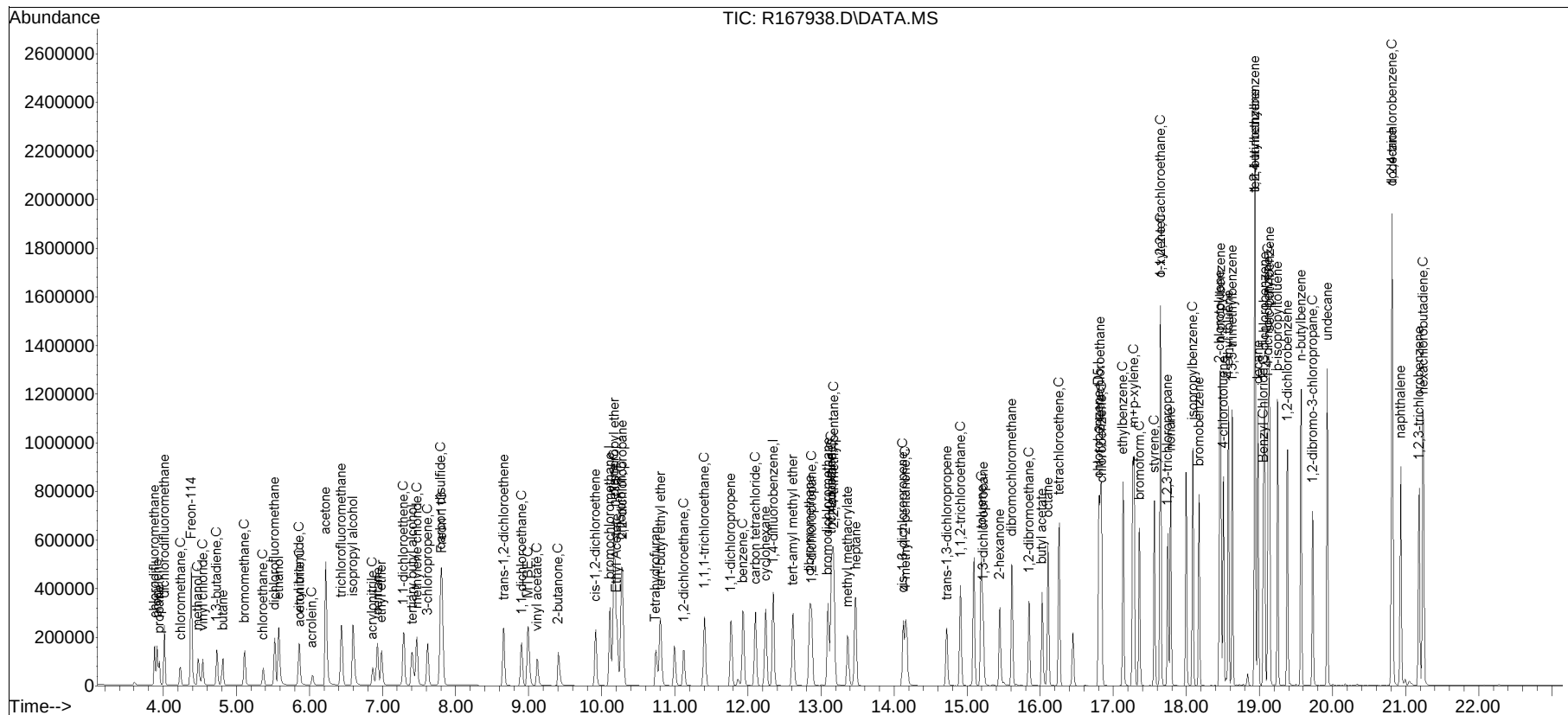
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

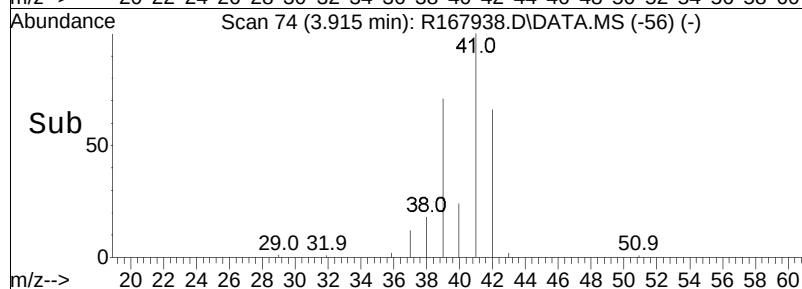
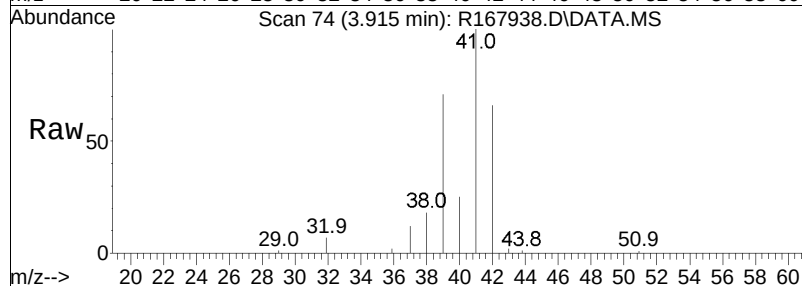
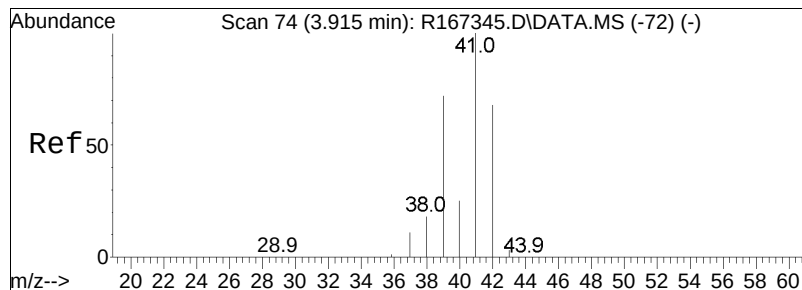
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Sub List : Default-LCS-AP2 - All compounds listed67935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167938.D
Acq On : 9 Aug 2019 2:34 pm
Operator : AIRPIAN01:EW
Sample : WG1270780-3,3,250,250
Misc : WG1270780,ICAL15961
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:59:52 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration





#3

propylene

Concen: 10.67 ppbV m

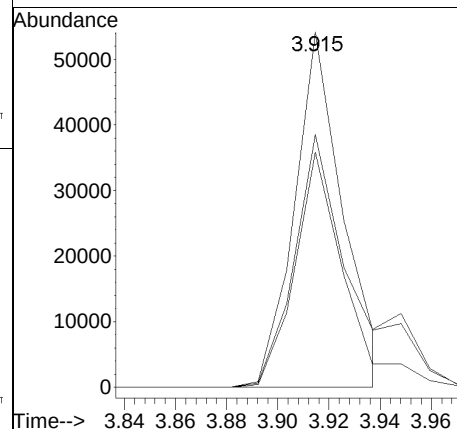
RT: 3.915 min Scan# 74

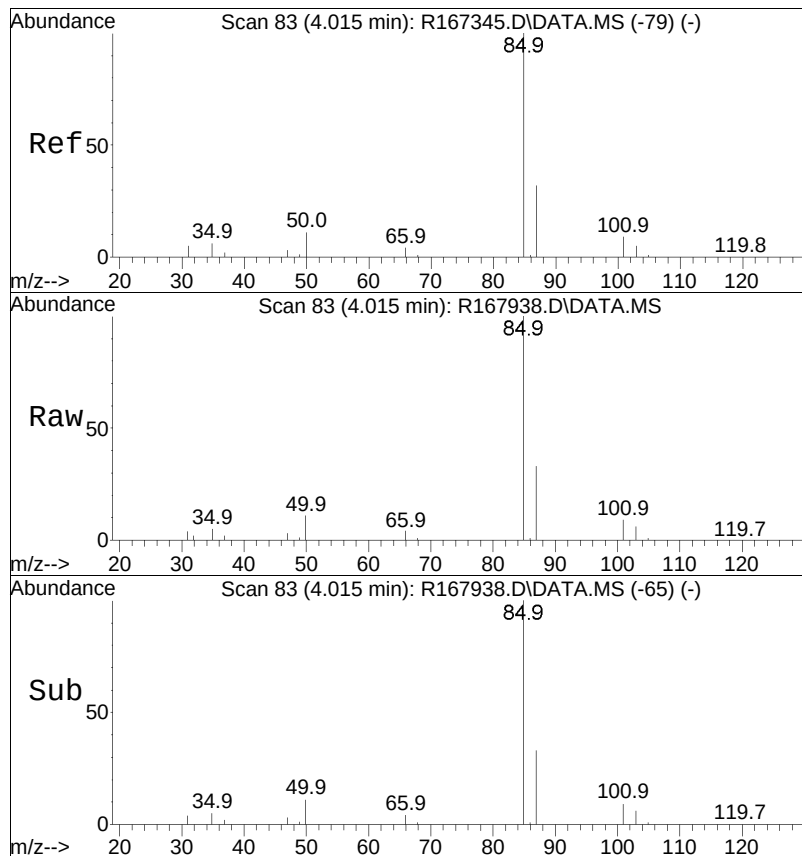
Delta R.T. 0.000 min

Lab File: R167938.D

Acq: 9 Aug 2019 2:34 pm

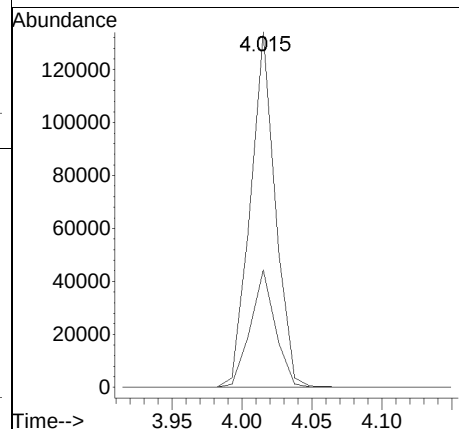
Tgt	Ion: 41	Resp:	71714
Ion	Ratio	Lower	Upper
41	100		
42	66.2	54.6	81.8
39	71.2	57.8	86.8

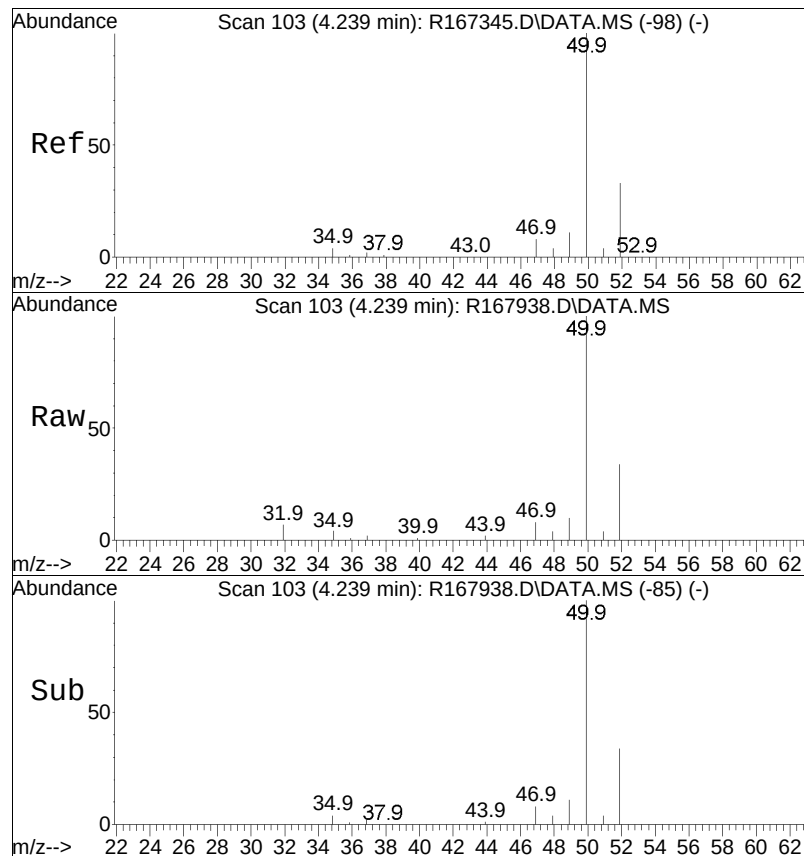




#5
 dichlorodifluoromethane
 Concen: 8.83 ppbV
 RT: 4.015 min Scan# 83
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

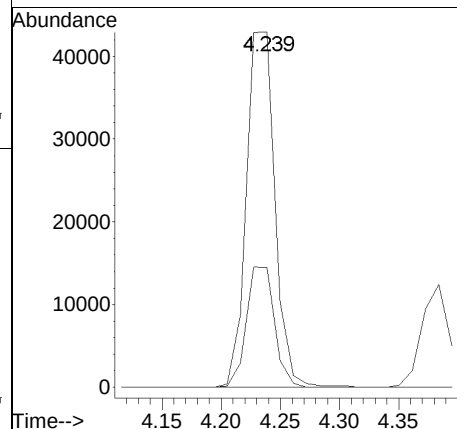
Tgt Ion	Ratio	Lower	Upper
85	100		
87	33.1	25.7	38.5

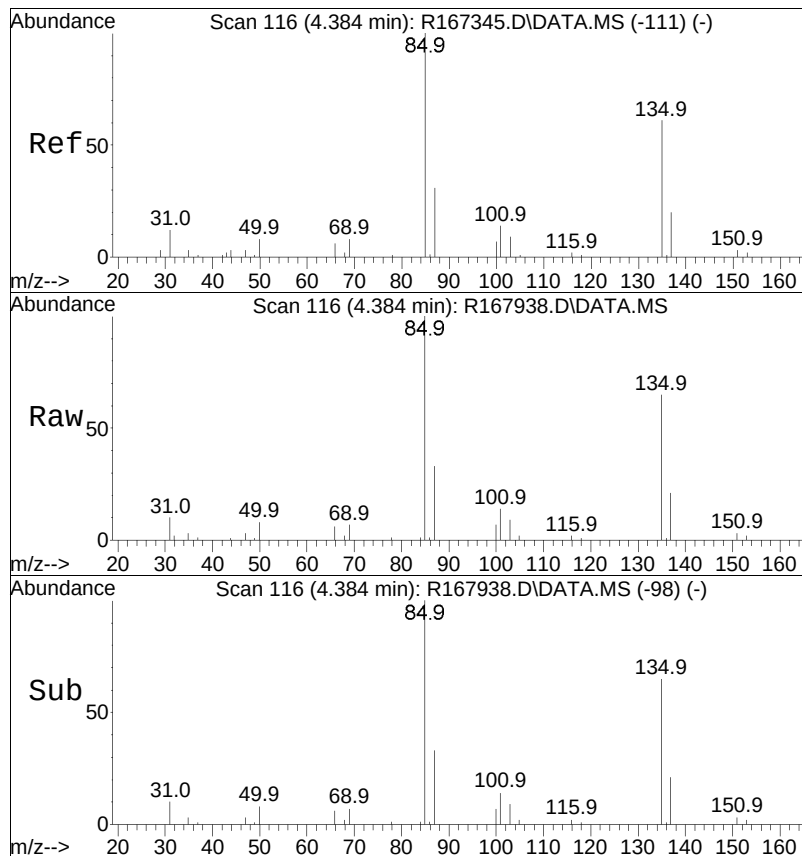




#6
 chloromethane
 Concen: 10.09 ppbV
 RT: 4.239 min Scan# 103
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

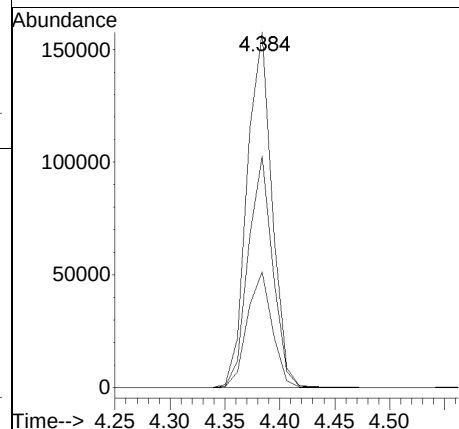
Tgt	Ion	Ratio	Lower	Upper
50	100			
52	33.8	26.3	39.5	

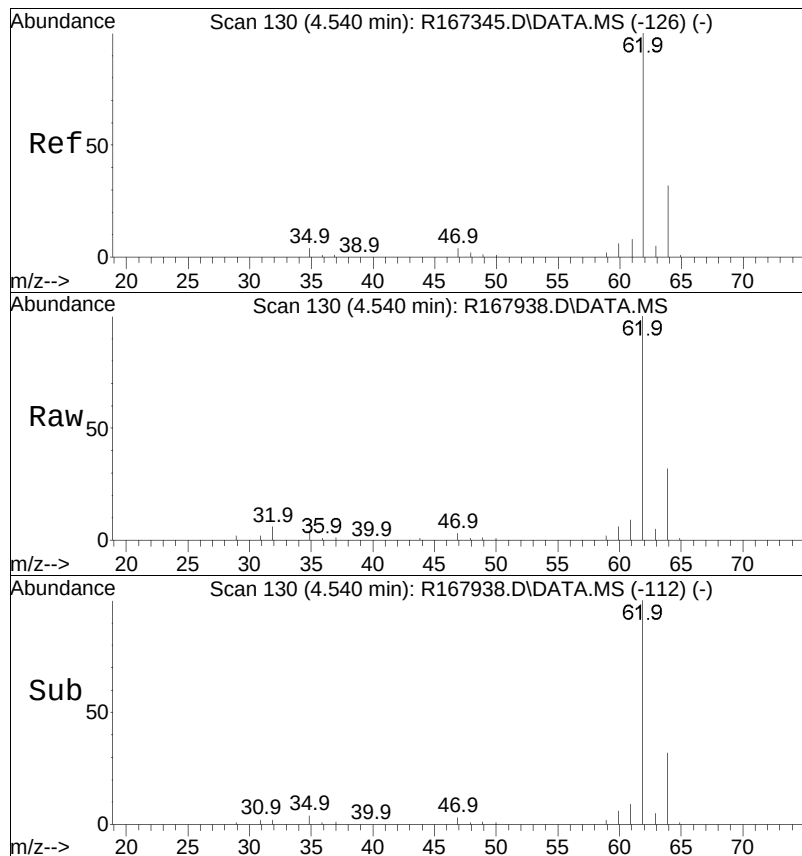




#7
 Freon-114
 Concen: 11.21 ppbV
 RT: 4.384 min Scan# 116
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

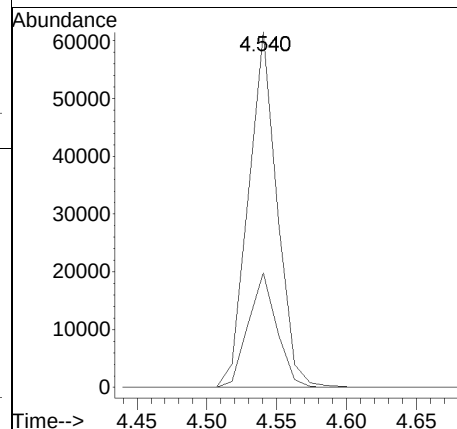
Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.5	25.2	37.8
135	65.2	49.1	73.7

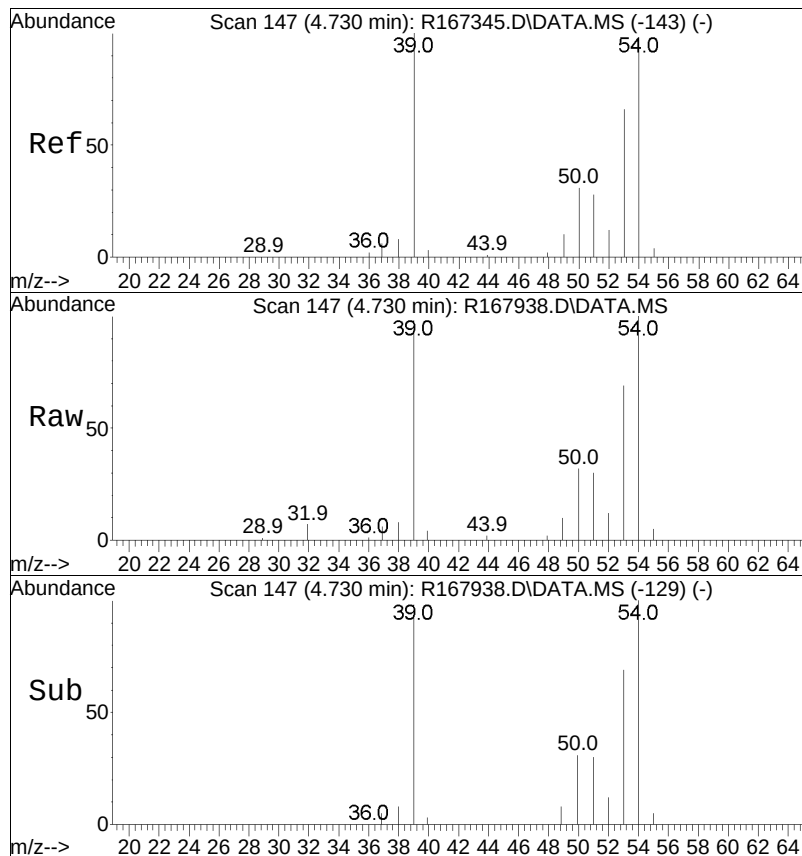




#9
 vinyl chloride
 Concen: 10.60 ppbV
 RT: 4.540 min Scan# 130
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

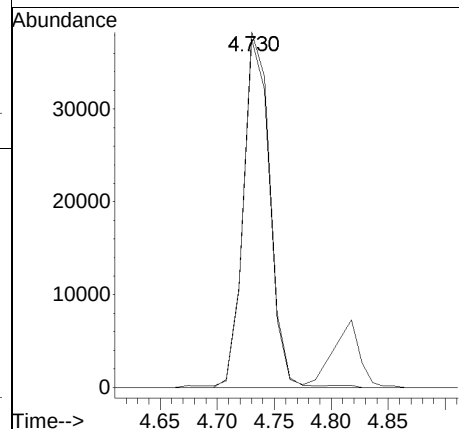
Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.7	38.5

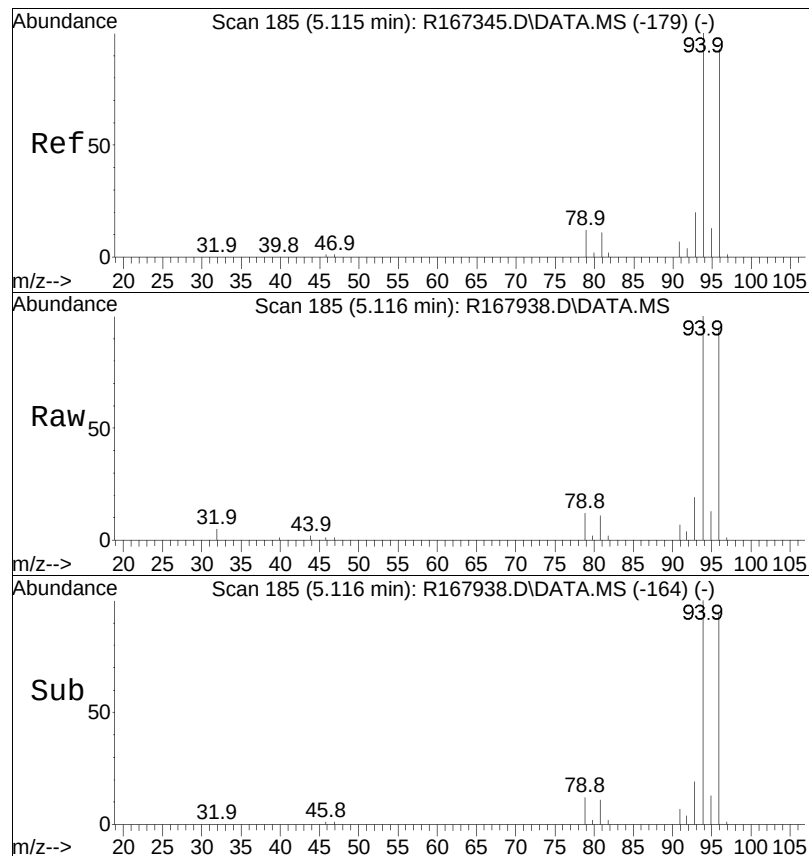




#10
 1,3-butadiene
 Concen: 11.25 ppbV
 RT: 4.730 min Scan# 147
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

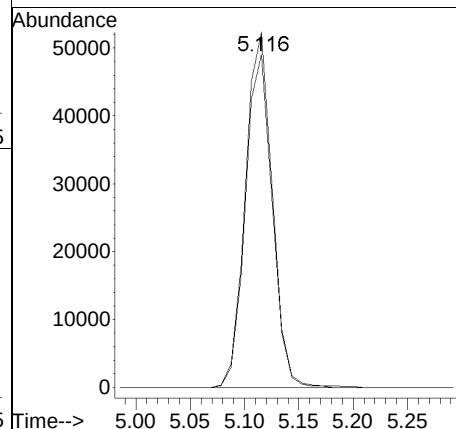
Tgt Ion	Ratio	Lower	Upper
54	100		
39	98.0	87.4	131.0

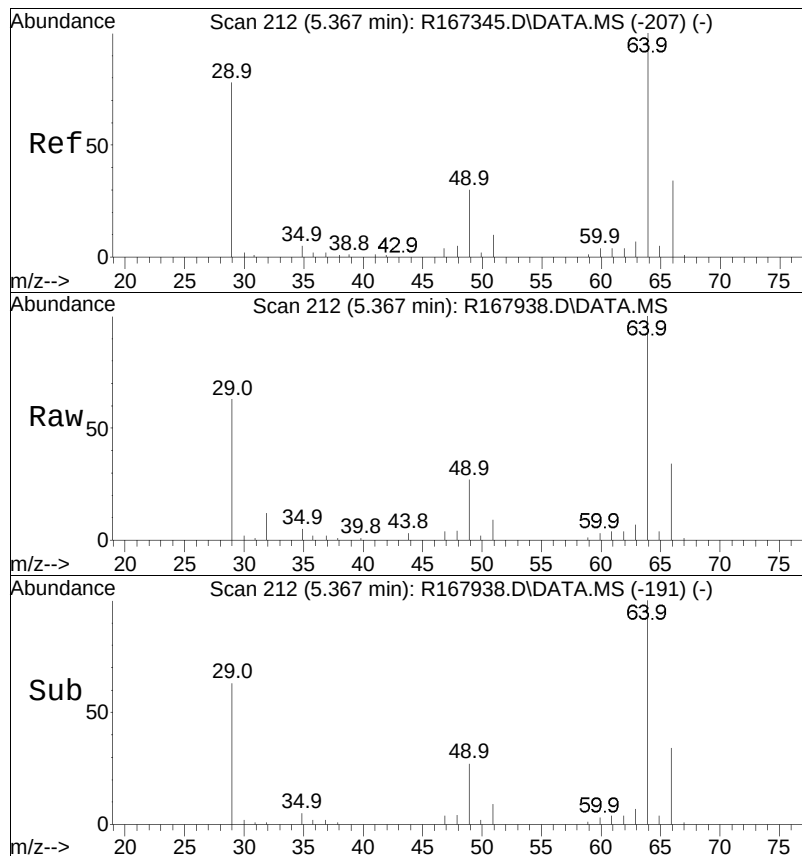




#13
bromomethane
Concen: 10.83 ppbV
RT: 5.116 min Scan# 185
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

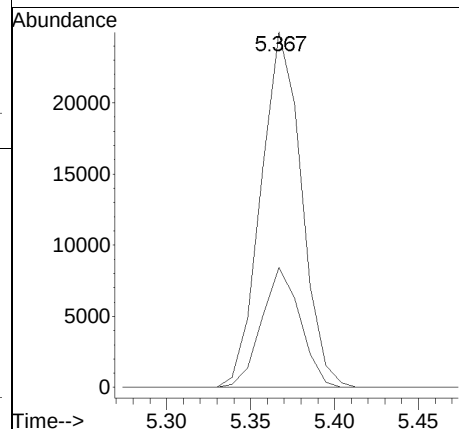
Tgt Ion	Ratio	Lower	Upper
94	100		
96	93.7	74.6	112.0

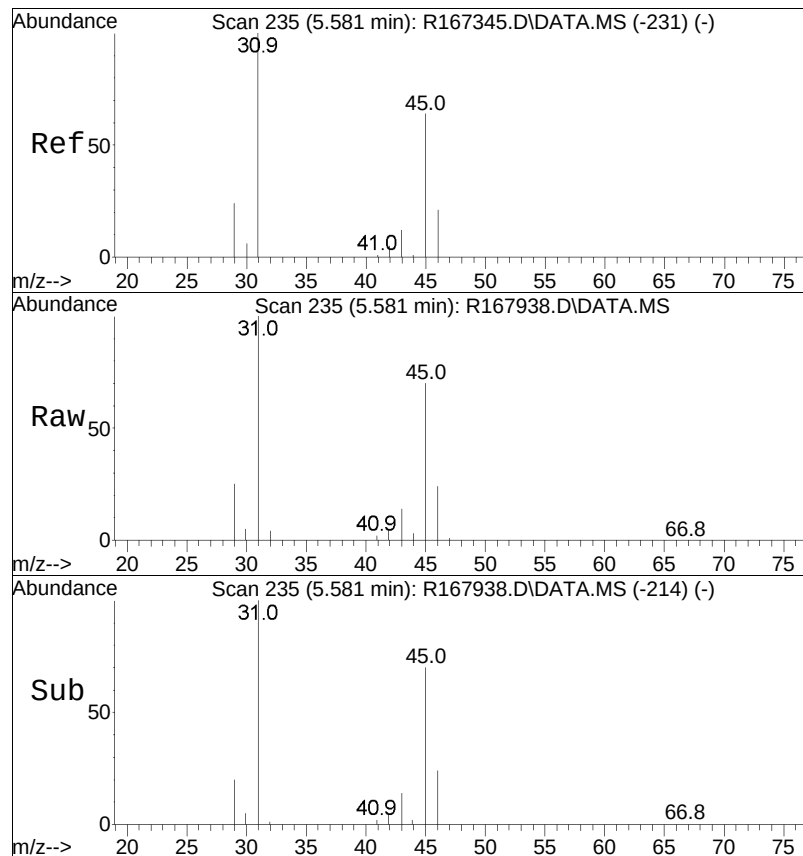




#14
chloroethane
Concen: 10.41 ppbV
RT: 5.367 min Scan# 212
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

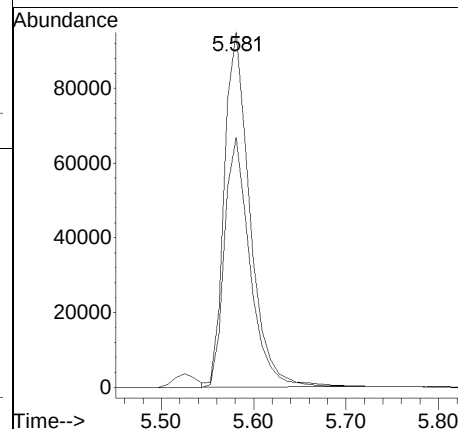
Tgt Ion	Ratio	Lower	Upper
64	100		
66	33.7	27.4	41.0

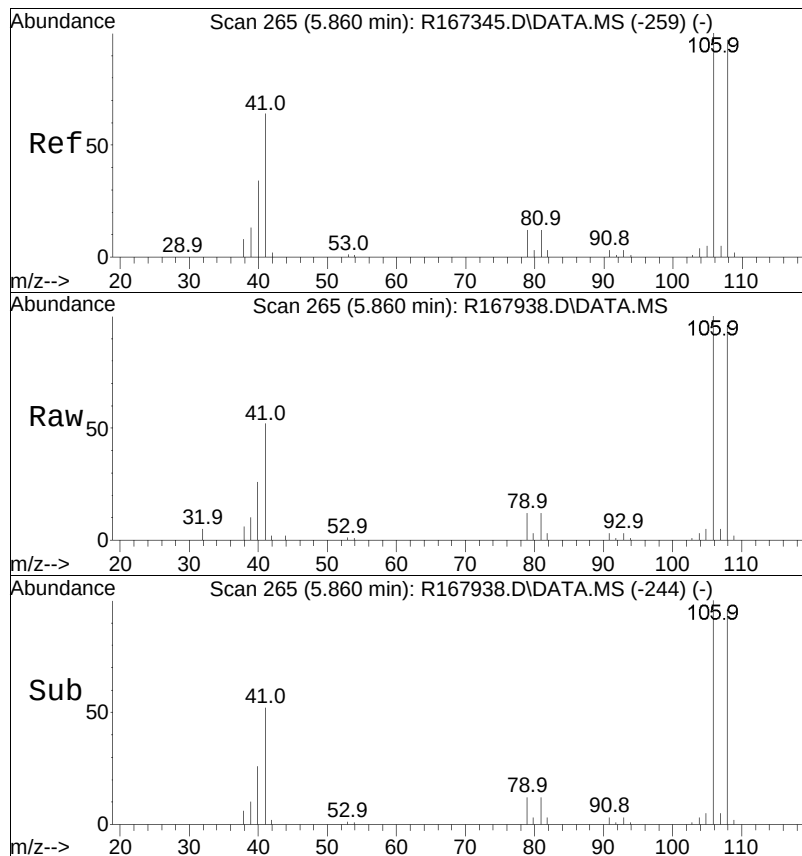




#15
 ethanol
 Concen: 40.40 ppbV
 RT: 5.581 min Scan# 235
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

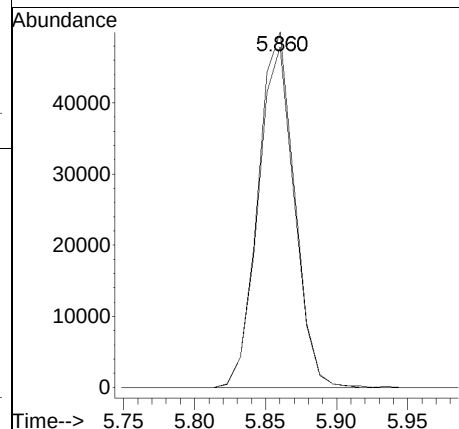
Tgt Ion	Ratio	Lower	Upper
31	100		
45	70.4	50.8	76.2

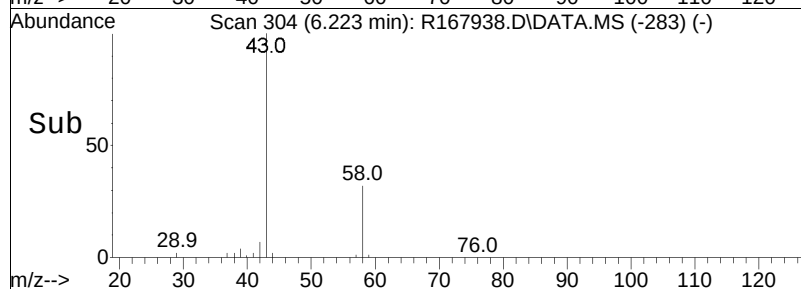
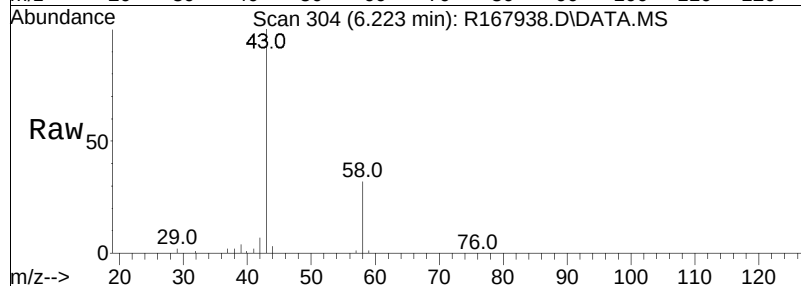
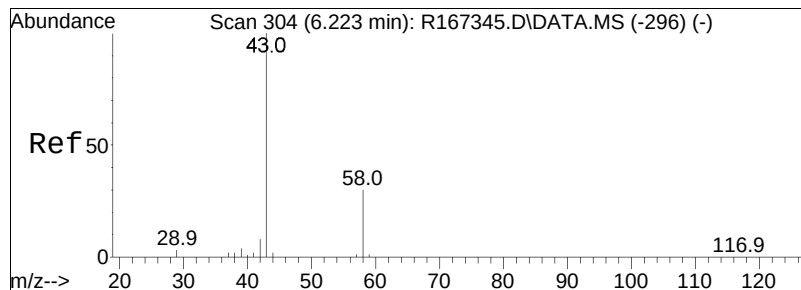




#17
 vinyl bromide
 Concen: 10.93 ppbV
 RT: 5.860 min Scan# 265
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

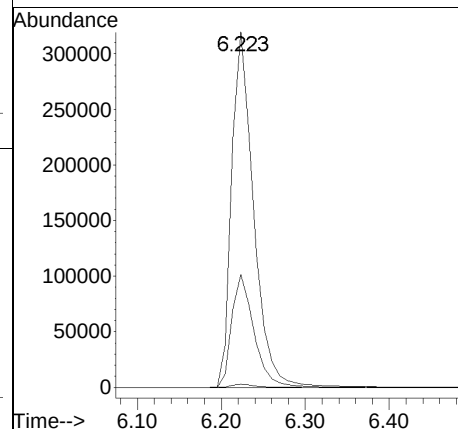
Tgt Ion:106 Resp: 88989
 Ion Ratio Lower Upper
 106 100
 108 95.8 77.2 115.8

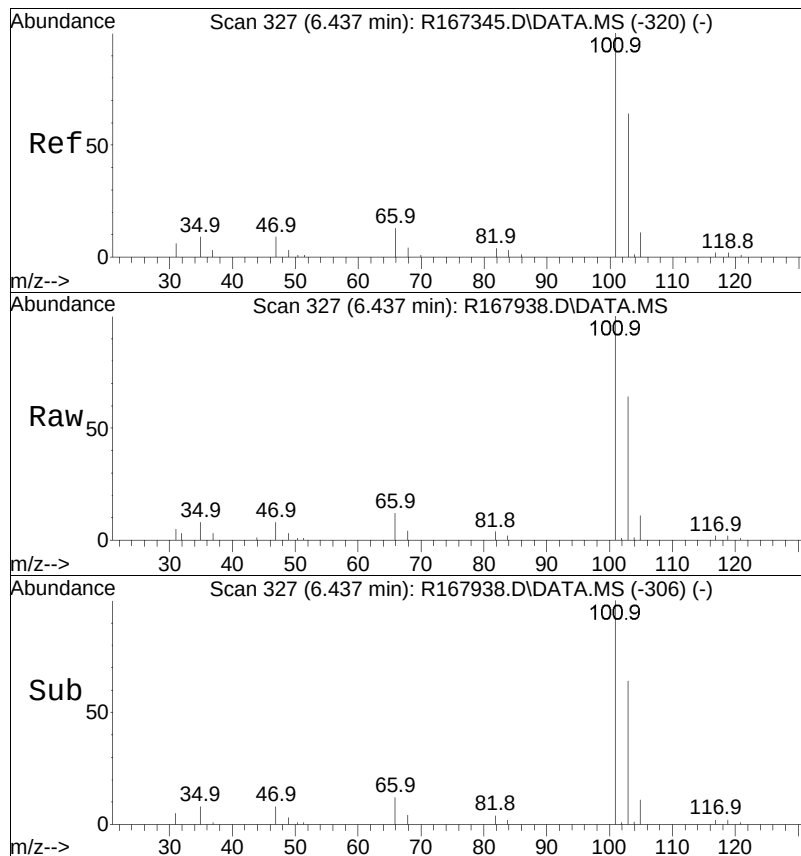




#19
acetone
Concen: 39.36 ppbV
RT: 6.223 min Scan# 304
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

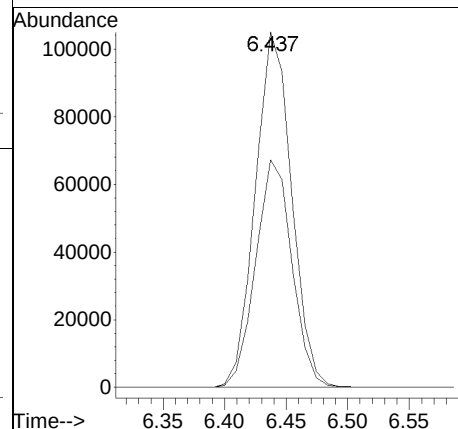
Tgt	Ion	Ratio	Lower	Upper
43	100			
58	31.8	24.2	36.2	
57	0.9	0.8	1.2	

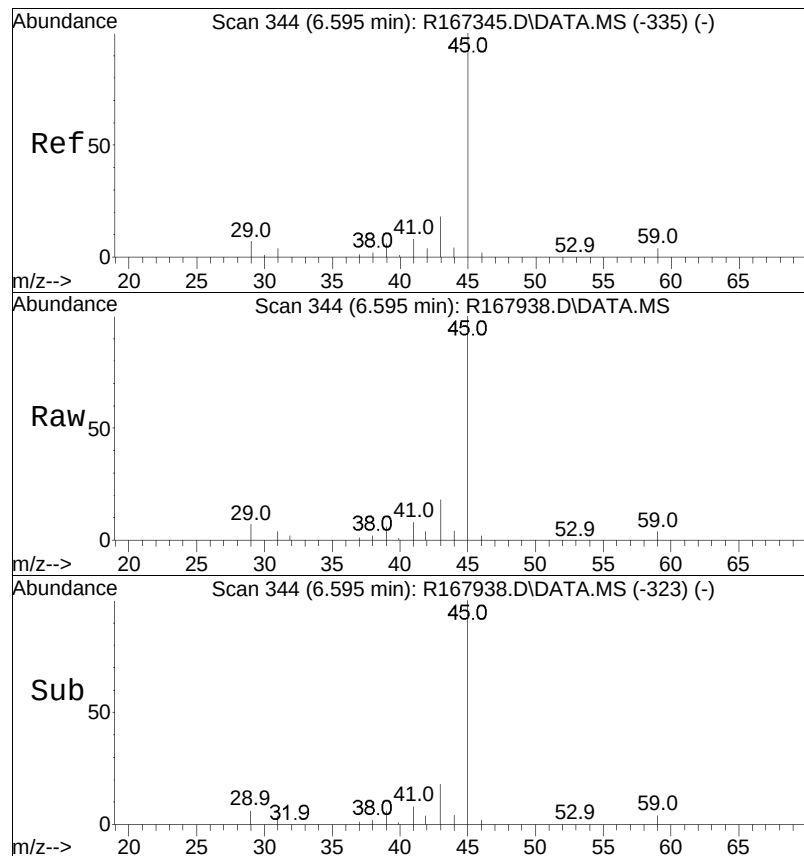




#21
 trichlorofluoromethane
 Concen: 11.01 ppbV
 RT: 6.437 min Scan# 327
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

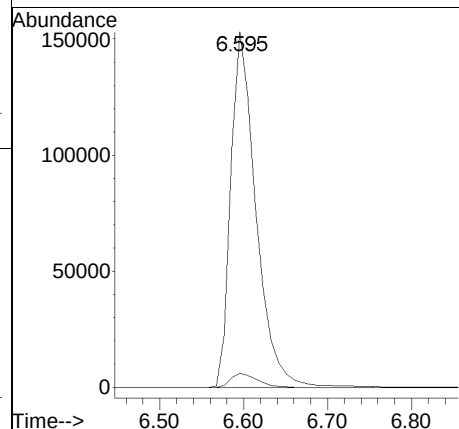
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	103	64.0	51.1	76.7

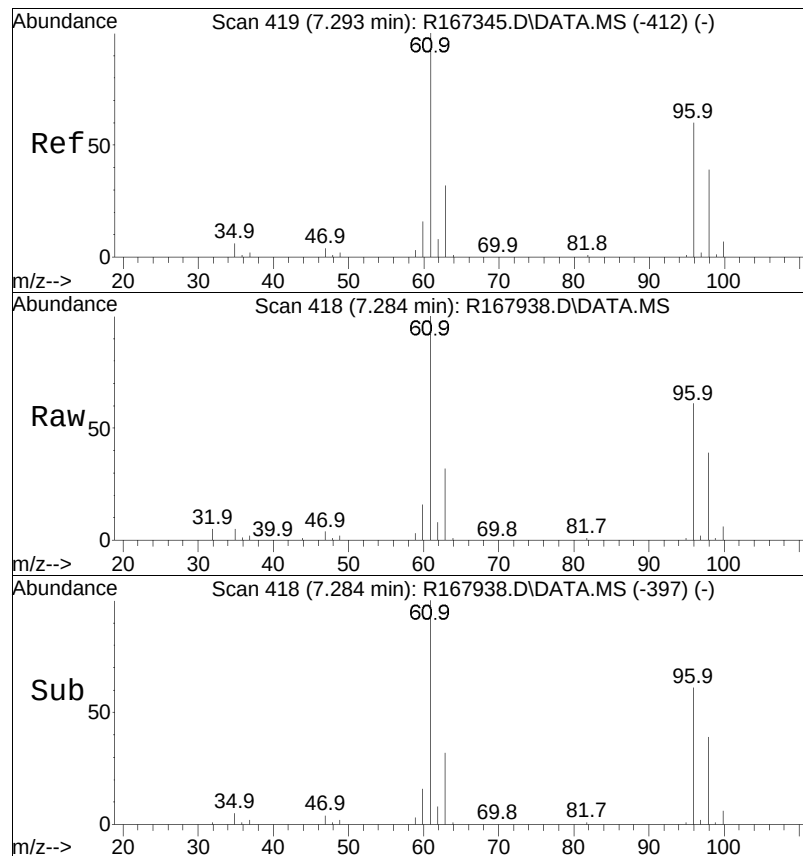




#22
 isopropyl alcohol
 Concen: 18.81 ppbV
 RT: 6.595 min Scan# 344
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

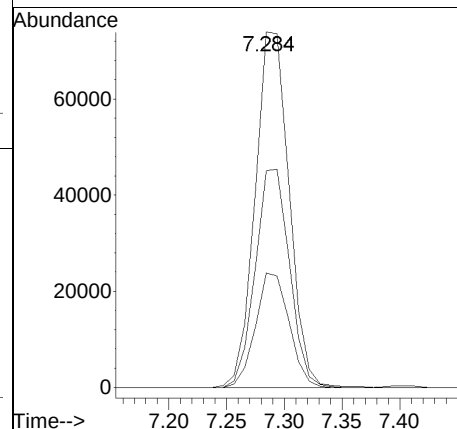
Tgt	Ion	Ratio	Lower	Upper
45	100			
59	3.9	3.4	5.0	

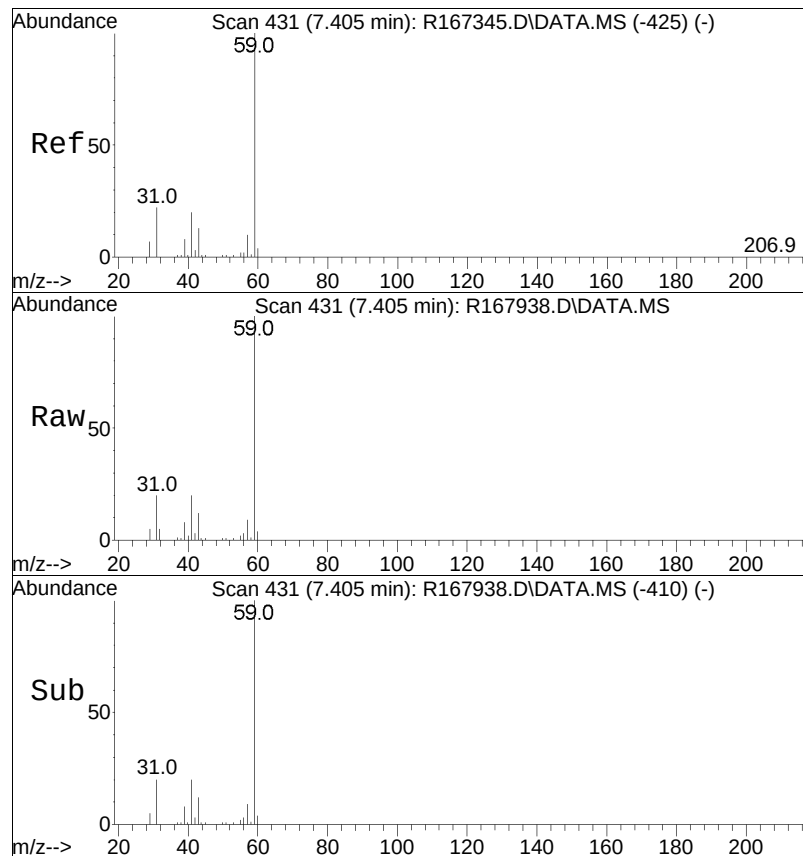




#26
 1,1-dichloroethene
 Concen: 10.09 ppbV
 RT: 7.284 min Scan# 418
 Delta R.T. -0.009 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

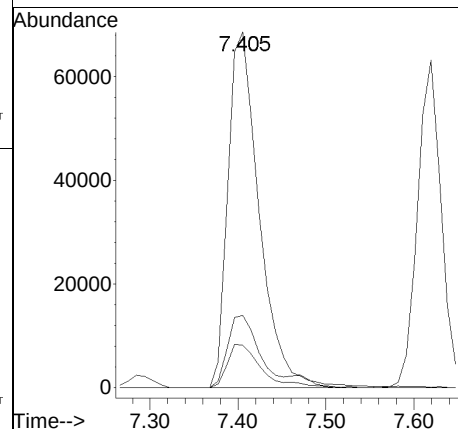
Tgt Ion	Ratio	Resp	Lower	Upper
61	100	151655		
96	61.0		48.1	72.1
63	32.2		25.7	38.5

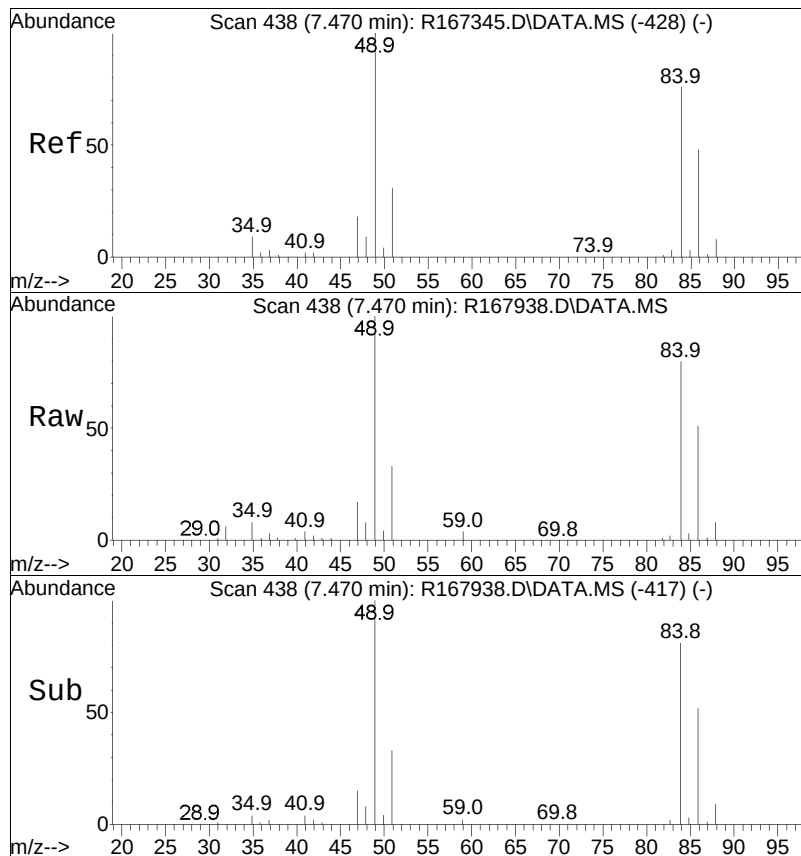




#27
 tertiary butyl alcohol
 Concen: 9.02 ppbV
 RT: 7.405 min Scan# 431
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

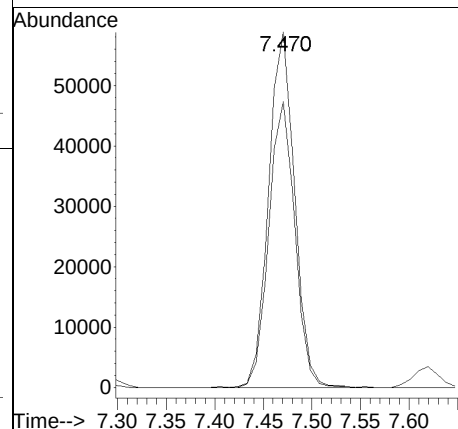
Tgt Ion	Ratio	Lower	Upper
59	100		
41	20.3	16.2	24.2
43	11.9	10.7	16.1

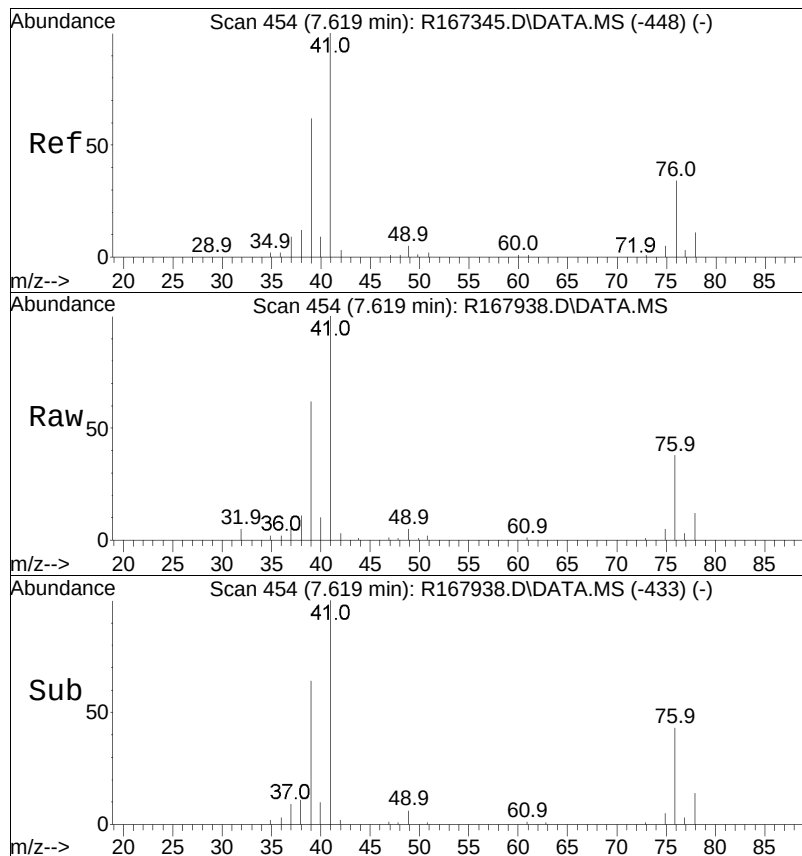




#28
 methylene chloride
 Concen: 9.83 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

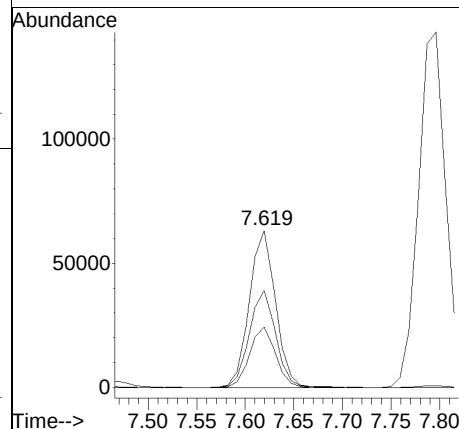
Tgt	Ion	Resp	Lower	Upper
49	100	109712		
84	80.4	60.6	91.0	

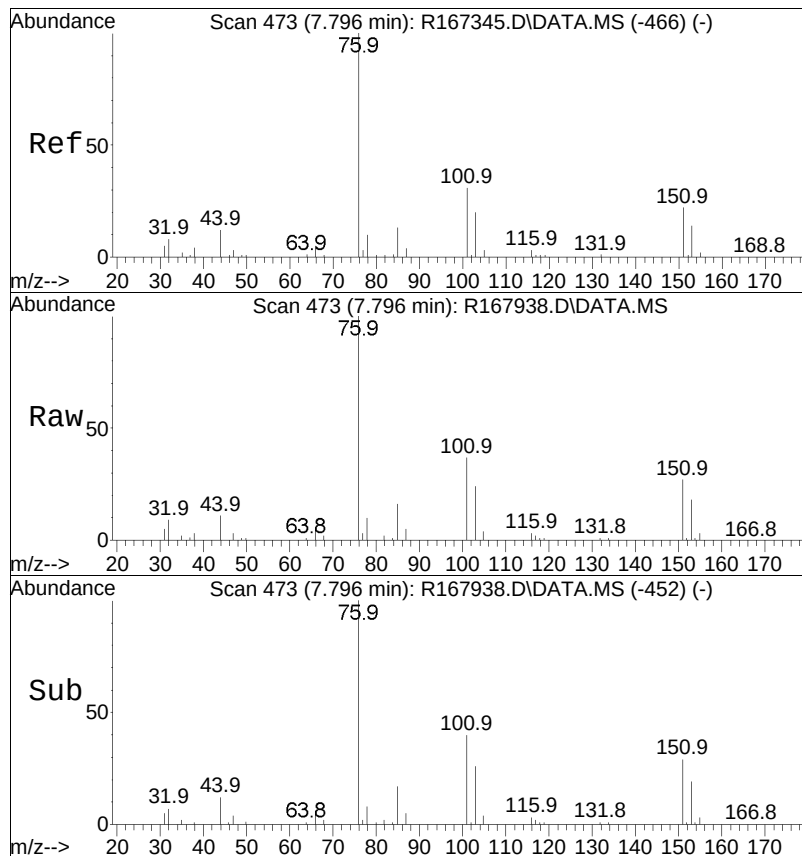




#29
 3-chloropropene
 Concen: 9.31 ppbV
 RT: 7.619 min Scan# 454
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

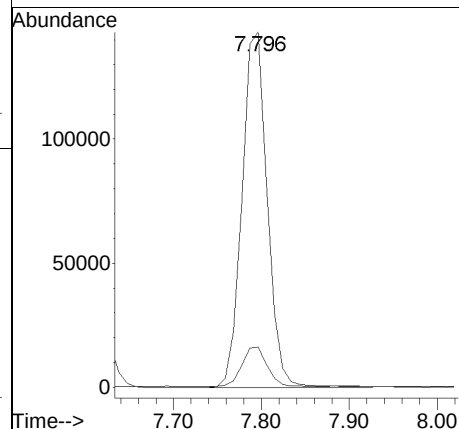
Tgt Ion:	41	Resp:	118463
Ion Ratio	Lower	Upper	
41	100		
39	61.8	49.8	74.8
76	38.5	27.0	40.4

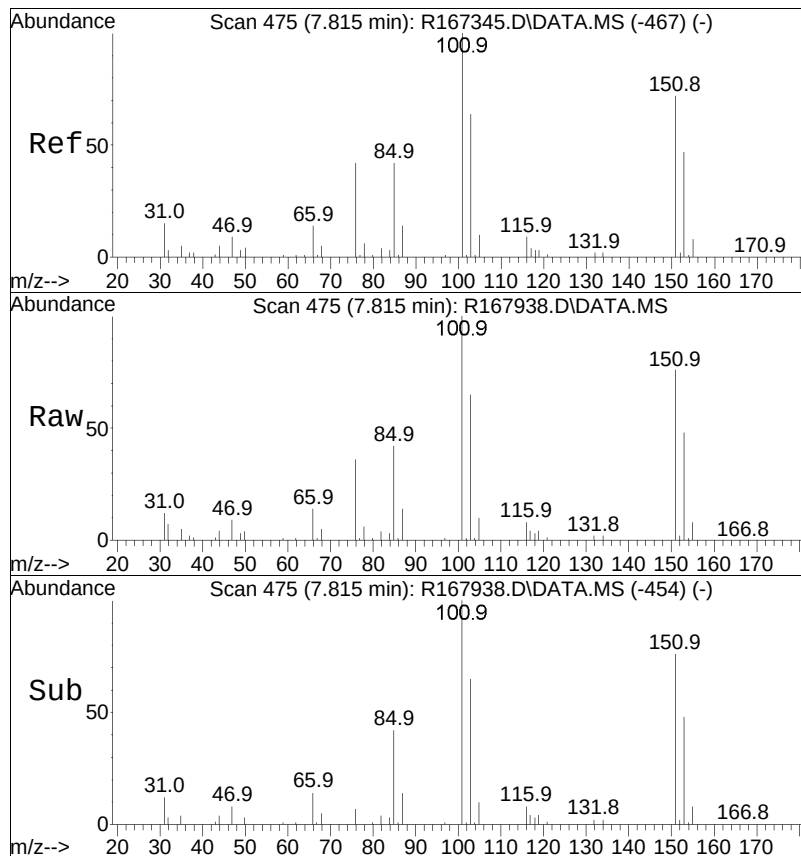




#30
 carbon disulfide
 Concen: 9.45 ppbV
 RT: 7.796 min Scan# 473
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

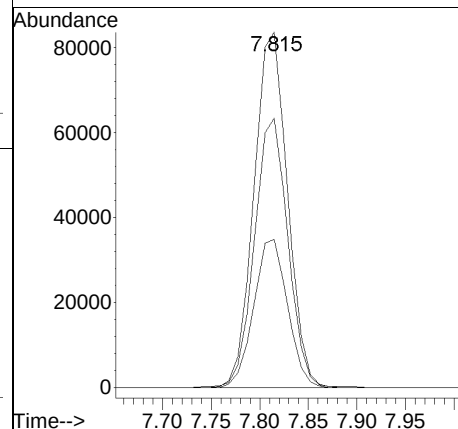
Tgt	Ion	Resp	Lower	Upper
76	100	285616		
44	11.3	9.8	14.8	

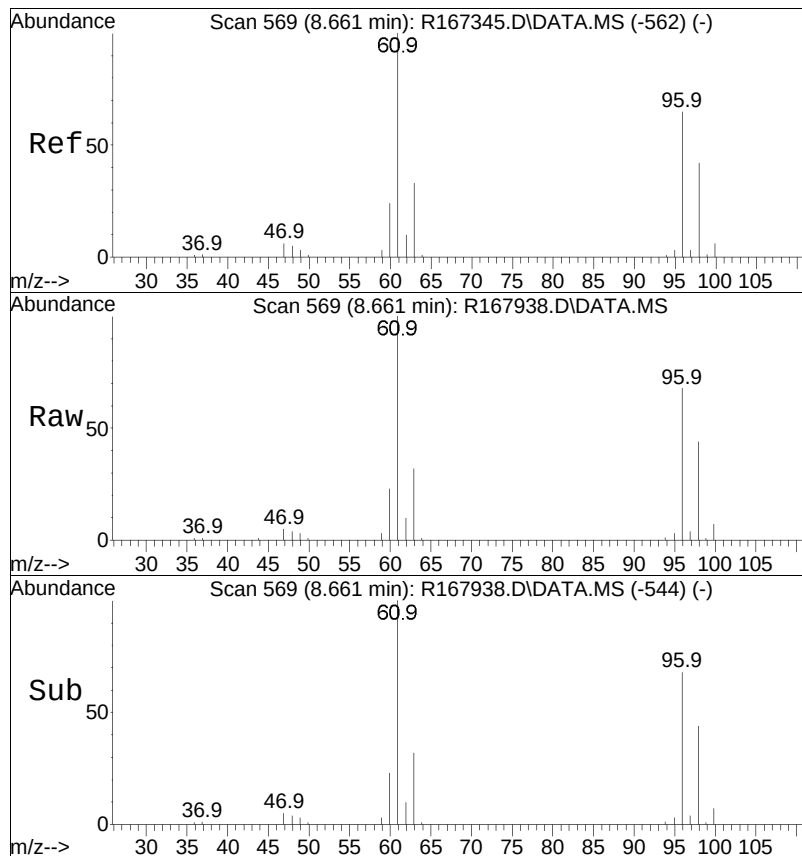




#31
 Freon 113
 Concen: 10.56 ppbV
 RT: 7.815 min Scan# 475
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

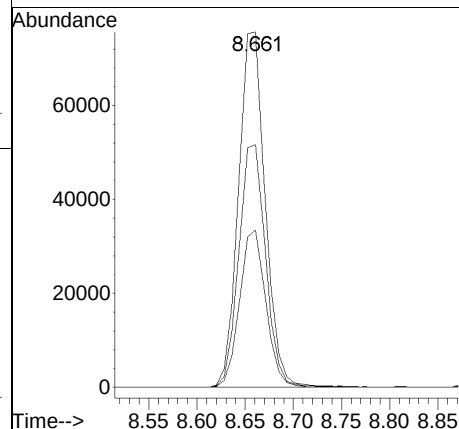
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	200662		
85	41.7		33.6	50.4
151	75.8		57.6	86.4

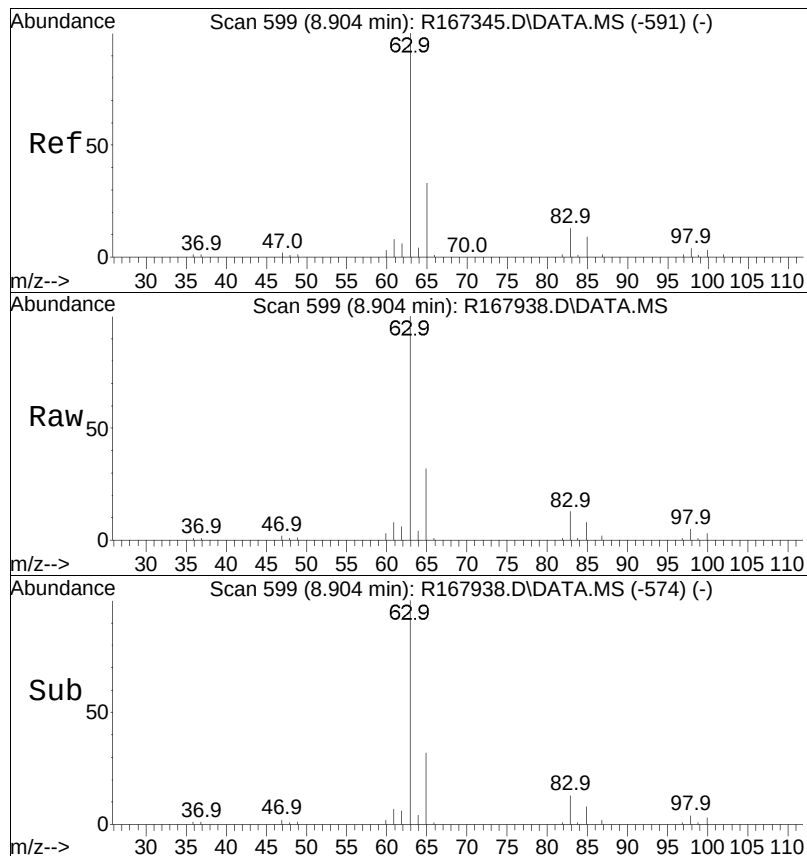




#32
 trans-1,2-dichloroethene
 Concen: 9.68 ppbV
 RT: 8.661 min Scan# 569
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

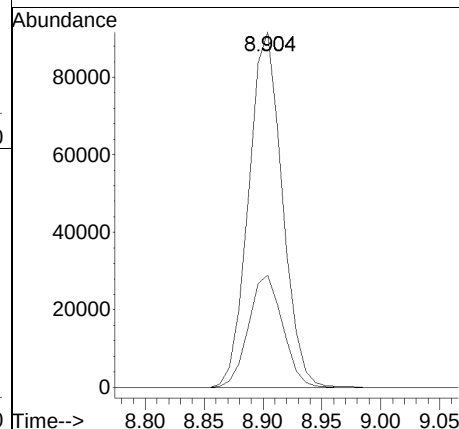
Tgt Ion:	61	Resp:	146471
Ion Ratio	Lower	Upper	
61	100		
96	68.3	52.2	78.4
98	44.3	33.4	50.2

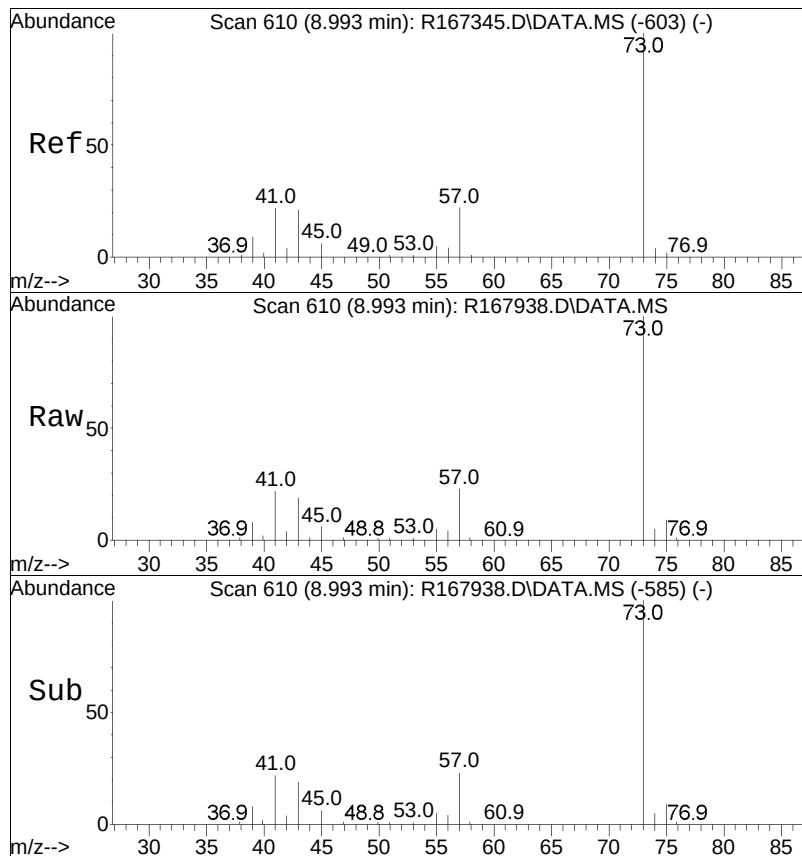




#33
 1,1-dichloroethane
 Concen: 9.89 ppbV
 RT: 8.904 min Scan# 599
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

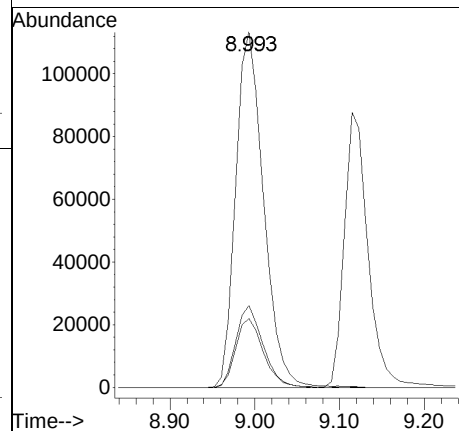
Tgt	Ion	Resp	Lower	Upper
63	100	182058		
65	31.6	26.0	39.0	

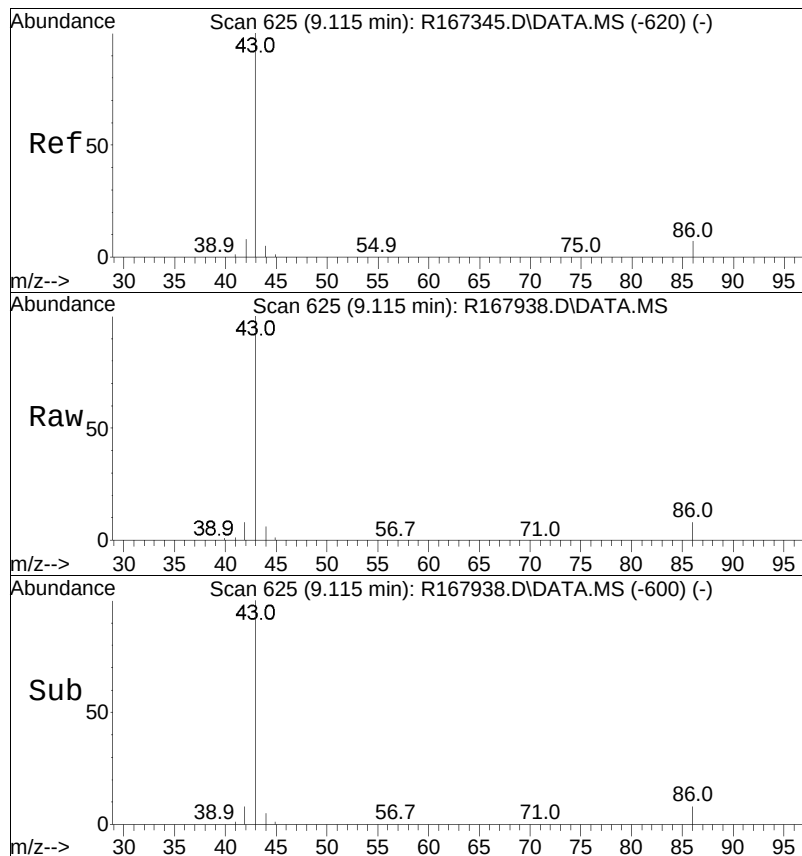




#34
 MTBE
 Concen: 9.75 ppbV
 RT: 8.993 min Scan# 610
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

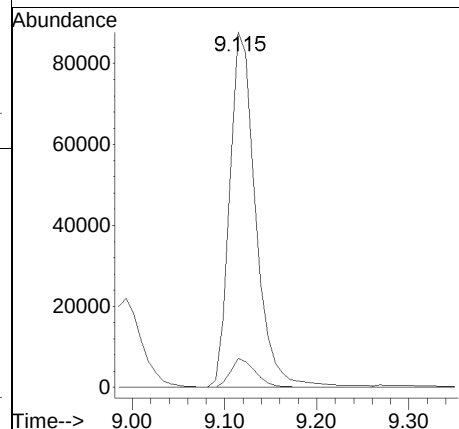
Tgt Ion	Ratio	Lower	Upper
73	100		
57	23.1	17.7	26.5
43	19.4	16.9	25.3

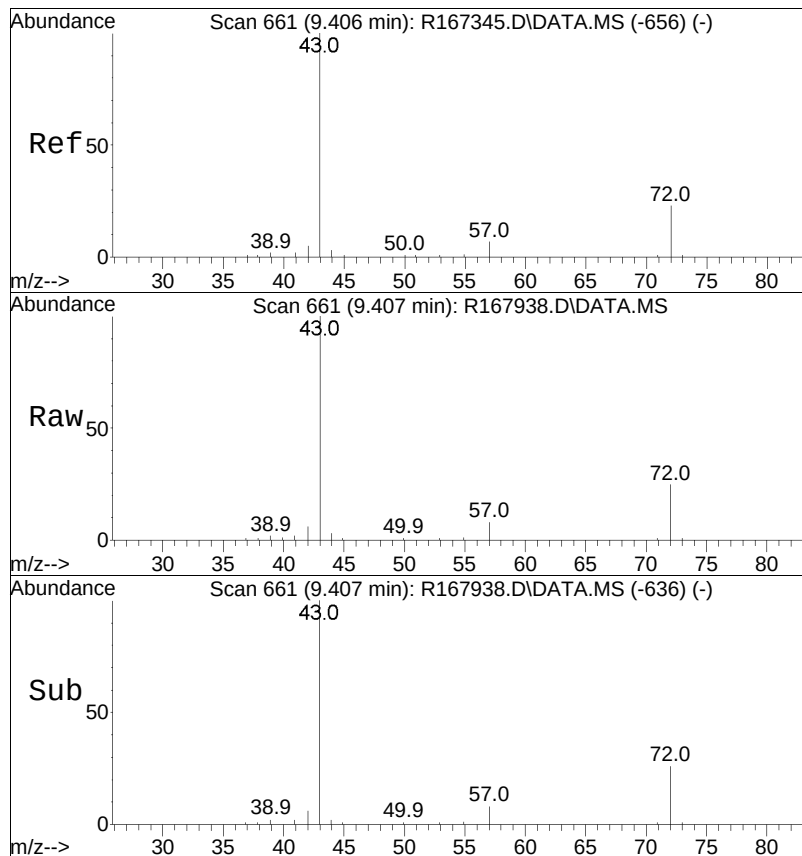




#35
 vinyl acetate
 Concen: 9.30 ppbV
 RT: 9.115 min Scan# 625
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

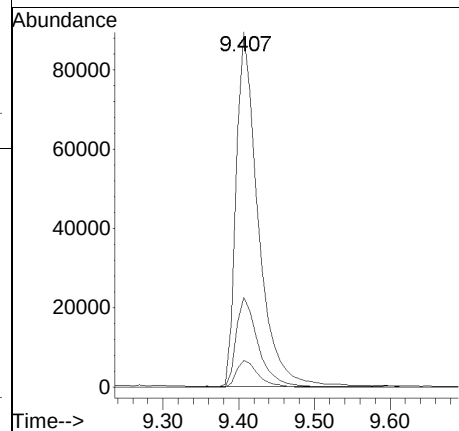
Tgt Ion	Ratio	Lower	Upper
43	100		
86	8.2	5.8	8.6

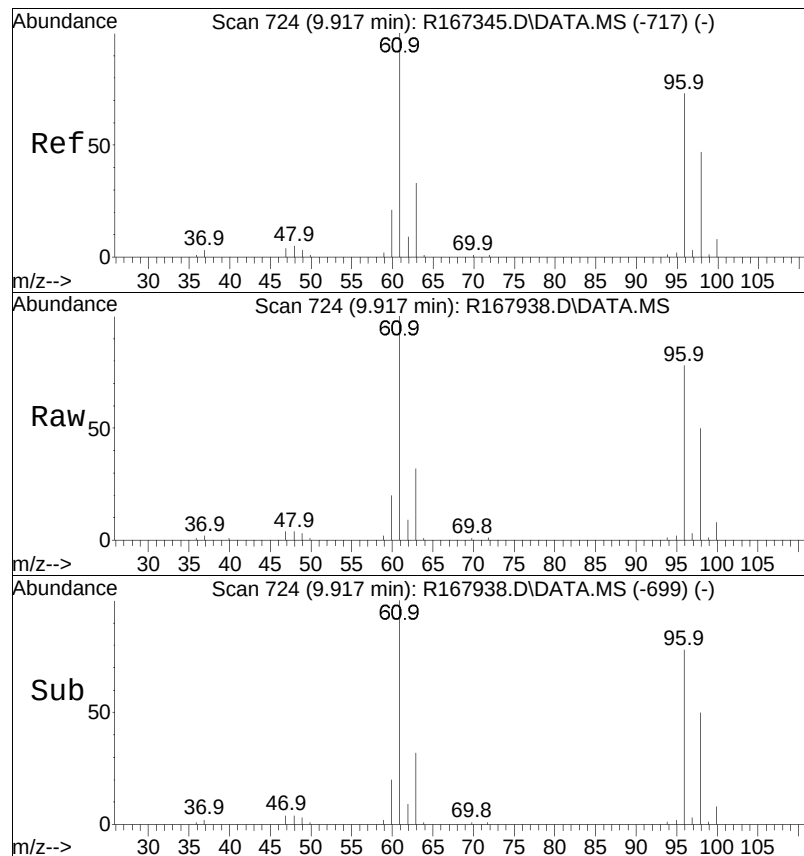




#36
 2-butanone
 Concen: 9.57 ppbV
 RT: 9.407 min Scan# 661
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

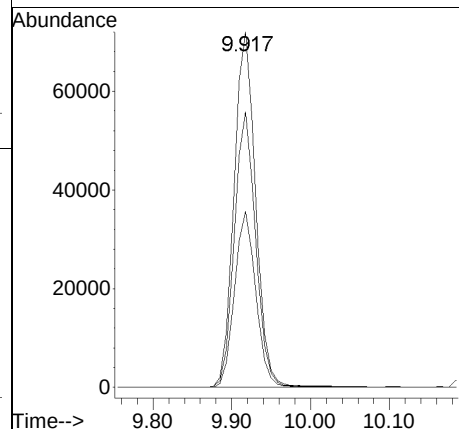
Tgt Ion:	43	Resp:	181270
Ion Ratio	Lower	Upper	
43	100		
72	25.4	18.7	28.1
57	7.6	5.6	8.4

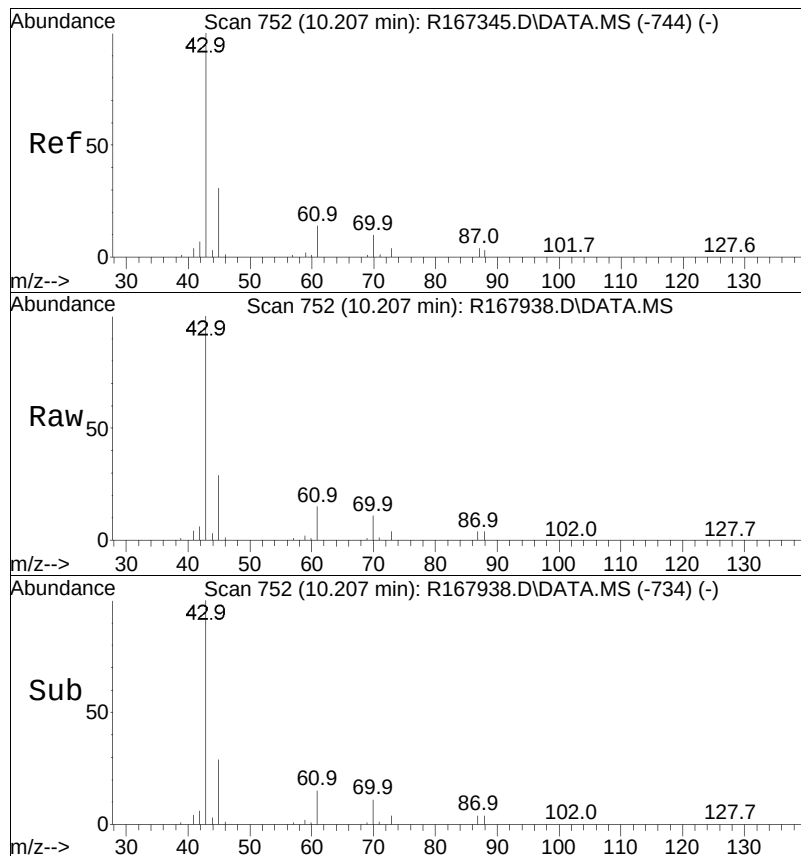




#37
 cis-1,2-dichloroethene
 Concen: 10.79 ppbV
 RT: 9.917 min Scan# 724
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

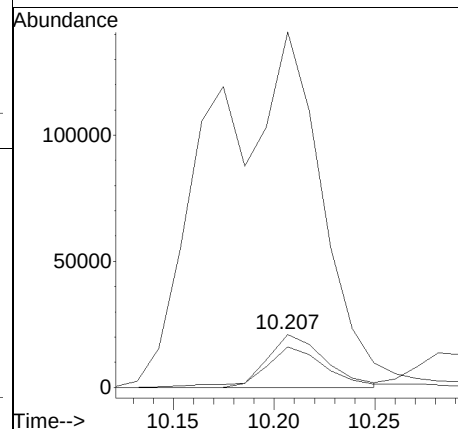
Tgt Ion:	61	Resp:	160775
Ion Ratio	Lower	Upper	
61	100		
96	77.6	58.0	87.0
98	49.5	37.6	56.4

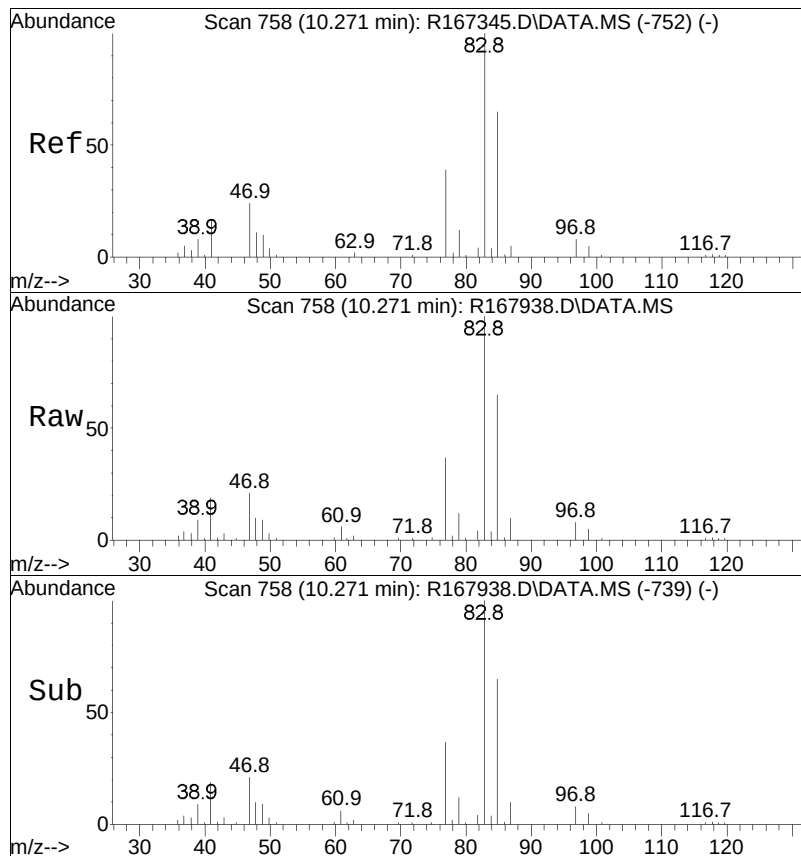




#38
 Ethyl Acetate
 Concen: 10.10 ppbV
 RT: 10.207 min Scan# 752
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

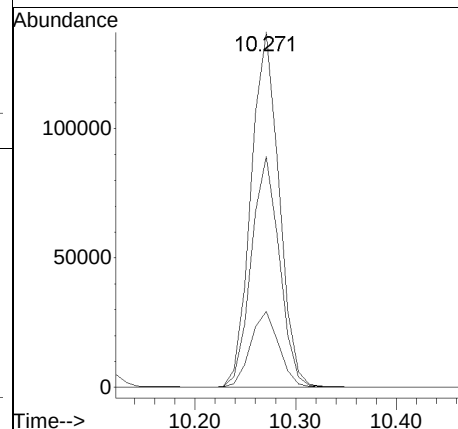
Tgt	Ion	Ratio	Lower	Upper
61	100			
70	76.6	61.5	92.3	
43	671.6	594.1	891.1	

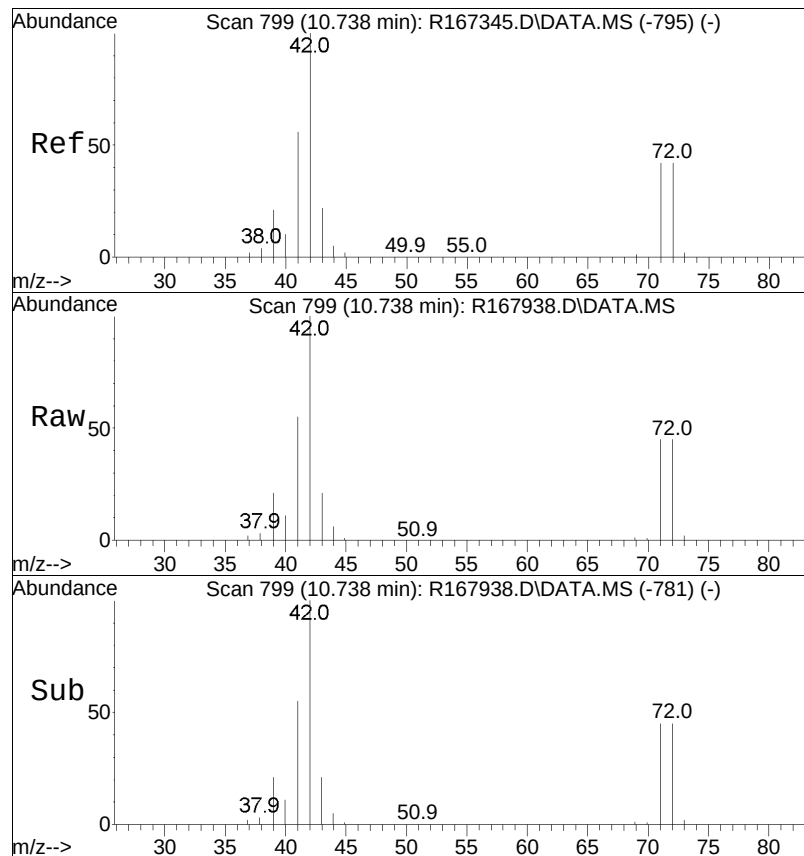




#39
chloroform
Concen: 10.75 ppbV
RT: 10.271 min Scan# 758
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

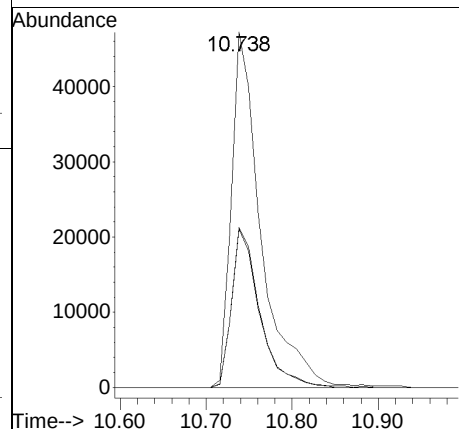
Tgt Ion	Ratio	Lower	Upper
83	100		
85	65.0	52.2	78.2
47	21.4	19.1	28.7

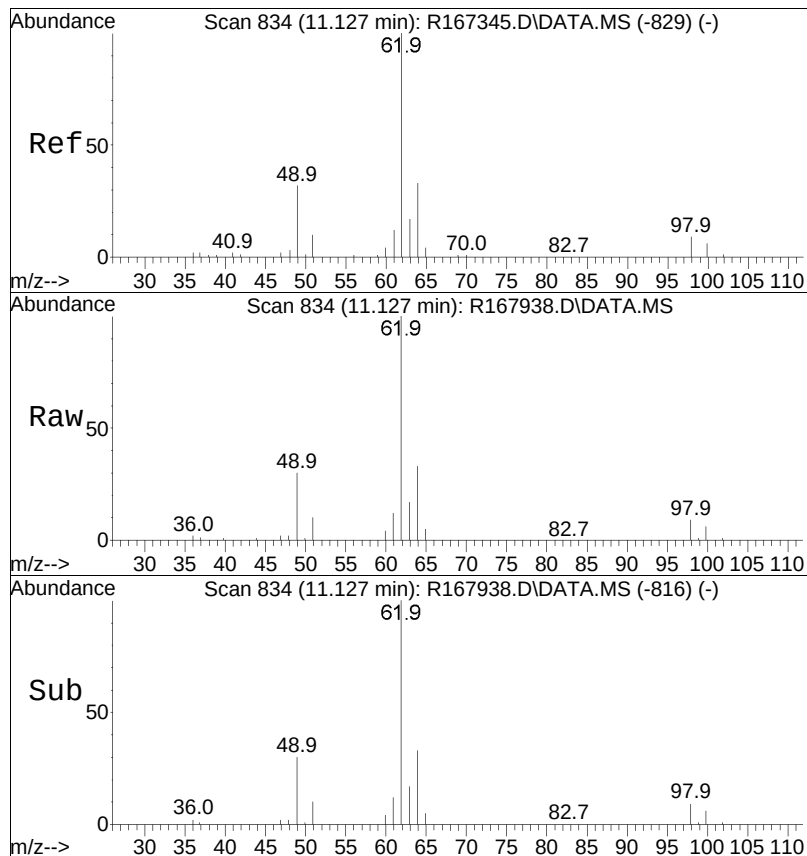




#40
Tetrahydrofuran
Concen: 9.63 ppbV
RT: 10.738 min Scan# 799
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

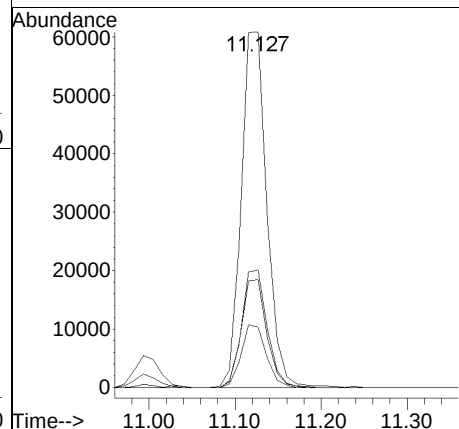
Tgt Ion	Ratio	Lower	Upper
42	100		
71	44.6	33.5	50.3
72	45.0	33.3	49.9

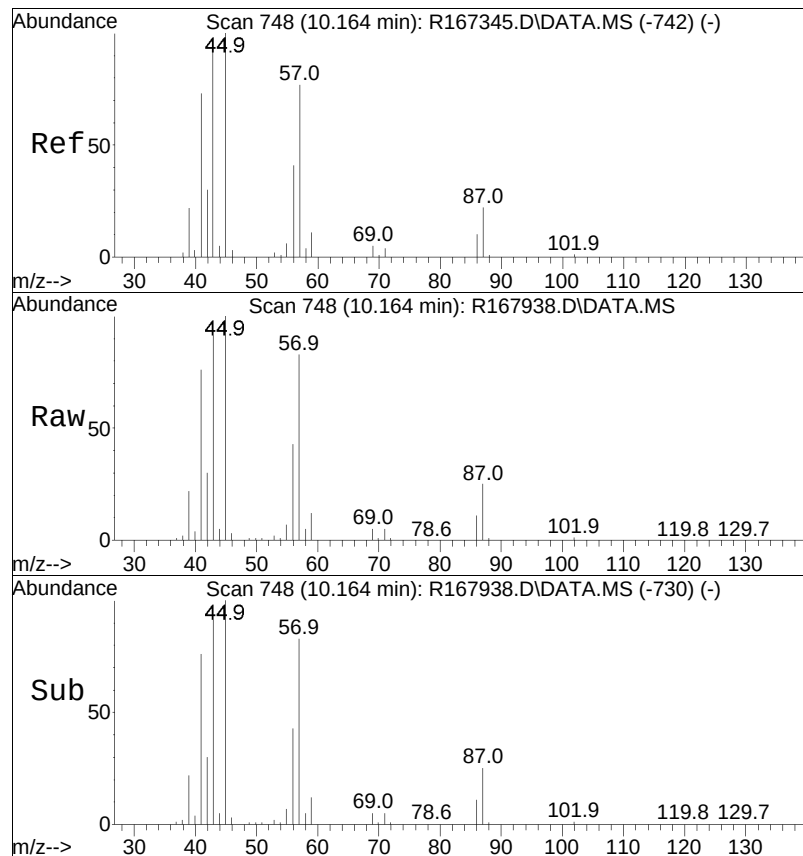




#42
 1,2-dichloroethane
 Concen: 9.99 ppbV
 RT: 11.127 min Scan# 834
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

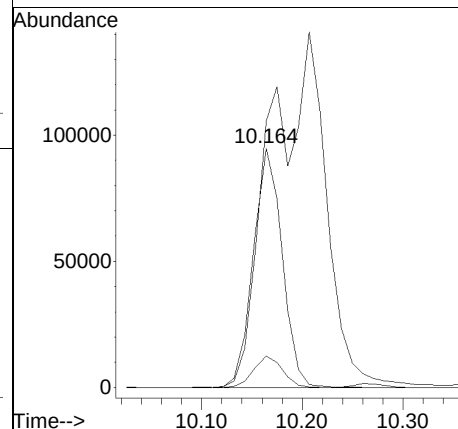
Tgt Ion:	62	Resp:	125748
Ion Ratio	Lower	Upper	
62	100		
64	33.0	26.3	39.5
49	30.3	25.4	38.0
63	16.9	13.8	20.6

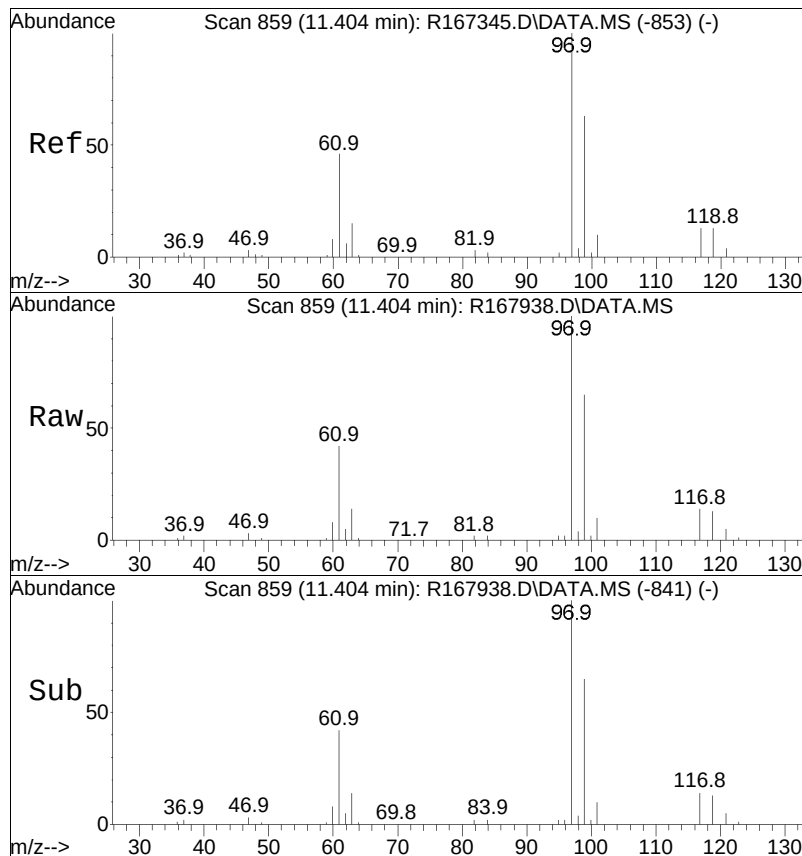




#44
hexane
Concen: 8.88 ppbV
RT: 10.164 min Scan# 748
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

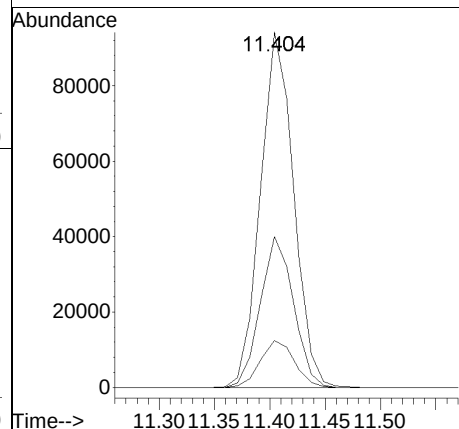
Tgt	Ion	Ratio	Lower	Upper
57	100			
43	111.4	98.0	147.0	
86	13.1	10.0	15.0	

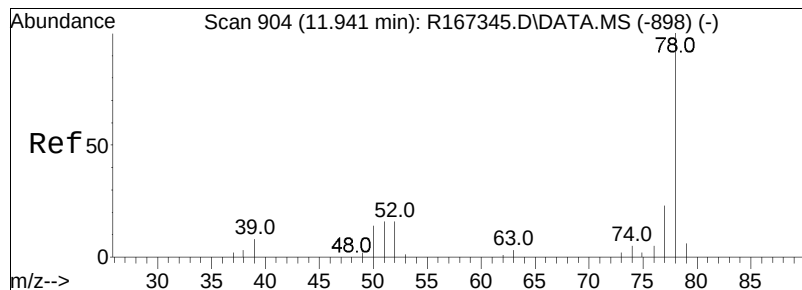




#48
 1,1,1-trichloroethane
 Concen: 9.58 ppbV
 RT: 11.404 min Scan# 859
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

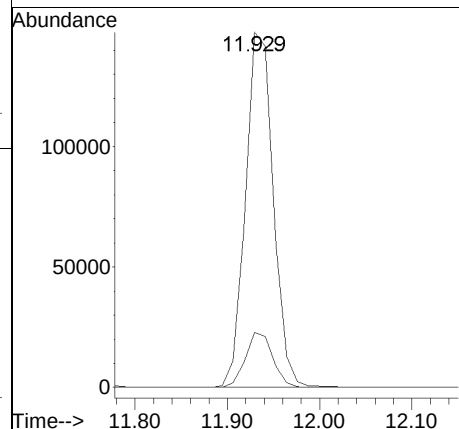
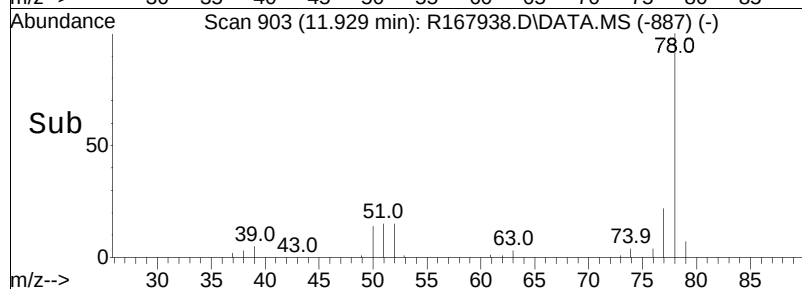
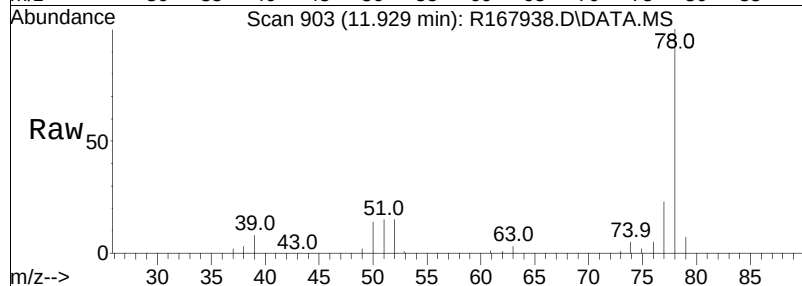
Tgt Ion	Ratio	Resp	Lower	Upper
97	100	196597		
61	42.5		36.6	55.0
119	13.2		10.6	16.0

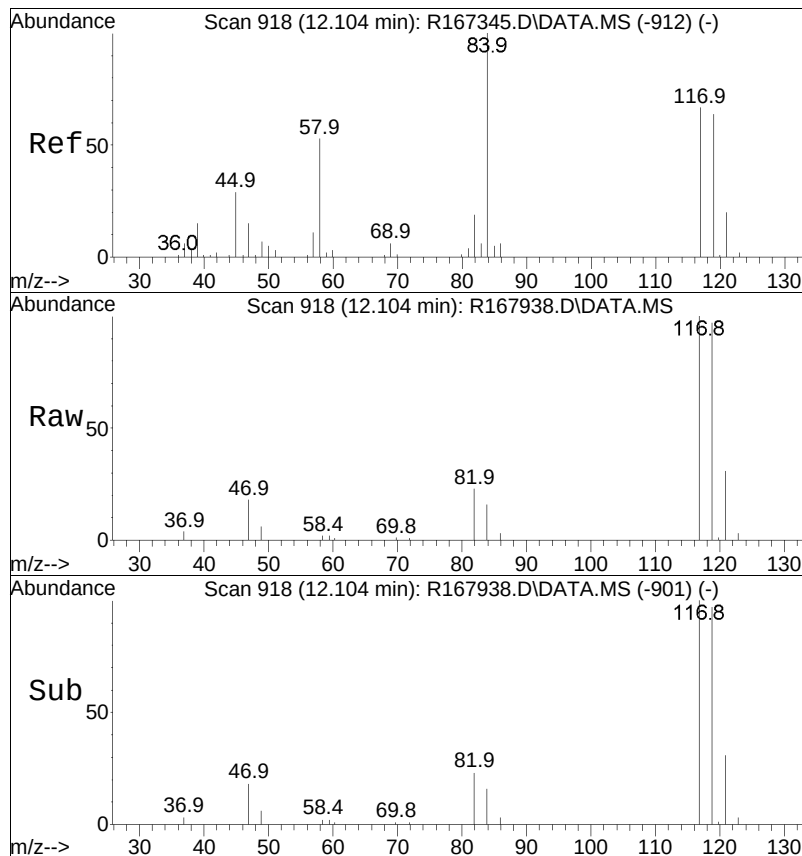




#50
benzene
Concen: 9.09 ppbV
RT: 11.929 min Scan# 903
Delta R.T. -0.012 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

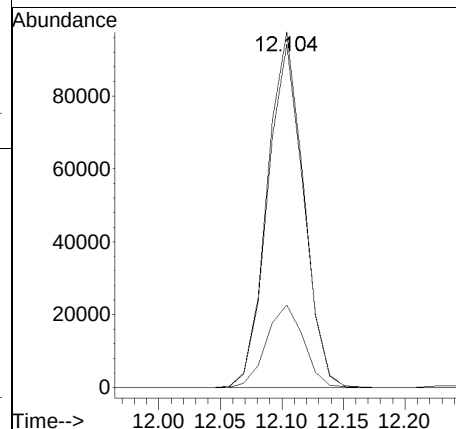
Tgt Ion	Ratio	Lower	Upper
78	100		
52	15.5	13.0	19.4

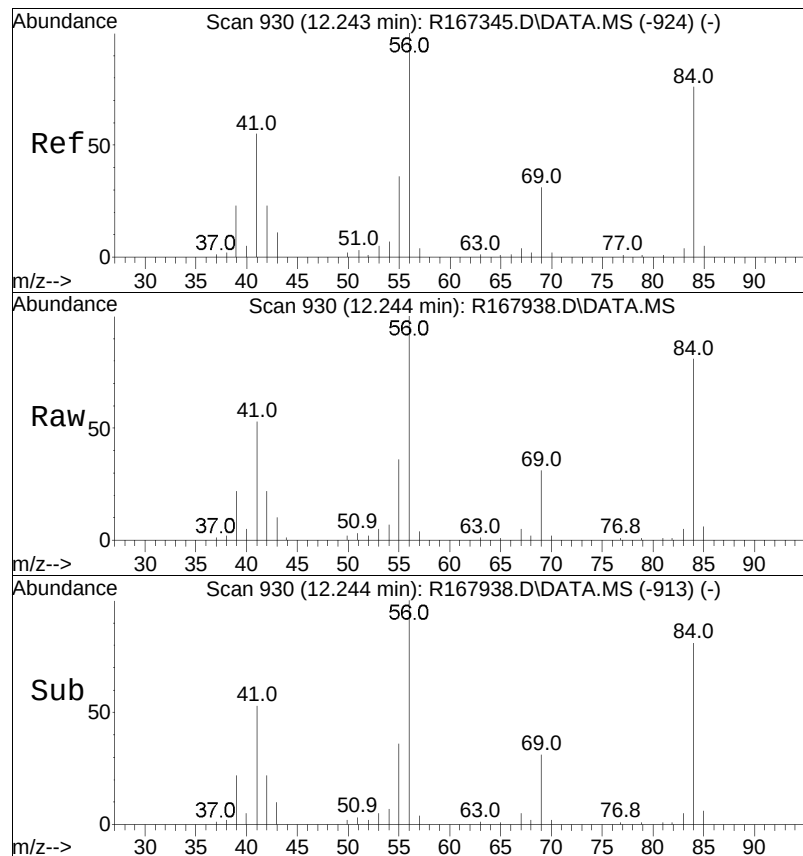




#52
 carbon tetrachloride
 Concen: 10.10 ppbV
 RT: 12.104 min Scan# 918
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

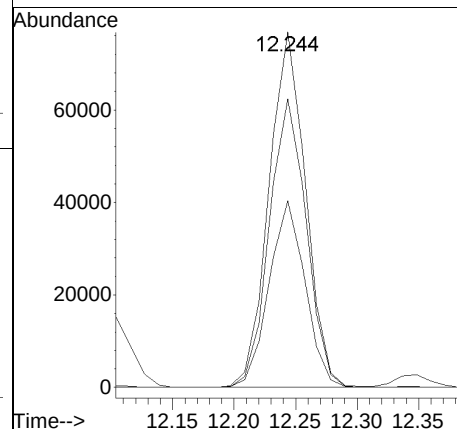
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	199577		
119	96.6	76.6	115.0	
82	23.2	22.5	33.7	

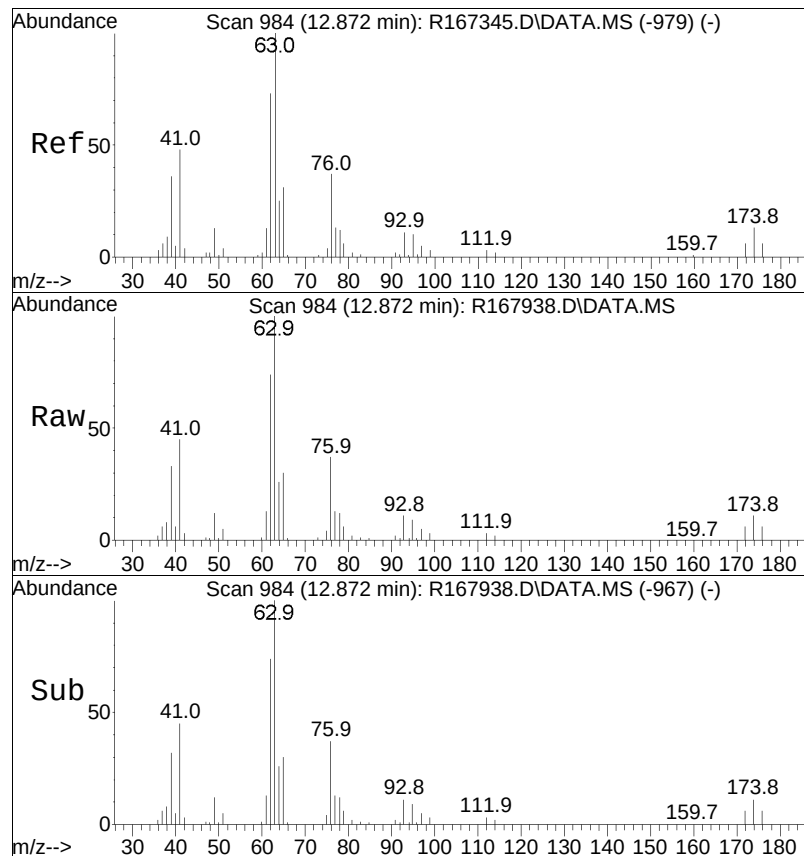




#53
cyclohexane
Concen: 8.77 ppbV
RT: 12.244 min Scan# 930
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

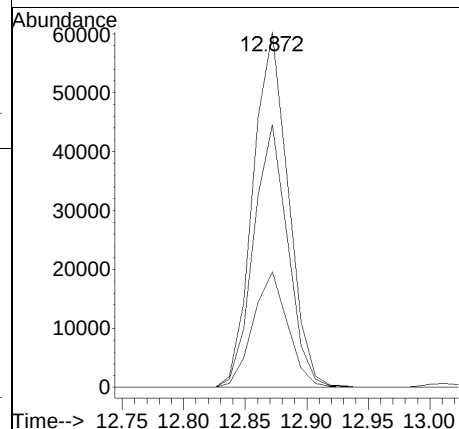
Tgt	Ion: 56	Resp:	159350
Ion	Ratio	Lower	Upper
56	100		
84	81.2	61.0	91.6
41	52.5	43.8	65.6

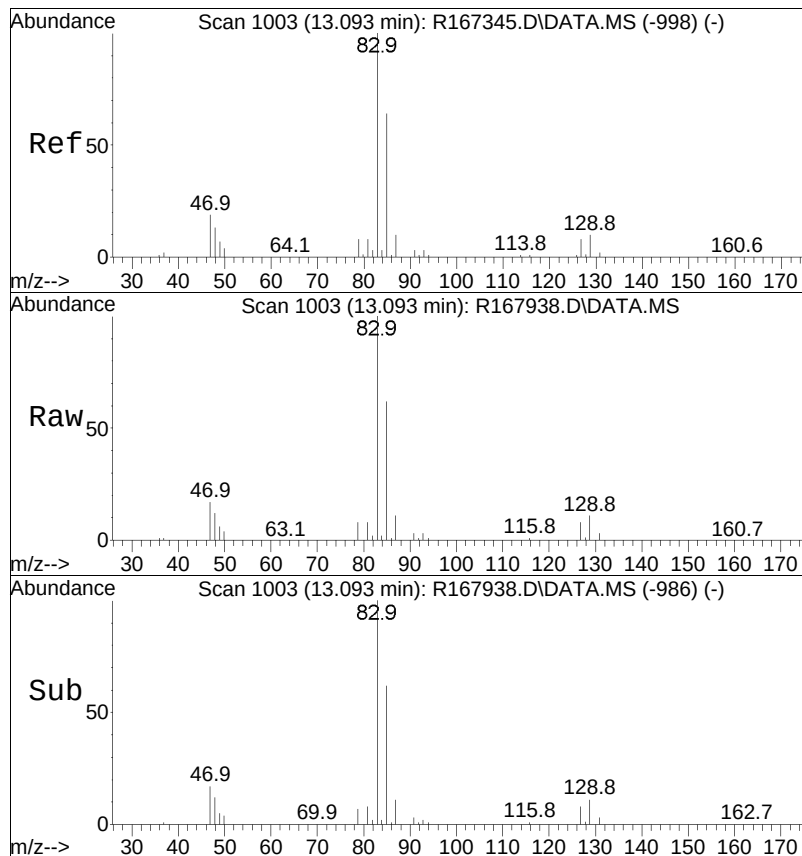




#56
 1,2-dichloropropane
 Concen: 9.15 ppbV
 RT: 12.872 min Scan# 984
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

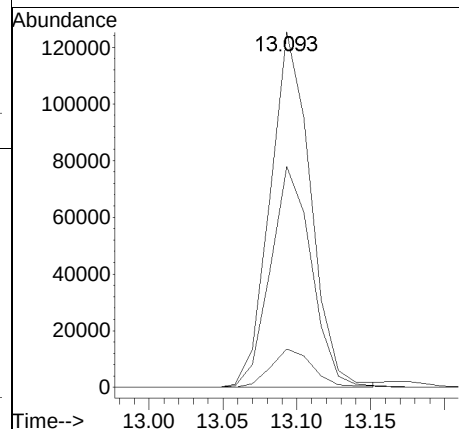
Tgt Ion	Ratio	Lower	Upper
63	100		
62	73.9	58.4	87.6
39	32.5	28.4	42.6

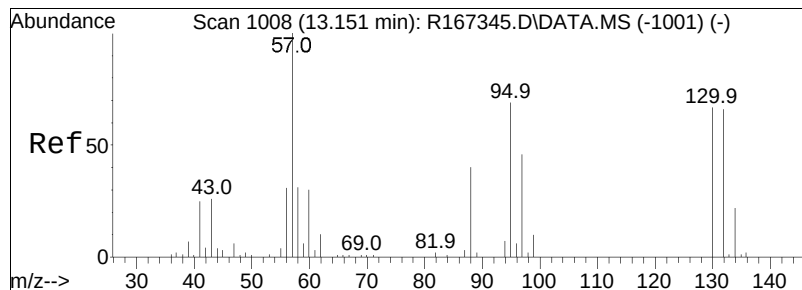




#57
 bromodichloromethane
 Concen: 9.77 ppbV
 RT: 13.093 min Scan# 1003
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

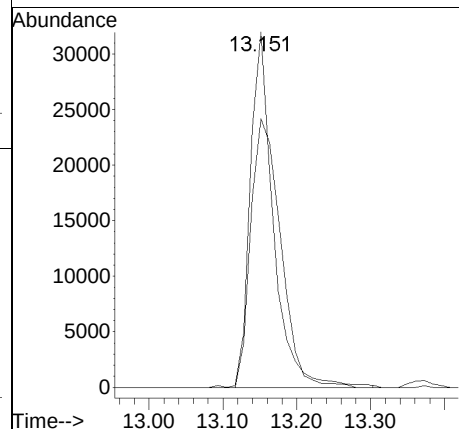
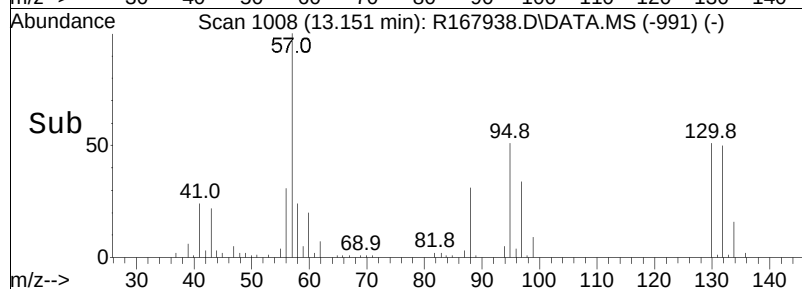
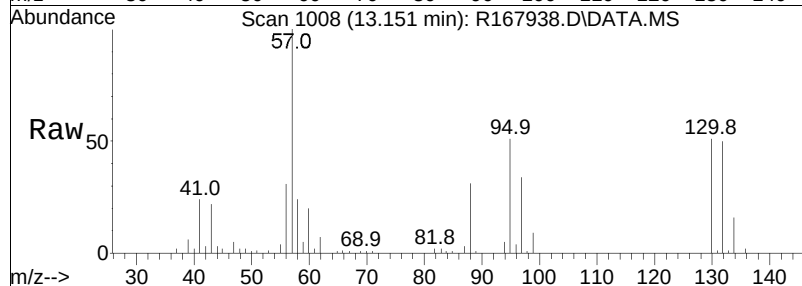
Tgt	Ion	Ratio	Resp	Lower	Upper
83	100		238280		
85	62.1	51.0		76.6	
129	10.8	8.4		12.6	

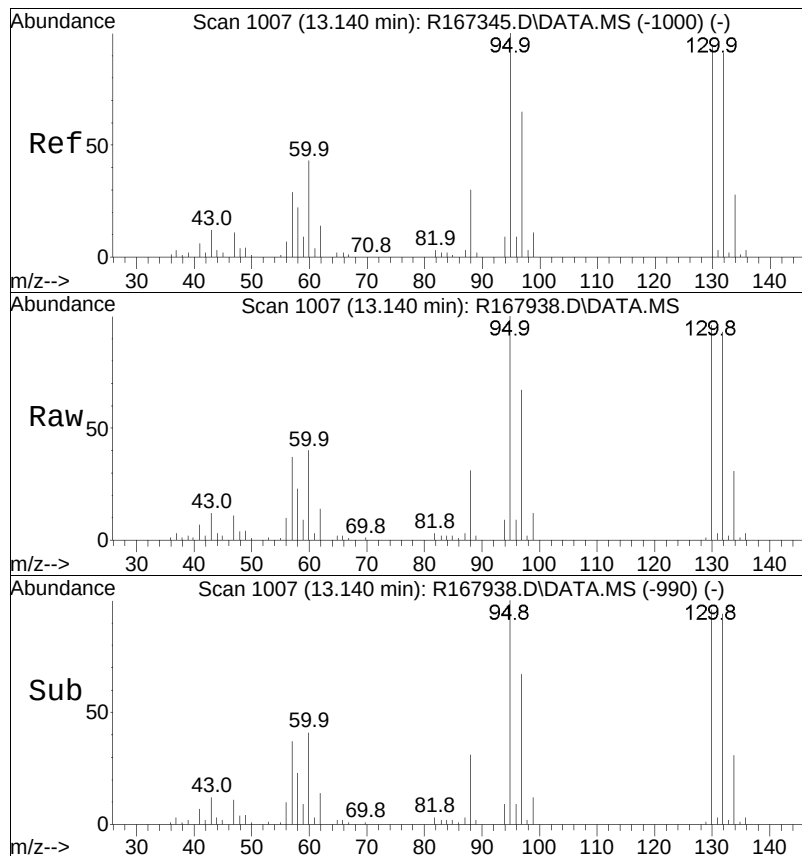




#58
 1,4-dioxane
 Concen: 9.50 ppbV
 RT: 13.151 min Scan# 1008
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

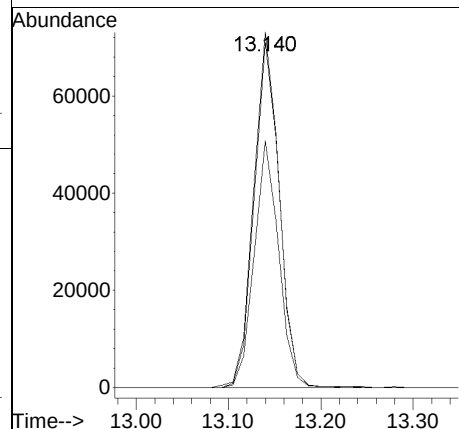
Tgt Ion: 88 Resp: 69971
 Ion Ratio Lower Upper
 88 100
 58 75.6 61.8 92.8

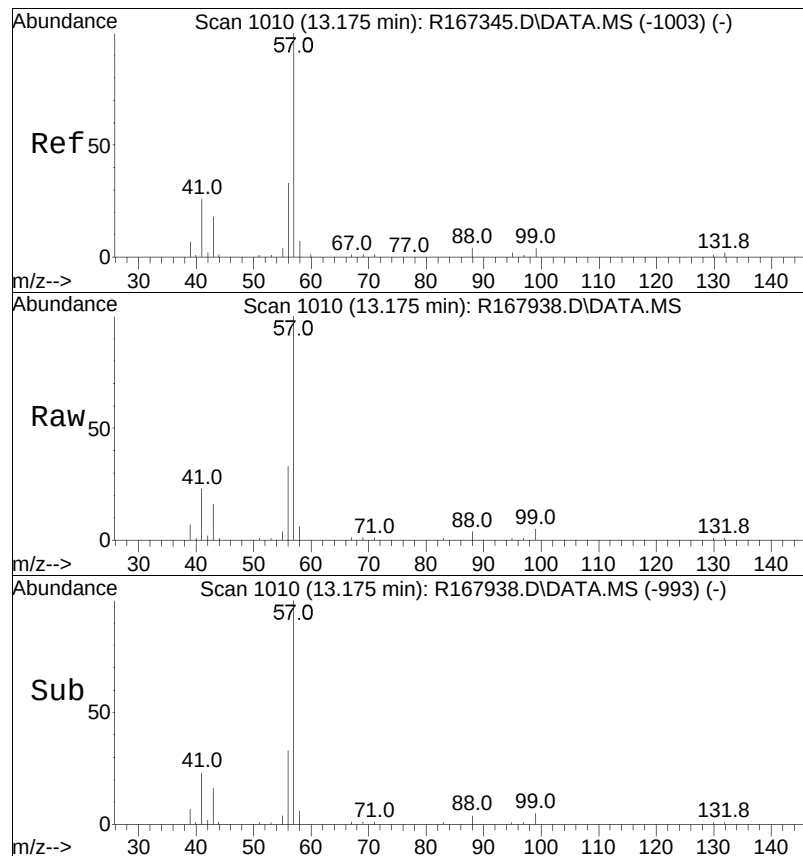




#59
 trichloroethene
 Concen: 9.92 ppbV
 RT: 13.140 min Scan# 1007
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

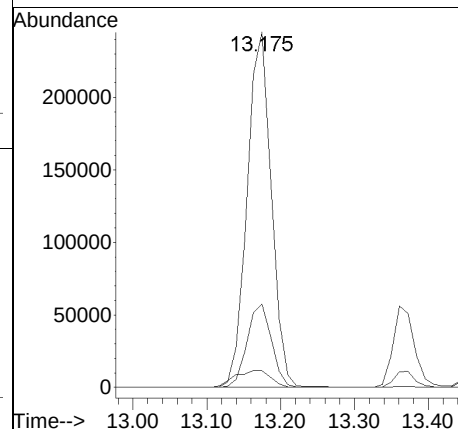
Tgt Ion	Ratio	Lower	Upper
130	100		
132	97.2	76.3	114.5
97	69.4	54.5	81.7

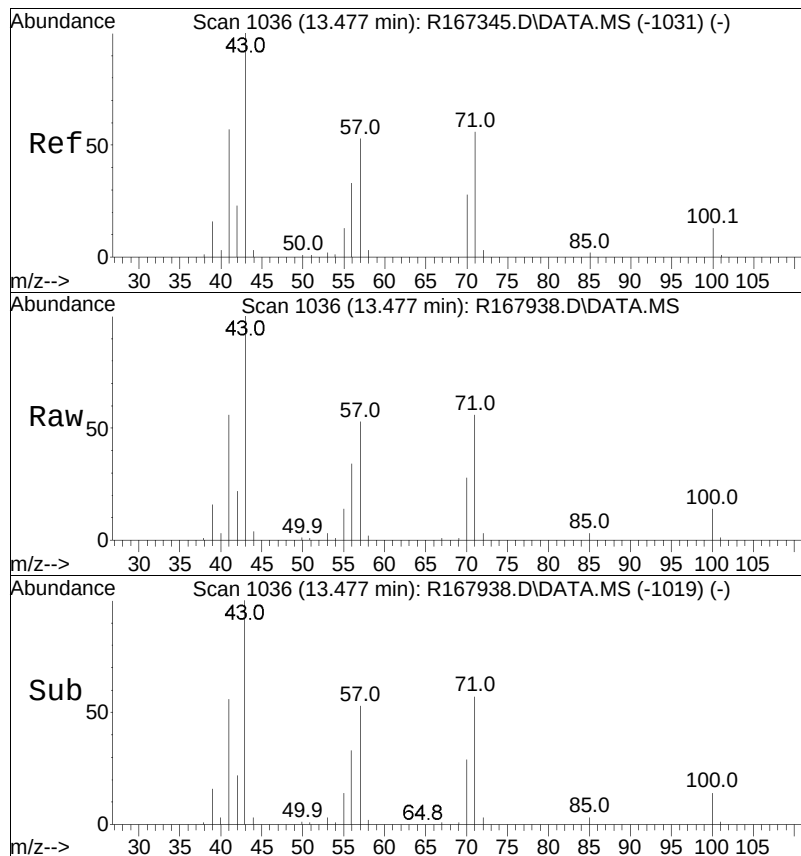




#60
 2,2,4-trimethylpentane
 Concen: 9.81 ppbV
 RT: 13.175 min Scan# 1010
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

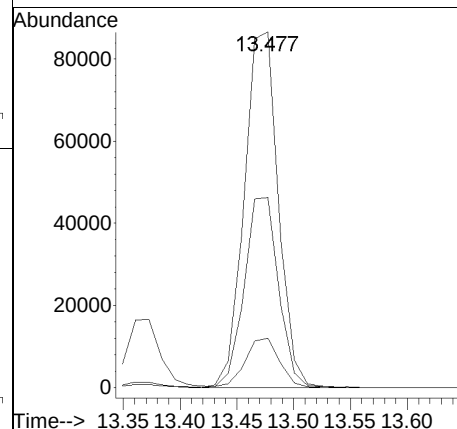
Tgt Ion	Ratio	Lower	Upper
57	100		
99	4.7	3.4	5.2
41	23.5	20.5	30.7

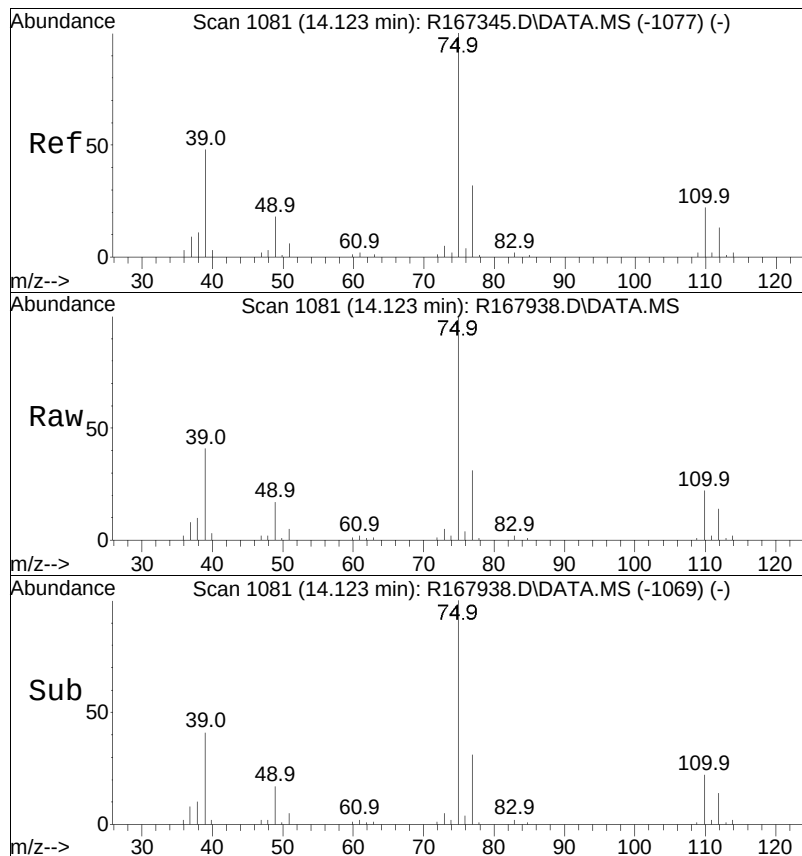




#62
 heptane
 Concen: 8.45 ppbV
 RT: 13.477 min Scan# 1036
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

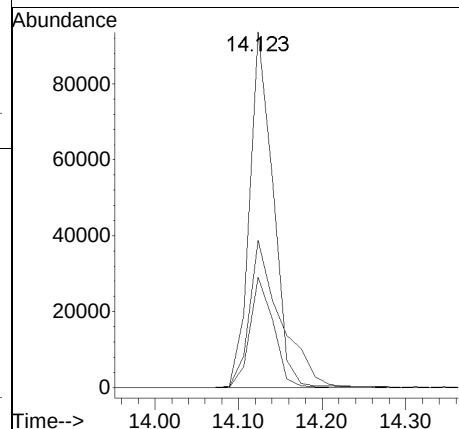
Tgt Ion:	43	Resp:	180434
Ion Ratio	Lower	Upper	
43	100		
57	53.4	42.1	63.1
100	13.9	10.6	15.8

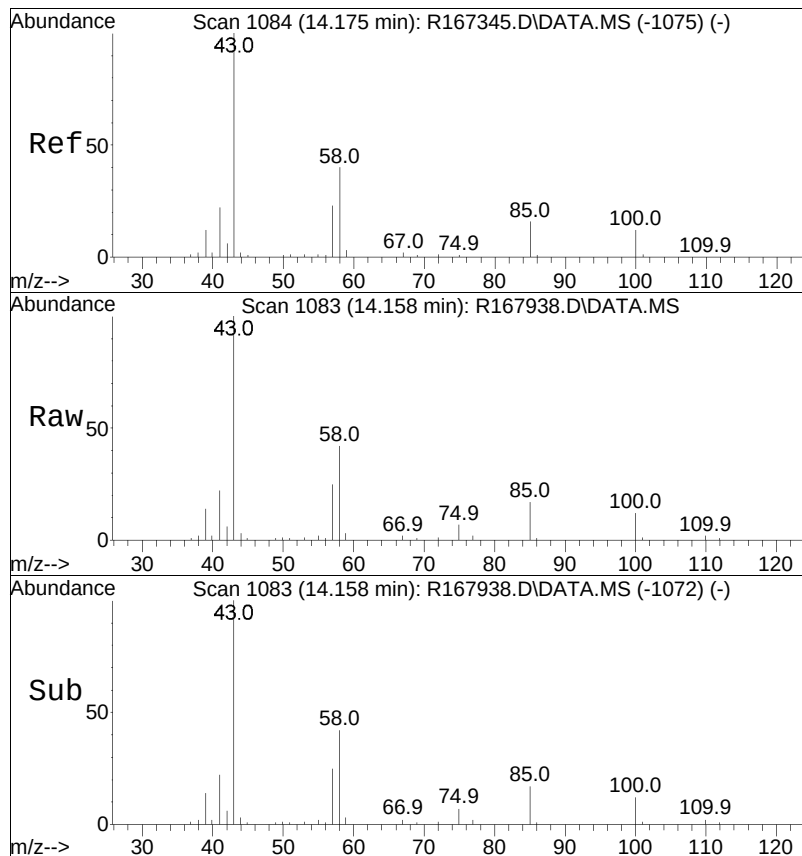




#63
 cis-1,3-dichloropropene
 Concen: 9.94 ppbV
 RT: 14.123 min Scan# 1081
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

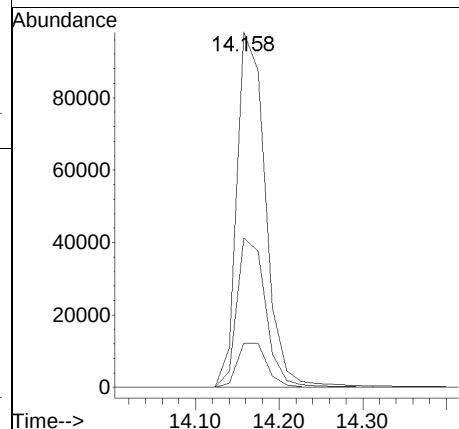
Tgt Ion	Ratio	Lower	Upper
75	100		
39	41.4	38.5	57.7
77	31.0	25.9	38.9

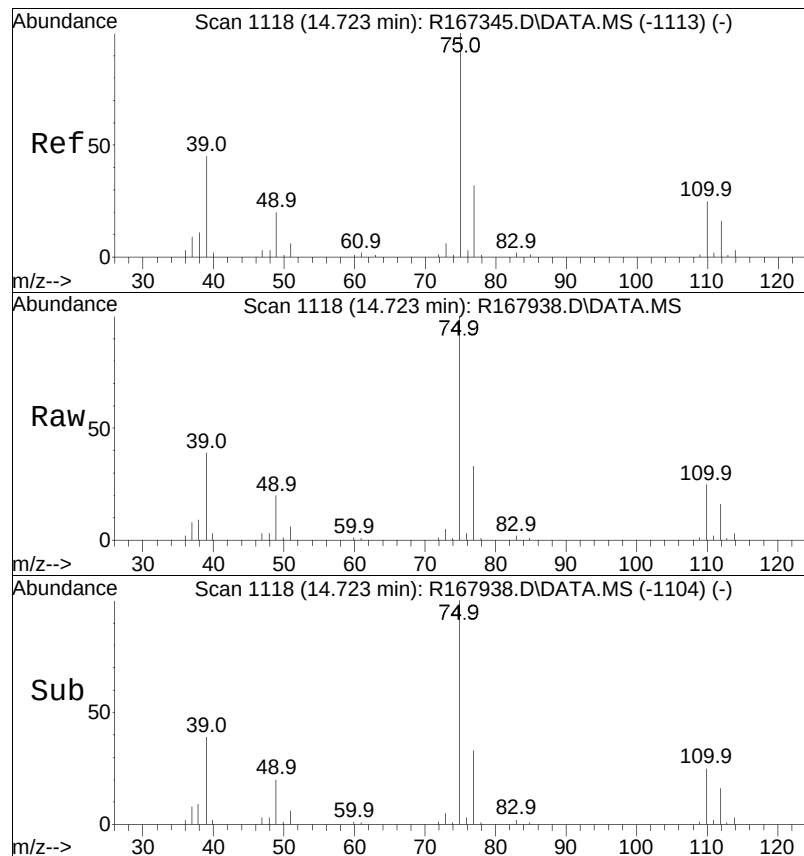




#64
 4-methyl-2-pentanone
 Concen: 8.79 ppbV
 RT: 14.158 min Scan# 1083
 Delta R.T. -0.017 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

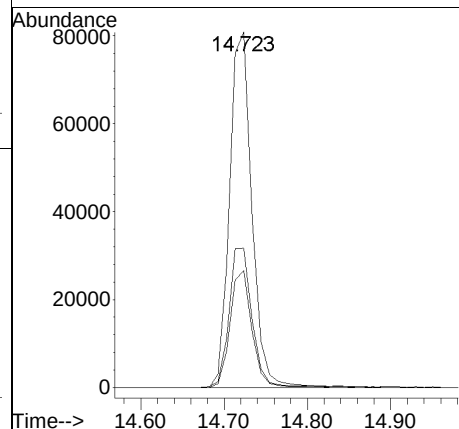
Tgt Ion:	43	Resp:	234962
Ion Ratio	Lower	Upper	
43	100		
58	42.1	32.2	48.4
100	12.4	9.8	14.6

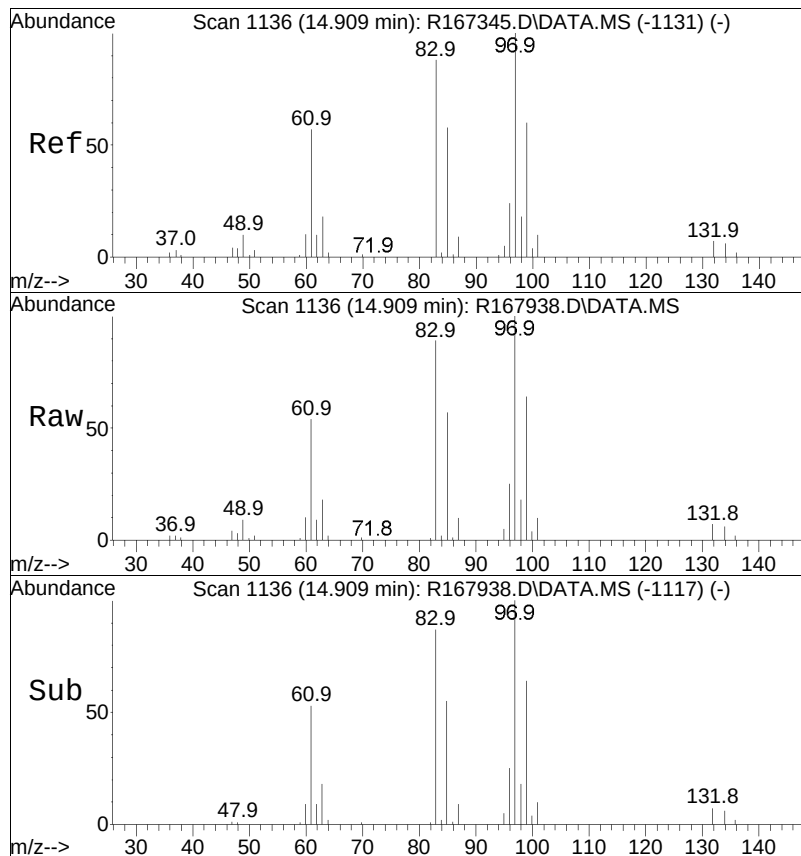




#65
 trans-1,3-dichloropropene
 Concen: 8.44 ppbV
 RT: 14.723 min Scan# 1118
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

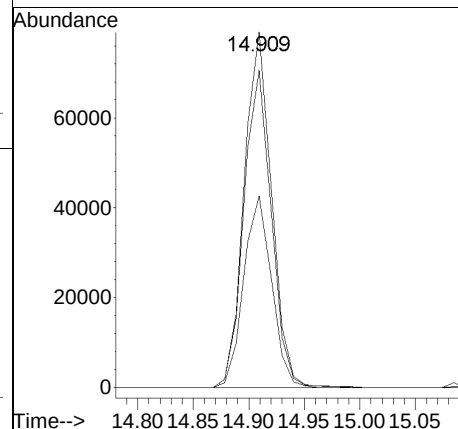
Tgt Ion	Ratio	Lower	Upper
75	100		
77	32.9	25.7	38.5
39	39.2	36.0	54.0

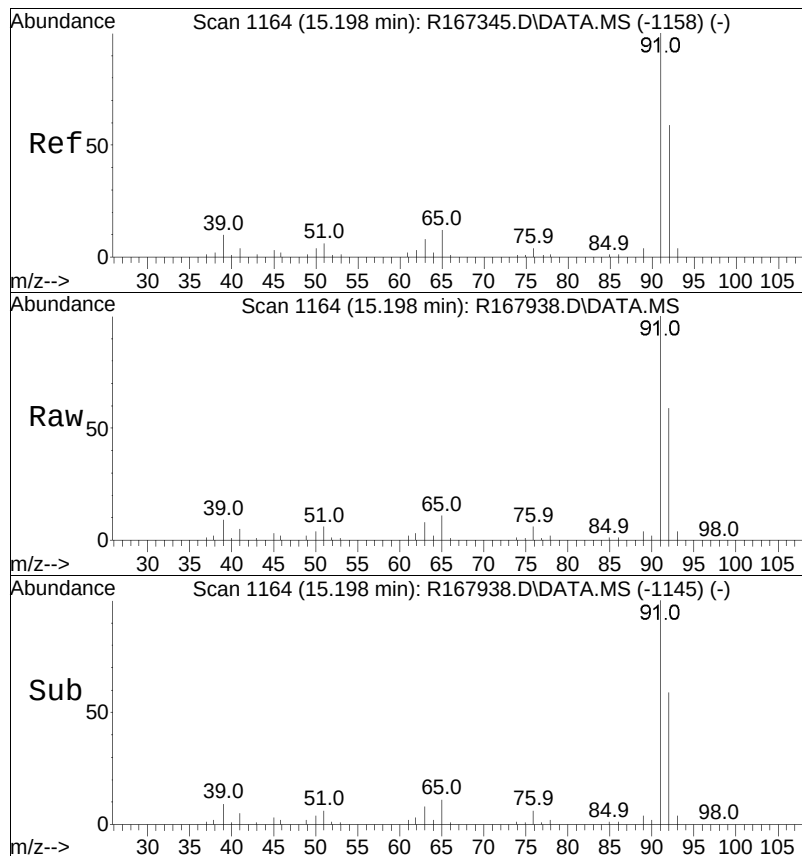




#66
 1,1,2-trichloroethane
 Concen: 9.83 ppbV
 RT: 14.909 min Scan# 1136
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

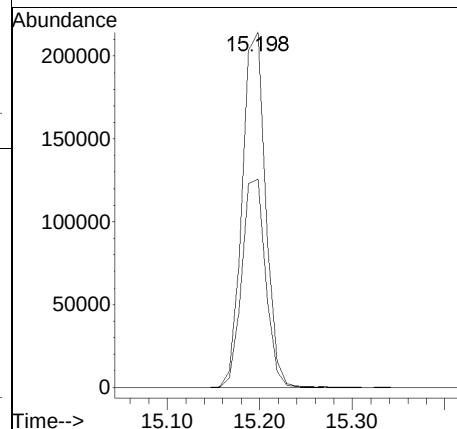
Tgt Ion	Ratio	Lower	Upper
97	100		
83	89.2	70.2	105.2
61	53.9	45.4	68.2

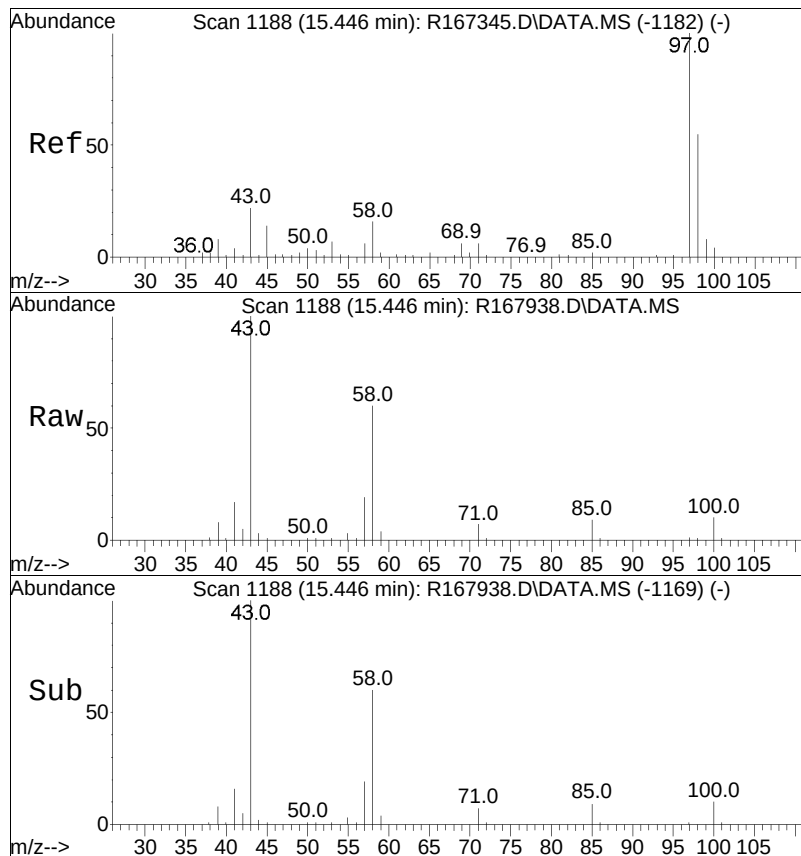




#68
toluene
Concen: 9.54 ppbV
RT: 15.198 min Scan# 1164
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

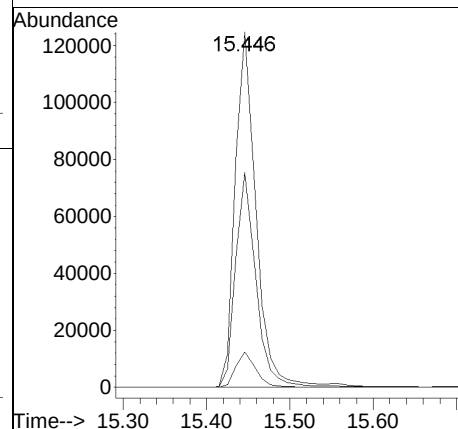
Tgt Ion:	91	Resp:	377211
Ion Ratio	Lower	Upper	
91	100		
92	58.6	46.8	70.2

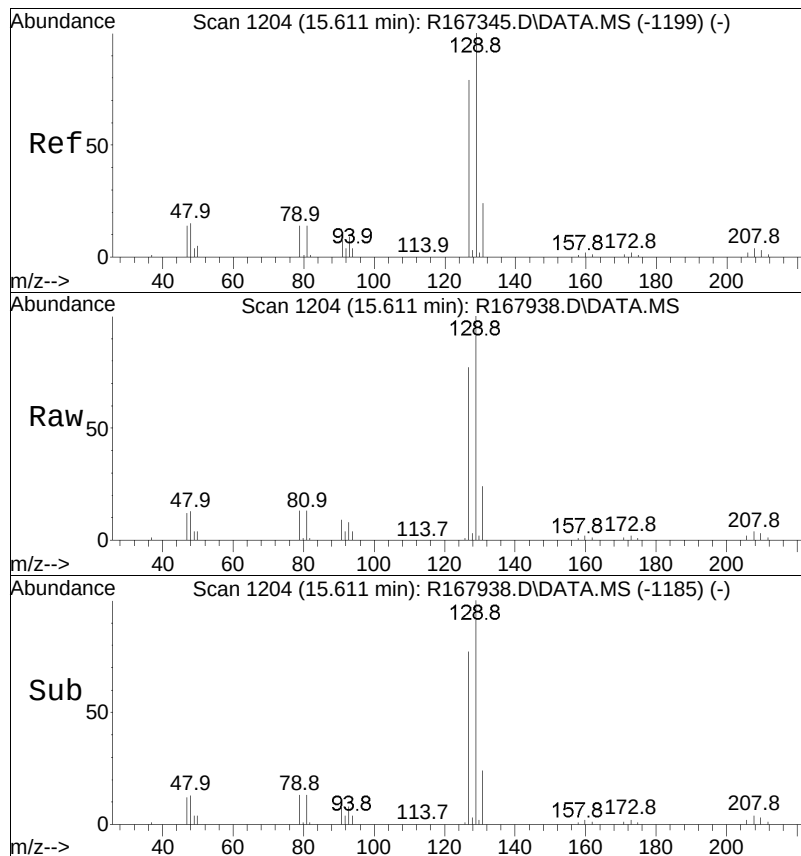




#72
 2-hexanone
 Concen: 9.66 ppbV
 RT: 15.446 min Scan# 1188
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

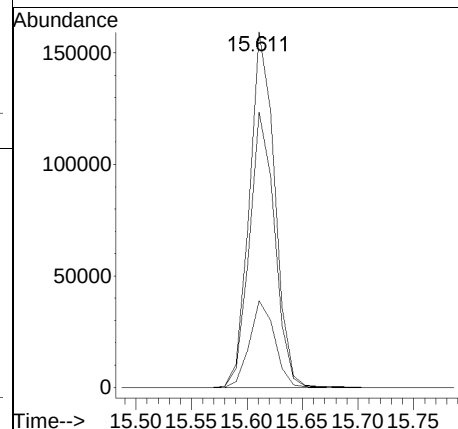
Tgt Ion:	43	Resp:	219373
Ion Ratio	Lower	Upper	
43	100		
58	60.5	57.3	85.9
100	10.0	15.9	23.9#

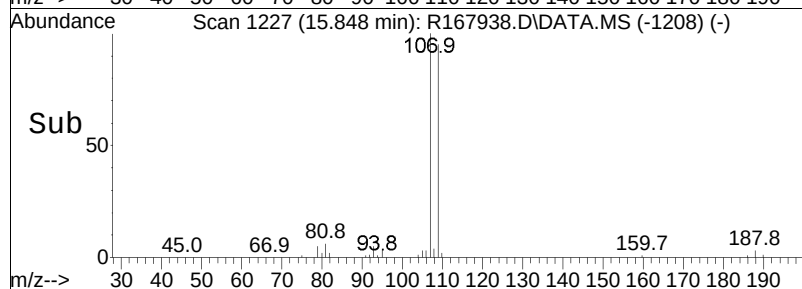
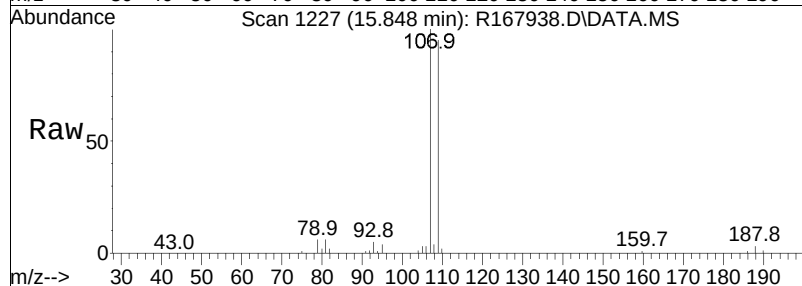
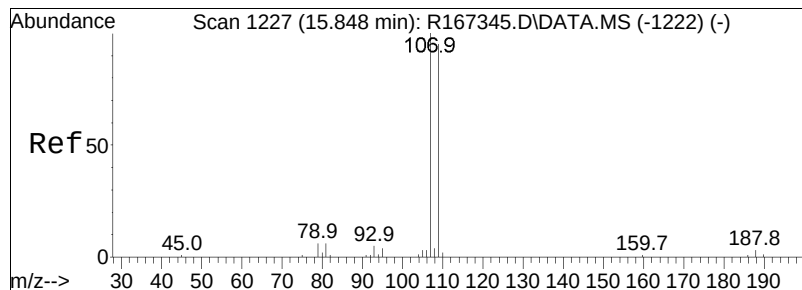




#74
 dibromochloromethane
 Concen: 11.09 ppbV
 RT: 15.611 min Scan# 1204
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

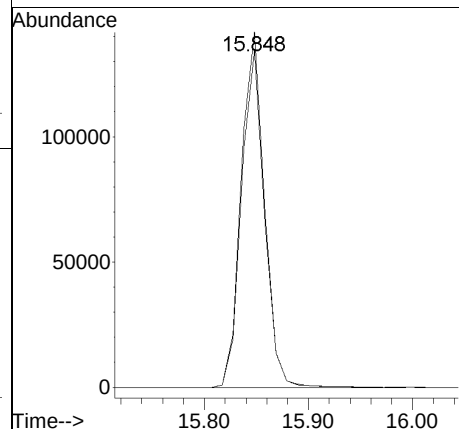
Tgt Ion	Ratio	Resp	Lower	Upper
129	100	252870		
127	77.5		63.0	94.4
131	24.4		19.4	29.2

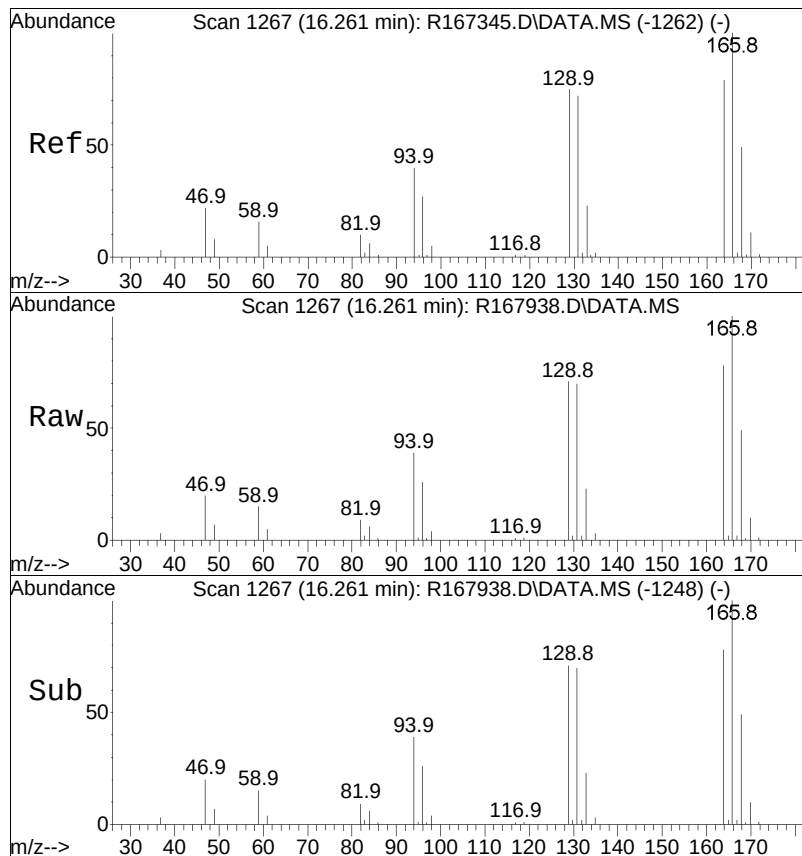




#75
 1,2-dibromoethane
 Concen: 10.53 ppbV
 RT: 15.848 min Scan# 1227
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

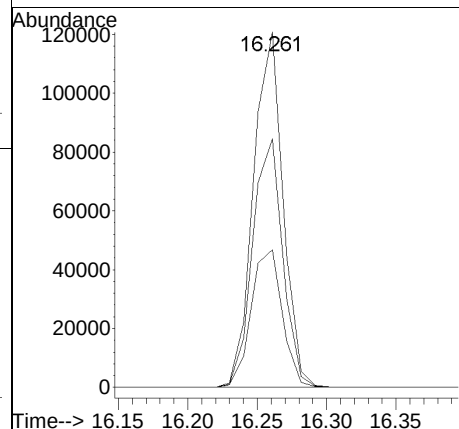
Tgt Ion	Ratio	Lower	Upper
107	100		
109	94.8	76.4	114.6

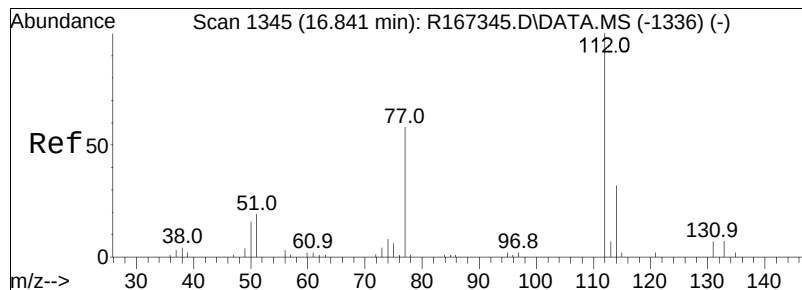




#78
 tetrachloroethene
 Concen: 10.38 ppbV
 RT: 16.261 min Scan# 1267
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

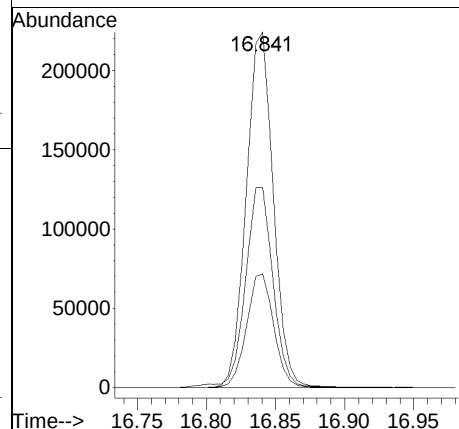
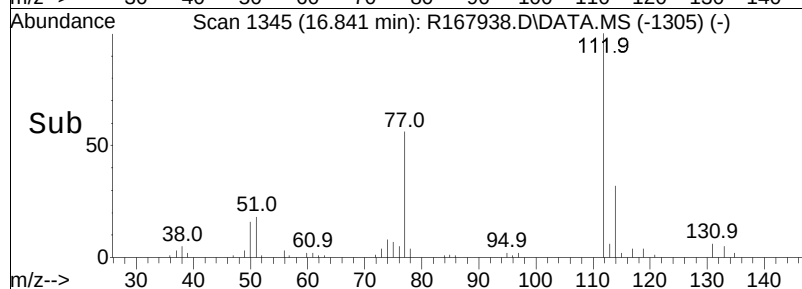
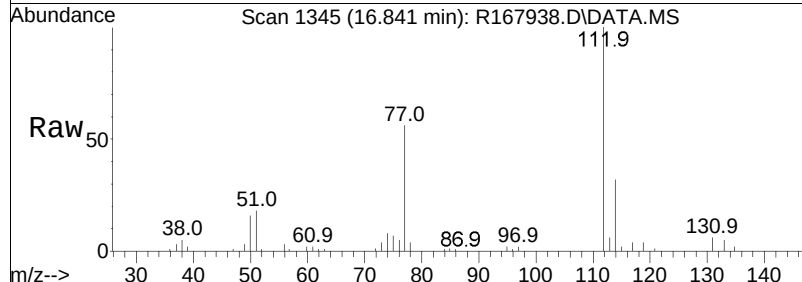
Tgt Ion	Ratio	Lower	Upper
166	100		
131	69.9	57.8	86.8
94	38.7	32.1	48.1

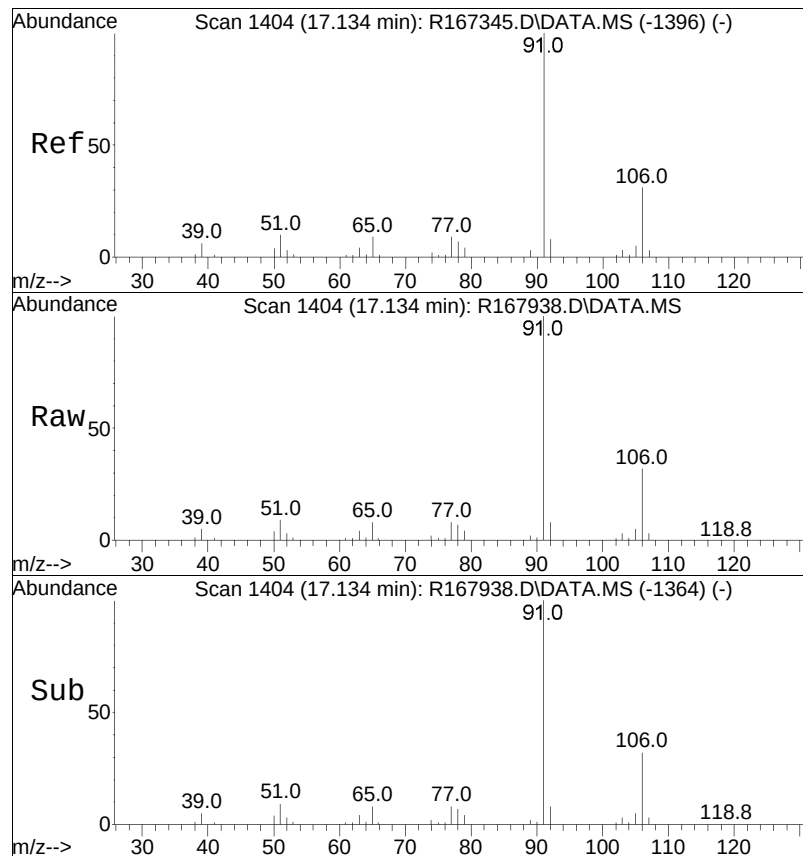




#80
chlorobenzene
Concen: 10.24 ppbV
RT: 16.841 min Scan# 1345
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

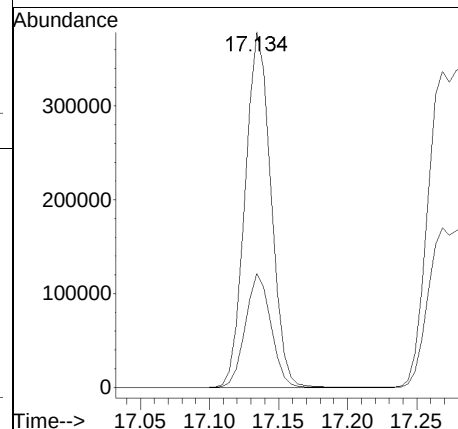
Tgt	Ion:112	Resp:	305344
Ion	Ratio	Lower	Upper
112	100		
114	32.0	25.5	38.3
77	56.2	47.0	70.6

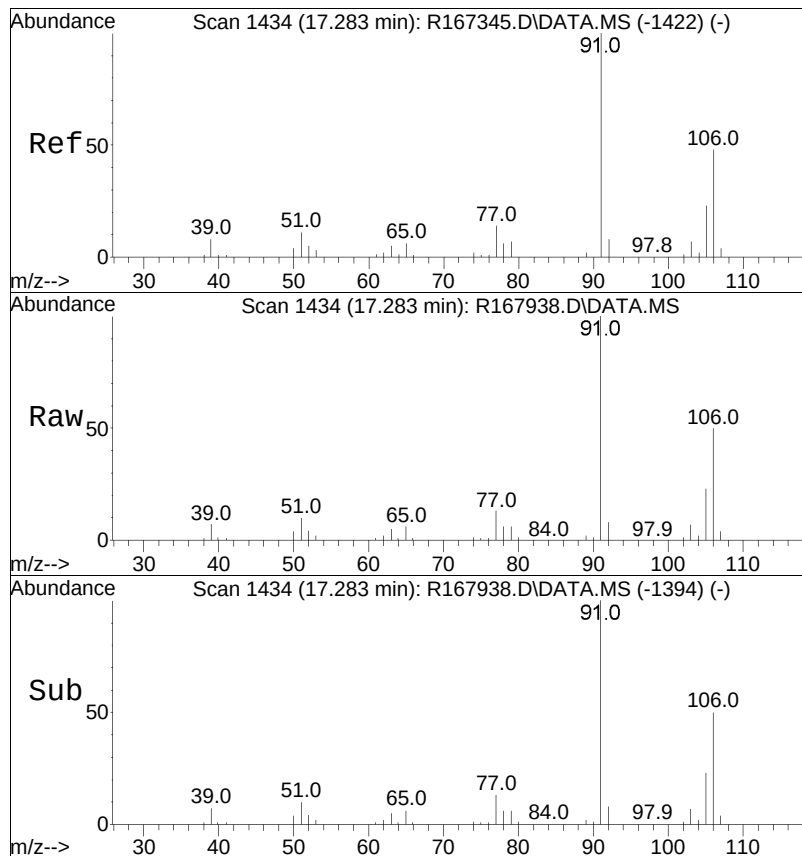




#81
ethylbenzene
Concen: 9.88 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

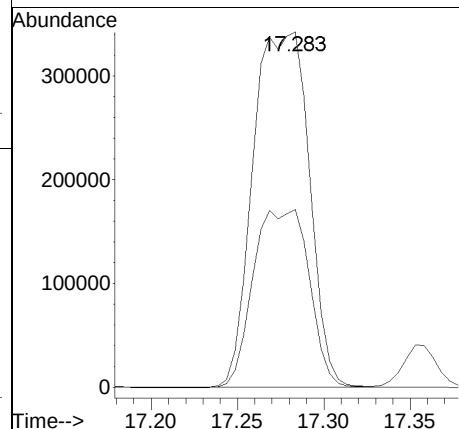
Tgt Ion: 91 Resp: 493060
Ion Ratio Lower Upper
91 100
106 32.1 24.6 37.0

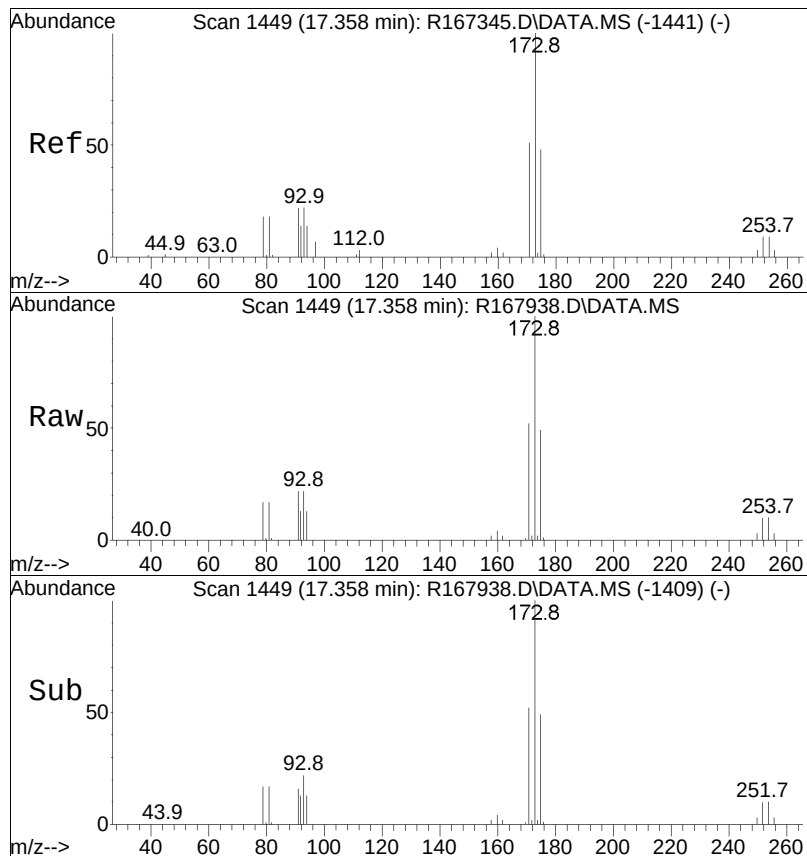




#83
 m+p-xylene
 Concen: 20.01 ppbV
 RT: 17.283 min Scan# 1434
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

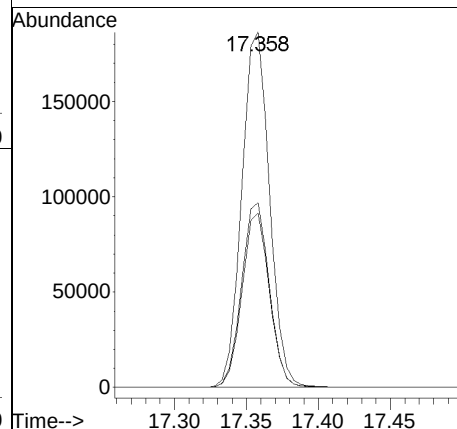
Tgt	Ion	Resp	Lower	Upper
91	100	768047		
106	50.1	38.7	58.1	

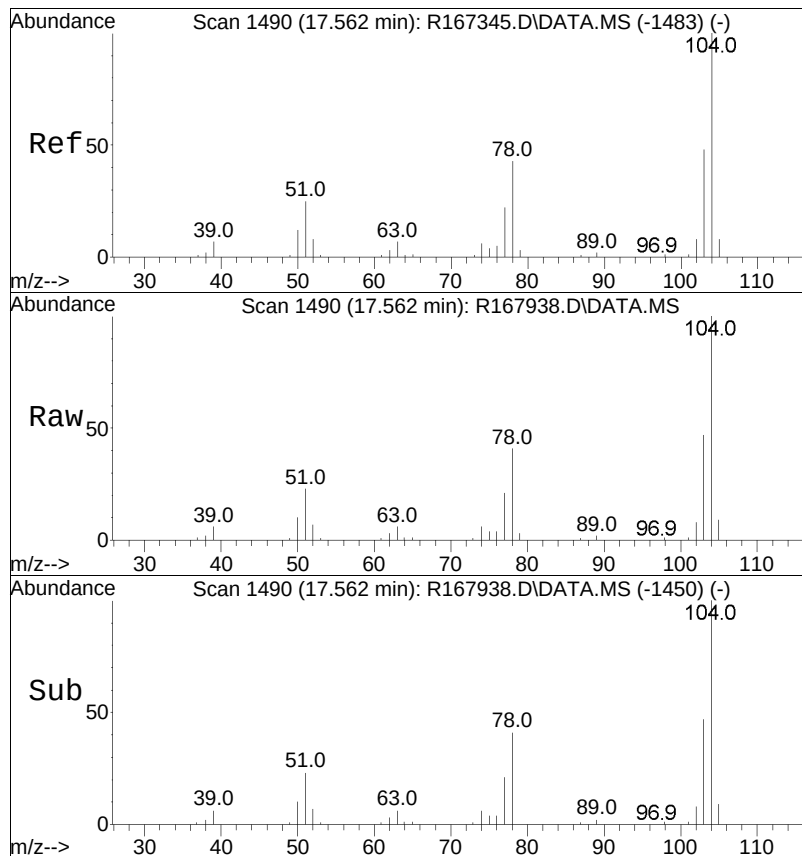




#84
bromoform
Concen: 11.21 ppbV
RT: 17.358 min Scan# 1449
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

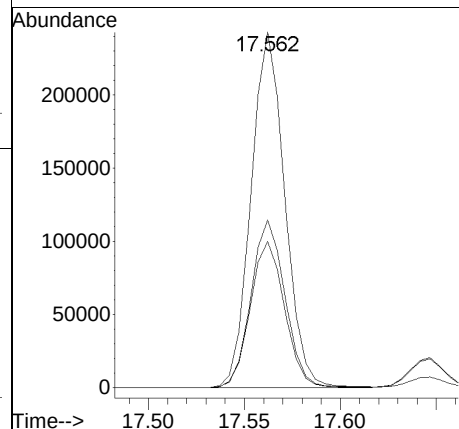
Tgt Ion	Ratio	Lower	Upper
173	100		
175	49.1	38.7	58.1
171	52.0	40.9	61.3

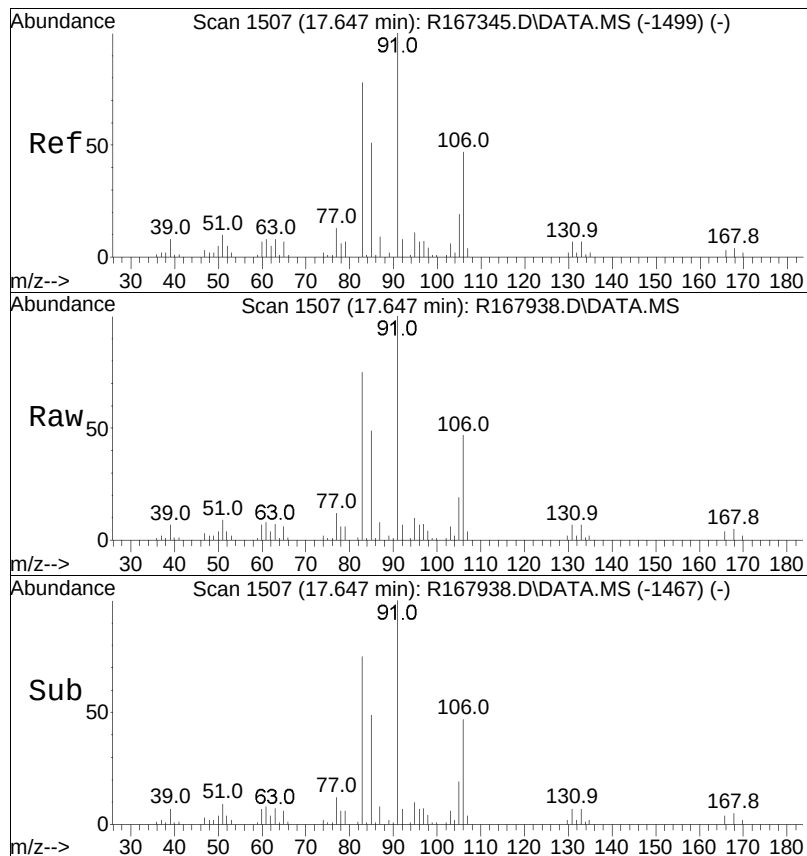




#85
styrene
Concen: 9.89 ppbV
RT: 17.562 min Scan# 1490
Delta R.T. 0.000 min
Lab File: R167938.D
Acq: 9 Aug 2019 2:34 pm

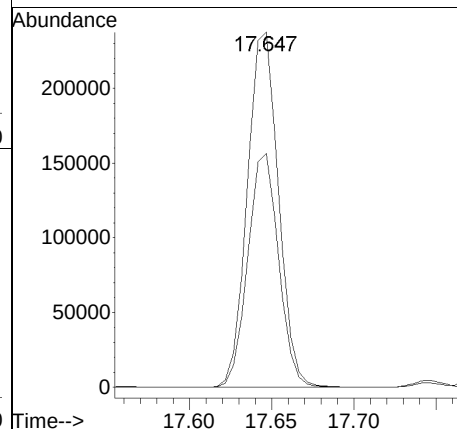
Tgt Ion	Ratio	Lower	Upper
104	100		
103	47.1	38.3	57.5
78	41.1	34.5	51.7

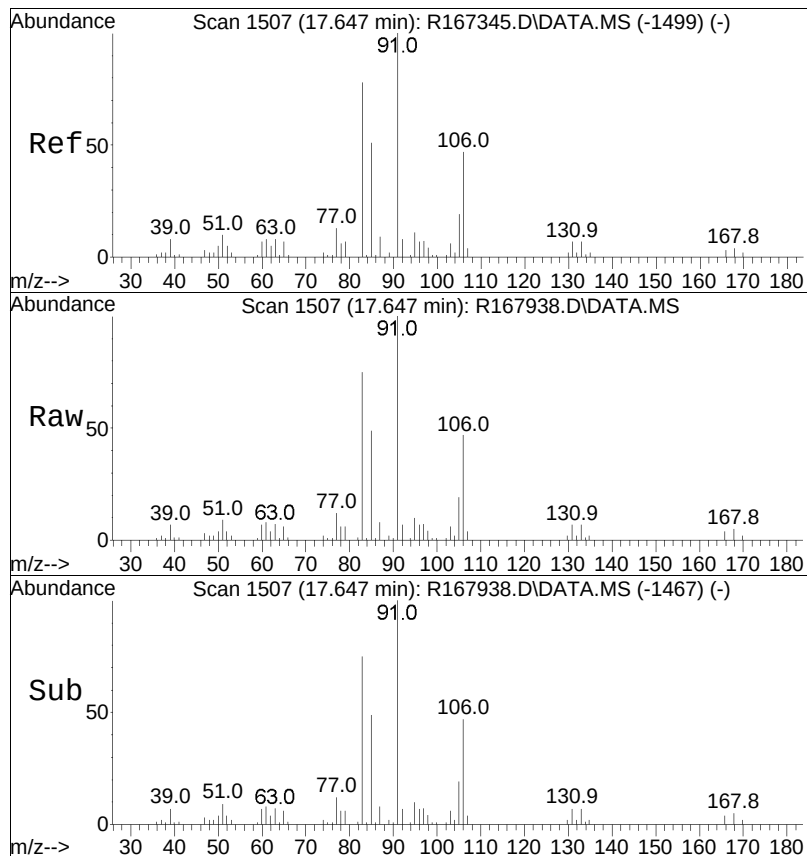




#86
 1,1,2,2-tetrachloroethane
 Concen: 10.52 ppbV
 RT: 17.647 min Scan# 1507
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

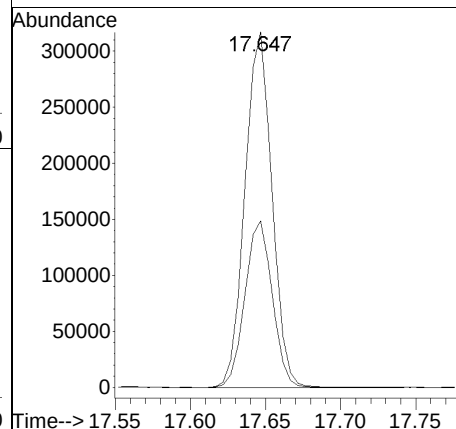
Tgt Ion	Ratio	Lower	Upper
83	100		
85	65.9	52.1	78.1

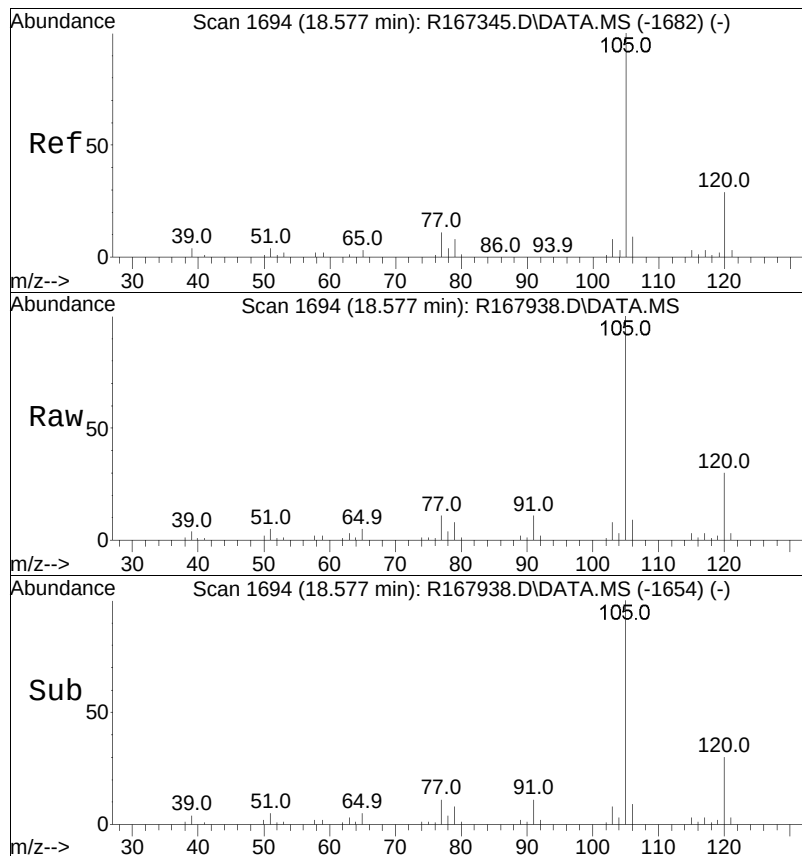




#87
 o-xylene
 Concen: 10.30 ppbV
 RT: 17.647 min Scan# 1507
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

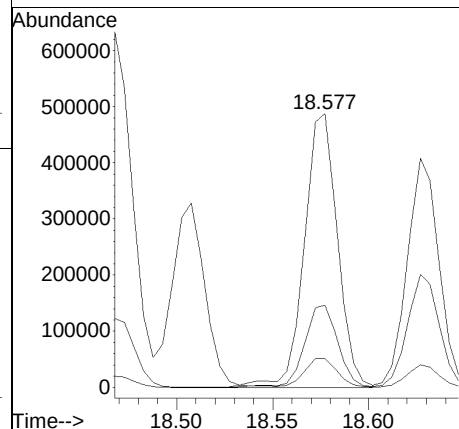
Tgt Ion	Ratio	Lower	Upper
91	100		
106	46.9	37.9	56.9

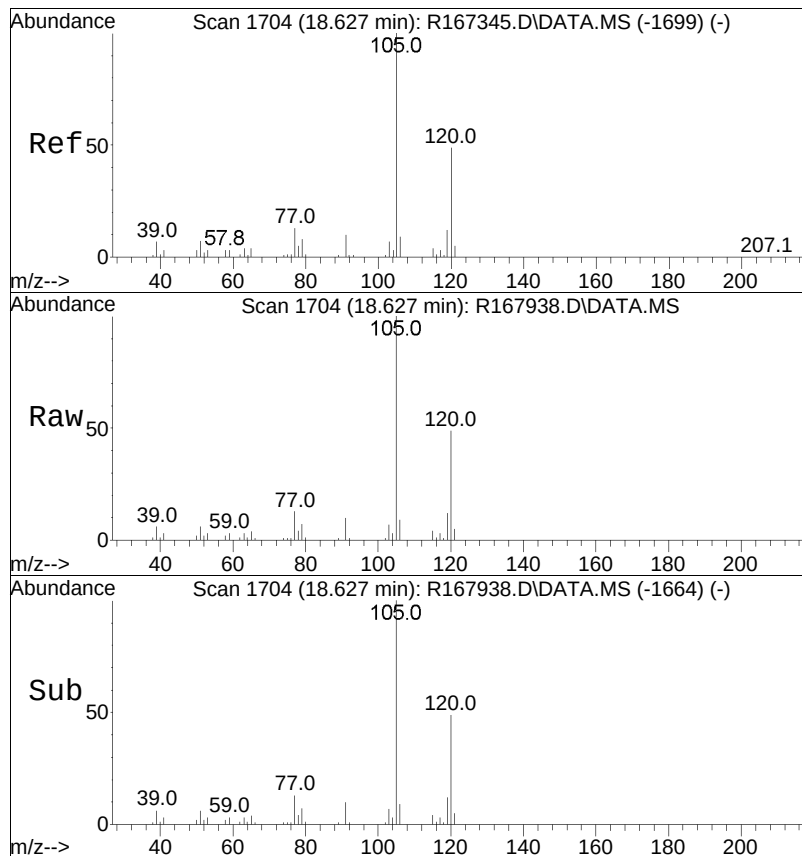




#96
 4-ethyl toluene
 Concen: 10.23 ppbV
 RT: 18.577 min Scan# 1694
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

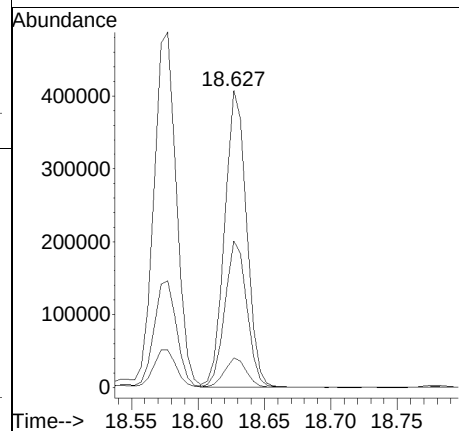
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	585374		
120	30.0		23.5	35.3
91	10.5		8.6	12.8

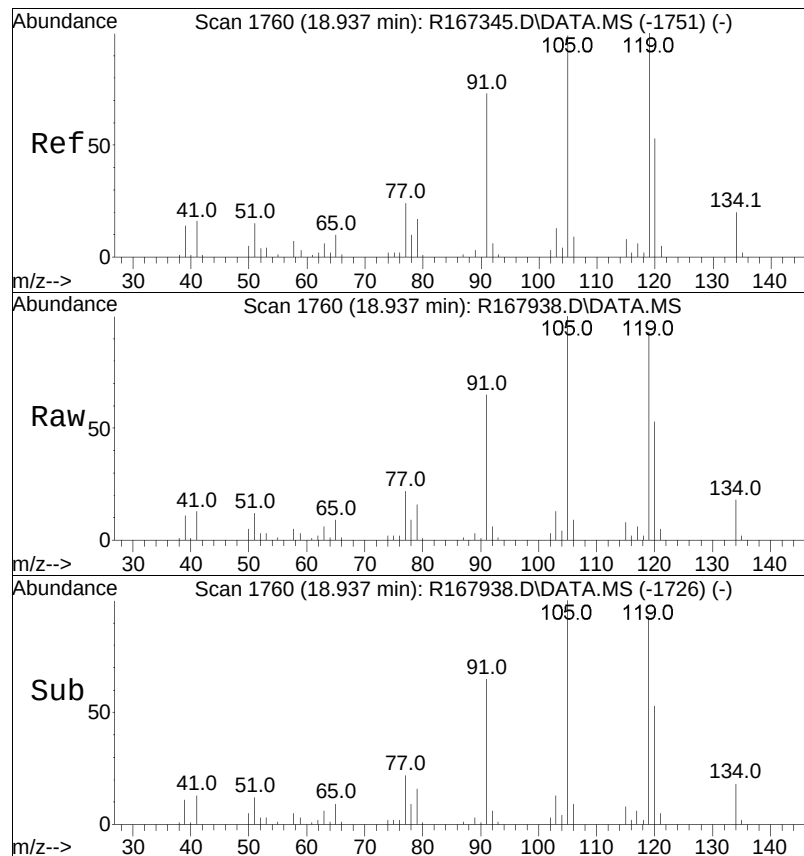




#97
 1,3,5-trimethylbenzene
 Concen: 10.32 ppbV
 RT: 18.627 min Scan# 1704
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

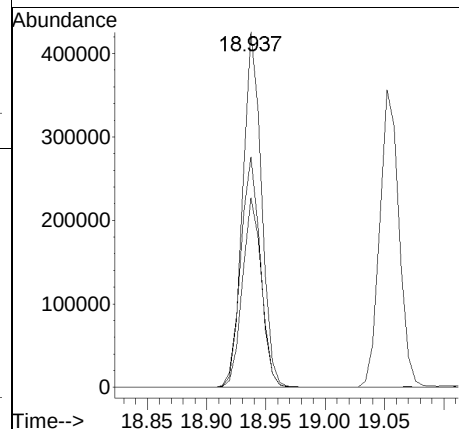
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	467849		
120	49.3		38.8	58.2
91	9.9		8.1	12.1

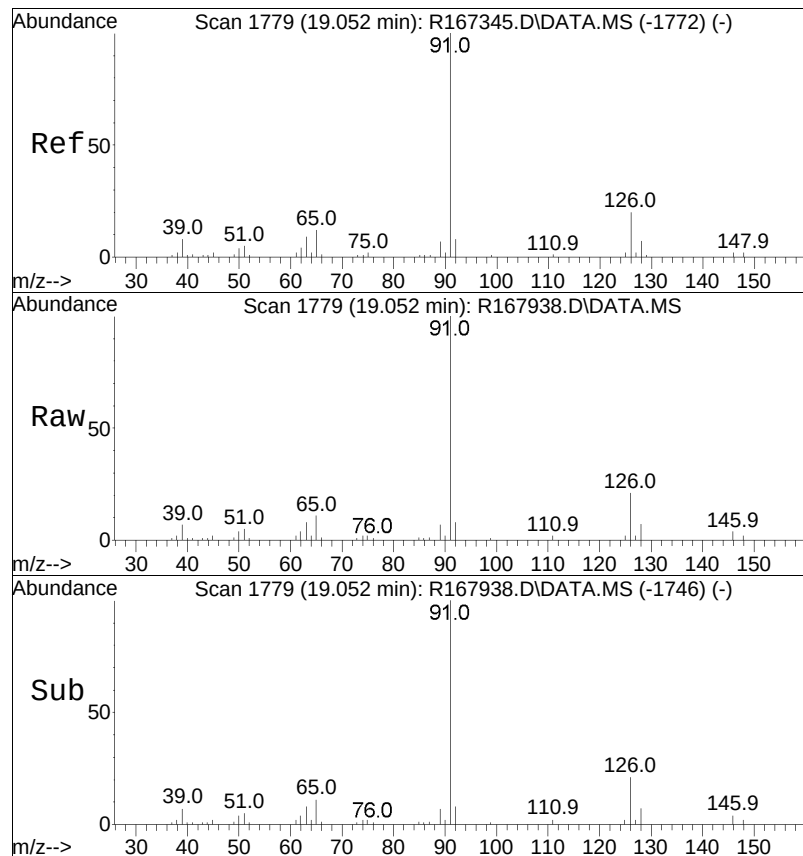




#99
 1,2,4-trimethylbenzene
 Concen: 10.90 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

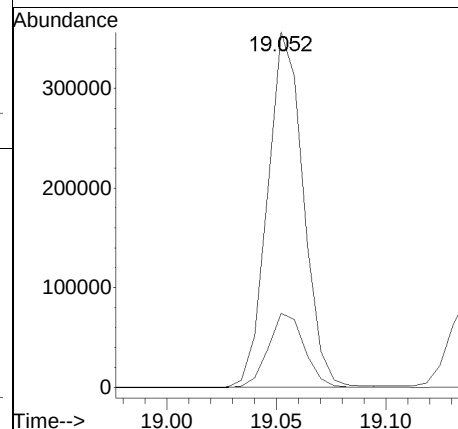
Tgt Ion	Ratio	Lower	Upper
105	100		
120	53.4	42.6	63.8
91	64.9	58.7	88.1

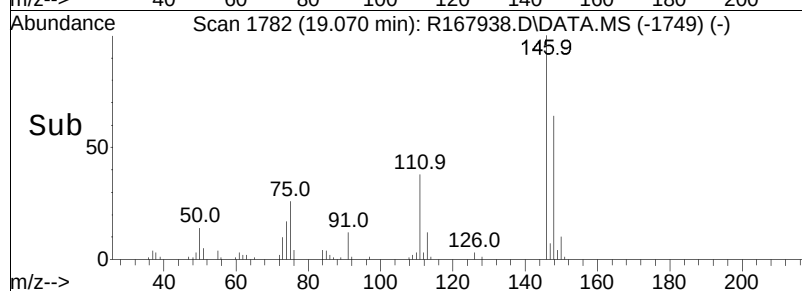
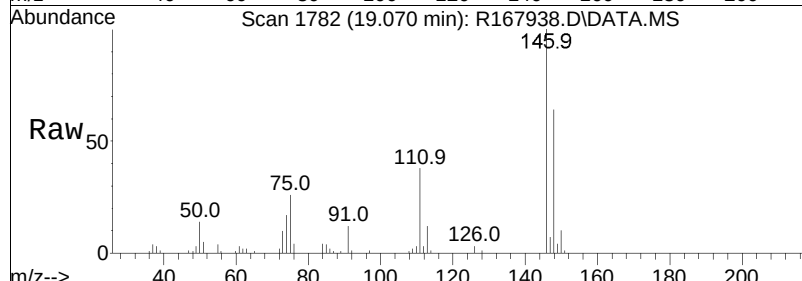
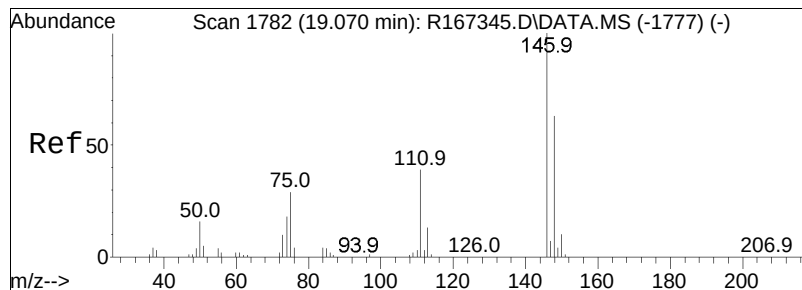




#101
 Benzyl Chloride
 Concen: 10.27 ppbV
 RT: 19.052 min Scan# 1779
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

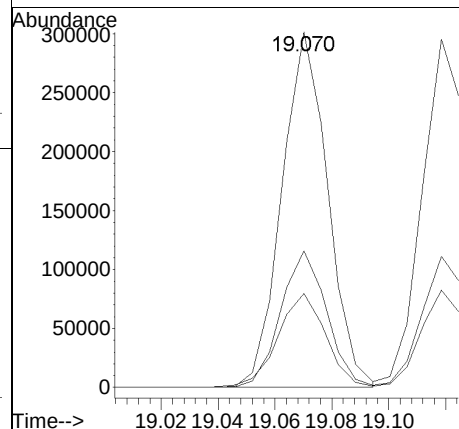
Tgt Ion	Ratio	Lower	Upper
91	100		
126	20.8	16.2	24.4

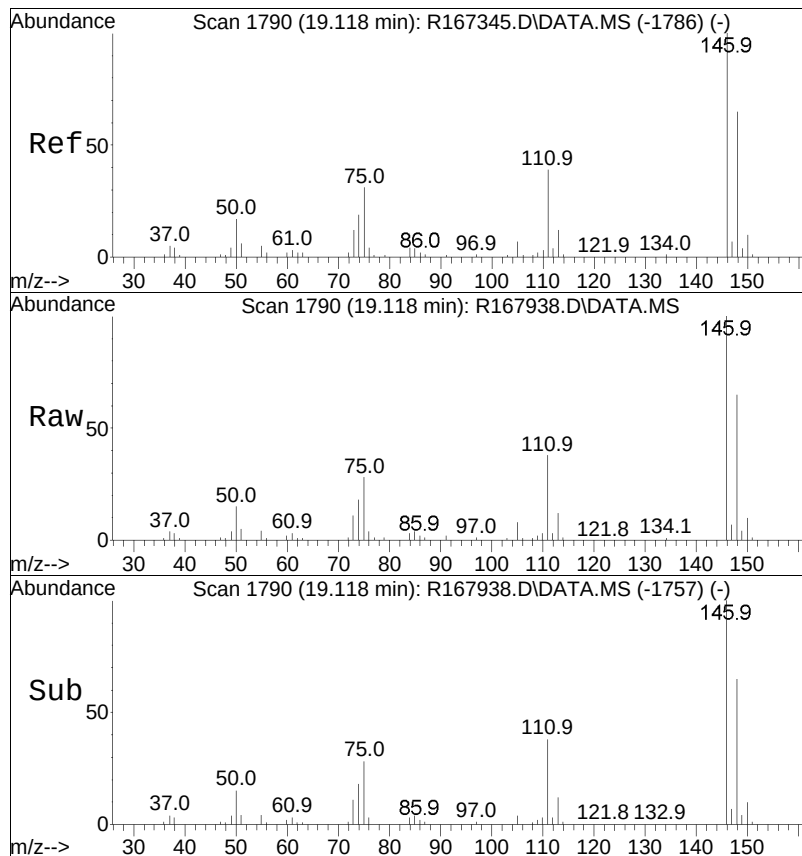




#102
 1,3-dichlorobenzene
 Concen: 11.14 ppbV
 RT: 19.070 min Scan# 1782
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

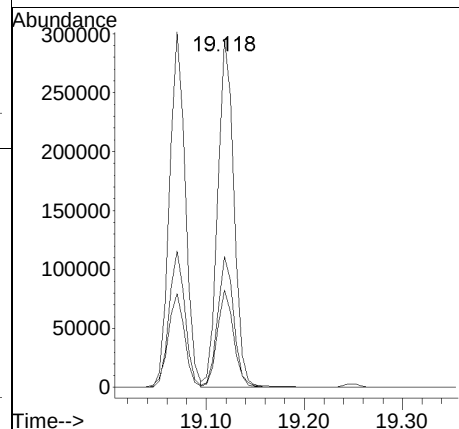
Tgt Ion	Ratio	Lower	Upper
146	100		
111	38.5	31.5	47.3
75	26.4	23.2	34.8

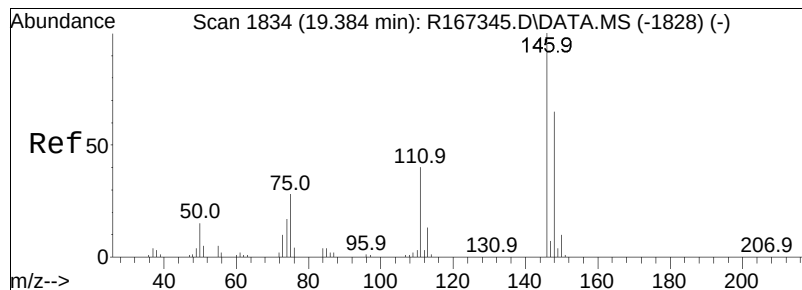




#103
 1,4-dichlorobenzene
 Concen: 11.27 ppbV
 RT: 19.118 min Scan# 1790
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

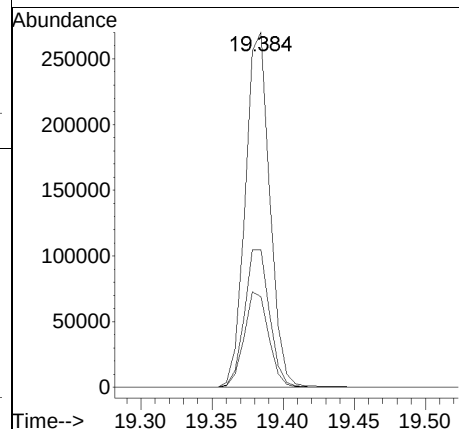
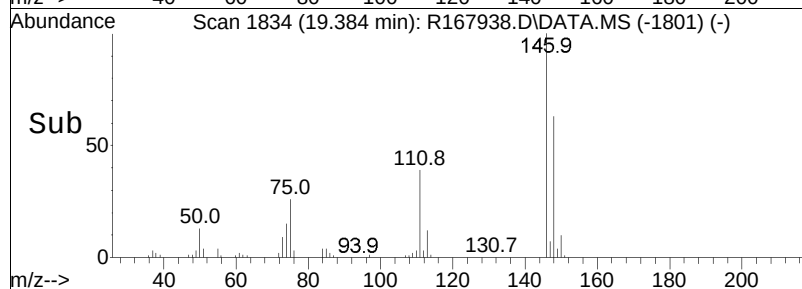
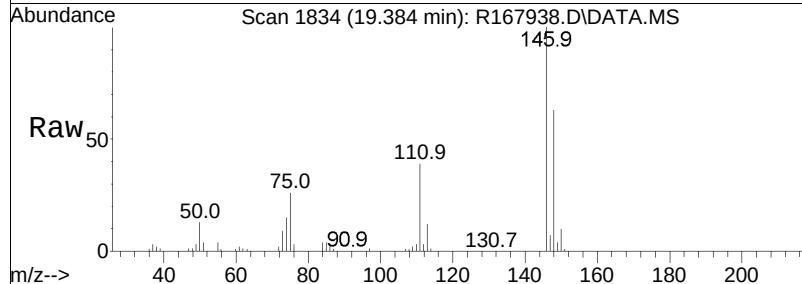
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.6	31.2	46.8
75	27.9	24.4	36.6

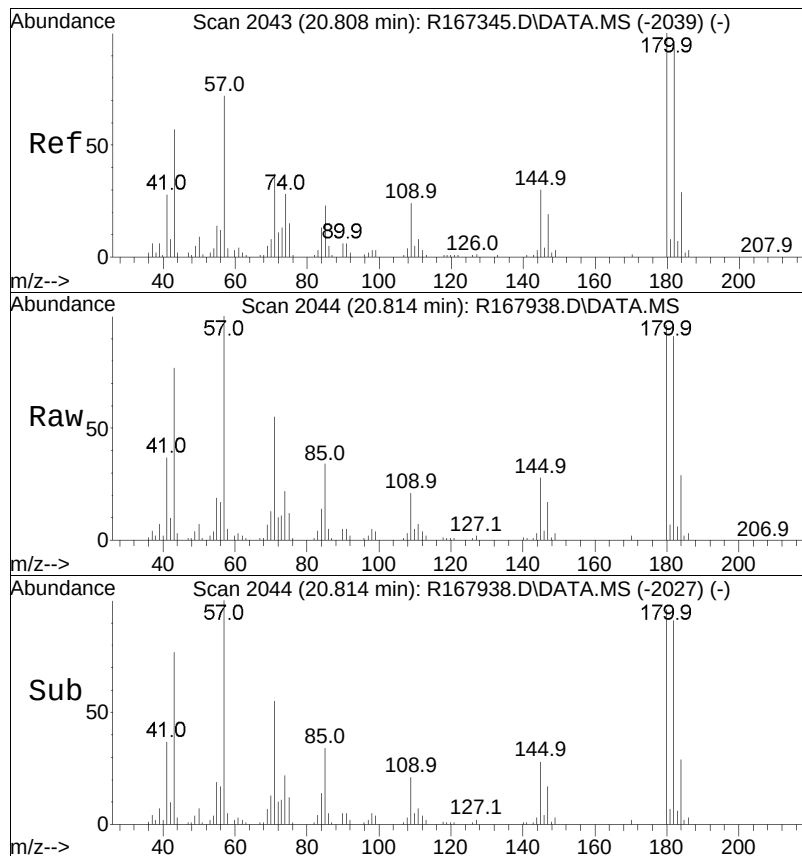




#107
 1,2-dichlorobenzene
 Concen: 11.15 ppbV
 RT: 19.384 min Scan# 1834
 Delta R.T. 0.000 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

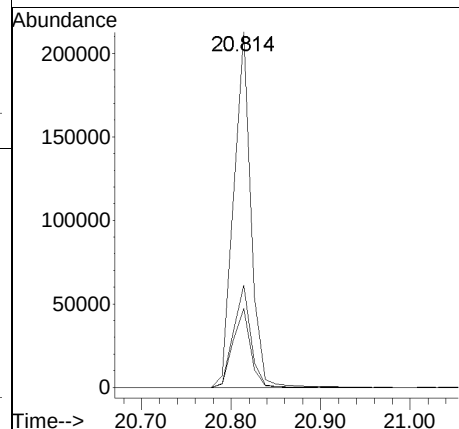
Tgt Ion	Ratio	Lower	Upper
146	100		
111	38.8	32.3	48.5
75	25.6	22.6	34.0

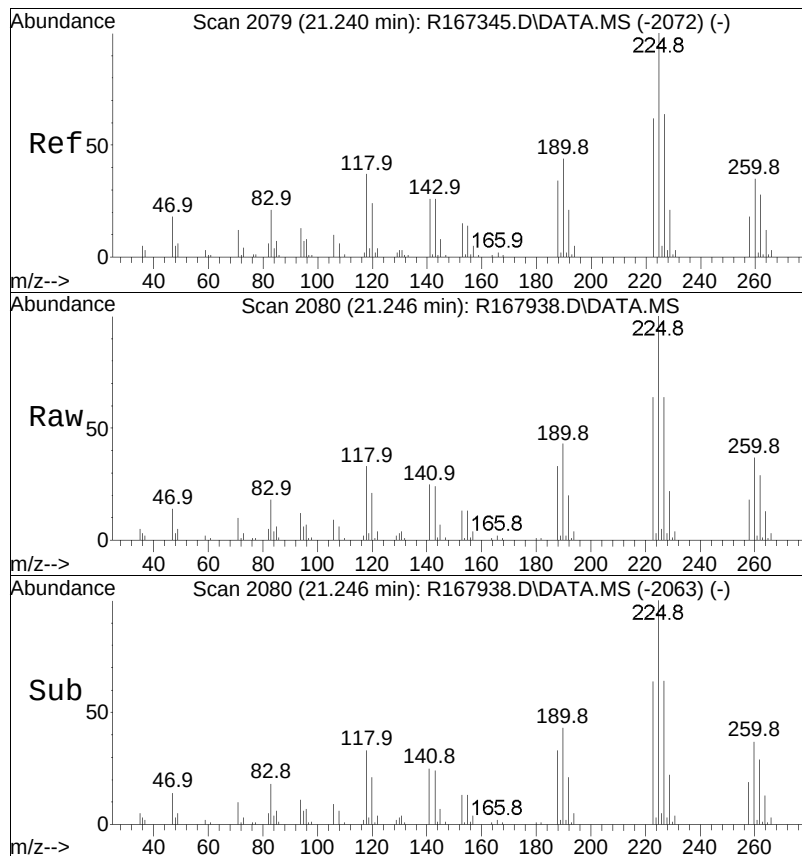




#115
 1,2,4-trichlorobenzene
 Concen: 14.26 ppbV
 RT: 20.814 min Scan# 2044
 Delta R.T. 0.006 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

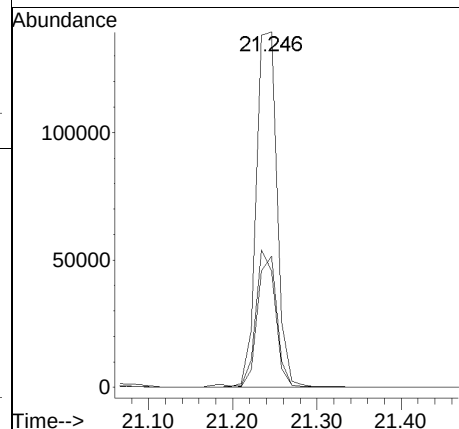
Tgt Ion	Ratio	Lower	Upper
180	100		
145	28.8	23.9	35.9
109	22.2	19.4	29.2





#119
 hexachlorobutadiene
 Concen: 13.33 ppbV
 RT: 21.246 min Scan# 2080
 Delta R.T. 0.006 min
 Lab File: R167938.D
 Acq: 9 Aug 2019 2:34 pm

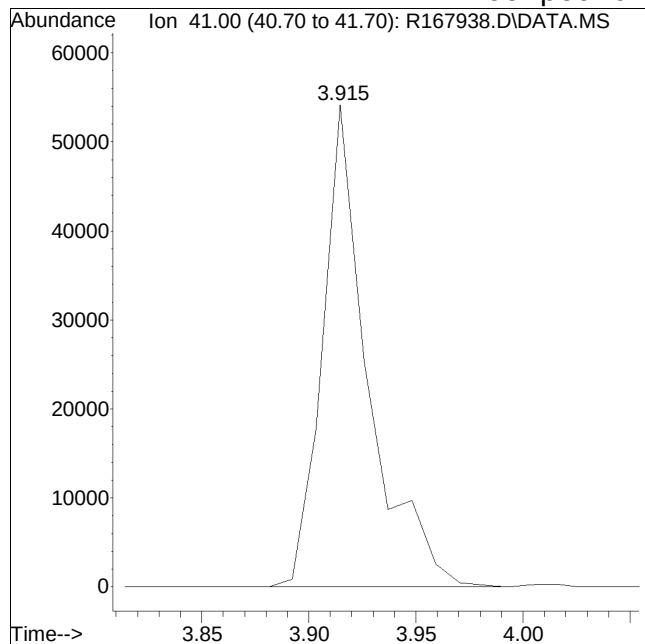
Tgt	Ion:225	Resp:	240003
Ion	Ratio	Lower	Upper
225	100		
260	36.9	27.6	41.4
118	32.8	29.2	43.8



Manual Integration Report

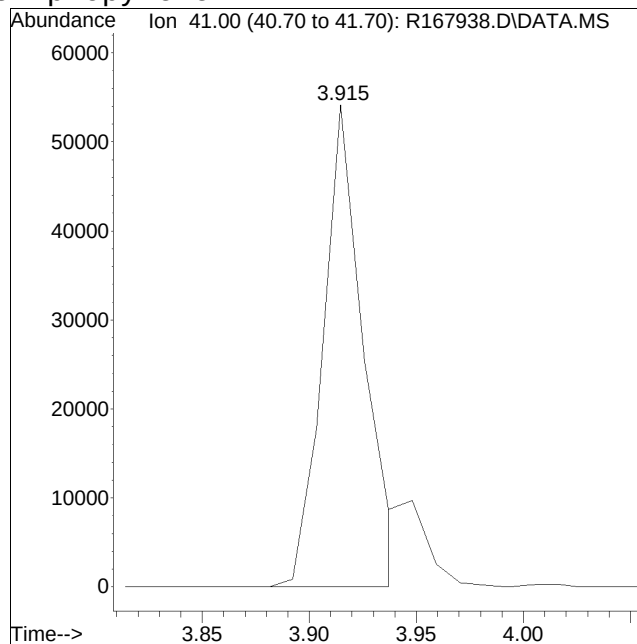
Data Path : 0:\Forensics\Data\AIR1\2010Method : TFS1_190712.M
Data File : R167938.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 2:34 pm Instrument : Air Piano 1
Sample : WG1270780-3,3,250,250 Quant Date : 8/9/2019 2:58 pm

Compound #3: propylene



Original Peak Response = 80426

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 71714 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167945.D
 Acq On : 9 Aug 2019 8:30 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-5,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:40:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.110	49	121732	10.000	ppbV	0.00
Standard Area = 158679			Recovery =		76.72%	
43) 1,4-difluorobenzene	12.348	114	260199	10.000	ppbV	0.00
Standard Area = 366447			Recovery =		71.01%	
67) chlorobenzene-D5	16.801	54	49875	10.000	ppbV	0.00
Standard Area = 68000			Recovery =		73.35%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) dichlorodifluoromethane	4.015	85	4669	0.301	ppbV	95
6) chloromethane	4.238	50	3635	0.619	ppbV	92
7) Freon-114	0.000		0	N.D.	d	
10) 1,3-butadiene	4.730	54	1414	0.276	ppbV	80
13) bromomethane	0.000		0	N.D.	d	
14) chloroethane	0.000		0	N.D.		
15) ethanol	5.590	31	105578	28.424	ppbV	91
17) vinyl bromide	0.000		0	N.D.		
19) acetone	6.214	43	1931954	158.771	ppbV	97
21) trichlorofluoromethane	6.446	101	3679	0.229	ppbV	98
22) isopropyl alcohol	6.632	45	26383	1.887	ppbV	99
27) tertiary butyl alcohol	0.000		0	N.D.	d	
28) methylene chloride	7.470	49	1985	0.217	ppbV	93
29) 3-chloropropene	0.000		0	N.D.	d	
30) carbon disulfide	7.796	76	5952	0.240	ppbV #	31
31) Freon 113	7.815	101	967	0.062	ppbV	93
32) trans-1,2-dichloroethene	0.000		0	N.D.	d	
33) 1,1-dichloroethane	0.000		0	N.D.		
34) MTBE	0.000		0	N.D.	d	
36) 2-butanone	9.414	43	176811	11.382	ppbV	96
38) Ethyl Acetate	0.000		0	N.D.	d	
39) chloroform	0.000		0	N.D.	d	
40) Tetrahydrofuran	10.771	42	36736	3.823	ppbV	100
42) 1,2-dichloroethane	0.000		0	N.D.		
44) hexane	10.164	57	17440	1.069	ppbV #	53
50) benzene	11.941	78	18838	0.725	ppbV	100
53) cyclohexane	12.243	56	5827	0.419	ppbV	94
56) 1,2-dichloropropane	0.000		0	N.D.		
57) bromodichloromethane	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
 Data File : R167945.D
 Acq On : 9 Aug 2019 8:30 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270780-5,3,250,250
 Misc : WG1270780,ICAL15961
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:40:10 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 07:24:01 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809T\R167935.D
 Sub List : T015-NY-7-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	

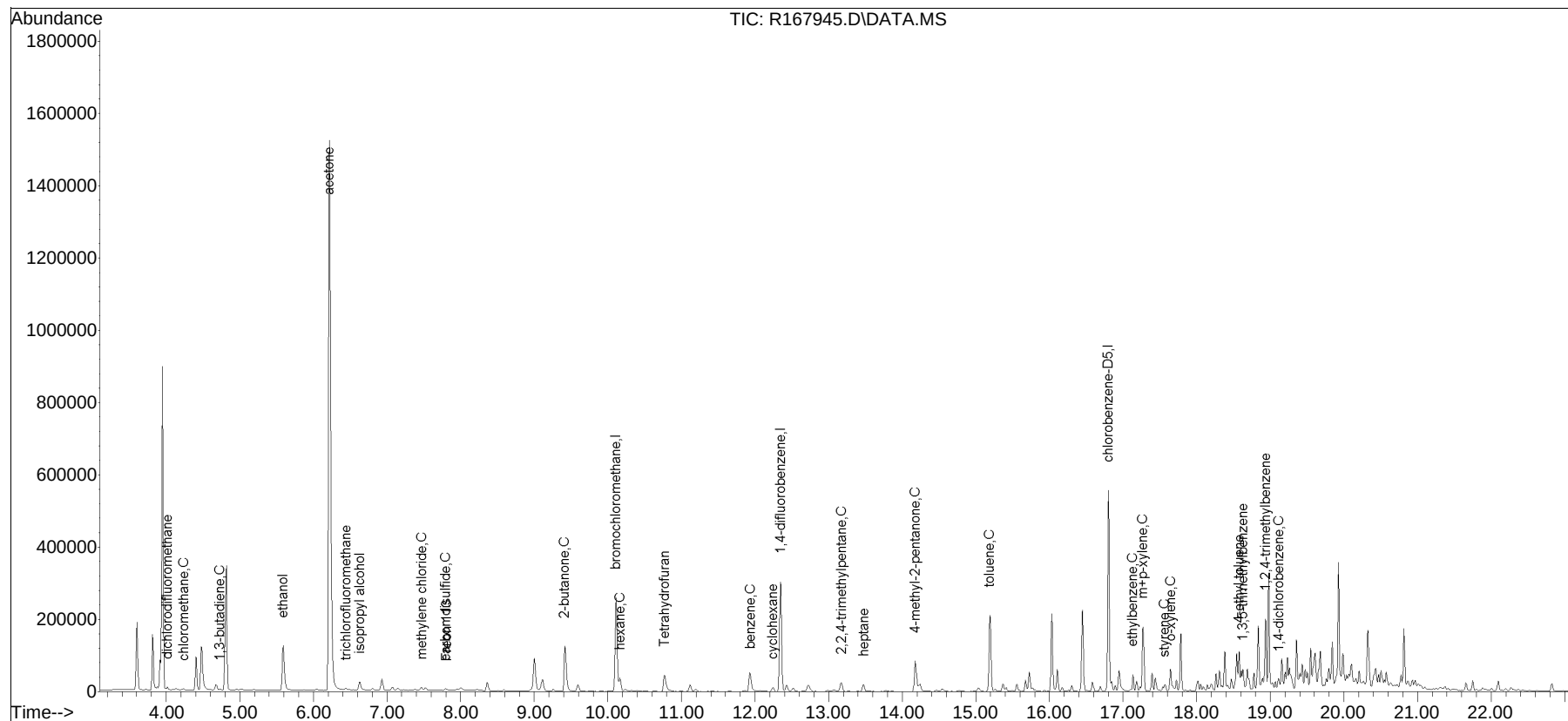
58) 1,4-dioxane	0.000		0	N.D.			
60) 2,2,4-trimethylpentane	13.174	57	23388	0.536	ppbV #		88
62) heptane	13.477	43	10013	0.612	ppbV		93
63) cis-1,3-dichloropropene	0.000		0	N.D.			
64) 4-methyl-2-pentanone	14.174	43	69131	3.381	ppbV		99
65) trans-1,3-dichloropropene	0.000		0	N.D.			
66) 1,1,2-trichloroethane	0.000		0	N.D.			
68) toluene	15.188	91	159327	5.037	ppbV		99
72) 2-hexanone	0.000		0	N.D.	d		
74) dibromochloromethane	0.000		0	N.D.			
75) 1,2-dibromoethane	0.000		0	N.D.			
80) chlorobenzene	0.000		0	N.D.	d		
81) ethylbenzene	17.134	91	26195	0.656	ppbV		97
83) m+p-xylene	17.268	91	66380	2.161	ppbV		99
84) bromoform	0.000		0	N.D.			
85) styrene	17.562	104	4476	0.187	ppbV		94
86) 1,1,2,2-tetrachloroethane	0.000		0	N.D.	d		
87) o-xylene	17.646	91	27162	0.881	ppbV		95
96) 4-ethyl toluene	18.577	105	19333	0.422	ppbV		99
97) 1,3,5-trimethylbenzene	18.627	105	18365	0.506	ppbV		97
99) 1,2,4-trimethylbenzene	18.937	105	68191	1.981	ppbV #		52
101) Benzyl Chloride	0.000		0	N.D.	d		
102) 1,3-dichlorobenzene	0.000		0	N.D.	d		
103) 1,4-dichlorobenzene	19.118	146	2210	0.091	ppbV #		90
107) 1,2-dichlorobenzene	0.000		0	N.D.			
115) 1,2,4-trichlorobenzene	0.000		0	N.D.			
119) hexachlorobutadiene	0.000		0	N.D.			

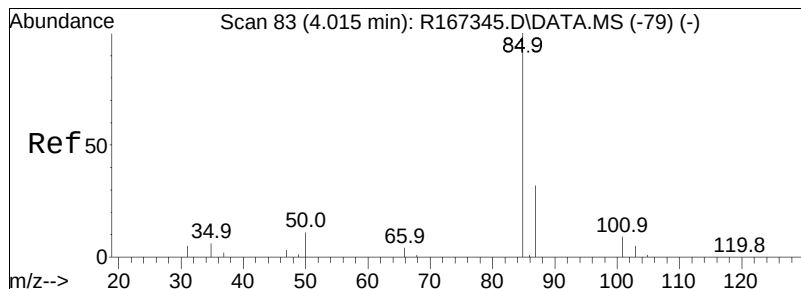
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : T015-NY-7-SIM - .\AIR1\2019\190809T\R167935.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809T\
Data File : R167945.D
Acq On : 9 Aug 2019 8:30 pm
Operator : AIRPIAN01:EW
Sample : WG1270780-5,3,250,250
Misc : WG1270780,ICAL15961
ALS Vial : 4 Sample Multiplier: 1

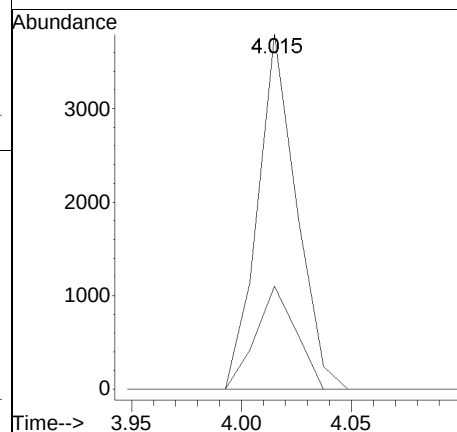
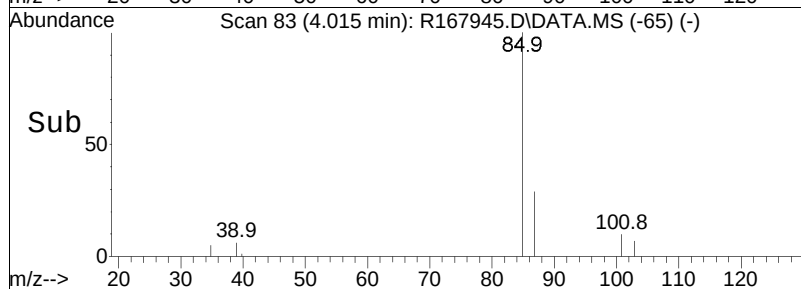
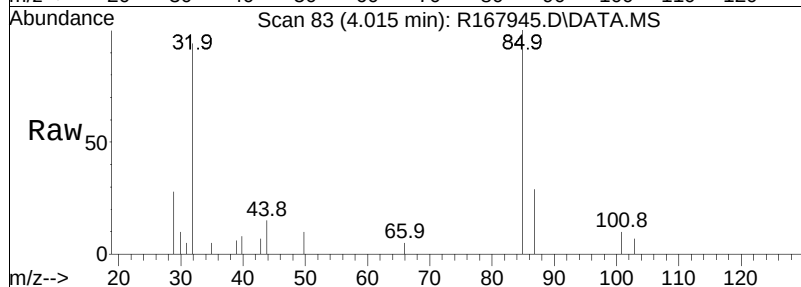
Quant Time: Aug 12 10:40:10 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809T\TFS1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 07:24:01 2019
Response via : Initial Calibration

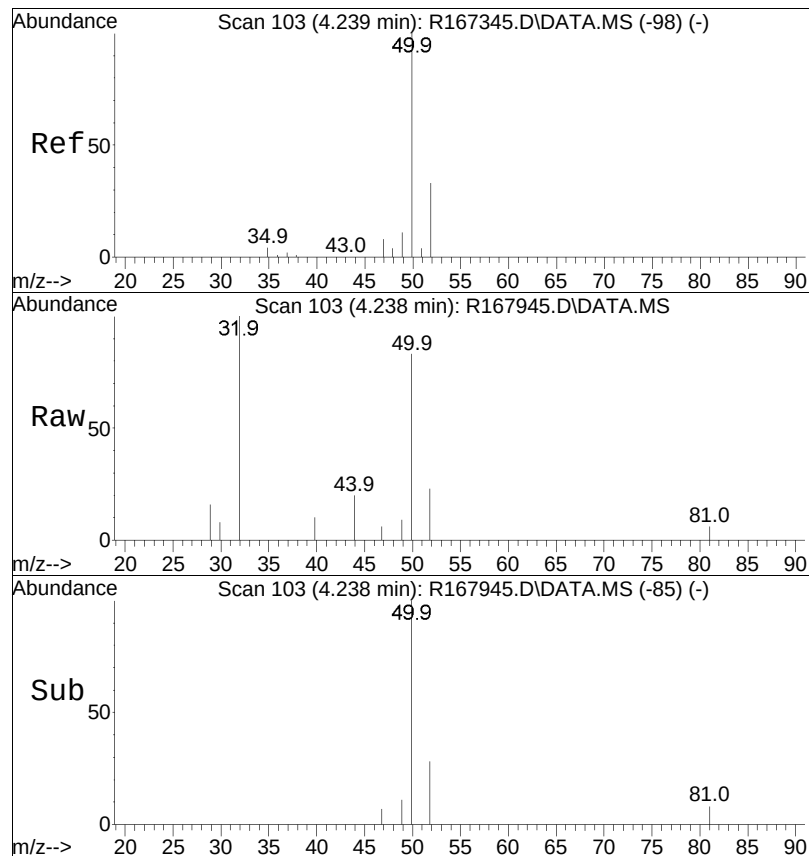




#5
 dichlorodifluoromethane
 Concen: 0.30 ppbV
 RT: 4.015 min Scan# 83
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

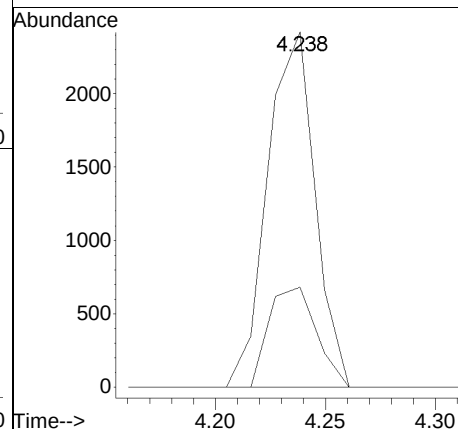
Tgt Ion: 85 Resp: 4669
 Ion Ratio Lower Upper
 85 100
 87 29.1 25.7 38.5

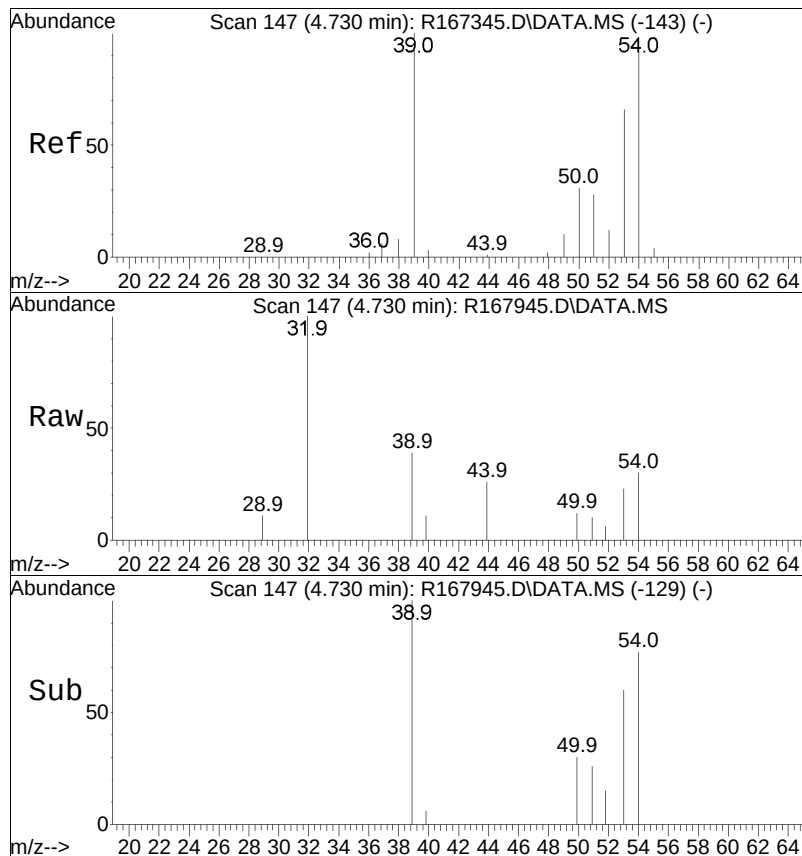




#6
 chloromethane
 Concen: 0.62 ppbV
 RT: 4.238 min Scan# 103
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

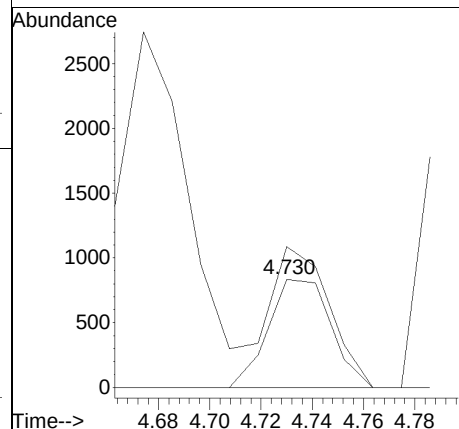
Tgt Ion	Ratio	Lower	Upper
50	100		
52	28.2	26.3	39.5

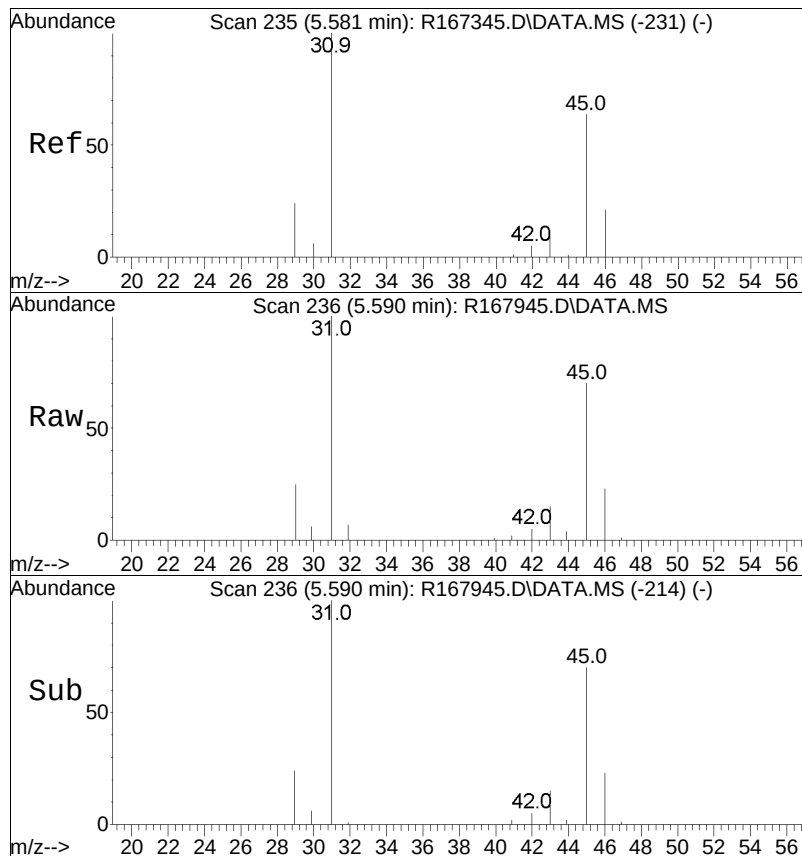




#10
 1,3-butadiene
 Concen: 0.28 ppbV
 RT: 4.730 min Scan# 147
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

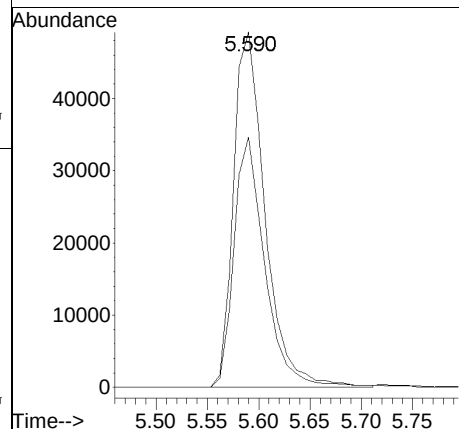
Tgt Ion	Ratio	Lower	Upper
54	100		
39	130.3	87.4	131.0

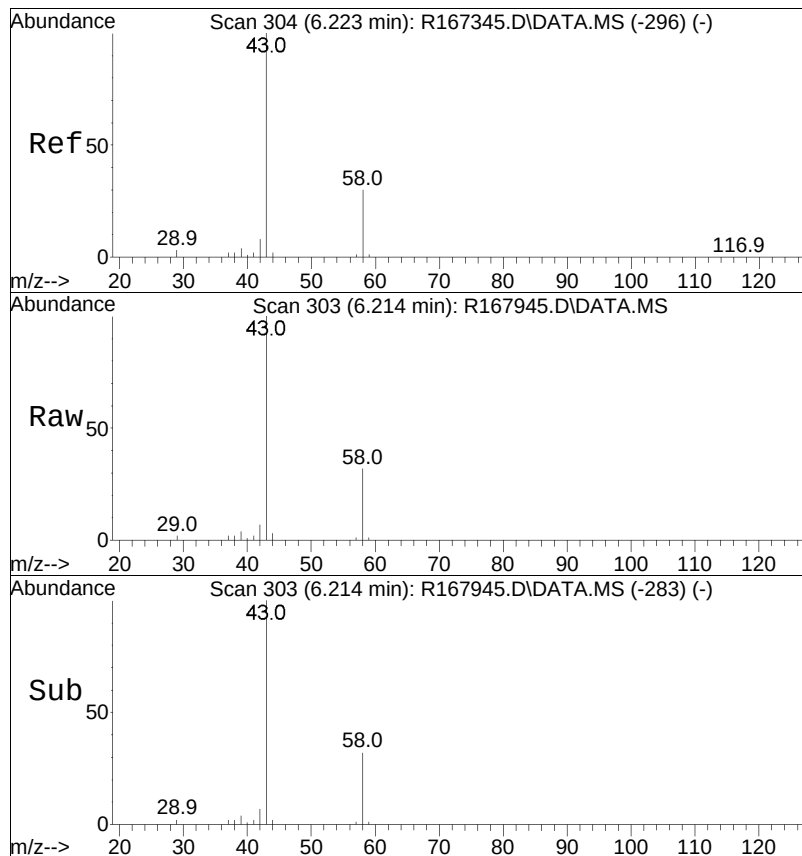




#15
 ethanol
 Concen: 28.42 ppbV
 RT: 5.590 min Scan# 236
 Delta R.T. 0.009 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

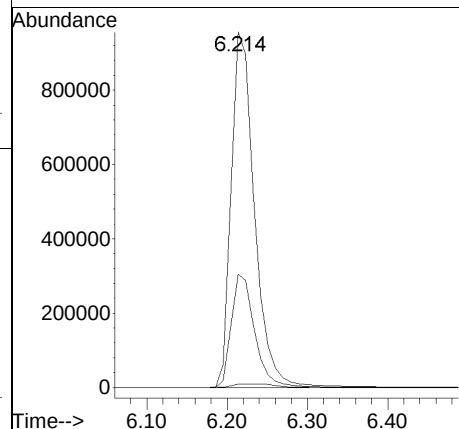
Tgt Ion:	31	45	Ratio	Lower	Upper
Ion	31	45	100	70.4	50.8 76.2

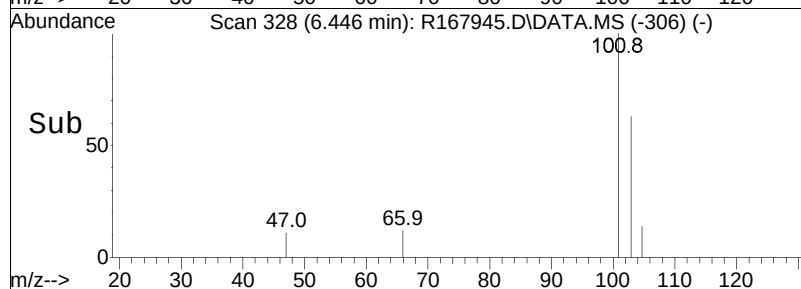
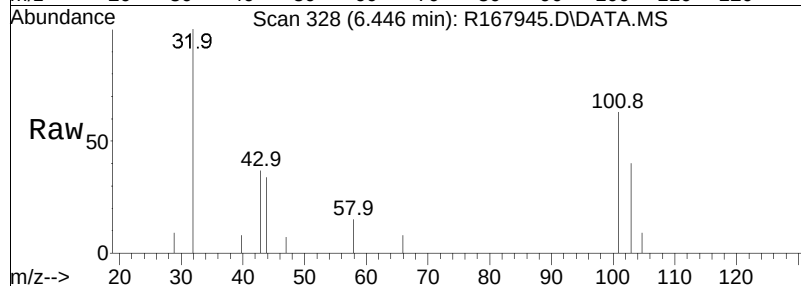
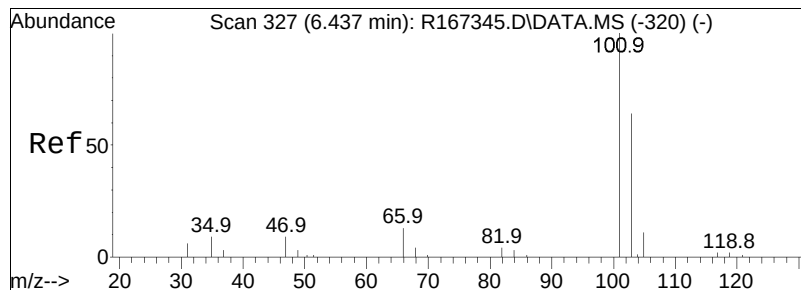




#19
 acetone
 Concen: 158.77 ppbV
 RT: 6.214 min Scan# 303
 Delta R.T. -0.009 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

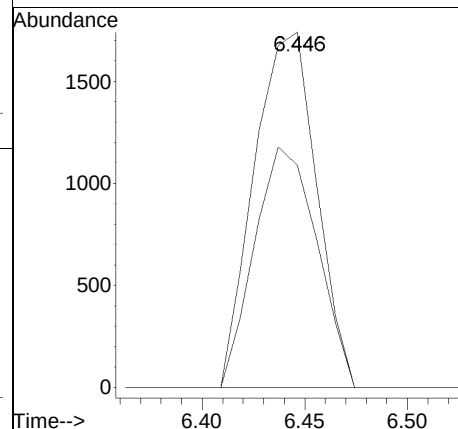
Tgt Ion:	43	Resp:	1931954
Ion	Ratio	Lower	Upper
43	100		
58	31.9	24.2	36.2
57	0.9	0.8	1.2

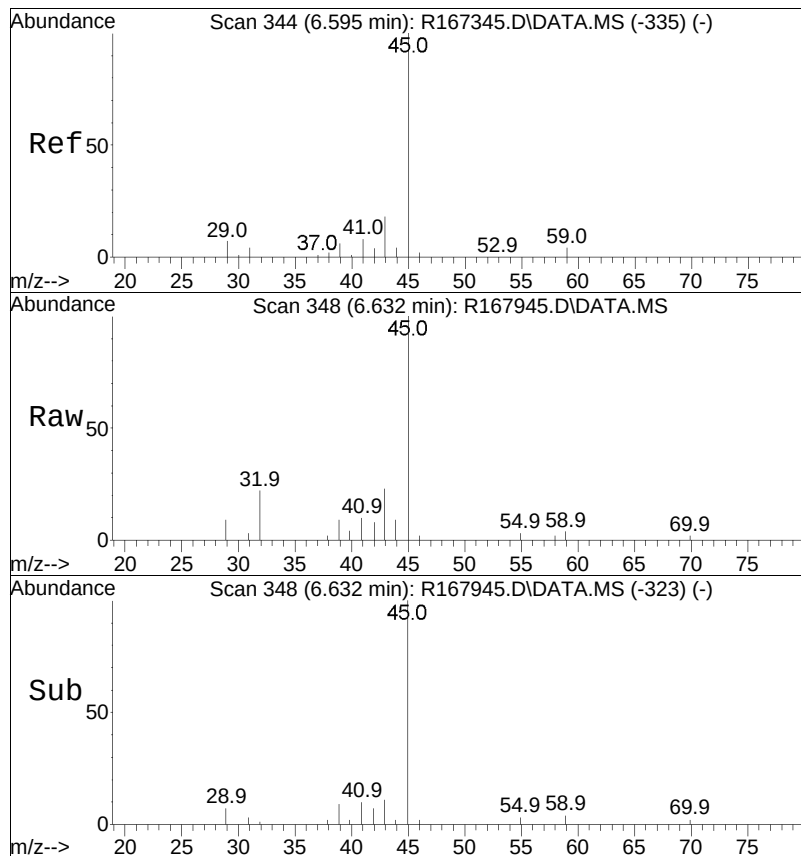




#21
trichlorofluoromethane
Concen: 0.23 ppbV
RT: 6.446 min Scan# 328
Delta R.T. 0.009 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

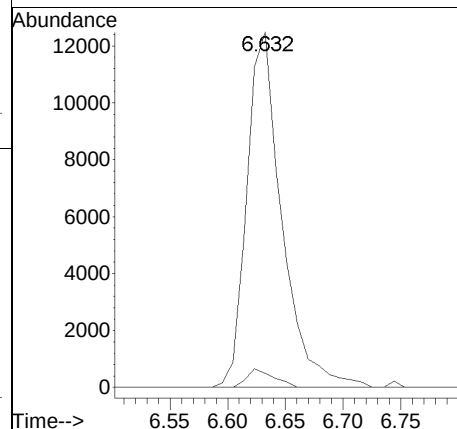
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	62.6	51.1	76.7	

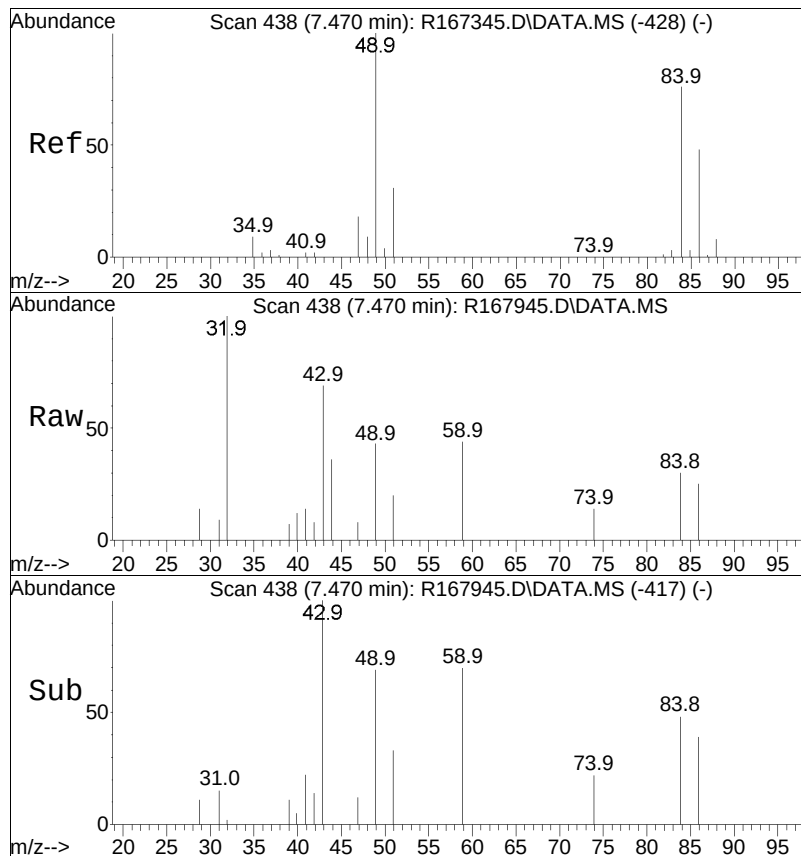




#22
 isopropyl alcohol
 Concen: 1.89 ppbV
 RT: 6.632 min Scan# 348
 Delta R.T. 0.037 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

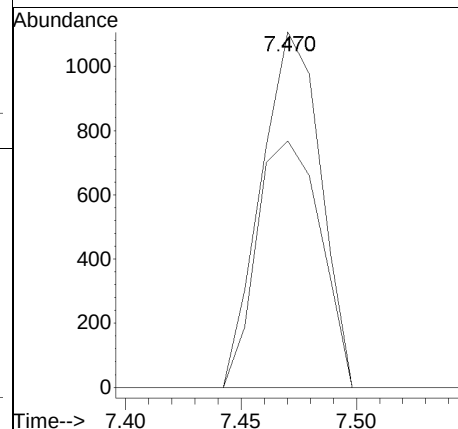
Tgt Ion	Ratio	Lower	Upper
45	100		
59	4.0	3.4	5.0

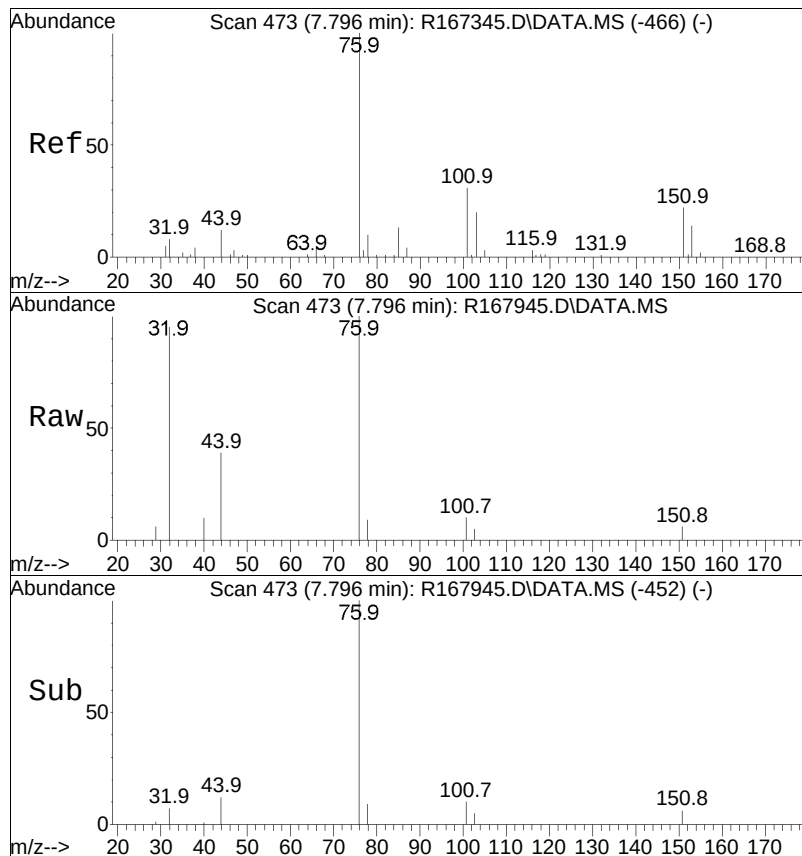




#28
 methylene chloride
 Concen: 0.22 ppbV
 RT: 7.470 min Scan# 438
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

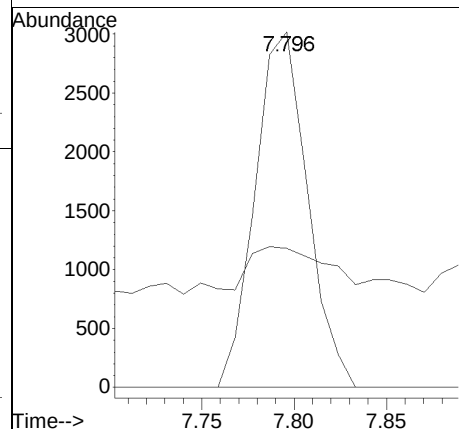
Tgt Ion:	49	84	Ratio	100	69.4	Resp:	1985	Lower	Upper
								60.6	91.0

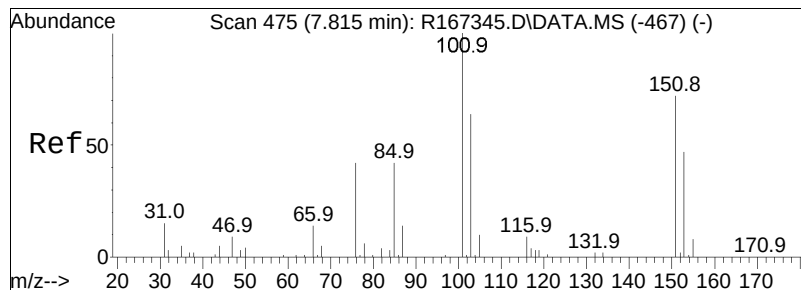




#30
 carbon disulfide
 Concen: 0.24 ppbV
 RT: 7.796 min Scan# 473
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

Tgt Ion	Ratio	Lower	Upper
76	100		
44	39.1	9.8	14.8#





#31

Freon 113

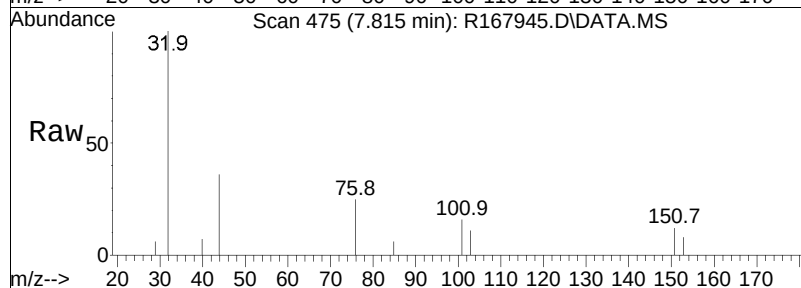
Concen: 0.06 ppbV

RT: 7.815 min Scan# 475

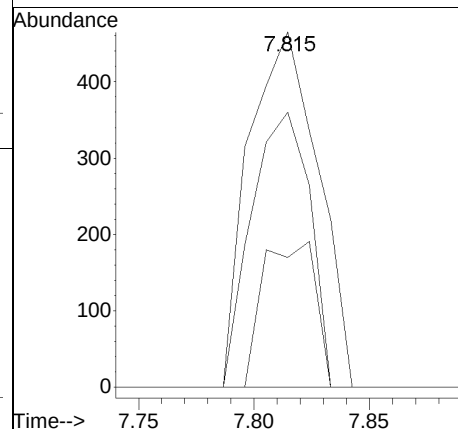
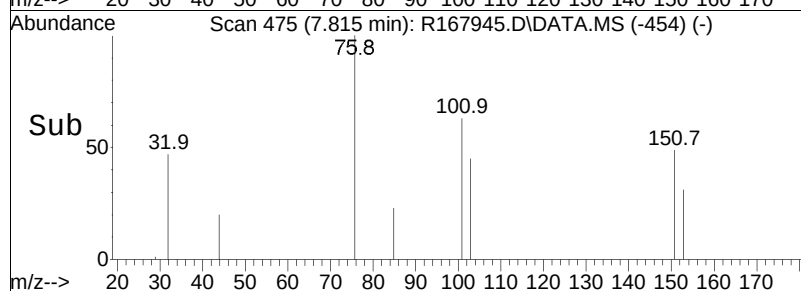
Delta R.T. -0.000 min

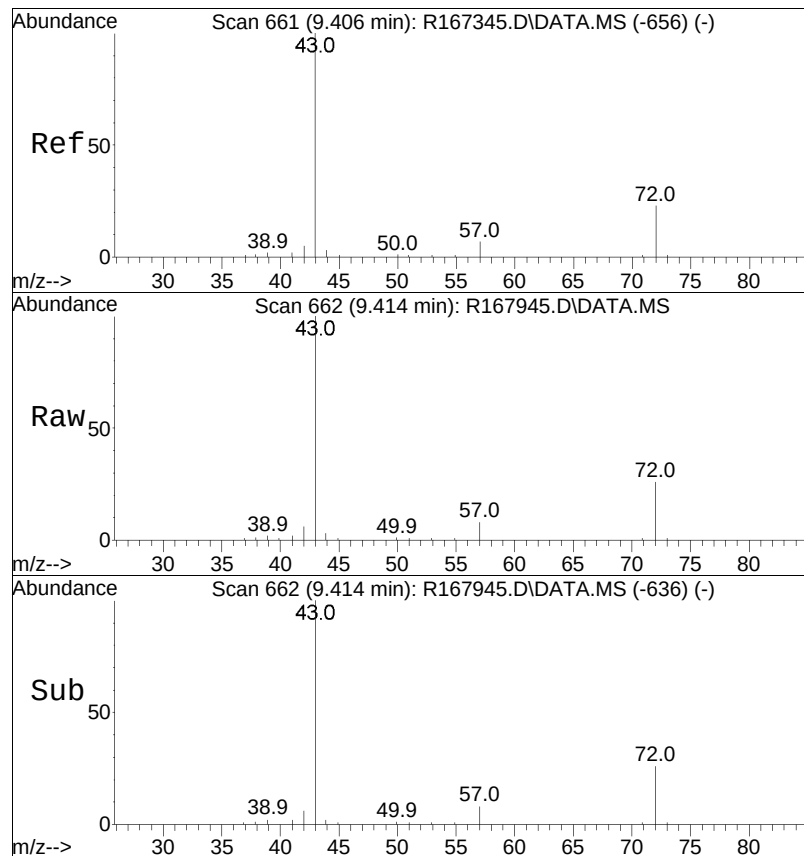
Lab File: R167945.D

Acq: 9 Aug 2019 8:30 pm



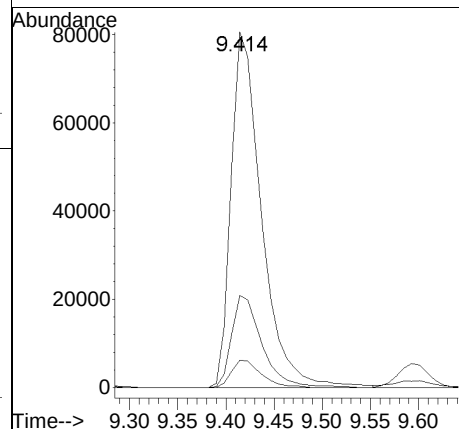
Tgt Ion:	101	Resp:	967
Ion Ratio	Lower	Upper	
101	100		
85	36.6	33.6	50.4
151	77.4	57.6	86.4

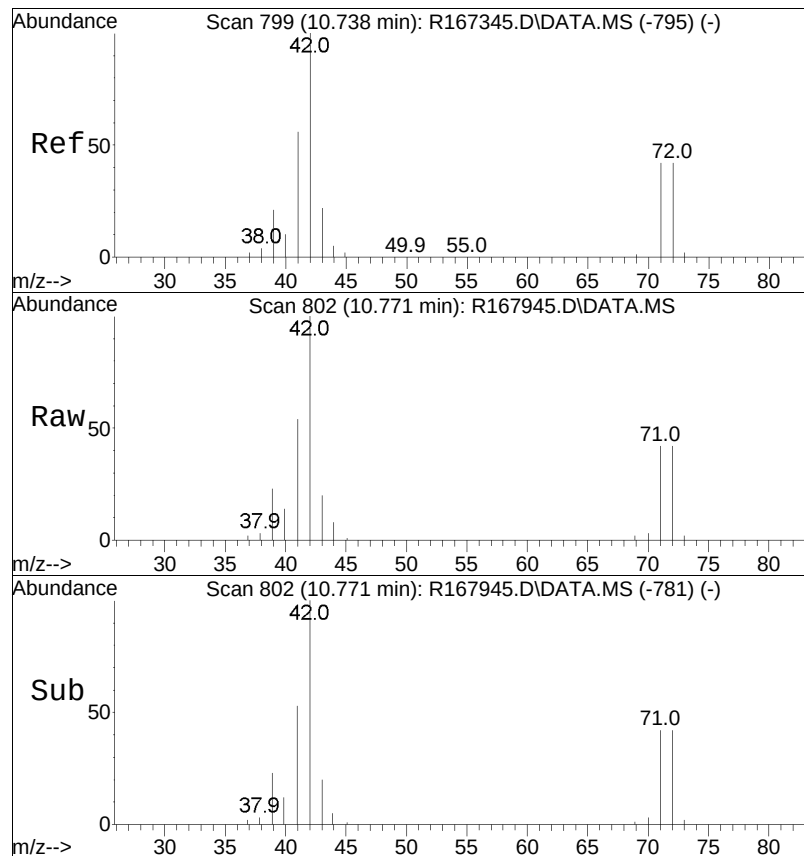




#36
 2-butanone
 Concen: 11.38 ppbV
 RT: 9.414 min Scan# 662
 Delta R.T. 0.008 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

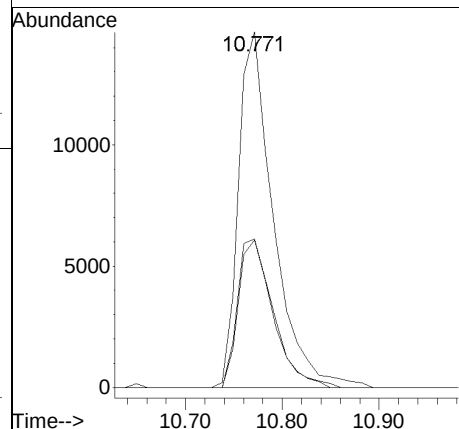
Tgt Ion	Ratio	Lower	Upper
43	100		
72	25.9	18.7	28.1
57	7.7	5.6	8.4

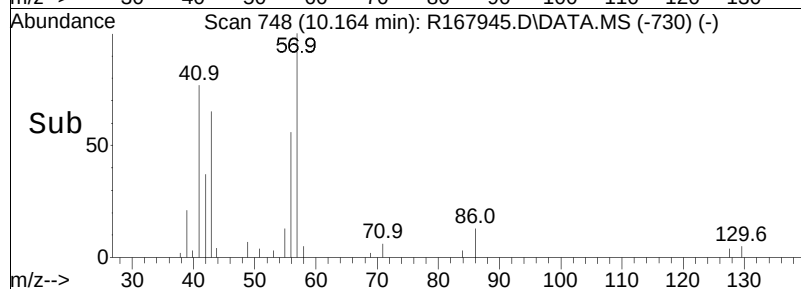
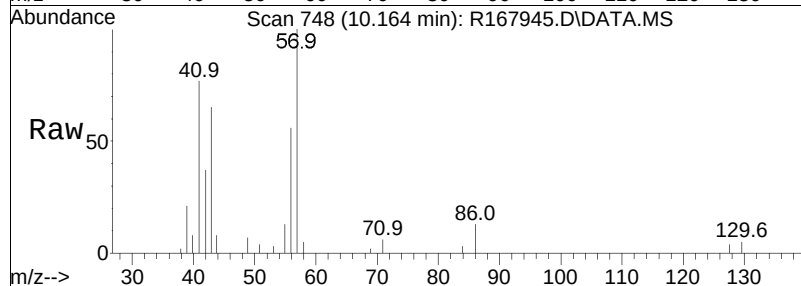
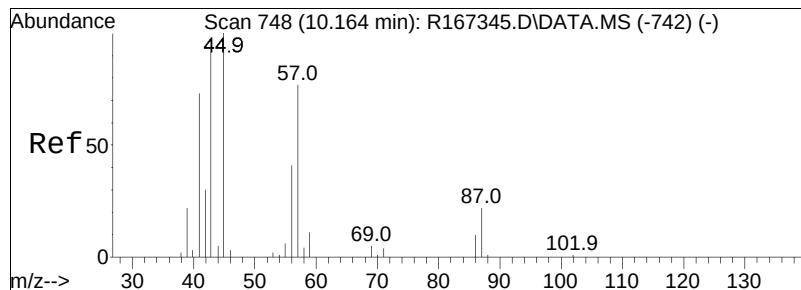




#40
Tetrahydrofuran
Concen: 3.82 ppbV
RT: 10.771 min Scan# 802
Delta R.T. 0.033 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

Tgt Ion:	42	Resp:	36736
Ion Ratio	Lower	Upper	
42	100		
71	41.5	33.5	50.3
72	41.8	33.3	49.9





#44

hexane

Concen: 1.07 ppbV

RT: 10.164 min Scan# 748

Delta R.T. -0.000 min

Lab File: R167945.D

Acq: 9 Aug 2019 8:30 pm

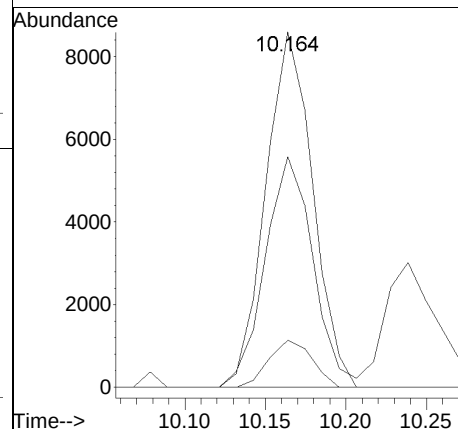
Tgt Ion: 57 Resp: 17440

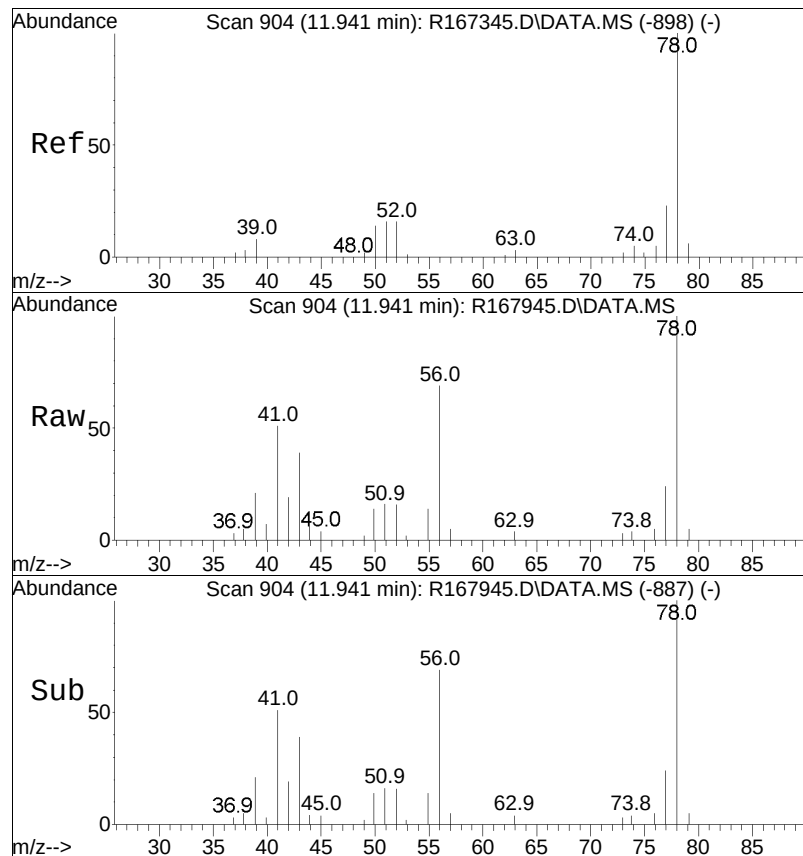
Ion Ratio Lower Upper

57 100

43 64.9 98.0 147.0#

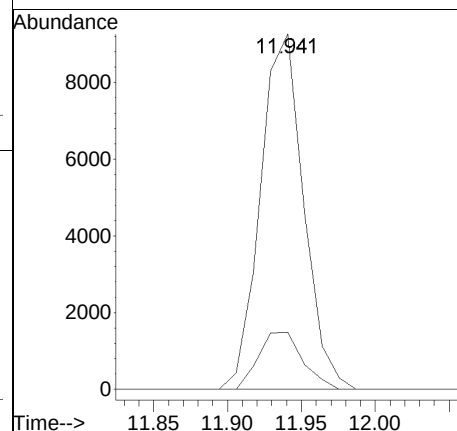
86 13.3 10.0 15.0

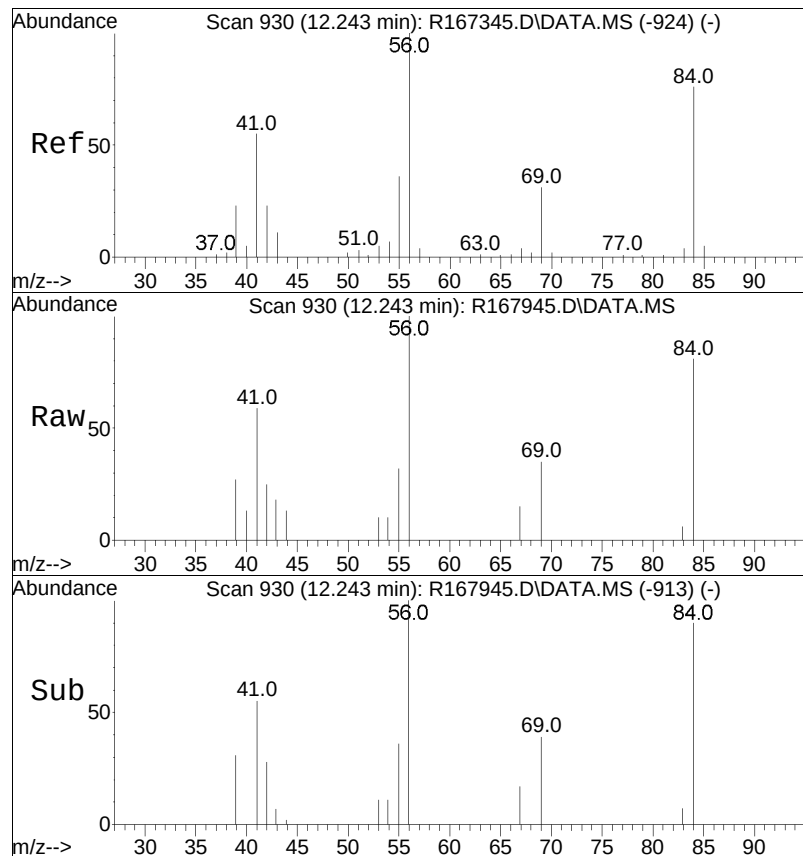




#50
benzene
Concen: 0.72 ppbV
RT: 11.941 min Scan# 904
Delta R.T. -0.000 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

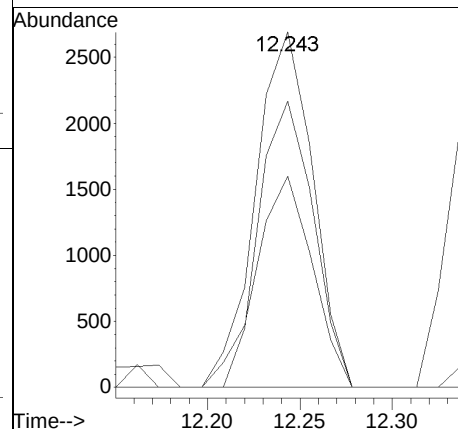
Tgt Ion	Ratio	Lower	Upper
78	100		
52	16.1	13.0	19.4

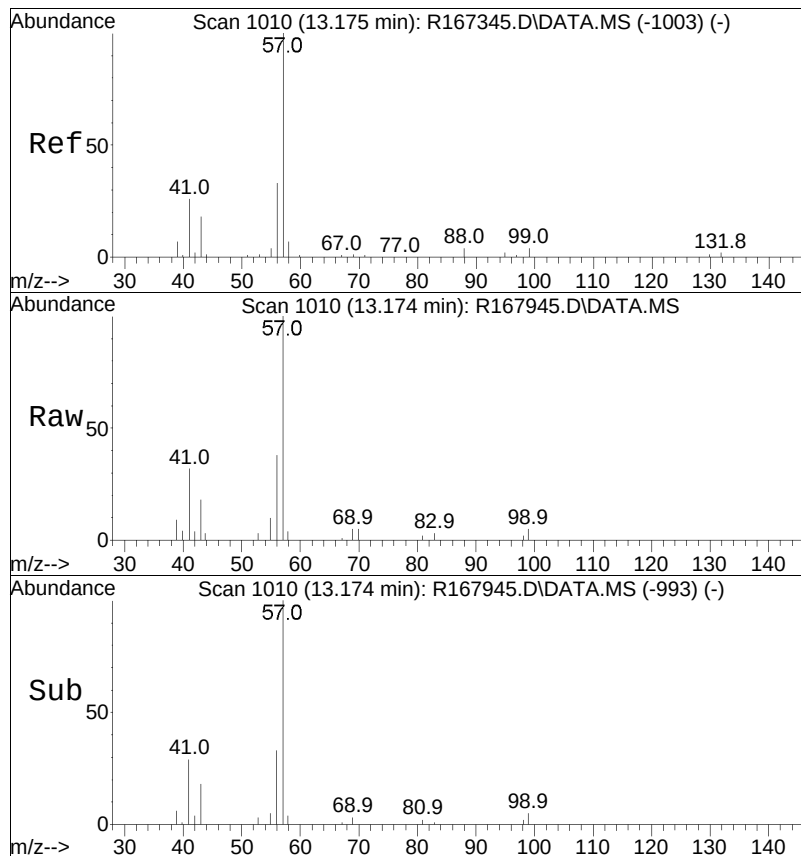




#53
cyclohexane
Concen: 0.42 ppbV
RT: 12.243 min Scan# 930
Delta R.T. -0.000 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

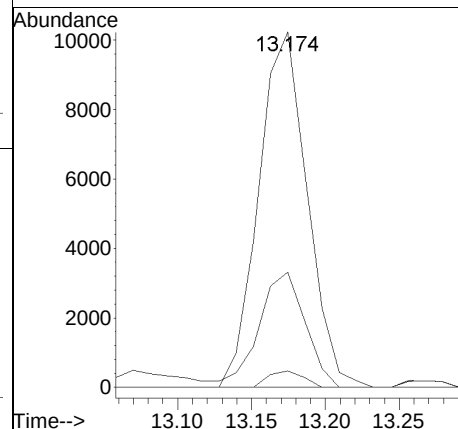
Tgt Ion	Ratio	Lower	Upper
56	100		
84	80.5	61.0	91.6
41	59.5	43.8	65.6

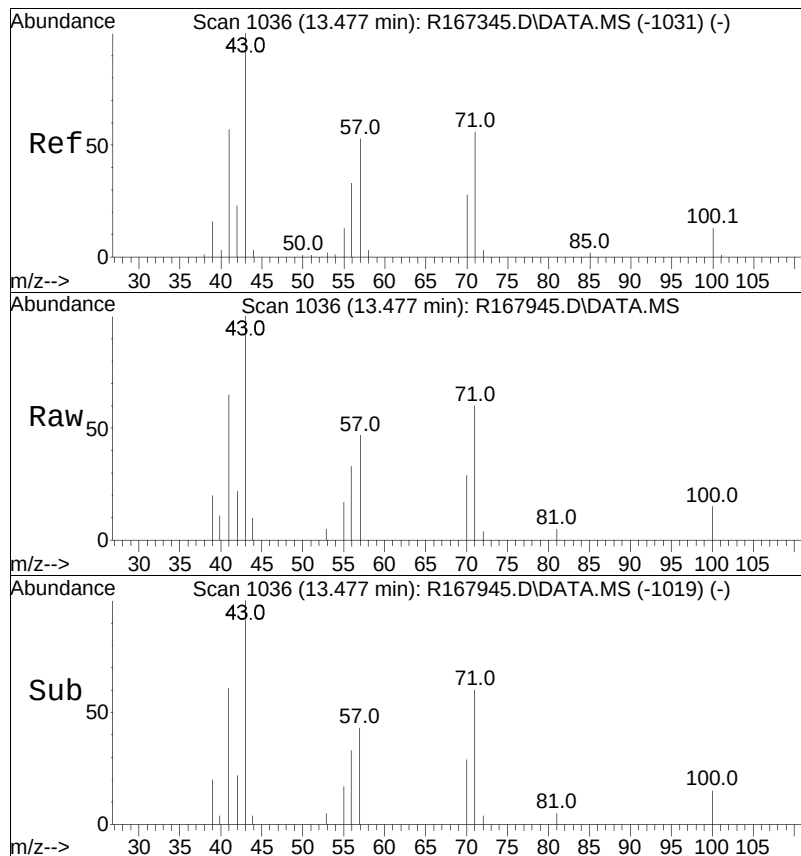




#60
 2,2,4-trimethylpentane
 Concen: 0.54 ppbV
 RT: 13.174 min Scan# 1010
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

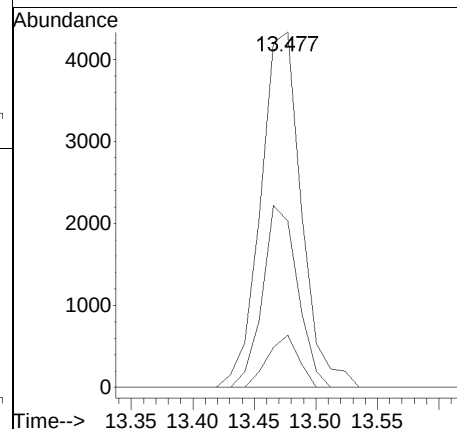
Tgt Ion	Ratio	Lower	Upper
57	100		
99	4.7	3.4	5.2
41	32.4	20.5	30.7#

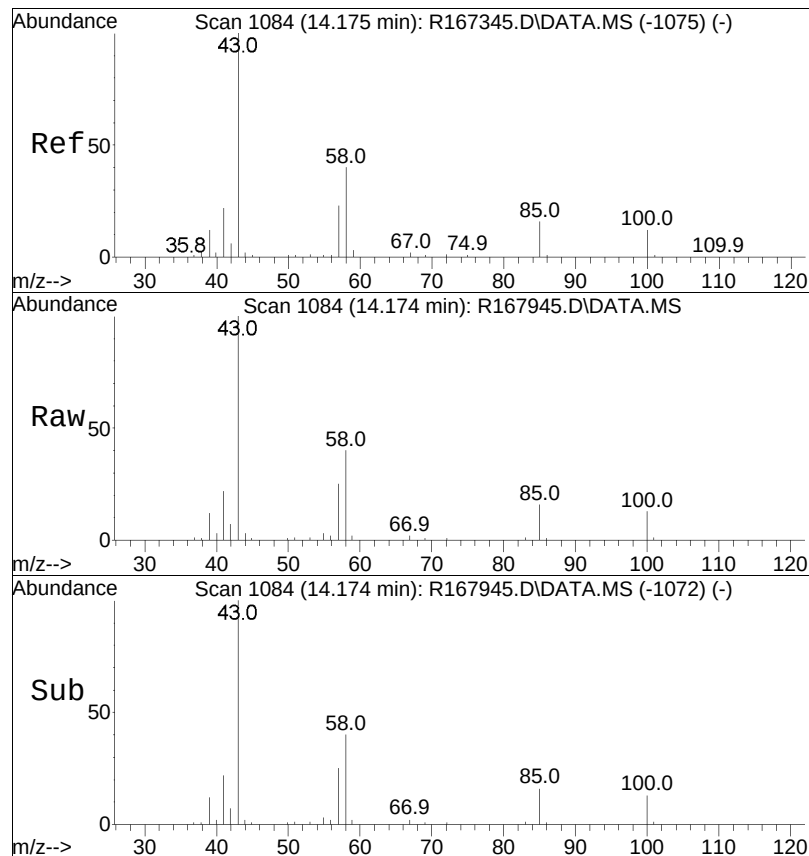




#62
heptane
Concen: 0.61 ppbV
RT: 13.477 min Scan# 1036
Delta R.T. -0.000 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

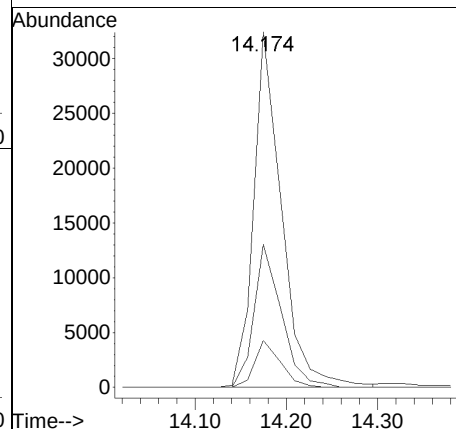
Tgt	Ion	Ratio	Lower	Upper
43	100			
57	46.9	42.1	63.1	
100	14.7	10.6	15.8	

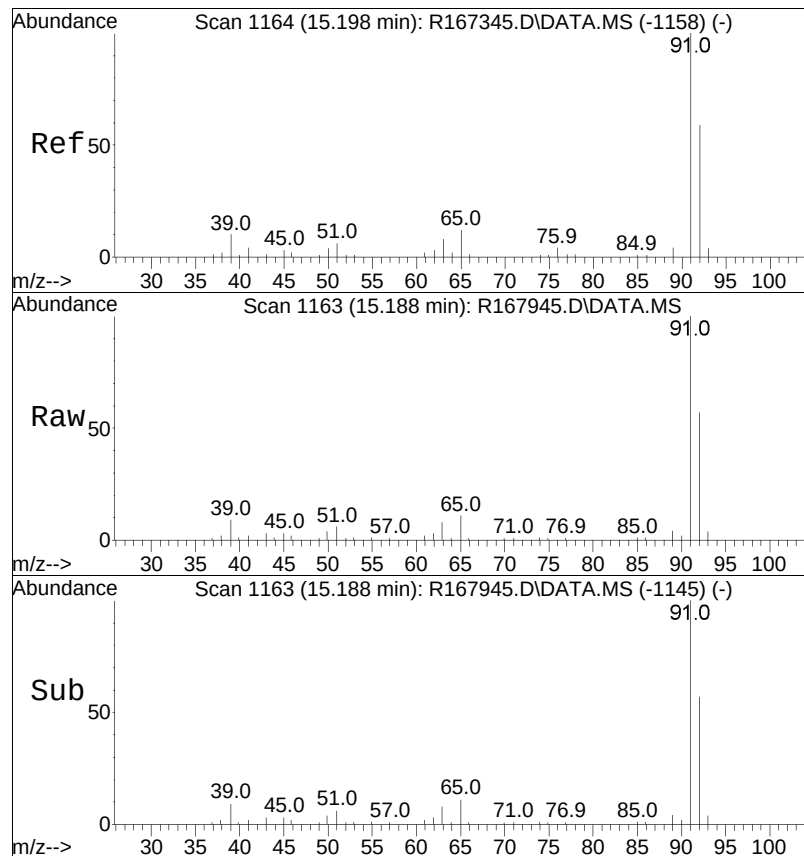




#64
 4-methyl-2-pentanone
 Concen: 3.38 ppbV
 RT: 14.174 min Scan# 1084
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

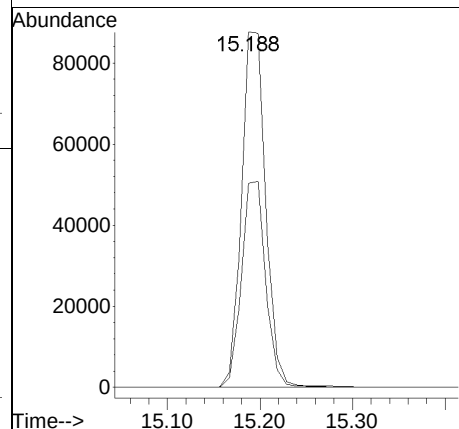
Tgt Ion	Ratio	Lower	Upper
43	100		
58	40.3	32.2	48.4
100	13.2	9.8	14.6

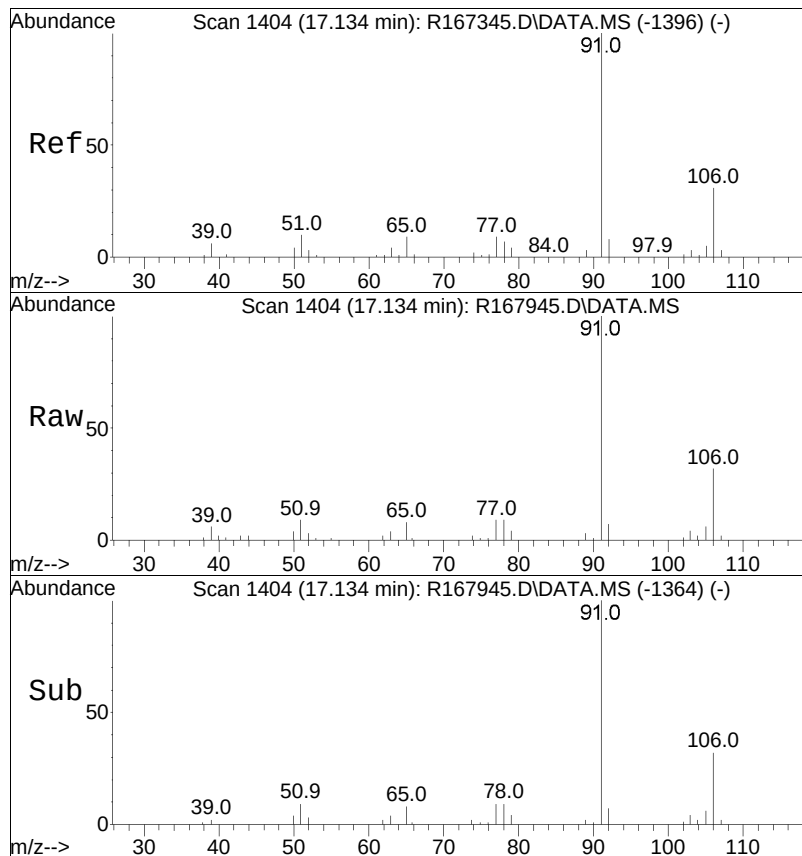




#68
toluene
Concen: 5.04 ppbV
RT: 15.188 min Scan# 1163
Delta R.T. -0.010 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

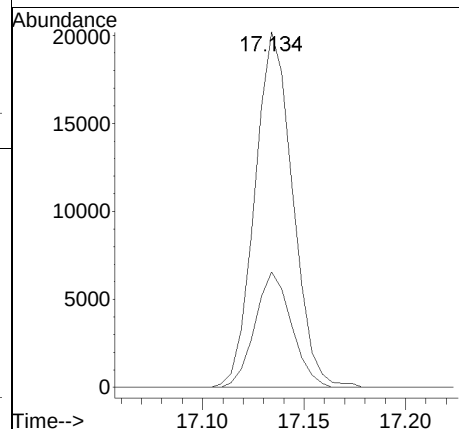
Tgt Ion:	91	Resp:	159327
Ion Ratio	Lower	Upper	
91	100		
92	57.4	46.8	70.2

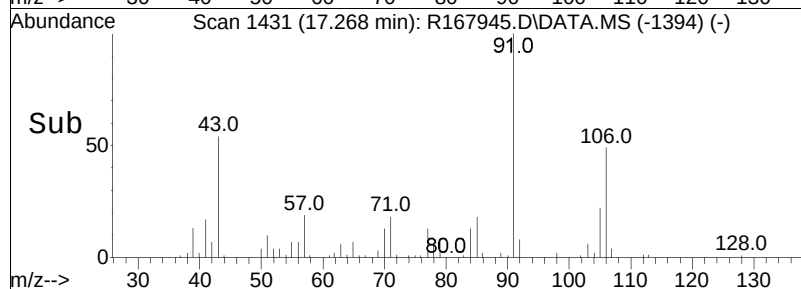
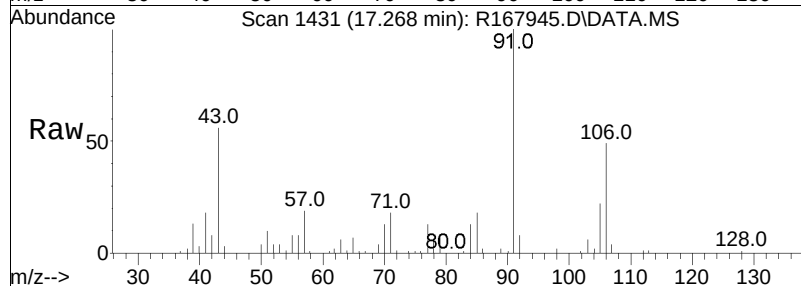
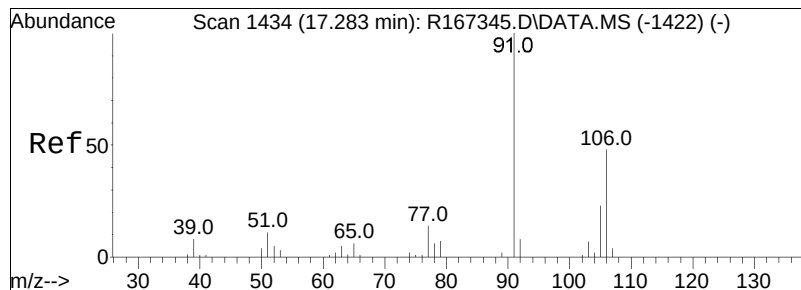




#81
ethylbenzene
Concen: 0.66 ppbV
RT: 17.134 min Scan# 1404
Delta R.T. -0.000 min
Lab File: R167945.D
Acq: 9 Aug 2019 8:30 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	32.5	24.6	37.0





#83

m+p-xylene

Concen: 2.16 ppbV

RT: 17.268 min Scan# 1431

Delta R.T. -0.015 min

Lab File: R167945.D

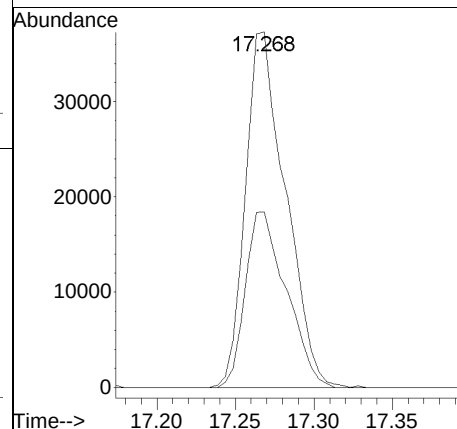
Acq: 9 Aug 2019 8:30 pm

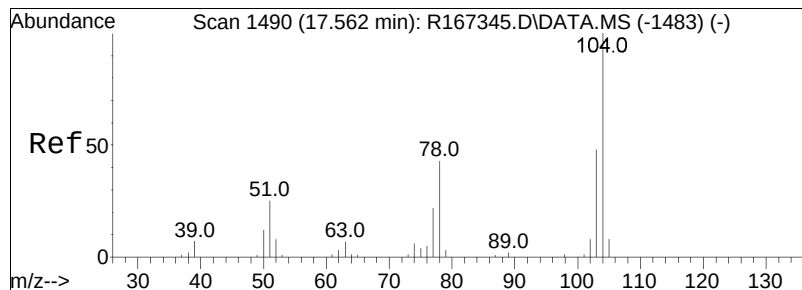
Tgt Ion: 91 Resp: 66380

Ion Ratio Lower Upper

91 100

106 49.4 38.7 58.1





#85

styrene

Concen: 0.19 ppbV

RT: 17.562 min Scan# 1490

Delta R.T. -0.000 min

Lab File: R167945.D

Acq: 9 Aug 2019 8:30 pm

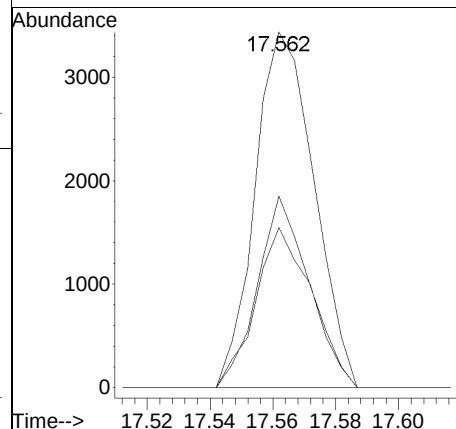
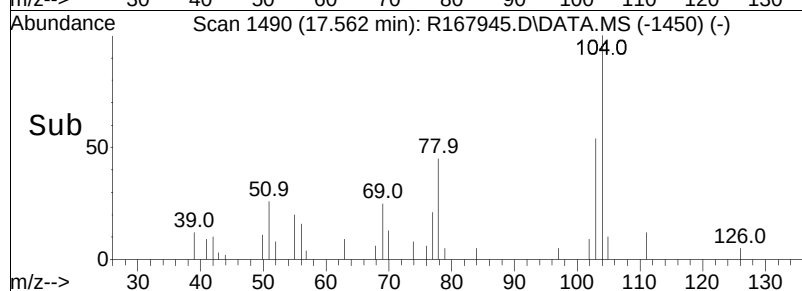
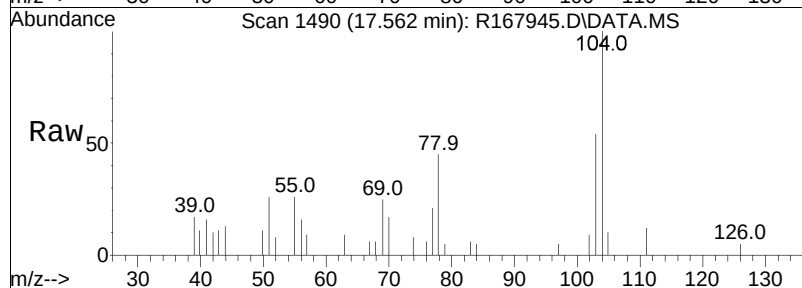
Tgt Ion:104 Resp: 4476

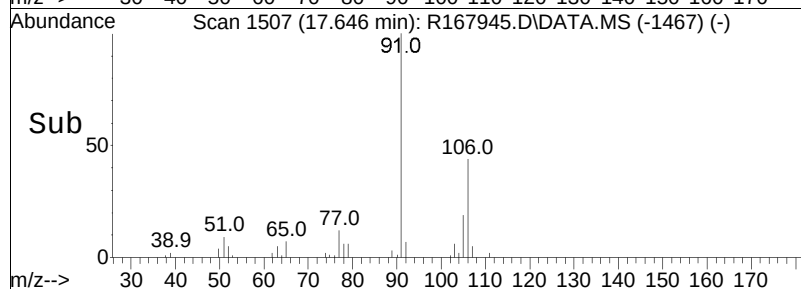
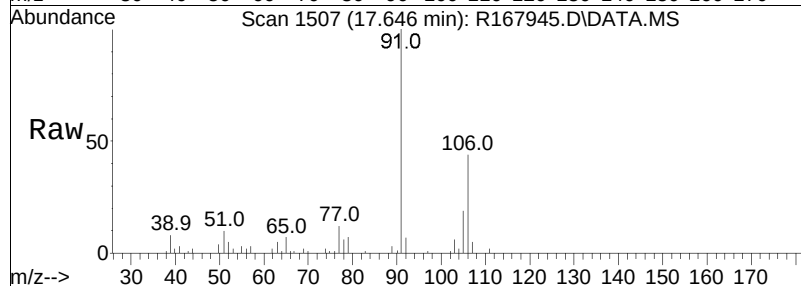
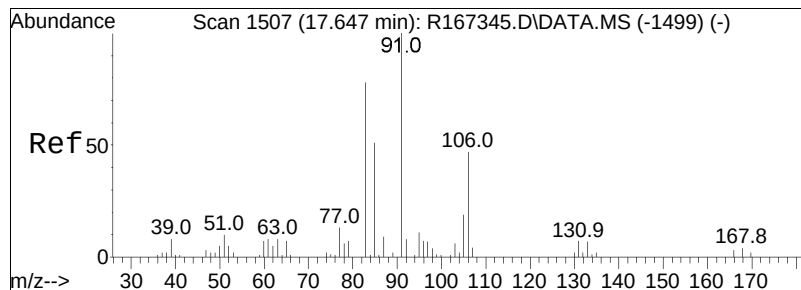
Ion Ratio Lower Upper

104 100

103 53.8 38.3 57.5

78 45.0 34.5 51.7





#87

o-xylene

Concen: 0.88 ppbV

RT: 17.646 min Scan# 1507

Delta R.T. -0.000 min

Lab File: R167945.D

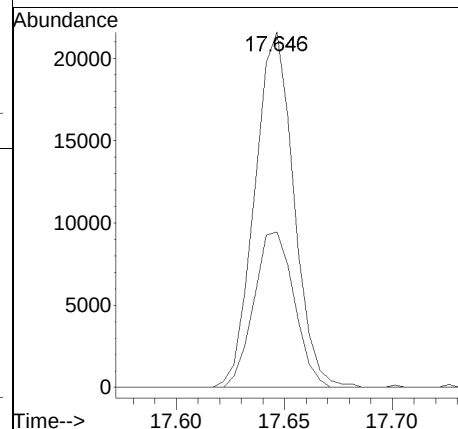
Acq: 9 Aug 2019 8:30 pm

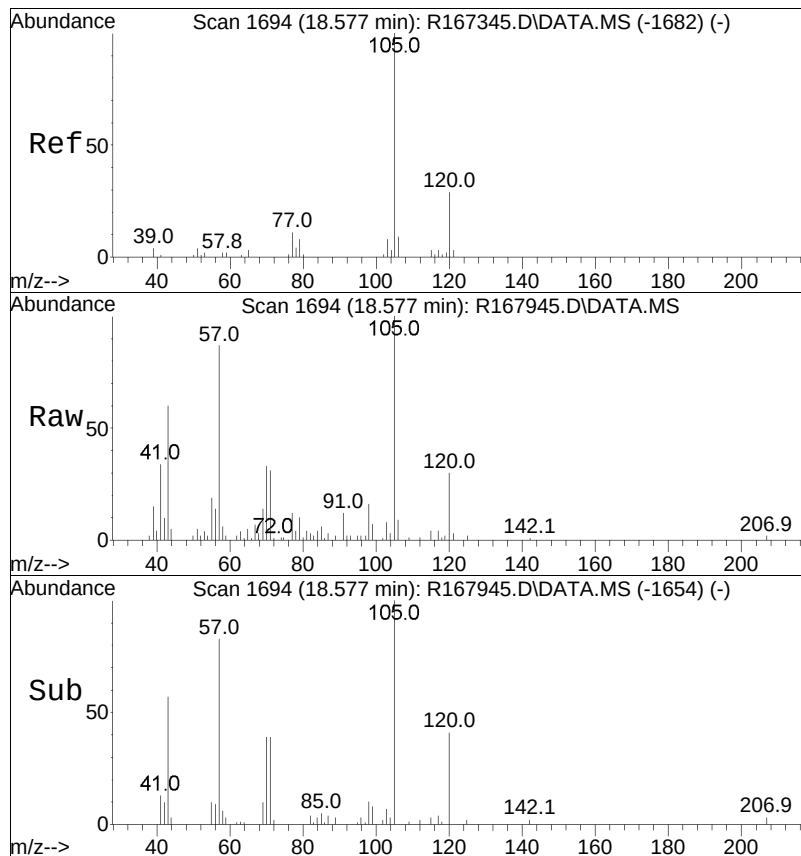
Tgt Ion: 91 Resp: 27162

Ion Ratio Lower Upper

91 100

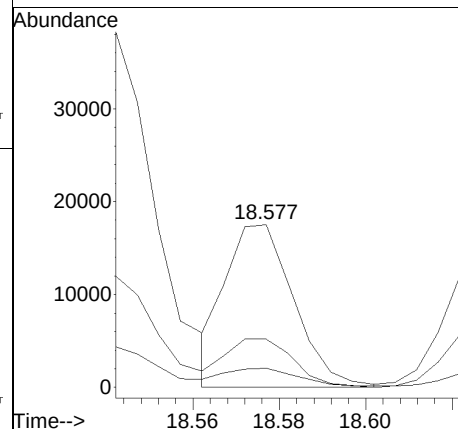
106 43.7 37.9 56.9

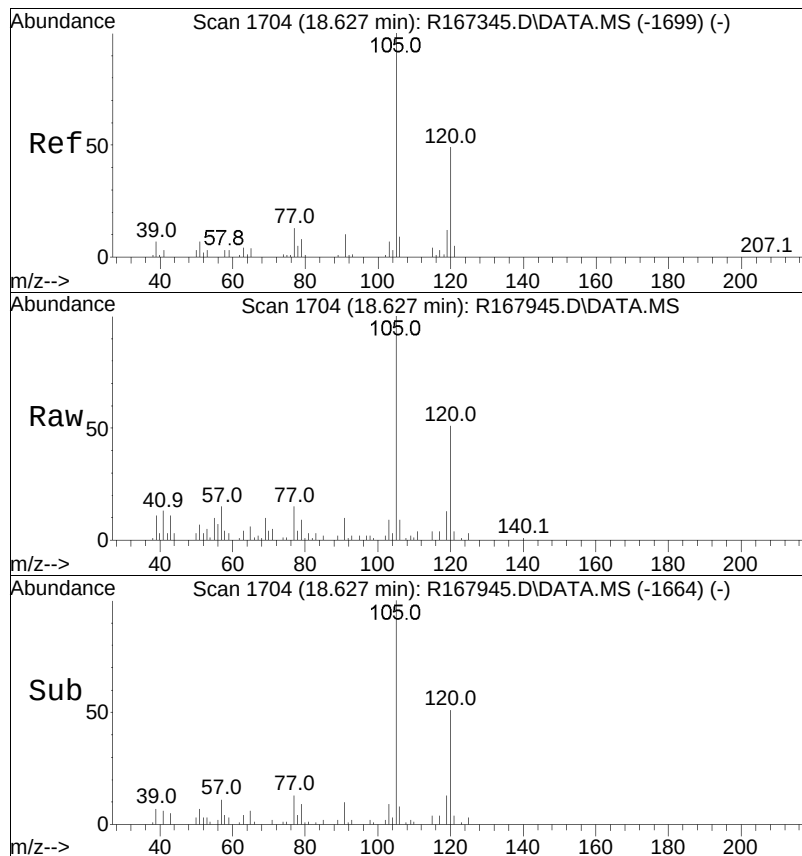




#96
 4-ethyl toluene
 Concen: 0.42 ppbV
 RT: 18.577 min Scan# 1694
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

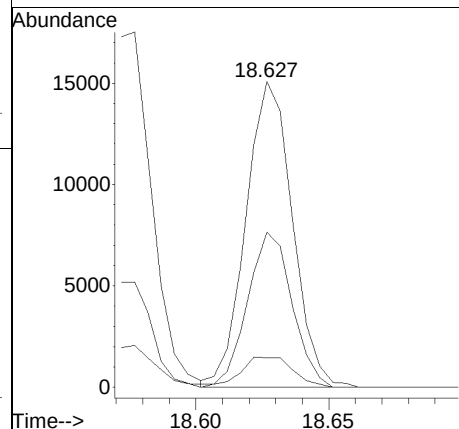
Tgt Ion	Ratio	Lower	Upper
105	100		
120	29.7	23.5	35.3
91	11.8	8.6	12.8

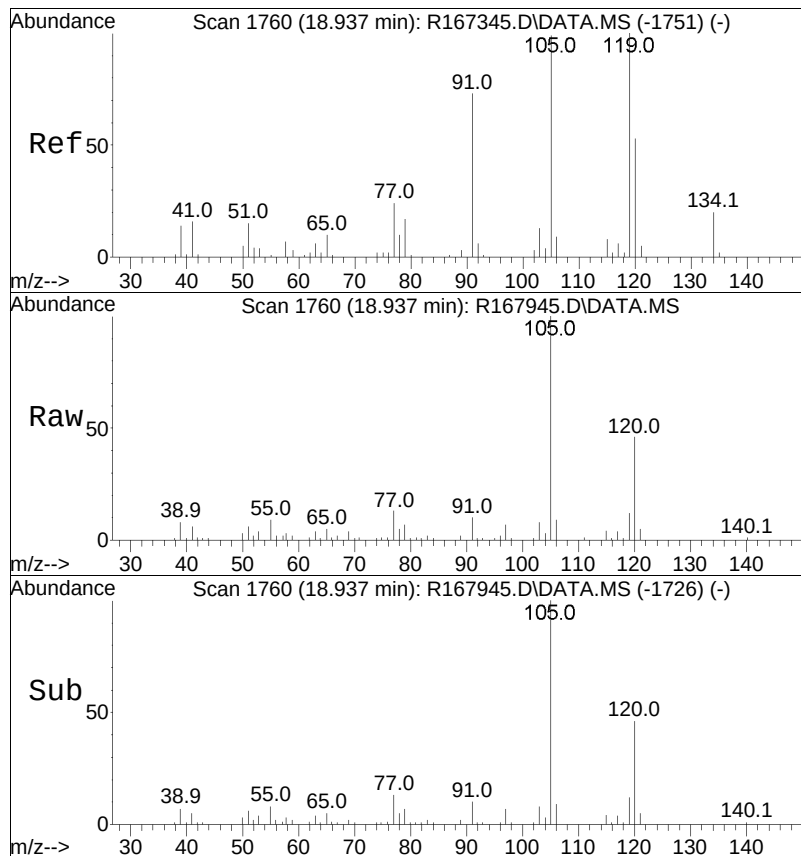




#97
 1,3,5-trimethylbenzene
 Concen: 0.51 ppbV
 RT: 18.627 min Scan# 1704
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

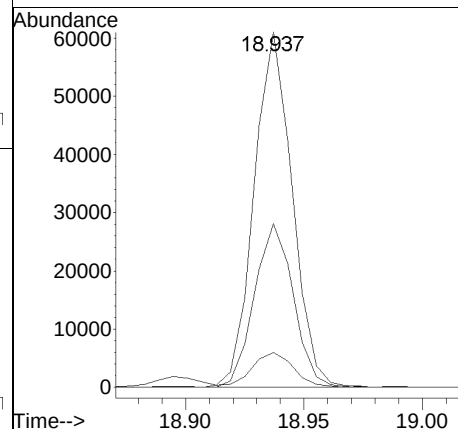
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	18365		
120	50.7		38.8	58.2
91	9.8		8.1	12.1

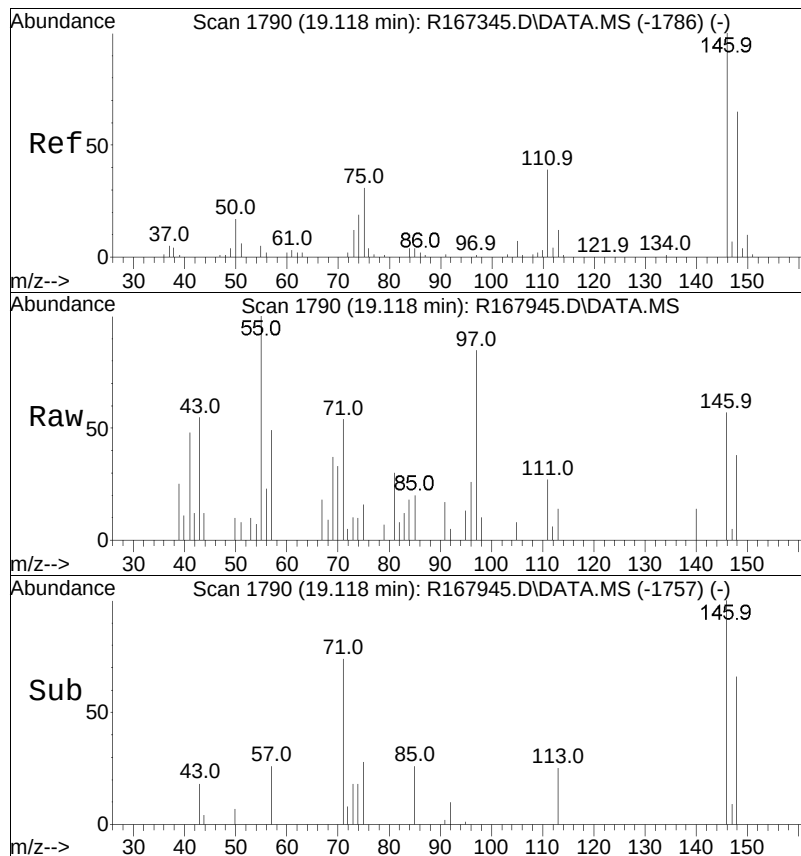




#99
 1,2,4-trimethylbenzene
 Concen: 1.98 ppbV
 RT: 18.937 min Scan# 1760
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

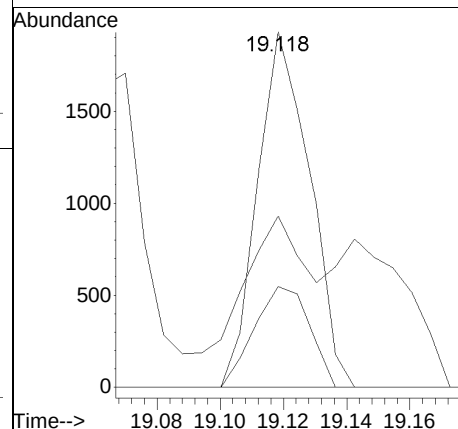
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	68191		
120	46.1		42.6	63.8
91	9.8		58.7	88.1#





#103
 1,4-dichlorobenzene
 Concen: 0.09 ppbV
 RT: 19.118 min Scan# 1790
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

Tgt Ion	Ratio	Lower	Upper
146	100		
111	48.2	31.2	46.8#
75	28.4	24.4	36.6



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TFS1_190712.M
Data File	: R167945.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/9/2019 8:30 pm	Instrument	: Air Piano 1
Sample	: WG1270780-5,3,250,250	Quant Date	: 8/10/2019 7:54 am

There are no manual integrations or false positives in this file.

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 29 2019, 12:25 pm

Work Group: WG1270780 for Department: 3 GC/MS

Created: 09-AUG-19 Due: Operator: EW

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1934161-05	IA02_073119	S T015-LL	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-06	IA04_073119	S T015-LL	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-07	IA01_073119	S T015-LL	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-08	IA03_073119	S T015-LL	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-09	IA05_073119	S T015-LL	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934780-01	DG-SVE-1S-SV-080219	S T015-LL	SOIL_VAPOR	DONE	U	0901	0812	S0	Can-6
L1934780-02	DG-SVE-1D-SV-080219	S T015-LL	SOIL_VAPOR	DONE	U	0901	0812	S0	Can-6
L1935043-01	VP-6_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-02	VP-7_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-03	VP-4_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-04	VP-1_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-05	VP-5_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-06	VP-2_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-07	VP-3_080619	S T015-LL	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935489-01	SV01_080719	S T015-LL	SOIL_VAPOR	DONE	U	0906	0812	1B	Can-2.7
L1935489-02	SV02_080719	S T015-LL	SOIL_VAPOR	DONE	U	0906	0812	1B	Can-2.7
L1935489-03	SV03_080819	S T015-LL	SOIL_VAPOR	DONE	U	0907	0812	1B	Can-2.7
L1935489-04	AA01_080819	S T015-LL	AIR	DONE	U	0907	0812	1B	Can-2.7
WG1270780-1	MS BFB Tune Standard	S T015-LL	SOIL_VAPOR	DONE	U				
WG1270780-1	MS BFB Tune Standard	S T015-LL	AIR	DONE	U				
WG1270780-2	Continuing Calibrati	S T015-LL	AIR	DONE	U				
WG1270780-2	Continuing Calibrati	S T015-LL	SOIL_VAPOR	DONE	U				
WG1270780-3	Laboratory Control S	S T015-LL	AIR	DONE	U				
WG1270780-3	Laboratory Control S	S T015-LL	SOIL_VAPOR	DONE	U				
WG1270780-4	Laboratory Method Bl	S T015-LL	AIR	DONE	U				
WG1270780-4	Laboratory Method Bl	S T015-LL	SOIL_VAPOR	DONE	U				
WG1270780-5	Duplicate Sample	S T015-LL	AIR	DONE	U				
WG1270780-5	Duplicate Sample	S T015-LL	SOIL_VAPOR	DONE	U				
Comments:									
WG1270780-5	L1934161-07								

Alpha Analytical Air Lab Instrument Run Log

ID: Airpiano 1	Internal Standard/Surrogate IDs: SS18-030 / SS19-022
Date: 07/12/19	Internal Standard/Surrogate Volume: 100 ml
Analyst Initials: AR	Sequence File Name: 190712.S

SIM ICAL#	Full Scan ICAL# 15961		TO12 ICAL#		APH ICAL#		
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/su blis	Check Pass ? Y/N
1	BA1071201	TO15_SFS	R167335	250ml			N/A
1	BA1071202	TO15_SFS	R167336	250ml			N/A
1	TA1071201	TO15_SFS	R167337	250ml	TUNE		N/A
5	ITO15-SIMSTD0.02	TO15_SFS	R167338	SS19-015D 50ML 0.02			N/A
5	ITO15-SIMSTD0.05	TO15_SFS	R167339	SS19-015D 125ML 0.05			N/A
5	ITO15-SIMSTD0.1	TO15_SFS	R167340	SS19-015D 250ML 0.1			N/A
6	ITO15-SIMSTD0.2	TO15_SFS	R167341	SS19-015C 50ML 0.2			N/A
6	ITO15-SIMSTD0.5	TO15_SFS	R167342	SS19-015C 125ML 0.5			N/A
6	ITO15-SIMSTD1.0	TO15_SFS	R167343	SS19-015C 250ML 1.0			N/A
7	ITO15-SIMSTD5.0	TO15_SFS	R167344	SS19-015B1 125ML 5.0			N/A
7	ITO15-SIMSTD10.0	TO15_SFS	R167345	SS19-015B1 250ML 10.0			N/A
8	ITO15-SIMSTD20.0	TO15_SFS	R167346	SS19-015A 50ML 20.0			N/A
8	ITO15-SIMSTD50.0	TO15_SFS	R167347	SS19-015A 125ML 50.0			N/A
8	ITO15-LLSTD100.0	TO15_SFS	R167348	SS19-015A 250ML 100.0			N/A
1	BA1071201	TO15_SFS	R167349	250ml			N/A
1	BA1071202	TO15_SFS	R167350	250ml			N/A
2	CTO15-LLSTD10.0	TO15_SFS	R167351	SS19-016F 250ML 10.0	FULL SCAN ICV		N/A
2	CTO15-SIMSTD5.0	TO15_SFS	R167352	SS19-016F 125ML 5.0	SIM ICV		N/A

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

ID: Airpiano 1 Internal Standard/Surrogate IDs: SS18-030 / SS19-022

Date: 08/09/19 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: EW Sequence File Name: 190809.S

SIM ICAL# 15967		Full Scan ICAL# 15961		TO12 ICAL#	APH ICAL#		
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/su blist	Leak Check Pass ?
1	TA1080901	TO15_SFS	R167934	250ml	TUNE		N/A
2	CA1080901	TO15_SFS	R167935	SS19-015F 250ML 10.0	CC		N/A
3	CTO15-LLSTD10.0	TO15_SFS	R167936	SS19-016F 250ML 10.0	LL LCS FAILED		N/A
3	CTO15-SIMSTD5.0	TO15_SFS	R167937	SS19-016F 125ML 10.0	SIM LCS		N/A
3	CTO15-LLSTD10.0	TO15_SFS	R167938	SS19-016C 250ML 10.0	LL LCS		N/A
1	BA1080901	TO15_SFS	R167939	250ml	LL BLANK		N/A
1	BA1080902	TO15_SFS	R167940	250ml	SIM BLANK		N/A
1	L1935489-04,3,250,250	TO15_SFS	R167941	WG1270780,ICAL15961		NY	Y
2	L1934161-05,3,250,250	TO15_SFS	R167942	WG1270780,ICAL15961		NY / 7-SIM	Y
3	L1934161-06,3,250,250	TO15_SFS	R167943	WG1270780,ICAL15961		NY / 7-SIM	Y
4	L1934161-07,3,250,250	TO15_SFS	R167944	WG1270780,ICAL15961		NY / 7-SIM	Y
4	L1934161-07DUP,3,250,250	TO15_SFS	R167945	WG1270780,ICAL15961	LL / SIM DUP	NY / 7-SIM	Y
5	L1934161-08,3,250,250	TO15_SFS	R167946	WG1270780,ICAL15961		NY / 7-SIM	Y
6	L1934161-09,3,250,250	TO15_SFS	R167947	WG1270780,ICAL15961		NY / 7-SIM	Y
7	L1935043-01D,3,100,250	TO15_SFS	R167948	WG1270780,ICAL15961		NY	Y
8	L1935043-02D,3,100,250	TO15_SFS	R167949	WG1270780,ICAL15961		NY	Y
9	L1935043-03D,3,100,250	TO15_SFS	R167950	WG1270780,ICAL15961		NY	Y
10	L1935043-04D,3,7.24,250	TO15_SFS	R167951	WG1270780,ICAL15961		NY / 6-SIM	Y
11	L1935043-05D,3,35,250	TO15_SFS	R167952	WG1270780,ICAL15961		NY / 7-SIM	Y
12	L1935043-06D,3,70,250	TO15_SFS	R167953	WG1270780,ICAL15961		NY	Y
13	L1935043-07D,3,70,250	TO15_SFS	R167954	WG1270780,ICAL15961		NY	Y
14	L1935489-01,3,250,250	TO15_SFS	R167955	WG1270780,ICAL15961	TBA OVERCAL	NY	Y
15	L1935489-02D,3,100,250	TO15_SFS	R167956	WG1270780,ICAL15961	OVERDILUTED	NY	Y

Alpha Analytical Air Lab Instrument Run Log

16	L1935489-03,3,250,250	TO15_SFS	R167957	WG1270780,ICAL15961		NY	Y
14	L1935489-01D,3,50,250	TO15_SFS	R167958	WG1270780,ICAL15961	TBA ONLY	NY	Y
15	L1935489-02,3,250,250	TO15_SFS	R167959	WG1270780,ICAL15961		NY	Y
1	L1934780-01,3,250,250	TO15_SFS	R167960	WG1270780,ICAL15961		PA	Y
2	L1934780-02,3,250,250	TO15_SFS	R167961	WG1270780,ICAL15961		PA	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical, Inc.

Canister Dilution Worksheet

[illegible]

*N₂ = Nitrogen and H₂= Hydrogen

**** Reported to 2 decimal places unless 0.01 or less; then 3 decimal places are reported**

Analyst data input fields

Analyst Comments:

GC/MS VOA
Air Analysis
Selective Ion Monitoring

Volatiles QC Summary

Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270782-3 Analysis Date : 08/09/19 13:28 File ID : R167937
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Propylene	5	4.63	93				-	70-130	25
Dichlorodifluoromethane	5	4.86	97				-	70-130	25
Chloromethane	5	4.61	92				-	70-130	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5	5.37	107				-	70-130	25
Vinyl chloride	5	5.00	100				-	70-130	25
1,3-Butadiene	5	5.27	105				-	70-130	25
Bromomethane	5	5.37	107				-	70-130	25
Chloroethane	5	4.97	99				-	70-130	25
Ethyl Alcohol	25	19.4	78				-	40-160	25
Vinyl bromide	5	5.21	104				-	70-130	25
Acetone	25	18.8	75				-	40-160	25
Trichlorofluoromethane	5	5.38	108				-	70-130	25
iso-Propyl Alcohol	12.5	9.31	74				-	40-160	25
Acrylonitrile	5	5.28	106				-	70-130	25
1,1-Dichloroethene	5	4.84	97				-	70-130	25
tert-Butyl Alcohol	5	4.44	89				-	70-130	25
Methylene chloride	5	4.76	95				-	70-130	25
3-Chloropropene	5	4.58	92				-	70-130	25
Carbon disulfide	5	4.50	90				-	70-130	25
1,1,2-Trichloro-1,2,2-Trifluoroethane	5	5.27	105				-	70-130	25
trans-1,2-Dichloroethene	5	4.56	91				-	70-130	25
1,1-Dichloroethane	5	4.79	96				-	70-130	25



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270782-3 Analysis Date : 08/09/19 13:28 File ID : R167937
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Methyl tert butyl ether	5	4.77	95				-	70-130	25
Vinyl acetate	5	4.22	84				-	70-130	25
2-Butanone	5	4.58	92				-	70-130	25
cis-1,2-Dichloroethene	5	4.74	95				-	70-130	25
Ethyl Acetate	5	4.30	86				-	70-130	25
Chloroform	5	5.09	102				-	70-130	25
Tetrahydrofuran	5	4.77	95				-	70-130	25
1,2-Dichloroethane	5	4.75	95				-	70-130	25
n-Hexane	5	4.02	80				-	70-130	25
1,1,1-Trichloroethane	5	4.45	89				-	70-130	25
Benzene	5	4.35	87				-	70-130	25
Carbon tetrachloride	5	4.61	92				-	70-130	25
Cyclohexane	5	4.10	82				-	70-130	25
Dibromomethane	5	3.80	76				-	70-130	25
1,2-Dichloropropane	5	4.21	84				-	70-130	25
Bromodichloromethane	5	4.44	89				-	70-130	25
1,4-Dioxane	5	4.53	91				-	70-130	25
Trichloroethene	5	4.64	93				-	70-130	25
2,2,4-Trimethylpentane	5	4.33	87				-	70-130	25
cis-1,3-Dichloropropene	5	4.61	92				-	70-130	25
4-Methyl-2-pentanone	5	4.00	80				-	70-130	25
trans-1,3-Dichloropropene	5	4.03	81				-	70-130	25
1,1,2-Trichloroethane	5	4.60	92				-	70-130	25
Toluene	5	4.60	92				-	70-130	25
2-Hexanone	5	4.58	92				-	70-130	25
Dibromochloromethane	5	5.27	105				-	70-130	25



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270782-3 Analysis Date : 08/09/19 13:28 File ID : R167937
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
1,2-Dibromoethane	5	5.08	102				-	70-130	25
Tetrachloroethene	5	5.08	102				-	70-130	25
1,1,1,2-Tetrachloroethane	5	4.70	94				-	70-130	25
Chlorobenzene	5	4.99	100				-	70-130	25
Ethylbenzene	5	4.65	93				-	70-130	25
p/m-Xylene	10	8.49	85				-	70-130	25
Bromoform	5	5.48	110				-	70-130	25
Styrene	5	5.02	100				-	70-130	25
1,1,2,2-Tetrachloroethane	5	4.94	99				-	70-130	25
o-Xylene	5	4.70	94				-	70-130	25
1,2,3-Trichloropropane	5	4.52	90				-	70-130	25
Isopropylbenzene	5	4.69	94				-	70-130	25
Bromobenzene	5	4.59	92				-	70-130	25
4-Ethyltoluene	5	5.11	102				-	70-130	25
1,3,5-Trimethylbenzene	5	4.94	99				-	70-130	25
1,2,4-Trimethylbenzene	5	5.33	107				-	70-130	25
Benzyl chloride	5	4.92	98				-	70-130	25
1,3-Dichlorobenzene	5	5.69	114				-	70-130	25
1,4-Dichlorobenzene	5	5.72	114				-	70-130	25
sec-Butylbenzene	5	4.68	94				-	70-130	25
p-Isopropyltoluene	5	4.34	87				-	70-130	25
1,2-Dichlorobenzene	5	5.70	114				-	70-130	25
n-Butylbenzene	5	5.00	100				-	70-130	25
1,2,4-Trichlorobenzene	5	8.13	163 Q				-	70-130	25
Naphthalene	5	6.52	130				-	70-130	25
1,2,3-Trichlorobenzene	5	7.41	148 Q				-	70-130	25



Laboratory Control Sample Summary

Form 3

Air Volatiles

Client : Langan Engineering & Environmental Lab Number : L1935043
 Project Name : 491 WORTMAN AVE. Project Number : 170329301
 Matrix : AIR
 LCS Sample ID : WG1270782-3 Analysis Date : 08/09/19 13:28 File ID : R167937
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Hexachlorobutadiene	5	7.05	141 Q				-	70-130	25



Method Blank Summary
Form 4
Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Lab Sample ID	: WG1270782-4	Lab File ID	: R167940
Instrument ID	: AIRPIANO1		
Matrix	: AIR	Analysis Date	: 08/09/19 16:25

Client Sample No.	Lab Sample ID	Analysis Date
WG1270782-3LCS	WG1270782-3	08/09/19 13:28
IA01_073119DUP	WG1270782-5	08/09/19 20:30
VP-1_080619	L1935043-04D	08/09/19 23:38
VP-5_080619	L1935043-05D	08/10/19 00:08

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1935043
Project Name : 491 WORTMAN AVE.	Project Number : 170329301
Instrument ID : AIRPIANO1	Analysis Date : 07/12/19 19:12
Tune Standard : WG1260317-1	Tune File ID : R167337_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	17.3
75	30.0 - 66.0% of mass 95	44.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	82.1
175	4.0 - 9.0% of mass 174	6.1 (7.5)1
176	93.0 - 101% of mass 174	78.6 (95.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.02	R1208469-2	R167338	07/12/19 19:43
STD0.05	R1208469-1	R167339	07/12/19 20:14
STD0.1	R1208469-3	R167340	07/12/19 20:48
STD0.2	R1208469-4	R167341	07/12/19 21:18
STD0.5	R1208469-5	R167342	07/12/19 21:50
STD1.0	R1208469-6	R167343	07/12/19 22:23
STD5.0	R1208469-7	R167344	07/12/19 22:55
STD10.0	R1208469-9	R167345	07/12/19 23:29
STD20.0	R1208469-8	R167346	07/13/19 00:02
STD50.0	R1208469-10	R167347	07/13/19 00:33
ICV Quant	R1208469-11	R167352	07/13/19 11:24

Instrument Performance Check (Tune) Summary

Form 5

Air Volatiles

Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Instrument ID	: AIRPIANO1	Analysis Date	: 08/09/19 11:49
Tune Standard	: WG1270782-1	Tune File ID	: R167934_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	15.6
75	30.0 - 66.0% of mass 95	43.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	86.2
175	4.0 - 9.0% of mass 174	6.5 (7.6)1
176	93.0 - 101% of mass 174	83.3 (96.7)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1270782-2CCAL	WG1270782-2	R167937	08/09/19 13:28
WG1270782-3LCS	WG1270782-3	R167937	08/09/19 13:28
WG1270782-4BLANK	WG1270782-4	R167940	08/09/19 16:25
WG1270782-5DUP	WG1270782-5	R167945	08/09/19 20:30
VP-1_080619	L1935043-04D	R167951	08/09/19 23:38
VP-5_080619	L1935043-05D	R167952	08/10/19 00:08

Internal Standard Area and RT Summary

Form 8a

Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Instrument ID	: AIRPIANO1	Analysis Date	: 08/09/19 13:28
Sample No	: WG1270782-2	Lab File ID	: R167937

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1270782-2	153492	10.10	403253	12.34	69934	16.80
Upper Limit	214889	10.43	564554	12.67	97908	17.13
Lower Limit	92095	9.77	241952	12.01	41960	16.47
Sample ID						
WG1270782-3 LCS	153492	10.10	403253	12.34	69934	16.80
WG1270782-4 BLANK	136663	10.10	345996	12.34	60702	16.80
IA01_073119 DUP	122066	10.11	297806	12.35	53435	16.80
VP-1_080619	131328	10.10	320005	12.34	57499	16.80
VP-5_080619	121553	10.10	298382	12.34	54607	16.80

Area Upper Limit = +40% of internal standard area
Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT
RT Lower Limit = -0.33 minutes of internal standard RT

* Values outside of QC limits





Date Created: 12/17/18
Created By: Jason Hebert
File: PM5830-1
Page: 1

Volatile Organics in Air by TO-15 SIM (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.02	0.006	ppbV	70-130	25		25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.02	0.006	ppbV	70-130	25		25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.02	0.007	ppbV	70-130	25		25	25			
1,1,2-Trichloroethane	79-00-5	0.02	0.004	ppbV	70-130	25		25	25			
1,1-Dichloroethane	75-34-3	0.02	0.007	ppbV	70-130	25		25	25			
1,1-Dichloroethene	75-35-4	0.02	0.007	ppbV	70-130	25		25	25			
1,2,4-Trimethylbenzene	95-63-6	0.02	0.007	ppbV	70-130	25		25	25			
1,2-Dibromoethane	106-93-4	0.02	0.008	ppbV	70-130	25		25	25			
1,2-Dichlorobenzene	95-50-1	0.02	0.006	ppbV	70-130	25		25	25			
1,2-Dichloroethane	107-06-2	0.02	0.005	ppbV	70-130	25		25	25			
1,2-Dichloropropane	78-87-5	0.02	0.008	ppbV	70-130	25		25	25			
1,3,5-Trimethylbenzene	108-67-8	0.02	0.005	ppbV	70-130	25		25	25			
1,3-Butadiene	106-99-0	0.02	0.007	ppbV	70-130	25		25	25			
1,3-Dichlorobenzene	541-73-1	0.02	0.006	ppbV	70-130	25		25	25			
1,4-Dichlorobenzene	106-46-7	0.02	0.008	ppbV	70-130	25		25	25			
1,4-Dioxane	123-91-1	0.1	0.014	ppbV	70-130	25		25	25			
2,2,4-Trimethylpentane	540-84-1	0.2	0.027	ppbV	70-130	25		25	25			
2-Hexanone	591-78-6	0.2	0.03	ppbV	70-130	25		25	25			
3-Chloropropene	107-05-1	0.2	0.02	ppbV	70-130	25		25	25			
4-Ethyltoluene	622-96-8	0.02	0.01	ppbV	70-130	25		25	25			
Benzene	71-43-2	0.1	0.019	ppbV	70-130	25		25	25			
Benzyl chloride	100-44-7	0.2	0.037	ppbV	70-130	25		25	25			
Bromodichloromethane	75-27-4	0.02	0.008	ppbV	70-130	25		25	25			
Bromoform	75-25-2	0.02	0.015	ppbV	70-130	25		25	25			
Bromomethane	74-83-9	0.02	0.008	ppbV	70-130	25		25	25			
Carbon disulfide	75-15-0	0.2	0.063	ppbV	70-130	25		25	25			
Carbon tetrachloride	56-23-5	0.02	0.007	ppbV	70-130	25		25	25			
Chlorobenzene	108-90-7	0.1	0.007	ppbV	70-130	25		25	25			
Chloroethane	75-00-3	0.1	0.017	ppbV	70-130	25		25	25			
Chloroform	67-66-3	0.02	0.005	ppbV	70-130	25		25	25			
Chloromethane	74-87-3	0.2	0.048	ppbV	70-130	25		25	25			
cis-1,2-Dichloroethene	156-59-2	0.02	0.007	ppbV	70-130	25		25	25			
trans-1,2-Dichloroethene	156-60-5	0.02	0.006	ppbV	70-130	25		25	25			
1,2-Dichloroethene (total)	540-59-0	0.02	0.006	ppbV				25	25			
cis-1,3-Dichloropropene	10061-01-5	0.02	0.006	ppbV	70-130	25		25	25			
1,3-Dichloropropene, Total	542-75-6	0.02	0.006	ppbV				25	25			
Cyclohexane	110-82-7	0.2	0.03	ppbV	70-130	25		25	25			
Dibromochloromethane	124-48-1	0.02	0.008	ppbV	70-130	25		25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0112	ppbV	70-130	25		25	25			
Ethyl Alcohol	GCDAT06	5	0.157	ppbV	70-130	25		25	25			
Ethyl Acetate	141-78-6	0.5	0.038	ppbV	70-130	25		25	25			
Ethylbenzene	100-41-4	0.02	0.007	ppbV	70-130	25		25	25			

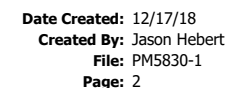
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

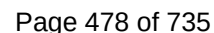
Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



Volatiles Sample Data

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-04D
 Client ID : VP-1_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167951
 Sample Amount : 7.24 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 11:14
 Date Received : 08/06/19
 Date Analyzed : 08/09/19 23:38
 Dilution Factor : 34.53
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.691	--	ND	1.77	--	U
75-35-4	1,1-Dichloroethene	ND	0.691	--	ND	2.74	--	U
156-59-2	cis-1,2-Dichloroethene	1.00	0.691	--	3.96	2.74	--	
71-55-6	1,1,1-Trichloroethane	1.83	0.691	--	9.98	3.77	--	
56-23-5	Carbon tetrachloride	ND	0.691	--	ND	4.35	--	U
127-18-4	Tetrachloroethene	10.4	0.691	--	70.5	4.69	--	
540-59-0	1,2-Dichloroethene (total)	1.00	0.691	--	3.96	2.74	--	

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : L1935043-05D
 Client ID : VP-5_080619
 Sample Location : BROOKLYN, NEW YORK
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167952
 Sample Amount : 35.0 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : 08/06/19 13:07
 Date Received : 08/06/19
 Date Analyzed : 08/10/19 00:08
 Dilution Factor : 7.143
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.143	--	ND	0.366	--	U
75-35-4	1,1-Dichloroethene	ND	0.143	--	ND	0.567	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.143	--	ND	0.567	--	U
71-55-6	1,1,1-Trichloroethane	1.54	0.143	--	8.40	0.780	--	
56-23-5	Carbon tetrachloride	ND	0.143	--	ND	0.900	--	U
79-01-6	Trichloroethene	97.1	0.143	--	522	0.769	--	
127-18-4	Tetrachloroethene	9.70	0.143	--	65.8	0.970	--	
540-59-0	1,2-Dichloroethene (total)	ND	0.143	--	ND	0.567	--	U

Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270782-4
 Client ID : WG1270782-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167940
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 16:25
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.050	--	ND	0.349	--	U
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
106-99-0	1,3-Butadiene	ND	0.020	--	ND	0.044	--	U
74-83-9	Bromomethane	ND	0.020	--	ND	0.078	--	U
75-00-3	Chloroethane	ND	0.100	--	ND	0.264	--	U
64-17-5	Ethyl Alcohol	ND	5.00	--	ND	9.42	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-69-4	Trichlorofluoromethane	ND	0.050	--	ND	0.281	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
540-59-0	1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
542-75-6	1,3-Dichloropropene, Total	ND	0.020	--	ND	0.091	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
75-34-3	1,1-Dichloroethane	ND	0.020	--	ND	0.081	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270782-4
 Client ID : WG1270782-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167940
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 16:25
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.020	--	ND	0.098	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.020	--	ND	0.081	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
71-43-2	Benzene	ND	0.100	--	ND	0.319	--	U
56-23-5	Carbon tetrachloride	ND	0.020	--	ND	0.126	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.020	--	ND	0.092	--	U
75-27-4	Bromodichloromethane	ND	0.020	--	ND	0.134	--	U
123-91-1	1,4-Dioxane	ND	0.100	--	ND	0.360	--	U
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--	U
108-88-3	Toluene	ND	0.050	--	ND	0.188	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.020	--	ND	0.170	--	U
106-93-4	1,2-Dibromoethane	ND	0.020	--	ND	0.154	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270782-4
 Client ID : WG1270782-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167940
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 16:25
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U
1330-20-7	Xylene (Total)	ND	0.020	--	ND	0.087	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	U
108-90-7	Chlorobenzene	ND	0.100	--	ND	0.461	--	U
100-41-4	Ethylbenzene	ND	0.020	--	ND	0.087	--	U
179601-23-1	p/m-Xylene	ND	0.040	--	ND	0.174	--	U
75-25-2	Bromoform	ND	0.020	--	ND	0.207	--	U
100-42-5	Styrene	ND	0.020	--	ND	0.085	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--	U
95-47-6	o-Xylene	ND	0.020	--	ND	0.087	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
622-96-8	4-Ethyltoluene	ND	0.020	--	ND	0.098	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--	U
91-20-3	Naphthalene	ND	0.050	--	ND	0.262	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--	U



Results Summary

Form 1

Volatile Organics in Air by SIM

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Lab ID : WG1270782-4
 Client ID : WG1270782-4BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R167940
 Sample Amount : 250 ml

Lab Number : L1935043
 Project Number : 170329301
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/09/19 16:25
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRPIANO1
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
87-68-3	Hexachlorobutadiene	ND	0.050	--	ND	0.533	--	U

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167951.D
 Acq On : 9 Aug 2019 11:38 pm
 Operator : AIRPIAN01:EW
 Sample : L1935043-04D,3,7.24,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 13 11:20:21 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.102	49	131328	10.000	ppbV	0.00
Standard Area = 153492			Recovery =		85.56%	
33) 1,4-difluorobenzene	12.339	114	320005	10.000	ppbV	#-0.01
Standard Area = 403253			Recovery =		79.36%	
51) chlorobenzene-D5	16.803	54	57499	10.000	ppbV	0.00
Standard Area = 69934			Recovery =		82.22%	

System Monitoring Compounds

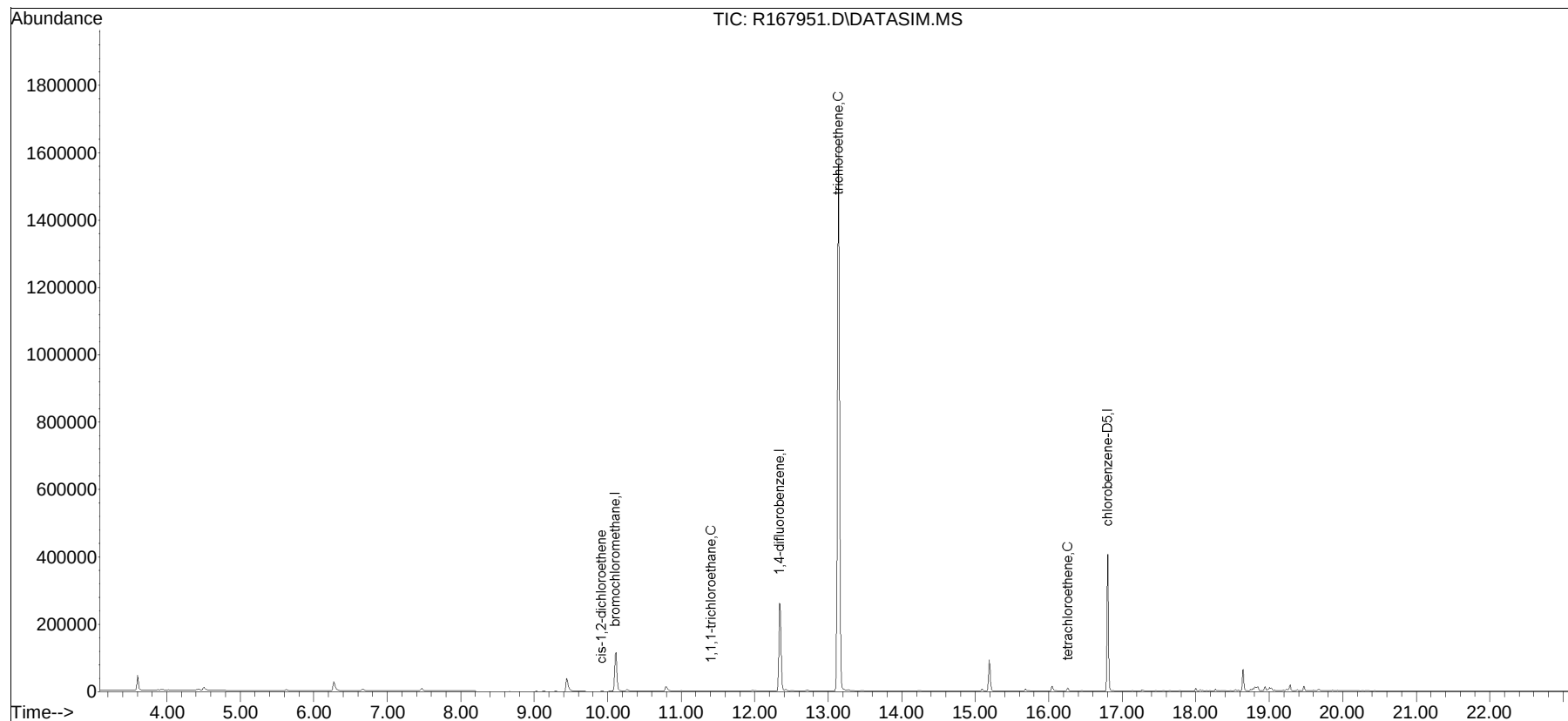
Target Compounds					Qvalue
6) vinyl chloride	0.000		0	N.D.	d
17) 1,1-dichloroethene	0.000		0	N.D.	d
28) cis-1,2-dichloroethene	9.920	61	410	0.029	ppbV # 77
36) 1,1,1-trichloroethane	11.407	97	1012	0.053	ppbV # 92
38) carbon tetrachloride	12.106		0	N.D.	
44) trichloroethene	13.142	130	793610	60.326	ppbV 98
57) tetrachloroethene	16.263	166	4839	0.302	ppbV 98

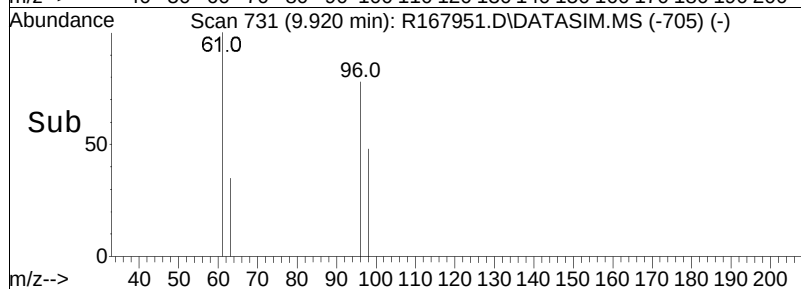
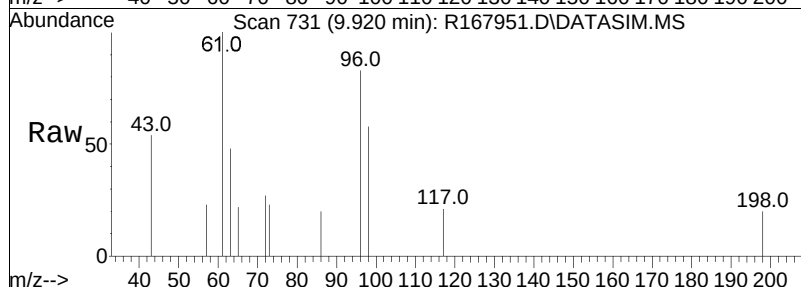
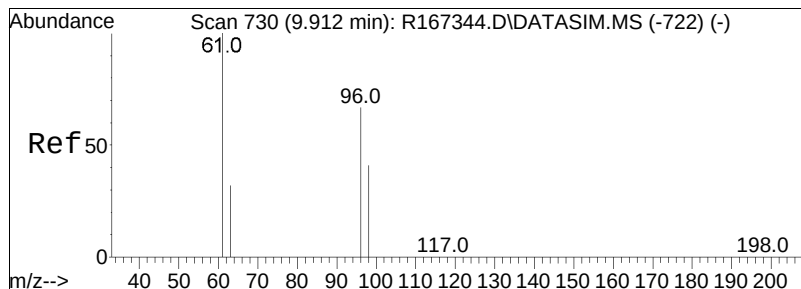
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\AIR1\2019\190809SIM\R167937.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File : R167951.D
Acq On : 9 Aug 2019 11:38 pm
Operator : AIRPIAN01:EW
Sample : L1935043-04D,3,7.24,250
Misc : WG1270782,ICAL15967
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 13 11:20:21 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration





#28

cis-1,2-dichloroethene

Concen: 0.03 ppbV

RT: 9.920 min Scan# 731

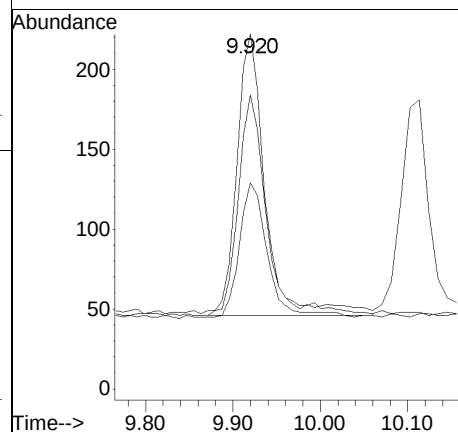
Delta R.T. 0.008 min

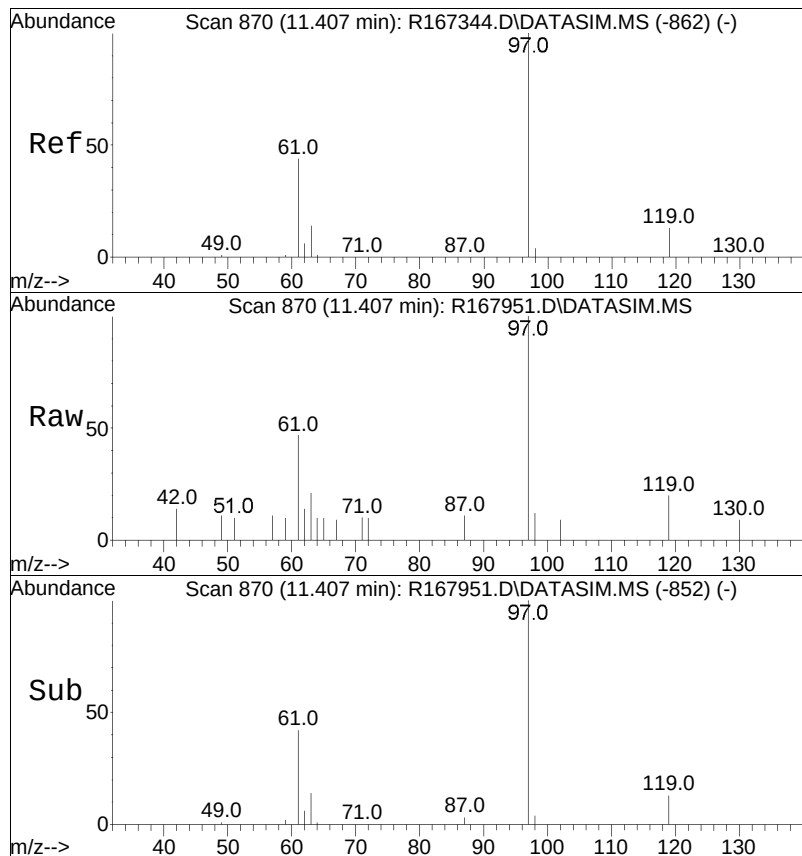
Lab File: R167951.D

Acq: 9 Aug 2019 11:38 pm

Tgt Ion: 61 Resp: 410

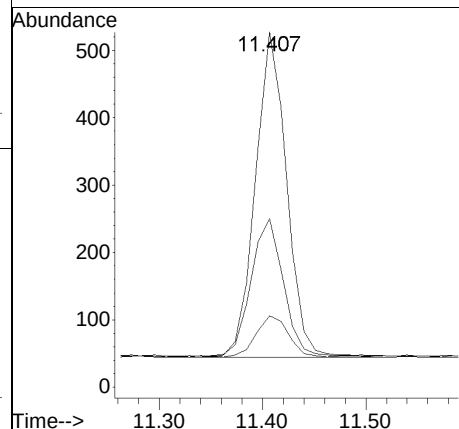
Ion	Ratio	Lower	Upper
61	100		
96	82.9	53.4	80.2#
98	58.1	33.0	49.6#

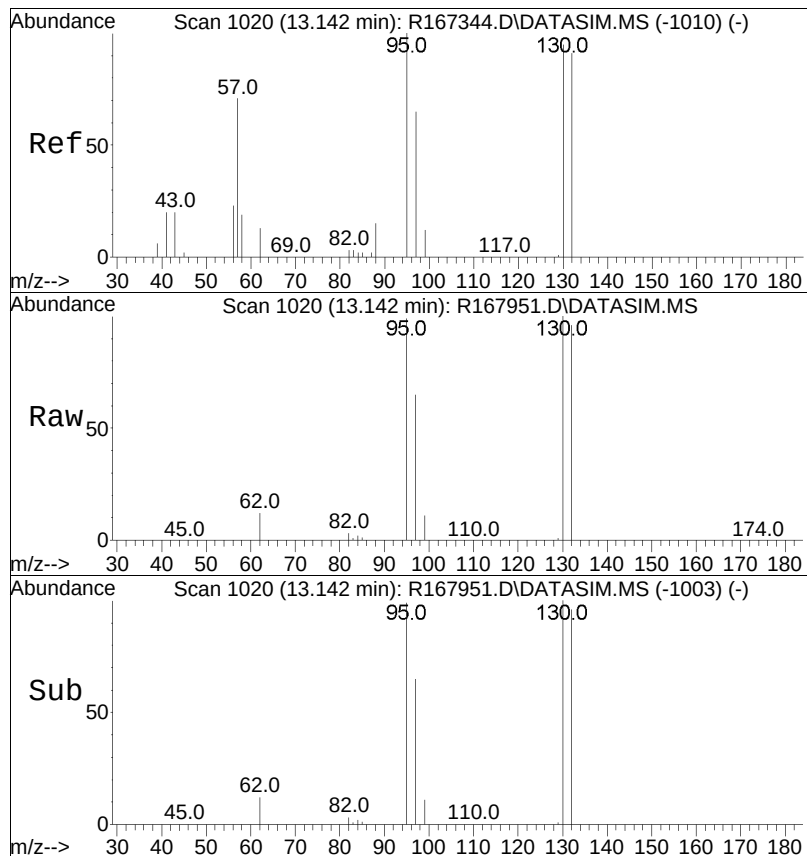




#36
 1,1,1-trichloroethane
 Concen: 0.05 ppbV
 RT: 11.407 min Scan# 870
 Delta R.T. 0.000 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

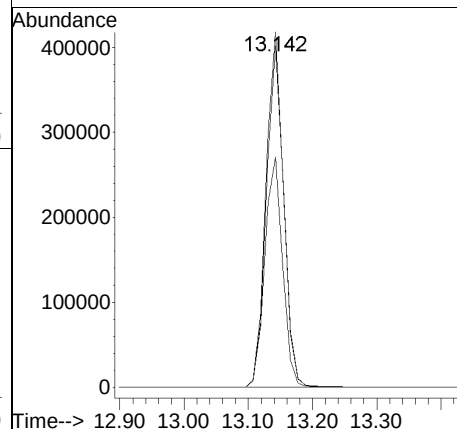
Tgt Ion	Ratio	Lower	Upper
97	100		
61	47.4	35.2	52.8
119	20.1	10.2	15.2

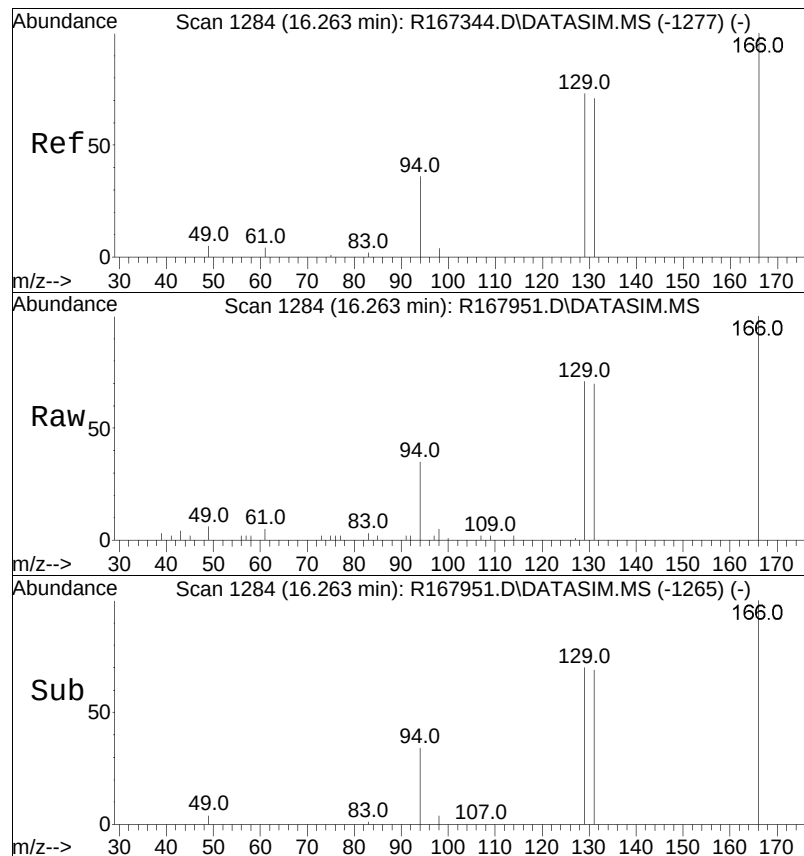




#44
 trichloroethene
 Concen: 60.33 ppbV
 RT: 13.142 min Scan# 1020
 Delta R.T. 0.000 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

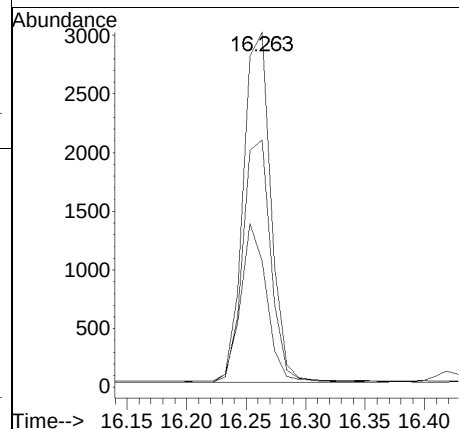
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	793610		
132	96.0		77.0	115.6
97	64.9		55.0	82.4





#57
 tetrachloroethene
 Concen: 0.30 ppbV
 RT: 16.263 min Scan# 1284
 Delta R.T. 0.000 min
 Lab File: R167951.D
 Acq: 9 Aug 2019 11:38 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	69.6	57.1	85.7
94	35.5	28.7	43.1



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TSIM1_190712.M
Data File	: R167951.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/9/2019 11:38 pm	Instrument	: Air Piano 1
Sample	: L1935043-04D,3,7.24,250	Quant Date	: 8/13/2019 11:19 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167952.D
 Acq On : 10 Aug 2019 12:08 am
 Operator : AIRPIAN01:EW
 Sample : L1935043-05D, 3, 35, 250
 Misc : WG1270782, ICAL15967
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 13 11:21:11 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.102	49	121553	10.000	ppbV	0.00
Standard Area = 153492			Recovery =		79.19%	
33) 1,4-difluorobenzene	12.339	114	298382	10.000	ppbV	#-0.01
Standard Area = 403253			Recovery =		73.99%	
51) chlorobenzene-D5	16.798	54	54607	10.000	ppbV	0.00
Standard Area = 69934			Recovery =		78.08%	

System Monitoring Compounds

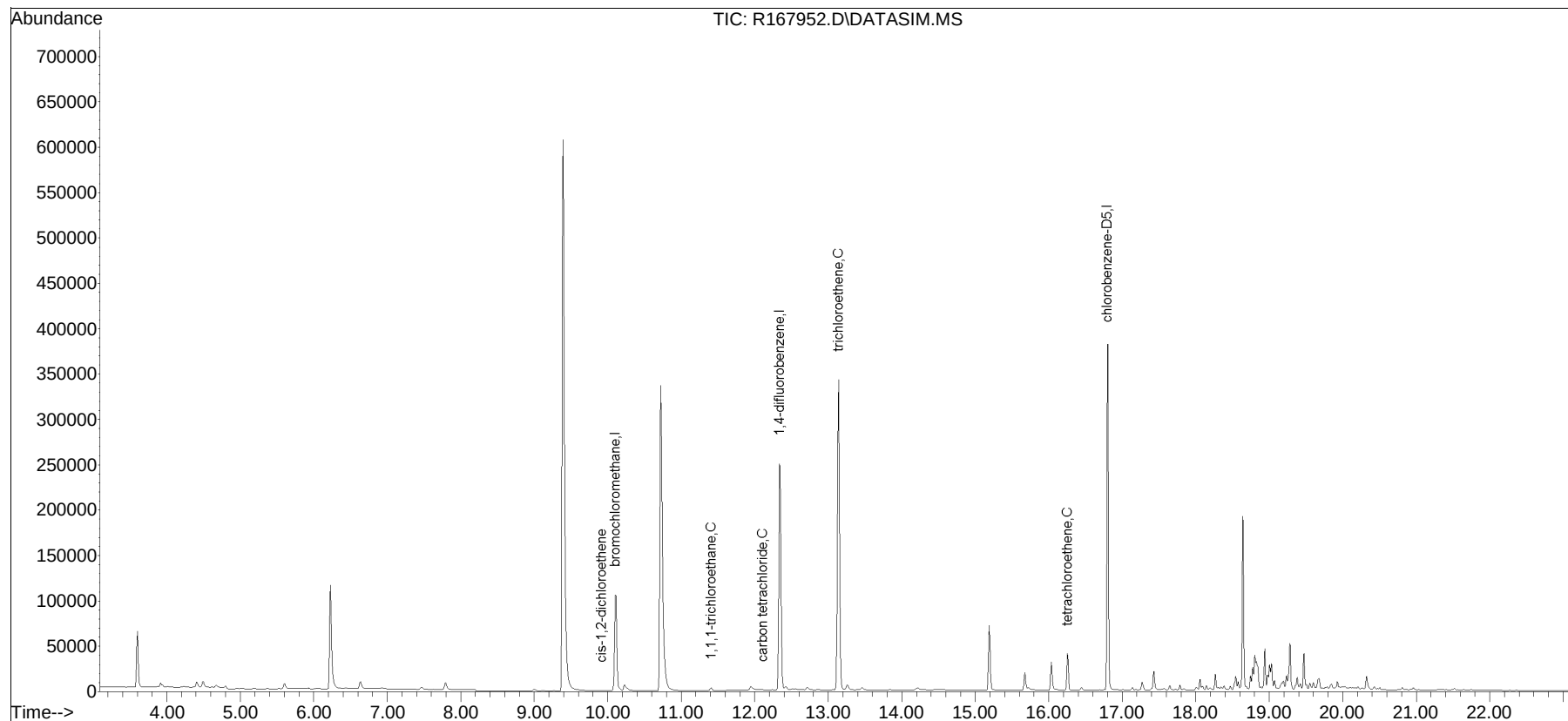
Target Compounds					Qvalue
6) vinyl chloride	0.000		0	N.D.	d
17) 1,1-dichloroethene	0.000		0	N.D.	d
28) cis-1,2-dichloroethene	9.920	61	243	0.019	ppbV # 72
36) 1,1,1-trichloroethane	11.407	97	3845	0.216	ppbV 98
38) carbon tetrachloride	12.106	117	177	0.010	ppbV # 85
44) trichloroethene	13.142	130	166690	13.589	ppbV 97
57) tetrachloroethene	16.253	166	20685	1.358	ppbV # 94

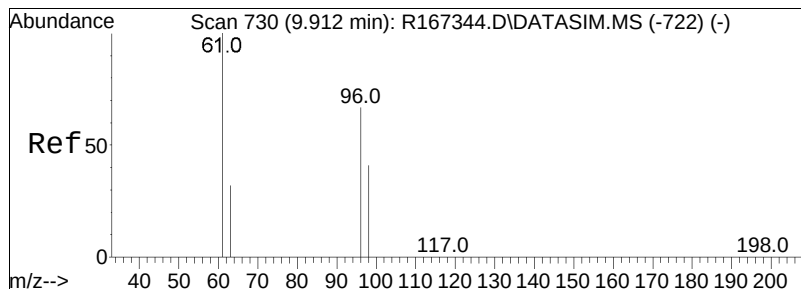
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\AIR1\2019\190809SIM\R167937.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File : R167952.D
Acq On : 10 Aug 2019 12:08 am
Operator : AIRPIAN01:EW
Sample : L1935043-05D,3,35,250
Misc : WG1270782,ICAL15967
ALS Vial : 11 Sample Multiplier: 1

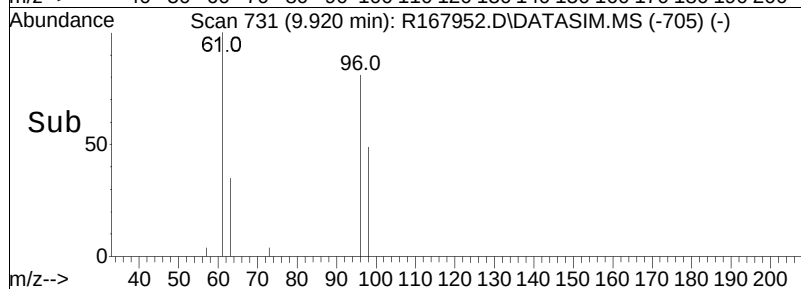
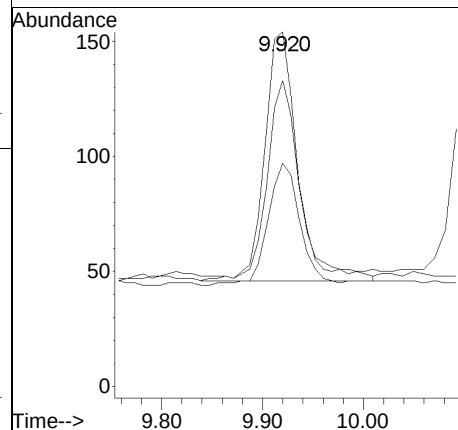
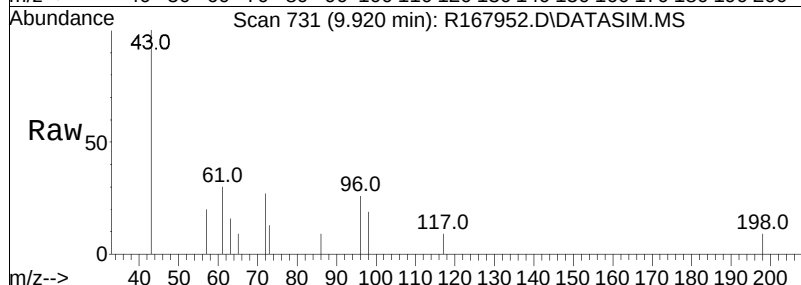
Quant Time: Aug 13 11:21:11 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration

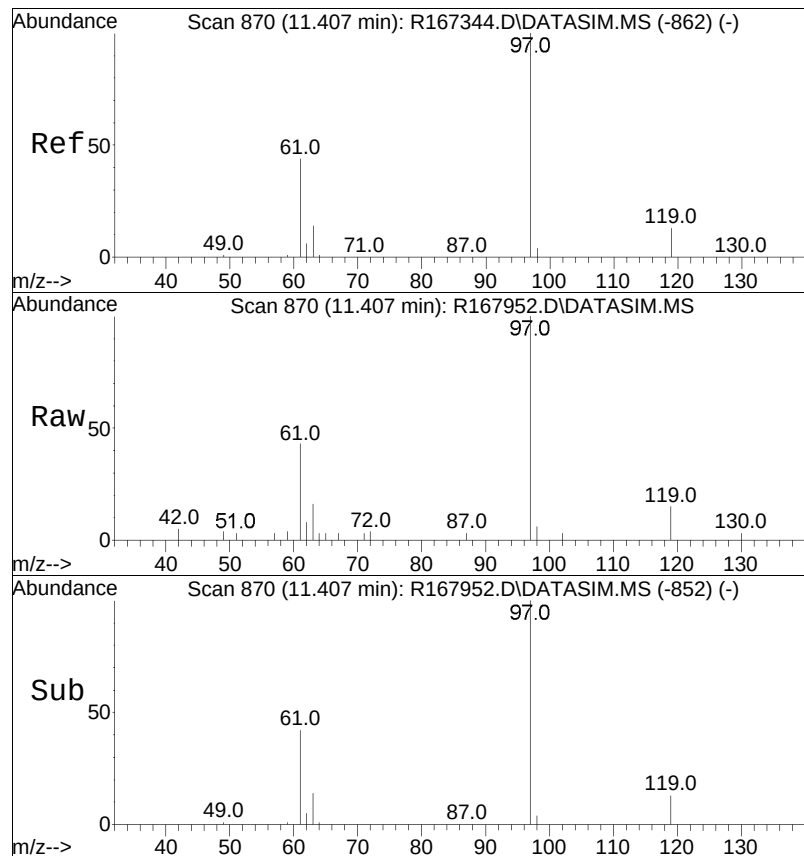




#28
 cis-1,2-dichloroethene
 Concen: 0.02 ppbV
 RT: 9.920 min Scan# 731
 Delta R.T. 0.008 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

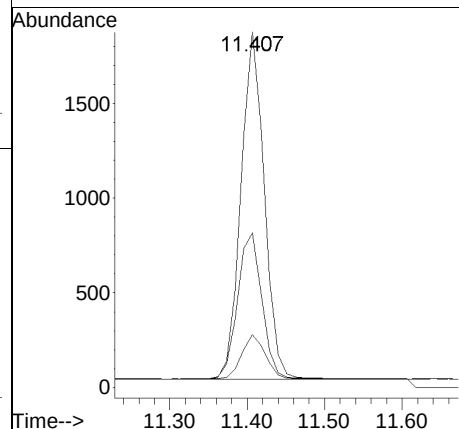
Tgt Ion	Ratio	Resp	Lower	Upper
61	100			
96	86.4	53.4	80.2#	
98	63.0	33.0	49.6#	

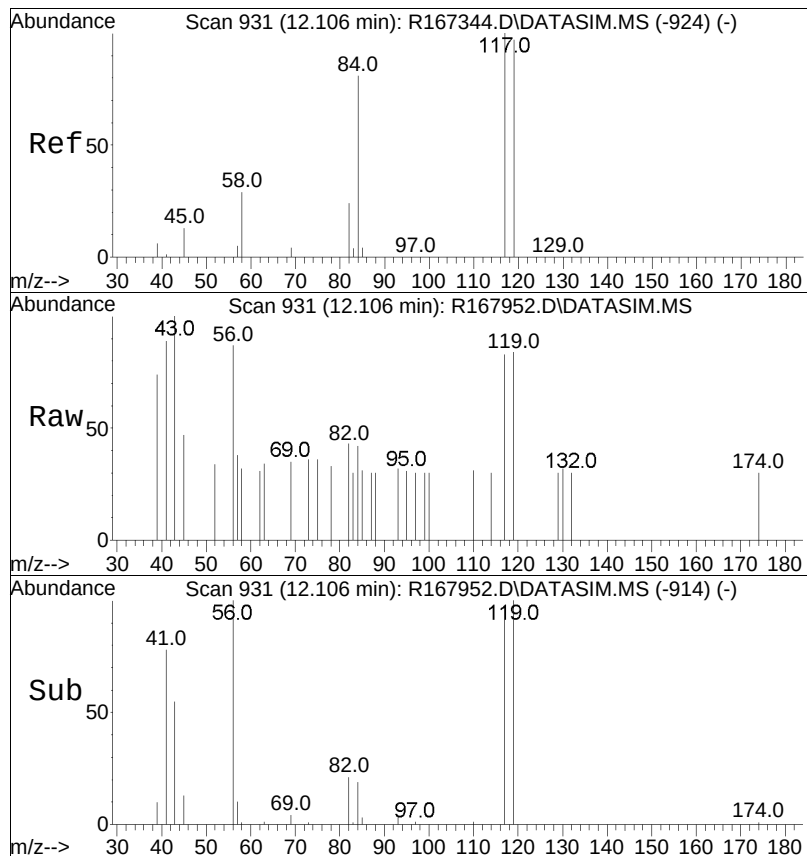




#36
 1,1,1-trichloroethane
 Concen: 0.22 ppbV
 RT: 11.407 min Scan# 870
 Delta R.T. -0.000 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

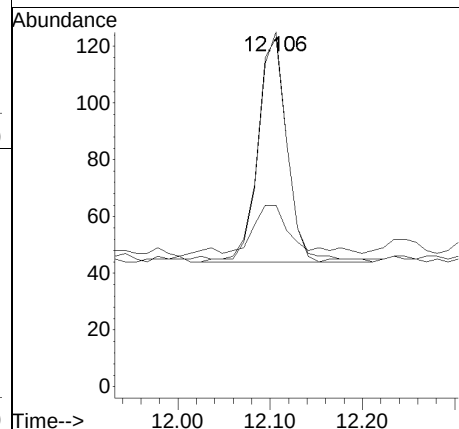
Tgt	Ion	Resp	Lower	Upper
97	100	3845		
61	43.5		35.2	52.8
119	14.9		10.2	15.2

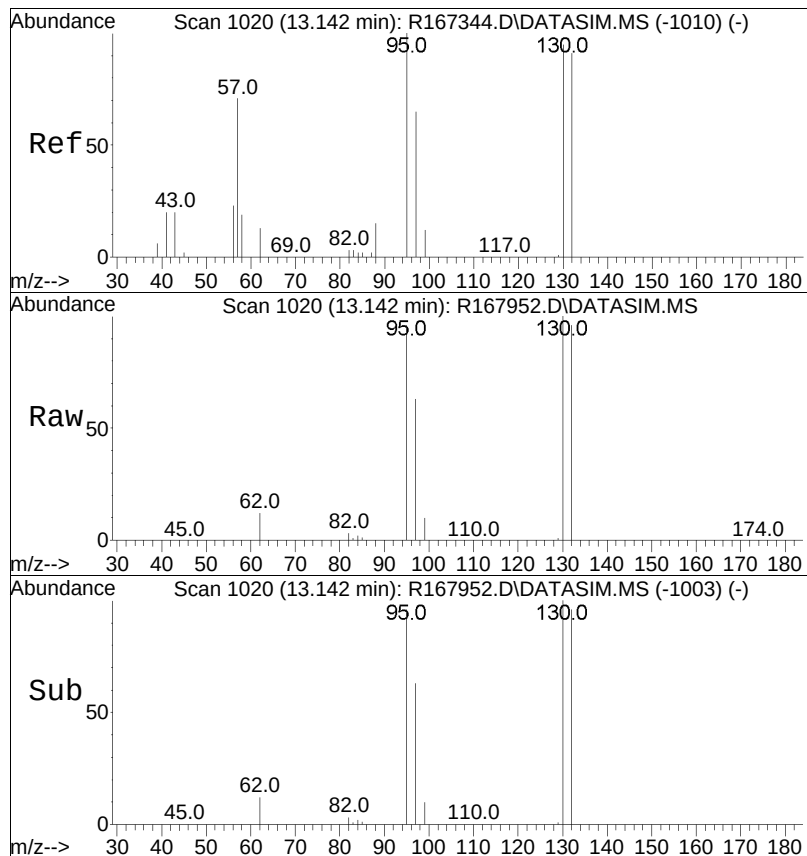




#38
carbon tetrachloride
Concen: 0.01 ppbV
RT: 12.106 min Scan# 931
Delta R.T. -0.000 min
Lab File: R167952.D
Acq: 10 Aug 2019 12:08 am

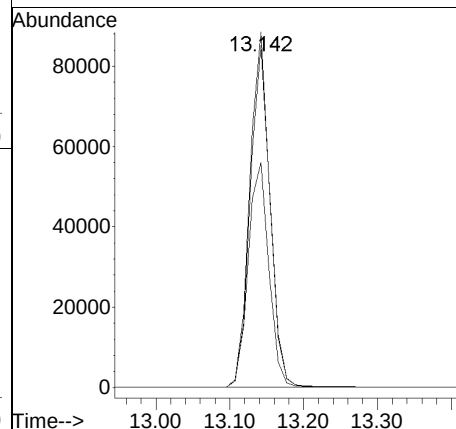
Tgt Ion	Ratio	Lower	Upper
117	100		
119	101.6	77.4	116.0
82	52.0	19.1	28.7#

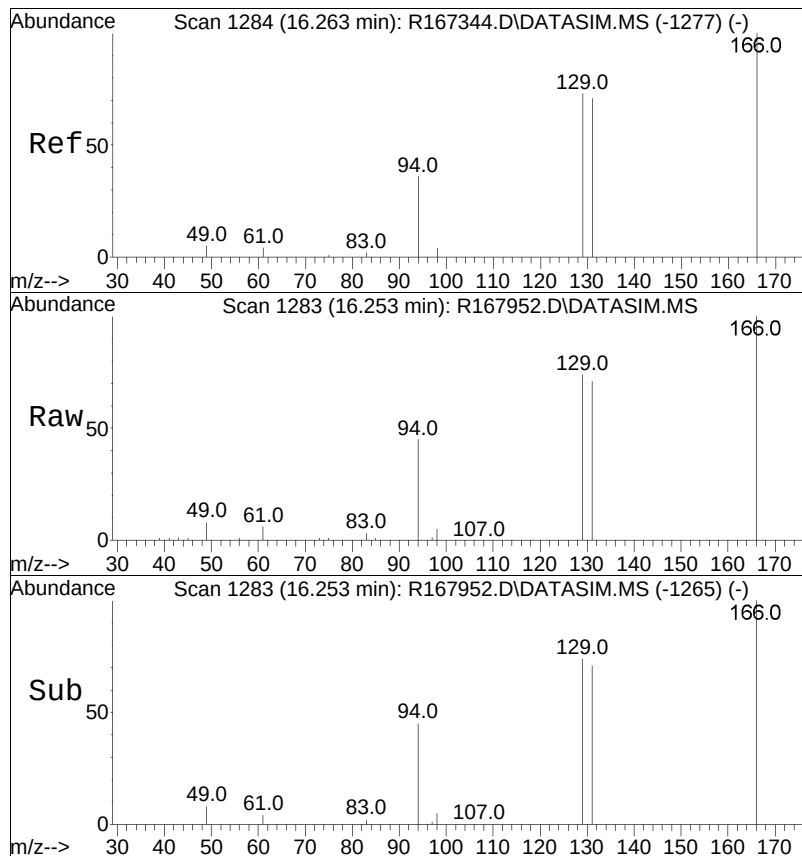




#44
 trichloroethene
 Concen: 13.59 ppbV
 RT: 13.142 min Scan# 1020
 Delta R.T. -0.000 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

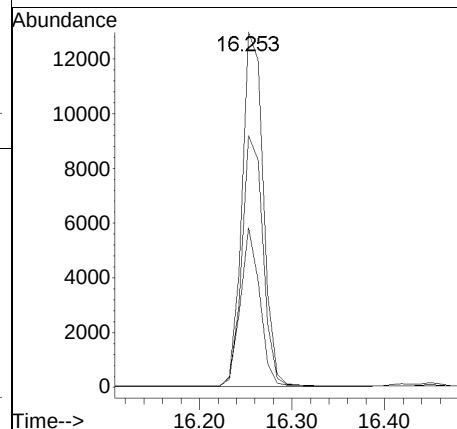
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.0	115.6
97	63.4	55.0	82.4





#57
 tetrachloroethene
 Concen: 1.36 ppbV
 RT: 16.253 min Scan# 1283
 Delta R.T. -0.010 min
 Lab File: R167952.D
 Acq: 10 Aug 2019 12:08 am

Tgt Ion	Ratio	Lower	Upper
166	100		
131	70.9	57.1	85.7
94	45.0	28.7	43.1#



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TSIM1_190712.M
Data File	: R167952.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/10/2019 12:08 am	Instrument	: Air Piano 1
Sample	: L1935043-05D,3,35,250	Quant Date	: 8/13/2019 11:20 am

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Air Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1935043
Project Name	: 491 WORTMAN AVE.	Project Number	: 170329301
Instrument ID	: AIRPIANO1	Ical Ref	: ICAL15967
Calibration dates	: 07/12/19 19:43 07/13/19 00:33		

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

Compound		0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
1) I	bromochloromethane	-----ISTD-----										
2)	propylene				0.685	0.558	0.522	0.455	0.429	0.394	0.5073	20.82
3)	dichlorodifluoromethane				1.641	1.573	1.474	1.400	1.207	1.237	1.4219	12.37
4) C	chloromethane				0.675	0.566	0.555	0.495	0.476	0.466	0.5388	14.55
5)	Freon-114		1.415	1.696	1.973	1.769	1.752	1.587	1.511	1.410	1.6392	11.90
6) C	vinyl chloride	0.717	0.516	0.628	0.734	0.653	0.641	0.592	0.565	0.544	0.6211	11.99
7) C	1,3-butadiene	0.476	0.338	0.429	0.500	0.445	0.443	0.400	0.387	0.367	0.4206	12.47
8) C	bromomethane	0.670	0.526	0.600	0.679	0.620	0.624	0.561	0.535	0.512	0.5917	10.42
9) C	chloroethane	0.342	0.279	0.310	0.351	0.313	0.312	0.284	0.269	0.259	0.3021	10.48
10)	ethanol					0.380	0.359	0.335	0.312	0.295	0.3364	10.24
11) C	vinyl bromide				0.690	0.628	0.622	0.572	0.549	0.520	0.5969	10.35
12) C	acrolein		0.273	0.302	0.304	0.266	0.253	0.227	0.219	0.213	0.2573	13.82
13)	acetone				1.344	1.169	1.160	1.031	0.995	0.891	1.0988	14.52
14)	trichlorofluoromethane		1.205	1.418	1.675	1.499	1.482	1.356	1.297	1.247	1.3974	11.02
15)	isopropyl alcohol				1.958	1.337	1.230	1.084	1.014	0.937	1.2598	29.50
16) C	acrylonitrile				0.594	0.475	0.403	0.393	0.379	0.397	0.4402	18.77
17) C	1,1-dichloroethene	1.260	0.936	1.140	1.318	1.202	1.100	0.957	1.048	0.986	1.1053	12.29
18)	tertiary butyl alcohol					1.446	1.470	1.340	1.292	1.225	1.3548	7.61
19) C	methylene chloride					0.908	0.899	0.802	0.775	0.717	0.8204	10.02
20) C	3-chloropropene				1.032	0.943	0.945	0.861	0.830	0.770	0.8967	10.51
21) C	carbon disulfide				2.680	2.324	2.299	2.086	1.988	1.874	2.2085	13.12
22)	Freon 113		1.169	1.379	1.608	1.456	1.454	1.329	1.272	1.203	1.3588	10.76
23)	trans-1,2-dichloroethene	1.248	0.912	1.088	1.285	1.180	1.186	1.084	1.045	0.977	1.1118	11.11
24) C	1,1-dichloroethane	1.535	1.105	1.332	1.568	1.444	1.405	1.307	1.248	1.179	1.3470	11.60
25) C	MTBE	2.238	1.601	1.858	2.202	2.029	1.997	1.864	1.769	1.671	1.9143	11.56
26) C	vinyl acetate					1.225	1.228	1.234	1.318	1.335	1.2678	4.26
27) C	2-butanone				1.441	1.278	1.410	1.394	1.356	1.290	1.3616	4.86
28)	cis-1,2-dichloroethene	1.196	0.866	1.036	1.242	1.102	1.119	1.036	1.005	0.944	1.0607	11.17
29)	Ethyl Acetate					0.505	0.262	0.281	0.277	0.266	0.3182	32.87#
30) C	chloroform	1.932	1.376	1.680	1.976	1.790	1.776	1.638	1.566	1.459	1.6881	11.98
31)	Tetrahydrofuran					0.903	0.927	0.764	0.749	0.722	0.8129	11.62
32) C	1,2-dichloroethane	1.047	0.760	0.934	1.080	0.989	0.977	0.911	0.875	0.826	0.9330	11.04
33) I	1,4-difluorobenzene	-----ISTD-----										
34) C	hexane				0.718	0.657	0.649	0.589	0.569	0.522	0.6174	11.45
35) s	1,2-dichloroethane-D4	0.355	0.355	0.349	0.355	0.349	0.360	0.352	0.354	0.353	0.3535	1.00
36) C	1,1,1-trichloroethane	0.665	0.492	0.581	0.688	0.631	0.626	0.576	0.562	0.557	0.5977	10.16



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 19:43 07/13/19 00:33
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15967

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
37)	C benzene		0.829	0.960	1.137	1.053	1.043	0.962	0.933	0.895	0.9765	10.00
38)	C carbon tetrachloride	0.632	0.463	0.560	0.653	0.603	0.600	0.554	0.536	0.519	0.5690	10.43
39)	cyclohexane				0.589	0.532	0.541	0.496	0.476	0.460	0.5157	9.22
40)	dibromomethane	0.597	0.392	0.394	0.433	0.390	0.384	0.357	0.348	0.339	0.4037	19.29
41)	C 1,2-dichloropropane	0.461	0.314	0.382	0.436	0.403	0.406	0.372	0.355	0.345	0.3859	11.92
42)	bromodichloromethane	0.830	0.576	0.680	0.811	0.740	0.748	0.701	0.691	0.662	0.7155	10.85
43)	C 1,4-dioxane			0.190	0.242	0.223	0.213	0.217	0.209	0.207	0.2146	7.40
44)	C trichloroethene	0.467	0.325	0.401	0.475	0.431	0.438	0.403	0.390	0.371	0.4111	11.54
45)	C 2,2,4-trimethylpentane				1.904	1.738	1.750	1.610	1.541	1.433	1.6627	10.14
46)	heptane				0.683	0.634	0.637	0.585	0.561	0.517	0.6029	9.95
47)	C cis-1,3-dichloropropene	2.225	1.631	1.976	2.337	2.167	2.208	2.120	2.092	2.054	2.0899	9.65
48)	C 4-methyl-2-pentanone					0.785	0.793	0.776	0.756	0.705	0.7629	4.62
49)	trans-1,3-dichloropropene	0.520	0.407	0.444	0.544	0.511	0.528	0.515	0.510	0.512	0.4991	8.78
50)	C 1,1,2-trichloroethane	0.445	0.328	0.386	0.458	0.421	0.421	0.396	0.385	0.367	0.4007	10.02
51)	I chlorobenzene-D5	-----ISTD-----										
52)	C toluene		6.161	6.677	7.534	6.773	6.760	6.255	5.997	5.849	6.5007	8.41
53)	s toluene-D8	5.585	5.574	5.644	5.559	5.512	5.735	5.686	5.633	5.858	5.6429	1.87
54)	2-hexanone				3.682	3.729	3.942	3.828	3.602	3.098	3.6468	8.05
55)	dibromochloromethane	3.786	2.788	3.315	3.903	3.630	3.629	3.565	3.504	3.558	3.5198	9.12
56)	C 1,2-dibromoethane	3.470	2.626	3.178	3.751	3.462	3.489	3.346	3.296	3.314	3.3258	9.27
57)	C tetrachloroethene	3.078	2.252	2.681	3.190	2.912	2.929	2.727	2.665	2.660	2.7884	9.94
58)	1,1,1,2-tetrachloroethane	2.686	1.957	2.318	2.717	2.558	2.553	2.413	2.357	2.343	2.4334	9.52
59)	C chlorobenzene	5.644	3.987	4.791	5.743	5.218	5.218	4.913	4.780	4.656	4.9944	10.75
60)	C ethylbenzene	9.948	6.725	7.806	9.322	8.486	8.550	7.970	7.790	7.489	8.2318	11.82
61)	C m+p-xylene	0.832	1.086	0.619	0.729	0.667	0.656	0.617	0.599	0.570	0.7083	22.87
62)	C bromoform	3.830	2.620	3.043	3.622	3.393	3.456	3.481	3.452	3.525	3.3802	10.43
63)	C styrene	4.843	3.511	4.271	5.239	4.944	5.017	4.830	4.727	4.622	4.6672	10.93
64)	C 1,1,2,2-tetrachloroethane	5.503	3.881	4.737	5.525	5.261	5.104	4.921	4.782	4.312	4.8917	11.08
65)	C o-xylene	8.434	5.587	6.323	7.357	6.816	6.725	6.343	6.094	5.493	6.5746	13.86
66)	1,2,3-trichloropropane	3.966	3.118	3.627	4.312	4.003	4.000	3.835	3.665	3.631	3.7953	8.90
67)	s bromofluorobenzene	3.535	3.545	3.564	3.561	3.556	3.681	3.698	3.700	3.873	3.6349	3.11
68)	C isopropylbenzene				9.571	8.938	8.991	8.397	8.140	7.600	8.6062	8.15
69)	bromobenzene	4.838	3.660	4.286	5.271	4.886	4.921	4.635	4.387	4.347	4.5812	10.30
70)	4-ethyl toluene	0.882	0.706	0.832	1.055	0.969	0.997	0.956	0.907	0.845	0.9054	11.49
71)	1,3,5-trimethylbenzene	8.810	5.898	6.778	8.369	7.771	7.760	7.469	7.037	6.808	7.4110	11.99
72)	tert-butylbenzene				8.668	8.028	8.149	7.533	7.372	6.115	7.6442	11.52



Initial Calibration Summary

Form 6

Air Volatiles

Client : Langan Engineering & Environmental
Project Name : 491 WORTMAN AVE.
Instrument ID : AIRPIANO1
Calibration dates : 07/12/19 19:43 07/13/19 00:33
Lab Number : L1935043
Project Number : 170329301
Ical Ref : ICAL15967

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
73)	1,2,4-trimethylbenzene	7.230	5.317	6.520	7.988	7.661	7.773	7.316	7.141	6.030	6.9974	12.57
74) C	Benzyl Chloride				5.743	6.009	6.320	6.595	6.675	6.598	6.3233	5.95
75)	1,3-dichlorobenzene	4.478	3.410	4.262	5.488	5.291	5.473	5.234	5.183	4.958	4.8640	14.20
76) C	1,4-dichlorobenzene	4.620	3.250	4.202	5.396	5.387	5.539	5.369	5.259	4.949	4.8857	15.40
77)	sec-butylbenzene				1.196	1.135	1.156	1.085	1.053	0.921	1.0910	8.93
78)	p-isopropyltoluene				1.024	0.993	1.018	0.970	0.939	0.792	0.9558	9.04
79)	1,2-dichlorobenzene	4.511	3.254	4.075	5.168	5.062	5.171	5.096	4.959	4.804	4.6779	13.77
80)	n-butylbenzene				8.422	8.997	9.464	9.241	8.958	7.859	8.8236	6.65
81) C	1,2,4-trichlorobenzene		0.967	1.300	1.995	2.971	3.679	4.347	4.585	3.305	2.8939	46.77#
82)	naphthalene		0.376	0.377	0.519	0.749	0.930	1.017	1.080	0.783	0.7289	38.17#
83)	1,2,3-trichlorobenzene		1.021	1.311	1.817	2.755	3.508	4.198	4.465	3.165	2.7800	46.52#
84) C	hexachlorobutadiene		1.669	2.209	2.503	2.970	3.348	3.558	3.735	2.703	2.8368	24.90



Response Factor Report Air Piano 1

Method Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Method File : TSIM1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Jul 16 08:07:11 2019
 Response Via : Initial Calibration

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

Compound		0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
-----ISTD-----												
1) I	bromochloromethane											
2)	propylene				0.685	0.558	0.522	0.455	0.429	0.394	0.5073	20.82
3)	dichlorodifluoromethane				1.641	1.573	1.474	1.400	1.207	1.237	1.4219	12.37
4) C	chloromethane				0.675	0.566	0.555	0.495	0.476	0.466	0.5388	14.55
5)	Freon-114		1.415	1.696	1.973	1.769	1.752	1.587	1.511	1.410	1.6392	11.90
6) C	vinyl chloride	0.717	0.516	0.628	0.734	0.653	0.641	0.592	0.565	0.544	0.6211	11.99
7) C	1,3-butadiene	0.476	0.338	0.429	0.500	0.445	0.443	0.400	0.387	0.367	0.4206	12.47
8) C	bromomethane	0.670	0.526	0.600	0.679	0.620	0.624	0.561	0.535	0.512	0.5917	10.42
9) C	chloroethane	0.342	0.279	0.310	0.351	0.313	0.312	0.284	0.269	0.259	0.3021	10.48
10)	ethanol					0.380	0.359	0.335	0.312	0.295	0.3364	10.24
11) C	vinyl bromide				0.690	0.628	0.622	0.572	0.549	0.520	0.5969	10.35
12) C	acrolein		0.273	0.302	0.304	0.266	0.253	0.227	0.219	0.213	0.2573	13.82
13)	acetone				1.344	1.169	1.160	1.031	0.995	0.891	1.0988	14.52
14)	trichlorofluoromethane		1.205	1.418	1.675	1.499	1.482	1.356	1.297	1.247	1.3974	11.02
15)	isopropyl alcohol				1.958	1.337	1.230	1.084	1.014	0.937	1.2598	29.50
16) C	acrylonitrile				0.594	0.475	0.403	0.393	0.379	0.397	0.4402	18.77
17) C	1,1-dichloroethene	1.260	0.936	1.140	1.318	1.202	1.100	0.957	1.048	0.986	1.1053	12.29
18)	tertiary butyl alcohol					1.446	1.470	1.340	1.292	1.225	1.3548	7.61
19) C	methylene chloride					0.908	0.899	0.802	0.775	0.717	0.8204	10.02
20) C	3-chloropropene				1.032	0.943	0.945	0.861	0.830	0.770	0.8967	10.51
21) C	carbon disulfide				2.680	2.324	2.299	2.086	1.988	1.874	2.2085	13.12
22)	Freon 113		1.169	1.379	1.608	1.456	1.454	1.329	1.272	1.203	1.3588	10.76
23)	trans-1,2-dichloroethene	1.248	0.912	1.088	1.285	1.180	1.186	1.084	1.045	0.977	1.1118	11.11
24) C	1,1-dichloroethane	1.535	1.105	1.332	1.568	1.444	1.405	1.307	1.248	1.179	1.3470	11.60
25) C	MTBE	2.238	1.601	1.858	2.202	2.029	1.997	1.864	1.769	1.671	1.9143	11.56
26) C	vinyl acetate					1.225	1.228	1.234	1.318	1.335	1.2678	4.26
27) C	2-butanone				1.441	1.278	1.410	1.394	1.356	1.290	1.3616	4.86
28)	cis-1,2-dichloroethene	1.196	0.866	1.036	1.242	1.102	1.119	1.036	1.005	0.944	1.0607	11.17
29)	Ethyl Acetate					0.505	0.262	0.281	0.277	0.266	0.3182	32.87#
30) C	chloroform	1.932	1.376	1.680	1.976	1.790	1.776	1.638	1.566	1.459	1.6881	11.98
31)	Tetrahydrofuran					0.903	0.927	0.764	0.749	0.722	0.8129	11.62

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Method File : TSIM1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Jul 16 08:07:11 2019
 Response Via : Initial Calibration

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
32) C	1,2-dichloroethane	1.047	0.760	0.934	1.080	0.989	0.977	0.911	0.875	0.826	0.9330	11.04
33) I	1,4-difluorobenzene	-----ISTD-----										
34) C	hexane				0.718	0.657	0.649	0.589	0.569	0.522	0.6174	11.45
35) s	1,2-dichloroethane-D4	0.355	0.355	0.349	0.355	0.349	0.360	0.352	0.354	0.353	0.3535	1.00
36) C	1,1,1-trichloroethane	0.665	0.492	0.581	0.688	0.631	0.626	0.576	0.562	0.557	0.5977	10.16
37) C	benzene		0.829	0.960	1.137	1.053	1.043	0.962	0.933	0.895	0.9765	10.00
38) C	carbon tetrachloride	0.632	0.463	0.560	0.653	0.603	0.600	0.554	0.536	0.519	0.5690	10.43
39)	cyclohexane				0.589	0.532	0.541	0.496	0.476	0.460	0.5157	9.22
40)	dibromomethane	0.597	0.392	0.394	0.433	0.390	0.384	0.357	0.348	0.339	0.4037	19.29
41) C	1,2-dichloropropane	0.461	0.314	0.382	0.436	0.403	0.406	0.372	0.355	0.345	0.3859	11.92
42)	bromodichloromethane	0.830	0.576	0.680	0.811	0.740	0.748	0.701	0.691	0.662	0.7155	10.85
43) C	1,4-dioxane			0.190	0.242	0.223	0.213	0.217	0.209	0.207	0.2146	7.40
44) C	trichloroethene	0.467	0.325	0.401	0.475	0.431	0.438	0.403	0.390	0.371	0.4111	11.54
45) C	2,2,4-trimethylpentane				1.904	1.738	1.750	1.610	1.541	1.433	1.6627	10.14
46)	heptane				0.683	0.634	0.637	0.585	0.561	0.517	0.6029	9.95
47) C	cis-1,3-dichloropropene	2.225	1.631	1.976	2.337	2.167	2.208	2.120	2.092	2.054	2.0899	9.65
48) C	4-methyl-2-pentanone					0.785	0.793	0.776	0.756	0.705	0.7629	4.62
49)	trans-1,3-dichloropropene	0.520	0.407	0.444	0.544	0.511	0.528	0.515	0.510	0.512	0.4991	8.78
50) C	1,1,2-trichloroethane	0.445	0.328	0.386	0.458	0.421	0.421	0.396	0.385	0.367	0.4007	10.02
51) I	chlorobenzene-D5	-----ISTD-----										
52) C	toluene		6.161	6.677	7.534	6.773	6.760	6.255	5.997	5.849	6.5007	8.41
53) s	toluene-D8	5.585	5.574	5.644	5.559	5.512	5.735	5.686	5.633	5.858	5.6429	1.87
54)	2-hexanone				3.682	3.729	3.942	3.828	3.602	3.098	3.6468	8.05
55)	dibromochloromethane	3.786	2.788	3.315	3.903	3.630	3.629	3.565	3.504	3.558	3.5198	9.12
56) C	1,2-dibromoethane	3.470	2.626	3.178	3.751	3.462	3.489	3.346	3.296	3.314	3.3258	9.27
57) C	tetrachloroethene	3.078	2.252	2.681	3.190	2.912	2.929	2.727	2.665	2.660	2.7884	9.94
58)	1,1,1,2-tetrachloroethane	2.686	1.957	2.318	2.717	2.558	2.553	2.413	2.357	2.343	2.4334	9.52
59) C	chlorobenzene	5.644	3.987	4.791	5.743	5.218	5.218	4.913	4.780	4.656	4.9944	10.75
60) C	ethylbenzene	9.948	6.725	7.806	9.322	8.486	8.550	7.970	7.790	7.489	8.2318	11.82
61) C	m+p-xylene	0.832	1.086	0.619	0.729	0.667	0.656	0.617	0.599	0.570	0.7083	22.87

Response Factor Report Air Piano 1

Method Path : O:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Method File : TSIM1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Jul 16 08:07:11 2019
 Response Via : Initial Calibration

Calibration Files

0.02=R167338.D 0.05=R167339.D 0.1 =R167340.D 0.2 =R167341.D 0.5 =R167342.D 1.0 =R167343.D
 5.0 =R167344.D 10.0=R167345.D 50.0=R167347.D

	Compound	0.02	0.05	0.1	0.2	0.5	1.0	5.0	10.0	50.0	Avg	%RSD
62) C	bromoform	3.830	2.620	3.043	3.622	3.393	3.456	3.481	3.452	3.525	3.3802	10.43
63) C	styrene	4.843	3.511	4.271	5.239	4.944	5.017	4.830	4.727	4.622	4.6672	10.93
64) C	1,1,2,2-tetrachloroethane	5.503	3.881	4.737	5.525	5.261	5.104	4.921	4.782	4.312	4.8917	11.08
65) C	o-xylene	8.434	5.587	6.323	7.357	6.816	6.725	6.343	6.094	5.493	6.5746	13.86
66)	1,2,3-trichloropropane	3.966	3.118	3.627	4.312	4.003	4.000	3.835	3.665	3.631	3.7953	8.90
67) s	bromofluorobenzene	3.535	3.545	3.564	3.561	3.556	3.681	3.698	3.700	3.873	3.6349	3.11
68) C	isopropylbenzene				9.571	8.938	8.991	8.397	8.140	7.600	8.6062	8.15
69)	bromobenzene	4.838	3.660	4.286	5.271	4.886	4.921	4.635	4.387	4.347	4.5812	10.30
70)	4-ethyl toluene	0.882	0.706	0.832	1.055	0.969	0.997	0.956	0.907	0.845	0.9054	11.49
71)	1,3,5-trimethylbenzene	8.810	5.898	6.778	8.369	7.771	7.760	7.469	7.037	6.808	7.4110	11.99
72)	tert-butylbenzene				8.668	8.028	8.149	7.533	7.372	6.115	7.6442	11.52
73)	1,2,4-trimethylbenzene	7.230	5.317	6.520	7.988	7.661	7.773	7.316	7.141	6.030	6.9974	12.57
74) C	Benzyl Chloride				5.743	6.009	6.320	6.595	6.675	6.598	6.3233	5.95
75)	1,3-dichlorobenzene	4.478	3.410	4.262	5.488	5.291	5.473	5.234	5.183	4.958	4.8640	14.20
76) C	1,4-dichlorobenzene	4.620	3.250	4.202	5.396	5.387	5.539	5.369	5.259	4.949	4.8857	15.40
77)	sec-butylbenzene				1.196	1.135	1.156	1.085	1.053	0.921	1.0910	8.93
78)	p-isopropyltoluene				1.024	0.993	1.018	0.970	0.939	0.792	0.9558	9.04
79)	1,2-dichlorobenzene	4.511	3.254	4.075	5.168	5.062	5.171	5.096	4.959	4.804	4.6779	13.77
80)	n-butylbenzene				8.422	8.997	9.464	9.241	8.958	7.859	8.8236	6.65
81) C	1,2,4-trichlorobenzene		0.967	1.300	1.995	2.971	3.679	4.347	4.585	3.305	2.8939	46.77#
82)	naphthalene		0.376	0.377	0.519	0.749	0.930	1.017	1.080	0.783	0.7289	38.17#
83)	1,2,3-trichlorobenzene		1.021	1.311	1.817	2.755	3.508	4.198	4.465	3.165	2.7800	46.52#
84) C	hexachlorobutadiene		1.669	2.209	2.503	2.970	3.348	3.558	3.735	2.703	2.8368	24.90

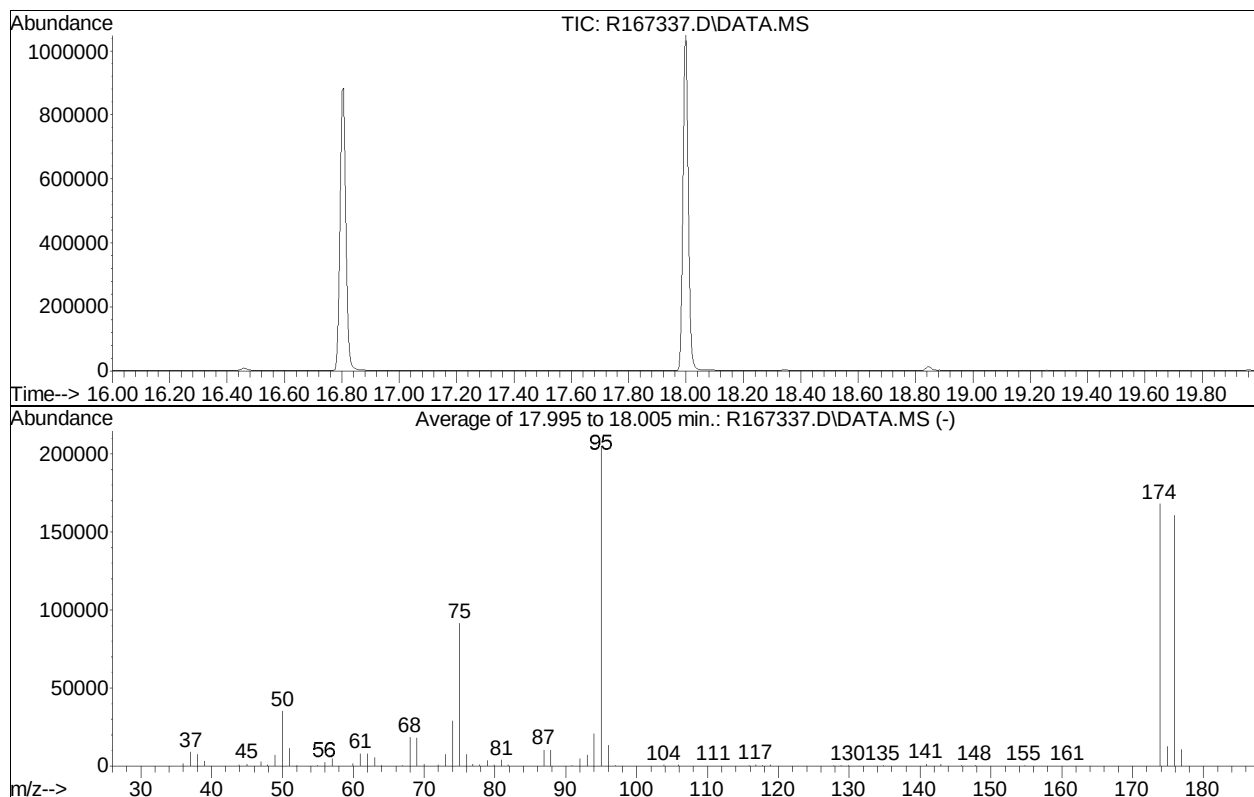
(#) = Out of Range

BFB

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167337.D
 Acq On : 12 Jul 2019 7:12 pm
 Operator : AIRPIAN01:AR
 Sample : WG1260317-1
 Misc : WG1260317
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Jul 16 08:07:11 2019



AutoFind: Scans 1577, 1578, 1579; Background Corrected with Scan 1569

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	35445	PASS
75	95	30	66	44.7	91544	PASS
95	95	100	100	100.0	204715	PASS
96	95	5	9	6.6	13471	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.1	168064	PASS
175	174	4	9	7.5	12536	PASS
176	174	93	101	95.7	160832	PASS
177	176	5	9	6.6	10552	PASS

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167338.D
 Acq On : 12 Jul 2019 7:43 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 15 12:15:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	211985	10.000	ppbV	0.00
Standard Area = 214308			Recovery =		98.92%	
33) 1,4-difluorobenzene	12.35	114	485875	10.000	ppbV	0.00
Standard Area = 491248			Recovery =		98.91%	
51) chlorobenzene-D5	16.80	54	91775	10.000	ppbV	0.00
Standard Area = 91879			Recovery =		99.89%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	172497	10.075	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.75%	
53) toluene-D8	15.09	98	512581	9.822	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.22%	
67) bromofluorobenzene	18.00	95	324434	9.559	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		95.59%	
Target Compounds						
					Qvalue	
2) propylene	3.92	41	609M6	0.063	ppbV	
3) dichlorodifluoromethane	4.02	85	711	0.024	ppbV #	88
4) chloromethane	4.23	50	302M4	0.029	ppbV	
5) Freon-114	4.39	85	802	0.024	ppbV #	95
6) vinyl chloride	4.54	62	304	0.024	ppbV #	62
7) 1,3-butadiene	4.73	54	202M4	0.024	ppbV	
8) bromomethane	5.12	94	284M4	0.024	ppbV	
9) chloroethane	5.37	64	145M4	0.024	ppbV	
10) ethanol	5.64	31	1791M3	0.252	ppbV	
11) vinyl bromide	5.86	106	280M4	0.023	ppbV	
12) acrolein	6.09	56	219	0.046	ppbV #	71
13) acetone	6.31	43	5257	0.240	ppbV #	97
14) trichlorofluoromethane	6.44	101	675	0.023	ppbV	88
15) isopropyl alcohol	6.68	45	5870	0.256	ppbV #	95
16) acrylonitrile	6.91	53	242	0.029	ppbV #	82
17) 1,1-dichloroethene	7.29	61	534	0.026	ppbV #	74
18) tertiary butyl alcohol	7.54	59	768	0.027	ppbV #	1
19) methylene chloride	7.46	49	655	0.039	ppbV	95
20) 3-chloropropene	7.61	41	436	0.024	ppbV	89
21) carbon disulfide	7.80	76	2101	0.048	ppbV #	1
22) Freon 113	7.82	101	673	0.024	ppbV #	91
23) trans-1,2-dichloroethene	8.66	61	529	0.023	ppbV #	77
24) 1,1-dichloroethane	8.91	63	651	0.023	ppbV #	78

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167338.D
 Acq On : 12 Jul 2019 7:43 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 15 12:15:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	9.09	73	949	0.024	ppbV	#	45
26) vinyl acetate	9.14		0	N.D.			
27) 2-butanone	9.30	43	896	0.030	ppbV	#	30
28) cis-1,2-dichloroethene	9.92	61	507	0.023	ppbV	#	74
29) Ethyl Acetate	10.17		0	N.D.			
30) chloroform	10.27	83	819	0.024	ppbV	#	88
31) Tetrahydrofuran	10.87	42	356M3	0.022	ppbV		
32) 1,2-dichloroethane	11.13	62	444	0.023	ppbV	#	51
34) hexane	10.17	57	777	0.027	ppbV	#	69
36) 1,1,1-trichloroethane	11.41	97	646	0.023	ppbV	#	82
37) benzene	11.94	78	1167	0.025	ppbV	#	82
38) carbon tetrachloride	12.11	117	614	0.023	ppbV	#	90
39) cyclohexane	12.23	56	579	0.024	ppbV	#	81
40) dibromomethane	12.85	93	580	0.033	ppbV		92
41) 1,2-dichloropropane	12.87	63	448	0.025	ppbV	#	78
42) bromodichloromethane	13.10	83	807	0.024	ppbV	#	95
43) 1,4-dioxane	13.31	88	240M3	0.023	ppbV		
44) trichloroethene	13.14	130	454	0.023	ppbV		92
45) 2,2,4-trimethylpentane	13.17	57	1777	0.023	ppbV	#	71
46) heptane	13.47	43	667	0.023	ppbV	#	94
47) cis-1,3-dichloropropene	14.14	75	2162	0.021	ppbV	#	75
48) 4-methyl-2-pentanone	14.25	43	1164M1	0.031	ppbV		
49) trans-1,3-dichloropropene	14.75	75	505	0.020	ppbV	#	41
50) 1,1,2-trichloroethane	14.92	97	432	0.022	ppbV		95
52) toluene	15.20	91	1777	0.031	ppbV		97
54) 2-hexanone	15.55	43	624M3	0.018	ppbV		
55) dibromochloromethane	15.62	129	695	0.021	ppbV	#	94
56) 1,2-dibromoethane	15.86	107	637	0.021	ppbV		97
57) tetrachloroethene	16.26	166	565	0.023	ppbV	#	88
58) 1,1,1,2-tetrachloroethane	16.83	131	493	0.022	ppbV	#	94
59) chlorobenzene	16.84	112	1036	0.023	ppbV	#	83
60) ethylbenzene	17.14	91	1826	0.025	ppbV		95
61) m+p-xylene	17.28	91	3053	0.054	ppbV		97
62) bromoform	17.36	173	703	0.022	ppbV		95
63) styrene	17.57	104	889	0.020	ppbV		94
64) 1,1,2,2-tetrachloroethane	17.65	83	1010	0.022	ppbV		90
65) o-xylene	17.65	91	1548	0.027	ppbV		99
66) 1,2,3-trichloropropane	17.75	75	728	0.021	ppbV	#	82
68) isopropylbenzene	18.09	105	1786	0.023	ppbV		92
69) bromobenzene	18.18	77	888	0.021	ppbV		95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167338.D
 Acq On : 12 Jul 2019 7:43 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.02
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 15 12:15:58 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

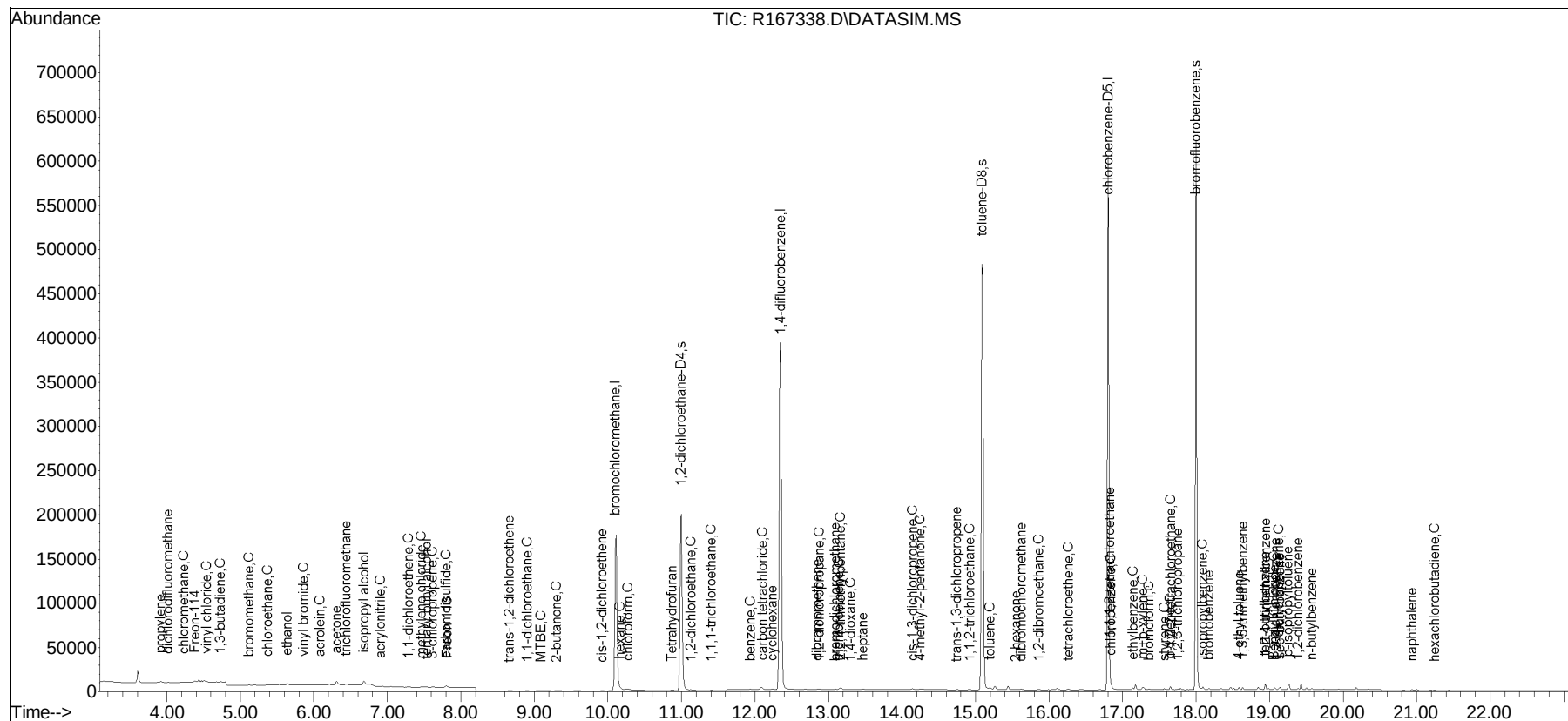
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
70) 4-ethyl toluene	18.58	105	1618	0.018	ppbV	#	95
71) 1,3,5-trimethylbenzene	18.63	105	1617	0.024	ppbV	#	94
72) tert-butylbenzene	18.94	119	1489	0.022	ppbV		94
73) 1,2,4-trimethylbenzene	18.95	105	1327	0.020	ppbV		96
74) Benzyl Chloride	19.06	91	836	0.014	ppbV	#	74
75) 1,3-dichlorobenzene	19.08	146	822	0.017	ppbV	#	90
76) 1,4-dichlorobenzene	19.13	146	848M3	0.017	ppbV		
77) sec-butylbenzene	19.14	105	1826	0.018	ppbV		99
78) p-isopropyltoluene	19.25	119	1916	0.022	ppbV		96
79) 1,2-dichlorobenzene	19.39	146	828	0.018	ppbV	#	90
80) n-butylbenzene	19.57	91	949	0.011	ppbV		92
81) 1,2,4-trichlorobenzene	20.82		0	N.D.			
82) naphthalene	20.94	128	1506	0.016	ppbV	#	84
83) 1,2,3-trichlorobenzene	21.19		0	N.D.			
84) hexachlorobutadiene	21.25	225	415	0.013	ppbV	#	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167338.D
Acq On    : 12 Jul 2019    7:43 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-SIMSTD0.02
Misc      : WG1260317
ALS Vial  : 5    Sample Multiplier: 1
```

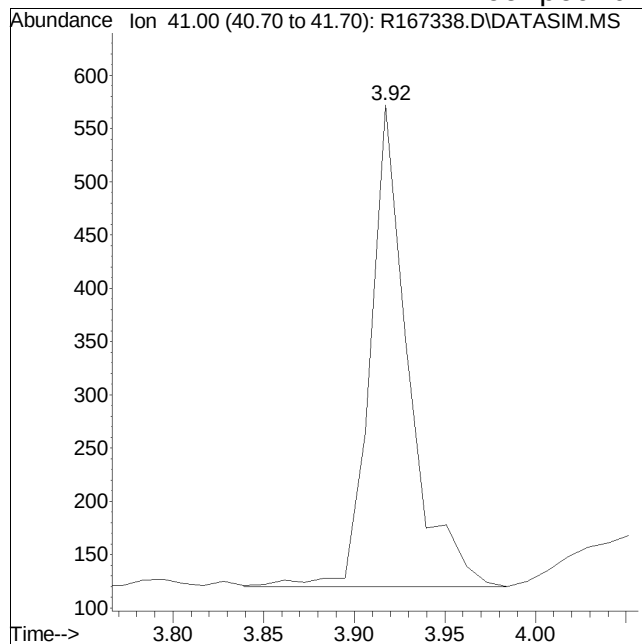
Quant Time: Jul 15 12:15:58 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

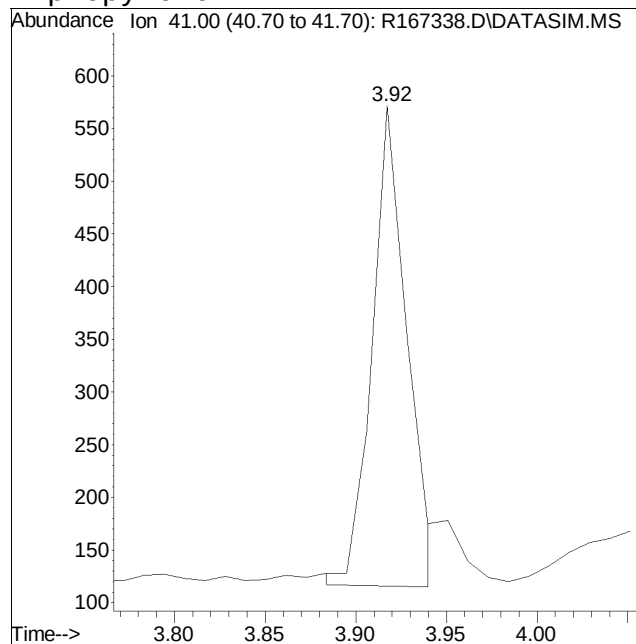
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 663

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

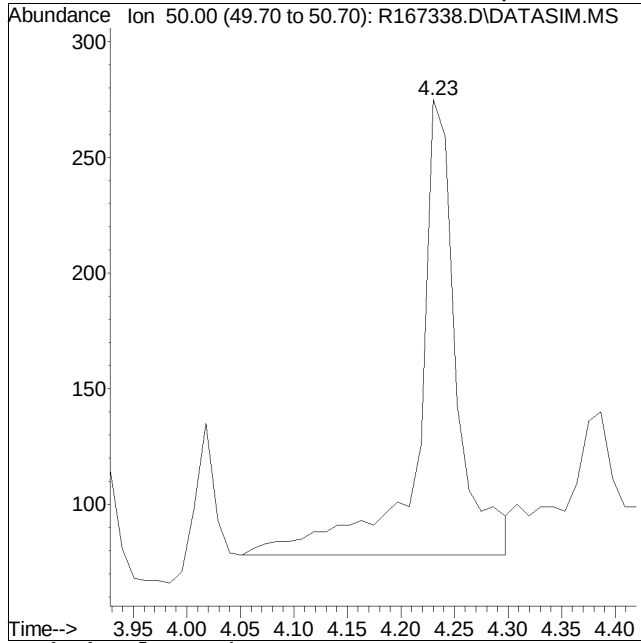


Manual Peak Response = 609 M6

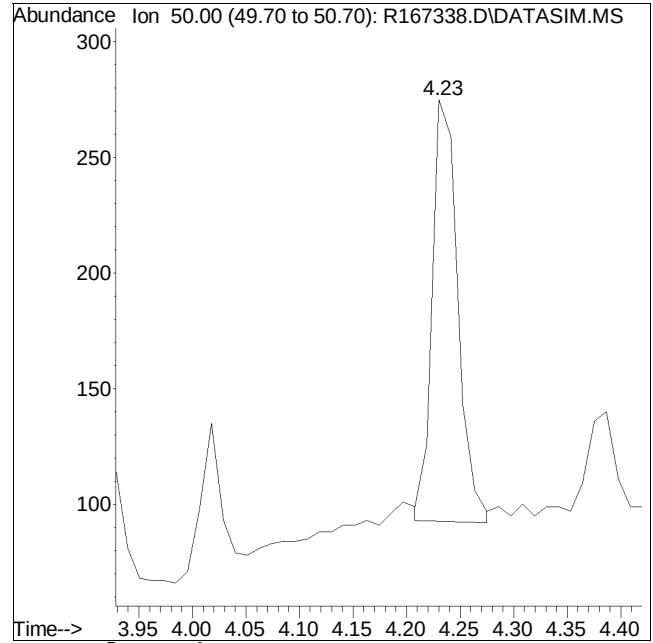
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #4: chloromethane



Original Peak Response = 495



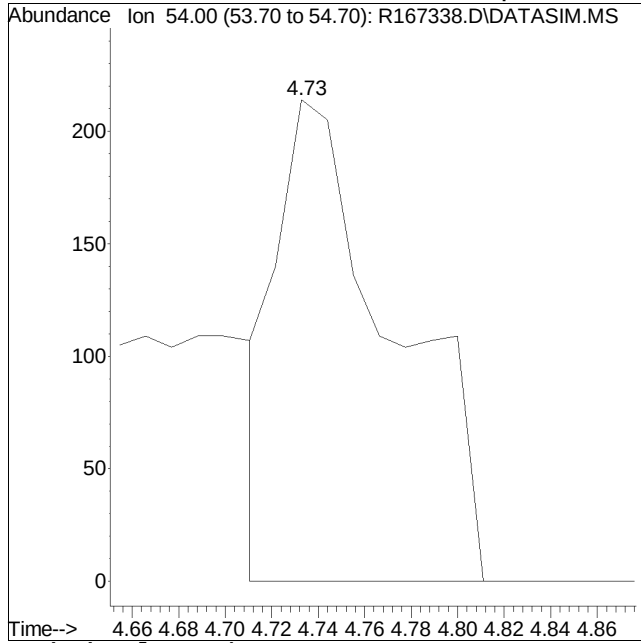
Manual Peak Response = 302 M4

M4 = Poor automated baseline construction.

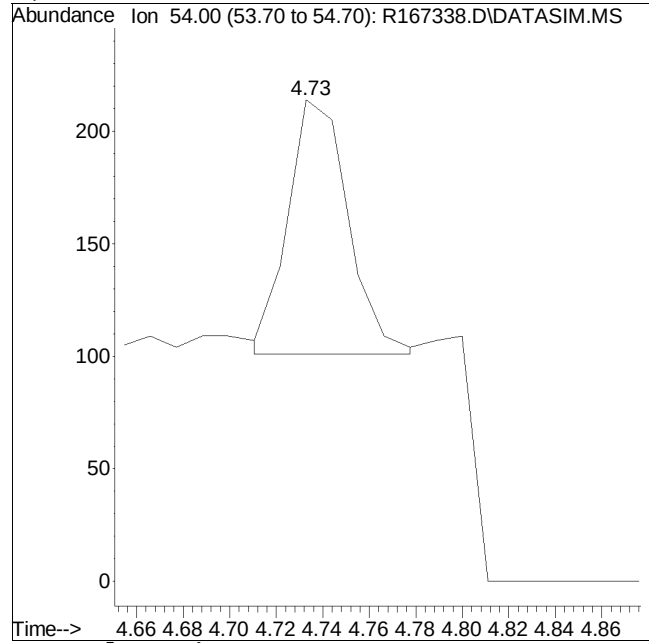
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 741



Manual Peak Response = 202 M4

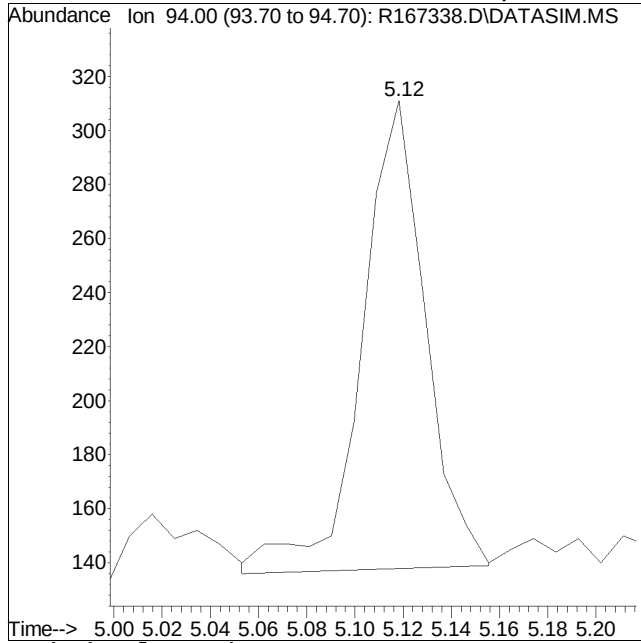
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
Data File : R167338.D
Date Inj'd : 7/12/2019 7:43 pm
Sample : IT015-SIMSTD0.02

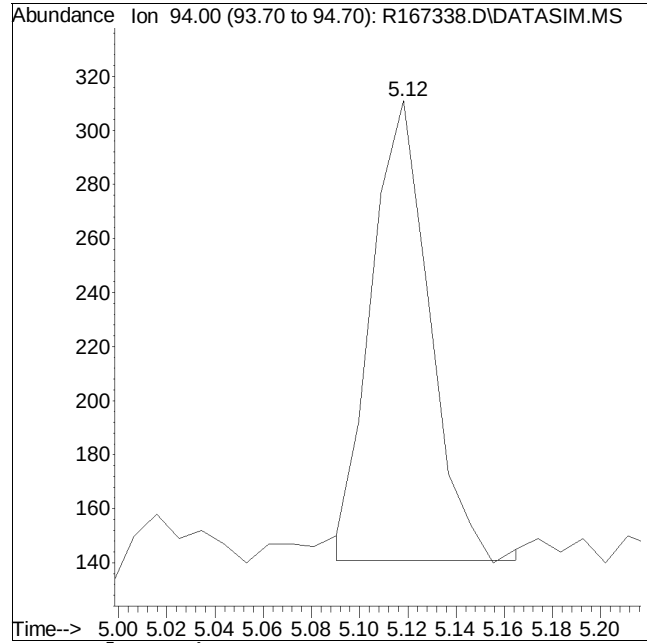
Method : TSIM1_190712.M
Operator : AIRPIAN01:AR
Instrument : Air Piano 1
Quant Date : 7/15/2019 12:10 pm

Compound #8: bromomethane



Original Peak Response = 318

M4 = Poor automated baseline construction.

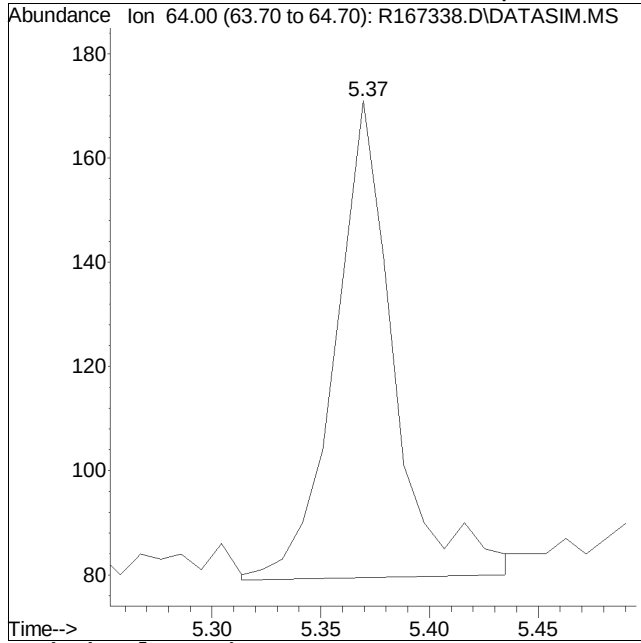


Manual Peak Response = 284 M4

Manual Integration/Negative Proof Report

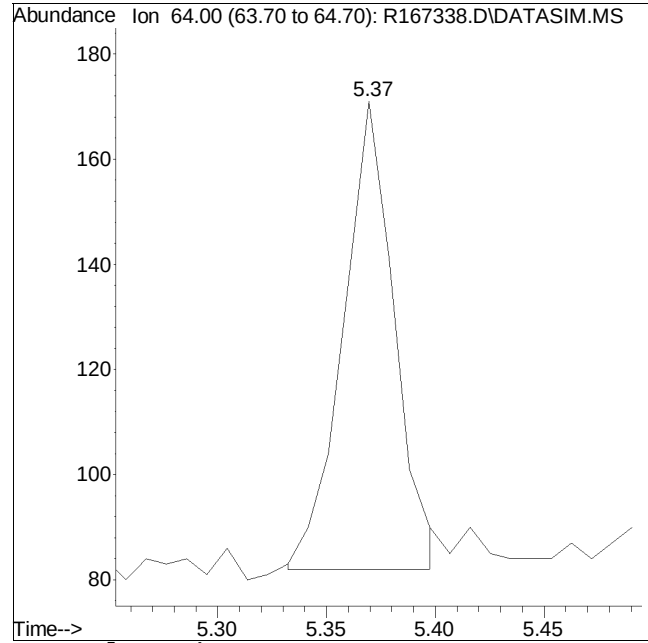
Data Path : O:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #9: chloroethane



Original Peak Response = 172

M4 = Poor automated baseline construction.

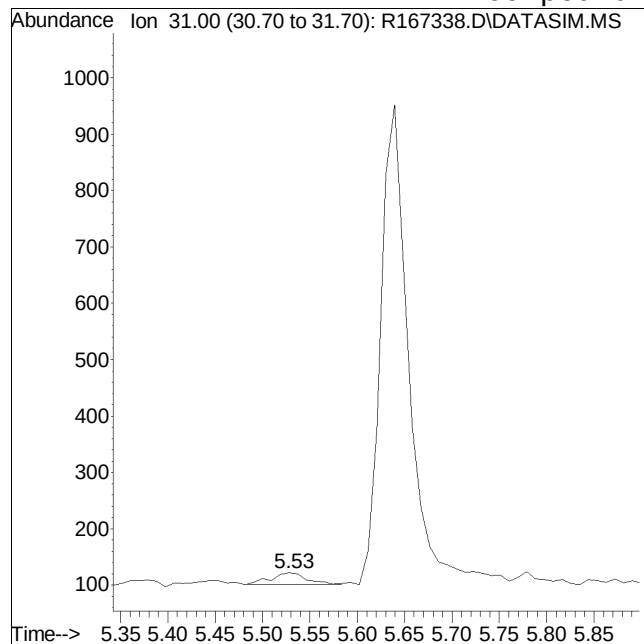


Manual Peak Response = 145 M4

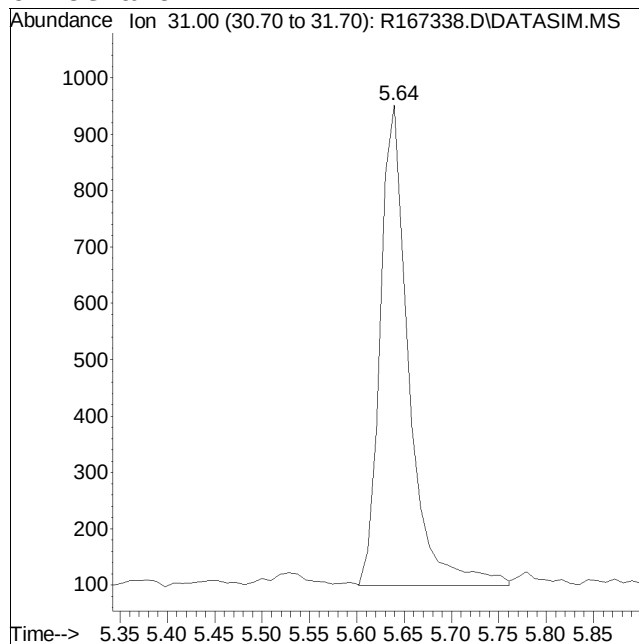
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #10: ethanol



Original Peak Response = 57



Manual Peak Response = 1791 M3

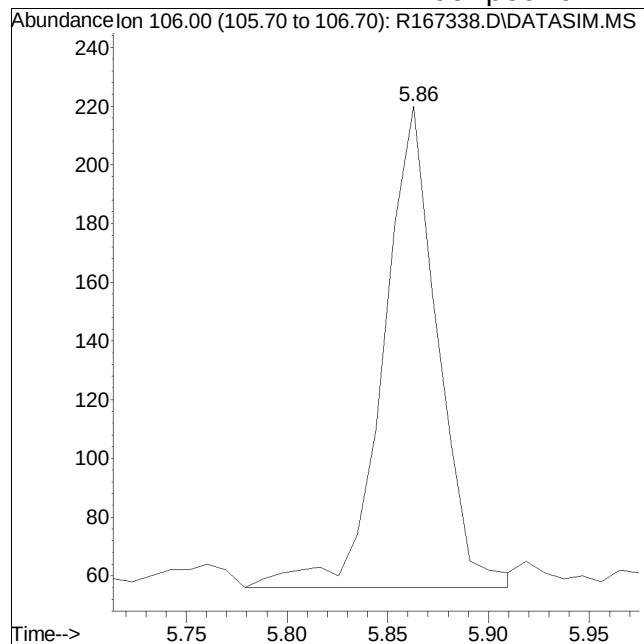
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR1\20190712.M
Data File : R167338.D
Date Inj'd : 7/12/2019 7:43 pm
Sample : IT015-SIMSTD0.02

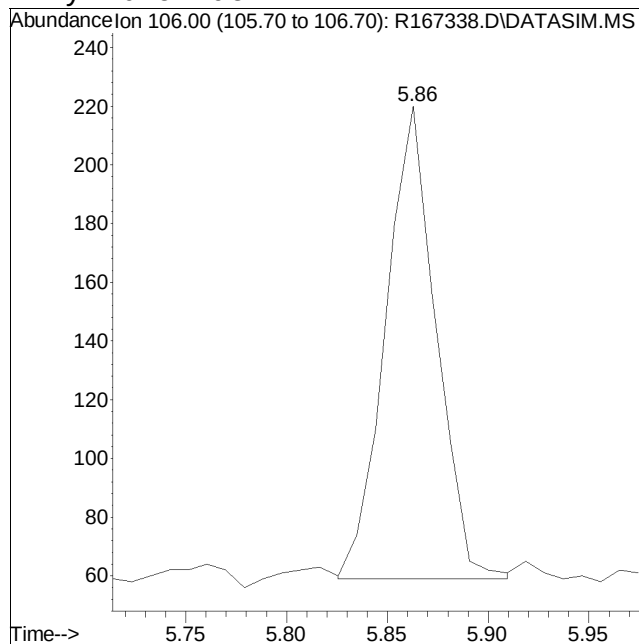
Method : TSIM1_190712.M
Operator : AIRPIAN01:AR
Instrument : Air Piano 1
Quant Date : 7/15/2019 12:10 pm

Compound #11: vinyl bromide



Original Peak Response = 309

M4 = Poor automated baseline construction.

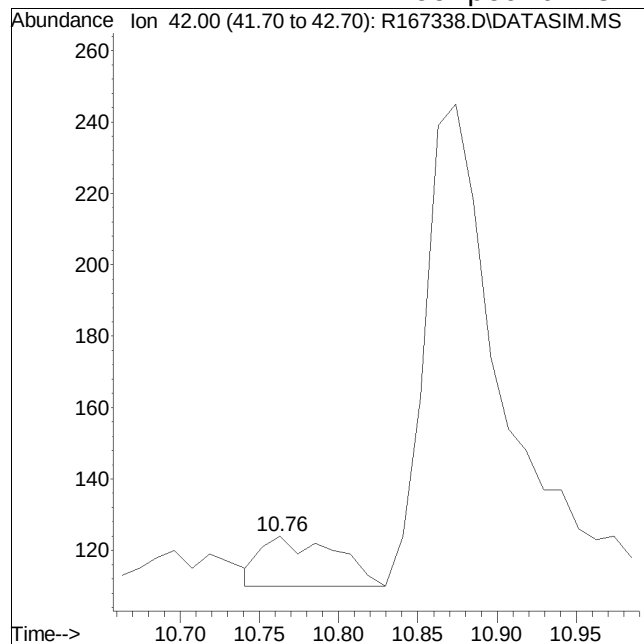


Manual Peak Response = 280 M4

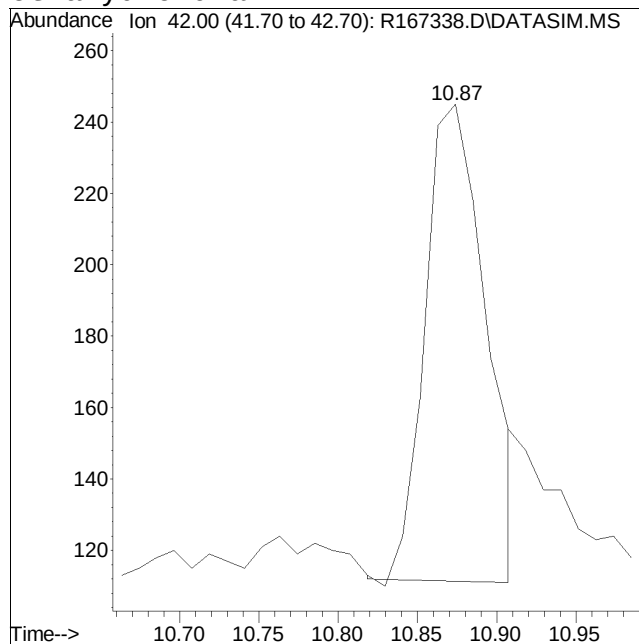
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167338.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #31: Tetrahydrofuran



Original Peak Response = 45



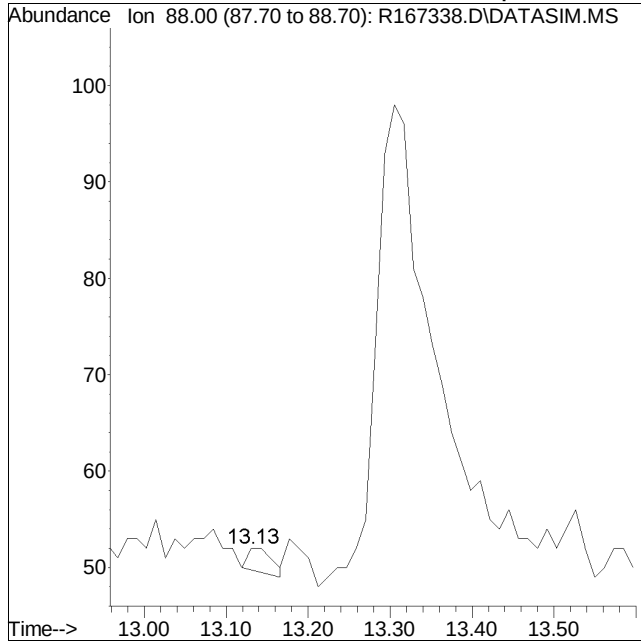
Manual Peak Response = 356 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

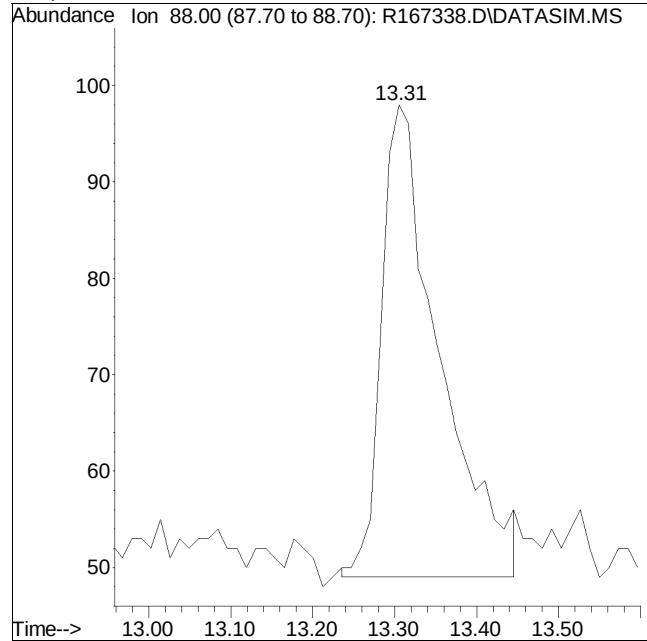
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #43: 1,4-dioxane



Original Peak Response = 5



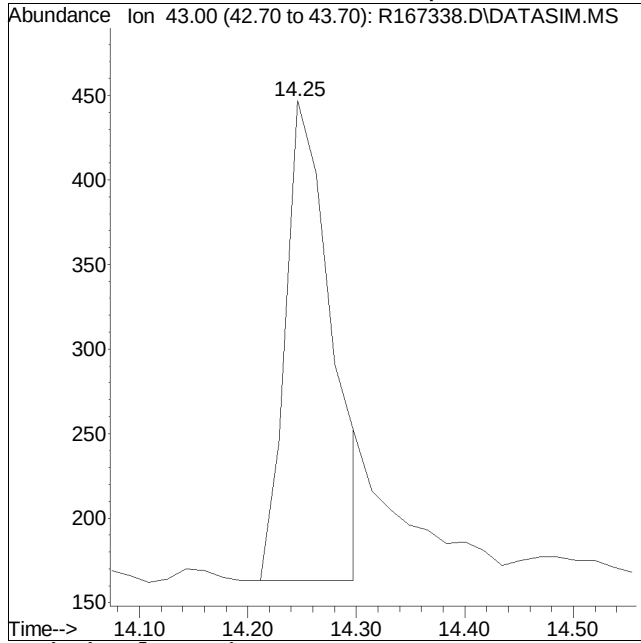
Manual Peak Response = 240 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

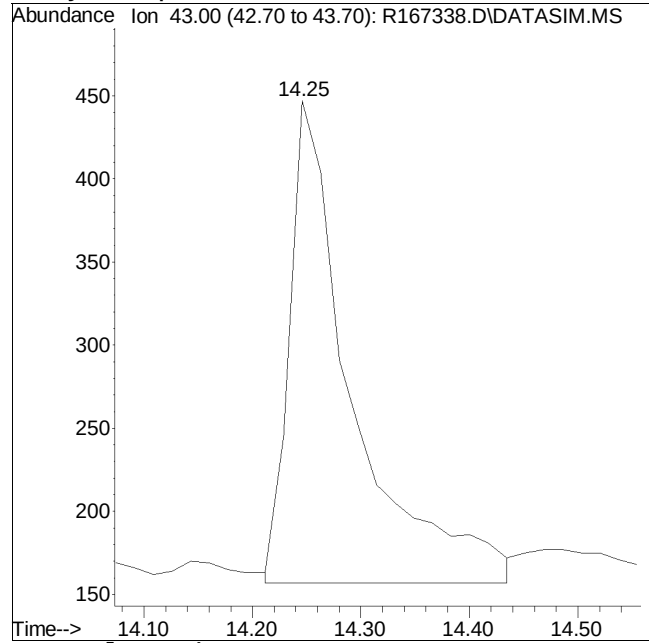
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #48: 4-methyl-2-pentanone



Original Peak Response = 847



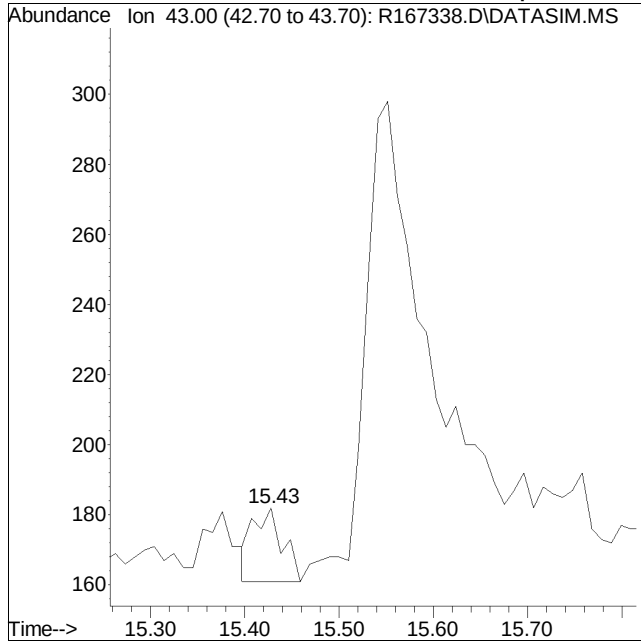
Manual Peak Response = 1164 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

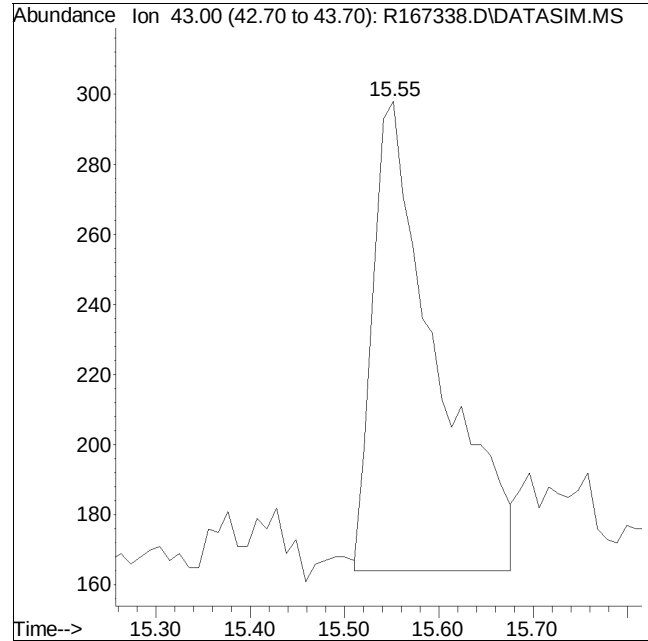
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #54: 2-hexanone



Original Peak Response = 46



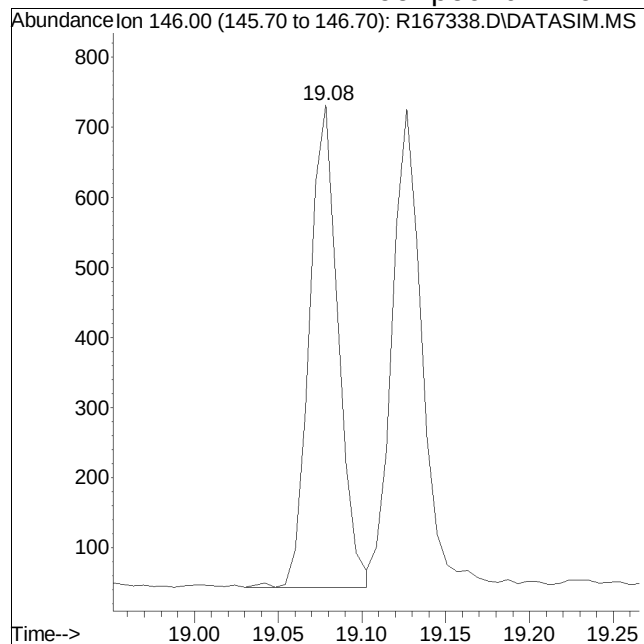
Manual Peak Response = 624 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

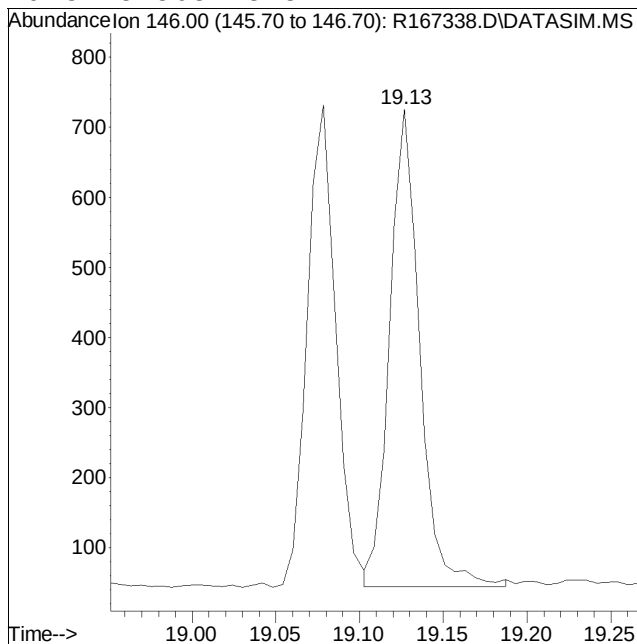
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167338.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 7:43 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.02 Quant Date : 7/15/2019 12:10 pm

Compound #76: 1,4-dichlorobenzene



Original Peak Response = 822

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.



Manual Peak Response = 848 M3

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167339.D
 Acq On : 12 Jul 2019 8:14 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:13:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	215068	10.000	ppbV	0.00
Standard Area = 214308			Recovery =	100.35%		
33) 1,4-difluorobenzene	12.35	114	491376	10.000	ppbV	0.00
Standard Area = 491248			Recovery =	100.03%		
51) chlorobenzene-D5	16.80	54	92612	10.000	ppbV	0.00
Standard Area = 91879			Recovery =	100.80%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	174420	10.073	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.73%		
53) toluene-D8	15.10	98	516177	9.801	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.01%		
67) bromofluorobenzene	18.00	95	328265	9.585	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.85%		
Target Compounds						
					Qvalue	
2) propylene	3.92	41	893	0.091	ppbV	96
3) dichlorodifluoromethane	4.02	85	1368	0.045	ppbV	98
4) chloromethane	4.24	50	631	0.059	ppbV #	74
5) Freon-114	4.39	85	1522	0.045	ppbV	96
6) vinyl chloride	4.54	62	555	0.044	ppbV #	79
7) 1,3-butadiene	4.73	54	363M4	0.042	ppbV	
8) bromomethane	5.12	94	566	0.047	ppbV	89
9) chloroethane	5.37	64	300	0.049	ppbV #	71
10) ethanol	5.64	31	2491	0.346	ppbV	88
11) vinyl bromide	5.86	106	534	0.043	ppbV	99
12) acrolein	6.09	56	294M3	0.060	ppbV	
13) acetone	6.31	43	7504	0.338	ppbV #	99
14) trichlorofluoromethane	6.44	101	1296	0.044	ppbV	93
15) isopropyl alcohol	6.68	45	6927	0.297	ppbV #	96
16) acrylonitrile	6.91	53	482	0.057	ppbV #	89
17) 1,1-dichloroethene	7.29	61	1007	0.049	ppbV #	90
18) tertiary butyl alcohol	7.53	59	1382	0.048	ppbV #	34
19) methylene chloride	7.47	49	1015	0.059	ppbV	85
20) 3-chloropropene	7.62	41	846	0.046	ppbV	92
21) carbon disulfide	7.80	76	2898	0.065	ppbV #	1
22) Freon 113	7.82	101	1257	0.044	ppbV	97
23) trans-1,2-dichloroethene	8.66	61	981	0.042	ppbV	88
24) 1,1-dichloroethane	8.91	63	1188	0.042	ppbV #	87

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167339.D
 Acq On : 12 Jul 2019 8:14 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:13:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	9.08	73	1722	0.043	ppbV	#	67
26) vinyl acetate	9.14		0	N.D.			
27) 2-butanone	9.30	43	714	0.024	ppbV	#	41
28) cis-1,2-dichloroethene	9.92	61	931	0.042	ppbV		88
29) Ethyl Acetate	10.28	61	335	0.055	ppbV	#	1
30) chloroform	10.27	83	1480	0.042	ppbV	#	92
31) Tetrahydrofuran	10.86	42	740M3	0.045	ppbV		
32) 1,2-dichloroethane	11.13	62	817	0.042	ppbV	#	72
34) hexane	10.17	57	1337	0.046	ppbV	#	59
36) 1,1,1-trichloroethane	11.41	97	1208	0.043	ppbV	#	89
37) benzene	11.94	78	2036	0.043	ppbV	#	87
38) carbon tetrachloride	12.11	117	1137	0.042	ppbV	#	94
39) cyclohexane	12.25	56	1039	0.043	ppbV	#	86
40) dibromomethane	12.85	93	963	0.055	ppbV		94
41) 1,2-dichloropropane	12.87	63	771	0.042	ppbV	#	85
42) bromodichloromethane	13.10	83	1416	0.041	ppbV	#	95
43) 1,4-dioxane	13.29	88	369M3	0.035	ppbV		
44) trichloroethene	13.14	130	798	0.040	ppbV		92
45) 2,2,4-trimethylpentane	13.17	57	3221	0.041	ppbV	#	84
46) heptane	13.47	43	1261	0.044	ppbV	#	95
47) cis-1,3-dichloropropene	14.14	75	4007	0.038	ppbV	#	86
48) 4-methyl-2-pentanone	14.25	43	1461	0.038	ppbV	#	90
49) trans-1,3-dichloropropene	14.74	75	1001	0.040	ppbV	#	66
50) 1,1,2-trichloroethane	14.91	97	807	0.042	ppbV		91
52) toluene	15.20	91	2853	0.049	ppbV		99
54) 2-hexanone	15.53	43	981	0.028	ppbV	#	80
55) dibromochloromethane	15.62	129	1291	0.039	ppbV	#	97
56) 1,2-dibromoethane	15.86	107	1216	0.039	ppbV		99
57) tetrachloroethene	16.26	166	1043	0.041	ppbV	#	92
58) 1,1,1,2-tetrachloroethane	16.83	131	906	0.041	ppbV	#	87
59) chlorobenzene	16.84	112	1846	0.041	ppbV		95
60) ethylbenzene	17.14	91	3114	0.042	ppbV		94
61) m+p-xylene	17.29	91	5028	0.088	ppbV		97
62) bromoform	17.36	173	1213	0.038	ppbV		92
63) styrene	17.57	104	1626	0.036	ppbV		97
64) 1,1,2,2-tetrachloroethane	17.65	83	1797	0.039	ppbV		95
65) o-xylene	17.65	91	2587	0.044	ppbV		99
66) 1,2,3-trichloropropane	17.75	75	1444	0.041	ppbV	#	88
68) isopropylbenzene	18.09	105	3135	0.040	ppbV		99
69) bromobenzene	18.18	77	1695	0.039	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167339.D
 Acq On : 12 Jul 2019 8:14 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.05
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:13:18 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

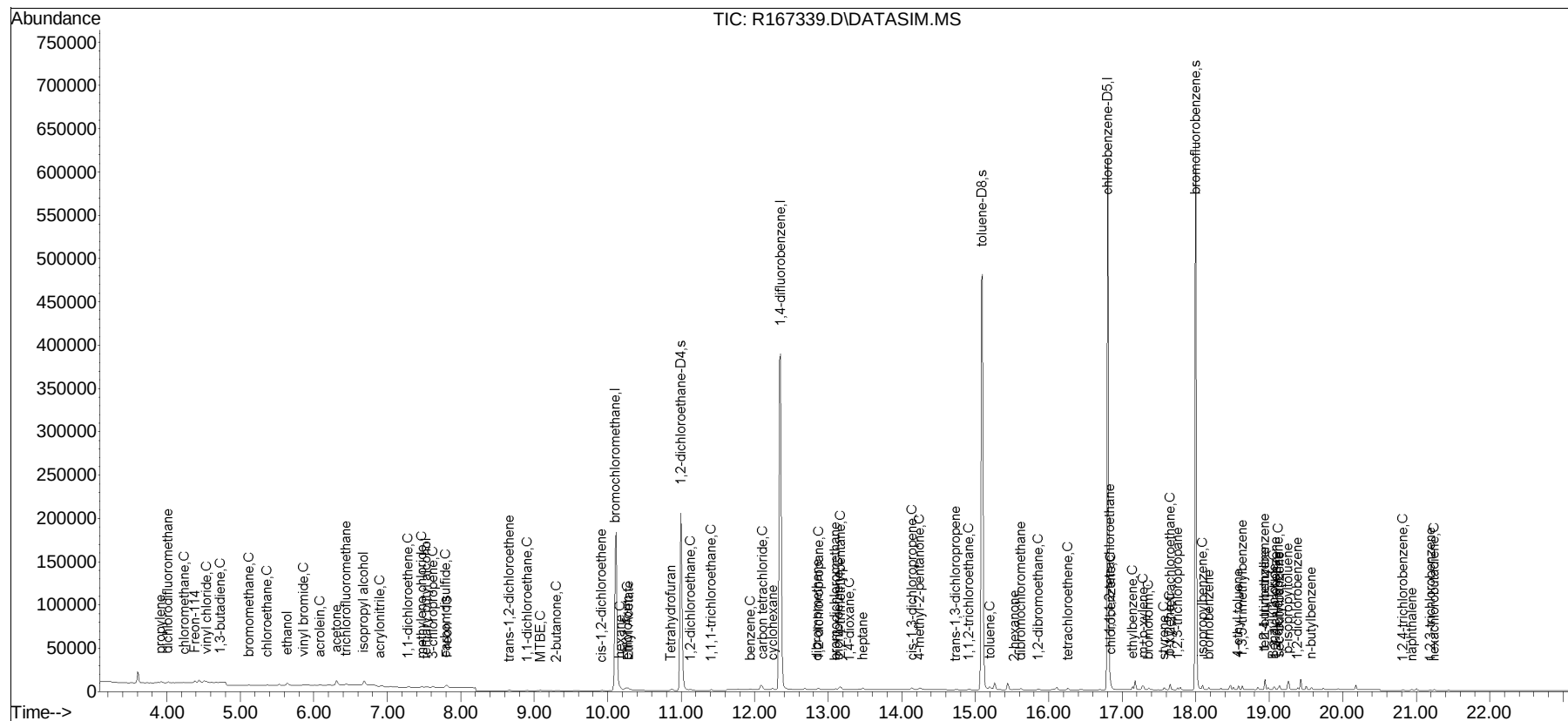
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
70) 4-ethyl toluene	18.58	105	3271	0.037	ppbV		98
71) 1,3,5-trimethylbenzene	18.63	105	2731	0.039	ppbV #		96
72) tert-butylbenzene	18.94	119	2763	0.040	ppbV		99
73) 1,2,4-trimethylbenzene	18.94	105	2462	0.036	ppbV #		93
74) Benzyl Chloride	19.06	91	1614	0.026	ppbV		97
75) 1,3-dichlorobenzene	19.08	146	1579	0.033	ppbV		96
76) 1,4-dichlorobenzene	19.13	146	1505	0.030	ppbV		95
77) sec-butylbenzene	19.14	105	3462	0.034	ppbV		96
78) p-isopropyltoluene	19.25	119	3122	0.035	ppbV		98
79) 1,2-dichlorobenzene	19.39	146	1507	0.032	ppbV		95
80) n-butylbenzene	19.57	91	2026	0.024	ppbV		97
81) 1,2,4-trichlorobenzene	20.82	180	448	0.011	ppbV #		85
82) naphthalene	20.94	128	1743	0.019	ppbV #		89
83) 1,2,3-trichlorobenzene	21.19	180	473	0.012	ppbV #		85
84) hexachlorobutadiene	21.24	225	773	0.023	ppbV #		83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0712SIM_ICAL\R167344.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167339.D
Acq On : 12 Jul 2019 8:14 pm
Operator : AIRPIAN01:AR
Sample : IT015-SIMSTD0.05
Misc : WG1260317
ALS Vial : 5 Sample Multiplier: 1

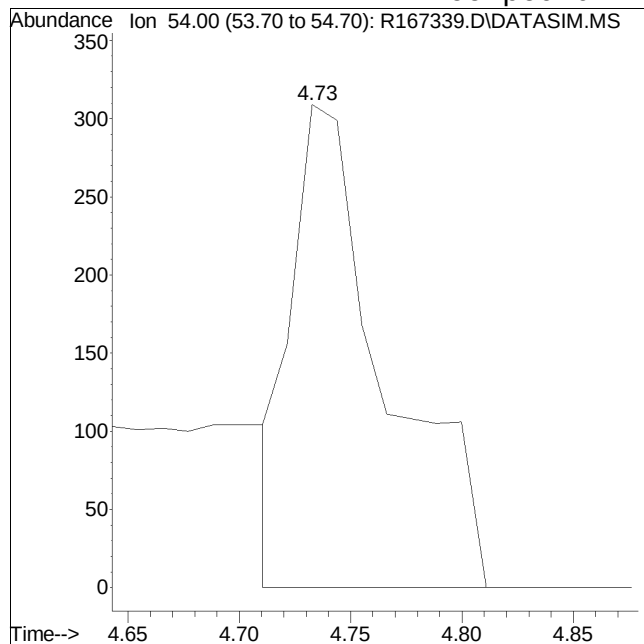
Quant Time: Jul 16 07:13:18 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

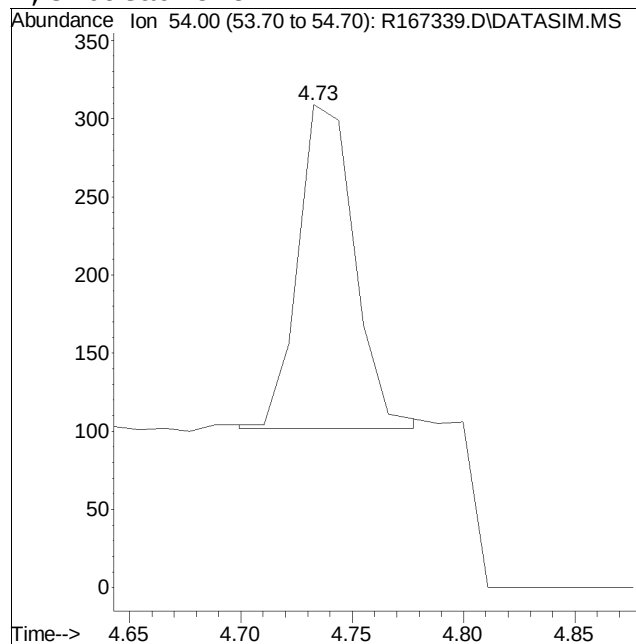
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167339.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 8:14 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.05 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 898

M4 = Poor automated baseline construction.

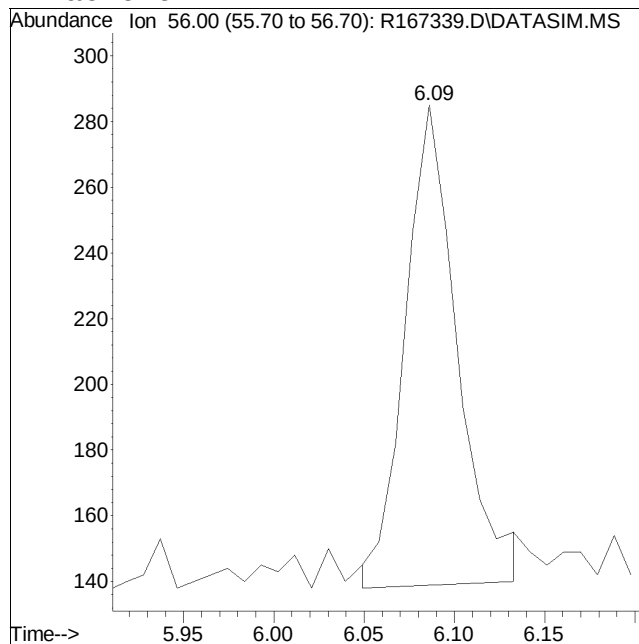
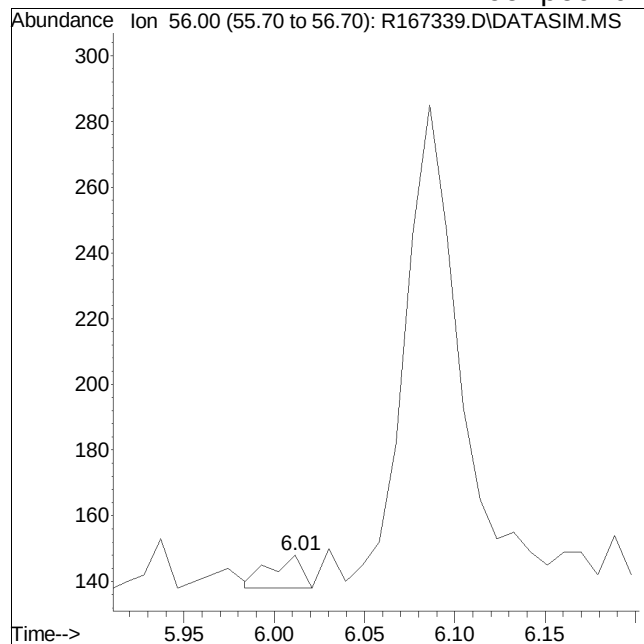


Manual Peak Response = 363 M4

Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167339.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 8:14 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD0.05 Quant Date : 7/15/2019 12:10 pm

Compound #12: acrolein

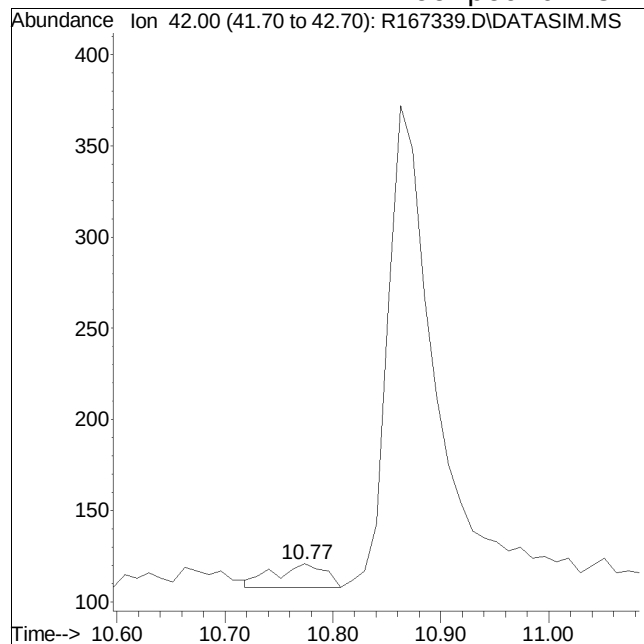


M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

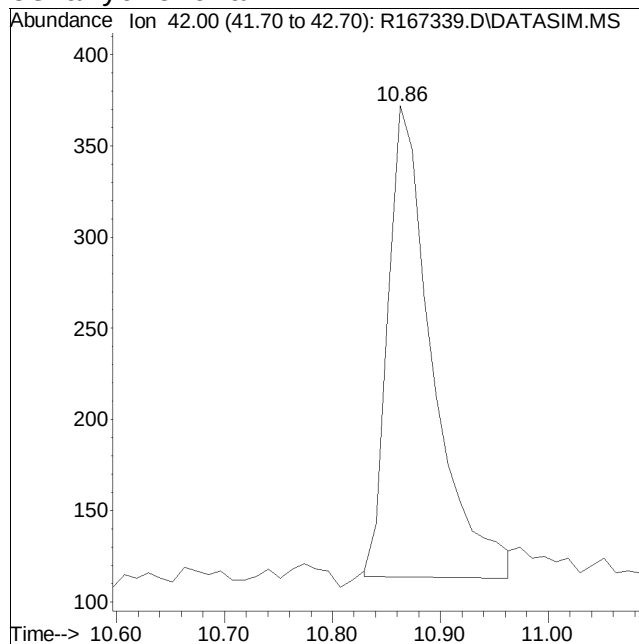
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
 Data File : R167339.D
 Date Inj'd : 7/12/2019 8:14 pm
 Sample : IT015-SIMSTD0.05
 Method : TSIM1_190712.M
 Operator : AIRPIAN01:AR
 Instrument : Air Piano 1
 Quant Date : 7/15/2019 12:10 pm

Compound #31: Tetrahydrofuran



Original Peak Response = 42



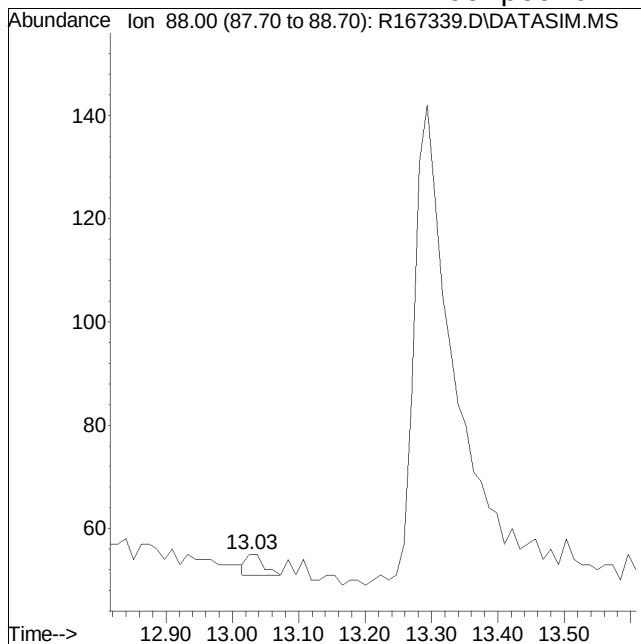
Manual Peak Response = 740 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

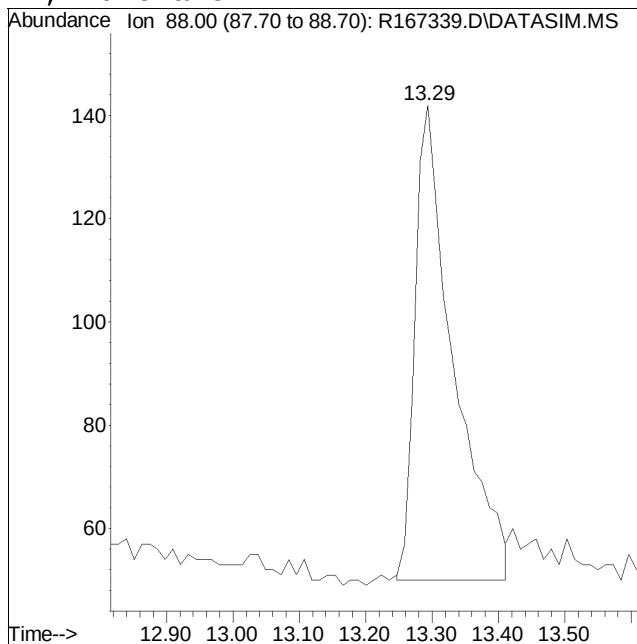
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167339.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 8:14 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD0.05 Quant Date : 7/15/2019 12:10 pm

Compound #43: 1,4-dioxane



Original Peak Response = 7



Manual Peak Response = 369 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167340.D
 Acq On : 12 Jul 2019 8:48 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:23:29 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.11	49	211774	10.000	ppbV	0.01
Standard Area = 214308			Recovery =		98.82%	
33) 1,4-difluorobenzene	12.35	114	489642	10.000	ppbV	0.00
Standard Area = 491248			Recovery =		99.67%	
51) chlorobenzene-D5	16.80	54	91446	10.000	ppbV	0.00
Standard Area = 91879			Recovery =		99.53%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	170837	9.901	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.01%	
53) toluene-D8	15.10	98	516098	9.925	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.25%	
67) bromofluorobenzene	18.00	95	325955	9.639	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.39%	
Target Compounds						
					Qvalue	
2) propylene	3.92	41	1601	0.166	ppbV	97
3) dichlorodifluoromethane	4.02	85	2989	0.101	ppbV	99
4) chloromethane	4.24	50	1224	0.117	ppbV #	87
5) Freon-114	4.39	85	3592	0.107	ppbV	97
6) vinyl chloride	4.54	62	1329	0.106	ppbV	92
7) 1,3-butadiene	4.74	54	908M3	0.107	ppbV	
8) bromomethane	5.12	94	1271	0.107	ppbV	97
9) chloroethane	5.37	64	656	0.109	ppbV #	79
10) ethanol	5.64	31	4445	0.626	ppbV	91
11) vinyl bromide	5.86	106	1263	0.104	ppbV	98
12) acrolein	6.09	56	639	0.133	ppbV #	92
13) acetone	6.30	43	14317	0.655	ppbV #	97
14) trichlorofluoromethane	6.44	101	3004	0.105	ppbV	100
15) isopropyl alcohol	6.68	45	11422	0.498	ppbV	99
16) acrylonitrile	6.91	53	1097	0.132	ppbV	96
17) 1,1-dichloroethene	7.30	61	2415	0.119	ppbV	90
18) tertiary butyl alcohol	7.52	59	3311M3	0.117	ppbV	
19) methylene chloride	7.47	49	2106	0.124	ppbV	89
20) 3-chloropropene	7.62	41	1844	0.101	ppbV	94
21) carbon disulfide	7.80	76	5385	0.122	ppbV #	1
22) Freon 113	7.82	101	2921	0.104	ppbV	98
23) trans-1,2-dichloroethene	8.66	61	2304	0.100	ppbV	94
24) 1,1-dichloroethane	8.91	63	2820	0.102	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167340.D
 Acq On : 12 Jul 2019 8:48 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:23:29 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	9.08	73	3934	0.100	ppbV	#	84
26) vinyl acetate	9.17	43	1768	0.068	ppbV	#	86
27) 2-butanone	9.31	43	721	0.024	ppbV	#	51
28) cis-1,2-dichloroethene	9.92	61	2194	0.100	ppbV		90
29) Ethyl Acetate	10.29	61	825	0.139	ppbV	#	1
30) chloroform	10.27	83	3557	0.103	ppbV	#	97
31) Tetrahydrofuran	10.85	42	1628	0.101	ppbV	#	83
32) 1,2-dichloroethane	11.13	62	1977	0.103	ppbV	#	88
34) hexane	10.17	57	3062	0.106	ppbV	#	52
36) 1,1,1-trichloroethane	11.41	97	2845	0.101	ppbV	#	94
37) benzene	11.93	78	4702	0.100	ppbV	#	90
38) carbon tetrachloride	12.11	117	2744	0.101	ppbV	#	94
39) cyclohexane	12.25	56	2473	0.102	ppbV		89
40) dibromomethane	12.85	93	1927	0.110	ppbV		91
41) 1,2-dichloropropane	12.87	63	1871	0.103	ppbV	#	93
42) bromodichloromethane	13.10	83	3330	0.097	ppbV		99
43) 1,4-dioxane	13.27	88	932M3	0.088	ppbV		
44) trichloroethene	13.14	130	1962	0.099	ppbV		97
45) 2,2,4-trimethylpentane	13.17	57	7794	0.099	ppbV	#	92
46) heptane	13.47	43	3006	0.105	ppbV	#	97
47) cis-1,3-dichloropropene	14.13	75	9677	0.093	ppbV	#	91
48) 4-methyl-2-pentanone	14.23	43	3394	0.089	ppbV	#	96
49) trans-1,3-dichloropropene	14.74	75	2176	0.086	ppbV		90
50) 1,1,2-trichloroethane	14.91	97	1888	0.097	ppbV		91
52) toluene	15.20	91	6106	0.107	ppbV		100
54) 2-hexanone	15.51	43	2550	0.073	ppbV	#	85
55) dibromochloromethane	15.62	129	3031	0.093	ppbV		98
56) 1,2-dibromoethane	15.85	107	2906	0.095	ppbV		97
57) tetrachloroethene	16.26	166	2452	0.098	ppbV		94
58) 1,1,1,2-tetrachloroethane	16.83	131	2120	0.096	ppbV		97
59) chlorobenzene	16.84	112	4381	0.098	ppbV		98
60) ethylbenzene	17.14	91	7138	0.098	ppbV		96
61) m+p-xylene	17.27	91	11318	0.200	ppbV		98
62) bromoform	17.36	173	2783	0.087	ppbV		99
63) styrene	17.57	104	3906	0.088	ppbV		95
64) 1,1,2,2-tetrachloroethane	17.65	83	4332	0.096	ppbV		95
65) o-xylene	17.65	91	5782	0.100	ppbV		99
66) 1,2,3-trichloropropane	17.75	75	3317	0.095	ppbV		96
68) isopropylbenzene	18.09	105	7438	0.097	ppbV		99
69) bromobenzene	18.18	77	3919	0.092	ppbV		98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167340.D
 Acq On : 12 Jul 2019 8:48 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.1
 Misc : WG1260317
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 16 07:23:29 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

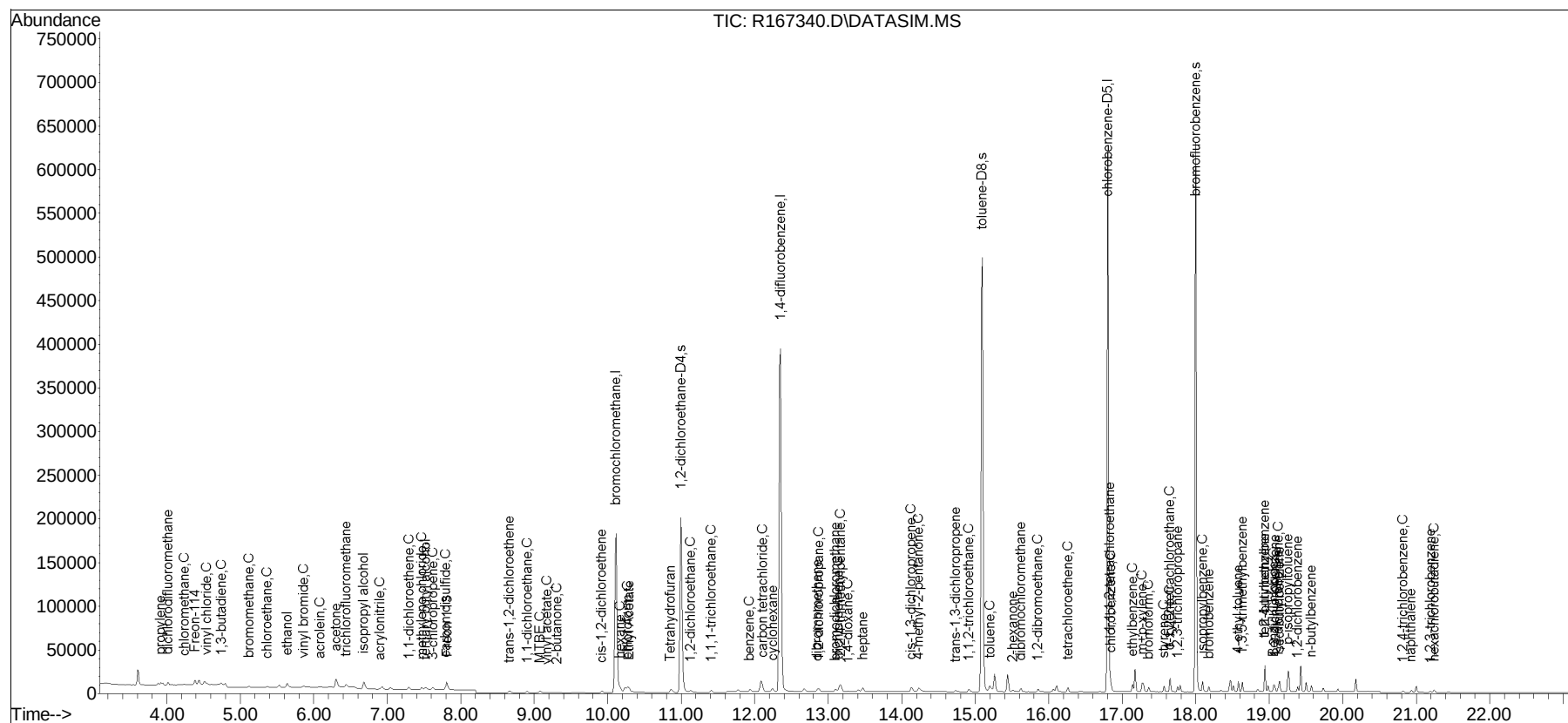
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	7605	0.087	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	6198	0.091	ppbV	99
72) tert-butylbenzene	18.94	119	6652	0.097	ppbV	99
73) 1,2,4-trimethylbenzene	18.94	105	5962	0.089	ppbV #	94
74) Benzyl Chloride	19.06	91	4052	0.067	ppbV	95
75) 1,3-dichlorobenzene	19.07	146	3897M3	0.081	ppbV	
76) 1,4-dichlorobenzene	19.13	146	3843	0.078	ppbV	98
77) sec-butylbenzene	19.14	105	8833	0.089	ppbV	96
78) p-isopropyltoluene	19.25	119	7492	0.084	ppbV	99
79) 1,2-dichlorobenzene	19.39	146	3726	0.080	ppbV	99
80) n-butylbenzene	19.57	91	5463	0.065	ppbV	100
81) 1,2,4-trichlorobenzene	20.82	180	1189	0.030	ppbV	97
82) naphthalene	20.93	128	3450	0.037	ppbV #	90
83) 1,2,3-trichlorobenzene	21.19	180	1199	0.031	ppbV	99
84) hexachlorobutadiene	21.24	225	2020	0.062	ppbV #	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167340.D
Acq On    : 12 Jul 2019    8:48 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-SIMSTD0.1
Misc      : WG1260317
ALS Vial  : 5    Sample Multiplier: 1
```

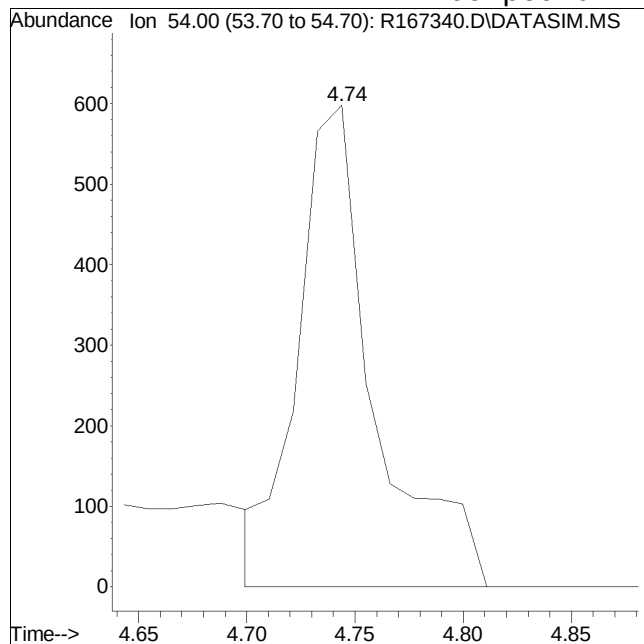
Quant Time: Jul 16 07:23:29 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

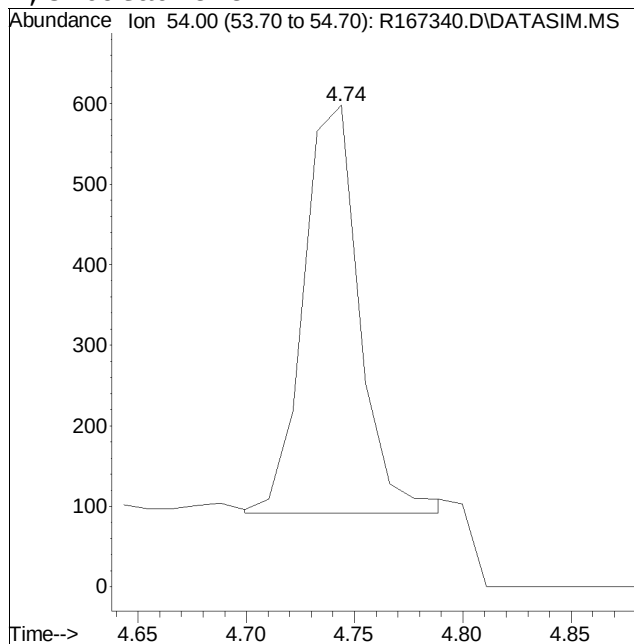
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167340.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 8:48 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.1 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 1448

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

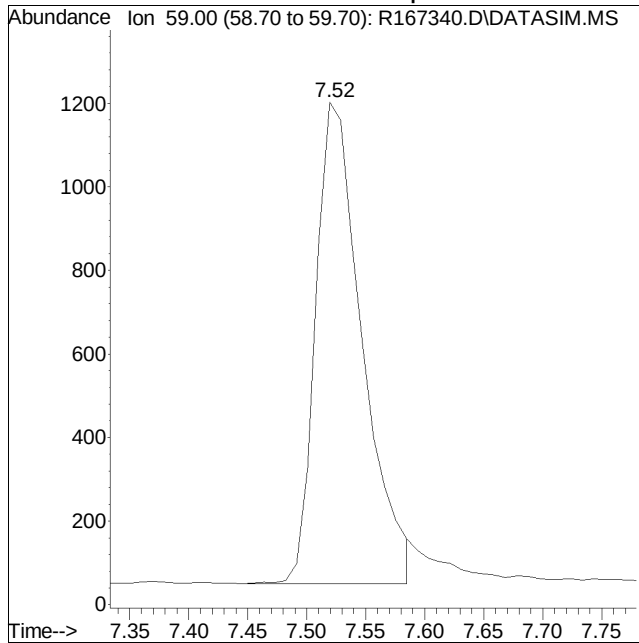


Manual Peak Response = 908 M3

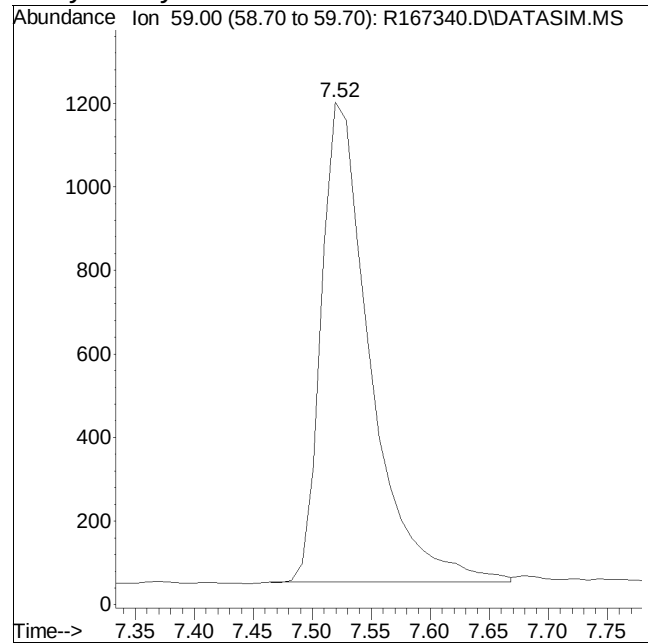
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167340.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 8:48 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.1 Quant Date : 7/15/2019 12:10 pm

Compound #18: tertiary butyl alcohol



Original Peak Response = 3160



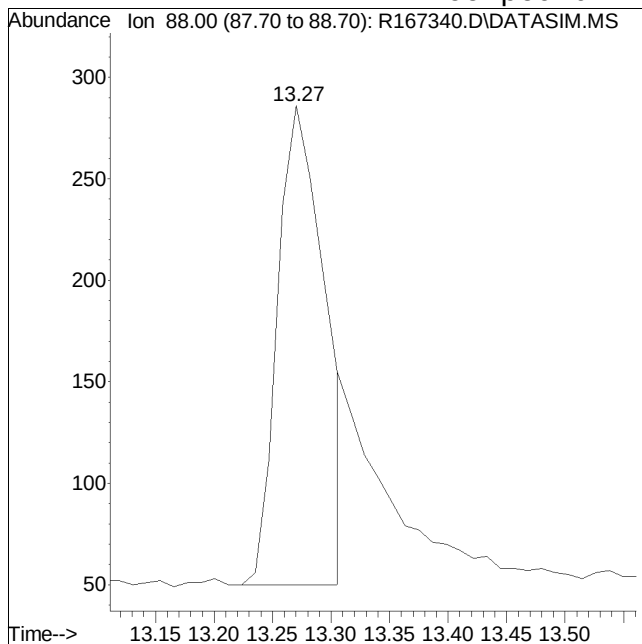
Manual Peak Response = 3311 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

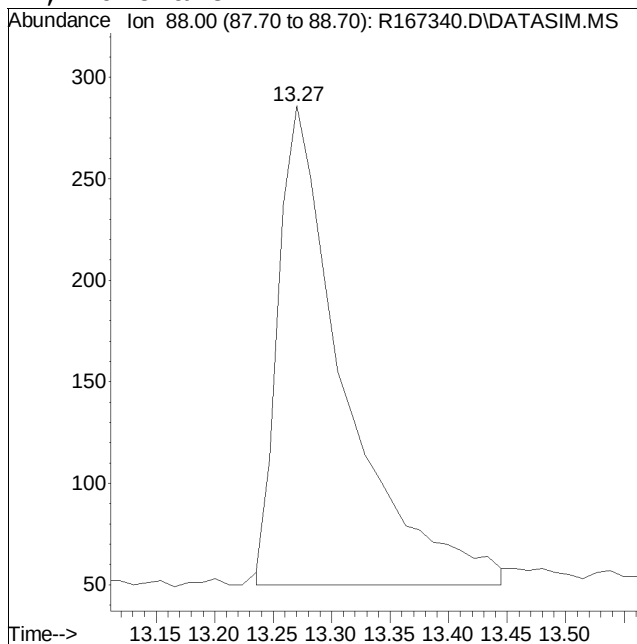
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167340.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 8:48 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD0.1 Quant Date : 7/15/2019 12:10 pm

Compound #43: 1,4-dioxane



Original Peak Response = 663

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

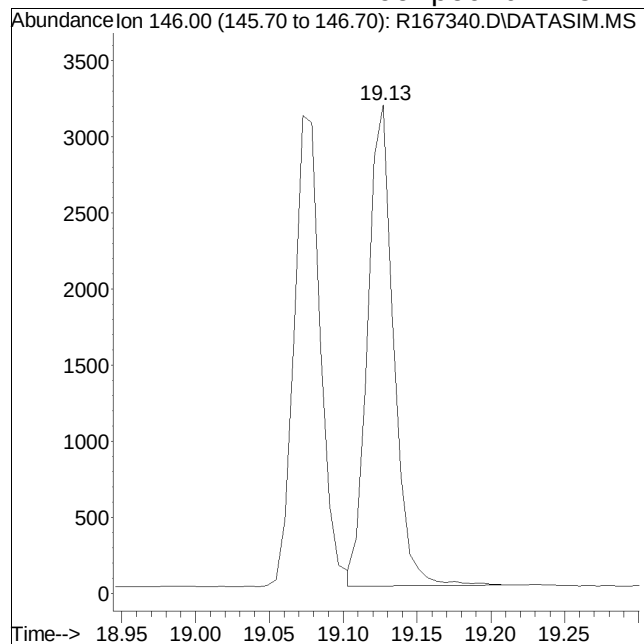


Manual Peak Response = 932 M3

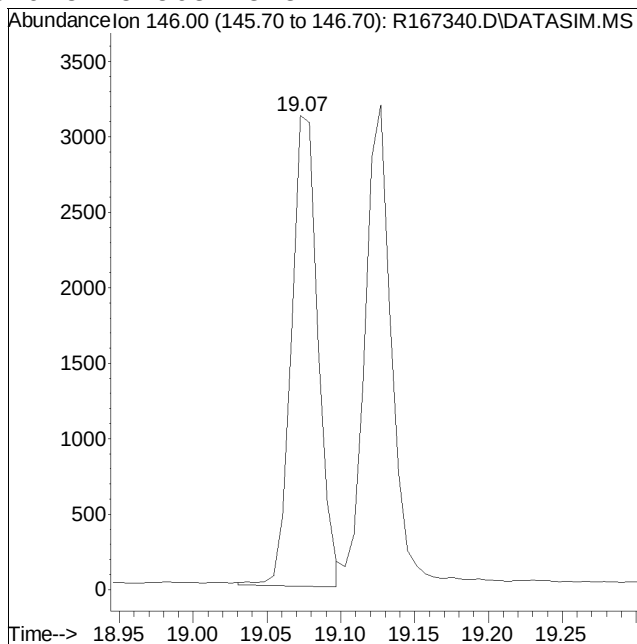
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167340.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 8:48 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD0.1 Quant Date : 7/15/2019 12:10 pm

Compound #75: 1,3-dichlorobenzene



Original Peak Response = 3843



Manual Peak Response = 3897 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:27:55 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	211717	10.000	ppbV	0.00
Standard Area = 214308			Recovery =	98.79%		
33) 1,4-difluorobenzene	12.35	114	491244	10.000	ppbV	0.00
Standard Area = 491248			Recovery =	100.00%		
51) chlorobenzene-D5	16.80	54	92334	10.000	ppbV	0.00
Standard Area = 91879			Recovery =	100.50%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	174322	10.070	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.70%		
53) toluene-D8	15.09	98	513290	9.776	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.76%		
67) bromofluorobenzene	18.00	95	328838	9.630	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.30%		
Target Compounds						
					Qvalue	
2) propylene	3.92	41	2899M6	0.301	ppbV	
3) dichlorodifluoromethane	4.02	85	6948	0.234	ppbV	99
4) chloromethane	4.23	50	2858	0.273	ppbV	97
5) Freon-114	4.39	85	8355	0.249	ppbV	99
6) vinyl chloride	4.54	62	3108	0.248	ppbV	95
7) 1,3-butadiene	4.73	54	2118M6	0.250	ppbV	
8) bromomethane	5.12	94	2873	0.242	ppbV	98
9) chloroethane	5.37	64	1486	0.247	ppbV	90
10) ethanol	5.62	31	9305	1.311	ppbV	96
11) vinyl bromide	5.86	106	2922	0.241	ppbV	100
12) acrolein	6.08	56	1287	0.268	ppbV	97
13) acetone	6.28	43	28462	1.303	ppbV #	97
14) trichlorofluoromethane	6.44	101	7091	0.247	ppbV	99
15) isopropyl alcohol	6.66	45	20729	0.903	ppbV	98
16) acrylonitrile	6.90	53	2516	0.303	ppbV	96
17) 1,1-dichloroethene	7.29	61	5580	0.275	ppbV	99
18) tertiary butyl alcohol	7.50	59	6534	0.230	ppbV #	86
19) methylene chloride	7.46	49	4399	0.259	ppbV	100
20) 3-chloropropene	7.61	41	4368	0.240	ppbV	97
21) carbon disulfide	7.80	76	11350	0.257	ppbV #	54
22) Freon 113	7.82	101	6807	0.242	ppbV	98
23) trans-1,2-dichloroethene	8.66	61	5440	0.237	ppbV	98
24) 1,1-dichloroethane	8.90	63	6638	0.240	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:27:55 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) MTBE	9.05	73	9322	0.236	ppbV	#	92
26) vinyl acetate	9.16	43	4330	0.166	ppbV	#	93
27) 2-butanone	9.50	43	6103M1	0.207	ppbV		
28) cis-1,2-dichloroethene	9.92	61	5261	0.240	ppbV		90
29) Ethyl Acetate	10.28	61	2187	0.367	ppbV	#	1
30) chloroform	10.27	83	8365	0.241	ppbV		99
31) Tetrahydrofuran	10.84	42	3967	0.245	ppbV		95
32) 1,2-dichloroethane	11.13	62	4572	0.237	ppbV		94
34) hexane	10.17	57	7054	0.244	ppbV	#	48
36) 1,1,1-trichloroethane	11.41	97	6761	0.239	ppbV		97
37) benzene	11.93	78	11166	0.236	ppbV		97
38) carbon tetrachloride	12.11	117	6411	0.236	ppbV		98
39) cyclohexane	12.23	56	5788	0.237	ppbV		97
40) dibromomethane	12.85	93	4258	0.243	ppbV		89
41) 1,2-dichloropropane	12.87	63	4283	0.234	ppbV		98
42) bromodichloromethane	13.10	83	7967	0.231	ppbV		99
43) 1,4-dioxane	13.24	88	2379M1	0.223	ppbV		
44) trichloroethene	13.14	130	4668	0.236	ppbV		98
45) 2,2,4-trimethylpentane	13.17	57	18709	0.236	ppbV		97
46) heptane	13.47	43	6715	0.234	ppbV		99
47) cis-1,3-dichloropropene	14.13	75	22965	0.221	ppbV	#	95
48) 4-methyl-2-pentanone	14.21	43	8216	0.216	ppbV	#	98
49) trans-1,3-dichloropropene	14.73	75	5345	0.211	ppbV		94
50) 1,1,2-trichloroethane	14.91	97	4500	0.232	ppbV		94
52) toluene	15.19	91	13912	0.241	ppbV		100
54) 2-hexanone	15.49	43	6799	0.192	ppbV	#	86
55) dibromochloromethane	15.61	129	7208	0.219	ppbV		99
56) 1,2-dibromoethane	15.85	107	6926	0.224	ppbV		99
57) tetrachloroethene	16.26	166	5891	0.234	ppbV		98
58) 1,1,1,2-tetrachloroethane	16.82	131	5017	0.225	ppbV		95
59) chlorobenzene	16.84	112	10605	0.234	ppbV		99
60) ethylbenzene	17.14	91	17215	0.234	ppbV		100
61) m+p-xylene	17.29	91	26915	0.472	ppbV		99
62) bromoform	17.36	173	6689	0.208	ppbV		98
63) styrene	17.56	104	9674	0.217	ppbV		98
64) 1,1,2,2-tetrachloroethane	17.65	83	10203	0.225	ppbV		98
65) o-xylene	17.65	91	13586	0.232	ppbV		100
66) 1,2,3-trichloropropane	17.75	75	7963	0.225	ppbV		97
68) isopropylbenzene	18.09	105	17674	0.228	ppbV		100
69) bromobenzene	18.18	77	9734	0.227	ppbV		95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167341.D
 Acq On : 12 Jul 2019 9:18 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.2
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:27:55 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

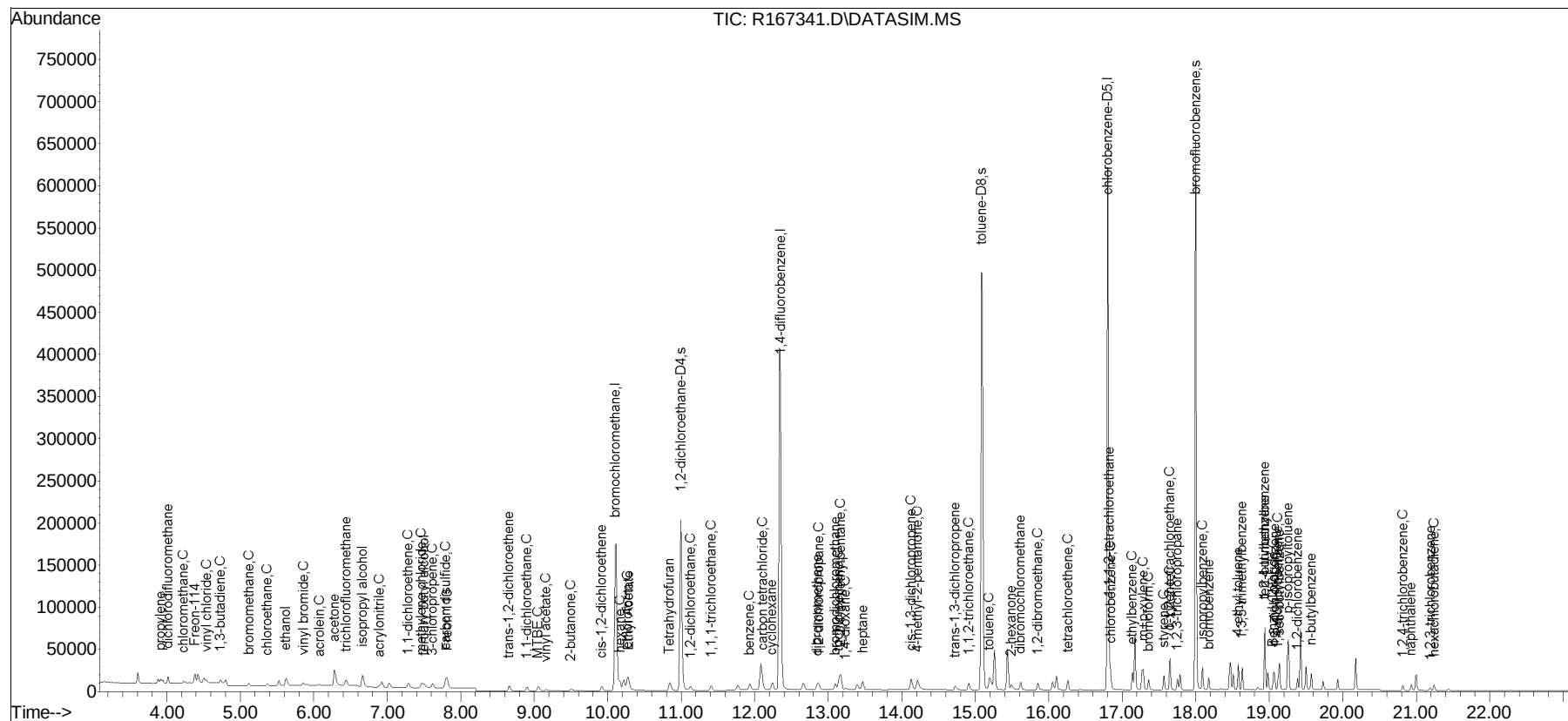
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	19478	0.221	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	15454	0.224	ppbV	97
72) tert-butylbenzene	18.94	119	16007	0.230	ppbV	100
73) 1,2,4-trimethylbenzene	18.94	105	14752	0.218	ppbV	98
74) Benzyl Chloride	19.05	91	10605	0.174	ppbV	94
75) 1,3-dichlorobenzene	19.07	146	10135	0.210	ppbV	94
76) 1,4-dichlorobenzene	19.12	146	9965	0.201	ppbV	93
77) sec-butylbenzene	19.14	105	22084	0.220	ppbV	97
78) p-isopropyltoluene	19.25	119	18904	0.211	ppbV	99
79) 1,2-dichlorobenzene	19.39	146	9544	0.203	ppbV	96
80) n-butylbenzene	19.57	91	15553	0.182	ppbV	96
81) 1,2,4-trichlorobenzene	20.82	180	3685	0.092	ppbV #	92
82) naphthalene	20.93	128	9583	0.102	ppbV #	95
83) 1,2,3-trichlorobenzene	21.19	180	3355	0.087	ppbV #	94
84) hexachlorobutadiene	21.24	225	4622	0.141	ppbV #	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167341.D
Acq On    : 12 Jul 2019    9:18 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-SIMSTD0.2
Misc      : WG1260317
ALS Vial  : 6    Sample Multiplier: 1
```

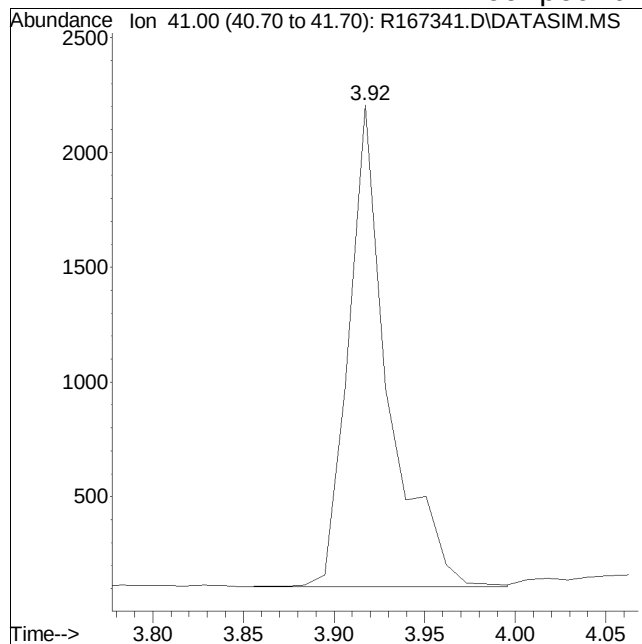
Quant Time: Jul 16 07:27:55 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

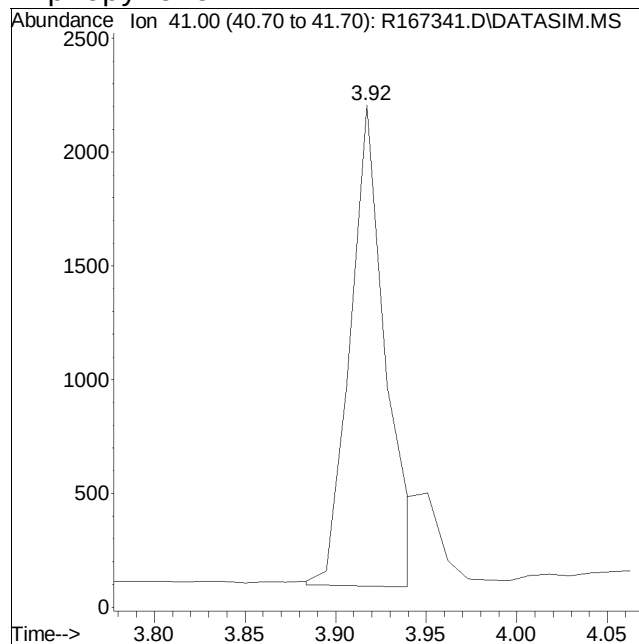
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167341.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:18 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.2 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 3222

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

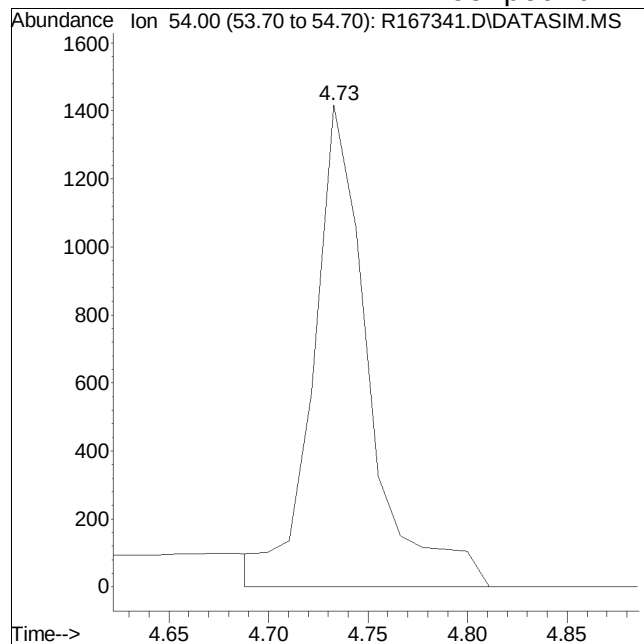


Manual Peak Response = 2899 M6

Manual Integration/Negative Proof Report

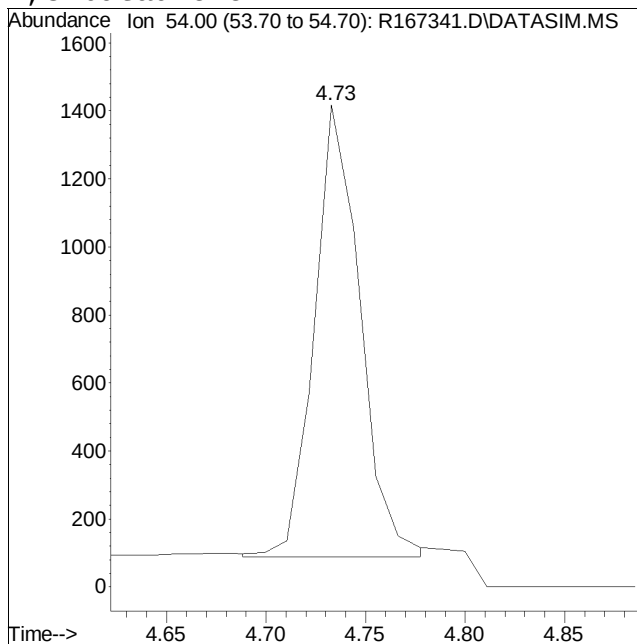
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167341.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:18 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.2 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 2702

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

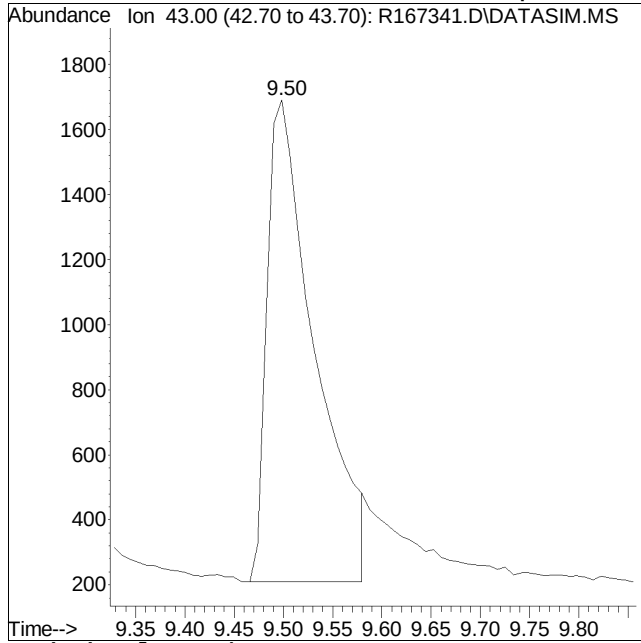


Manual Peak Response = 2118 M6

Manual Integration/Negative Proof Report

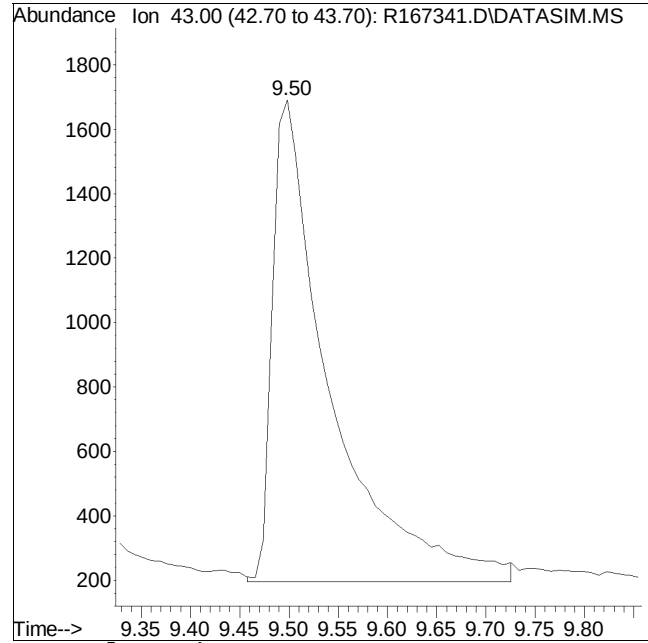
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167341.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:18 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.2 Quant Date : 7/15/2019 12:10 pm

Compound #27: 2-butanone



Original Peak Response = 4975

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

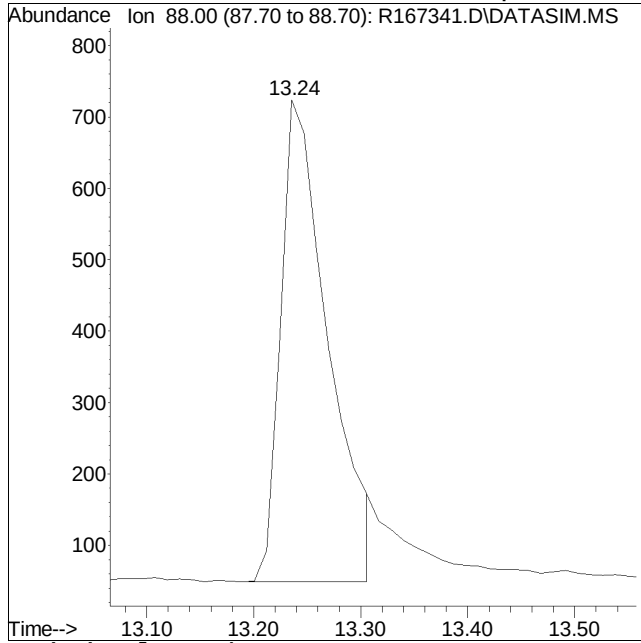


Manual Peak Response = 6103 M1

Manual Integration/Negative Proof Report

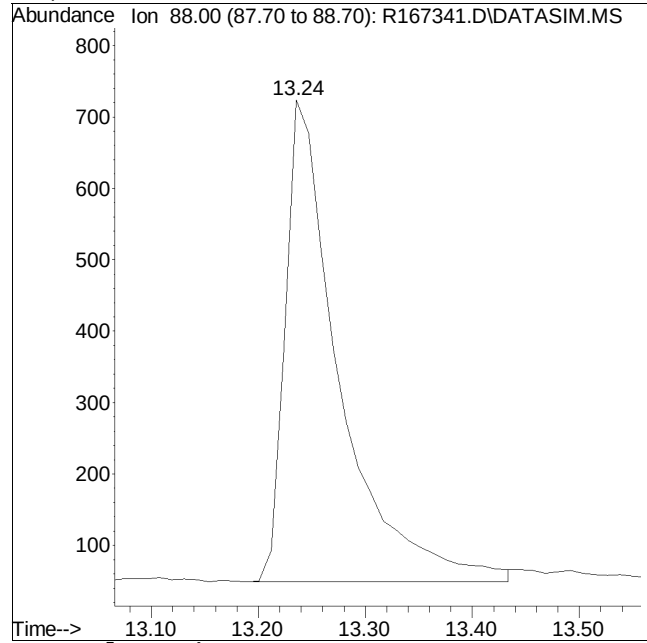
Data Path : O:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167341.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:18 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.2 Quant Date : 7/15/2019 12:10 pm

Compound #43: 1,4-dioxane



Original Peak Response = 2072

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 2379 M1

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:34:40 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	212843	10.000	ppbV	0.00
Standard Area = 214308			Recovery =	99.32%		
33) 1,4-difluorobenzene	12.35	114	492398	10.000	ppbV	0.00
Standard Area = 491248			Recovery =	100.23%		
51) chlorobenzene-D5	16.80	54	92809	10.000	ppbV	0.00
Standard Area = 91879			Recovery =	101.01%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	171719	9.896	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.96%		
53) toluene-D8	15.09	98	511531	9.693	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.93%		
67) bromofluorobenzene	18.00	95	330028	9.616	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.16%		
Target Compounds						
					Qvalue	
2) propylene	3.92	41	5934M6	0.612	ppbV	
3) dichlorodifluoromethane	4.02	85	16740	0.562	ppbV	99
4) chloromethane	4.23	50	6022	0.571	ppbV	99
5) Freon-114	4.39	85	18829	0.558	ppbV	98
6) vinyl chloride	4.54	62	6946	0.551	ppbV	99
7) 1,3-butadiene	4.73	54	4741M6	0.557	ppbV	
8) bromomethane	5.12	94	6600	0.553	ppbV	100
9) chloroethane	5.37	64	3327	0.550	ppbV	93
10) ethanol	5.62	31	20226	2.835	ppbV	94
11) vinyl bromide	5.86	106	6686	0.549	ppbV	100
12) acrolein	6.07	56	2836	0.587	ppbV	98
13) acetone	6.27	43	62227	2.834	ppbV #	100
14) trichlorofluoromethane	6.44	101	15948	0.553	ppbV	99
15) isopropyl alcohol	6.65	45	35567	1.542	ppbV	98
16) acrylonitrile	6.89	53	5052M6	0.604	ppbV	
17) 1,1-dichloroethene	7.29	61	12793	0.628	ppbV	99
18) tertiary butyl alcohol	7.48	59	15392	0.540	ppbV #	91
19) methylene chloride	7.47	49	9666	0.566	ppbV	87
20) 3-chloropropene	7.62	41	10037	0.548	ppbV	97
21) carbon disulfide	7.80	76	24729	0.557	ppbV #	81
22) Freon 113	7.82	101	15499	0.548	ppbV	99
23) trans-1,2-dichloroethene	8.65	61	12558	0.544	ppbV	96
24) 1,1-dichloroethane	8.91	63	15365	0.552	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:34:40 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	9.04	73	21596	0.544	ppbV	97
26) vinyl acetate	9.14	43	13032	0.496	ppbV	99
27) 2-butanone	9.47	43	13604	0.459	ppbV	97
28) cis-1,2-dichloroethene	9.92	61	11727	0.532	ppbV	92
29) Ethyl Acetate	10.28	61	5372	0.897	ppbV #	1
30) chloroform	10.27	83	19048	0.546	ppbV	99
31) Tetrahydrofuran	10.82	42	9606	0.591	ppbV	96
32) 1,2-dichloroethane	11.13	62	10520	0.543	ppbV	97
34) hexane	10.17	57	16179	0.558	ppbV #	48
36) 1,1,1-trichloroethane	11.41	97	15538	0.547	ppbV	98
37) benzene	11.93	78	25928	0.548	ppbV	98
38) carbon tetrachloride	12.11	117	14858	0.545	ppbV	99
39) cyclohexane	12.25	56	13090	0.536	ppbV	92
40) dibromomethane	12.85	93	9603	0.547	ppbV	86
41) 1,2-dichloropropane	12.87	63	9915	0.541	ppbV	98
42) bromodichloromethane	13.10	83	18213	0.528	ppbV	99
43) 1,4-dioxane	13.21	88	5494M4	0.515	ppbV	
44) trichloroethene	13.14	130	10601	0.535	ppbV	98
45) 2,2,4-trimethylpentane	13.17	57	42791	0.540	ppbV	98
46) heptane	13.47	43	15601	0.542	ppbV	98
47) cis-1,3-dichloropropene	14.13	75	53340	0.511	ppbV #	97
48) 4-methyl-2-pentanone	14.19	43	19326	0.506	ppbV	95
49) trans-1,3-dichloropropene	14.73	75	12581	0.496	ppbV	99
50) 1,1,2-trichloroethane	14.91	97	10376	0.533	ppbV	96
52) toluene	15.19	91	31429	0.541	ppbV	100
54) 2-hexanone	15.48	43	17302	0.487	ppbV #	86
55) dibromochloromethane	15.61	129	16844	0.509	ppbV	100
56) 1,2-dibromoethane	15.85	107	16065	0.517	ppbV	100
57) tetrachloroethene	16.26	166	13512	0.534	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.82	131	11869	0.530	ppbV	99
59) chlorobenzene	16.84	112	24213	0.531	ppbV	99
60) ethylbenzene	17.14	91	39378	0.532	ppbV	100
61) m+p-xylene	17.27	91	61868	1.080	ppbV	100
62) bromoform	17.36	173	15746	0.487	ppbV	99
63) styrene	17.56	104	22942	0.512	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.65	83	24412	0.535	ppbV	100
65) o-xylene	17.65	91	31630	0.537	ppbV	99
66) 1,2,3-trichloropropane	17.75	75	18574	0.522	ppbV	98
68) isopropylbenzene	18.09	105	41475	0.532	ppbV	99
69) bromobenzene	18.18	77	22672	0.527	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167342.D
 Acq On : 12 Jul 2019 9:50 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD0.5
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:34:40 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

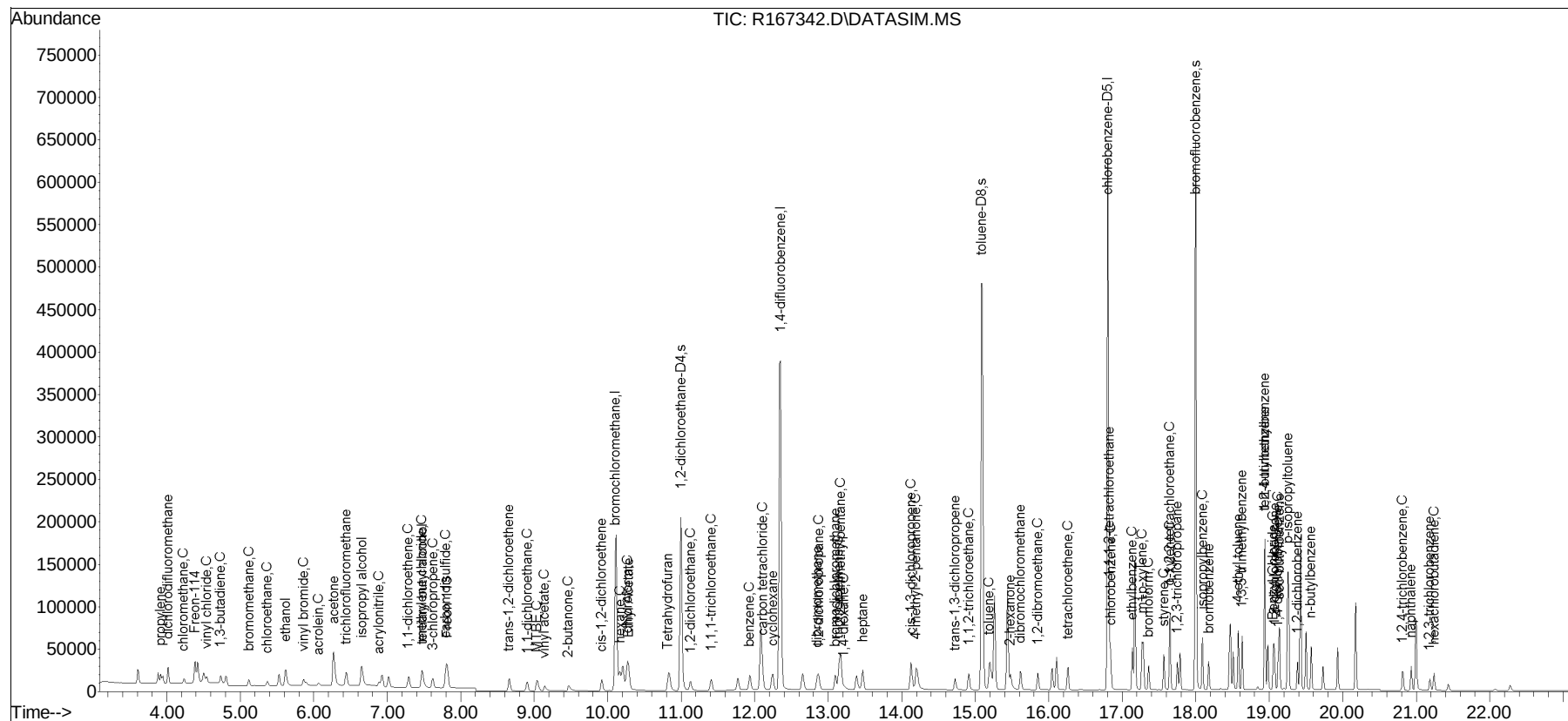
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	44967	0.507	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	36061	0.520	ppbV	98
72) tert-butylbenzene	18.94	119	37252	0.533	ppbV	99
73) 1,2,4-trimethylbenzene	18.94	105	35552	0.524	ppbV	99
74) Benzyl Chloride	19.05	91	27884	0.456	ppbV	93
75) 1,3-dichlorobenzene	19.07	146	24553	0.505	ppbV	95
76) 1,4-dichlorobenzene	19.12	146	24997	0.502	ppbV	95
77) sec-butylbenzene	19.14	105	52653	0.523	ppbV	97
78) p-isopropyltoluene	19.25	119	46058	0.511	ppbV	99
79) 1,2-dichlorobenzene	19.39	146	23491	0.497	ppbV	93
80) n-butylbenzene	19.57	91	41750	0.487	ppbV	96
81) 1,2,4-trichlorobenzene	20.81	180	13788	0.342	ppbV #	90
82) naphthalene	20.93	128	34777	0.368	ppbV	98
83) 1,2,3-trichlorobenzene	21.18	180	12783	0.328	ppbV #	90
84) hexachlorobutadiene	21.24	225	13781	0.417	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path   : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File  : R167342.D
Acq On     : 12 Jul 2019    9:50 pm
Operator   : AIRPIAN01:AR
Sample     : IT015-SIMSTD0.5
Misc       : WG1260317
ALS Vial   : 6    Sample Multiplier: 1
```

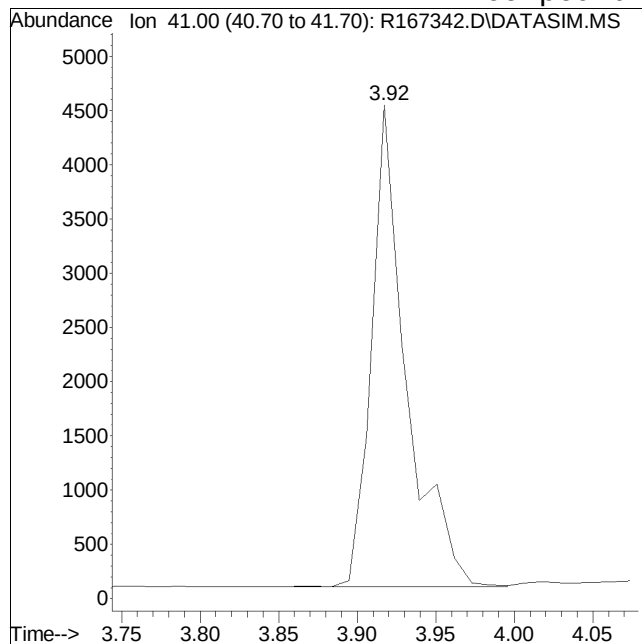
Quant Time: Jul 16 07:34:40 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

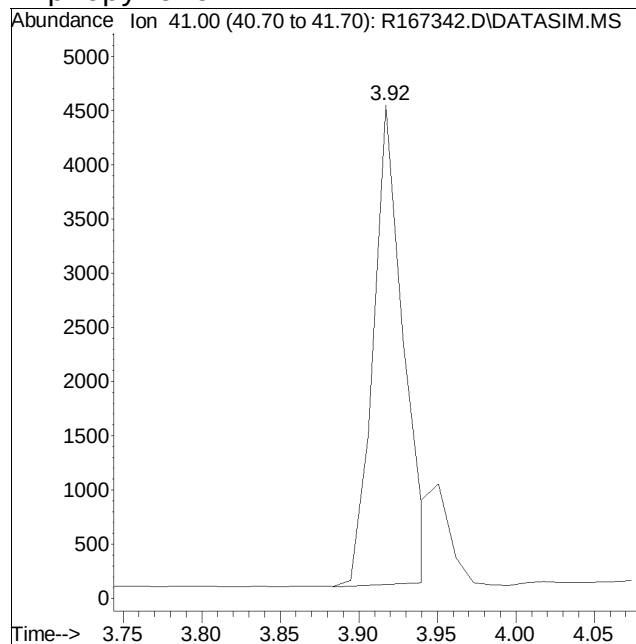
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167342.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:50 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.5 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 6841

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

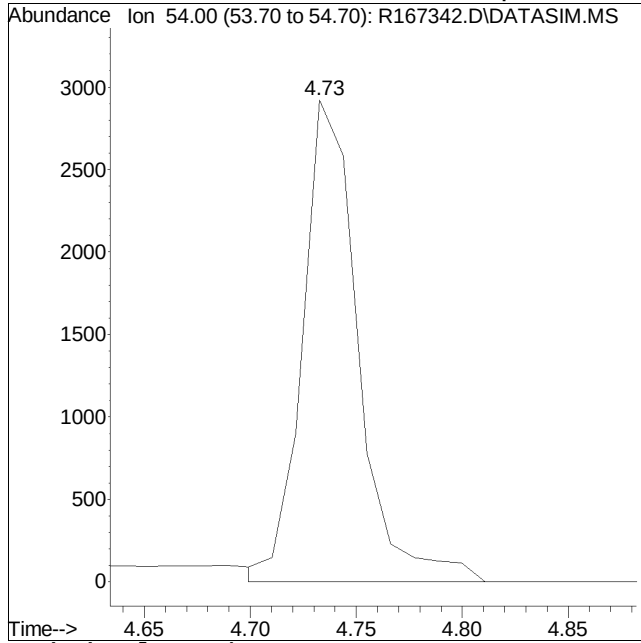


Manual Peak Response = 5934 M6

Manual Integration/Negative Proof Report

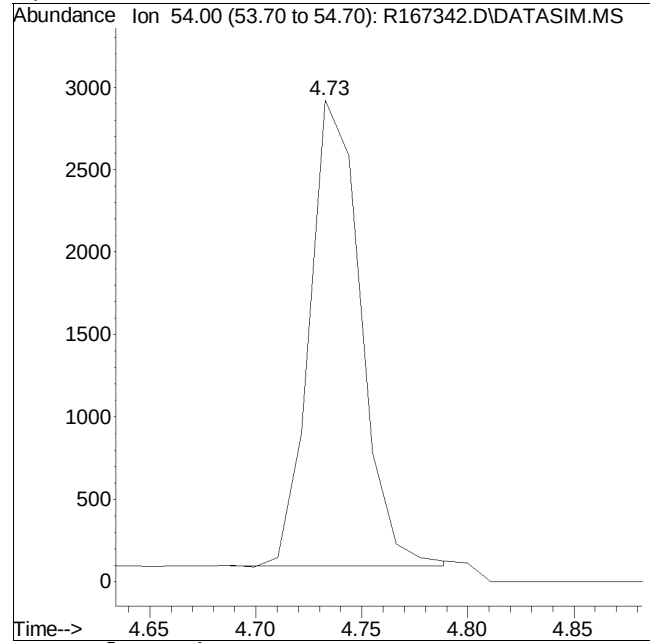
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167342.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:50 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.5 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 5256

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

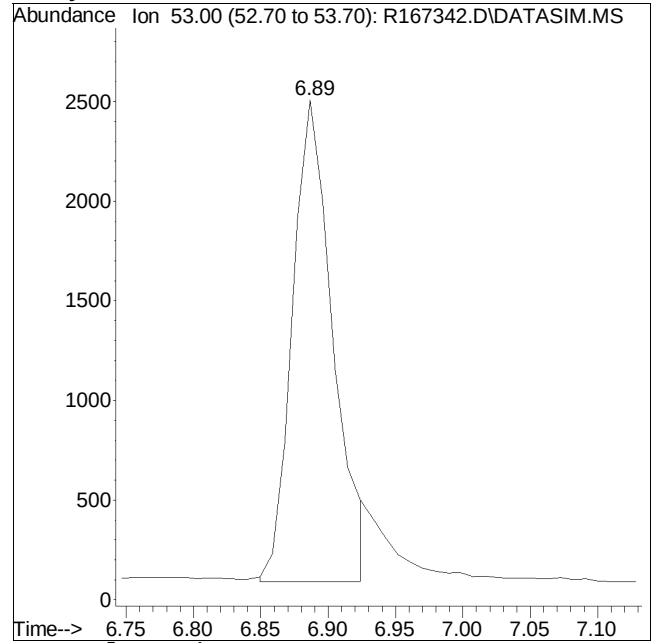
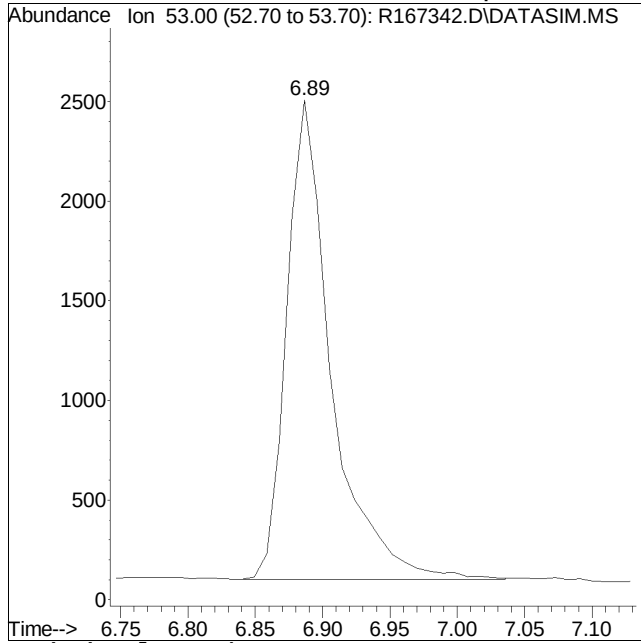


Manual Peak Response = 4741 M6

Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167342.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:50 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.5 Quant Date : 7/15/2019 12:10 pm

Compound #16: acrylonitrile

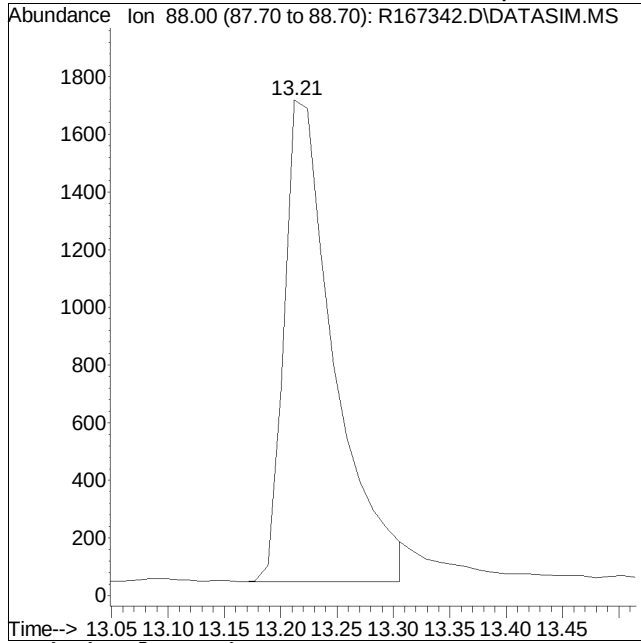


Original Peak Response = 5520
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

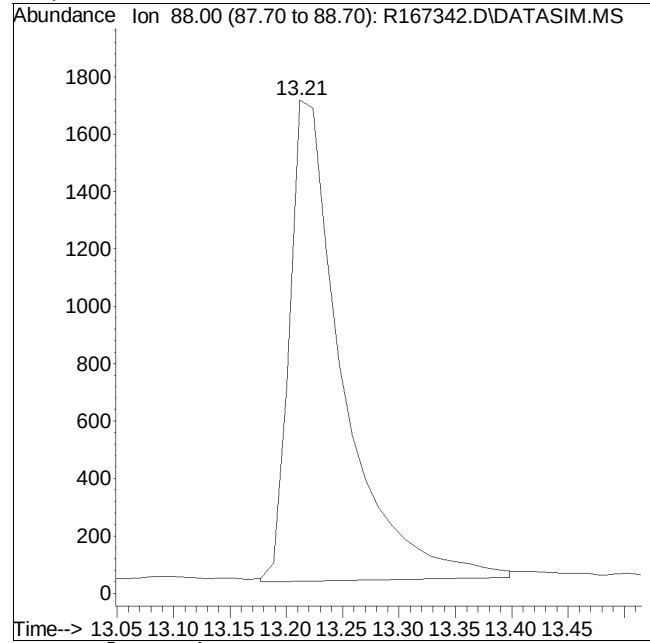
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167342.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 9:50 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD0.5 Quant Date : 7/15/2019 12:10 pm

Compound #43: 1,4-dioxane



Original Peak Response = 5150

M4 = Poor automated baseline construction.



Manual Peak Response = 5494 M4

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:43:01 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	209727	10.000	ppbV	0.00
Standard Area = 214308			Recovery =		97.86%	
33) 1,4-difluorobenzene	12.35	114	483464	10.000	ppbV	0.00
Standard Area = 491248			Recovery =		98.42%	
51) chlorobenzene-D5	16.80	54	90558	10.000	ppbV	0.00
Standard Area = 91879			Recovery =		98.56%	
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	174275	10.229	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		102.29%	
53) toluene-D8	15.09	98	519368	10.086	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.86%	
67) bromofluorobenzene	18.00	95	333317	9.953	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.53%	
Target Compounds						
					Qvalue	
2) propylene	3.92	41	10958M6	1.148	ppbV	
3) dichlorodifluoromethane	4.02	85	30923	1.053	ppbV	100
4) chloromethane	4.23	50	11644	1.121	ppbV	100
5) Freon-114	4.39	85	36751	1.104	ppbV	100
6) vinyl chloride	4.54	62	13450	1.083	ppbV	99
7) 1,3-butadiene	4.73	54	9298M4	1.109	ppbV	
8) bromomethane	5.12	94	13077	1.112	ppbV	99
9) chloroethane	5.37	64	6539	1.098	ppbV	97
10) ethanol	5.60	31	37683	5.361	ppbV	96
11) vinyl bromide	5.86	106	13035	1.086	ppbV	100
12) acrolein	6.06	56	5315	1.117	ppbV	98
13) acetone	6.25	43	121687	5.625	ppbV #	99
14) trichlorofluoromethane	6.44	101	31086	1.093	ppbV	99
15) isopropyl alcohol	6.64	45	64472	2.837	ppbV	99
16) acrylonitrile	6.88	53	8460M6	1.027	ppbV	
17) 1,1-dichloroethene	7.29	61	23065	1.149	ppbV	100
18) tertiary butyl alcohol	7.45	59	30830	1.097	ppbV #	92
19) methylene chloride	7.46	49	18861	1.121	ppbV	99
20) 3-chloropropene	7.61	41	19812	1.098	ppbV	98
21) carbon disulfide	7.79	76	48209	1.102	ppbV #	89
22) Freon 113	7.82	101	30495	1.094	ppbV	98
23) trans-1,2-dichloroethene	8.65	61	24873	1.094	ppbV	98
24) 1,1-dichloroethane	8.90	63	29460	1.074	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:43:01 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	9.02	73	41885	1.071	ppbV	98
26) vinyl acetate	9.13	43	25749	0.995	ppbV	97
27) 2-butanone	9.44	43	29575	1.012	ppbV	99
28) cis-1,2-dichloroethene	9.92	61	23468	1.080	ppbV	89
29) Ethyl Acetate	10.24	61	5493	0.931	ppbV	71
30) chloroform	10.27	83	37246	1.084	ppbV	99
31) Tetrahydrofuran	10.78	42	19435	1.213	ppbV #	85
32) 1,2-dichloroethane	11.12	62	20489	1.073	ppbV	98
34) hexane	10.17	57	31381	1.101	ppbV #	54
36) 1,1,1-trichloroethane	11.41	97	30282	1.086	ppbV	98
37) benzene	11.93	78	50448	1.085	ppbV	99
38) carbon tetrachloride	12.11	117	29000	1.083	ppbV	99
39) cyclohexane	12.23	56	26132	1.089	ppbV	99
40) dibromomethane	12.85	93	18579	1.077	ppbV #	81
41) 1,2-dichloropropane	12.87	63	19635	1.091	ppbV	97
42) bromodichloromethane	13.10	83	36171	1.067	ppbV	99
43) 1,4-dioxane	13.20	88	10319	0.984	ppbV #	72
44) trichloroethene	13.14	130	21166	1.087	ppbV	100
45) 2,2,4-trimethylpentane	13.17	57	84586	1.086	ppbV	99
46) heptane	13.47	43	30800	1.090	ppbV	99
47) cis-1,3-dichloropropene	14.13	75	106755	1.042	ppbV	98
48) 4-methyl-2-pentanone	14.18	43	38327	1.022	ppbV #	92
49) trans-1,3-dichloropropene	14.73	75	25503	1.023	ppbV	96
50) 1,1,2-trichloroethane	14.91	97	20362	1.065	ppbV	97
52) toluene	15.19	91	61214	1.081	ppbV	100
54) 2-hexanone	15.47	43	35701	1.030	ppbV #	89
55) dibromochloromethane	15.61	129	32864	1.018	ppbV	99
56) 1,2-dibromoethane	15.85	107	31600	1.043	ppbV	100
57) tetrachloroethene	16.26	166	26527	1.074	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.82	131	23118	1.058	ppbV	99
59) chlorobenzene	16.84	112	47253	1.062	ppbV	98
60) ethylbenzene	17.14	91	77426	1.073	ppbV	100
61) m+p-xylene	17.27	91	118888	2.126	ppbV	99
62) bromoform	17.36	173	31293	0.993	ppbV	99
63) styrene	17.56	104	45432	1.039	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.65	83	46221	1.037	ppbV	99
65) o-xylene	17.65	91	60904	1.060	ppbV	99
66) 1,2,3-trichloropropane	17.75	75	36220	1.043	ppbV	99
68) isopropylbenzene	18.09	105	81423	1.071	ppbV	99
69) bromobenzene	18.18	77	44560	1.062	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167343.D
 Acq On : 12 Jul 2019 10:23 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD1.0
 Misc : WG1260317
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 16 07:43:01 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

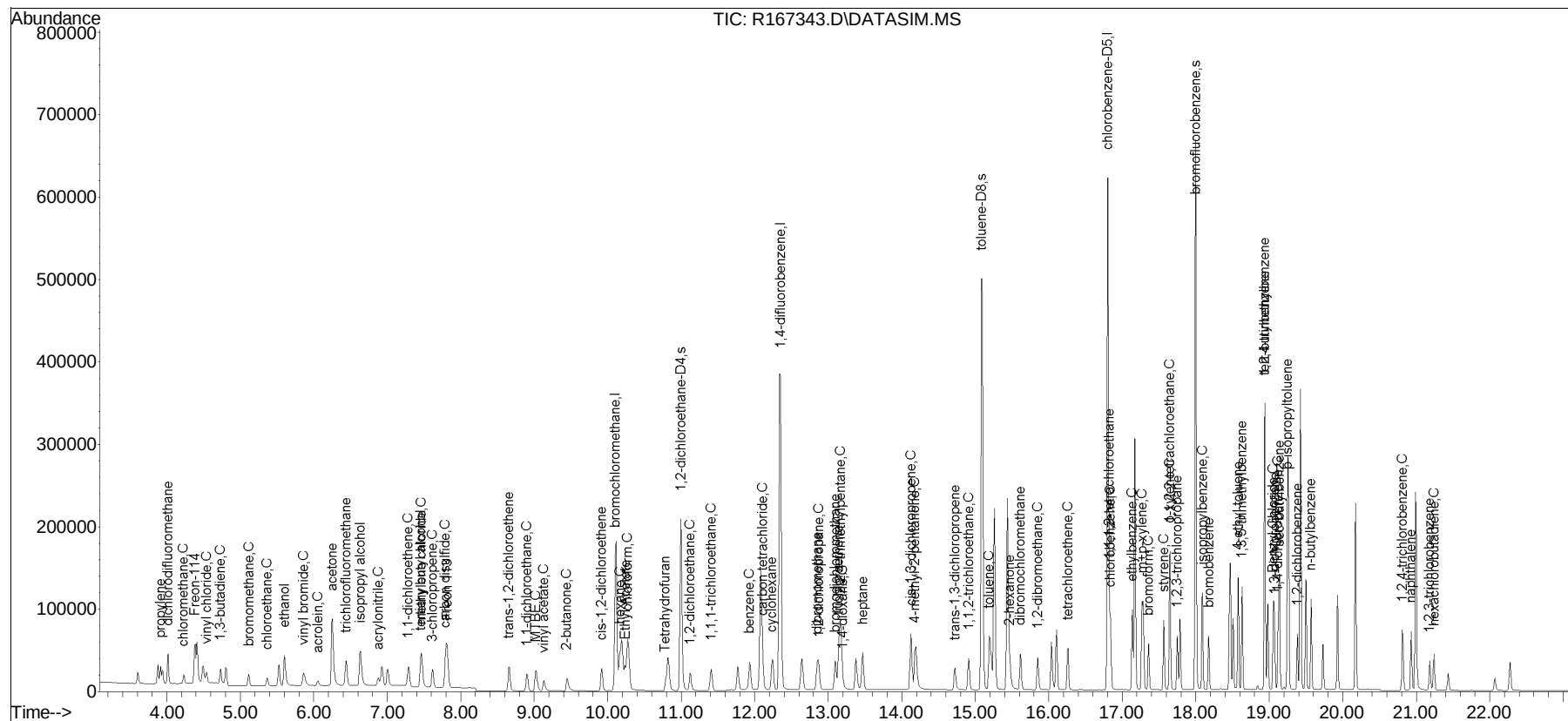
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	90329	1.044	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	70272	1.039	ppbV	100
72) tert-butylbenzene	18.94	119	73799	1.082	ppbV	100
73) 1,2,4-trimethylbenzene	18.94	105	70395	1.063	ppbV	99
74) Benzyl Chloride	19.05	91	57235	0.958	ppbV	97
75) 1,3-dichlorobenzene	19.07	146	49561	1.046	ppbV	99
76) 1,4-dichlorobenzene	19.12	146	50156	1.032	ppbV	98
77) sec-butylbenzene	19.14	105	104660	1.065	ppbV	99
78) p-isopropyltoluene	19.25	119	92182	1.049	ppbV	99
79) 1,2-dichlorobenzene	19.38	146	46830	1.015	ppbV	98
80) n-butylbenzene	19.57	91	85706	1.024	ppbV	98
81) 1,2,4-trichlorobenzene	20.81	180	33318	0.846	ppbV	95
82) naphthalene	20.93	128	84192	0.914	ppbV	99
83) 1,2,3-trichlorobenzene	21.18	180	31766	0.836	ppbV	96
84) hexachlorobutadiene	21.24	225	30321	0.941	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167343.D
Acq On    : 12 Jul 2019  10:23 pm
Operator  : AIRPIAN01:AR
Sample    : IT015-SIMSTD1.0
Misc      : WG1260317
ALS Vial  : 6      Sample Multiplier: 1
```

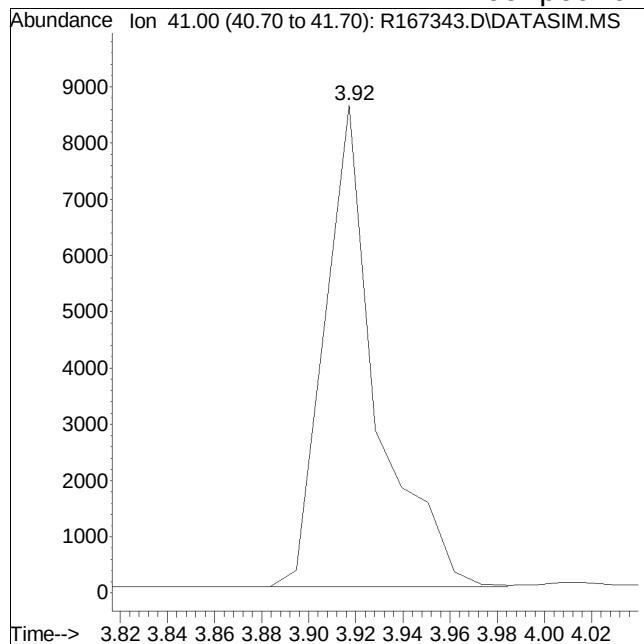
Quant Time: Jul 16 07:43:01 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

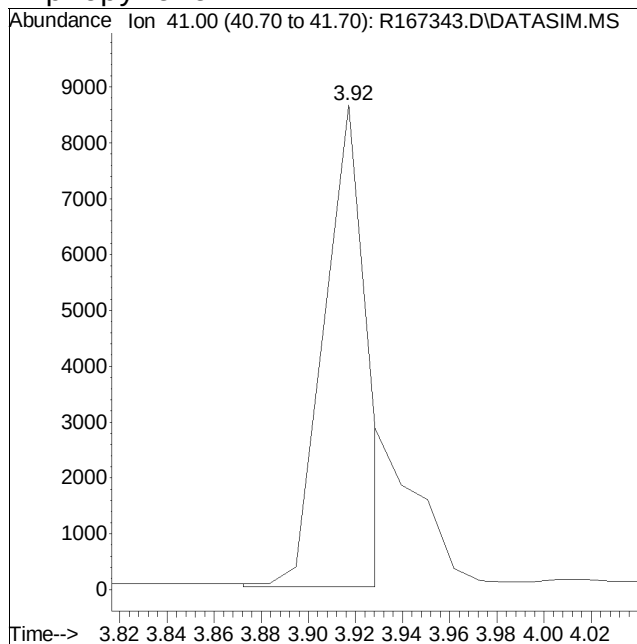
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167343.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:23 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD1.0 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 13181

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

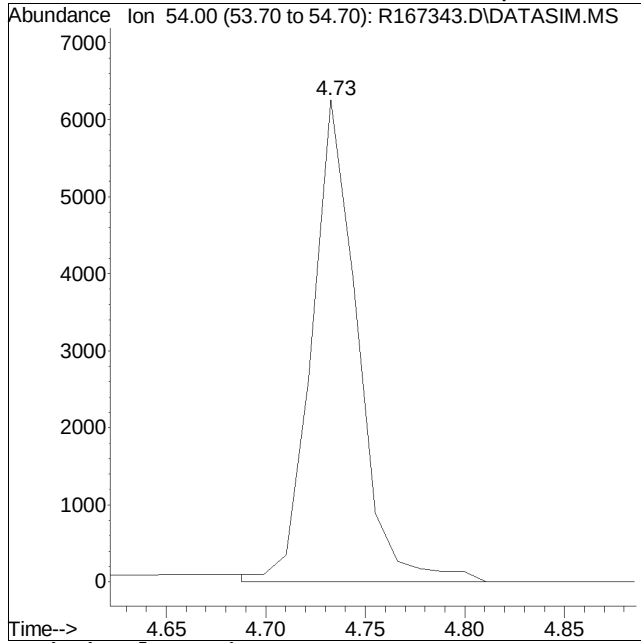


Manual Peak Response = 10958 M6

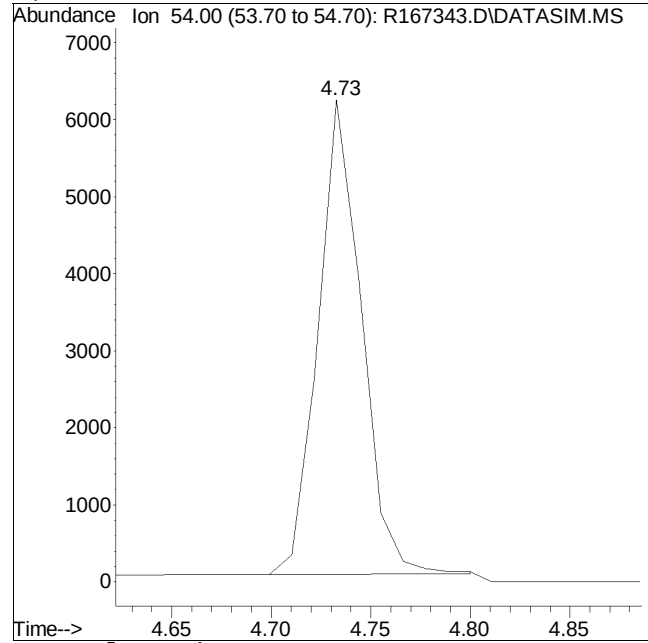
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167343.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:23 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD1.0 Quant Date : 7/15/2019 12:10 pm

Compound #7: 1,3-butadiene



Original Peak Response = 9840



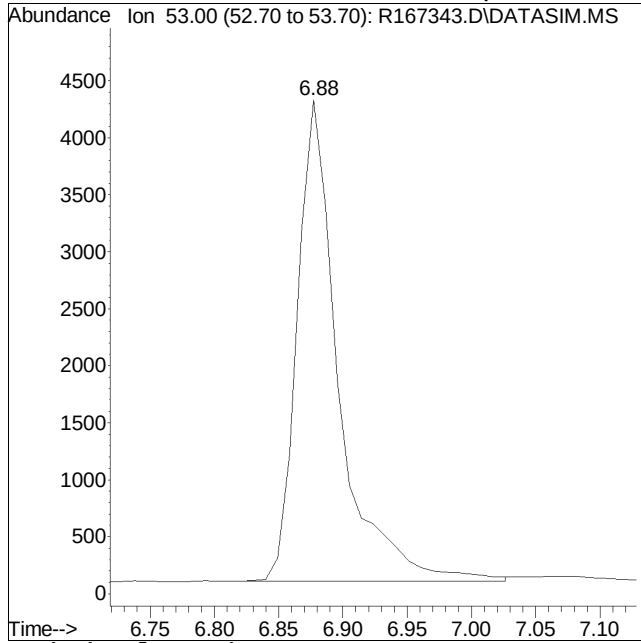
Manual Peak Response = 9298 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

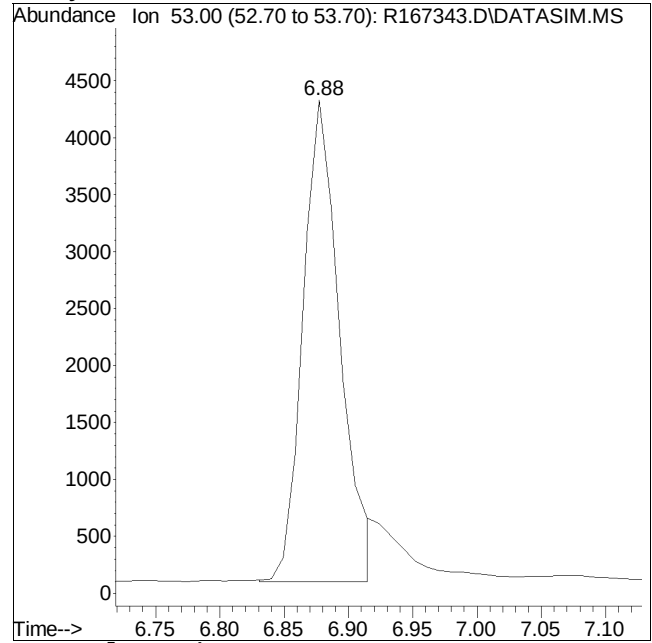
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167343.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:23 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD1.0 Quant Date : 7/15/2019 12:10 pm

Compound #16: acrylonitrile



Original Peak Response = 9471

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 8460 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 12:09:30 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 11:08:23 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	214308	10.000	ppbV	-0.01
Standard Area = 214308			Recovery =	100.00%		
33) 1,4-difluorobenzene	12.35	114	491248	10.000	ppbV	0.00
Standard Area = 491248			Recovery =	100.00%		
51) chlorobenzene-D5	16.80	54	91879	10.000	ppbV	0.00
Standard Area = 91879			Recovery =	100.00%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	173110	9.955	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.55%		
53) toluene-D8	15.09	98	522468	10.152	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.52%		
67) bromofluorobenzene	18.00	95	339775	10.347	ppbV	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.47%		
Target Compounds						
					Qvalue	
2) propylene	3.92	41	48781M6	3.360	ppbV	
3) dichlorodifluoromethane	4.02	85	149991	4.479	ppbV	99
4) chloromethane	4.23	50	53056	4.135	ppbV	97
5) Freon-114	4.39	85	170023	4.611	ppbV	99
6) vinyl chloride	4.54	62	63458	4.572	ppbV	99
7) 1,3-butadiene	4.73	54	42828	2.466	ppbV	85
8) bromomethane	5.11	94	60068	4.430	ppbV	98
9) chloroethane	5.37	64	30438	4.329	ppbV	91
10) ethanol	5.57	31	179574	23.318	ppbV	96
11) vinyl bromide	5.86	106	61345	4.427	ppbV	100
12) acrolein	6.04	56	24309	4.989	ppbV	99
13) acetone	6.23	43	552636	21.079	ppbV	93
14) trichlorofluoromethane	6.44	101	145278	4.658	ppbV	99
15) isopropyl alcohol	6.60	45	290303	8.982	ppbV	99
16) acrylonitrile	6.87	53	42085M6	3.770	ppbV	
17) 1,1-dichloroethene	7.29	61	102540	4.130	ppbV	95
18) tertiary butyl alcohol	7.42	59	143590	4.608	ppbV	99
19) methylene chloride	7.46	49	85926	4.436	ppbV	89
20) 3-chloropropene	7.61	41	92222	4.422	ppbV	92
21) carbon disulfide	7.79	76	223556	4.285	ppbV	99
22) Freon 113	7.81	101	142374	4.702	ppbV	99
23) trans-1,2-dichloroethene	8.66	61	116196	4.722	ppbV	97
24) 1,1-dichloroethane	8.90	63	140091	4.679	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 12:09:30 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 11:08:23 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	9.00	73	199767	4.693	ppbV	98
26) vinyl acetate	9.12	43	132208	5.031	ppbV #	96
27) 2-butanone	9.41	43	149335	5.481	ppbV	100
28) cis-1,2-dichloroethene	9.91	61	111014	4.740	ppbV	90
29) Ethyl Acetate	10.21	61	30136	3.668	ppbV	67
30) chloroform	10.27	83	175571	4.672	ppbV	99
31) Tetrahydrofuran	10.75	42	81853M6	4.203	ppbV	
32) 1,2-dichloroethane	11.12	62	97572	4.735	ppbV	99
34) hexane	10.17	57	144760	4.365	ppbV	91
36) 1,1,1-trichloroethane	11.41	97	141602	4.694	ppbV	99
37) benzene	11.93	78	236223	4.785	ppbV	99
38) carbon tetrachloride	12.11	117	136047	4.731	ppbV	100
39) cyclohexane	12.23	56	121918	4.478	ppbV	92
40) dibromomethane	12.84	93	87607	4.120	ppbV #	78
41) 1,2-dichloropropane	12.86	63	91395	4.558	ppbV	97
42) bromodichloromethane	13.10	83	172167	4.792	ppbV	99
43) 1,4-dioxane	13.15	88	53256	5.475	ppbV	96
44) trichloroethene	13.14	130	98927	4.762	ppbV	99
45) 2,2,4-trimethylpentane	13.17	57	395576	4.478	ppbV	98
46) heptane	13.47	43	143604	4.485	ppbV #	97
47) cis-1,3-dichloropropene	14.13	75	520608	5.067	ppbV	99
48) 4-methyl-2-pentanone	14.16	43	190532	4.914	ppbV #	93
49) trans-1,3-dichloropropene	14.72	75	126619	5.213	ppbV	94
50) 1,1,2-trichloroethane	14.91	97	97157	4.823	ppbV	94
52) toluene	15.19	91	287345	4.607	ppbV	99
54) 2-hexanone	15.45	43	175850	5.058	ppbV	99
55) dibromochloromethane	15.61	129	163763	5.078	ppbV	98
56) 1,2-dibromoethane	15.85	107	153735	5.026	ppbV	99
57) tetrachloroethene	16.26	166	125282	4.800	ppbV	96
58) 1,1,1,2-tetrachloroethane	16.82	131	110874	4.896	ppbV	99
59) chlorobenzene	16.84	112	225717	4.817	ppbV	99
60) ethylbenzene	17.14	91	366157	4.704	ppbV	100
61) m+p-xylene	17.28	91	567280	8.074	ppbV	99
62) bromoform	17.36	173	159913	5.231	ppbV	99
63) styrene	17.56	104	221893	5.208	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.64	83	226066	4.919	ppbV	99
65) o-xylene	17.64	91	291381	4.614	ppbV	100
66) 1,2,3-trichloropropane	17.75	75	176173	4.996	ppbV	98
68) isopropylbenzene	18.09	105	385770	4.580	ppbV	98
69) bromobenzene	18.17	77	212951	4.989	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167344.D
 Acq On : 12 Jul 2019 10:55 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 15 12:09:30 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Sat Jul 13 11:08:23 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

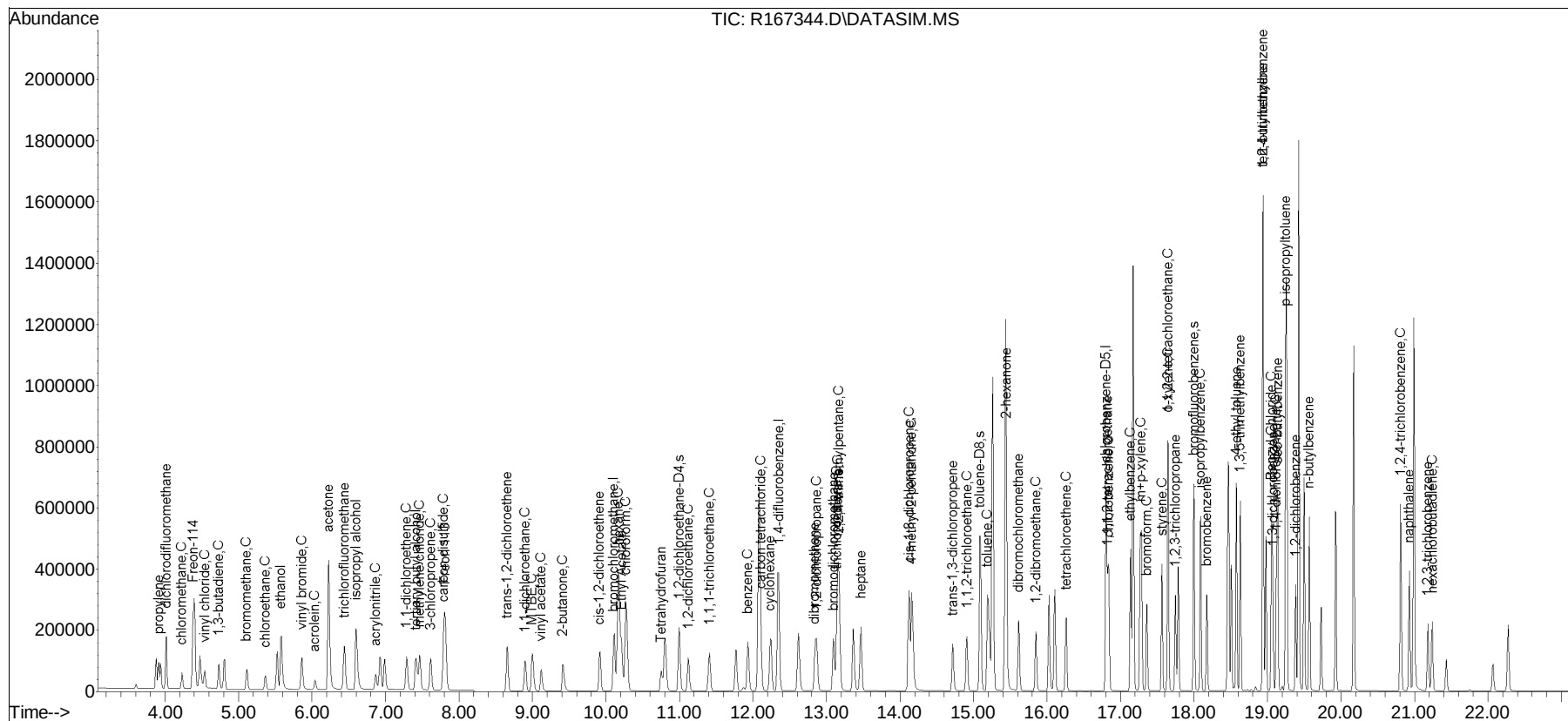
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.57	105	439040	5.284	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	343104	4.937	ppbV	99
72) tert-butylbenzene	18.94	119	346064	4.548	ppbV	95
73) 1,2,4-trimethylbenzene	18.94	105	336085	5.163	ppbV	98
74) Benzyl Chloride	19.05	91	302951	5.474	ppbV	99
75) 1,3-dichlorobenzene	19.07	146	240431M3	5.548	ppbV	
76) 1,4-dichlorobenzene	19.12	146	246649	5.697	ppbV	99
77) sec-butylbenzene	19.14	105	498633	4.670	ppbV	96
78) p-isopropyltoluene	19.25	119	445728	4.797	ppbV	98
79) 1,2-dichlorobenzene	19.38	146	234102	5.611	ppbV	93
80) n-butylbenzene	19.57	91	424507	5.156	ppbV	100
81) 1,2,4-trichlorobenzene	20.81	180	199689	9.937	ppbV #	93
82) naphthalene	20.93	128	467191	8.581	ppbV	99
83) 1,2,3-trichlorobenzene	21.18	180	192857	10.066	ppbV #	88
84) hexachlorobutadiene	21.24	225	163430	7.000	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0712SIM_ICAL\R167344.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167344.D
Acq On : 12 Jul 2019 10:55 pm
Operator : AIRPIAN01:AR
Sample : IT015-SIMSTD5.0
Misc : WG1260317
ALS Vial : 7 Sample Multiplier: 1

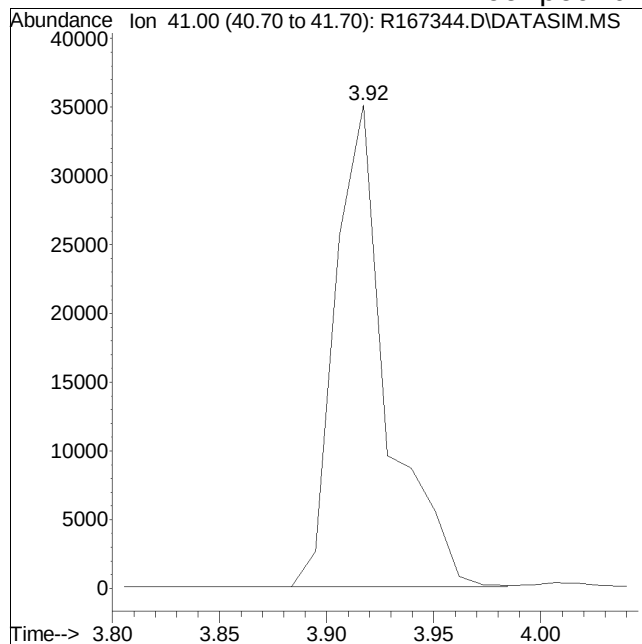
Quant Time: Jul 15 12:09:30 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 13 11:08:23 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

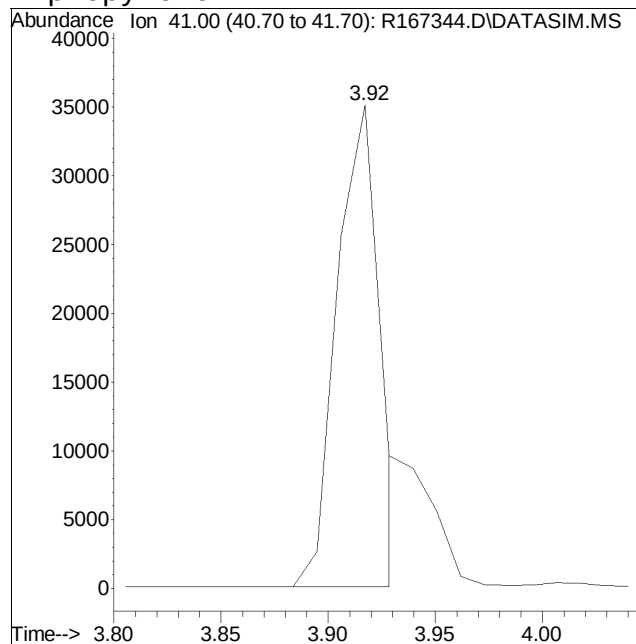
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167344.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:55 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD5.0 Quant Date : 7/13/2019 11:08 am

Compound #2: propylene



Original Peak Response = 58990

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

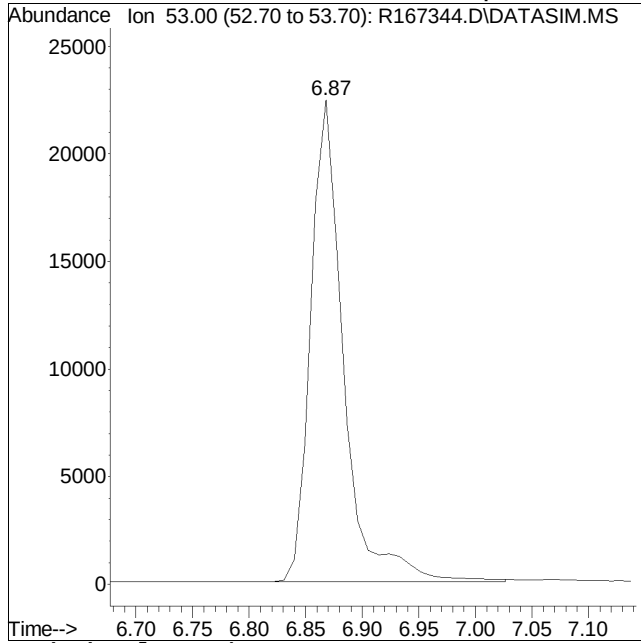


Manual Peak Response = 48781 M6

Manual Integration/Negative Proof Report

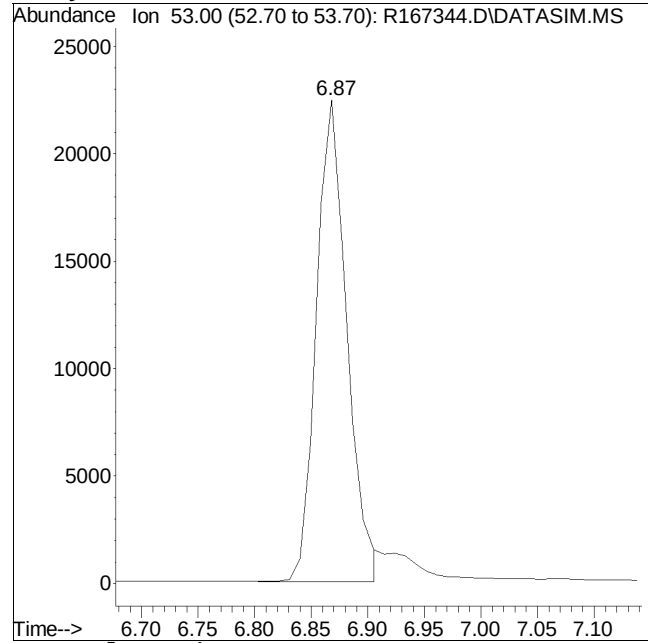
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167344.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:55 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD5.0 Quant Date : 7/13/2019 11:08 am

Compound #16: acrylonitrile



Original Peak Response = 45480

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

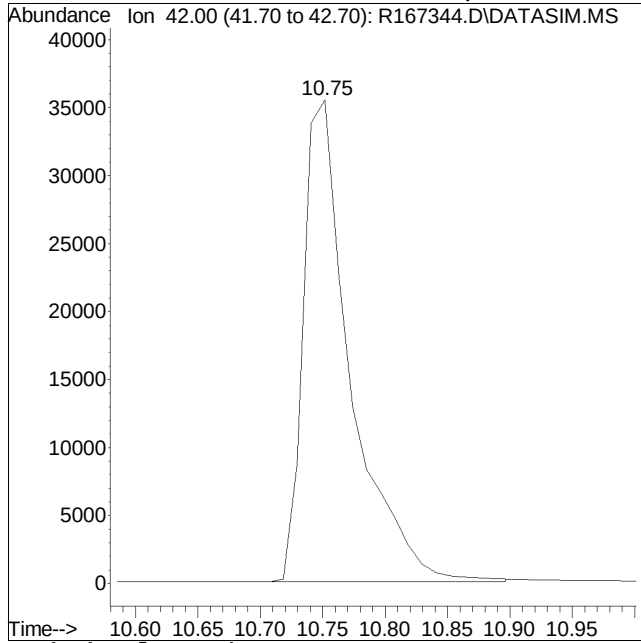


Manual Peak Response = 42085 M6

Manual Integration/Negative Proof Report

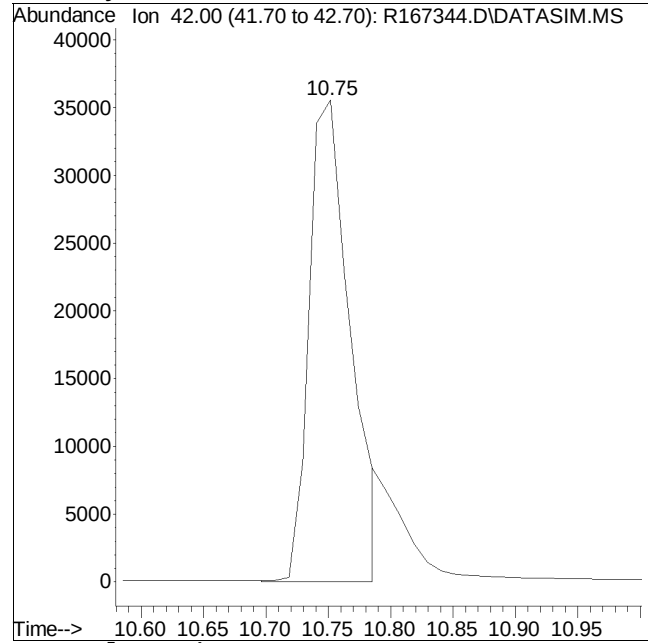
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167344.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:55 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD5.0 Quant Date : 7/13/2019 11:08 am

Compound #31: Tetrahydrofuran



Original Peak Response = 93107

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

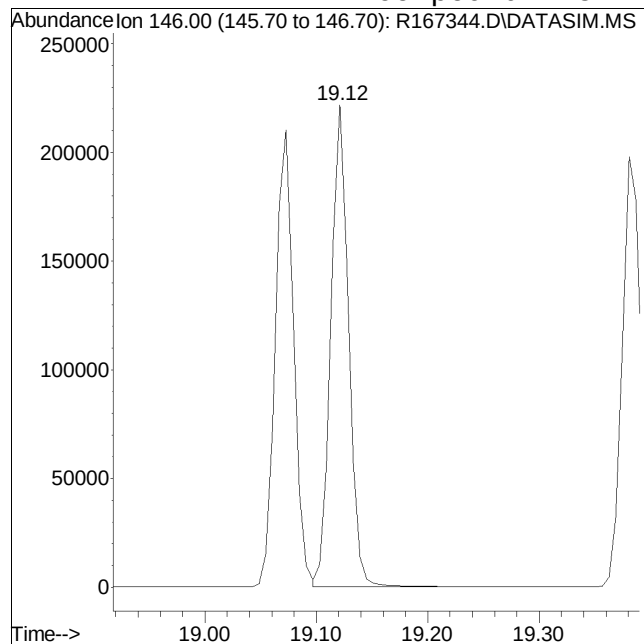


Manual Peak Response = 81853 M6

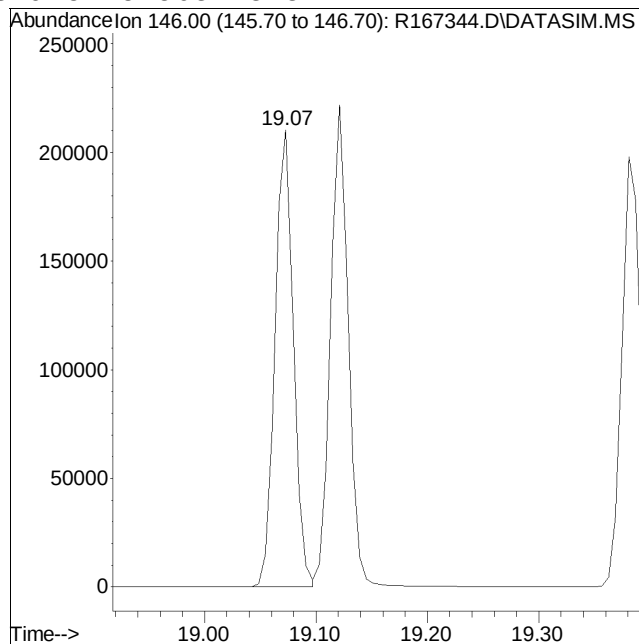
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167344.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 10:55 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD5.0 Quant Date : 7/13/2019 11:08 am

Compound #75: 1,3-dichlorobenzene



Original Peak Response = 246242



Manual Peak Response = 240431 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD10.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 16 07:47:07 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.11	49	219894	10.000	ppbV	0.01
Standard Area = 214308			Recovery = 102.61%			
33) 1,4-difluorobenzene	12.35	114	495729	10.000	ppbV	0.00
Standard Area = 491248			Recovery = 100.91%			
51) chlorobenzene-D5	16.80	54	92373	10.000	ppbV	0.00
Standard Area = 91879			Recovery = 100.54%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	175291	10.034	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.34%			
53) toluene-D8	15.10	98	520355	9.906	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.06%			
67) bromofluorobenzene	18.00	95	341822	10.006	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.06%			
Target Compounds						
					Qvalue	
2) propylene	3.92	41	94422M6	9.432	ppbV	
3) dichlorodifluoromethane	4.02	85	265315	8.620	ppbV	100
4) chloromethane	4.23	50	104646	9.611	ppbV	100
5) Freon-114	4.39	85	332234	9.522	ppbV	100
6) vinyl chloride	4.54	62	124280	9.544	ppbV	100
7) 1,3-butadiene	4.73	54	85020	9.674	ppbV	99
8) bromomethane	5.11	94	117619	9.542	ppbV	100
9) chloroethane	5.37	64	59244	9.485	ppbV	100
10) ethanol	5.57	31	343375	46.590	ppbV	98
11) vinyl bromide	5.86	106	120618	9.581	ppbV	100
12) acrolein	6.04	56	48262	9.675	ppbV	100
13) acetone	6.22	43	1094512	48.255	ppbV	96
14) trichlorofluoromethane	6.44	101	285253	9.568	ppbV	100
15) isopropyl alcohol	6.60	45	557457	23.393	ppbV	99
16) acrylonitrile	6.87	53	83285M6	9.643	ppbV	
17) 1,1-dichloroethene	7.29	61	230480	10.953	ppbV	99
18) tertiary butyl alcohol	7.40	59	284127	9.642	ppbV	99
19) methylene chloride	7.46	49	170475	9.668	ppbV	99
20) 3-chloropropene	7.61	41	182602	9.649	ppbV	100
21) carbon disulfide	7.79	76	437151	9.529	ppbV	98
22) Freon 113	7.82	101	279723	9.574	ppbV	98
23) trans-1,2-dichloroethene	8.66	61	229865	9.640	ppbV	100
24) 1,1-dichloroethane	8.90	63	274536	9.550	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD10.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 16 07:47:07 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	9.00	73	388953	9.488	ppbV	97
26) vinyl acetate	9.12	43	289855	10.684	ppbV	99
27) 2-butanone	9.40	43	298275	9.733	ppbV	100
28) cis-1,2-dichloroethene	9.91	61	220970	9.700	ppbV	100
29) Ethyl Acetate	10.21	61	60936	9.853	ppbV	78
30) chloroform	10.27	83	344272	9.555	ppbV	99
31) Tetrahydrofuran	10.74	42	164804M6	9.811	ppbV	
32) 1,2-dichloroethane	11.12	62	192416	9.610	ppbV	100
34) hexane	10.17	57	282221	9.660	ppbV	94
36) 1,1,1-trichloroethane	11.41	97	278636	9.750	ppbV	100
37) benzene	11.93	78	462515	9.701	ppbV	100
38) carbon tetrachloride	12.11	117	265904	9.684	ppbV	99
39) cyclohexane	12.23	56	236039	9.593	ppbV	100
40) dibromomethane	12.84	93	172549	9.759	ppbV	98
41) 1,2-dichloropropane	12.86	63	175820	9.532	ppbV	100
42) bromodichloromethane	13.10	83	342521	9.857	ppbV	100
43) 1,4-dioxane	13.15	88	103836	9.661	ppbV	88
44) trichloroethene	13.14	130	193160	9.675	ppbV	99
45) 2,2,4-trimethylpentane	13.17	57	763849	9.568	ppbV	99
46) heptane	13.47	43	278347	9.604	ppbV	100
47) cis-1,3-dichloropropene	14.13	75	1036932	9.869	ppbV	100
48) 4-methyl-2-pentanone	14.16	43	374875	9.749	ppbV #	92
49) trans-1,3-dichloropropene	14.72	75	252993	9.900	ppbV	100
50) 1,1,2-trichloroethane	14.91	97	190640	9.722	ppbV	99
52) toluene	15.19	91	554004	9.588	ppbV	100
54) 2-hexanone	15.44	43	332723	9.410	ppbV #	90
55) dibromochloromethane	15.61	129	323682	9.830	ppbV	100
56) 1,2-dibromoethane	15.85	107	304444	9.849	ppbV	100
57) tetrachloroethene	16.26	166	246199	9.773	ppbV	100
58) 1,1,1,2-tetrachloroethane	16.82	131	217696	9.765	ppbV	99
59) chlorobenzene	16.84	112	441589	9.730	ppbV	98
60) ethylbenzene	17.14	91	719603	9.774	ppbV	99
61) m+p-xylene	17.28	91	1107420	19.417	ppbV	100
62) bromoform	17.36	173	318916	9.918	ppbV	99
63) styrene	17.56	104	436681	9.787	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.64	83	441753	9.718	ppbV	100
65) o-xylene	17.64	91	562875	9.607	ppbV	100
66) 1,2,3-trichloropropane	17.75	75	338585	9.558	ppbV	100
68) isopropylbenzene	18.09	105	751934	9.694	ppbV	100
69) bromobenzene	18.17	77	405257	9.464	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167345.D
 Acq On : 12 Jul 2019 11:29 pm
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD10.0
 Misc : WG1260317
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 16 07:47:07 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

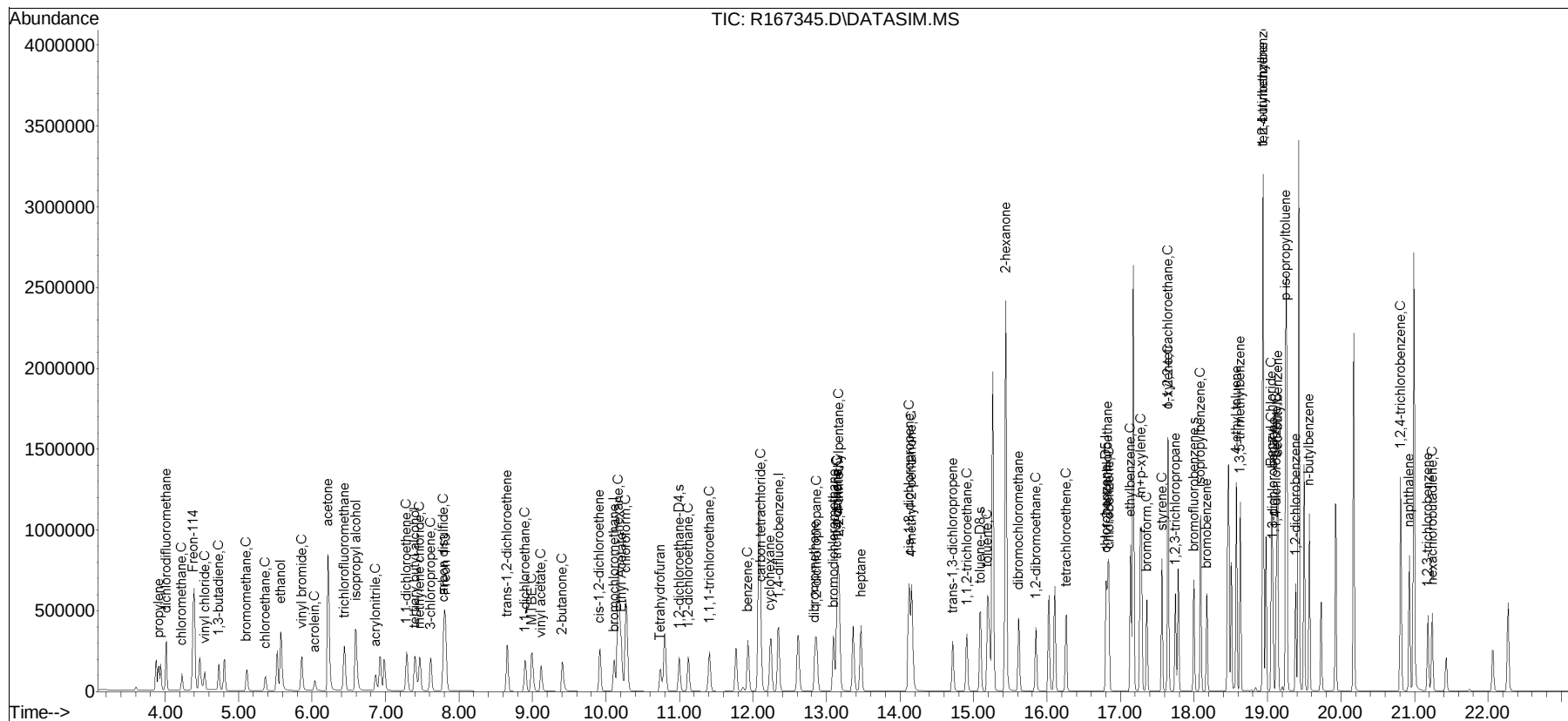
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.57	105	837936	9.492	ppbV	100
71) 1,3,5-trimethylbenzene	18.63	105	650057	9.423	ppbV	99
72) tert-butylbenzene	18.94	119	680930	9.786	ppbV	100
73) 1,2,4-trimethylbenzene	18.94	105	659680	9.762	ppbV	99
74) Benzyl Chloride	19.05	91	616630	10.123	ppbV	100
75) 1,3-dichlorobenzene	19.07	146	478755	9.903	ppbV	100
76) 1,4-dichlorobenzene	19.12	146	485753	9.794	ppbV	99
77) sec-butylbenzene	19.14	105	973016	9.705	ppbV	100
78) p-isopropyltoluene	19.25	119	867471	9.679	ppbV	100
79) 1,2-dichlorobenzene	19.38	146	458082	9.731	ppbV	99
80) n-butylbenzene	19.57	91	827518	9.695	ppbV	100
81) 1,2,4-trichlorobenzene	20.81	180	423567	10.549	ppbV	100
82) naphthalene	20.93	128	997687	10.620	ppbV	100
83) 1,2,3-trichlorobenzene	21.18	180	412486	10.637	ppbV	99
84) hexachlorobutadiene	21.24	225	345000	10.499	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0712SIM_ICAL\R167344.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167345.D
Acq On : 12 Jul 2019 11:29 pm
Operator : AIRPIAN01:AR
Sample : IT015-SIMSTD10.0
Misc : WG1260317
ALS Vial : 7 Sample Multiplier: 1

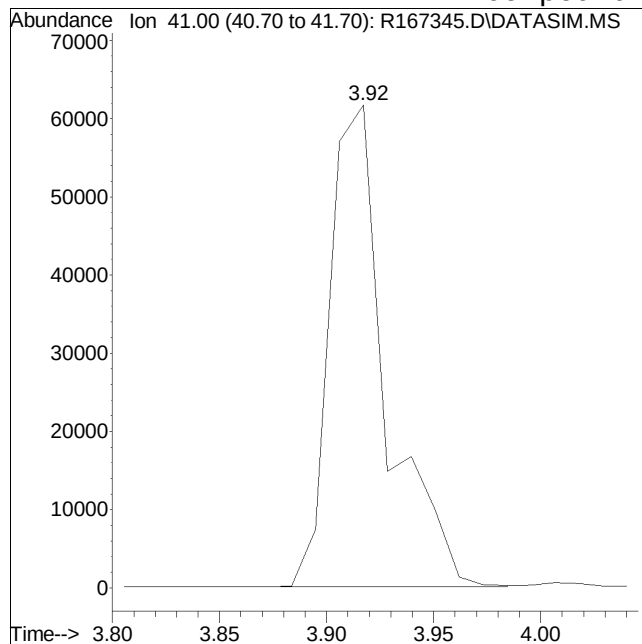
Quant Time: Jul 16 07:47:07 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

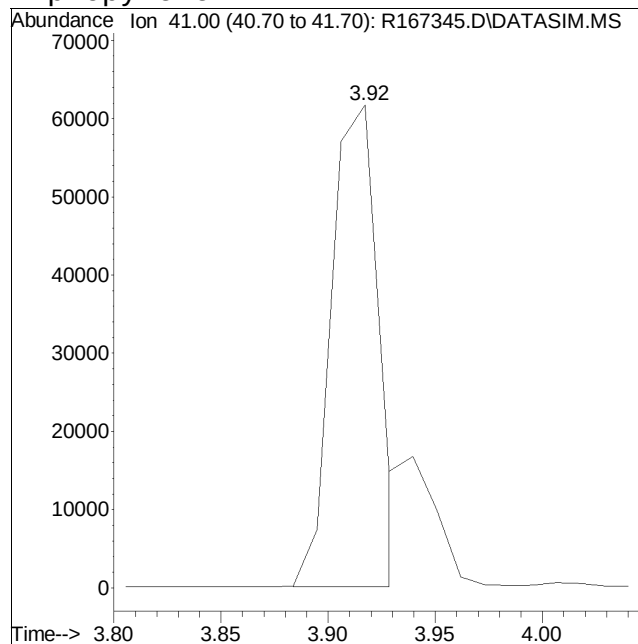
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167345.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 11:29 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD10.0 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 113440

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

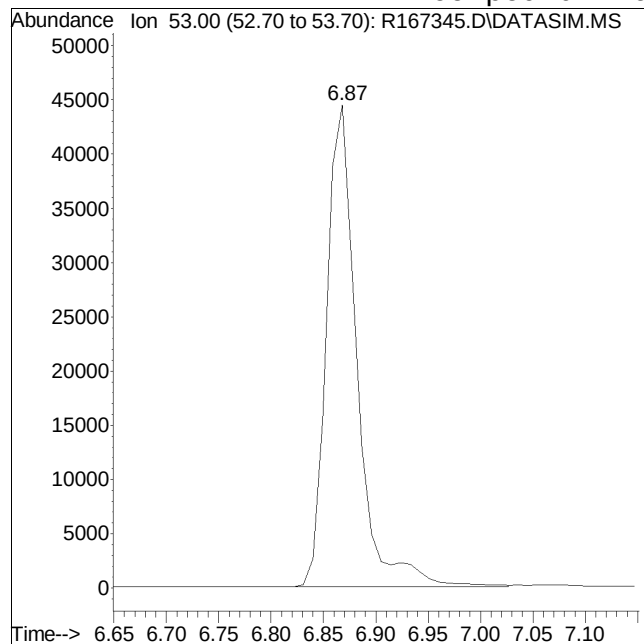


Manual Peak Response = 94422 M6

Manual Integration/Negative Proof Report

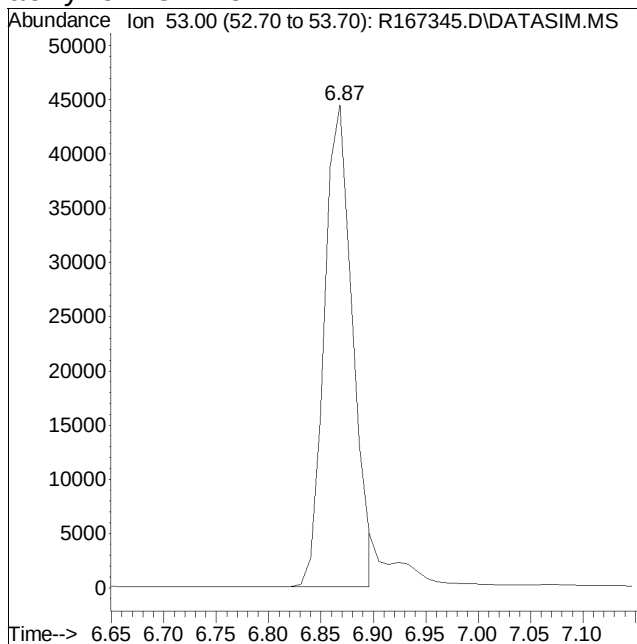
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
 Data File : R167345.D Operator : AIRPIAN01:AR
 Date Inj'd : 7/12/2019 11:29 pm Instrument : Air Piano 1
 Sample : IT015-SIMSTD10.0 Quant Date : 7/15/2019 12:10 pm

Compound #16: acrylonitrile



Original Peak Response = 90331

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

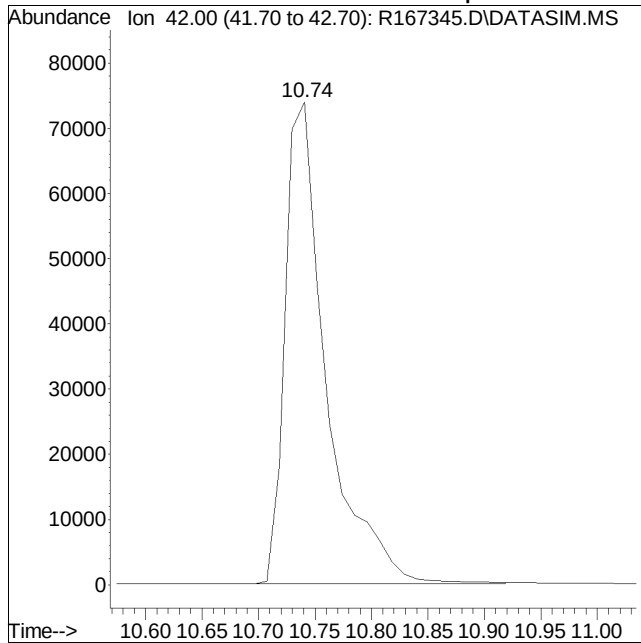


Manual Peak Response = 83285 M6

Manual Integration/Negative Proof Report

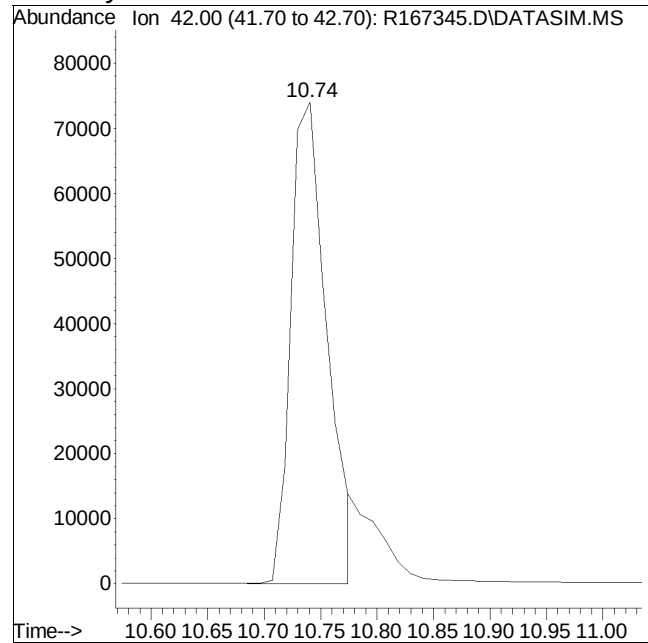
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167345.D Operator : AIRPIAN01:AR
Date Inj'd : 7/12/2019 11:29 pm Instrument : Air Piano 1
Sample : IT015-SIMSTD10.0 Quant Date : 7/15/2019 12:10 pm

Compound #31: Tetrahydrofuran



Original Peak Response = 187296

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 164804 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD20.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:50:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.11	49	305723	10.000	ppbV	0.01
Standard Area = 214308			Recovery =	142.66%		
33) 1,4-difluorobenzene	12.35	114	680816	10.000	ppbV	0.00
Standard Area = 491248			Recovery =	138.59%		
51) chlorobenzene-D5	16.80	54	125792	10.000	ppbV	0.00
Standard Area = 91879			Recovery =	136.91%		
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	263591	10.987	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.87%		
53) toluene-D8	15.10	98	772818	10.804	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.04%		
67) bromofluorobenzene	18.00	95	523528	11.254	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	112.54%		
Target Compounds						Qvalue
2) propylene	3.91	41	302013M6	21.700	ppbV	
3) dichlorodifluoromethane	4.02	85	906344	21.179	ppbV	99
4) chloromethane	4.23	50	323966	21.402	ppbV	98
5) Freon-114	4.38	85	1010512	20.831	ppbV	94
6) vinyl chloride	4.53	62	381421	21.067	ppbV	98
7) 1,3-butadiene	4.73	54	263185	21.538	ppbV	89
8) bromomethane	5.11	94	366800	21.403	ppbV	99
9) chloroethane	5.37	64	181287	20.875	ppbV	98
10) ethanol	5.57	31	1060622	103.506	ppbV	98
11) vinyl bromide	5.85	106	373306	21.329	ppbV	98
12) acrolein	6.03	56	149655	21.578	ppbV	99
13) acetone	6.22	43	3260602	103.397	ppbV	99
14) trichlorofluoromethane	6.44	101	888970	21.447	ppbV	100
15) isopropyl alcohol	6.59	45	1677555	50.634	ppbV	100
16) acrylonitrile	6.87	53	267337M6	22.264	ppbV	
17) 1,1-dichloroethene	7.29	61	709469	24.250	ppbV	98
18) tertiary butyl alcohol	7.39	59	879238	21.462	ppbV	100
19) methylene chloride	7.46	49	518440	21.147	ppbV	99
20) 3-chloropropene	7.61	41	554275	21.065	ppbV	99
21) carbon disulfide	7.79	76	1347673	21.129	ppbV	96
22) Freon 113	7.81	101	865894	21.316	ppbV	100
23) trans-1,2-dichloroethene	8.66	61	706888	21.323	ppbV	98
24) 1,1-dichloroethane	8.90	63	843800	21.111	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD20.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:50:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.99	73	1210189	21.233	ppbV	97
26) vinyl acetate	9.12	43	924563	24.511	ppbV	98
27) 2-butanone	9.40	43	921866	21.636	ppbV	95
28) cis-1,2-dichloroethene	9.92	61	682369	21.544	ppbV	89
29) Ethyl Acetate	10.20	61	191373	22.257	ppbV	92
30) chloroform	10.27	83	1051956	21.000	ppbV	99
31) Tetrahydrofuran	10.72	42	524324M6	22.452	ppbV	
32) 1,2-dichloroethane	11.12	62	593264	21.311	ppbV	100
34) hexane	10.17	57	851759	21.228	ppbV	91
36) 1,1,1-trichloroethane	11.41	97	867729	22.108	ppbV	100
37) benzene	11.93	78	1384472	21.145	ppbV	99
38) carbon tetrachloride	12.11	117	824228	21.857	ppbV	98
39) cyclohexane	12.25	56	718381	21.258	ppbV	90
40) dibromomethane	12.85	93	533121	21.955	ppbV #	76
41) 1,2-dichloropropane	12.87	63	544964	21.512	ppbV	96
42) bromodichloromethane	13.10	83	1040994	21.814	ppbV	99
43) 1,4-dioxane	13.14	88	322090	21.820	ppbV #	70
44) trichloroethene	13.14	130	589685	21.505	ppbV	99
45) 2,2,4-trimethylpentane	13.17	57	2272879	20.729	ppbV	98
46) heptane	13.47	43	829307	20.835	ppbV	99
47) cis-1,3-dichloropropene	14.13	75	3199055	22.169	ppbV	99
48) 4-methyl-2-pentanone	14.14	43	1107841	20.977	ppbV #	94
49) trans-1,3-dichloropropene	14.72	75	797185	22.714	ppbV	99
50) 1,1,2-trichloroethane	14.91	97	586473	21.778	ppbV	99
52) toluene	15.20	91	1669593	21.220	ppbV	99
54) 2-hexanone	15.44	43	928170	19.276	ppbV #	87
55) dibromochloromethane	15.61	129	1003233	22.373	ppbV	99
56) 1,2-dibromoethane	15.85	107	934404	22.197	ppbV	100
57) tetrachloroethene	16.26	166	754786	22.002	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.82	131	671472	22.117	ppbV	99
59) chlorobenzene	16.84	112	1351883	21.873	ppbV	100
60) ethylbenzene	17.14	91	2153324	21.477	ppbV	99
61) m+p-xylene	17.29	91	3268182	42.080	ppbV	100
62) bromoform	17.36	173	993899	22.698	ppbV	99
63) styrene	17.56	104	1328550	21.866	ppbV	99
64) 1,1,2,2-tetrachloroethane	17.65	83	1269937	20.515	ppbV	100
65) o-xylene	17.65	91	1652938	20.717	ppbV	99
66) 1,2,3-trichloropropane	17.75	75	1030550	21.363	ppbV	99
68) isopropylbenzene	18.09	105	2227013	21.083	ppbV	98
69) bromobenzene	18.18	77	1238898	21.247	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167346.D
 Acq On : 13 Jul 2019 12:02 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD20.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:50:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

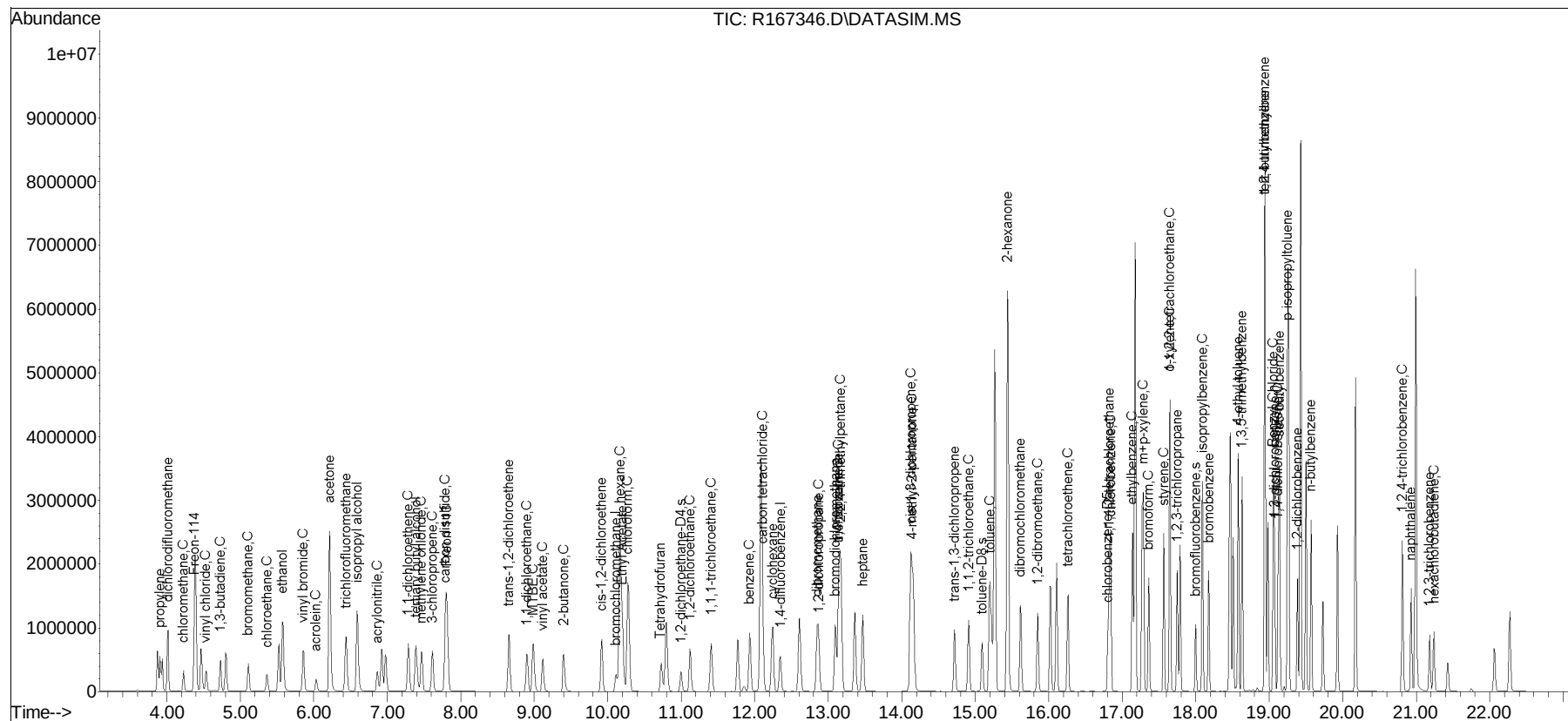
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	2438106	20.281	ppbV	98
71) 1,3,5-trimethylbenzene	18.63	105	1901196	20.236	ppbV	100
72) tert-butylbenzene	18.94	119	1817462	19.180	ppbV	99
73) 1,2,4-trimethylbenzene	18.94	105	1763152	19.159	ppbV	94
74) Benzyl Chloride	19.05	91	1776408	21.414	ppbV	99
75) 1,3-dichlorobenzene	19.07	146	1339412	20.345	ppbV	94
76) 1,4-dichlorobenzene	19.12	146	1345153	19.917	ppbV	96
77) sec-butylbenzene	19.14	105	2619315	19.184	ppbV	100
78) p-isopropyltoluene	19.25	119	2245095	18.395	ppbV	100
79) 1,2-dichlorobenzene	19.39	146	1266090	19.751	ppbV	93
80) n-butylbenzene	19.57	91	2112166	18.171	ppbV	99
81) 1,2,4-trichlorobenzene	20.81	180	822479	15.042	ppbV	98
82) naphthalene	20.93	128	1896702	14.826	ppbV	99
83) 1,2,3-trichlorobenzene	21.18	180	769420	14.570	ppbV	100
84) hexachlorobutadiene	21.24	225	671675	15.009	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167346.D
Acq On    : 13 Jul 2019 12:02 am
Operator  : AIRPIAN01:AR
Sample    : IT015-SIMSTD20.0
Misc      : WG1260317
ALS Vial  : 8      Sample Multiplier: 1
```

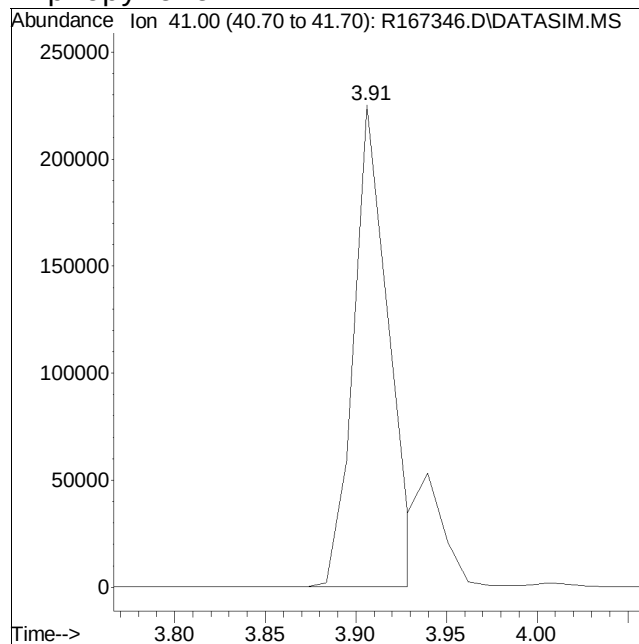
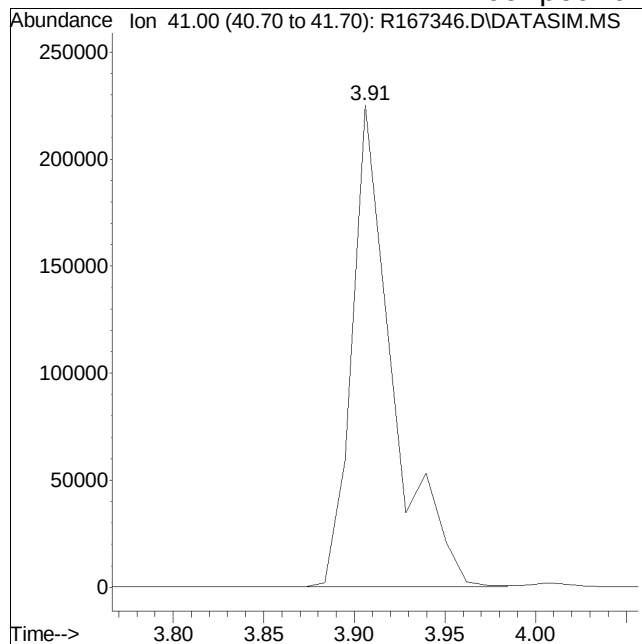
Quant Time: Jul 16 07:50:28 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167346.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 12:02 am Instrument : Air Piano 1
Sample : IT015-SIMSTD20.0 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene

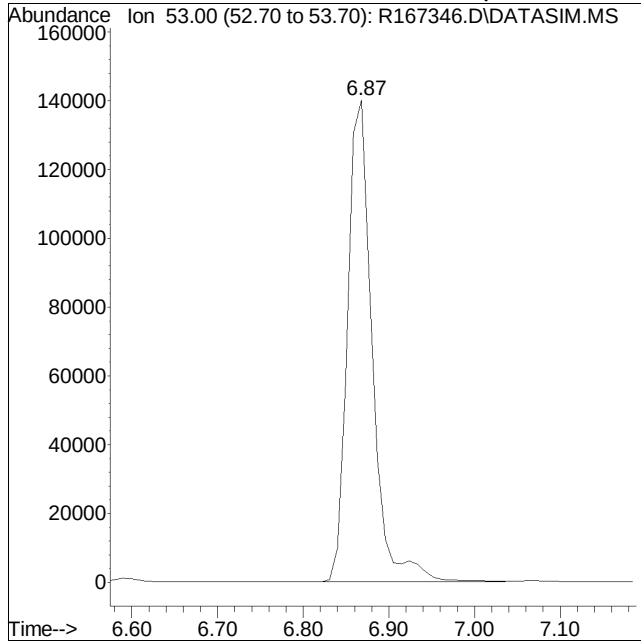


M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

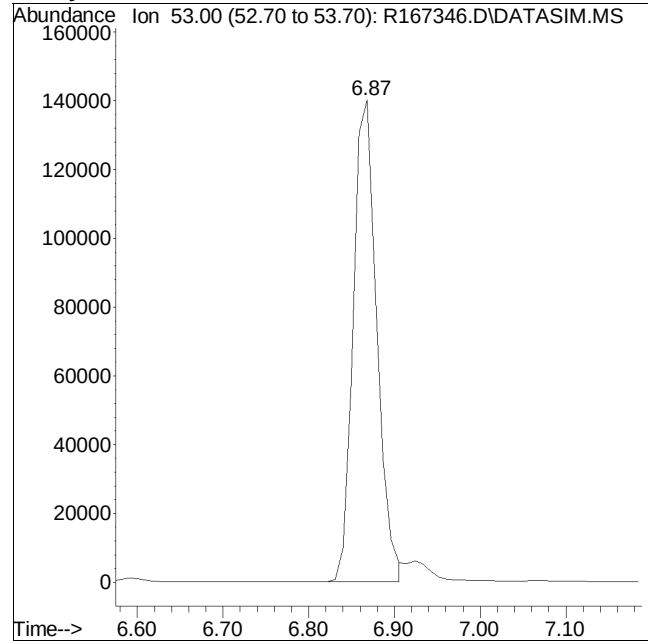
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167346.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 12:02 am Instrument : Air Piano 1
Sample : IT015-SIMSTD20.0 Quant Date : 7/15/2019 12:10 pm

Compound #16: acrylonitrile



Original Peak Response = 281316

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

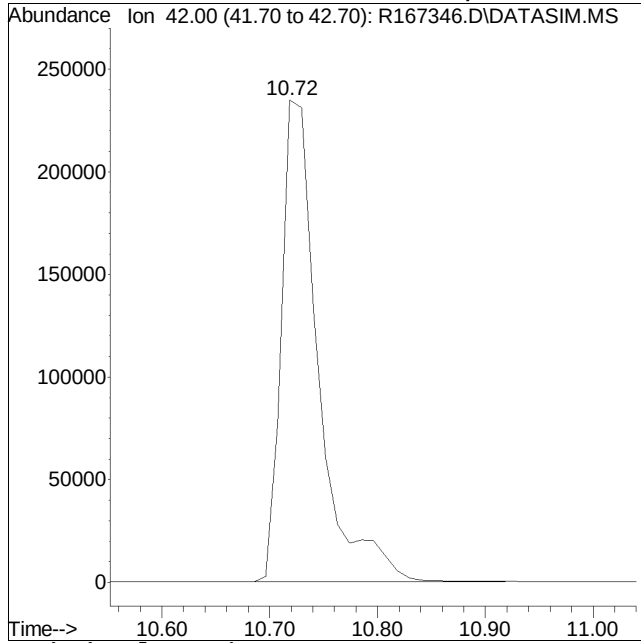


Manual Peak Response = 267337 M6

Manual Integration/Negative Proof Report

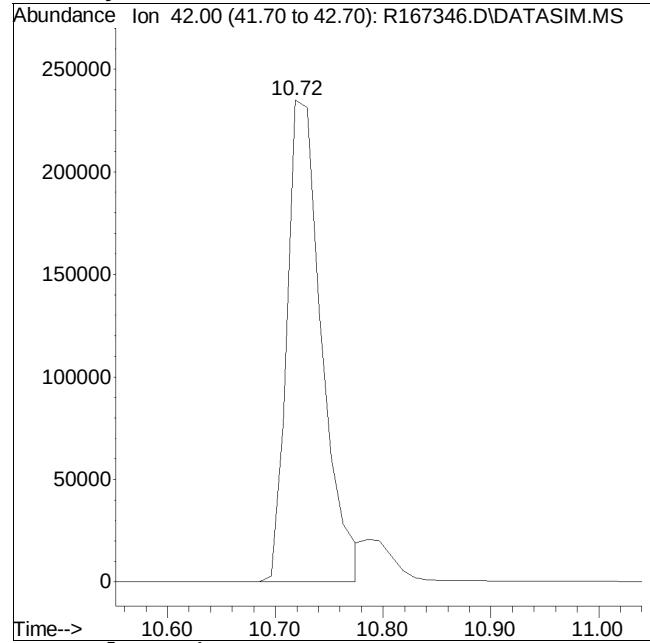
Data Path : O:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167346.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 12:02 am Instrument : Air Piano 1
Sample : IT015-SIMSTD20.0 Quant Date : 7/15/2019 12:10 pm

Compound #31: Tetrahydrofuran



Original Peak Response = 566730

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 524324 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD50.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:55:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.11	49	231896	10.000	ppbV	0.01
Standard Area = 214308			Recovery = 108.21%			
33) 1,4-difluorobenzene	12.35	114	506494	10.000	ppbV	0.00
Standard Area = 491248			Recovery = 103.10%			
51) chlorobenzene-D5	16.80	54	91140	10.000	ppbV	0.00
Standard Area = 91879			Recovery = 99.20%			
System Monitoring Compounds						
35) 1,2-dichloroethane-D4	11.00	65	178649	10.009	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.09%			
53) toluene-D8	15.10	98	533910	10.302	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.02%			
67) bromofluorobenzene	18.00	95	353023	10.474	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.74%			
Target Compounds						
					Qvalue	
2) propylene	3.92	41	457138M6	43.302	ppbV	
3) dichlorodifluoromethane	4.02	85	1434060	44.179	ppbV	99
4) chloromethane	4.23	50	540000	47.030	ppbV	99
5) Freon-114	4.39	85	1634546	44.423	ppbV	99
6) vinyl chloride	4.54	62	630482	45.909	ppbV	99
7) 1,3-butadiene	4.73	54	425637	45.923	ppbV	94
8) bromomethane	5.12	94	593185	45.631	ppbV	99
9) chloroethane	5.37	64	300355	45.597	ppbV	98
10) ethanol	5.59	31	1709629	219.960	ppbV	96
11) vinyl bromide	5.86	106	603312	45.444	ppbV	99
12) acrolein	6.04	56	246660	46.886	ppbV	99
13) acetone	6.22	43	5168316	216.070	ppbV	94
14) trichlorofluoromethane	6.44	101	1446167	45.997	ppbV	100
15) isopropyl alcohol	6.61	45	2714712	108.026	ppbV	100
16) acrylonitrile	6.87	53	460527	50.564	ppbV	99
17) 1,1-dichloroethene	7.29	61	1143633	51.536	ppbV	100
18) tertiary butyl alcohol	7.40	59	1420870	45.724	ppbV	100
19) methylene chloride	7.47	49	831377	44.708	ppbV	90
20) 3-chloropropene	7.62	41	892561	44.722	ppbV	96
21) carbon disulfide	7.80	76	2172480	44.904	ppbV #	92
22) Freon 113	7.82	101	1395071	45.277	ppbV	98
23) trans-1,2-dichloroethene	8.66	61	1133351	45.070	ppbV	98
24) 1,1-dichloroethane	8.91	63	1367364	45.101	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD50.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:55:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) MTBE	8.99	73	1937012	44.805	ppbV	98
26) vinyl acetate	9.12	43	1547798	54.097	ppbV	99
27) 2-butanone	9.40	43	1495201	46.265	ppbV	96
28) cis-1,2-dichloroethene	9.92	61	1094623	45.562	ppbV	93
29) Ethyl Acetate	10.21	61	308450	47.295	ppbV	74
30) chloroform	10.27	83	1692235	44.537	ppbV	96
31) Tetrahydrofuran	10.72	42	837109M6	47.257	ppbV	
32) 1,2-dichloroethane	11.12	62	957629	45.351	ppbV	98
34) hexane	10.17	57	1320945	44.252	ppbV	97
36) 1,1,1-trichloroethane	11.41	97	1411062	48.325	ppbV	97
37) benzene	11.93	78	2267294	46.546	ppbV	97
38) carbon tetrachloride	12.11	117	1315594	46.895	ppbV #	95
39) cyclohexane	12.25	56	1165192	46.347	ppbV	92
40) dibromomethane	12.85	93	857563	47.470	ppbV	84
41) 1,2-dichloropropane	12.87	63	872567	46.299	ppbV	98
42) bromodichloromethane	13.10	83	1676763	47.230	ppbV	97
43) 1,4-dioxane	13.14	88	523732	47.691	ppbV #	69
44) trichloroethene	13.14	130	940166	46.088	ppbV	97
45) 2,2,4-trimethylpentane	13.18	57	3628414	44.482	ppbV	100
46) heptane	13.47	43	1309844	44.233	ppbV	98
47) cis-1,3-dichloropropene	14.13	75	5200776	48.446	ppbV	99
48) 4-methyl-2-pentanone	14.16	43	1784569	45.422	ppbV #	88
49) trans-1,3-dichloropropene	14.73	75	1297445	49.692	ppbV	95
50) 1,1,2-trichloroethane	14.91	97	930150	46.428	ppbV	92
52) toluene	15.20	91	2665219	46.753	ppbV	99
54) 2-hexanone	15.44	43	1411847	40.469	ppbV	94
55) dibromochloromethane	15.62	129	1621445	49.907	ppbV	99
56) 1,2-dibromoethane	15.85	107	1510082	49.511	ppbV	99
57) tetrachloroethene	16.26	166	1212117	48.768	ppbV	96
58) 1,1,1,2-tetrachloroethane	16.83	131	1067520	48.531	ppbV	99
59) chlorobenzene	16.84	112	2121581	47.378	ppbV	98
60) ethylbenzene	17.14	91	3412879	46.982	ppbV	98
61) m+p-xylene	17.29	91	5193357	92.291	ppbV	100
62) bromoform	17.37	173	1606278	50.631	ppbV	99
63) styrene	17.56	104	2106189	47.844	ppbV	97
64) 1,1,2,2-tetrachloroethane	17.65	83	1964939	43.812	ppbV	100
65) o-xylene	17.65	91	2503326	43.305	ppbV	100
66) 1,2,3-trichloropropane	17.75	75	1654674	47.342	ppbV	99
68) isopropylbenzene	18.09	105	3463437	45.254	ppbV	97
69) bromobenzene	18.18	77	1980852	46.887	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167347.D
 Acq On : 13 Jul 2019 12:33 am
 Operator : AIRPIAN01:AR
 Sample : IT015-SIMSTD50.0
 Misc : WG1260317
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 16 07:55:28 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Jul 15 12:09:58 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default - All compounds listed

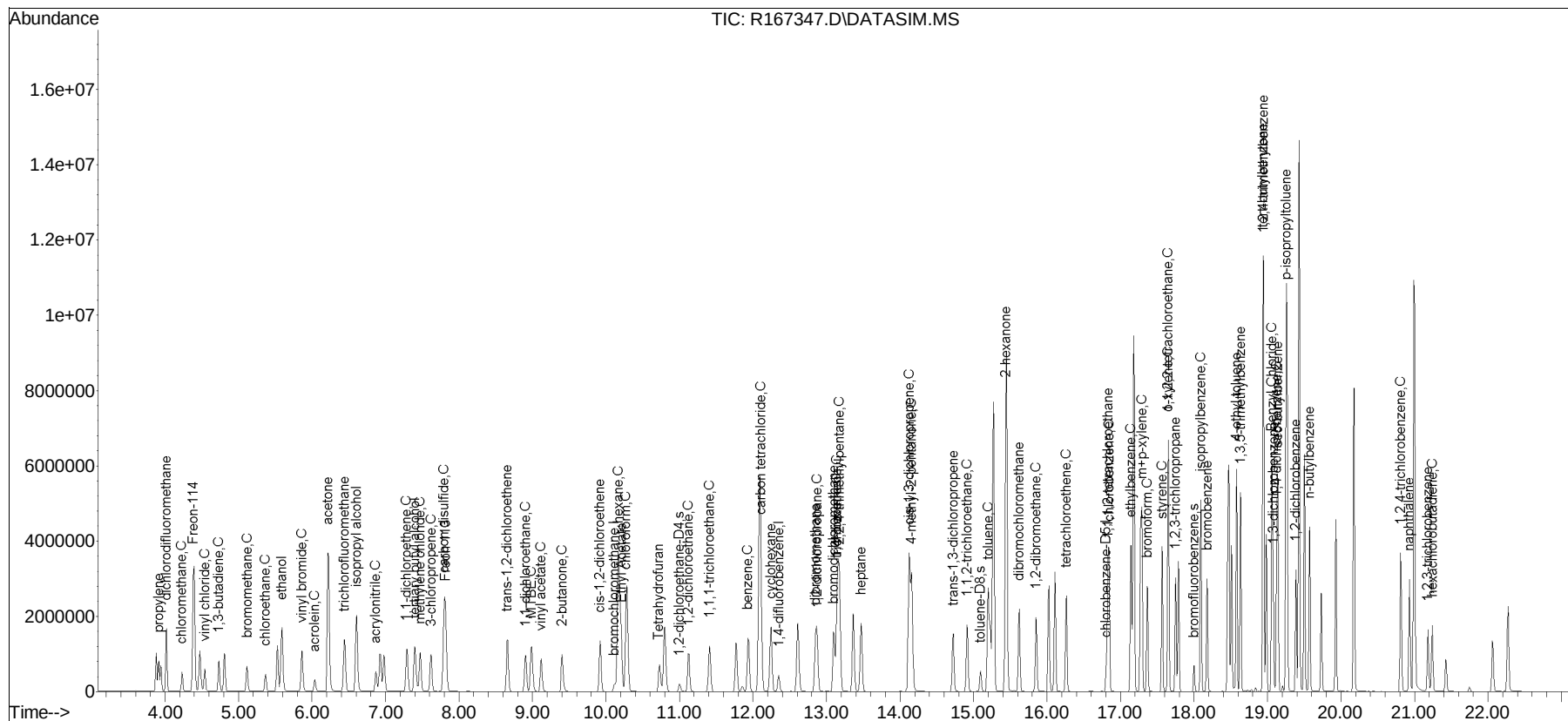
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 4-ethyl toluene	18.58	105	3850330	44.205	ppbV	97
71) 1,3,5-trimethylbenzene	18.63	105	3102502	45.579	ppbV	99
72) tert-butylbenzene	18.94	119	2786786	40.591	ppbV	100
73) 1,2,4-trimethylbenzene	18.95	105	2748005	41.214	ppbV	96
74) Benzyl Chloride	19.06	91	3006684	50.026	ppbV	91
75) 1,3-dichlorobenzene	19.08	146	2259201	47.363	ppbV	100
76) 1,4-dichlorobenzene	19.13	146	2255441	46.092	ppbV	99
77) sec-butylbenzene	19.14	105	4196960	42.426	ppbV	100
78) p-isopropyltoluene	19.25	119	3606981	40.790	ppbV	96
79) 1,2-dichlorobenzene	19.39	146	2189252	47.138	ppbV	100
80) n-butylbenzene	19.57	91	3581363	42.525	ppbV	92
81) 1,2,4-trichlorobenzene	20.81	180	1506286	38.022	ppbV #	94
82) naphthalene	20.93	128	3566202	38.476	ppbV	97
83) 1,2,3-trichlorobenzene	21.18	180	1442070	37.690	ppbV	97
84) hexachlorobutadiene	21.24	225	1231821	37.992	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed0712SIM_ICAL\R167344.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167347.D
Acq On : 13 Jul 2019 12:33 am
Operator : AIRPIAN01:AR
Sample : IT015-SIMSTD50.0
Misc : WG1260317
ALS Vial : 8 Sample Multiplier: 1

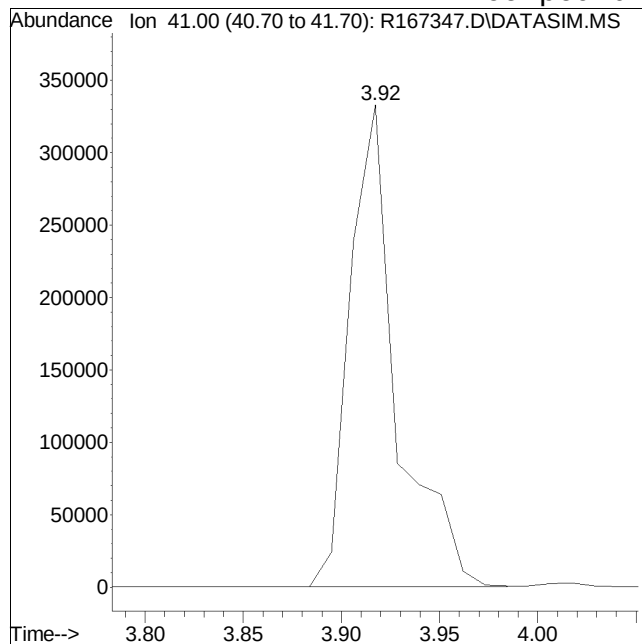
Quant Time: Jul 16 07:55:28 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Jul 15 12:09:58 2019
Response via : Initial Calibration



Manual Integration/Negative Proof Report

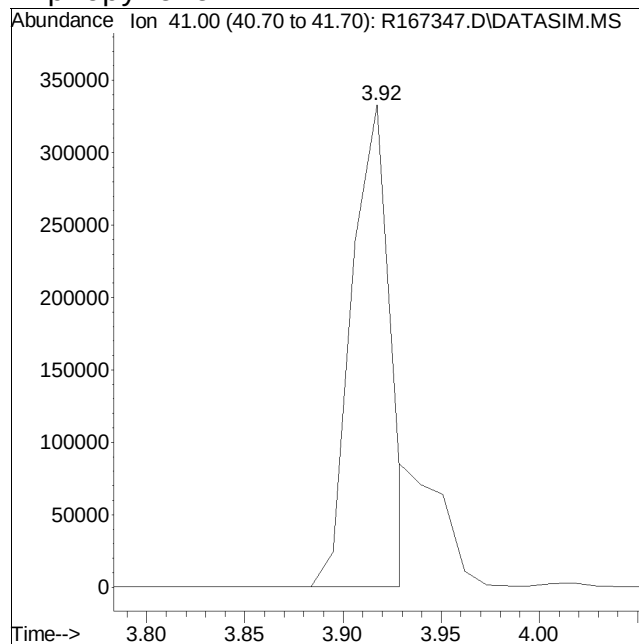
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167347.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 12:33 am Instrument : Air Piano 1
Sample : IT015-SIMSTD50.0 Quant Date : 7/15/2019 12:10 pm

Compound #2: propylene



Original Peak Response = 556040

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

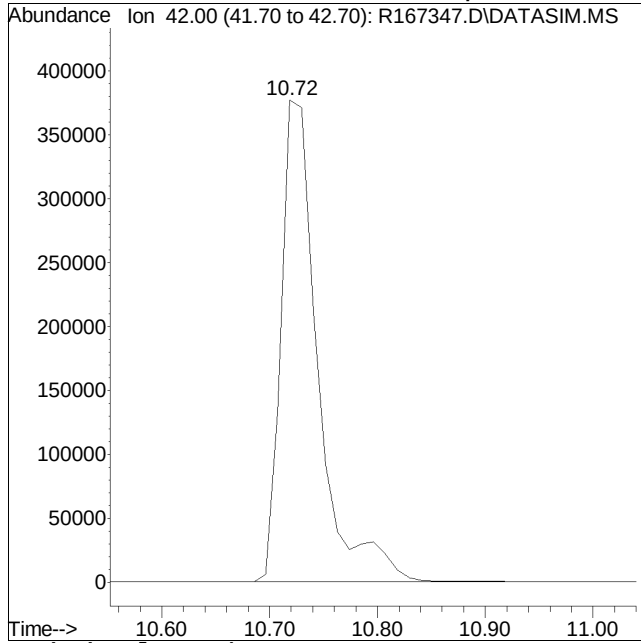


Manual Peak Response = 457138 M6

Manual Integration/Negative Proof Report

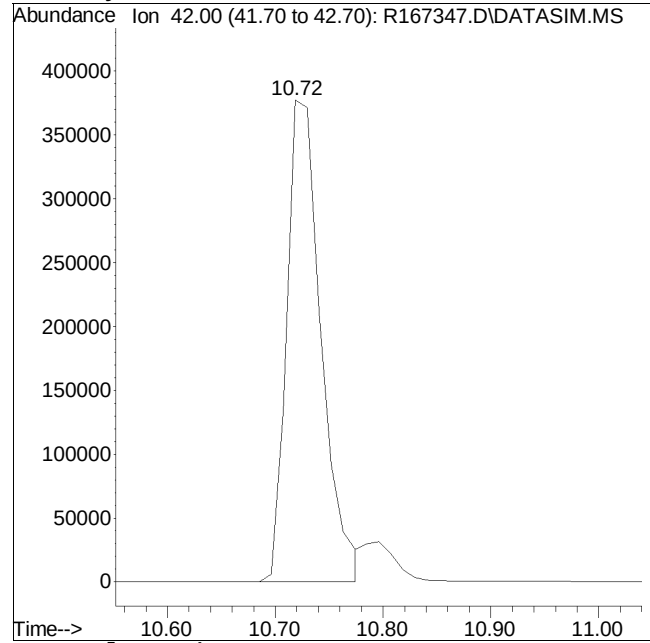
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167347.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 12:33 am Instrument : Air Piano 1
Sample : IT015-SIMSTD50.0 Quant Date : 7/15/2019 12:10 pm

Compound #31: Tetrahydrofuran



Original Peak Response = 903879

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 837109 M6

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	98	0.00
2	propylene	0.507	0.522	-3.0	112	0.00
3	dichlorodifluoromethane	1.422	1.338	5.9	94	0.00
4 C	chloromethane	0.539	0.515	4.5	102	0.00
5	Freon-114	1.639	1.640	-0.1	101	-0.01
6 C	vinyl chloride	0.621	0.607	2.3	100	0.00
7 C	1,3-butadiene	0.421	0.439	-4.3	108	0.00
8 C	bromomethane	0.592	0.584	1.4	102	0.00
9 C	chloroethane	0.302	0.295	2.3	102	0.00
10	ethanol	0.336	0.303	9.8	89	0.00
11 C	vinyl bromide	0.597	0.586	1.8	100	0.00
12 C	acrolein	0.257	0.219	14.8	95	0.00
13	acetone	1.099	0.893	18.7	85	0.00
14	trichlorofluoromethane	1.397	1.428	-2.2	103	0.00
15	isopropyl alcohol	1.260	1.173	6.9	106	0.00
16 C	acrylonitrile	0.440	0.460	-4.5	115	0.00
17 C	1,1-dichloroethene	1.105	1.154	-4.4	118	0.00
18	tertiary butyl alcohol	1.355	1.352	0.2	99	0.00
19 C	methylene chloride	0.820	0.844	-2.9	103	0.00
20 C	3-chloropropene	0.897	0.952	-6.1	108	0.00
21 C	carbon disulfide	2.208	2.040	7.6	96	0.00
22	Freon 113	1.359	1.409	-3.7	104	0.00
23	trans-1,2-dichloroethene	1.112	1.097	1.3	99	0.00
24 C	1,1-dichloroethane	1.347	1.361	-1.0	102	0.00
25 C	MTBE	1.914	1.972	-3.0	104	0.00
26 C	vinyl acetate	1.268	1.245	1.8	99	0.00
27 C	2-butanone	1.362	1.412	-3.7	99	0.00
28	cis-1,2-dichloroethene	1.061	1.100	-3.7	104	0.00
29	Ethyl Acetate	0.318	0.296	6.9	103	0.00
30 C	chloroform	1.688	1.731	-2.5	104	-0.01
31	Tetrahydrofuran	0.813	0.773	4.9	99	-0.01
32 C	1,2-dichloroethane	0.933	0.938	-0.5	101	0.00
33 I	1,4-difluorobenzene	1.000	1.000	0.0	102	-0.01
34 C	hexane	0.617	0.591	4.2	102	0.00
36 C	1,1,1-trichloroethane	0.598	0.597	0.2	105	0.00
37 C	benzene	0.977	0.957	2.0	101	0.00
38 C	carbon tetrachloride	0.569	0.573	-0.7	105	0.00
39	cyclohexane	0.516	0.510	1.2	105	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	dibromomethane	0.404	0.341	15.6	97	0.00
41 C	1,2-dichloropropane	0.386	0.383	0.8	105	0.00
42	bromodichloromethane	0.716	0.723	-1.0	105	0.00
43 C	1,4-dioxane	0.215	0.220	-2.3	103	0.00
44 C	trichloroethene	0.411	0.417	-1.5	105	0.00
45 C	2,2,4-trimethylpentane	1.663	1.724	-3.7	109	0.00
46	heptane	0.603	0.599	0.7	104	0.00
47 C	cis-1,3-dichloropropene	2.090	2.295	-9.8	110	0.00
48 C	4-methyl-2-pentanone	0.763	0.785	-2.9	103	0.00
49	trans-1,3-dichloropropene	0.499	0.472	5.4	93	0.00
50 C	1,1,2-trichloroethane	0.401	0.412	-2.7	106	0.00
51 I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
52 C	toluene	6.501	6.403	1.5	101	0.00
54	2-hexanone	3.647	3.980	-9.1	103	0.00
55	dibromochloromethane	3.520	3.858	-9.6	107	0.00
56 C	1,2-dibromoethane	3.326	3.539	-6.4	105	0.00
57 C	tetrachloroethene	2.788	2.889	-3.6	105	0.00
58	1,1,1,2-tetrachloroethane	2.433	2.382	2.1	98	0.00
59 C	chlorobenzene	4.994	5.208	-4.3	105	0.00
60 C	ethylbenzene	8.232	8.418	-2.3	105	0.00
61 C	m+p-xylene	7.083	6.449	9.0	103	0.00
62 C	bromoform	3.380	3.684	-9.0	105	0.00
63 C	styrene	4.667	5.063	-8.5	104	0.00
64 C	1,1,2,2-tetrachloroethane	4.892	5.201	-6.3	105	0.00
65 C	o-xylene	6.575	6.761	-2.8	105	0.00
66	1,2,3-trichloropropane	3.795	3.705	2.4	96	0.00
68 C	isopropylbenzene	8.606	8.518	1.0	100	0.00
69	bromobenzene	4.581	4.521	1.3	97	0.00
70	4-ethyl toluene	9.054	9.717	-7.3	101	0.00
71	1,3,5-trimethylbenzene	7.411	7.632	-3.0	101	0.00
72	tert-butylbenzene	7.644	7.553	1.2	99	0.00
73	1,2,4-trimethylbenzene	6.997	7.861	-12.3	106	0.00
74 C	Benzyl Chloride	6.323	6.834	-8.1	103	0.00
75	1,3-dichlorobenzene	4.864	5.636	-15.9	107	0.00
76 C	1,4-dichlorobenzene	4.886	5.604	-14.7	103	0.00
77	sec-butylbenzene	10.910	10.591	2.9	97	0.00
78	p-isopropyltoluene	9.558	8.654	9.5	88	0.00
79	1,2-dichlorobenzene	4.678	5.392	-15.3	105	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	n-butylbenzene	8.824	9.299	-5.4	100	0.00
81 C	1,2,4-trichlorobenzene	2.894	4.691	-62.1#	107	0.00
82	naphthalene	7.289	9.771	-34.1#	95	0.00
83	1,2,3-trichlorobenzene	2.780	4.081	-46.8#	96	0.00
84 C	hexachlorobutadiene	2.837	3.944	-39.0#	110	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.10	49	210039	10.000	ppbV	0.00
Standard Area = 214308			Recovery =		98.01%	
33) 1,4-difluorobenzene	12.34	114	500229	10.000	ppbV	#-0.01
Standard Area = 491248			Recovery =		101.83%	
51) chlorobenzene-D5	16.80	54	90918	10.000	ppbV	0.00
Standard Area = 91879			Recovery =		98.95%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) propylene	3.92	41	54774M6	5.141	ppbV	
3) dichlorodifluoromethane	4.02	85	140556	4.706	ppbV	99
4) chloromethane	4.23	50	54075	4.778	ppbV	99
5) Freon-114	4.38	85	172252	5.003	ppbV	93
6) vinyl chloride	4.54	62	63720	4.884	ppbV	100
7) 1,3-butadiene	4.73	54	46080	5.216	ppbV	93
8) bromomethane	5.11	94	61344	4.936	ppbV	99
9) chloroethane	5.37	64	30987	4.884	ppbV	99
10) ethanol	5.57	31	158961	22.500	ppbV	99
11) vinyl bromide	5.85	106	61542	4.909	ppbV	98
12) acrolein	6.04	56	23018	4.260	ppbV	99
13) acetone	6.23	43	469040	20.324	ppbV	99
14) trichlorofluoromethane	6.44	101	149923	5.108	ppbV	99
15) isopropyl alcohol	6.60	45	307991	11.639	ppbV	100
16) acrylonitrile	6.87	53	48288M6	5.223	ppbV	
17) 1,1-dichloroethene	7.29	61	121202	5.221	ppbV	97
18) tertiary butyl alcohol	7.41	59	141990	4.990	ppbV	100
19) methylene chloride	7.46	49	88610	5.143	ppbV	96
20) 3-chloropropene	7.61	41	99998	5.309	ppbV	99
21) carbon disulfide	7.79	76	214238	4.619	ppbV	98
22) Freon 113	7.81	101	147989	5.185	ppbV	99
23) trans-1,2-dichloroethene	8.65	61	115154	4.931	ppbV	98
24) 1,1-dichloroethane	8.90	63	142937	5.052	ppbV	100
25) MTBE	9.00	73	207060	5.150	ppbV	98
26) vinyl acetate	9.12	43	130720	4.909	ppbV	99
27) 2-butanone	9.41	43	148268	5.184	ppbV	97
28) cis-1,2-dichloroethene	9.91	61	115544	5.186	ppbV	96
29) Ethyl Acetate	10.21	61	31089	4.651	ppbV	84
30) chloroform	10.26	83	181790	5.127	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.74	42	81209M6	4.756	ppbV	
32) 1,2-dichloroethane	11.12	62	98527	5.028	ppbV	99
34) hexane	10.17	57	147888	4.788	ppbV	97
36) 1,1,1-trichloroethane	11.41	97	149334	4.995	ppbV	98
37) benzene	11.93	78	239401	4.901	ppbV	99
38) carbon tetrachloride	12.11	117	143405	5.039	ppbV	99
39) cyclohexane	12.23	56	127627	4.948	ppbV	99
40) dibromomethane	12.84	93	85306	4.224	ppbV	96
41) 1,2-dichloropropane	12.86	63	95715	4.958	ppbV	99
42) bromodichloromethane	13.10	83	180922	5.055	ppbV	99
43) 1,4-dioxane	13.15	88	55014	5.125	ppbV	98
44) trichloroethene	13.14	130	104244	5.069	ppbV	99
45) 2,2,4-trimethylpentane	13.17	57	431321	5.186	ppbV	99
46) heptane	13.47	43	149790	4.966	ppbV	99
47) cis-1,3-dichloropropene	14.13	75	574006	5.491	ppbV	99
48) 4-methyl-2-pentanone	14.16	43	196310	5.144	ppbV	# 95
49) trans-1,3-dichloropropene	14.72	75	117972	4.725	ppbV	98
50) 1,1,2-trichloroethane	14.91	97	103146	5.145	ppbV	97
52) toluene	15.19	91	291056	4.925	ppbV	100
54) 2-hexanone	15.45	43	180918	5.457	ppbV	# 89
55) dibromochloromethane	15.61	129	175402	5.481	ppbV	100
56) 1,2-dibromoethane	15.85	107	160880	5.321	ppbV	99
57) tetrachloroethene	16.26	166	131312	5.180	ppbV	99
58) 1,1,1,2-tetrachloroethane	16.82	131	108295	4.895	ppbV	100
59) chlorobenzene	16.84	112	236748	5.214	ppbV	99
60) ethylbenzene	17.14	91	382662	5.113	ppbV	99
61) m+p-xylene	17.28	91	586331	9.105	ppbV	100
62) bromoform	17.36	173	167460	5.449	ppbV	99
63) styrene	17.56	104	230165	5.424	ppbV	100
64) 1,1,2,2-tetrachloroethane	17.64	83	236421	5.316	ppbV	100
65) o-xylene	17.64	91	307361	5.142	ppbV	100
66) 1,2,3-trichloropropane	17.74	75	168422	4.881	ppbV	98
68) isopropylbenzene	18.09	105	387225	4.949	ppbV	100
69) bromobenzene	18.17	77	205499	4.934	ppbV	97
70) 4-ethyl toluene	18.57	105	441741	5.366	ppbV	99
71) 1,3,5-trimethylbenzene	18.63	105	346950	5.149	ppbV	99
72) tert-butylbenzene	18.93	119	343344	4.940	ppbV	98
73) 1,2,4-trimethylbenzene	18.94	105	357350	5.617	ppbV	98
74) Benzyl Chloride	19.05	91	310681	5.404	ppbV	98
75) 1,3-dichlorobenzene	19.07	146	256228	5.794	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
 Data File : R167352.D
 Acq On : 13 Jul 2019 11:24 am
 Operator : AIRPIAN01:AR
 Sample : CT015-SIMSTD5.0
 Misc : WG1260317
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\R167344.D
 Sub List : Default-LCS-AP2 - All compounds listed

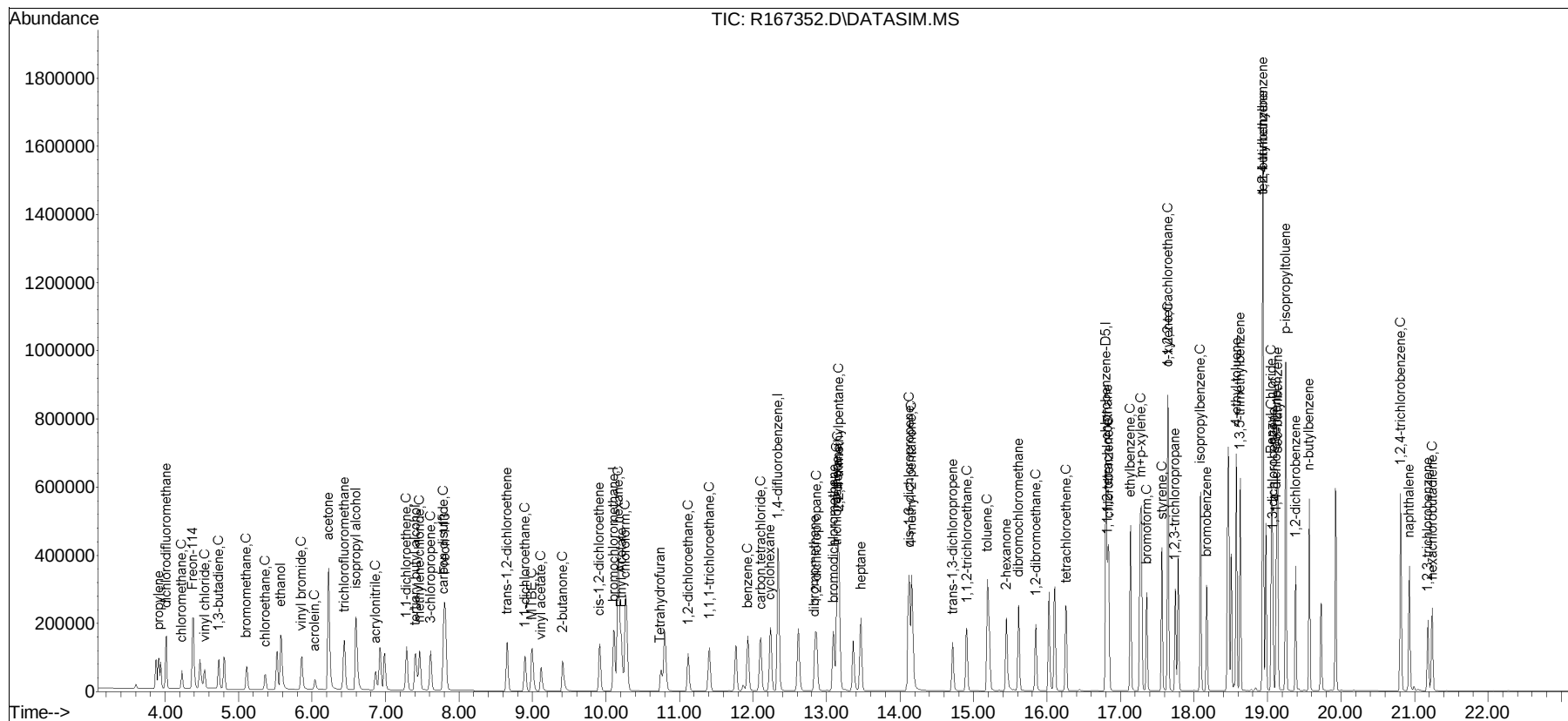
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 1,4-dichlorobenzene	19.12	146	254745	5.735	ppbV	98
77) sec-butylbenzene	19.14	105	481457	4.854	ppbV	100
78) p-isopropyltoluene	19.25	119	393401	4.527	ppbV	99
79) 1,2-dichlorobenzene	19.38	146	245096	5.763	ppbV	99
80) n-butylbenzene	19.57	91	422717	5.269	ppbV	99
81) 1,2,4-trichlorobenzene	20.81	180	213228	8.104	ppbV	99
82) naphthalene	20.93	128	444197	6.703	ppbV	100
83) 1,2,3-trichlorobenzene	21.18	180	185512	7.340	ppbV	100
84) hexachlorobutadiene	21.24	225	179313	6.952	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listedICAL\R167344.D

Data Path : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\
Data File : R167352.D
Acq On : 13 Jul 2019 11:24 am
Operator : AIRPIAN01:AR
Sample : CT015-SIMSTD5.0
Misc : WG1260317
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 16 08:10:12 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190712SIM_ICAL\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration



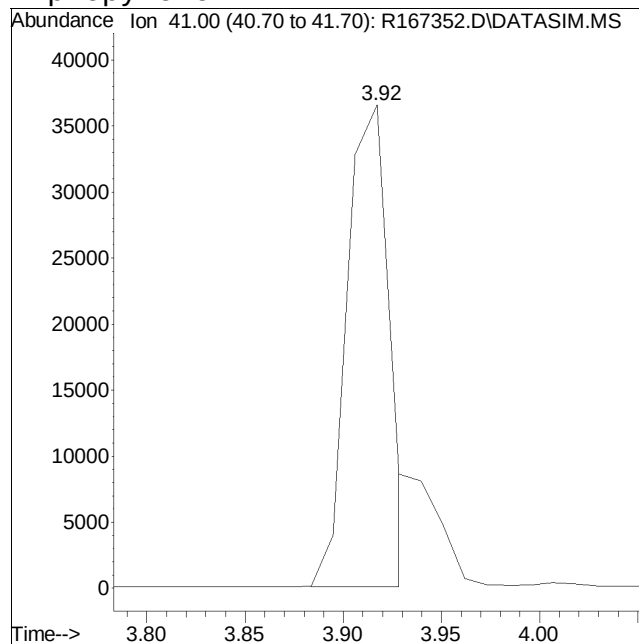
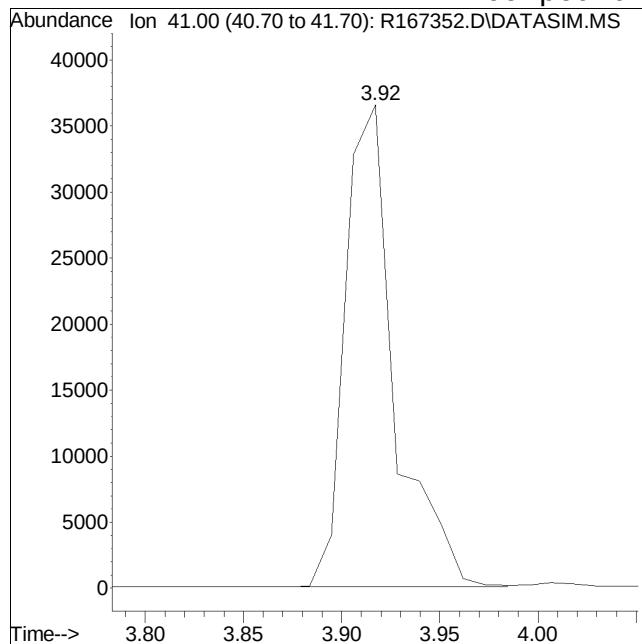
TSIM1_190712.M Tue Jul 16 08:23:39 2019

Page: 4

Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167352.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 11:24 am Instrument : Air Piano 1
Sample : CT015-SIMSTD5.0 Quant Date : 7/16/2019 8:07 am

Compound #2: propylene

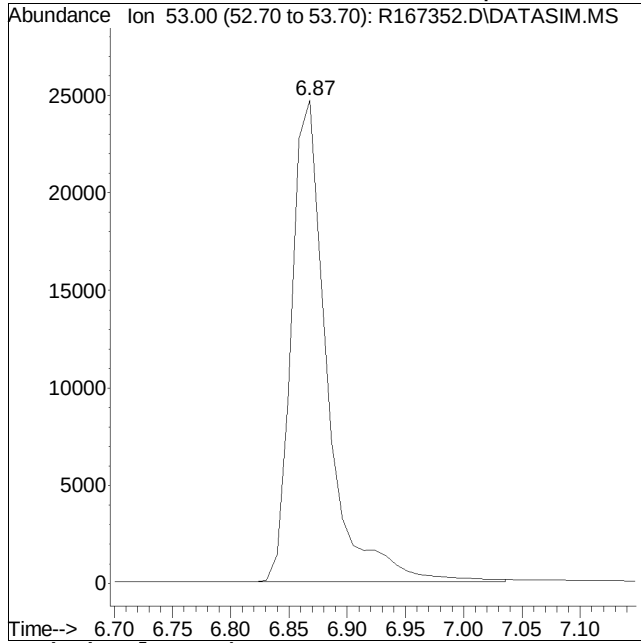


M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

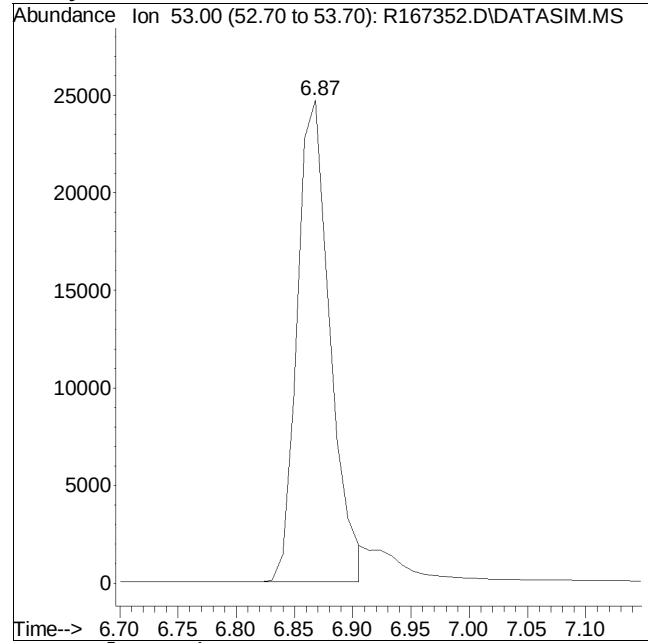
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167352.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 11:24 am Instrument : Air Piano 1
Sample : CT015-SIMSTD5.0 Quant Date : 7/16/2019 8:07 am

Compound #16: acrylonitrile



Original Peak Response = 52797

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

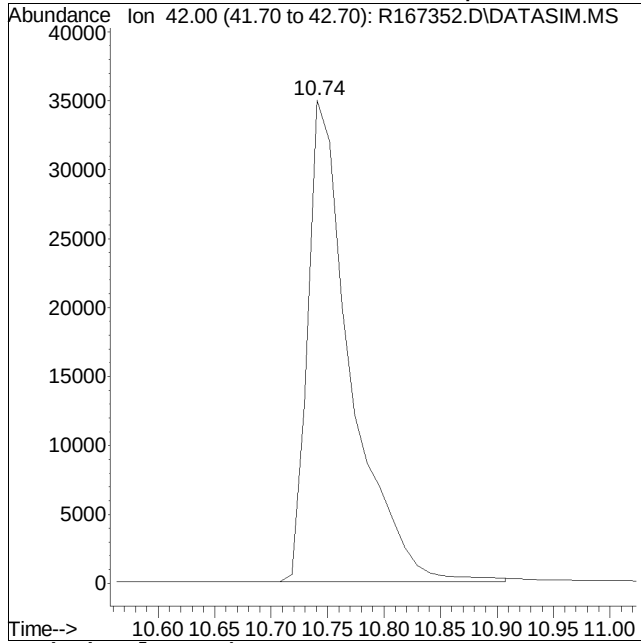


Manual Peak Response = 48288 M6

Manual Integration/Negative Proof Report

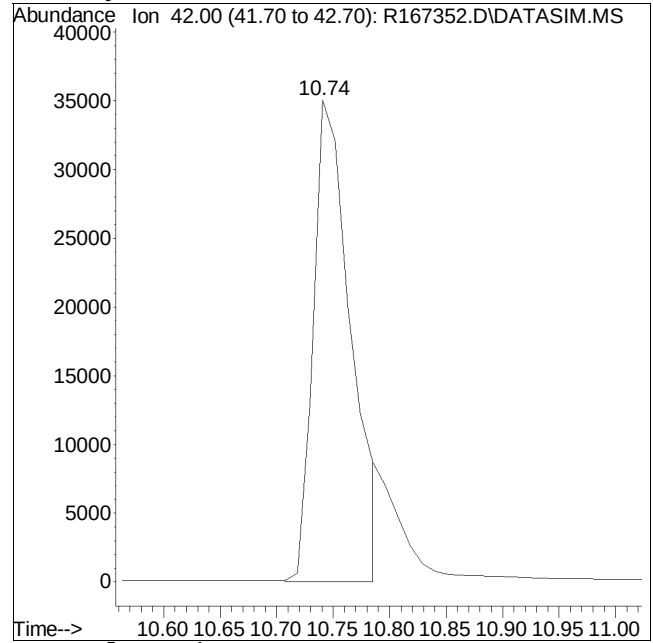
Data Path : 0:\Forensics\Data\AIR1\2019QMethod : TSIM1_190712.M
Data File : R167352.D Operator : AIRPIAN01:AR
Date Inj'd : 7/13/2019 11:24 am Instrument : Air Piano 1
Sample : CT015-SIMSTD5.0 Quant Date : 7/16/2019 8:07 am

Compound #31: Tetrahydrofuran



Original Peak Response = 92750

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 81209 M6

Continuing Calibration

Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Instrument ID : AIRPIANO1
 Lab File ID : R167937
 Sample No : WG1270782-2
 Channel :

Lab Number : L1935043
 Project Number : 170329301
 Calibration Date : 08/09/19 13:28
 Init. Calib. Date(s) : 07/12/19 07/13/19
 Init. Calib. Times : 19:43 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	72	0
propylene	0.507	0.47	-	7.3	30	74	0
dichlorodifluoromethane	1.422	1.384	-	2.7	30	71	0
chloromethane	0.539	0.497	-	7.8	30	72	0
Freon-114	1.639	1.76	-	-7.4	30	79	0
vinyl chloride	0.621	0.621	-	0	30	75	0
1,3-butadiene	0.421	0.443	-	-5.2	30	79	0
bromomethane	0.592	0.636	-	-7.4	30	81	0
chloroethane	0.302	0.3	-	0.7	30	76	0
ethanol	0.336	0.261	-	22.3	30	56	0
vinyl bromide	0.597	0.622	-	-4.2	30	78	0
acrolein	0.257	0.212	-	17.5	30	67	0
acetone	1.099	0.825	-	24.9	30	57	0
trichlorofluoromethane	1.397	1.503	-	-7.6	30	79	0
isopropyl alcohol	1.26	0.939	-	25.5	30	62	0
acrylonitrile	0.44	0.465	-	-5.7	30	85	0
1,1-dichloroethene	1.105	1.07	-	3.2	30	80	0
tertiary butyl alcohol	1.355	1.204	-	11.1	30	64	0
methylene chloride	0.82	0.781	-	4.8	30	70	0
3-chloropropene	0.897	0.822	-	8.4	30	68	0
carbon disulfide	2.208	1.989	-	9.9	30	68	0
Freon 113	1.359	1.432	-	-5.4	30	77	0
trans-1,2-dichloroethene	1.112	1.014	-	8.8	30	67	0
1,1-dichloroethane	1.347	1.29	-	4.2	30	71	0
MTBE	1.914	1.825	-	4.6	30	70	0
vinyl acetate	1.268	1.07	-	15.6	30	62	0
2-butanone	1.362	1.247	-	8.4	30	64	0
cis-1,2-dichloroethene	1.061	1.006	-	5.2	30	70	0
Ethyl Acetate	0.318	0.274	-	13.8	30	70	0
chloroform	1.688	1.719	-	-1.8	30	75	-.01
Tetrahydrofuran	0.813	0.775	-	4.7	30	73	0
1,2-dichloroethane	0.933	0.887	-	4.9	30	70	0
1,4-difluorobenzene	1	1	-	0	30	82	-.01
hexane	0.617	0.497	-	19.4	30	69	0
1,1,1-trichloroethane	0.598	0.532	-	11	30	76	0
benzene	0.977	0.85	-	13	30	73	0
carbon tetrachloride	0.569	0.524	-	7.9	30	78	0
cyclohexane	0.516	0.423	-	18	30	70	0
dibromomethane	0.404	0.307	-	24	30	71	0
1,2-dichloropropane	0.386	0.325	-	15.8	30	72	0
bromodichloromethane	0.716	0.635	-	11.3	30	74	0
1,4-dioxane	0.215	0.194	-	9.8	30	74	.01
trichloroethene	0.411	0.381	-	7.3	30	78	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Air Volatiles

Client : Langan Engineering & Environmental
 Project Name : 491 WORTMAN AVE.
 Instrument ID : AIRPIANO1
 Lab File ID : R167937
 Sample No : WG1270782-2
 Channel :

Lab Number : L1935043
 Project Number : 170329301
 Calibration Date : 08/09/19 13:28
 Init. Calib. Date(s) : 07/12/19 07/13/19
 Init. Calib. Times : 19:43 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
2,2,4-trimethylpentane	1.663	1.439	-	13.5	30	73	0
heptane	0.603	0.47	-	22.1	30	66	0
cis-1,3-dichloropropene	2.09	1.926	-	7.8	30	75	0
4-methyl-2-pentanone	0.763	0.611	-	19.9	30	65	0
trans-1,3-dichloropropene	0.499	0.402	-	19.4	30	64	0
1,1,2-trichloroethane	0.401	0.369	-	8	30	77	0
chlorobenzene-D5	1	1	-	0	30	76	0
toluene	6.501	5.978	-	8	30	73	0
2-hexanone	3.647	3.341	-	8.4	30	66	0
dibromochloromethane	3.52	3.711	-	-5.4	30	79	0
1,2-dibromoethane	3.326	3.377	-	-1.5	30	77	0
tetrachloroethene	2.788	2.832	-	-1.6	30	79	-.01
1,1,1,2-tetrachloroethane	2.433	2.29	-	5.9	30	72	0
chlorobenzene	4.994	4.981	-	0.3	30	77	0
ethylbenzene	8.232	7.649	-	7.1	30	73	0
m+p-xylene	7.083	6.012	-	15.1	30	74	0
bromoform	3.38	3.705	-	-9.6	30	81	0
styrene	4.667	4.683	-	-0.3	30	74	0
1,1,2,2-tetrachloroethane	4.892	4.834	-	1.2	30	75	0
o-xylene	6.575	6.186	-	5.9	30	74	0
1,2,3-trichloropropane	3.795	3.43	-	9.6	30	68	0
isopropylbenzene	8.606	8.079	-	6.1	30	73	0
bromobenzene	4.581	4.208	-	8.1	30	69	0
4-ethyl toluene	9.054	9.254	-	-2.2	30	74	0
1,3,5-trimethylbenzene	7.411	7.323	-	1.2	30	75	0
tert-butylbenzene	7.644	7.224	-	5.5	30	73	0
1,2,4-trimethylbenzene	6.997	7.463	-	-6.7	30	78	0
Benzyl Chloride	6.323	6.22	-	1.6	30	72	0
1,3-dichlorobenzene	4.864	5.532	-	-13.7	30	80	0
1,4-dichlorobenzene	4.886	5.593	-	-14.5	30	79	0
sec-butylbenzene	10.91	10.216	-	6.4	30	72	0
p-isopropyltoluene	9.558	8.296	-	13.2	30	65	0
1,2-dichlorobenzene	4.678	5.331	-	-14	30	80	0
n-butylbenzene	8.824	8.815	-	0.1	30	73	0
1,2,4-trichlorobenzene	2.894	4.703	-	-62.5*	30	82	0
naphthalene	7.289	9.505	-	-30.4*	30	71	0
1,2,3-trichlorobenzene	2.78	4.121	-	-48.2*	30	75	0
hexachlorobutadiene	2.837	4.001	-	-41*	30	86	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	72	0.00
2	propylene	0.507	0.470	7.3	74	0.00
3	dichlorodifluoromethane	1.422	1.384	2.7	71	0.00
4 C	chloromethane	0.539	0.497	7.8	72	0.00
5	Freon-114	1.639	1.760	-7.4	79	0.00
6 C	vinyl chloride	0.621	0.621	0.0	75	0.00
7 C	1,3-butadiene	0.421	0.443	-5.2	79	0.00
8 C	bromomethane	0.592	0.636	-7.4	81	0.00
9 C	chloroethane	0.302	0.300	0.7	76	0.00
10	ethanol	0.336	0.261	22.3	56#	0.00
11 C	vinyl bromide	0.597	0.622	-4.2	78	0.00
12 C	acrolein	0.257	0.212	17.5	67	0.00
13	acetone	1.099	0.825	24.9	57#	0.00
14	trichlorofluoromethane	1.397	1.503	-7.6	79	0.00
15	isopropyl alcohol	1.260	0.939	25.5	62	0.00
16 C	acrylonitrile	0.440	0.465	-5.7	85	0.00
17 C	1,1-dichloroethene	1.105	1.070	3.2	80	0.00
18	tertiary butyl alcohol	1.355	1.204	11.1	64	0.00
19 C	methylene chloride	0.820	0.781	4.8	70	0.00
20 C	3-chloropropene	0.897	0.822	8.4	68	0.00
21 C	carbon disulfide	2.208	1.989	9.9	68	0.00
22	Freon 113	1.359	1.432	-5.4	77	0.00
23	trans-1,2-dichloroethene	1.112	1.014	8.8	67	0.00
24 C	1,1-dichloroethane	1.347	1.290	4.2	71	0.00
25 C	MTBE	1.914	1.825	4.6	70	0.00
26 C	vinyl acetate	1.268	1.070	15.6	62	0.00
27 C	2-butanone	1.362	1.247	8.4	64	0.00
28	cis-1,2-dichloroethene	1.061	1.006	5.2	70	0.00
29	Ethyl Acetate	0.318	0.274	13.8	70	0.00
30 C	chloroform	1.688	1.719	-1.8	75	-0.01
31	Tetrahydrofuran	0.813	0.775	4.7	73	0.00
32 C	1,2-dichloroethane	0.933	0.887	4.9	70	0.00
33 I	1,4-difluorobenzene	1.000	1.000	0.0	82	-0.01
34 C	hexane	0.617	0.497	19.4	69	0.00
36 C	1,1,1-trichloroethane	0.598	0.532	11.0	76	0.00
37 C	benzene	0.977	0.850	13.0	73	0.00
38 C	carbon tetrachloride	0.569	0.524	7.9	78	0.00
39	cyclohexane	0.516	0.423	18.0	70	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	dibromomethane	0.404	0.307	24.0	71	0.00
41 C	1,2-dichloropropane	0.386	0.325	15.8	72	0.00
42	bromodichloromethane	0.716	0.635	11.3	74	0.00
43 C	1,4-dioxane	0.215	0.194	9.8	74	0.01
44 C	trichloroethene	0.411	0.381	7.3	78	0.00
45 C	2,2,4-trimethylpentane	1.663	1.439	13.5	73	0.00
46	heptane	0.603	0.470	22.1	66	0.00
47 C	cis-1,3-dichloropropene	2.090	1.926	7.8	75	0.00
48 C	4-methyl-2-pentanone	0.763	0.611	19.9	65	0.00
49	trans-1,3-dichloropropene	0.499	0.402	19.4	64	0.00
50 C	1,1,2-trichloroethane	0.401	0.369	8.0	77	0.00
51 I	chlorobenzene-D5	1.000	1.000	0.0	76	0.00
52 C	toluene	6.501	5.978	8.0	73	0.00
54	2-hexanone	3.647	3.341	8.4	66	0.00
55	dibromochloromethane	3.520	3.711	-5.4	79	0.00
56 C	1,2-dibromoethane	3.326	3.377	-1.5	77	0.00
57 C	tetrachloroethene	2.788	2.832	-1.6	79	-0.01
58	1,1,1,2-tetrachloroethane	2.433	2.290	5.9	72	0.00
59 C	chlorobenzene	4.994	4.981	0.3	77	0.00
60 C	ethylbenzene	8.232	7.649	7.1	73	0.00
61 C	m+p-xylene	7.083	6.012	15.1	74	0.00
62 C	bromofom	3.380	3.705	-9.6	81	0.00
63 C	styrene	4.667	4.683	-0.3	74	0.00
64 C	1,1,2,2-tetrachloroethane	4.892	4.834	1.2	75	0.00
65 C	o-xylene	6.575	6.186	5.9	74	0.00
66	1,2,3-trichloropropane	3.795	3.430	9.6	68	0.00
68 C	isopropylbenzene	8.606	8.079	6.1	73	0.00
69	bromobenzene	4.581	4.208	8.1	69	0.00
70	4-ethyl toluene	9.054	9.254	-2.2	74	0.00
71	1,3,5-trimethylbenzene	7.411	7.323	1.2	75	0.00
72	tert-butylbenzene	7.644	7.224	5.5	73	0.00
73	1,2,4-trimethylbenzene	6.997	7.463	-6.7	78	0.00
74 C	Benzyl Chloride	6.323	6.220	1.6	72	0.00
75	1,3-dichlorobenzene	4.864	5.532	-13.7	80	0.00
76 C	1,4-dichlorobenzene	4.886	5.593	-14.5	79	0.00
77	sec-butylbenzene	10.910	10.216	6.4	72	0.00
78	p-isopropyltoluene	9.558	8.296	13.2	65	0.00
79	1,2-dichlorobenzene	4.678	5.331	-14.0	80	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	n-butylbenzene	8.824	8.815	0.1	73	0.00
81 C	1,2,4-trichlorobenzene	2.894	4.703	-62.5#	82	0.00
82	naphthalene	7.289	9.505	-30.4#	71	0.00
83	1,2,3-trichlorobenzene	2.780	4.121	-48.2#	75	0.00
84 C	hexachlorobutadiene	2.837	4.001	-41.0#	86	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.102	49	153492	10.000	ppbV	0.00
Standard Area = 153492			Recovery = 100.00%			
33) 1,4-difluorobenzene	12.339	114	403253	10.000	ppbV	#-0.01
Standard Area = 403253			Recovery = 100.00%			
51) chlorobenzene-D5	16.803	54	69934	10.000	ppbV	0.00
Standard Area = 69934			Recovery = 100.00%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) propylene	3.917	41	36076M6	4.633	ppbV	
3) dichlorodifluoromethane	4.018	85	106181	4.865	ppbV	100
4) chloromethane	4.230	50	38114	4.609	ppbV	99
5) Freon-114	4.386	85	135063	5.368	ppbV	97
6) vinyl chloride	4.543	62	47665	5.000	ppbV	100
7) 1,3-butadiene	4.733	54	34005	5.268	ppbV	89
8) bromomethane	5.109	94	48790	5.372	ppbV	100
9) chloroethane	5.369	64	23050	4.971	ppbV	98
10) ethanol	5.583	31	100326	19.432	ppbV	85
11) vinyl bromide	5.853	106	47766	5.214	ppbV	98
12) acrolein	6.039	56	16240	4.113	ppbV	96
13) acetone	6.226	43	316734	18.780	ppbV	98
14) trichlorofluoromethane	6.440	101	115386	5.379	ppbV	99
15) isopropyl alcohol	6.607	45	180091	9.313	ppbV	98
16) acrylonitrile	6.868	53	35682	5.281	ppbV	99
17) 1,1-dichloroethene	7.287	61	82122	4.841	ppbV	95
18) tertiary butyl alcohol	7.417	59	92435	4.445	ppbV	98
19) methylene chloride	7.464	49	59903	4.757	ppbV	92
20) 3-chloropropene	7.612	41	63055	4.581	ppbV	97
21) carbon disulfide	7.789	76	152640	4.503	ppbV	95
22) Freon 113	7.808	101	109889	5.269	ppbV	97
23) trans-1,2-dichloroethene	8.655	61	77809	4.560	ppbV	94
24) 1,1-dichloroethane	8.898	63	98970	4.787	ppbV	99
25) MTBE	8.995	73	140027	4.766	ppbV	97
26) vinyl acetate	9.117	43	82114	4.220	ppbV	97
27) 2-butanone	9.409	43	95699	4.579	ppbV	96
28) cis-1,2-dichloroethene	9.912	61	77227	4.744	ppbV	92
29) Ethyl Acetate	10.209	61	21028	4.305	ppbV	84
30) chloroform	10.262	83	131959	5.093	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.752	42	59471	4.766	ppbV	98
32) 1,2-dichloroethane	11.118	62	68077	4.754	ppbV	99
34) hexane	10.166	57	100169	4.023	ppbV	93
36) 1,1,1-trichloroethane	11.407	97	107176	4.447	ppbV	95
37) benzene	11.932	78	171317	4.351	ppbV	96
38) carbon tetrachloride	12.106	117	105750	4.609	ppbV	99
39) cyclohexane	12.234	56	85214	4.098	ppbV	94
40) dibromomethane	12.839	93	61947	3.805	ppbV	90
41) 1,2-dichloropropane	12.863	63	65511	4.210	ppbV	97
42) bromodichloromethane	13.096	83	127960	4.435	ppbV	99
43) 1,4-dioxane	13.165	88	39167	4.526	ppbV	100
44) trichloroethene	13.142	130	76877	4.637	ppbV	98
45) 2,2,4-trimethylpentane	13.165	57	290080	4.326	ppbV	96
46) heptane	13.468	43	94677	3.894	ppbV	95
47) cis-1,3-dichloropropene	14.126	75	388310	4.608	ppbV	98
48) 4-methyl-2-pentanone	14.160	43	123194	4.005	ppbV	93
49) trans-1,3-dichloropropene	14.716	75	81071	4.028	ppbV	95
50) 1,1,2-trichloroethane	14.912	97	74370	4.602	ppbV	95
52) toluene	15.190	91	209048	4.598	ppbV	100
54) 2-hexanone	15.448	43	116826	4.581	ppbV #	88
55) dibromochloromethane	15.613	129	129756	5.271	ppbV	100
56) 1,2-dibromoethane	15.851	107	118082	5.077	ppbV	99
57) tetrachloroethene	16.253	166	99030	5.078	ppbV #	95
58) 1,1,1,2-tetrachloroethane	16.823	131	80061	4.705	ppbV	99
59) chlorobenzene	16.838	112	174174	4.987	ppbV	98
60) ethylbenzene	17.137	91	267478	4.646	ppbV	98
61) m+p-xylene	17.281	91	420440	8.488	ppbV	99
62) bromoform	17.355	173	129567	5.481	ppbV	99
63) styrene	17.564	104	163765	5.017	ppbV	98
64) 1,1,2,2-tetrachloroethane	17.644	83	169033	4.941	ppbV	99
65) o-xylene	17.644	91	216311	4.705	ppbV	98
66) 1,2,3-trichloropropane	17.744	75	119945	4.519	ppbV	98
68) isopropylbenzene	18.087	105	282482	4.693	ppbV	99
69) bromobenzene	18.172	77	147131	4.592	ppbV	91
70) 4-ethyl toluene	18.575	105	323581	5.110	ppbV	99
71) 1,3,5-trimethylbenzene	18.629	105	256058	4.941	ppbV	98
72) tert-butylbenzene	18.934	119	252612	4.725	ppbV	98
73) 1,2,4-trimethylbenzene	18.940	105	260950	5.332	ppbV	96
74) Benzyl Chloride	19.054	91	217486	4.918	ppbV	96
75) 1,3-dichlorobenzene	19.073	146	193450	5.687	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-2,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

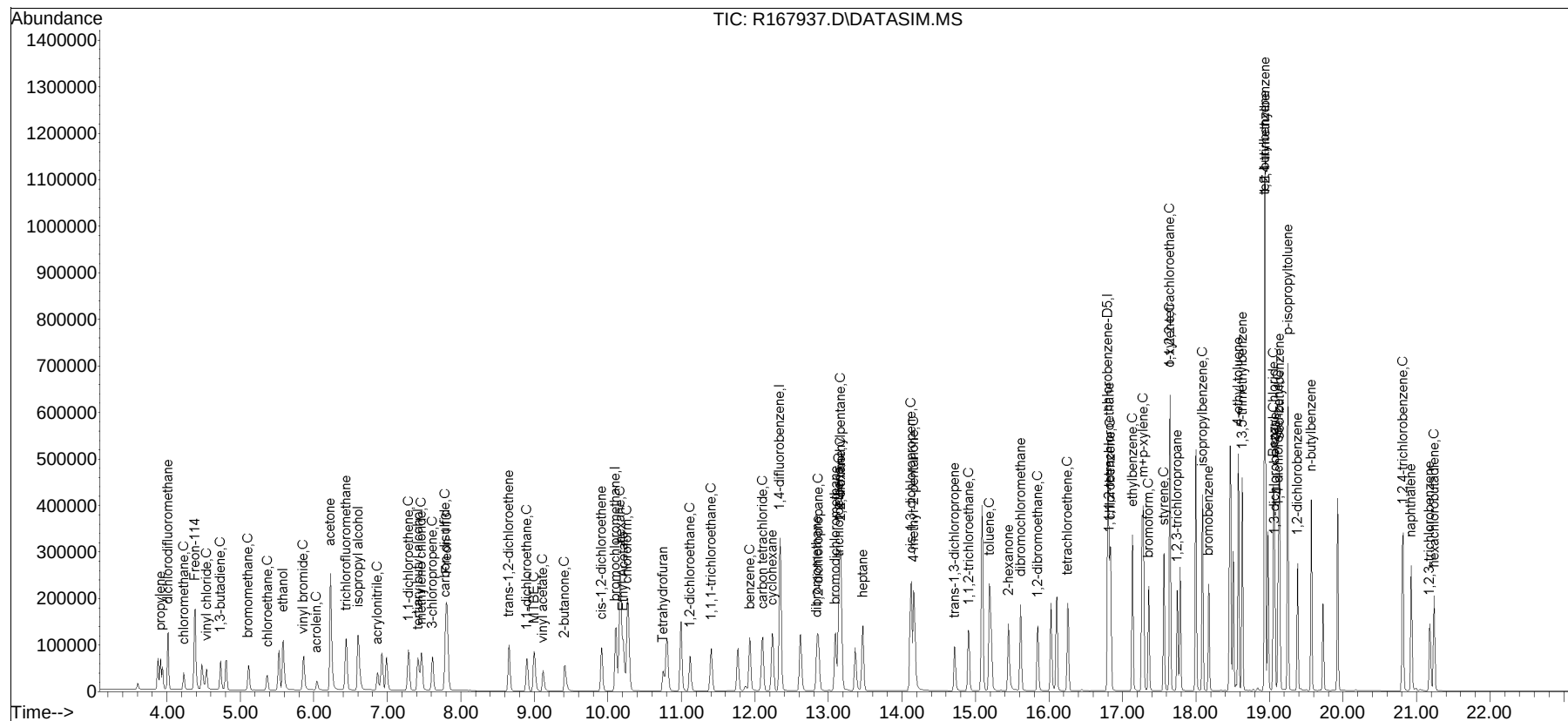
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 1,4-dichlorobenzene	19.121	146	195567	5.724	ppbV	95
77) sec-butylbenzene	19.133	105	357206	4.682	ppbV	96
78) p-isopropyltoluene	19.248	119	290070	4.339	ppbV	98
79) 1,2-dichlorobenzene	19.381	146	186394	5.698	ppbV	96
80) n-butylbenzene	19.568	91	308237	4.995	ppbV	98
81) 1,2,4-trichlorobenzene	20.817	180	164461	8.126	ppbV #	86
82) naphthalene	20.924	128	332369M4	6.520	ppbV	
83) 1,2,3-trichlorobenzene	21.176	180	144091	7.411	ppbV #	92
84) hexachlorobutadiene	21.236	225	139904	7.052	ppbV #	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed


```
Data Path   : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File  : R167937.D
Acq On     :  9 Aug 2019    1:28 pm
Operator   : AIRPIAN01:EW
Sample     : WG1270782-2,3,250,250
Misc       : WG1270782,ICAL15967
ALS Vial   : 3    Sample Multiplier: 1
```

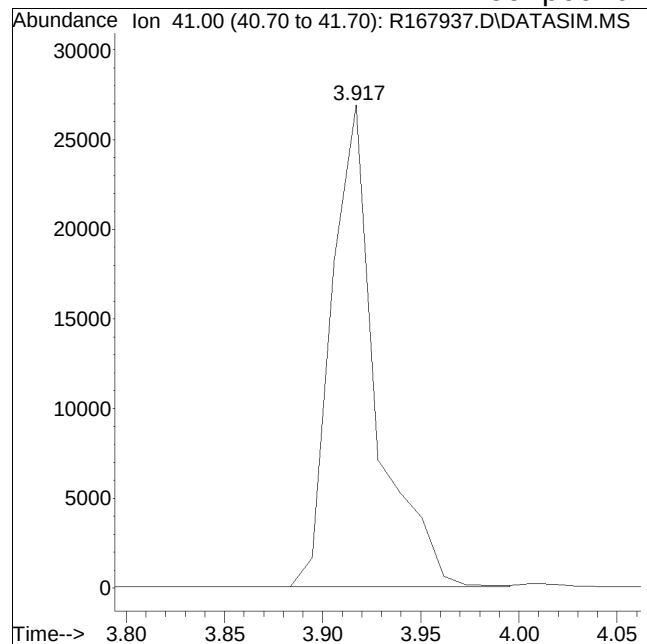
Quant Time: Aug 09 14:04:03 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration



Manual Integration Report

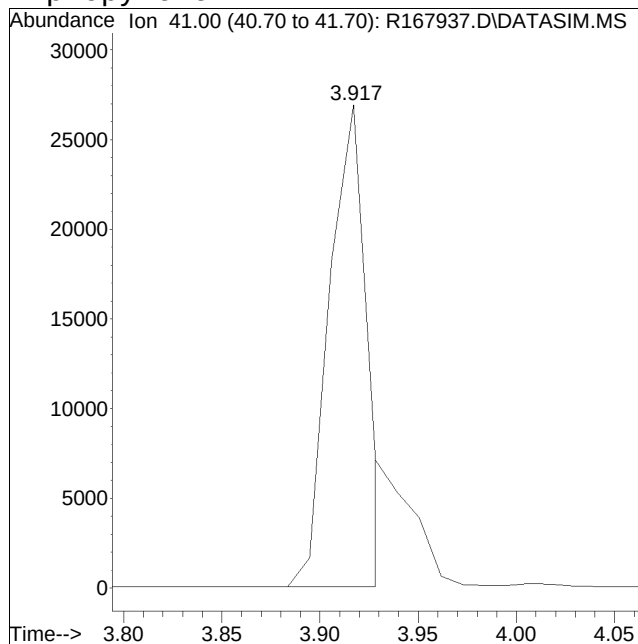
Data Path : 0:\Forensics\Data\AIR1\201QMethod : TSIM1_190712.M
Data File : R167937.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 1:28 pm Instrument : Air Piano 1
Sample : WG1270782-2,3,250,250 Quant Date : 8/9/2019 2:02 pm

Compound #2: propylene



Original Peak Response = 42812

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

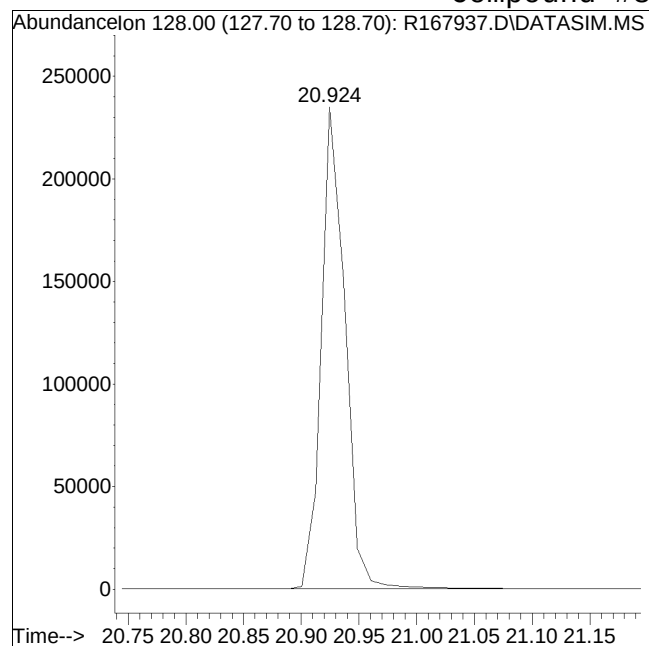


Manual Peak Response = 36076 M6

Manual Integration Report

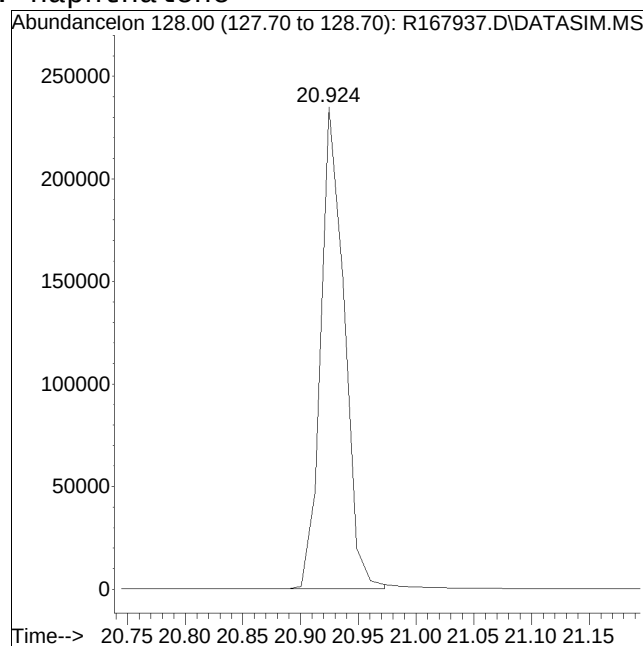
Data Path : 0:\Forensics\Data\AIR1\2010Method : TSIM1_190712.M
Data File : R167937.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 1:28 pm Instrument : Air Piano 1
Sample : WG1270782-2,3,250,250 Quant Date : 8/9/2019 2:02 pm

Compound #82: naphthalene



Original Peak Response = 336405

M4 = Poor automated baseline construction.



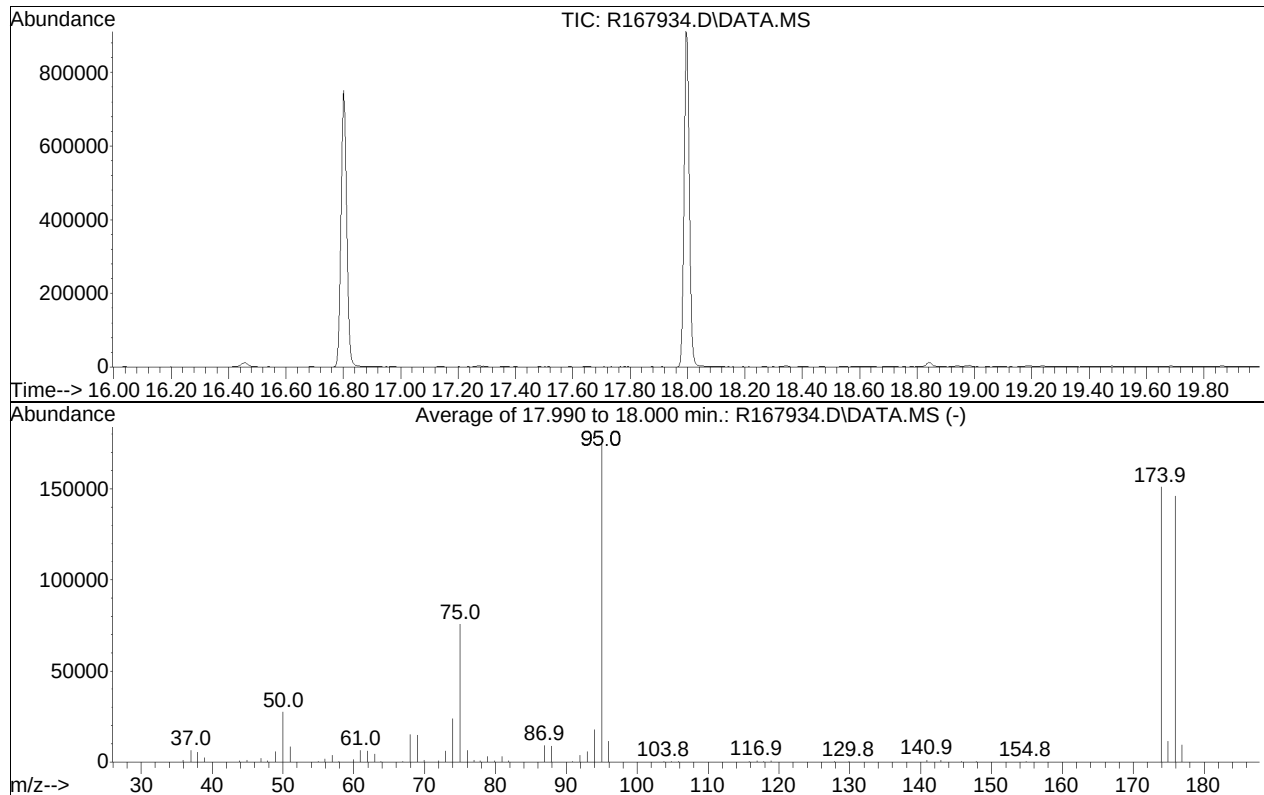
Manual Peak Response = 332369 M4

BFB

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167934.D
 Acq On : 9 Aug 2019 11:49 am
 Operator : AIRPIAN01:EW
 Sample : WG1270782-1,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Jul 16 08:07:11 2019



AutoFind: Scans 1576, 1577, 1578; Background Corrected with Scan 1569

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.6	27429	PASS
75	95	30	66	43.2	75717	PASS
95	95	100	100	100.0	175360	PASS
96	95	5	9	6.5	11483	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.2	151112	PASS
175	174	4	9	7.6	11467	PASS
176	174	93	101	96.7	146147	PASS
177	176	5	9	6.6	9678	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167940.D
 Acq On : 9 Aug 2019 4:25 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-4,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:55:36 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.103	49	136663	10.000	ppbV	0.00
Standard Area = 153492			Recovery =		89.04%	
33) 1,4-difluorobenzene	12.339	114	345996	10.000	ppbV	#-0.01
Standard Area = 403253			Recovery =		85.80%	
51) chlorobenzene-D5	16.803	54	60702	10.000	ppbV	0.00
Standard Area = 69934			Recovery =		86.80%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue	
2) propylene	3.917	41	466	0.067	ppbV		91
3) dichlorodifluoromethane	4.018		0	N.D.			
4) chloromethane	4.230		0	N.D.			
5) Freon-114	4.331		0	N.D.			
6) vinyl chloride	4.532		0	N.D.			
7) 1,3-butadiene	0.000		0	N.D.			
8) bromomethane	5.081		0	N.D.			
9) chloroethane	5.369		0	N.D.			
10) ethanol	5.630	31	271	0.059	ppbV	#	63
11) vinyl bromide	5.844		0	N.D.			
12) acrolein	6.021		0	N.D.			
13) acetone	6.310	43	1018	0.068	ppbV	#	69
14) trichlorofluoromethane	6.440		0	N.D.			
15) isopropyl alcohol	6.673	45	2708	0.157	ppbV	#	90
16) acrylonitrile	6.905		0	N.D.			
17) 1,1-dichloroethene	7.287		0	N.D.			
18) tertiary butyl alcohol	7.426		0	N.D.			
19) methylene chloride	7.464	49	543	0.048	ppbV		88
20) 3-chloropropene	7.678		0	N.D.			
21) carbon disulfide	7.789	76	657	0.022	ppbV	#	1
22) Freon 113	7.817		0	N.D.			
23) trans-1,2-dichloroethene	8.663		0	N.D.			
24) 1,1-dichloroethane	8.890		0	N.D.			
25) MTBE	9.036		0	N.D.			
26) vinyl acetate	9.142	43	327	0.019	ppbV	#	56
27) 2-butanone	9.296	43	328	0.018	ppbV	#	1
28) cis-1,2-dichloroethene	9.904		0	N.D.			
29) Ethyl Acetate	10.252		0	N.D.			
30) chloroform	10.273		0	N.D.			

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167940.D
 Acq On : 9 Aug 2019 4:25 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-4,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:55:36 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.763		0		N.D.	
32) 1,2-dichloroethane	11.129		0		N.D.	
34) hexane	10.167		0		N.D.	
36) 1,1,1-trichloroethane	11.407		0		N.D.	
37) benzene	11.944		0		N.D.	
38) carbon tetrachloride	12.165		0		N.D.	
39) cyclohexane	0.000		0		N.D.	d
40) dibromomethane	12.851	93	161	0.012	ppbV	87
41) 1,2-dichloropropane	12.875		0		N.D.	
42) bromodichloromethane	13.096		0		N.D.	
43) 1,4-dioxane	13.131		0		N.D.	
44) trichloroethene	13.142		0		N.D.	
45) 2,2,4-trimethylpentane	13.177		0		N.D.	
46) heptane	13.468		0		N.D.	
47) cis-1,3-dichloropropene	14.143		0		N.D.	
48) 4-methyl-2-pentanone	14.263	43	273	0.010	ppbV #	23
49) trans-1,3-dichloropropene	14.664		0		N.D.	
50) 1,1,2-trichloroethane	14.912		0		N.D.	
52) toluene	15.201		0		N.D.	
54) 2-hexanone	15.407		0		N.D.	
55) dibromochloromethane	15.624		0		N.D.	
56) 1,2-dibromoethane	15.861		0		N.D.	
57) tetrachloroethene	16.263		0		N.D.	
58) 1,1,1,2-tetrachloroethane	16.823		0		N.D.	
59) chlorobenzene	16.838		0		N.D.	
60) ethylbenzene	17.147		0		N.D.	
61) m+p-xylene	17.286		0		N.D.	
62) bromoform	17.356		0		N.D.	
63) styrene	17.575		0		N.D.	
64) 1,1,2,2-tetrachloroethane	17.654		0		N.D.	
65) o-xylene	17.654		0		N.D.	
66) 1,2,3-trichloropropane	17.754		0		N.D.	
68) isopropylbenzene	18.092		0		N.D.	
69) bromobenzene	18.092		0		N.D.	
70) 4-ethyl toluene	18.585		0		N.D.	
71) 1,3,5-trimethylbenzene	18.634		0		N.D.	
72) tert-butylbenzene	18.940		0		N.D.	
73) 1,2,4-trimethylbenzene	18.946		0		N.D.	
74) Benzyl Chloride	19.061		0		N.D.	
75) 1,3-dichlorobenzene	19.079		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167940.D
 Acq On : 9 Aug 2019 4:25 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-4,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 09 16:55:36 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

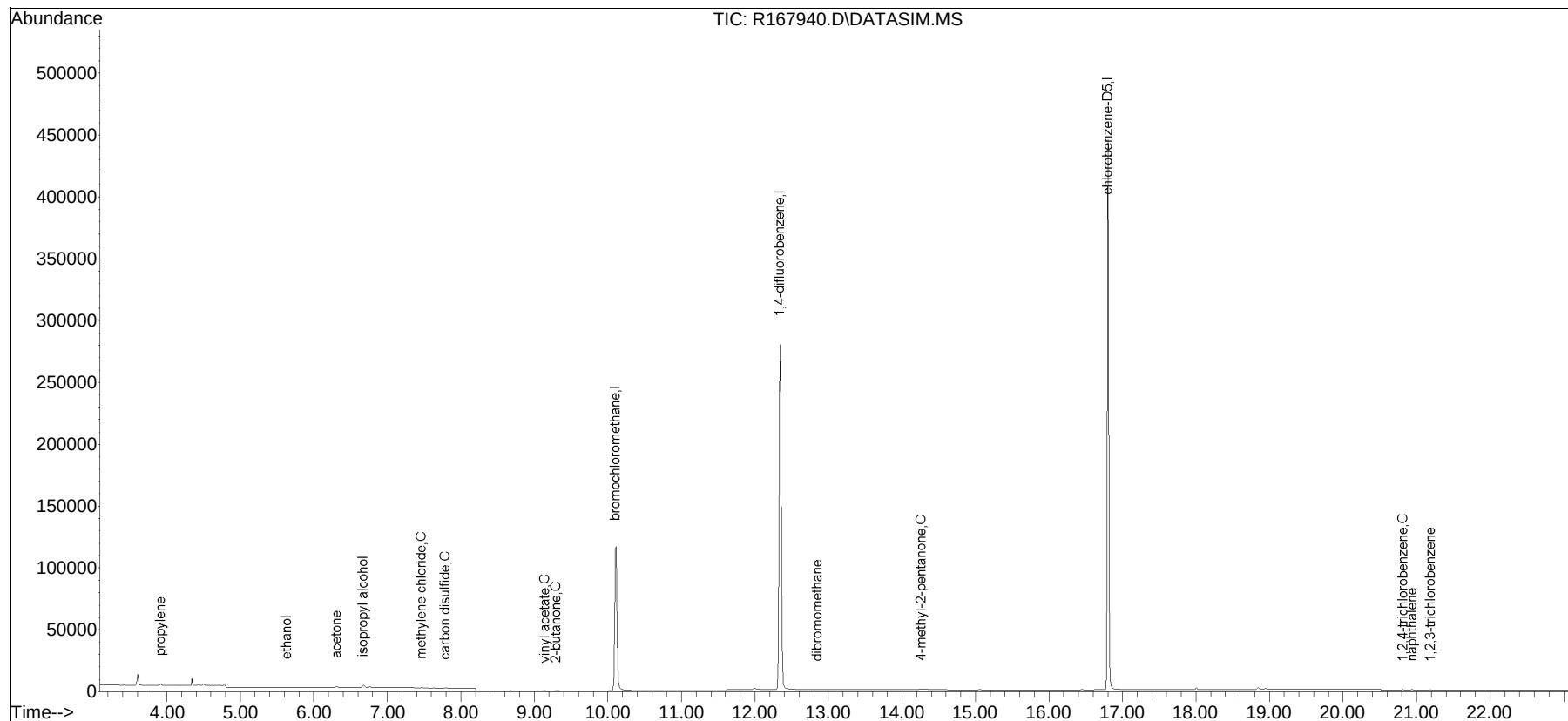
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 1,4-dichlorobenzene	19.127		0		N.D.	
77) sec-butylbenzene	19.139		0		N.D.	
78) p-isopropyltoluene	19.254		0		N.D.	
79) 1,2-dichlorobenzene	19.387		0		N.D.	
80) n-butylbenzene	19.574		0		N.D.	
81) 1,2,4-trichlorobenzene	20.817	180	407	0.023	ppbV #	79
82) naphthalene	20.937	128	1077	0.024	ppbV #	82
83) 1,2,3-trichlorobenzene	21.189	180	364	0.022	ppbV #	77
84) hexachlorobutadiene	21.249		0		N.D.	

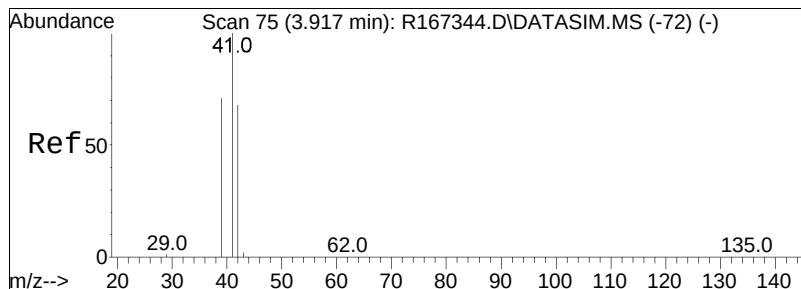
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listedR167937.D

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File : R167940.D
Acq On : 9 Aug 2019 4:25 pm
Operator : AIRPIAN01:EW
Sample : WG1270782-4,3,250,250
Misc : WG1270782,ICAL15967
ALS Vial : 1 Sample Multiplier: 1

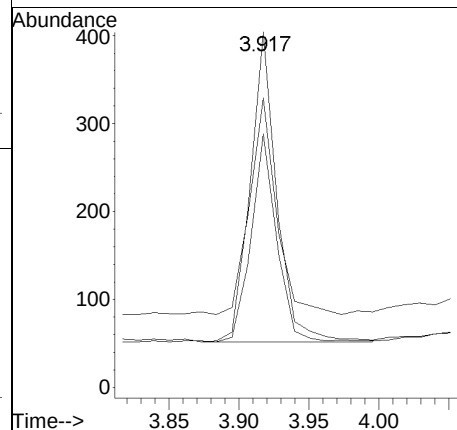
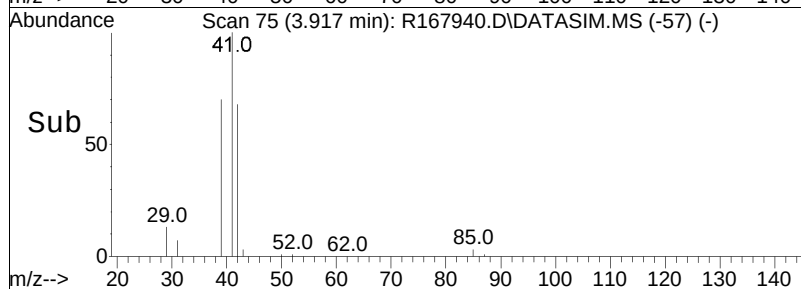
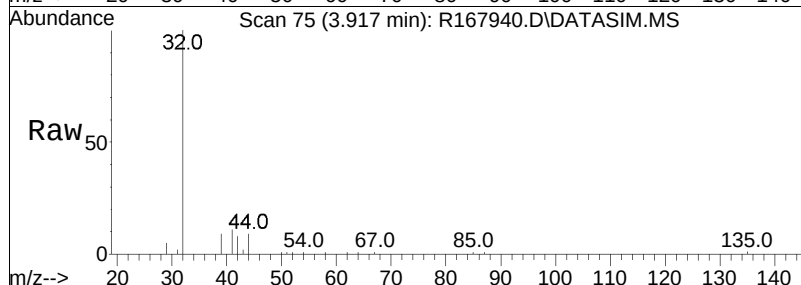
Quant Time: Aug 09 16:55:36 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration

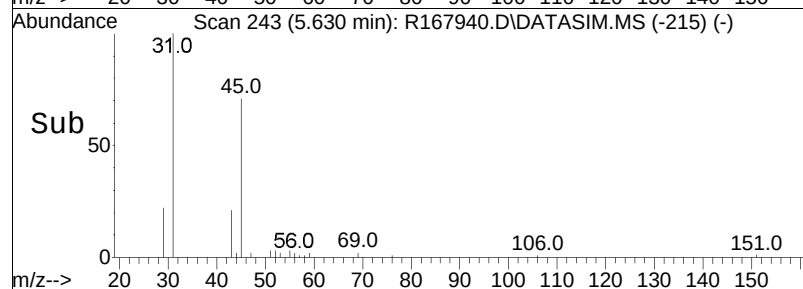
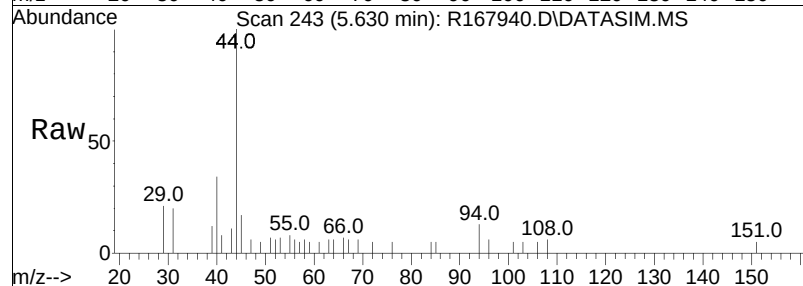
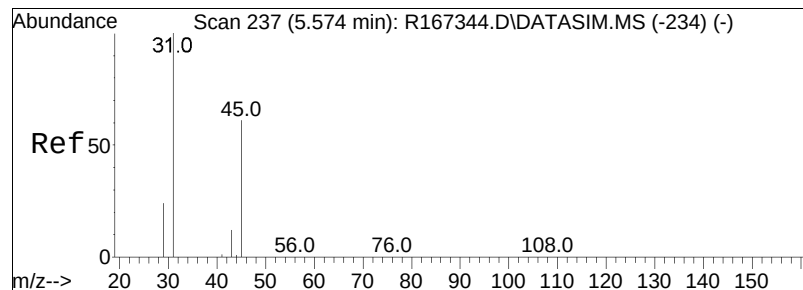




#2
propylene
Concen: 0.07 ppbV
RT: 3.917 min Scan# 75
Delta R.T. 0.000 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

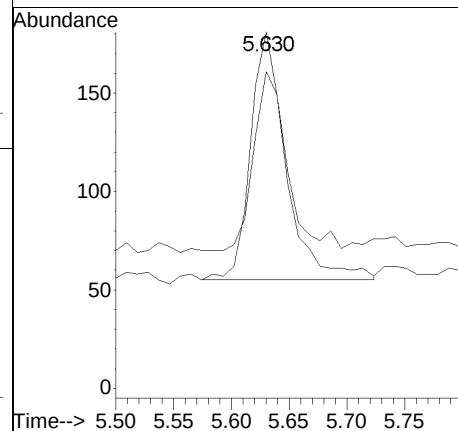
Tgt Ion: 41 Resp: 466
Ion Ratio Lower Upper
41 100
42 71.3 54.2 81.2
39 81.4 56.7 85.1

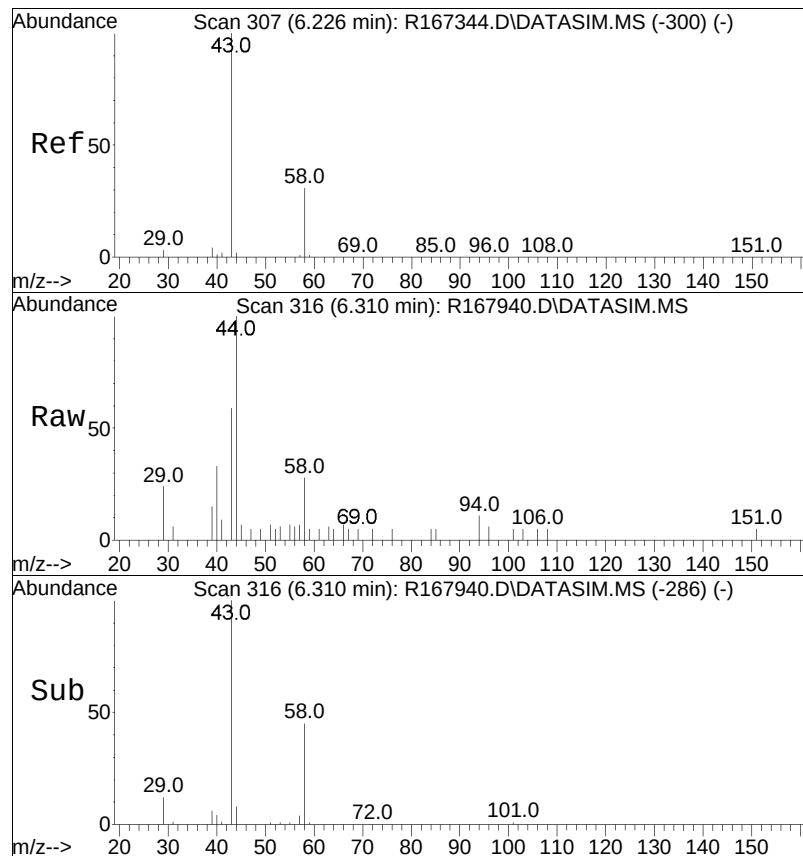




#10
ethanol
Concen: 0.06 ppbV
RT: 5.630 min Scan# 243
Delta R.T. 0.056 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

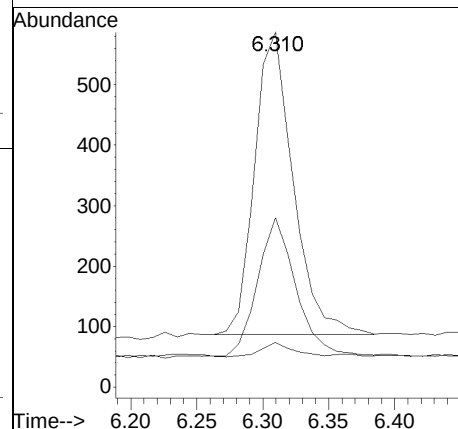
Tgt Ion	Ratio	Lower	Upper
31	100		
45	89.0	48.6	72.8#

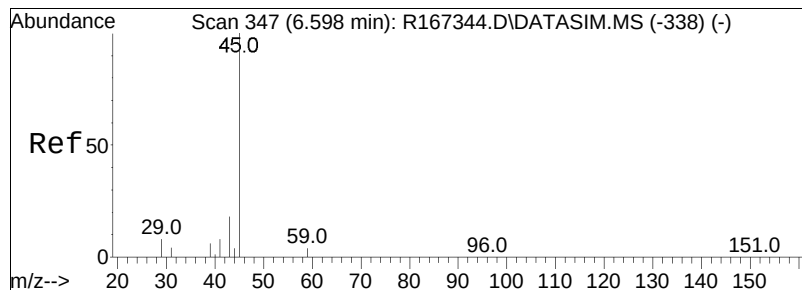




#13
 acetone
 Concen: 0.07 ppbV
 RT: 6.310 min Scan# 316
 Delta R.T. 0.084 min
 Lab File: R167940.D
 Acq: 9 Aug 2019 4:25 pm

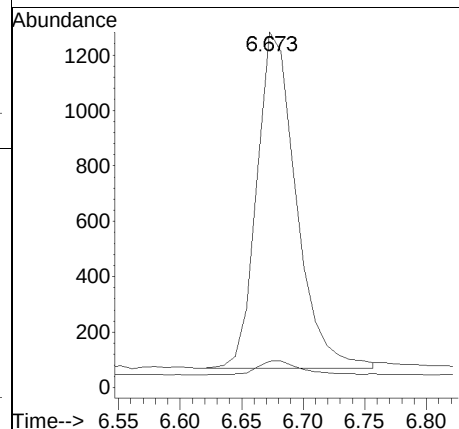
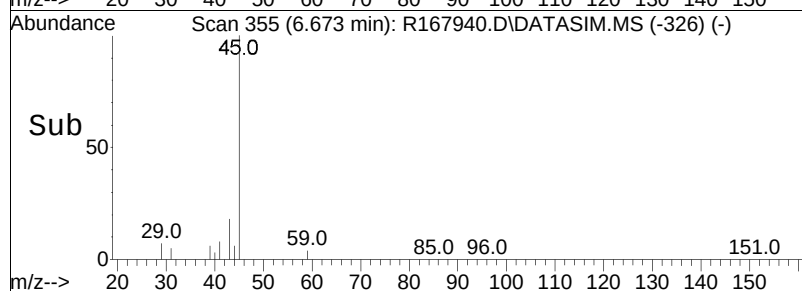
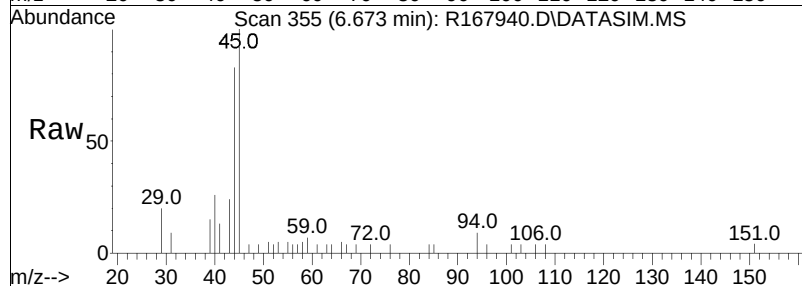
Tgt Ion:	43	Resp:	1018
Ion Ratio	Lower	Upper	
43	100		
58	47.7	24.6	36.8#
57	12.6	0.7	1.1#

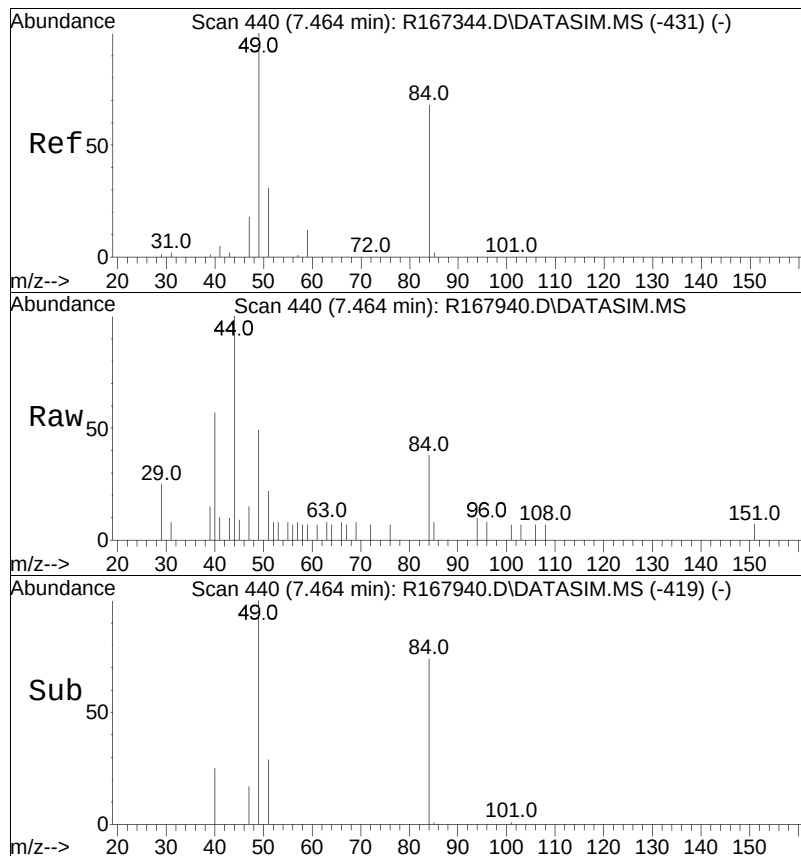




#15
isopropyl alcohol
Concen: 0.16 ppbV
RT: 6.673 min Scan# 355
Delta R.T. 0.075 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

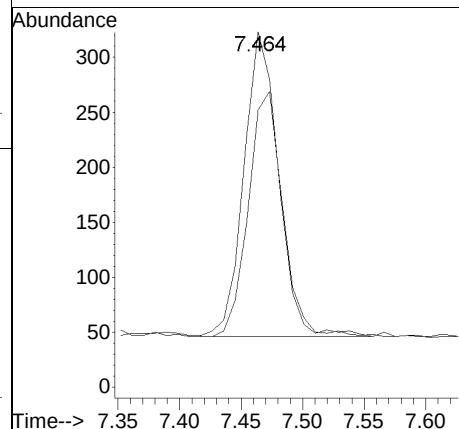
Tgt Ion	Ratio	Lower	Upper
45	100		
59	7.4	3.2	4.8#

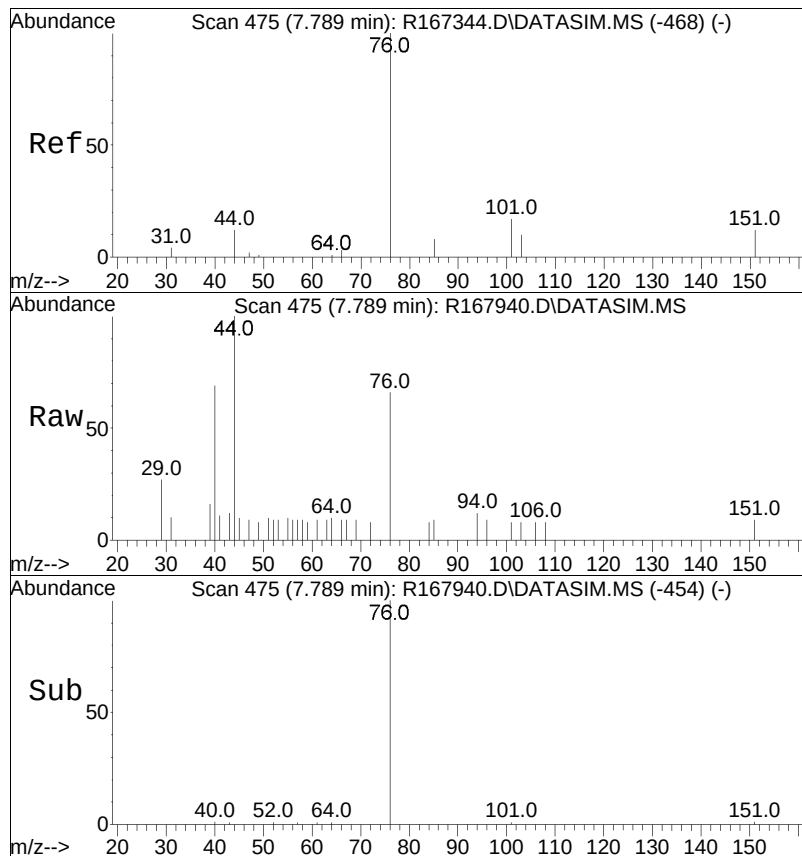




#19
 methylene chloride
 Concen: 0.05 ppbV
 RT: 7.464 min Scan# 440
 Delta R.T. 0.000 min
 Lab File: R167940.D
 Acq: 9 Aug 2019 4:25 pm

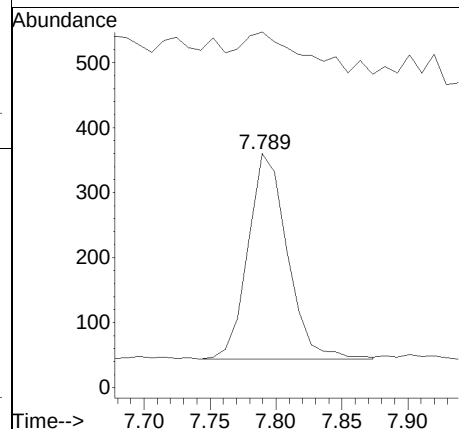
Tgt Ion	Ratio	Lower	Upper
49	100		
84	78.0	54.6	81.8

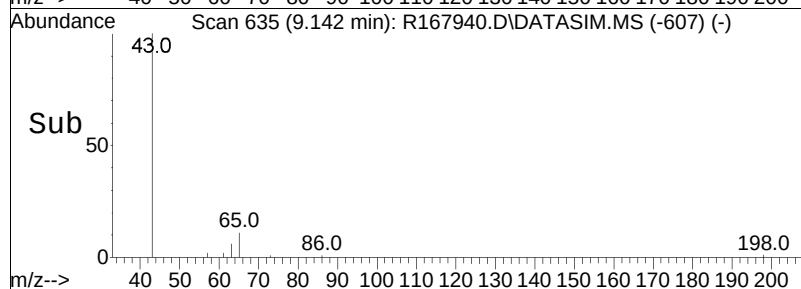
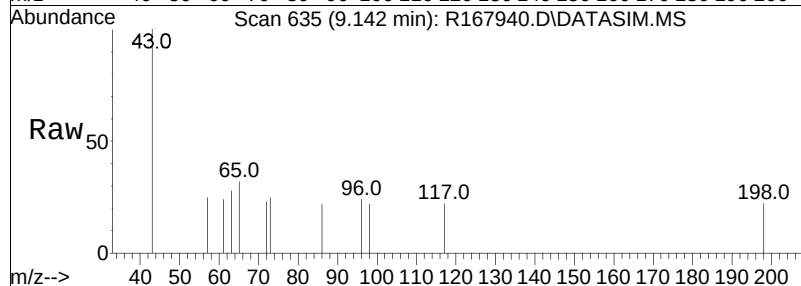
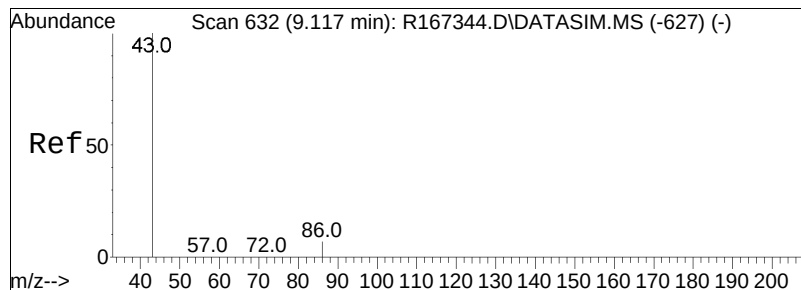




#21
carbon disulfide
Concen: 0.02 ppbV
RT: 7.789 min Scan# 475
Delta R.T. 0.000 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

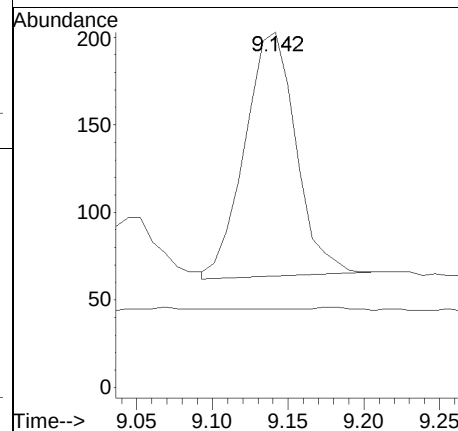
Tgt Ion	Ratio	Lower	Upper
76	100		
44	151.9	11.0	16.4#

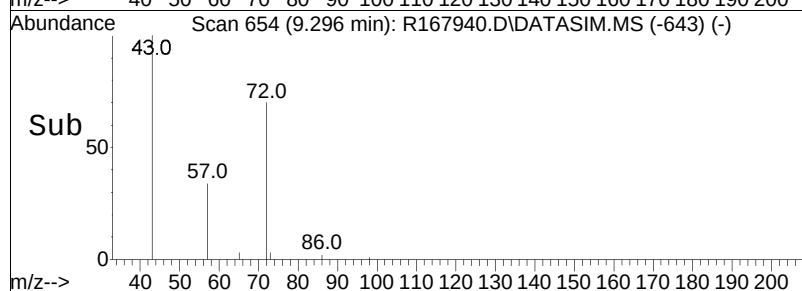
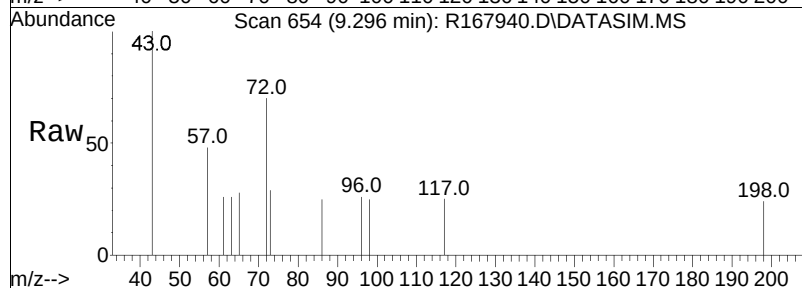
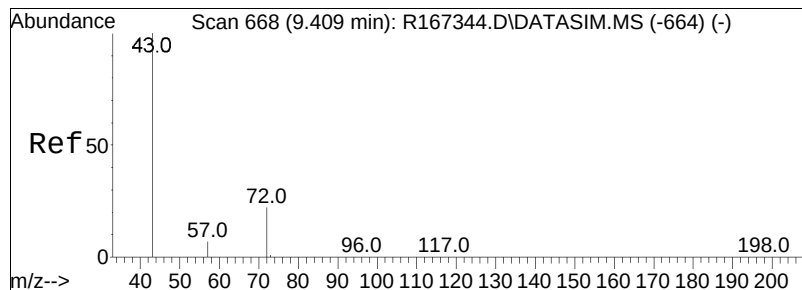




#26
vinyl acetate
Concen: 0.02 ppbV
RT: 9.142 min Scan# 635
Delta R.T. 0.024 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

Tgt Ion:	43	86	Ratio	Lower	Upper
Resp:	327				
Ion Ratio	100	22.2			
			5.5		8.3#





#27

2-butanone

Concen: 0.02 ppbV

RT: 9.296 min Scan# 654

Delta R.T. -0.113 min

Lab File: R167940.D

Acq: 9 Aug 2019 4:25 pm

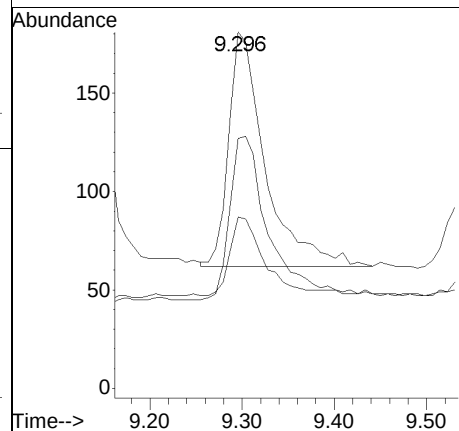
Tgt Ion: 43 Resp: 328

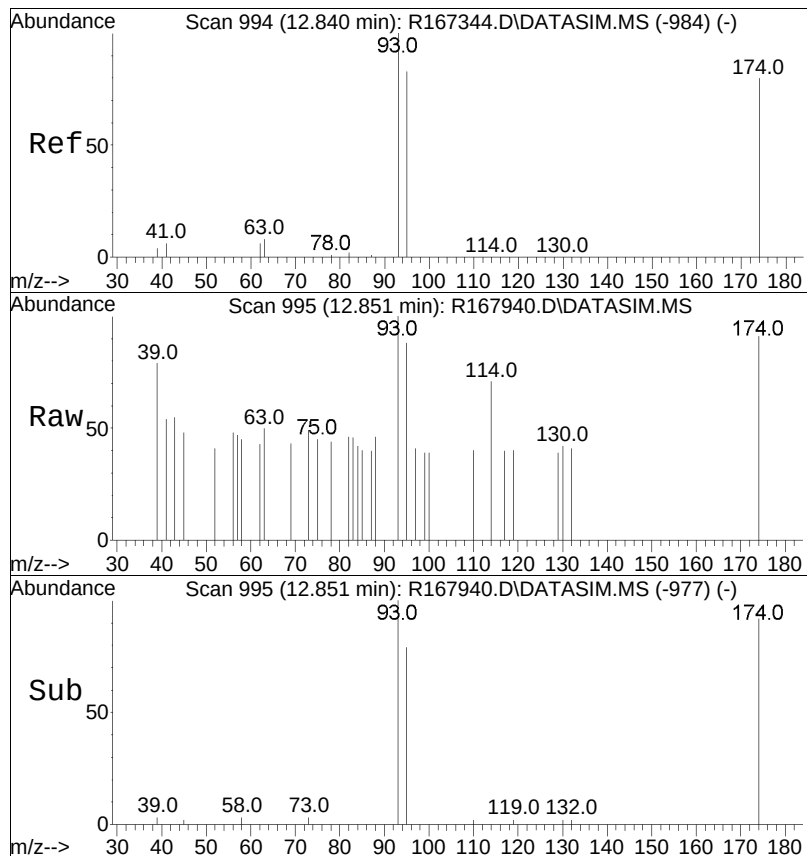
Ion Ratio Lower Upper

43 100

72 70.2 17.3 25.9#

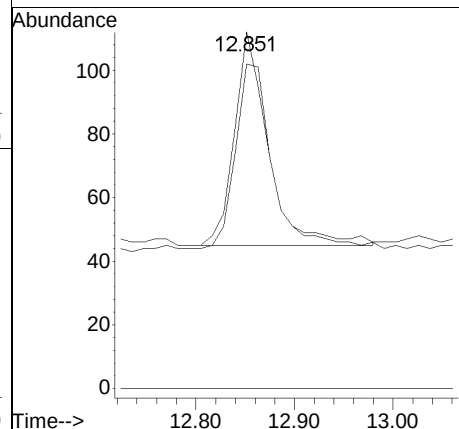
57 48.1 5.8 8.8#

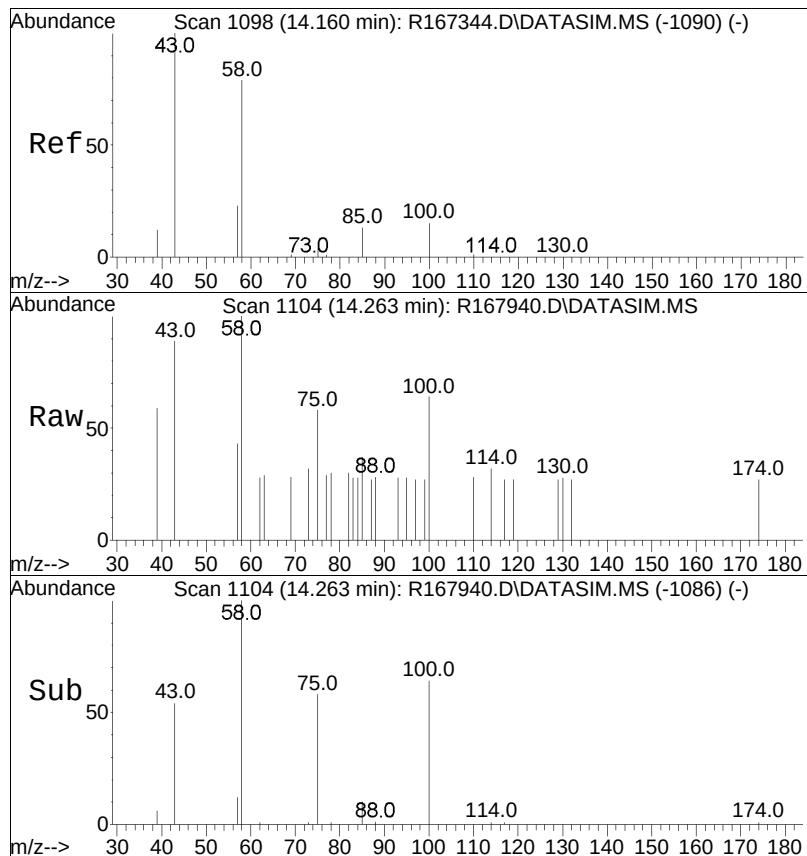




#40
 dibromomethane
 Concen: 0.01 ppbV
 RT: 12.851 min Scan# 995
 Delta R.T. 0.012 min
 Lab File: R167940.D
 Acq: 9 Aug 2019 4:25 pm

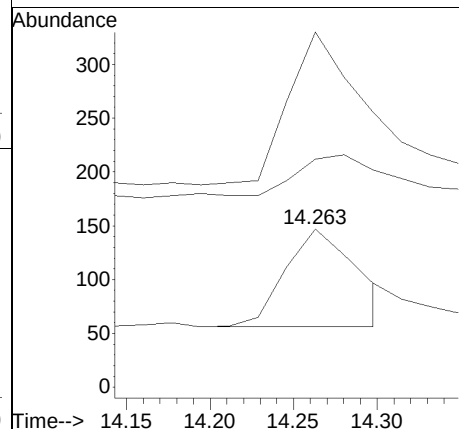
Tgt Ion:	93	Resp:	161
Ion Ratio	Lower	Upper	
93	100		
174	91.1	64.0	96.0
94	0.0	0.0	0.0

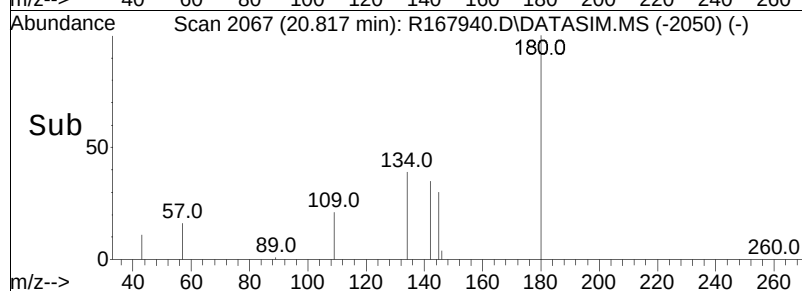
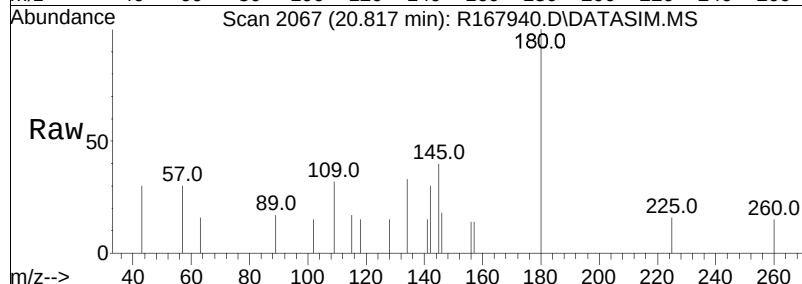
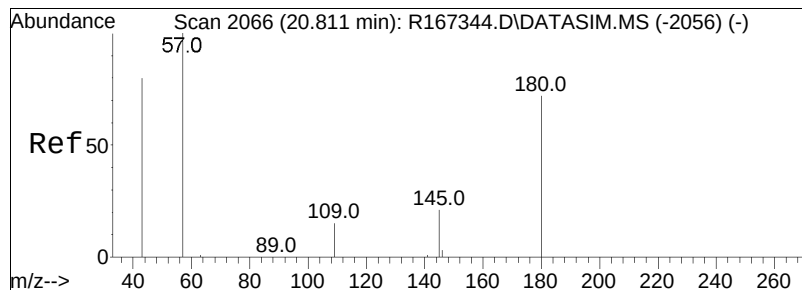




#48
 4-methyl-2-pentanone
 Concen: 0.01 ppbV
 RT: 14.263 min Scan# 1104
 Delta R.T. 0.103 min
 Lab File: R167940.D
 Acq: 9 Aug 2019 4:25 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	224.5	126.2	189.2#
100	144.2	24.2	36.2#





#81

1,2,4-trichlorobenzene

Concen: 0.02 ppbV

RT: 20.817 min Scan# 2067

Delta R.T. 0.006 min

Lab File: R167940.D

Acq: 9 Aug 2019 4:25 pm

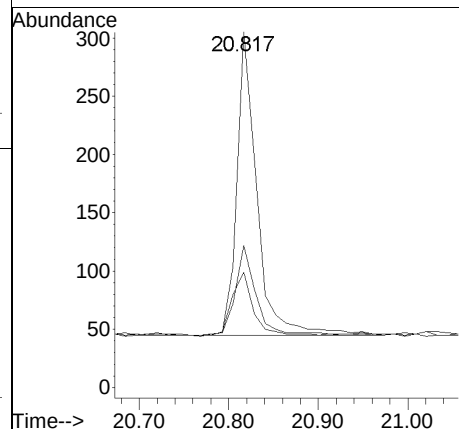
Tgt Ion:180 Resp: 407

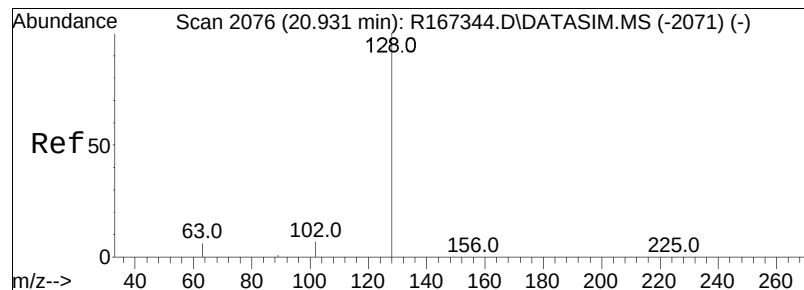
Ion Ratio Lower Upper

180 100

145 40.0 23.6 35.4#

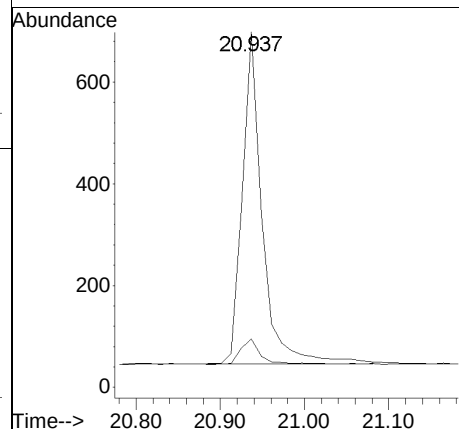
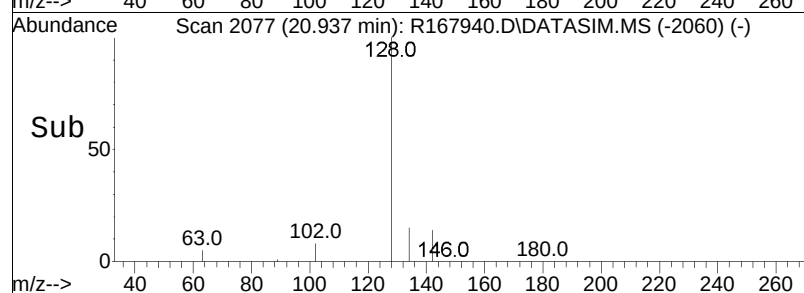
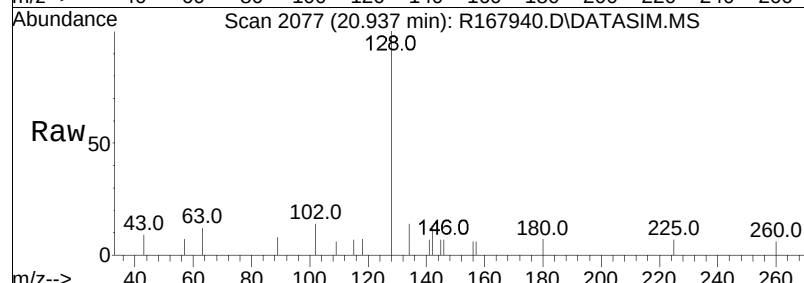
109 32.5 16.9 25.3#

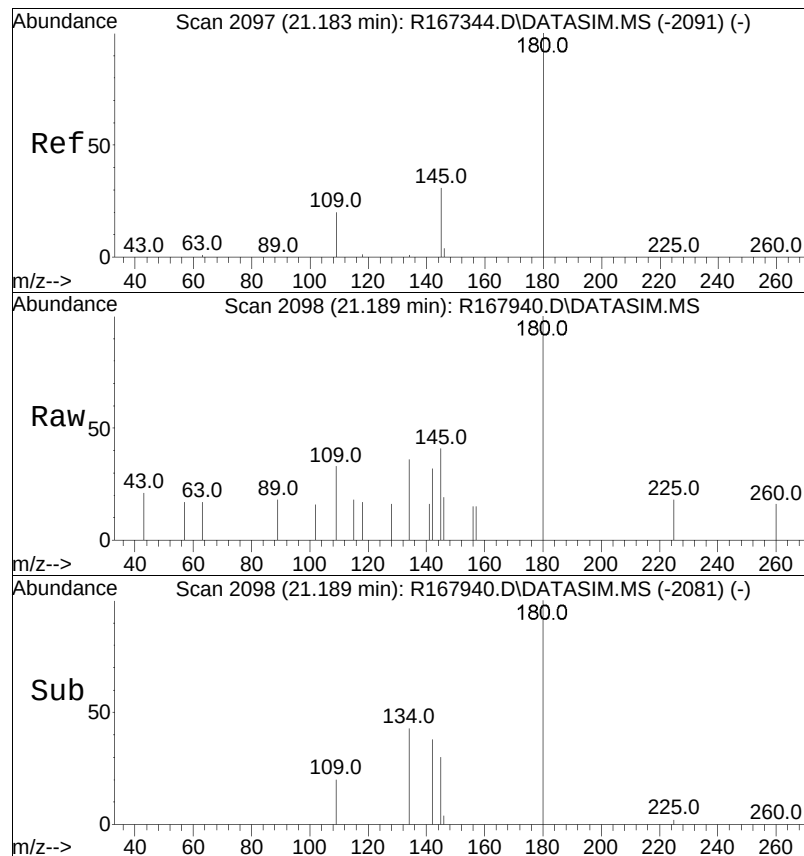




#82
naphthalene
Concen: 0.02 ppbV
RT: 20.937 min Scan# 2077
Delta R.T. 0.006 min
Lab File: R167940.D
Acq: 9 Aug 2019 4:25 pm

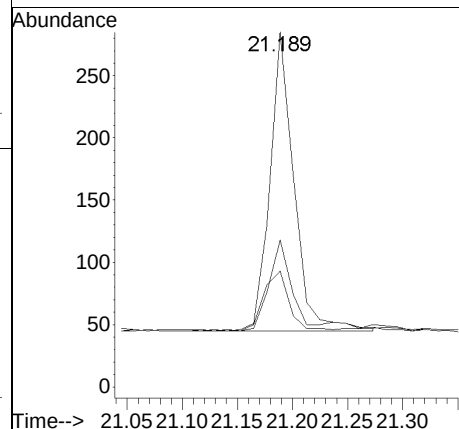
Tgt Ion	Ratio	Lower	Upper
128	100		
102	13.6	5.9	8.9#





#83
 1,2,3-trichlorobenzene
 Concen: 0.02 ppbV
 RT: 21.189 min Scan# 2098
 Delta R.T. 0.006 min
 Lab File: R167940.D
 Acq: 9 Aug 2019 4:25 pm

Tgt Ion:	180	Resp:	364
Ion Ratio	Lower	Upper	
180	100		
145	41.4	24.5	36.7#
109	32.6	16.2	24.4#



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TSIM1_190712.M
Data File	: R167940.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/9/2019 4:25 pm	Instrument	: Air Piano 1
Sample	: WG1270782-4,3,250,250	Quant Date	: 8/9/2019 4:54 pm

There are no manual integrations or false positives in this file.

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	72	0.00
2	propylene	5.000	4.633	7.3	74	0.00
3	dichlorodifluoromethane	5.000	4.865	2.7	71	0.00
4 C	chloromethane	5.000	4.609	7.8	72	0.00
5	Freon-114	5.000	5.368	-7.4	79	0.00
6 C	vinyl chloride	5.000	5.000	0.0	75	0.00
7 C	1,3-butadiene	5.000	5.268	-5.4	79	0.00
8 C	bromomethane	5.000	5.372	-7.4	81	0.00
9 C	chloroethane	5.000	4.971	0.6	76	0.00
10	ethanol	25.000	19.432	22.3	56	0.00
11 C	vinyl bromide	5.000	5.214	-4.3	78	0.00
12 C	acrolein	5.000	4.113	17.7	67	0.00
13	acetone	25.000	18.780	24.9	57	0.00
14	trichlorofluoromethane	5.000	5.379	-7.6	79	0.00
15	isopropyl alcohol	12.500	9.313	25.5	62	0.00
16 C	acrylonitrile	5.000	5.281	-5.6	85	0.00
17 C	1,1-dichloroethene	5.000	4.841	3.2	80	0.00
18	tertiary butyl alcohol	5.000	4.445	11.1	64	0.00
19 C	methylene chloride	5.000	4.757	4.9	70	0.00
20 C	3-chloropropene	5.000	4.581	8.4	68	0.00
21 C	carbon disulfide	5.000	4.503	9.9	68	0.00
22	Freon 113	5.000	5.269	-5.4	77	0.00
23	trans-1,2-dichloroethene	5.000	4.560	8.8	67	0.00
24 C	1,1-dichloroethane	5.000	4.787	4.3	71	0.00
25 C	MTBE	5.000	4.766	4.7	70	0.00
26 C	vinyl acetate	5.000	4.220	15.6	62	0.00
27 C	2-butanone	5.000	4.579	8.4	64	0.00
28	cis-1,2-dichloroethene	5.000	4.744	5.1	70	0.00
29	Ethyl Acetate	5.000	4.305	13.9	70	0.00
30 C	chloroform	5.000	5.093	-1.9	75	-0.01
31	Tetrahydrofuran	5.000	4.766	4.7	73	0.00
32 C	1,2-dichloroethane	5.000	4.754	4.9	70	0.00
33 I	1,4-difluorobenzene	10.000	10.000	0.0	82	-0.01
34 C	hexane	5.000	4.023	19.5	69	0.00
36 C	1,1,1-trichloroethane	5.000	4.447	11.1	76	0.00
37 C	benzene	5.000	4.351	13.0	73	0.00
38 C	carbon tetrachloride	5.000	4.609	7.8	78	0.00
39	cyclohexane	5.000	4.098	18.0	70	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	dibromomethane	5.000	3.805	23.9	71	0.00
41 C	1,2-dichloropropane	5.000	4.210	15.8	72	0.00
42	bromodichloromethane	5.000	4.435	11.3	74	0.00
43 C	1,4-dioxane	5.000	4.526	9.5	74	0.01
44 C	trichloroethene	5.000	4.637	7.3	78	0.00
45 C	2,2,4-trimethylpentane	5.000	4.326	13.5	73	0.00
46	heptane	5.000	3.894	22.1	66	0.00
47 C	cis-1,3-dichloropropene	5.000	4.608	7.8	75	0.00
48 C	4-methyl-2-pentanone	5.000	4.005	19.9	65	0.00
49	trans-1,3-dichloropropene	5.000	4.028	19.4	64	0.00
50 C	1,1,2-trichloroethane	5.000	4.602	8.0	77	0.00
51 I	chlorobenzene-D5	10.000	10.000	0.0	76	0.00
52 C	toluene	5.000	4.598	8.0	73	0.00
54	2-hexanone	5.000	4.581	8.4	66	0.00
55	dibromochloromethane	5.000	5.271	-5.4	79	0.00
56 C	1,2-dibromoethane	5.000	5.077	-1.5	77	0.00
57 C	tetrachloroethene	5.000	5.078	-1.6	79	-0.01
58	1,1,1,2-tetrachloroethane	5.000	4.705	5.9	72	0.00
59 C	chlorobenzene	5.000	4.987	0.3	77	0.00
60 C	ethylbenzene	5.000	4.646	7.1	73	0.00
61 C	m+p-xylene	10.000	8.488	15.1	74	0.00
62 C	bromoform	5.000	5.481	-9.6	81	0.00
63 C	styrene	5.000	5.017	-0.3	74	0.00
64 C	1,1,2,2-tetrachloroethane	5.000	4.941	1.2	75	0.00
65 C	o-xylene	5.000	4.705	5.9	74	0.00
66	1,2,3-trichloropropane	5.000	4.519	9.6	68	0.00
68 C	isopropylbenzene	5.000	4.693	6.1	73	0.00
69	bromobenzene	5.000	4.592	8.2	69	0.00
70	4-ethyl toluene	5.000	5.110	-2.2	74	0.00
71	1,3,5-trimethylbenzene	5.000	4.941	1.2	75	0.00
72	tert-butylbenzene	5.000	4.725	5.5	73	0.00
73	1,2,4-trimethylbenzene	5.000	5.332	-6.6	78	0.00
74 C	Benzyl Chloride	5.000	4.918	1.6	72	0.00
75	1,3-dichlorobenzene	5.000	5.687	-13.7	80	0.00
76 C	1,4-dichlorobenzene	5.000	5.724	-14.5	79	0.00
77	sec-butylbenzene	5.000	4.682	6.4	72	0.00
78	p-isopropyltoluene	5.000	4.339	13.2	65	0.00
79	1,2-dichlorobenzene	5.000	5.698	-14.0	80	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
80	n-butylbenzene	5.000	4.995	0.1	73	0.00
81 C	1,2,4-trichlorobenzene	5.000	8.126	-62.5#	82	0.00
82	naphthalene	5.000	6.520	-30.4#	71	0.00
83	1,2,3-trichlorobenzene	5.000	7.411	-48.2#	75	0.00
84 C	hexachlorobutadiene	5.000	7.052	-41.0#	86	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.102	49	153492	10.000	ppbV	0.00
Standard Area = 153492			Recovery =	100.00%		
33) 1,4-difluorobenzene	12.339	114	403253	10.000	ppbV	#-0.01
Standard Area = 403253			Recovery =	100.00%		
51) chlorobenzene-D5	16.803	54	69934	10.000	ppbV	0.00
Standard Area = 69934			Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) propylene	3.917	41	36076M6	4.633	ppbV	
3) dichlorodifluoromethane	4.018	85	106181	4.865	ppbV	100
4) chloromethane	4.230	50	38114	4.609	ppbV	99
5) Freon-114	4.386	85	135063	5.368	ppbV	97
6) vinyl chloride	4.543	62	47665	5.000	ppbV	100
7) 1,3-butadiene	4.733	54	34005	5.268	ppbV	89
8) bromomethane	5.109	94	48790	5.372	ppbV	100
9) chloroethane	5.369	64	23050	4.971	ppbV	98
10) ethanol	5.583	31	100326	19.432	ppbV	85
11) vinyl bromide	5.853	106	47766	5.214	ppbV	98
12) acrolein	6.039	56	16240	4.113	ppbV	96
13) acetone	6.226	43	316734	18.780	ppbV	98
14) trichlorofluoromethane	6.440	101	115386	5.379	ppbV	99
15) isopropyl alcohol	6.607	45	180091	9.313	ppbV	98
16) acrylonitrile	6.868	53	35682	5.281	ppbV	99
17) 1,1-dichloroethene	7.287	61	82122	4.841	ppbV	95
18) tertiary butyl alcohol	7.417	59	92435	4.445	ppbV	98
19) methylene chloride	7.464	49	59903	4.757	ppbV	92
20) 3-chloropropene	7.612	41	63055	4.581	ppbV	97
21) carbon disulfide	7.789	76	152640	4.503	ppbV	95
22) Freon 113	7.808	101	109889	5.269	ppbV	97
23) trans-1,2-dichloroethene	8.655	61	77809	4.560	ppbV	94
24) 1,1-dichloroethane	8.898	63	98970	4.787	ppbV	99
25) MTBE	8.995	73	140027	4.766	ppbV	97
26) vinyl acetate	9.117	43	82114	4.220	ppbV	97
27) 2-butanone	9.409	43	95699	4.579	ppbV	96
28) cis-1,2-dichloroethene	9.912	61	77227	4.744	ppbV	92
29) Ethyl Acetate	10.209	61	21028	4.305	ppbV	84
30) chloroform	10.262	83	131959	5.093	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : O:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
31) Tetrahydrofuran	10.752	42	59471	4.766	ppbV	98
32) 1,2-dichloroethane	11.118	62	68077	4.754	ppbV	99
34) hexane	10.166	57	100169	4.023	ppbV	93
36) 1,1,1-trichloroethane	11.407	97	107176	4.447	ppbV	95
37) benzene	11.932	78	171317	4.351	ppbV	96
38) carbon tetrachloride	12.106	117	105750	4.609	ppbV	99
39) cyclohexane	12.234	56	85214	4.098	ppbV	94
40) dibromomethane	12.839	93	61947	3.805	ppbV	90
41) 1,2-dichloropropane	12.863	63	65511	4.210	ppbV	97
42) bromodichloromethane	13.096	83	127960	4.435	ppbV	99
43) 1,4-dioxane	13.165	88	39167	4.526	ppbV	100
44) trichloroethene	13.142	130	76877	4.637	ppbV	98
45) 2,2,4-trimethylpentane	13.165	57	290080	4.326	ppbV	96
46) heptane	13.468	43	94677	3.894	ppbV	95
47) cis-1,3-dichloropropene	14.126	75	388310	4.608	ppbV	98
48) 4-methyl-2-pentanone	14.160	43	123194	4.005	ppbV	93
49) trans-1,3-dichloropropene	14.716	75	81071	4.028	ppbV	95
50) 1,1,2-trichloroethane	14.912	97	74370	4.602	ppbV	95
52) toluene	15.190	91	209048	4.598	ppbV	100
54) 2-hexanone	15.448	43	116826	4.581	ppbV #	88
55) dibromochloromethane	15.613	129	129756	5.271	ppbV	100
56) 1,2-dibromoethane	15.851	107	118082	5.077	ppbV	99
57) tetrachloroethene	16.253	166	99030	5.078	ppbV #	95
58) 1,1,1,2-tetrachloroethane	16.823	131	80061	4.705	ppbV	99
59) chlorobenzene	16.838	112	174174	4.987	ppbV	98
60) ethylbenzene	17.137	91	267478	4.646	ppbV	98
61) m+p-xylene	17.281	91	420440	8.488	ppbV	99
62) bromoform	17.355	173	129567	5.481	ppbV	99
63) styrene	17.564	104	163765	5.017	ppbV	98
64) 1,1,2,2-tetrachloroethane	17.644	83	169033	4.941	ppbV	99
65) o-xylene	17.644	91	216311	4.705	ppbV	98
66) 1,2,3-trichloropropane	17.744	75	119945	4.519	ppbV	98
68) isopropylbenzene	18.087	105	282482	4.693	ppbV	99
69) bromobenzene	18.172	77	147131	4.592	ppbV	91
70) 4-ethyl toluene	18.575	105	323581	5.110	ppbV	99
71) 1,3,5-trimethylbenzene	18.629	105	256058	4.941	ppbV	98
72) tert-butylbenzene	18.934	119	252612	4.725	ppbV	98
73) 1,2,4-trimethylbenzene	18.940	105	260950	5.332	ppbV	96
74) Benzyl Chloride	19.054	91	217486	4.918	ppbV	96
75) 1,3-dichlorobenzene	19.073	146	193450	5.687	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167937.D
 Acq On : 9 Aug 2019 1:28 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-3,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 09 14:04:03 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

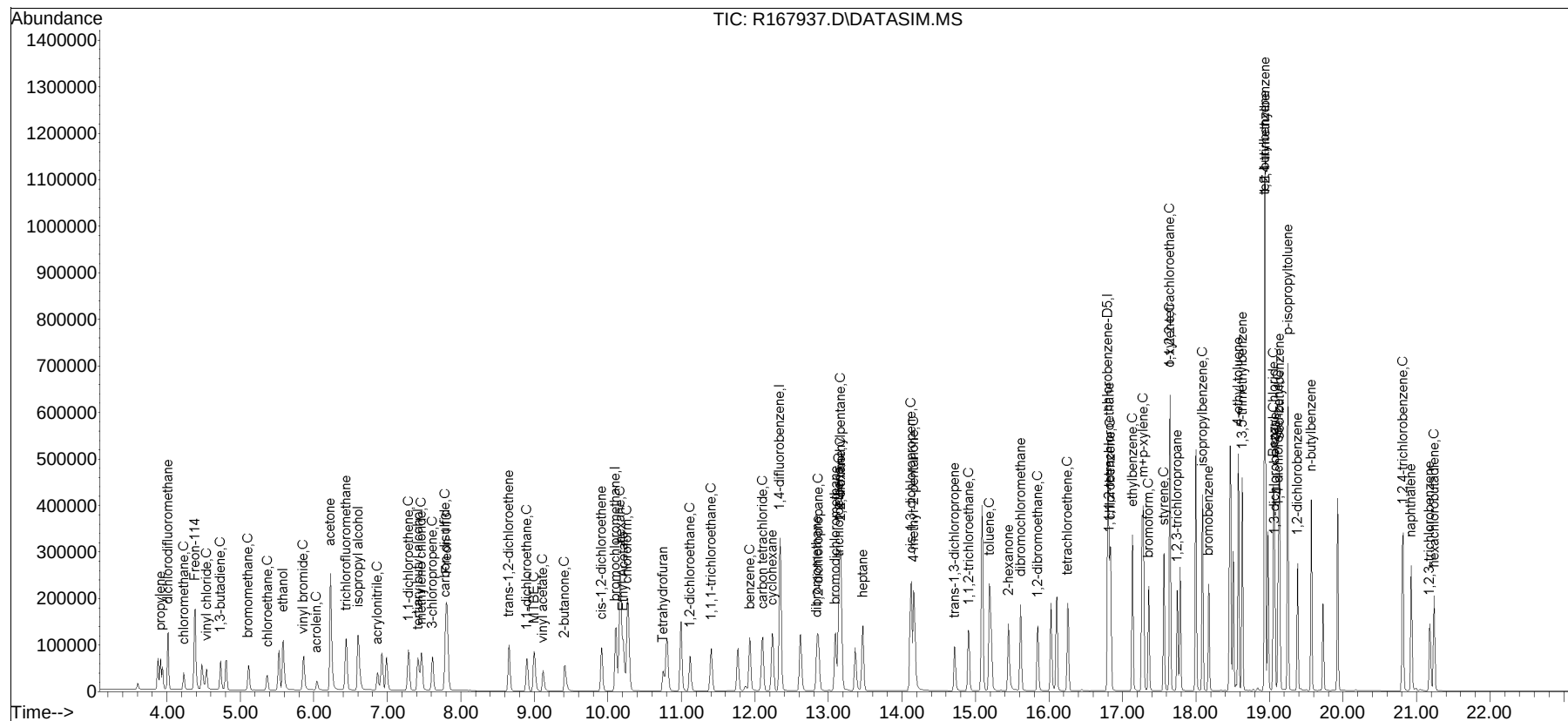
CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : Default-LCS-AP2 - All compounds listed

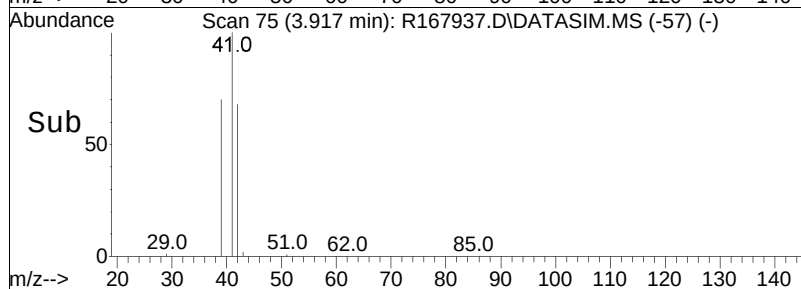
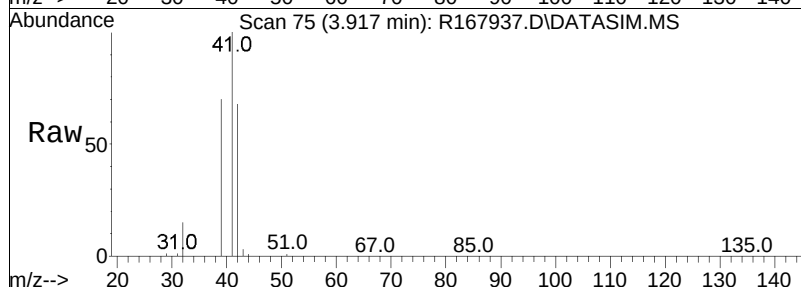
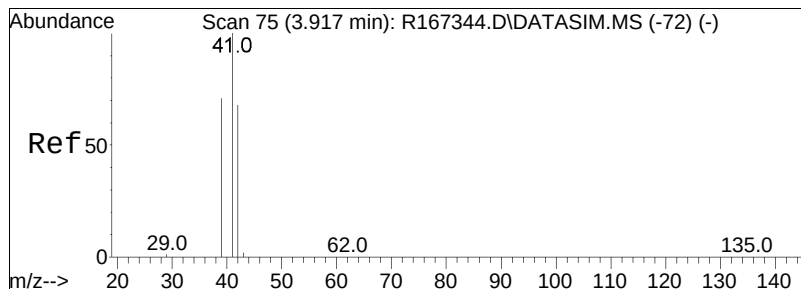
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) 1,4-dichlorobenzene	19.121	146	195567	5.724	ppbV	95
77) sec-butylbenzene	19.133	105	357206	4.682	ppbV	96
78) p-isopropyltoluene	19.248	119	290070	4.339	ppbV	98
79) 1,2-dichlorobenzene	19.381	146	186394	5.698	ppbV	96
80) n-butylbenzene	19.568	91	308237	4.995	ppbV	98
81) 1,2,4-trichlorobenzene	20.817	180	164461	8.126	ppbV #	86
82) naphthalene	20.924	128	332369M4	6.520	ppbV	
83) 1,2,3-trichlorobenzene	21.176	180	144091	7.411	ppbV #	92
84) hexachlorobutadiene	21.236	225	139904	7.052	ppbV #	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path   : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File  : R167937.D
Acq On     :  9 Aug 2019    1:28 pm
Operator   : AIRPIAN01:EW
Sample     : WG1270782-3,3,250,250
Misc       : WG1270782,ICAL15967
ALS Vial   : 3    Sample Multiplier: 1
```

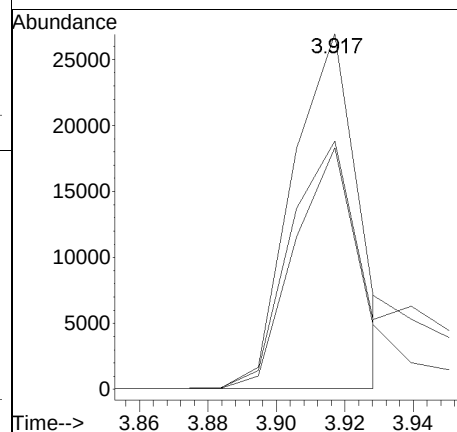
Quant Time: Aug 09 14:04:03 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration

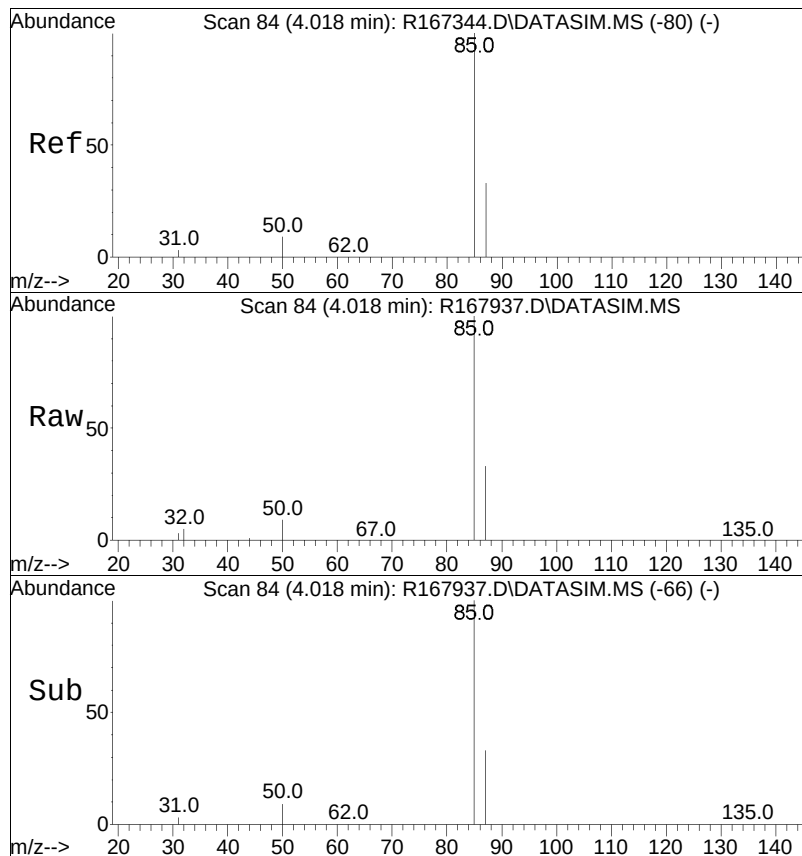




#2
propylene
Concen: 4.63 ppbV m
RT: 3.917 min Scan# 75
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

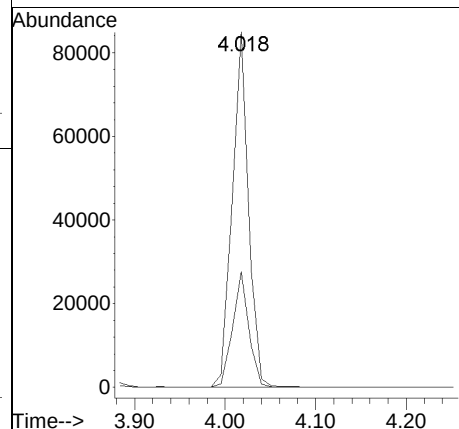
Tgt Ion	Ratio	Resp	Lower	Upper
41	100	36076		
42	68.0		54.2	81.2
39	69.9		56.7	85.1

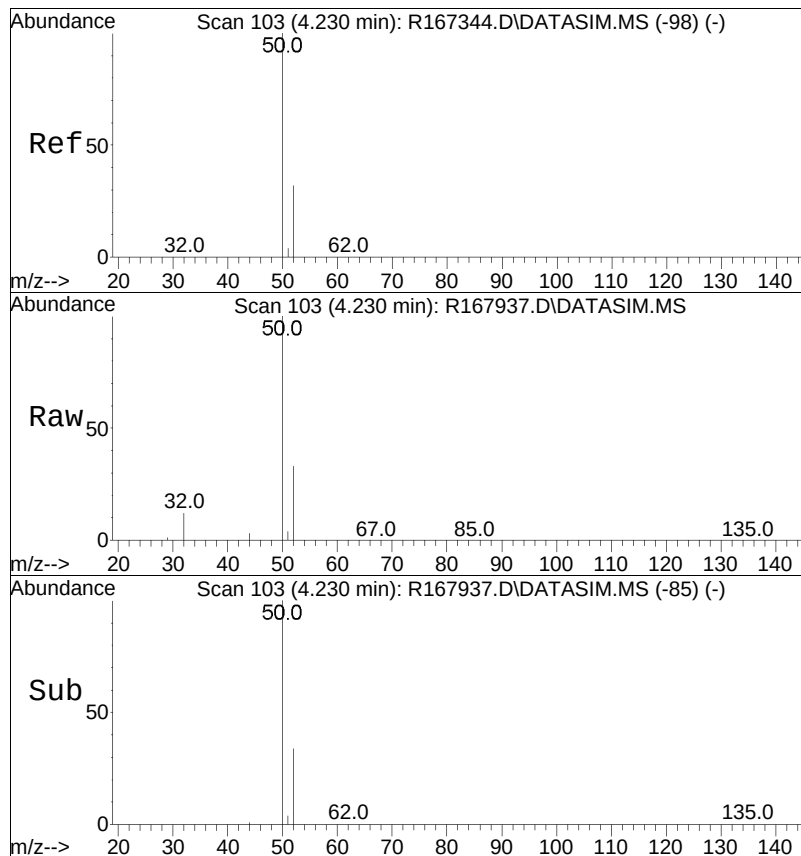




#3
 dichlorodifluoromethane
 Concen: 4.87 ppbV
 RT: 4.018 min Scan# 84
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

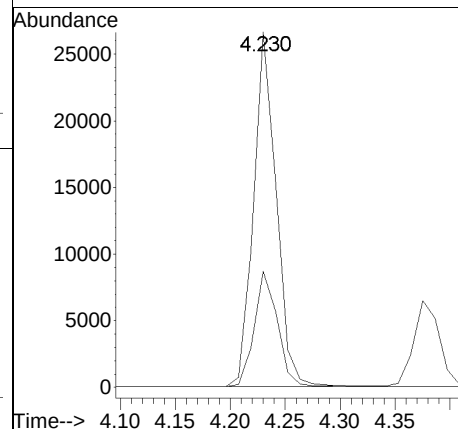
Tgt Ion:	85	87	Ratio	100	32.6	Resp:	106181
Lower	26.1						
Upper	39.1						

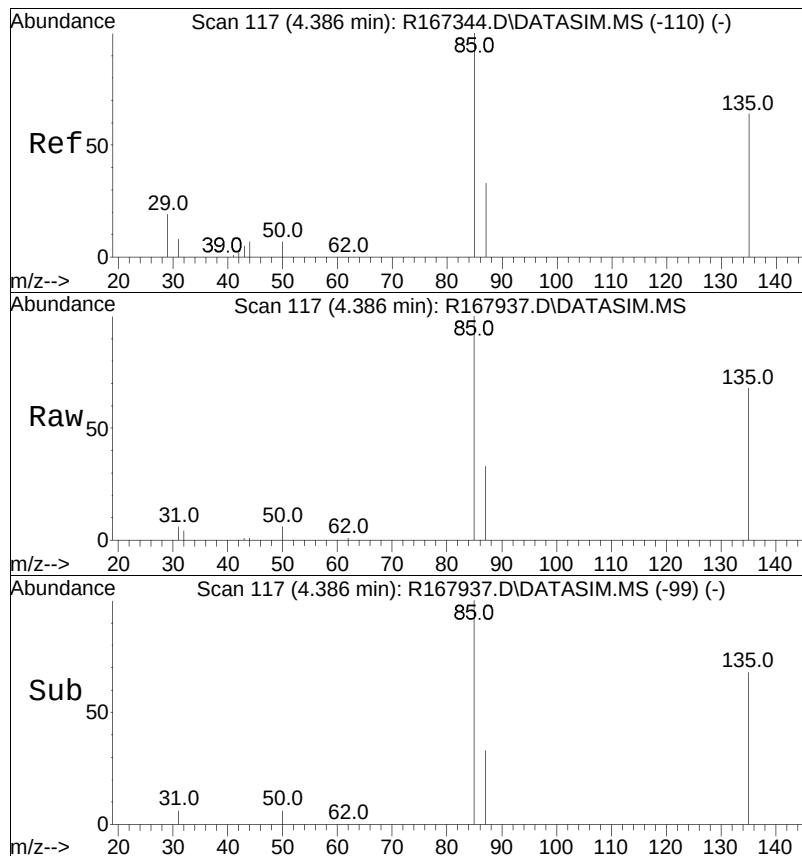




#4
 chloromethane
 Concen: 4.61 ppbV
 RT: 4.230 min Scan# 103
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

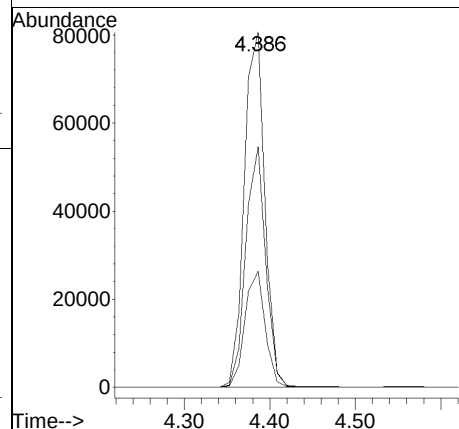
Tgt Ion	Ratio	Lower	Upper
50	100		
52	32.7	25.8	38.8

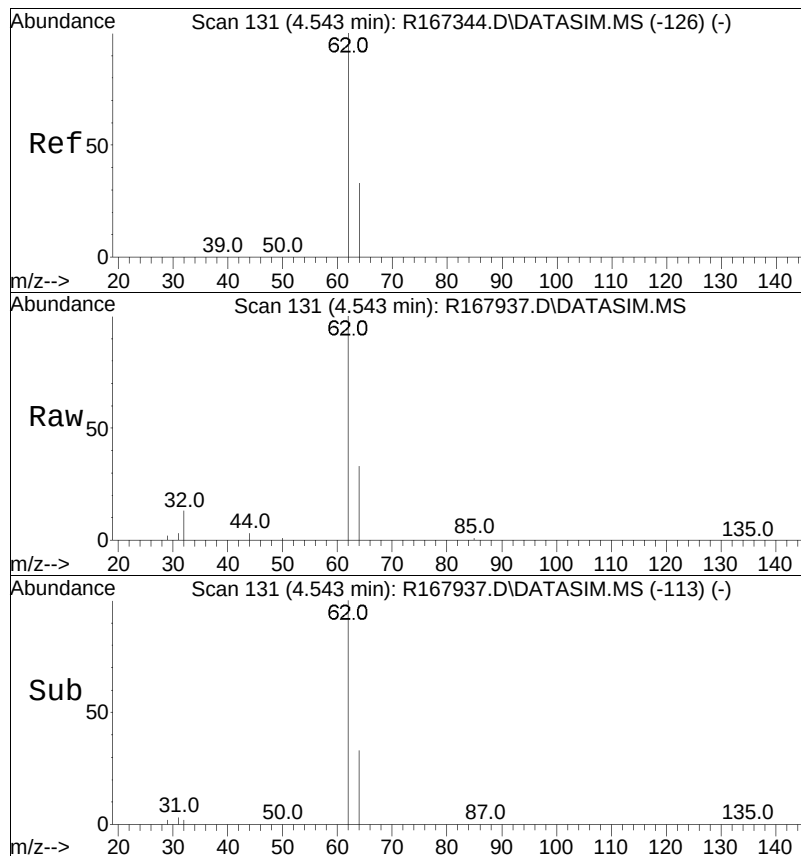




#5
 Freon-114
 Concen: 5.37 ppbV
 RT: 4.386 min Scan# 117
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

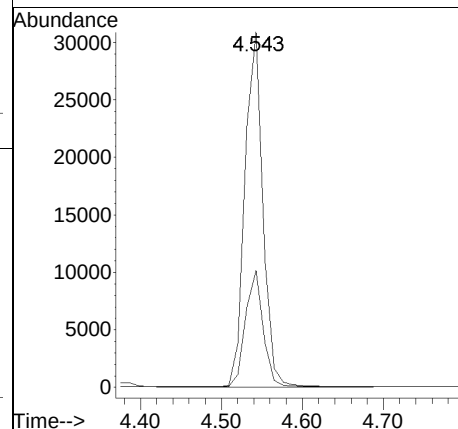
Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.1	39.1
135	67.8	51.4	77.0

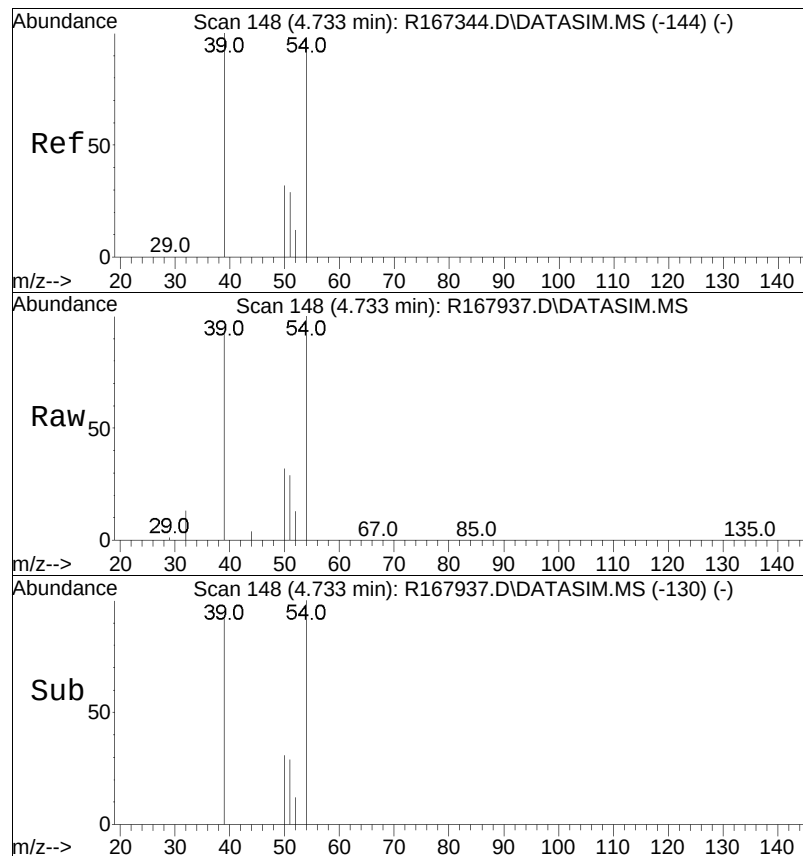




#6
 vinyl chloride
 Concen: 5.00 ppbV
 RT: 4.543 min Scan# 131
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

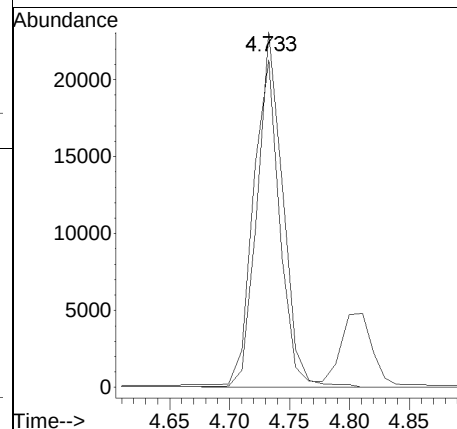
Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.9	26.2	39.4

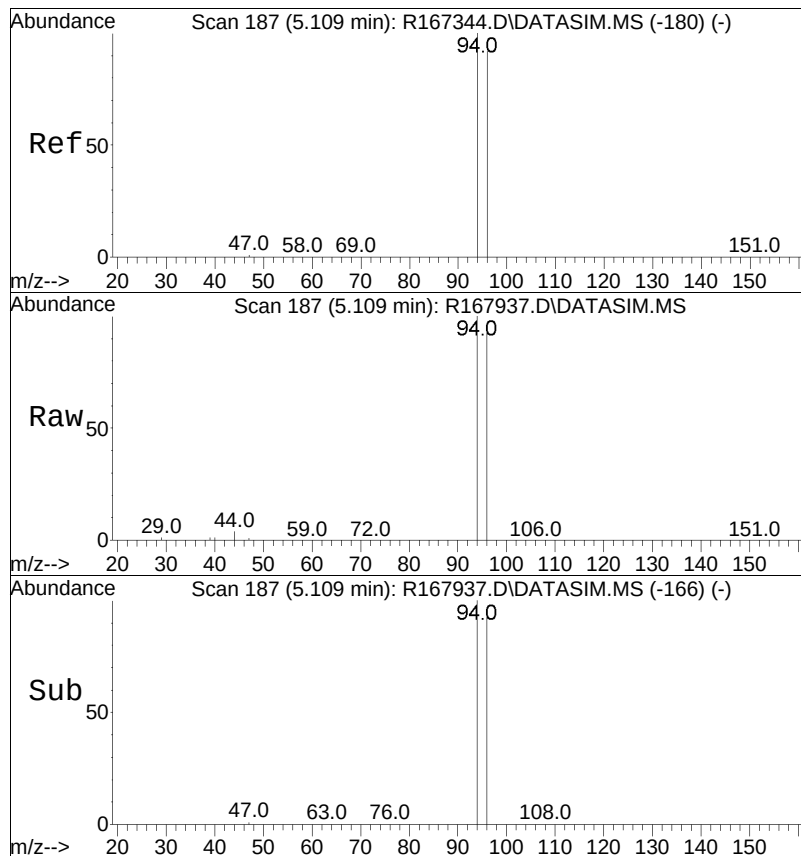




#7
 1,3-butadiene
 Concen: 5.27 ppbV
 RT: 4.733 min Scan# 148
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

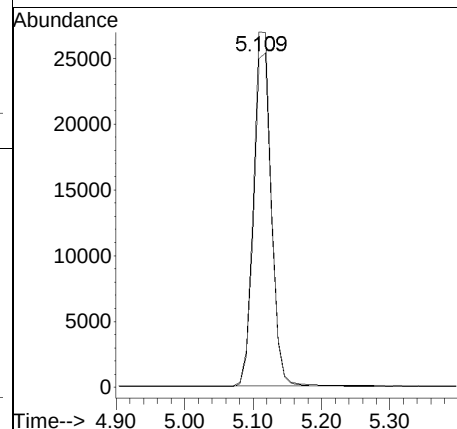
Tgt Ion: 54 Resp: 34005
 Ion Ratio Lower Upper
 54 100
 39 92.1 83.0 124.6

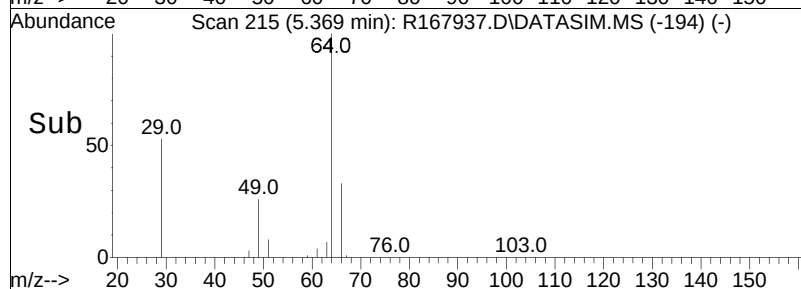
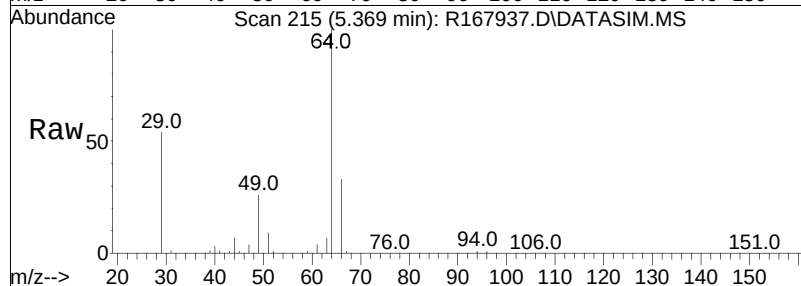
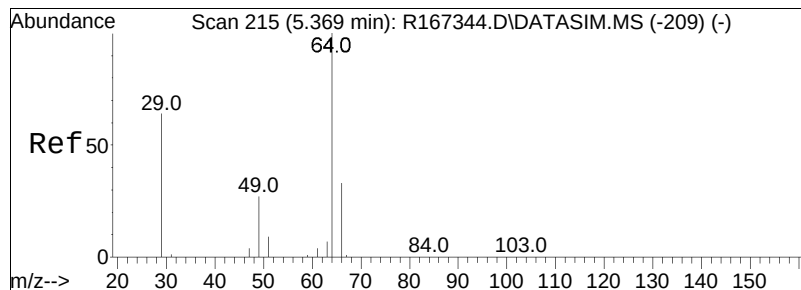




#8
bromomethane
Concen: 5.37 ppbV
RT: 5.109 min Scan# 187
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

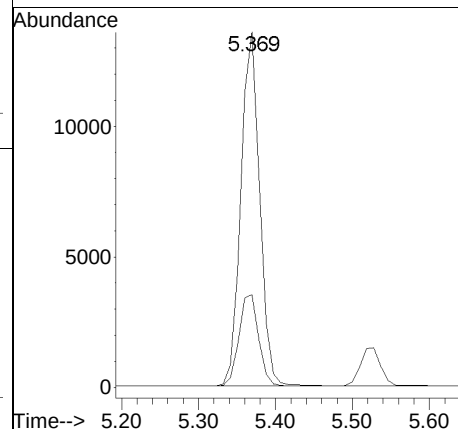
Tgt Ion: 94 Resp: 48790
Ion Ratio Lower Upper
94 100
96 92.5 73.7 110.5

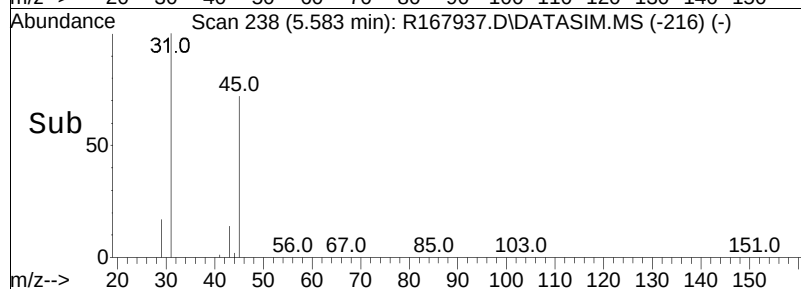
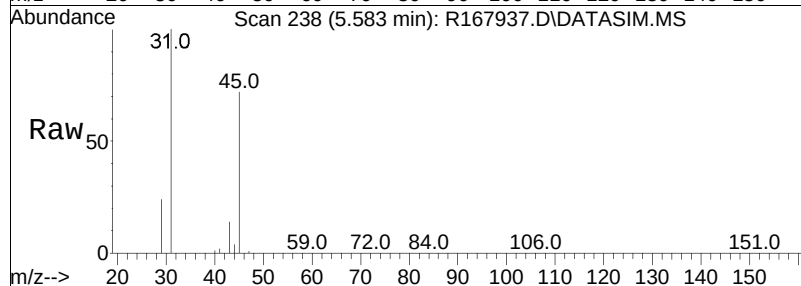
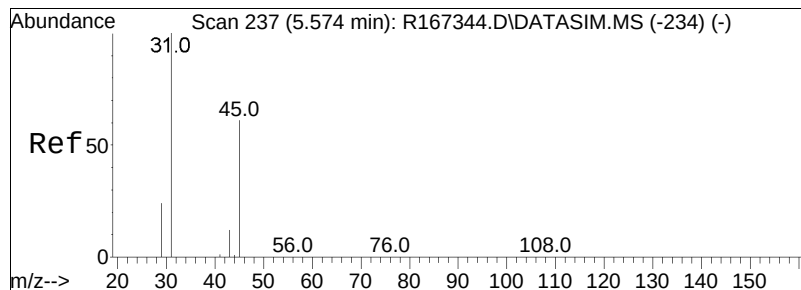




#9
chloroethane
Concen: 4.97 ppbV
RT: 5.369 min Scan# 215
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

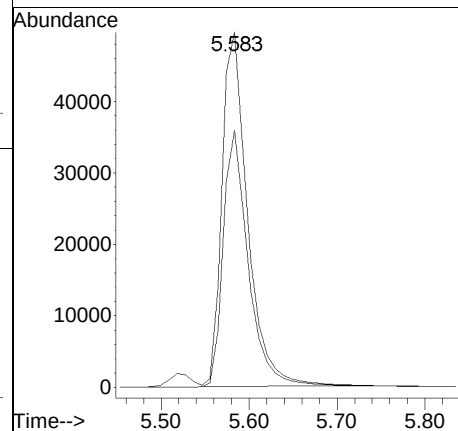
Tgt Ion	Ratio	Lower	Upper
64	100		
49	26.1	21.8	32.8

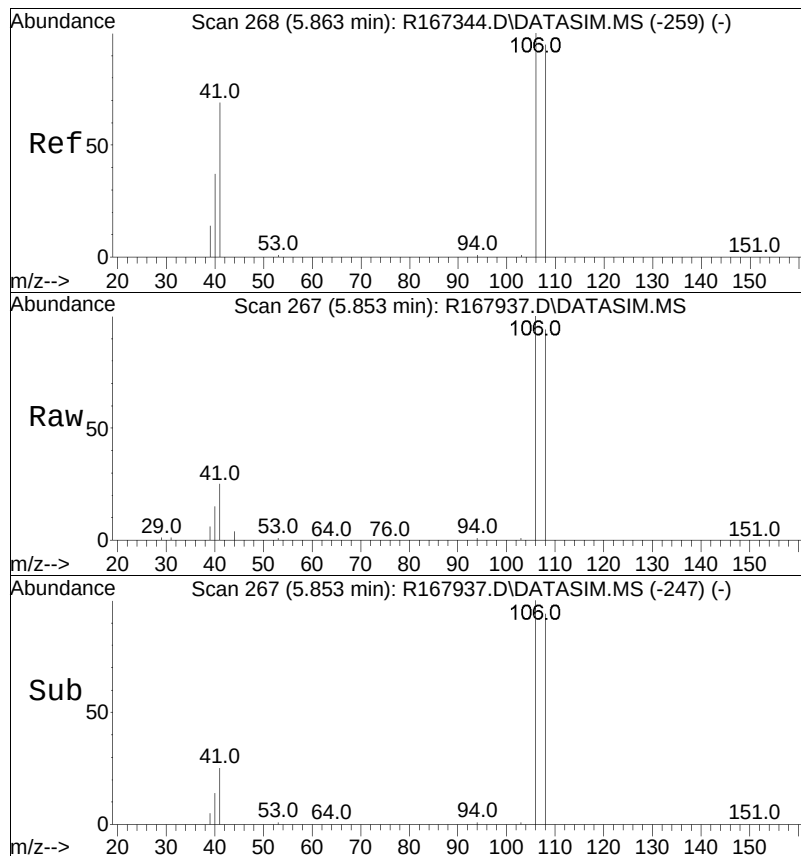




#10
ethanol
Concen: 19.43 ppbV
RT: 5.583 min Scan# 238
Delta R.T. 0.009 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

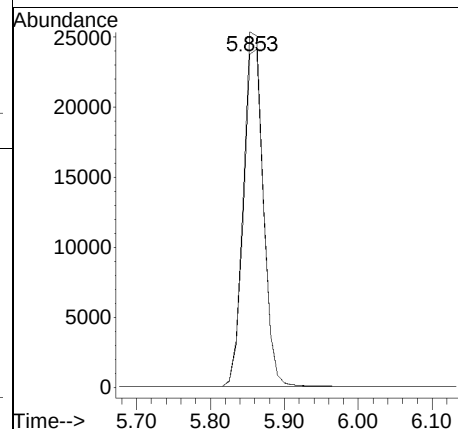
Tgt	Ion	Ratio	Lower	Upper
31	100			
45	72.3	48.6	72.8	

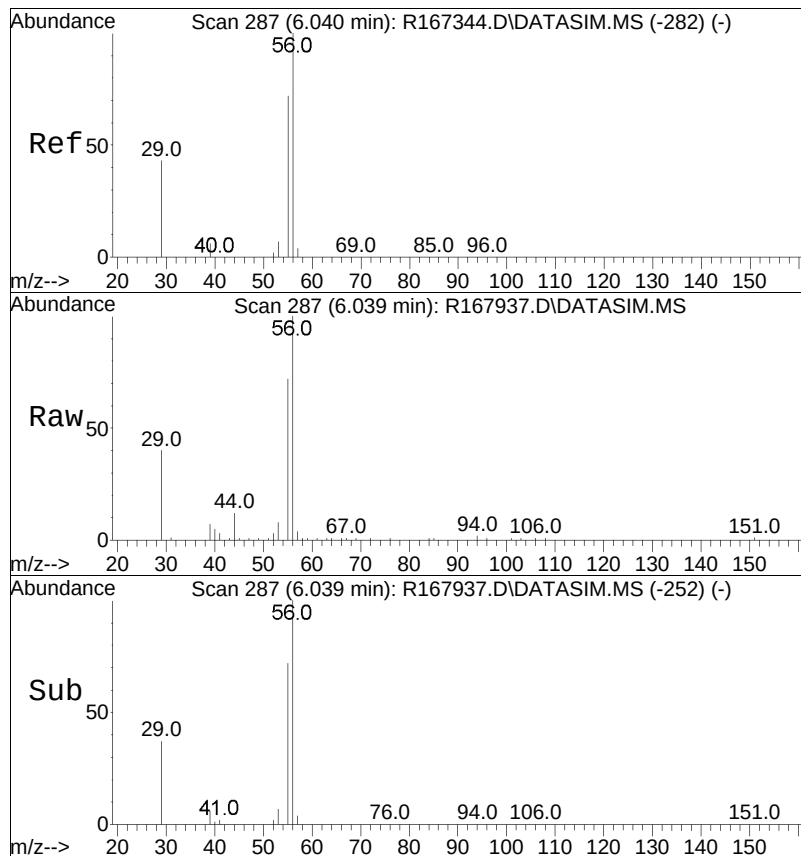




#11
 vinyl bromide
 Concen: 5.21 ppbV
 RT: 5.853 min Scan# 267
 Delta R.T. -0.009 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

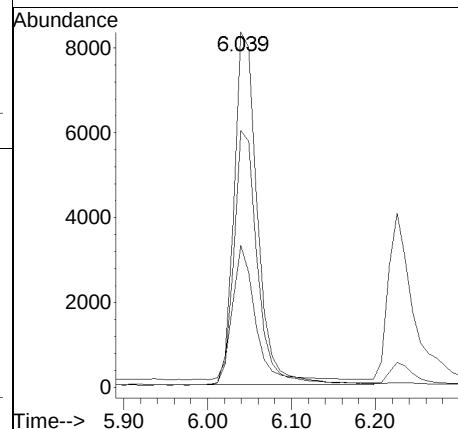
Tgt Ion	Ratio	Lower	Upper
106	100		
108	93.8	76.4	114.6

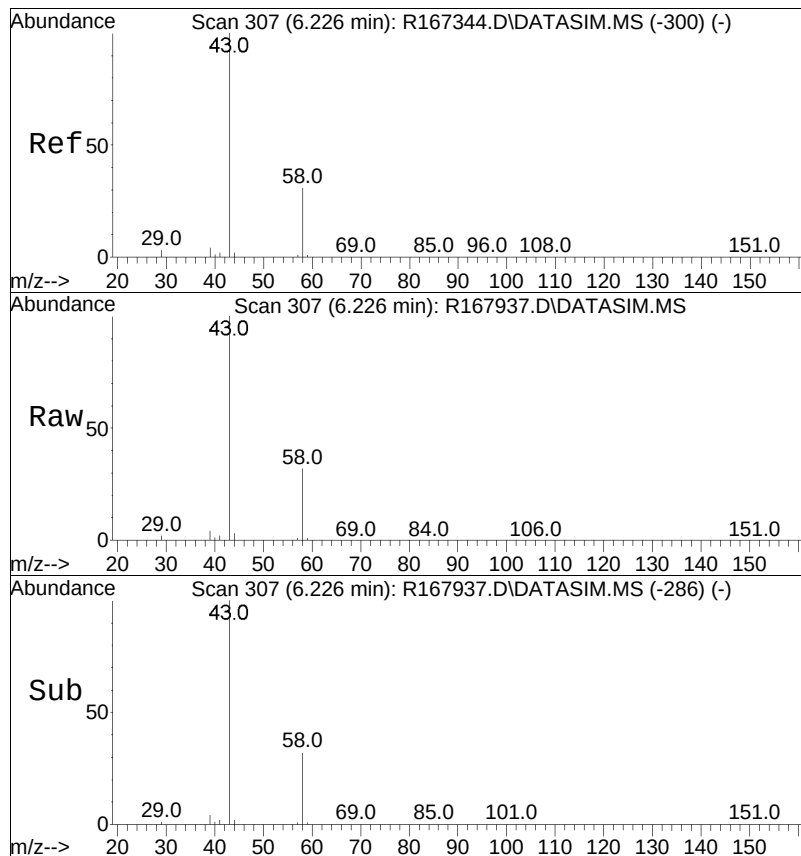




#12
 acrolein
 Concen: 4.11 ppbV
 RT: 6.039 min Scan# 287
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

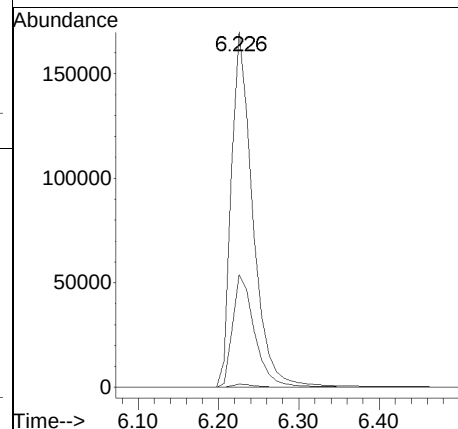
Tgt Ion:	56	Resp:	16240
Ion Ratio	Lower	Upper	
56	100		
55	71.6	57.1	85.7
29	36.0	34.2	51.2

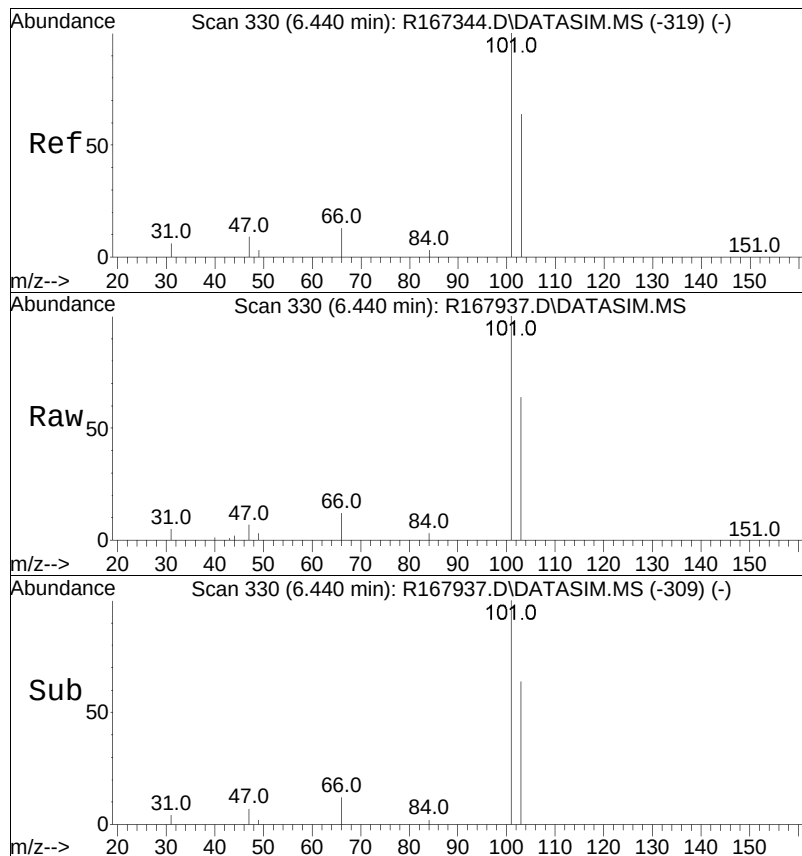




#13
acetone
Concen: 18.78 ppbV
RT: 6.226 min Scan# 307
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

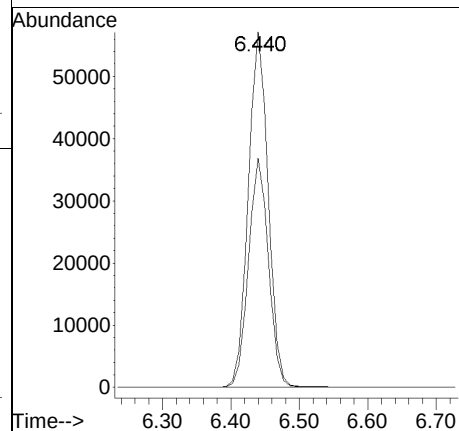
Tgt Ion	Ratio	Lower	Upper
43	100		
58	31.8	24.6	36.8
57	0.9	0.7	1.1

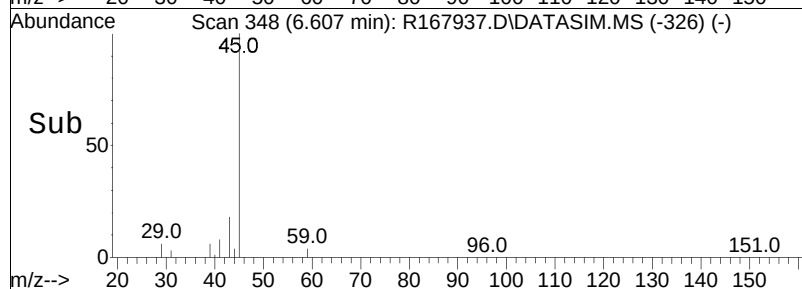
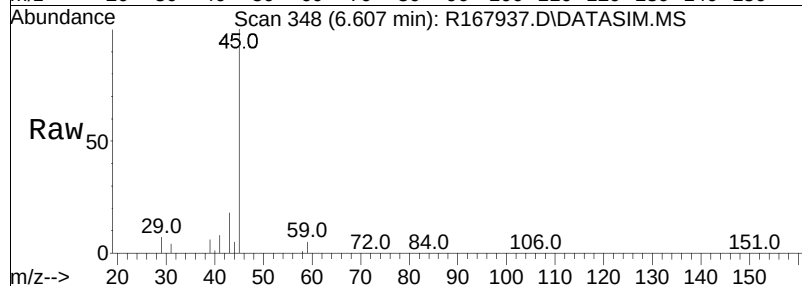
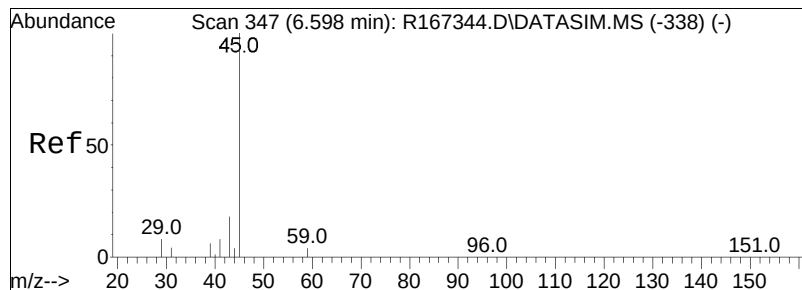




#14
 trichlorofluoromethane
 Concen: 5.38 ppbV
 RT: 6.440 min Scan# 330
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

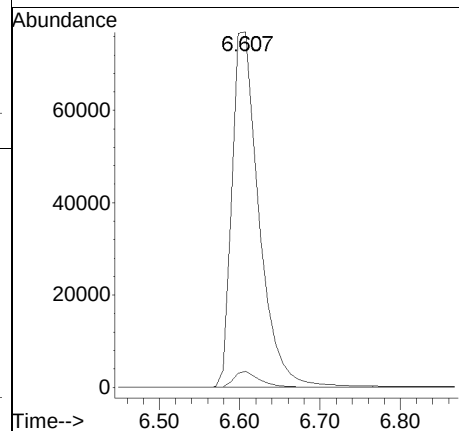
Tgt Ion	Ratio	Lower	Upper
101	100		
103	64.5	51.3	76.9

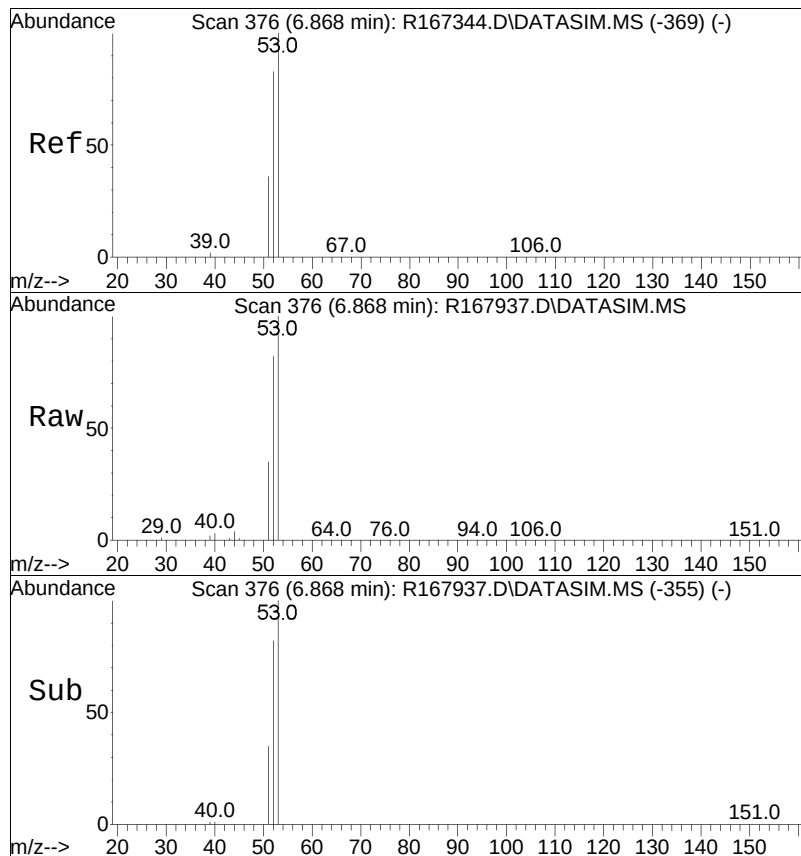




#15
isopropyl alcohol
Concen: 9.31 ppbV
RT: 6.607 min Scan# 348
Delta R.T. 0.009 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

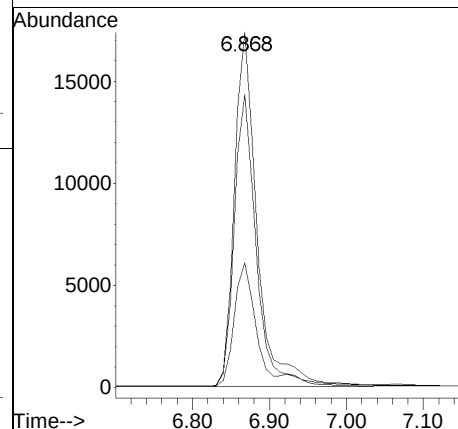
Tgt Ion	Ratio	Lower	Upper
45	100		
59	4.5	3.2	4.8

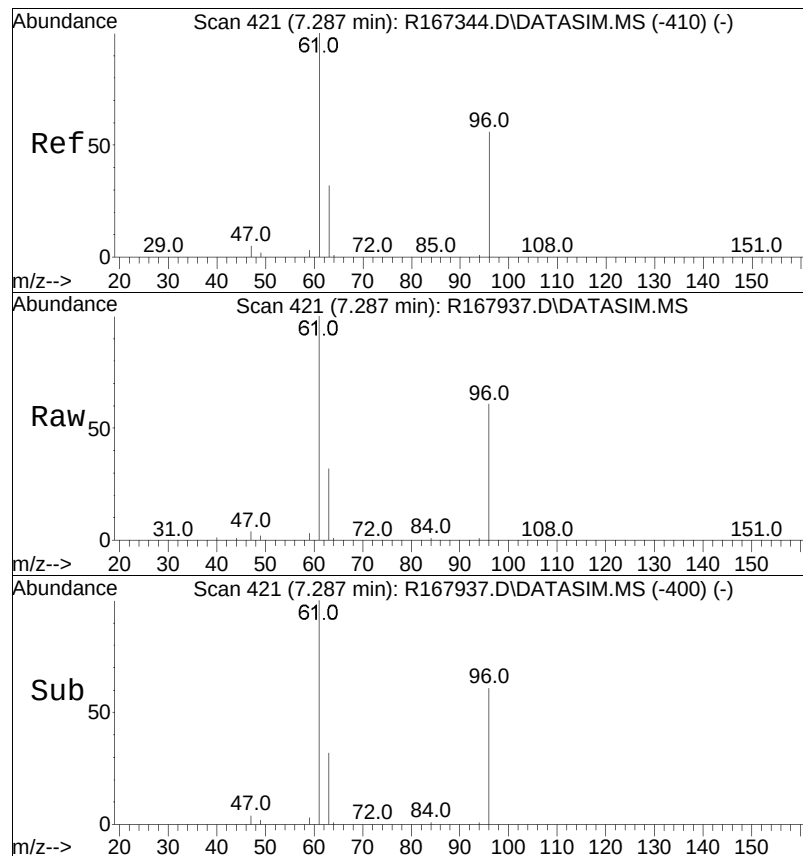




#16
acrylonitrile
Concen: 5.28 ppbV
RT: 6.868 min Scan# 376
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

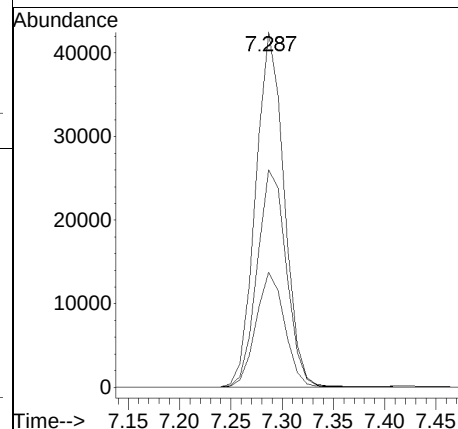
Tgt	Ion	Ratio	Resp	Lower	Upper
53	100		35682		
52	82.5	66.4		99.6	
51	35.1	29.2		43.8	

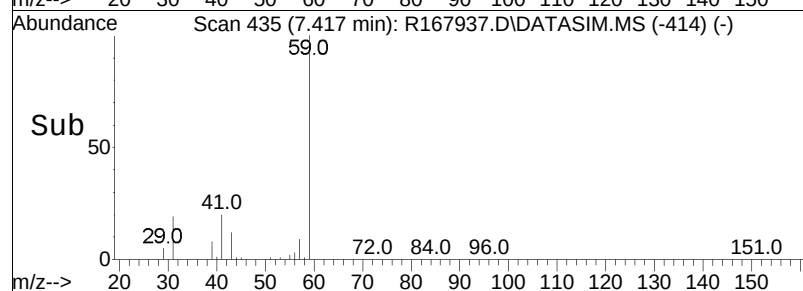
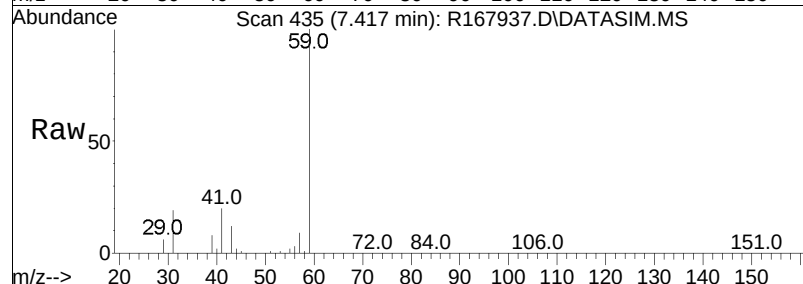
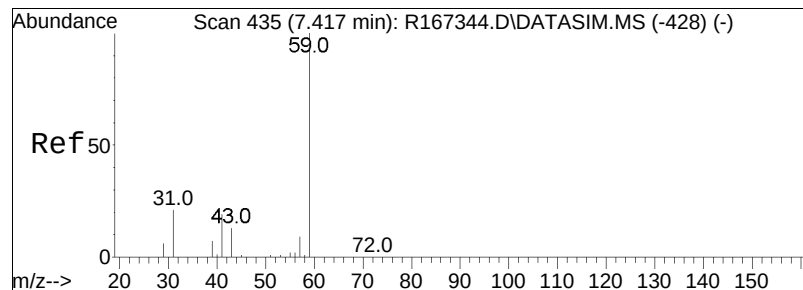




#17
 1,1-dichloroethene
 Concen: 4.84 ppbV
 RT: 7.287 min Scan# 421
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

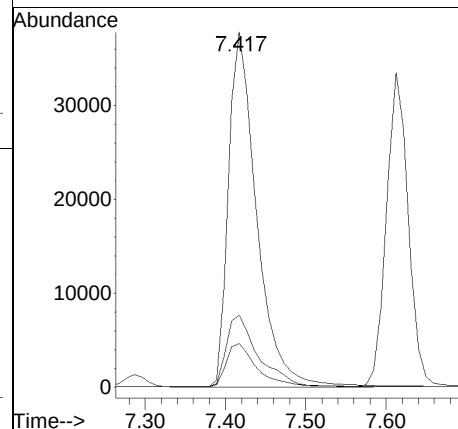
Tgt Ion	Ratio	Resp	Lower	Upper
61	100	82122		
96	61.3		45.0	67.4
63	32.5		25.7	38.5

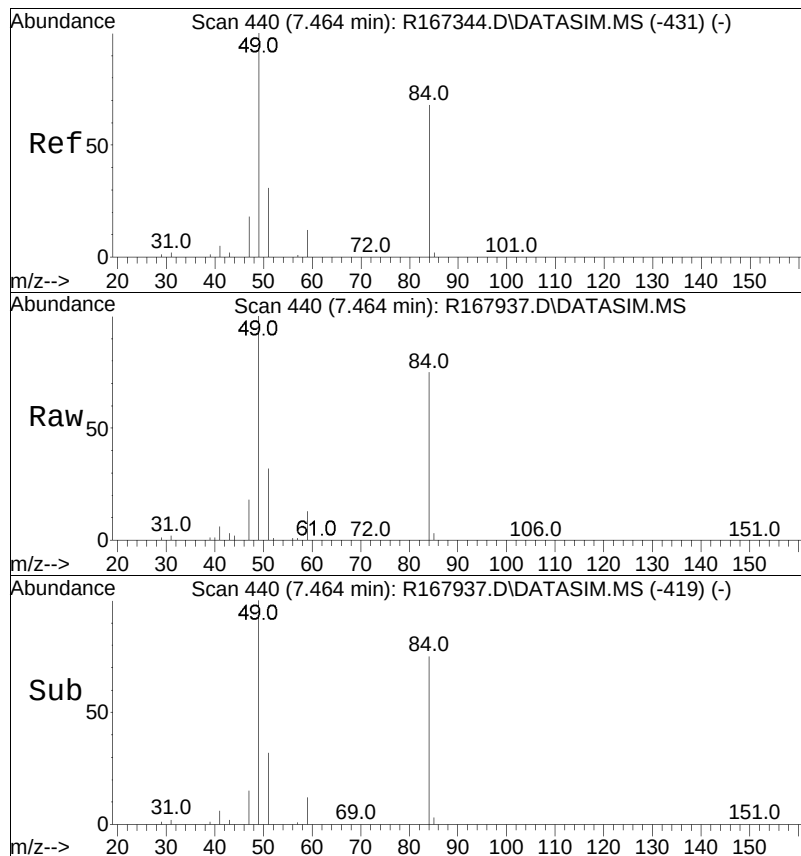




#18
 tertiary butyl alcohol
 Concen: 4.45 ppbV
 RT: 7.417 min Scan# 435
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

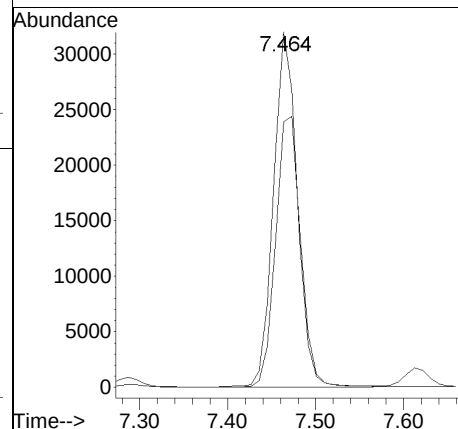
Tgt Ion	Ratio	Lower	Upper
59	100		
41	20.3	15.7	23.5
43	12.4	10.6	15.8

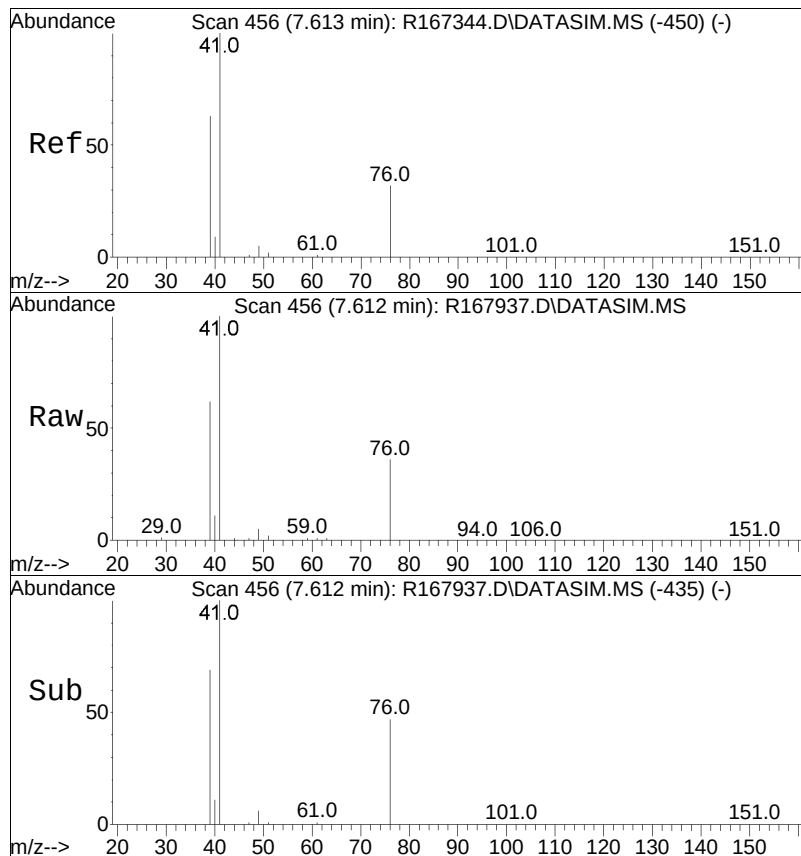




#19
 methylene chloride
 Concen: 4.76 ppbV
 RT: 7.464 min Scan# 440
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

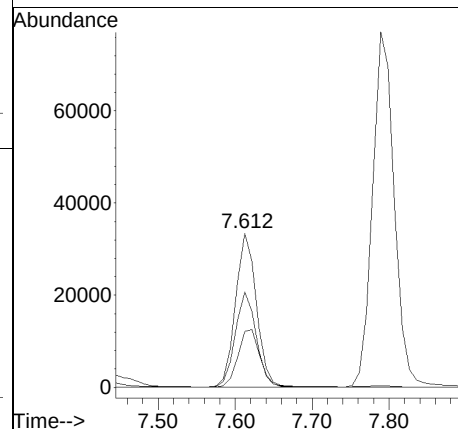
Tgt Ion	Ratio	Lower	Upper
49	100		
84	74.7	54.6	81.8

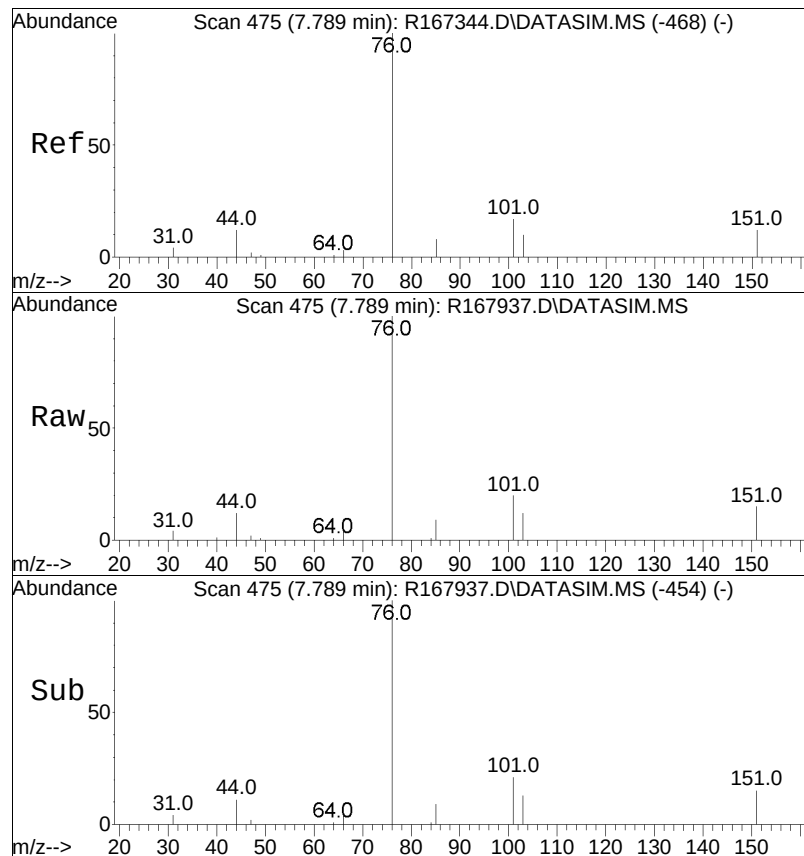




#20
 3-chloropropene
 Concen: 4.58 ppbV
 RT: 7.612 min Scan# 456
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

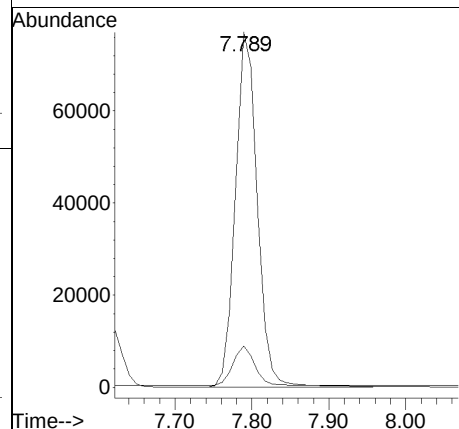
Tgt	Ion: 41	Resp:	63055
Ion	Ratio	Lower	Upper
41	100		
39	61.9	50.3	75.5
76	36.3	25.7	38.5

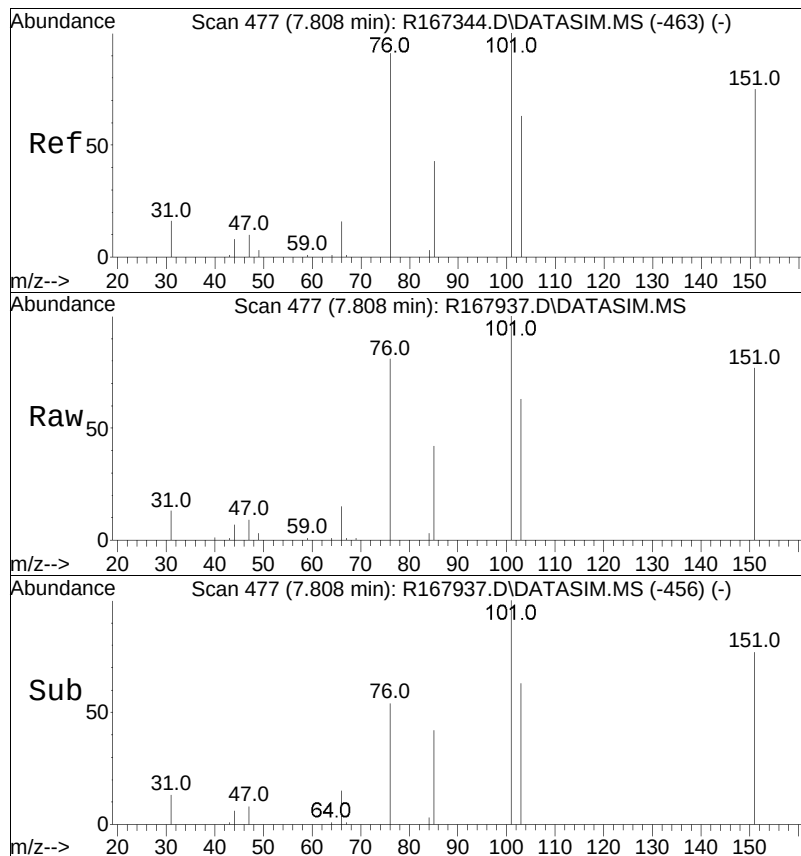




#21
 carbon disulfide
 Concen: 4.50 ppbV
 RT: 7.789 min Scan# 475
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

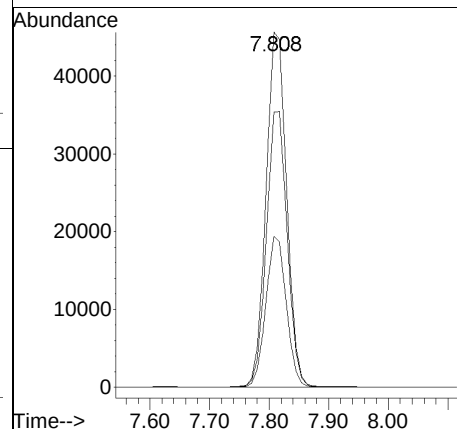
Tgt Ion	Ratio	Lower	Upper
76	100		
44	11.7	11.0	16.4

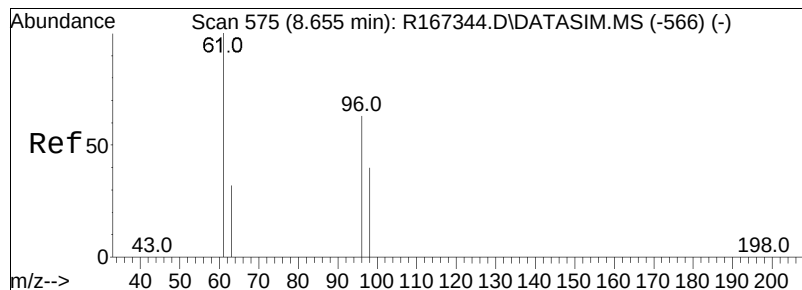




#22
 Freon 113
 Concen: 5.27 ppbV
 RT: 7.808 min Scan# 477
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt Ion:	101	Resp:	109889
Ion Ratio	Lower	Upper	
101	100		
85	42.5	34.6	52.0
151	77.4	59.7	89.5





#23

trans-1,2-dichloroethene

Concen: 4.56 ppbV

RT: 8.655 min Scan# 575

Delta R.T. -0.000 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

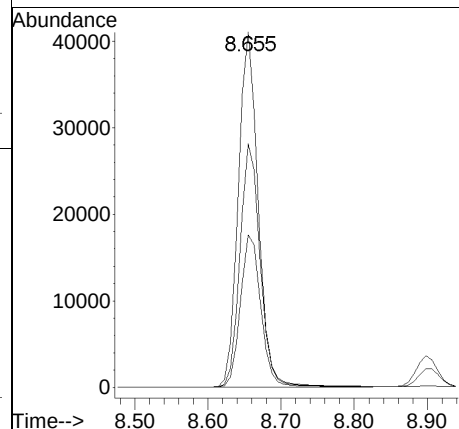
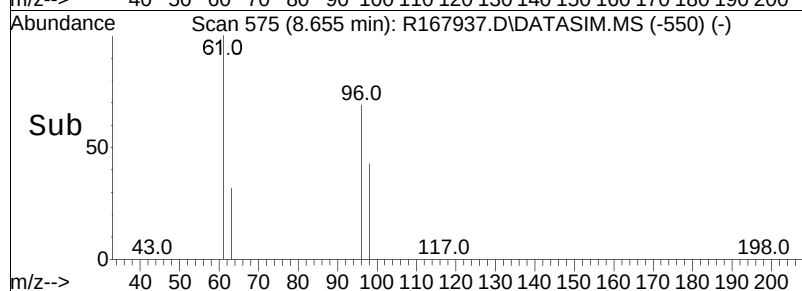
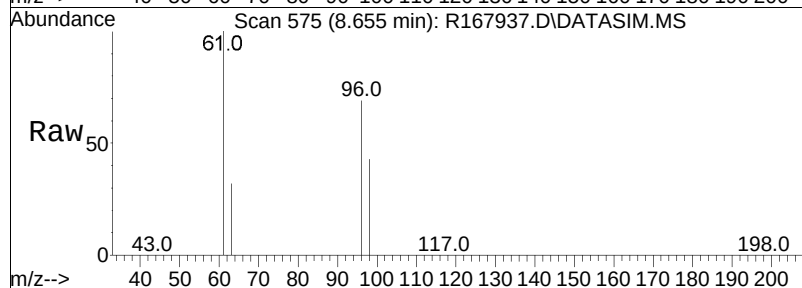
Tgt Ion: 61 Resp: 77809

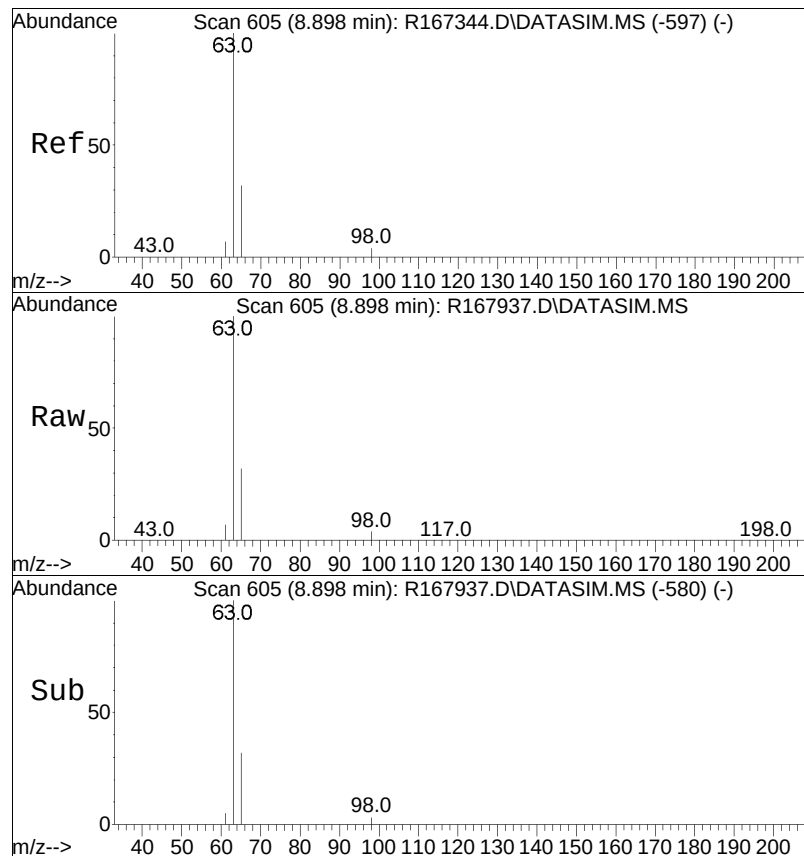
Ion Ratio Lower Upper

61 100

96 68.5 50.6 75.8

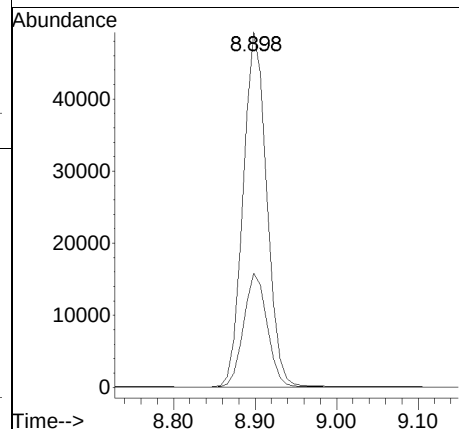
98 43.0 31.8 47.8

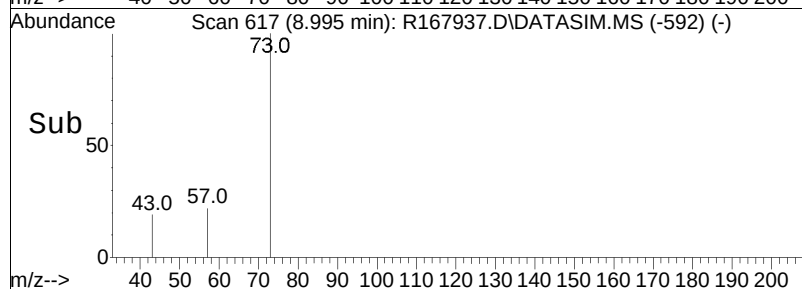
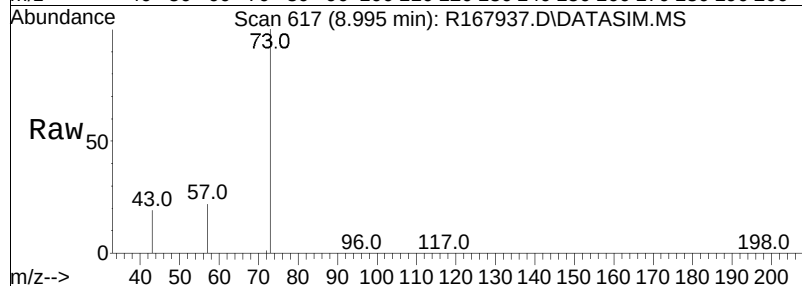
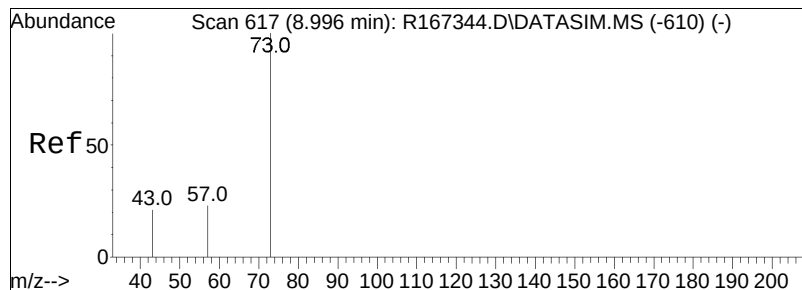




#24
 1,1-dichloroethane
 Concen: 4.79 ppbV
 RT: 8.898 min Scan# 605
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt Ion	Ratio	Lower	Upper
63	100		
65	32.1	25.4	38.0





#25

MTBE

Concen: 4.77 ppbV

RT: 8.995 min Scan# 617

Delta R.T. -0.000 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

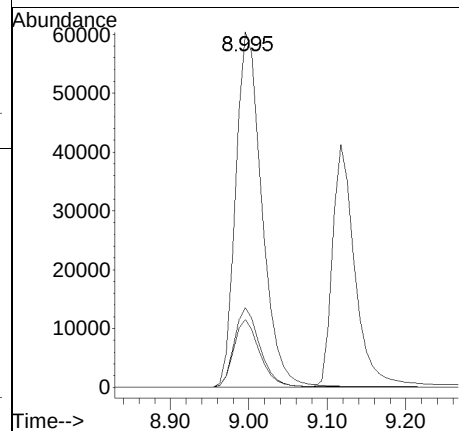
Tgt Ion: 73 Resp: 140027

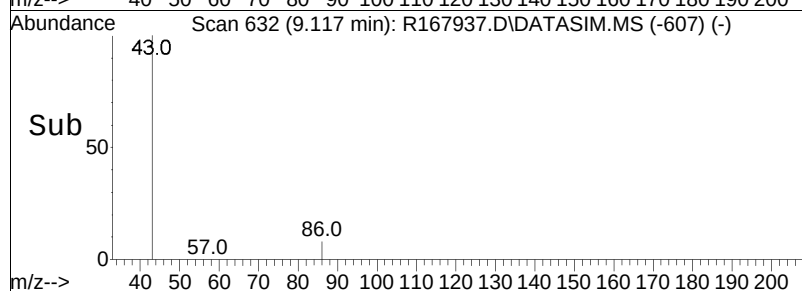
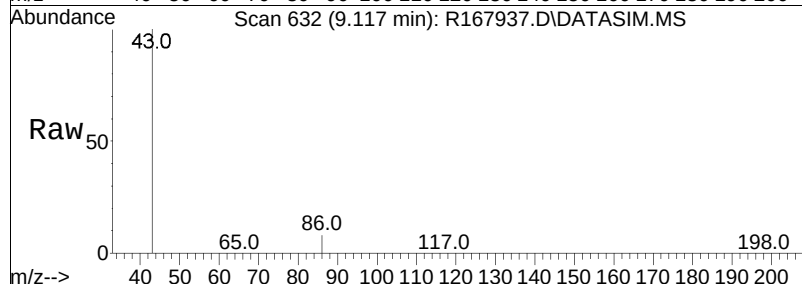
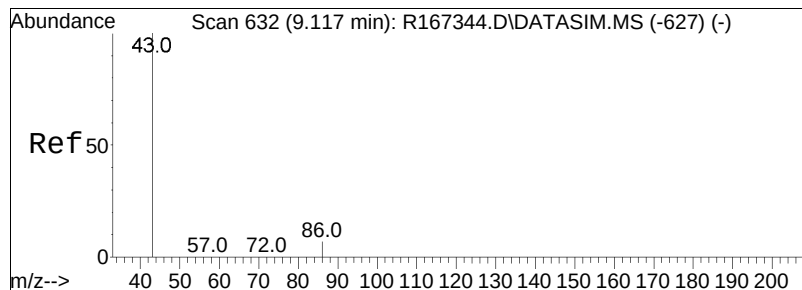
Ion Ratio Lower Upper

73 100

57 22.4 18.5 27.7

43 19.1 17.0 25.4





#26

vinyl acetate

Concen: 4.22 ppbV

RT: 9.117 min Scan# 632

Delta R.T. -0.000 min

Lab File: R167937.D

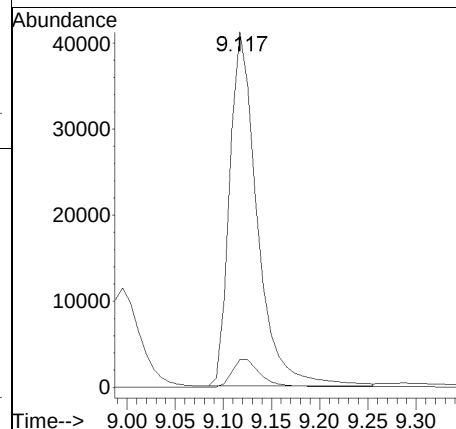
Acq: 9 Aug 2019 1:28 pm

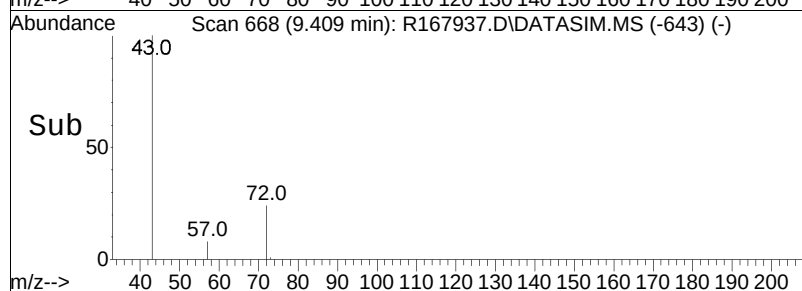
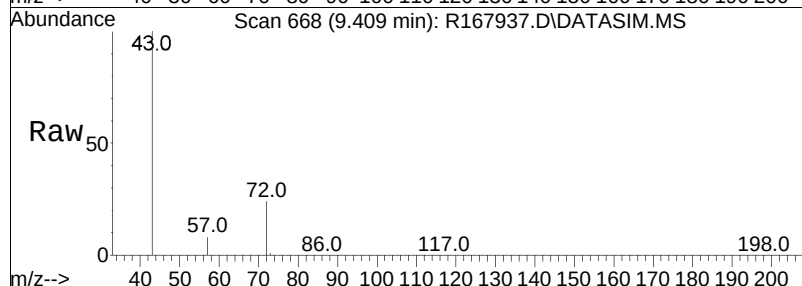
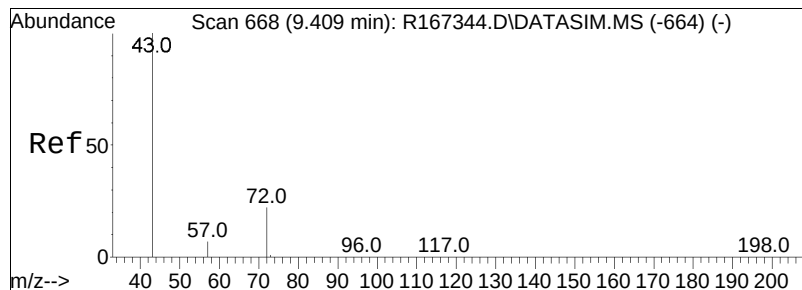
Tgt Ion: 43 Resp: 82114

Ion Ratio Lower Upper

43 100

86 7.9 5.5 8.3





#27

2-butanone

Concen: 4.58 ppbV

RT: 9.409 min Scan# 668

Delta R.T. -0.000 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

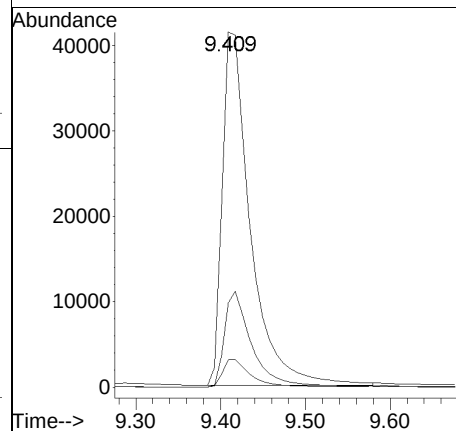
Tgt Ion: 43 Resp: 95699

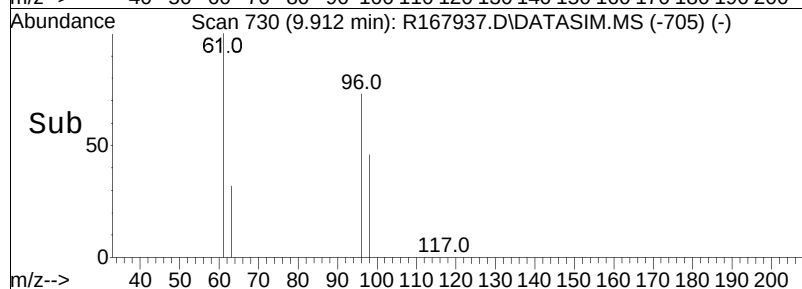
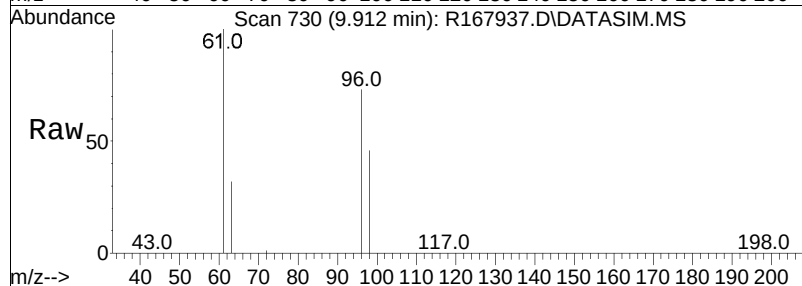
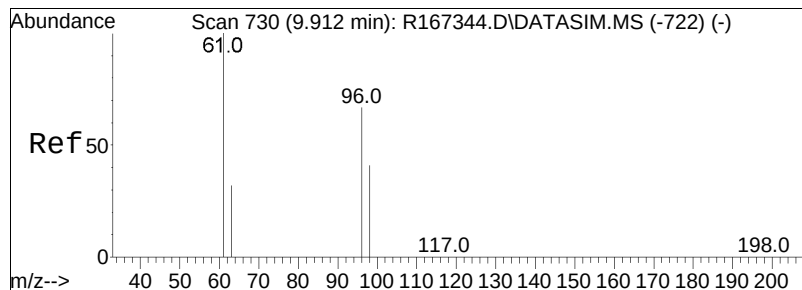
Ion Ratio Lower Upper

43 100

72 23.8 17.3 25.9

57 7.8 5.8 8.8





#28

cis-1,2-dichloroethene

Concen: 4.74 ppbV

RT: 9.912 min Scan# 730

Delta R.T. -0.000 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

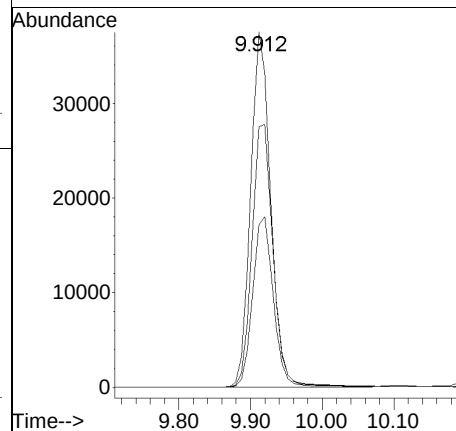
Tgt Ion: 61 Resp: 77227

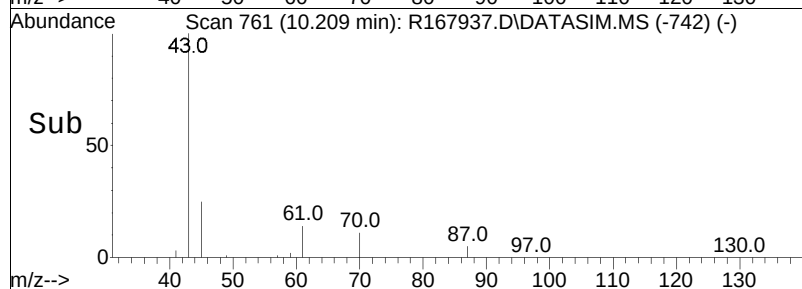
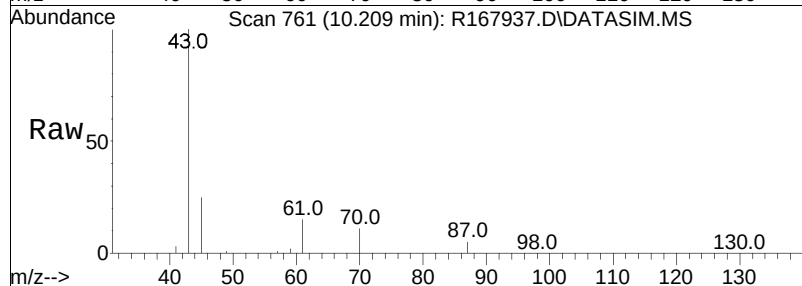
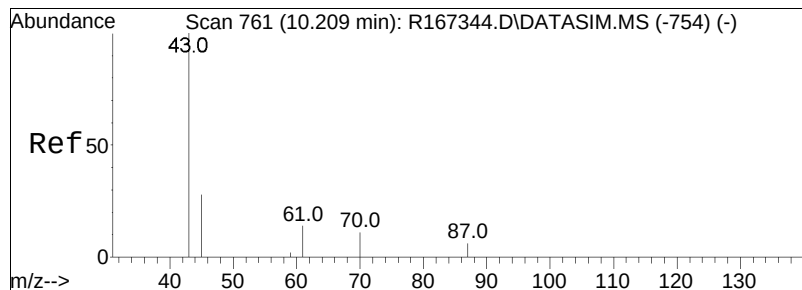
Ion Ratio Lower Upper

61 100

96 73.3 53.4 80.2

98 45.7 33.0 49.6





#29

Ethyl Acetate

Concen: 4.31 ppbV

RT: 10.209 min Scan# 761

Delta R.T. 0.000 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

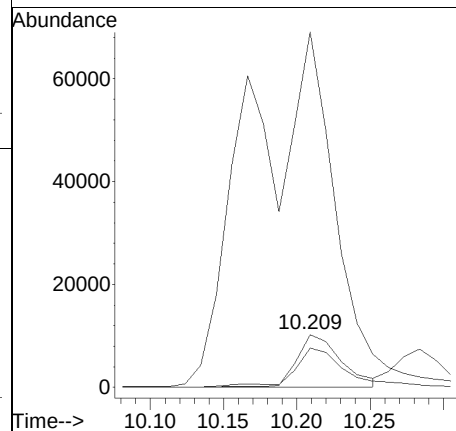
Tgt Ion: 61 Resp: 21028

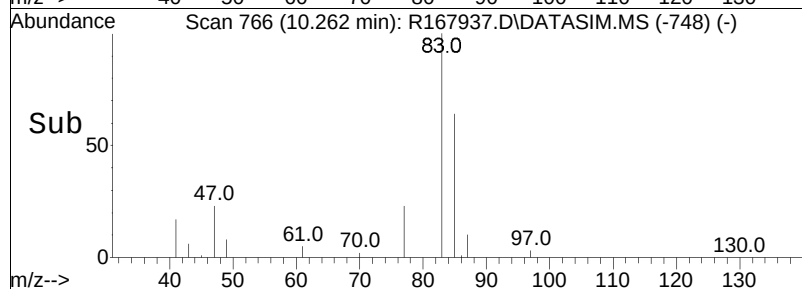
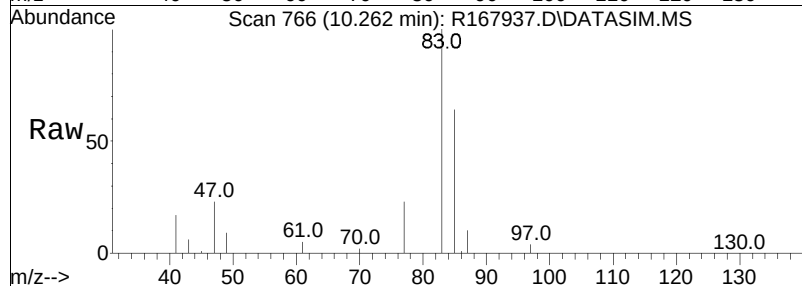
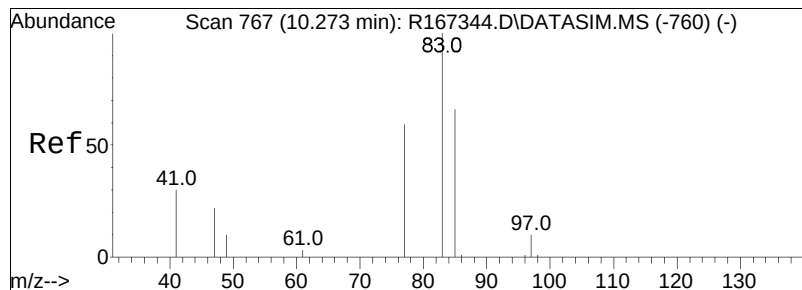
Ion Ratio Lower Upper

61 100

70 74.6 59.4 89.0

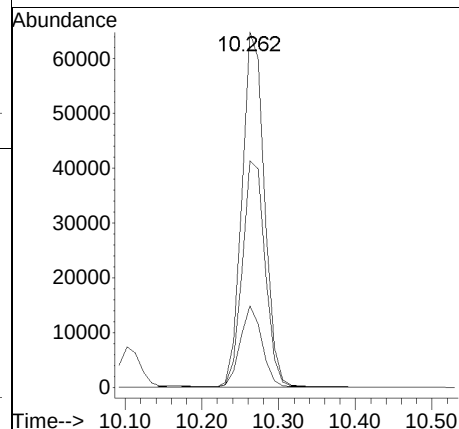
43 674.0 590.3 885.5

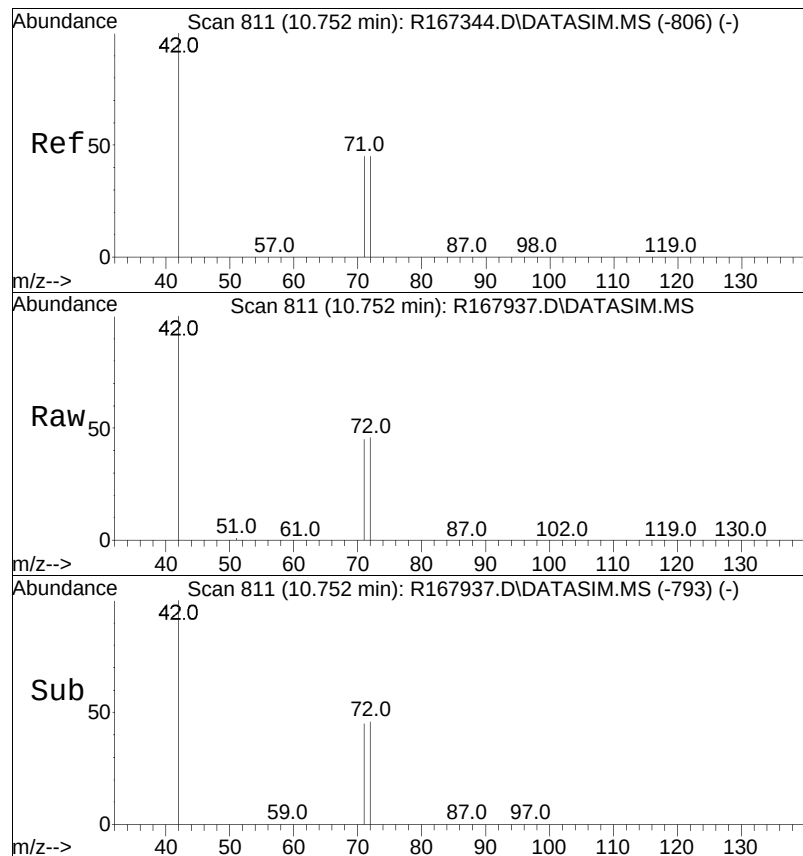




#30
chloroform
Concen: 5.09 ppbV
RT: 10.262 min Scan# 766
Delta R.T. -0.011 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

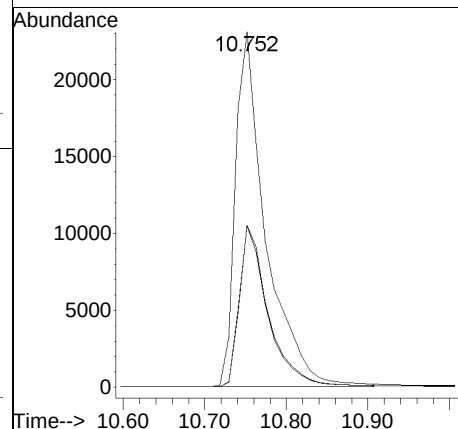
Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.8	52.7	79.1
47	23.0	17.6	26.4

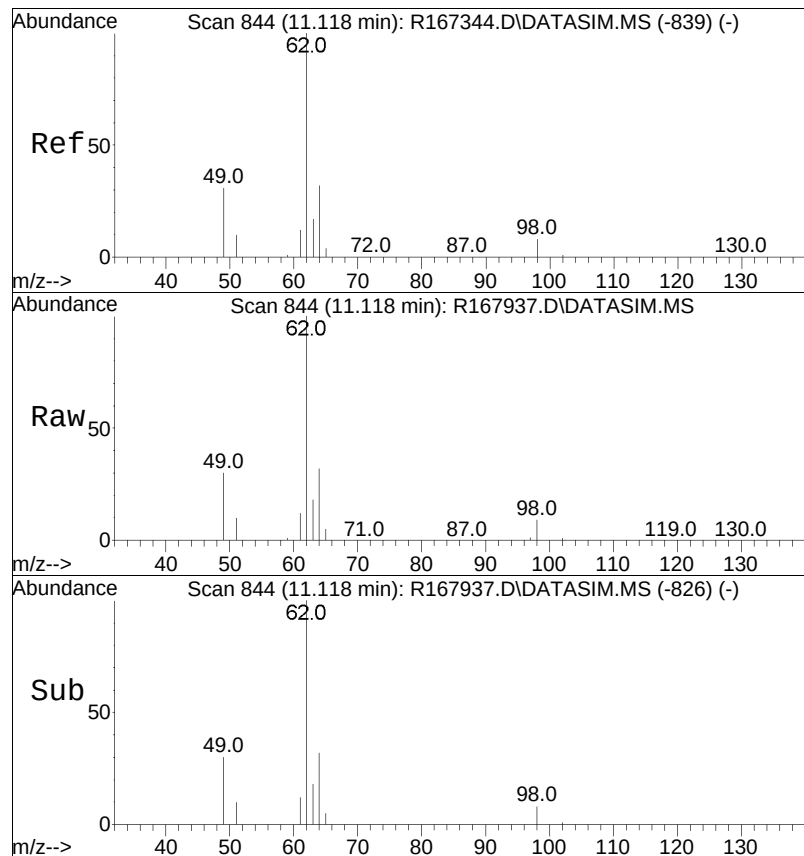




#31
Tetrahydrofuran
Concen: 4.77 ppbV
RT: 10.752 min Scan# 811
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

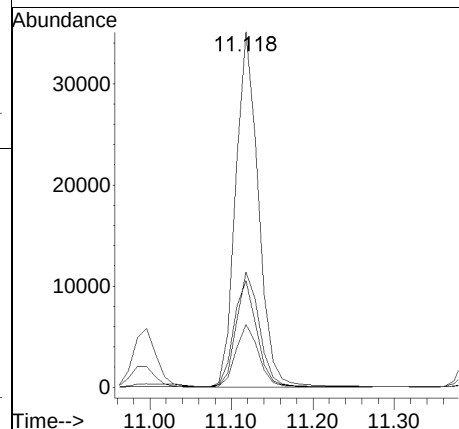
Tgt Ion:	42	Resp:	59471
Ion Ratio	Lower	Upper	
42	100		
71	45.5	35.6	53.4
72	45.7	35.7	53.5

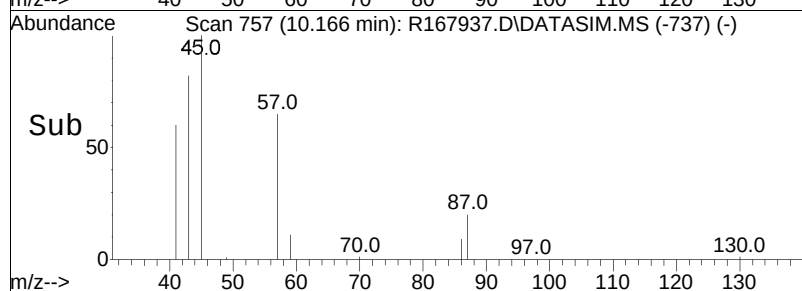
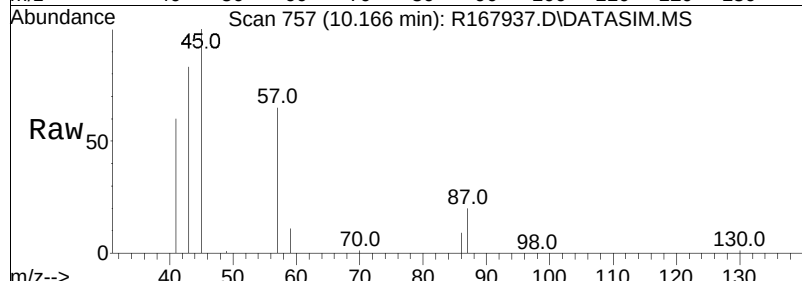
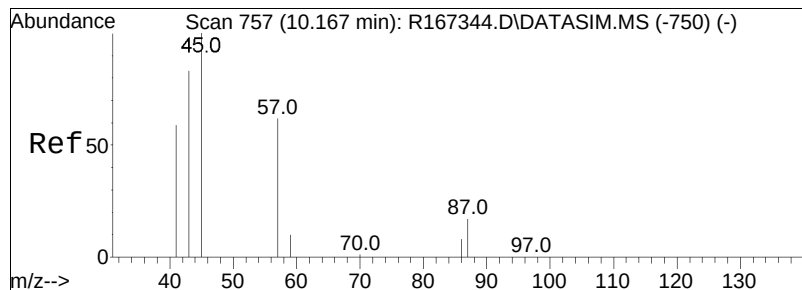




#32
 1,2-dichloroethane
 Concen: 4.75 ppbV
 RT: 11.118 min Scan# 844
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

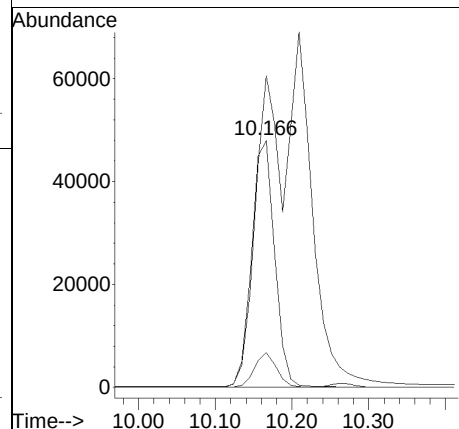
Tgt Ion:	62	Resp:	68077
Ion	Ratio	Lower	Upper
62	100		
64	32.5	25.6	38.4
49	30.0	25.1	37.7
63	17.7	14.1	21.1

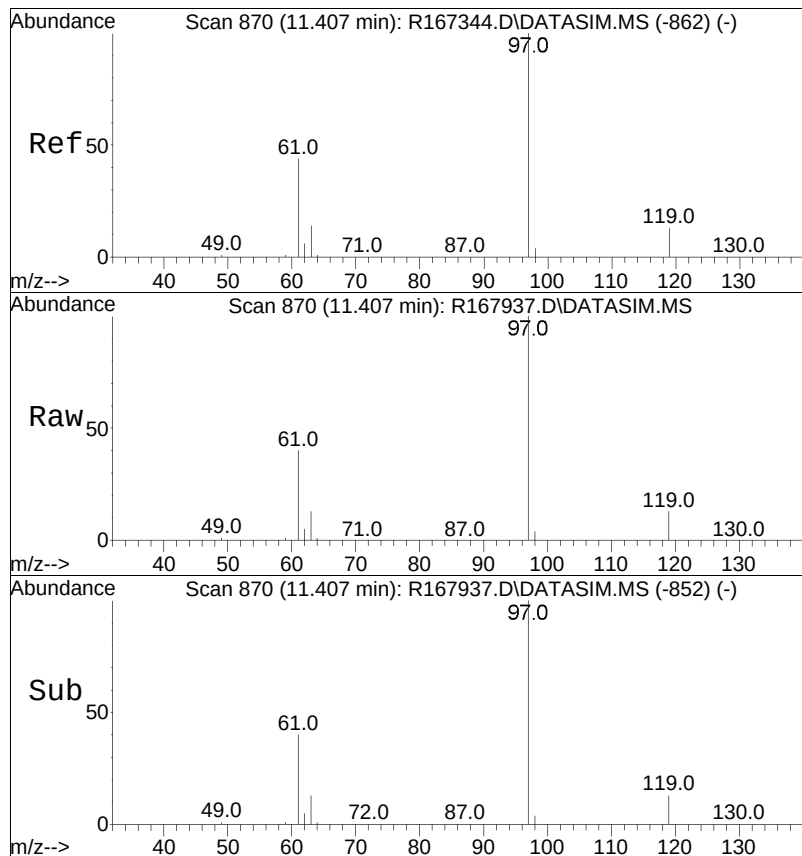




#34
hexane
Concen: 4.02 ppbV
RT: 10.166 min Scan# 757
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

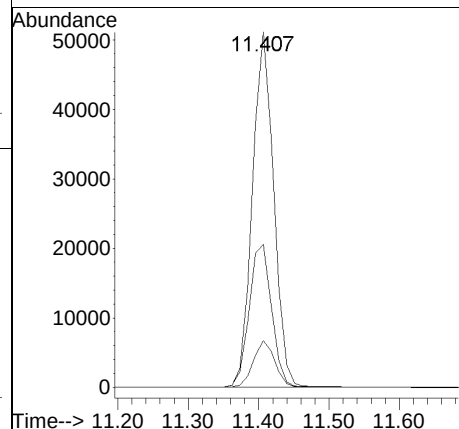
Tgt	Ion	Ratio	Lower	Upper
57	100			
43	126.2	107.9	161.9	
86	14.1	10.3	15.5	

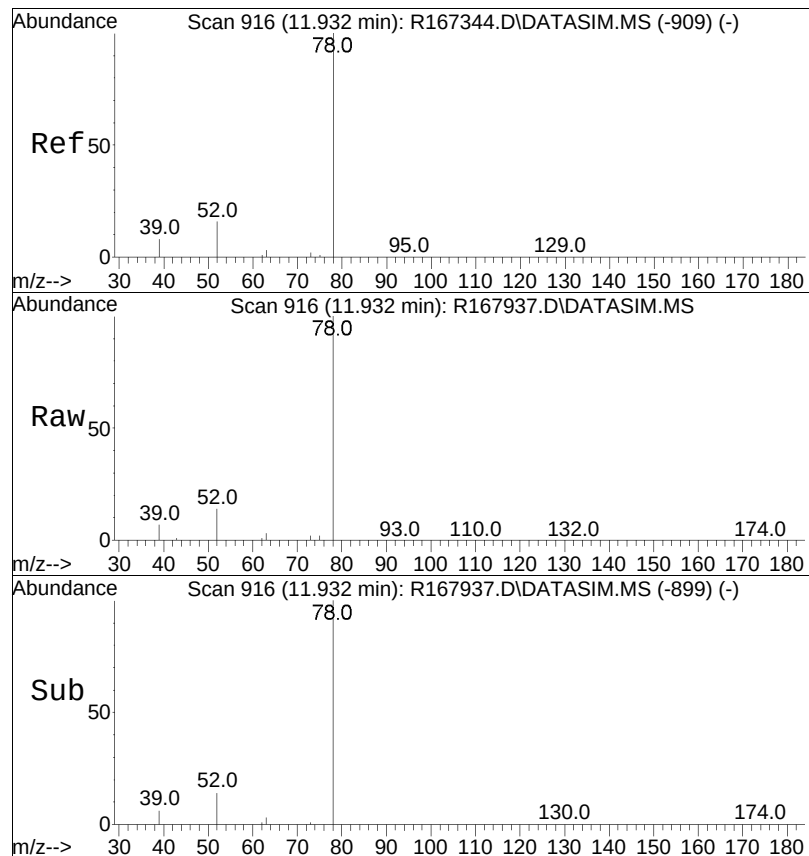




#36
 1,1,1-trichloroethane
 Concen: 4.45 ppbV
 RT: 11.407 min Scan# 870
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

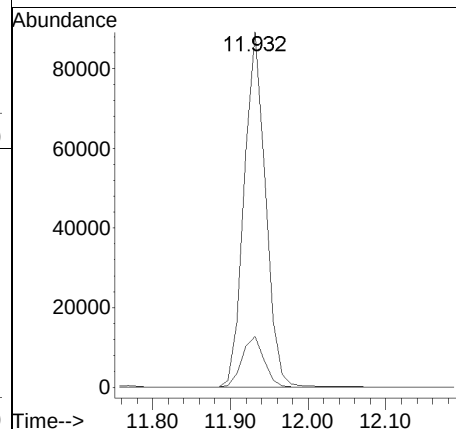
Tgt Ion	Ratio	Lower	Upper
97	100		
61	40.2	35.2	52.8
119	13.2	10.2	15.2

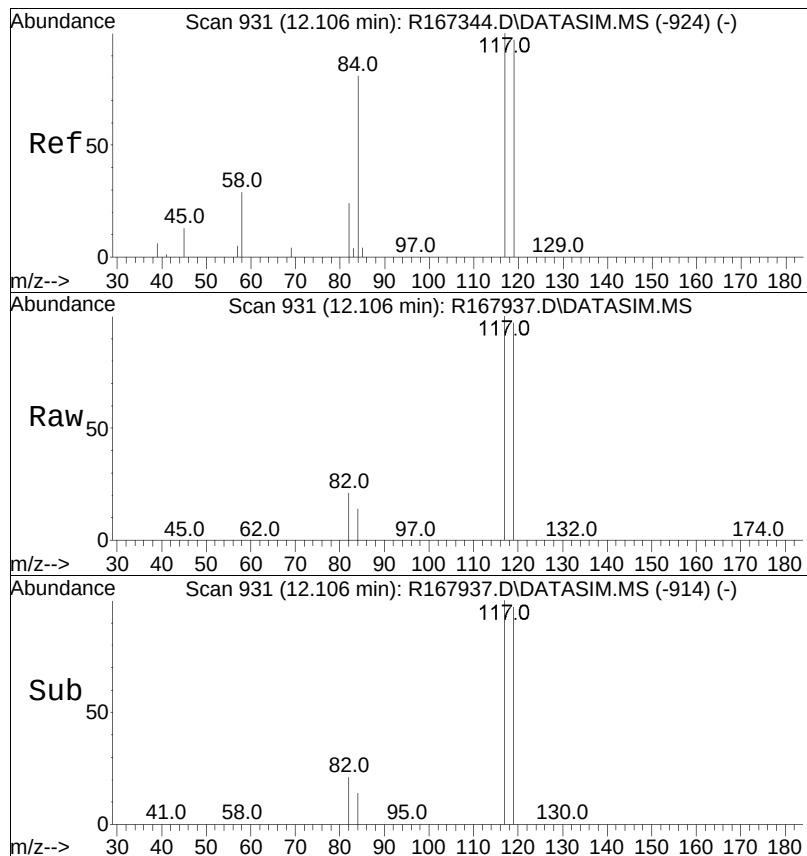




#37
benzene
Concen: 4.35 ppbV
RT: 11.932 min Scan# 916
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

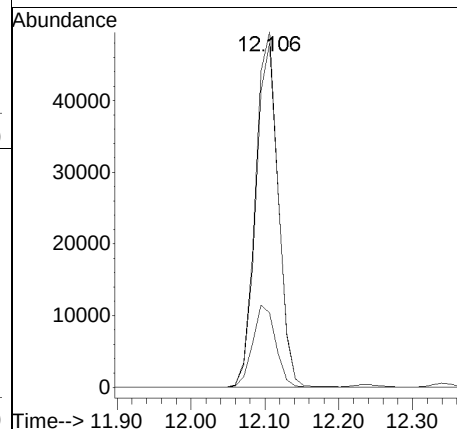
Tgt	Ion	Ratio	Lower	Upper
78	100			
52	14.4	12.7	19.1	

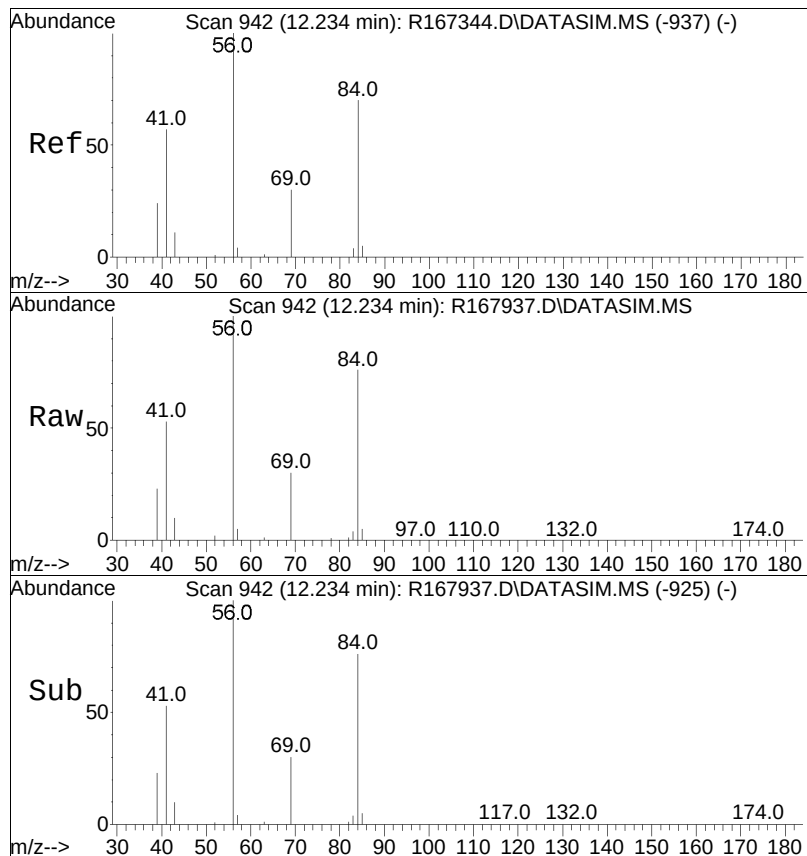




#38
carbon tetrachloride
Concen: 4.61 ppbV
RT: 12.106 min Scan# 931
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

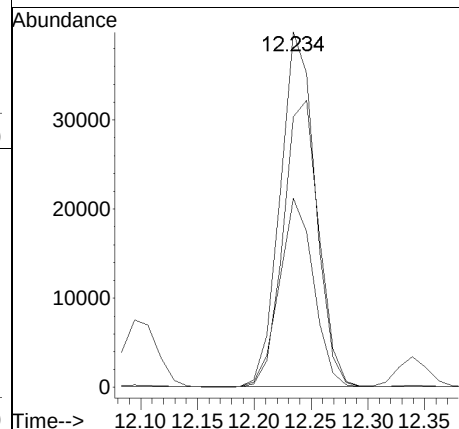
Tgt Ion	Ratio	Lower	Upper
117	100		
119	96.9	77.4	116.0
82	21.0	19.1	28.7

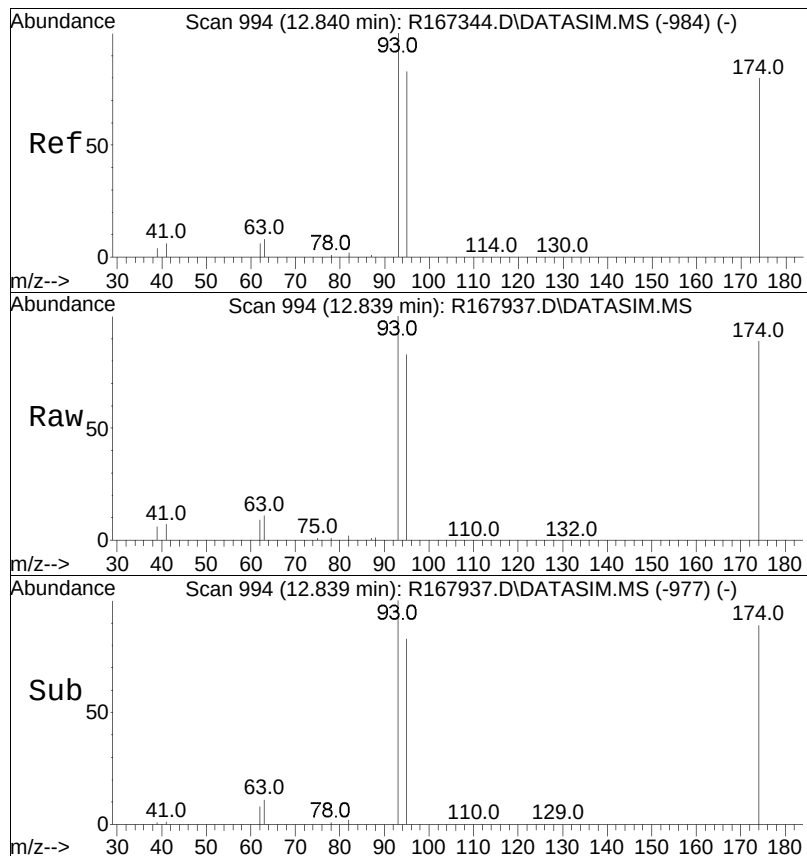




#39
cyclohexane
Concen: 4.10 ppbV
RT: 12.234 min Scan# 942
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

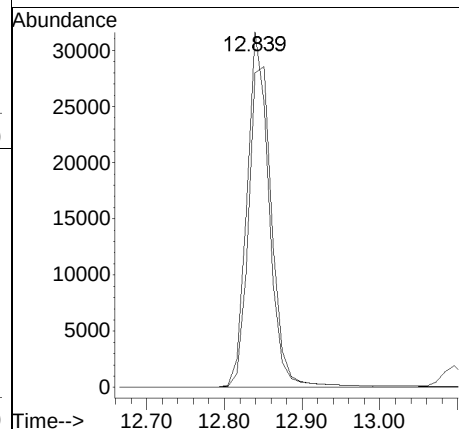
Tgt Ion	Ratio	Lower	Upper
56	100		
84	76.2	57.0	85.4
41	53.2	45.5	68.3

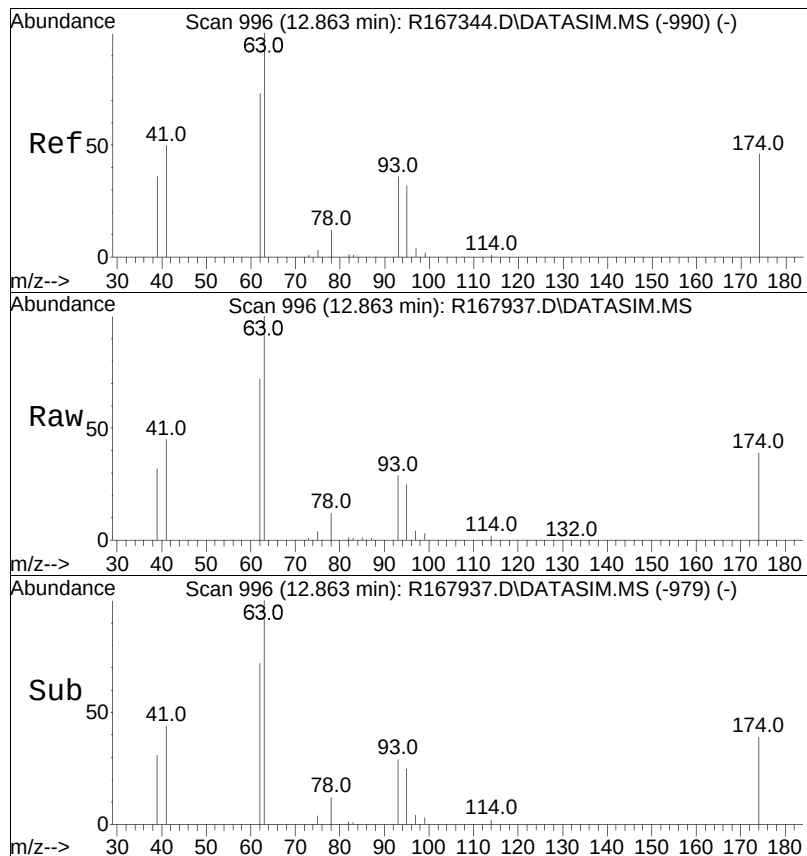




#40
 dibromomethane
 Concen: 3.81 ppbV
 RT: 12.839 min Scan# 994
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

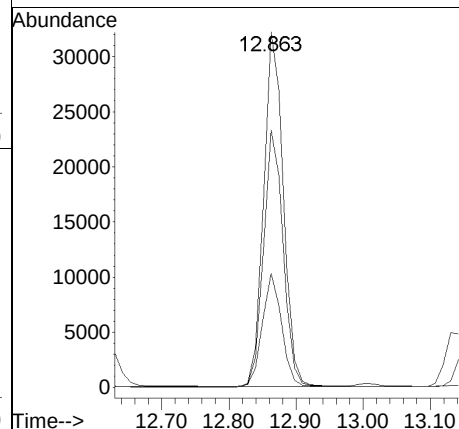
Tgt Ion	Ratio	Lower	Upper
93	100		
174	88.5	64.0	96.0
94	0.0	0.0	0.0

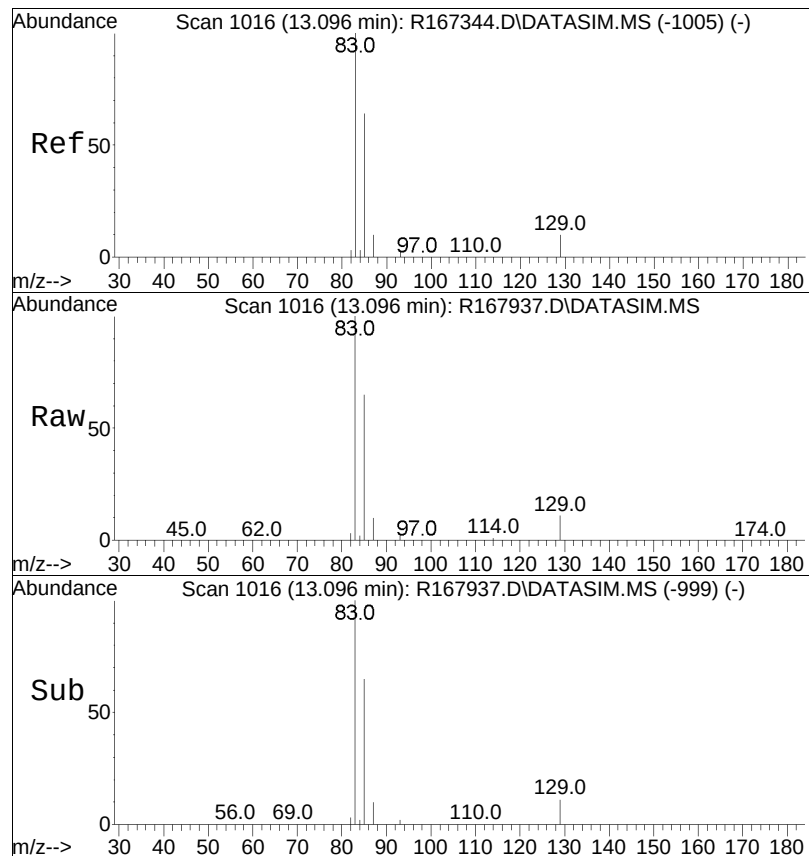




#41
 1,2-dichloropropane
 Concen: 4.21 ppbV
 RT: 12.863 min Scan# 996
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

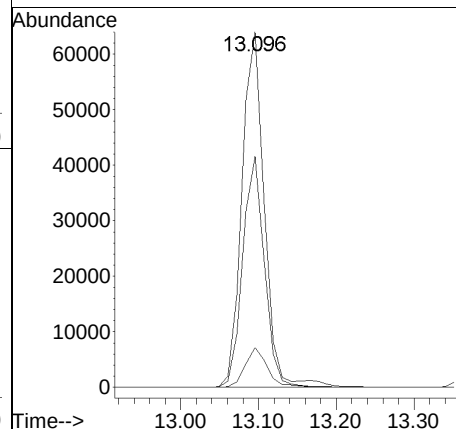
Tgt Ion	Ratio	Lower	Upper
63	100		
62	72.4	58.6	88.0
39	32.1	29.3	43.9

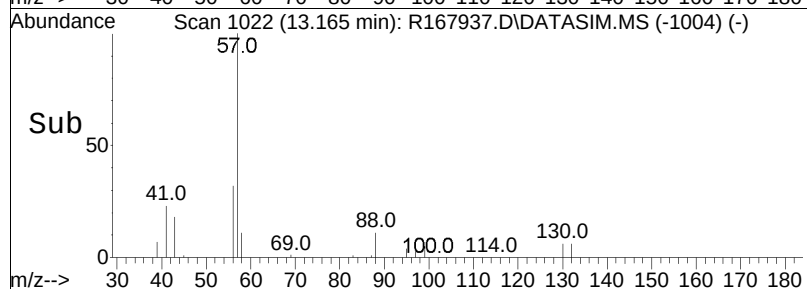
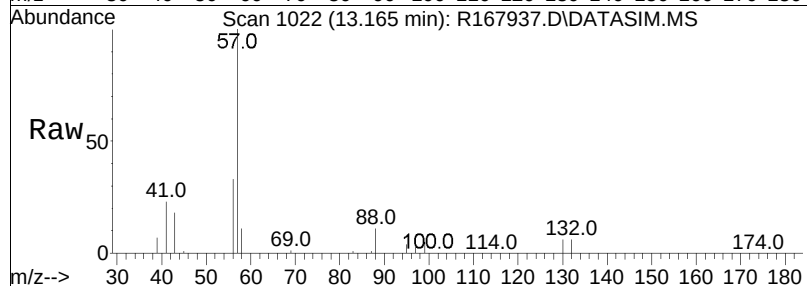
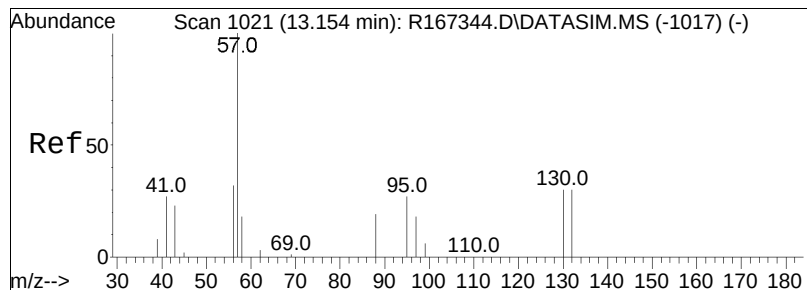




#42
bromodichloromethane
Concen: 4.43 ppbV
RT: 13.096 min Scan# 1016
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

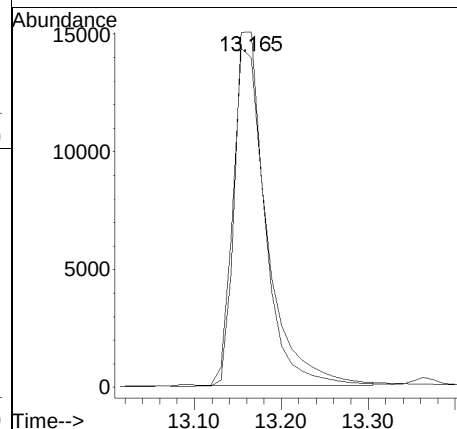
Tgt Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.6	77.4
129	11.2	8.2	12.2

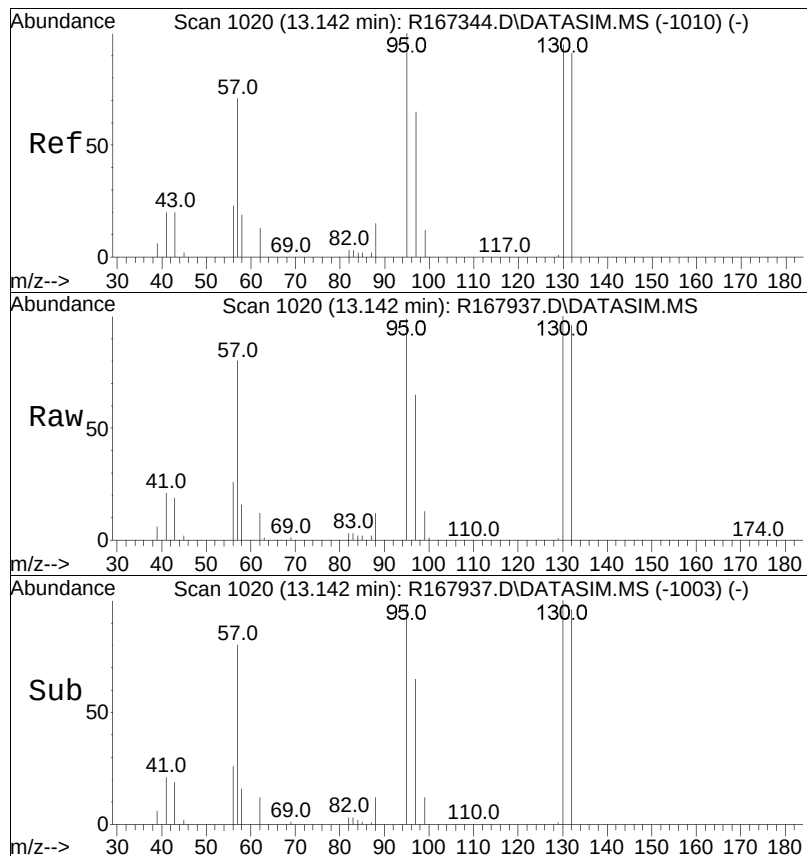




#43
1,4-dioxane
Concen: 4.53 ppbV
RT: 13.165 min Scan# 1022
Delta R.T. 0.012 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

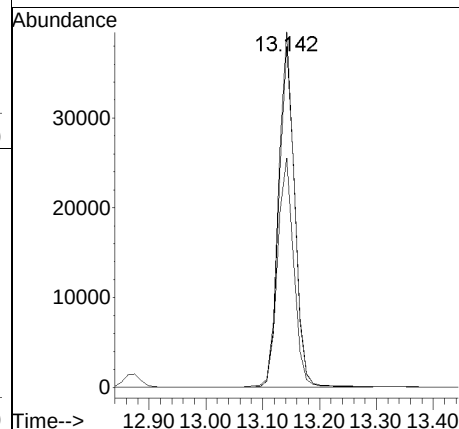
Tgt Ion: 88 Resp: 39167
Ion Ratio Lower Upper
88 100
58 92.7 74.4 111.6

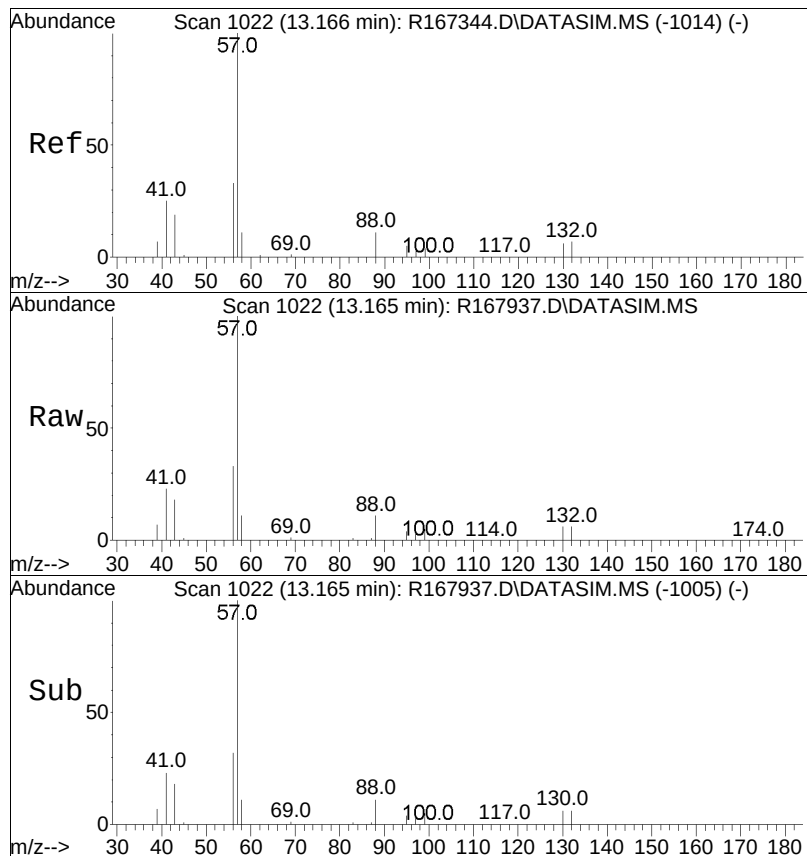




#44
trichloroethene
Concen: 4.64 ppbV
RT: 13.142 min Scan# 1020
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

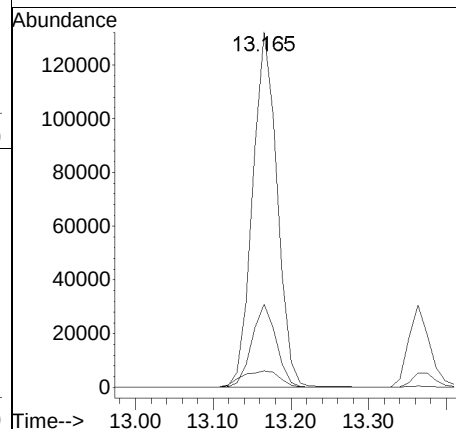
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.0	77.0	115.6
97	64.6	55.0	82.4

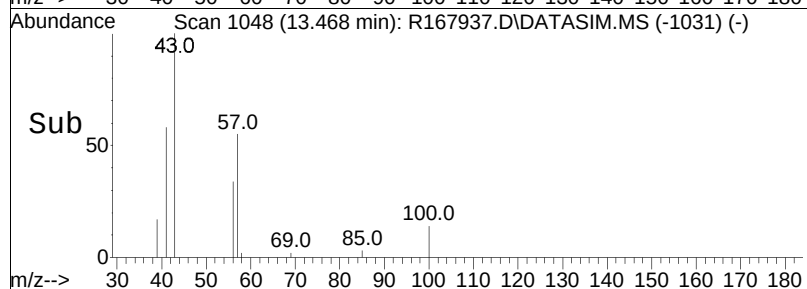
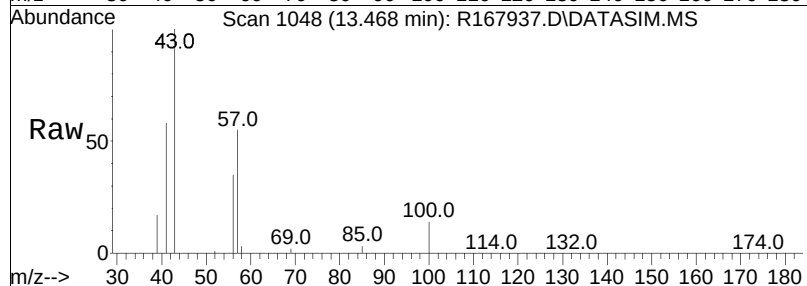
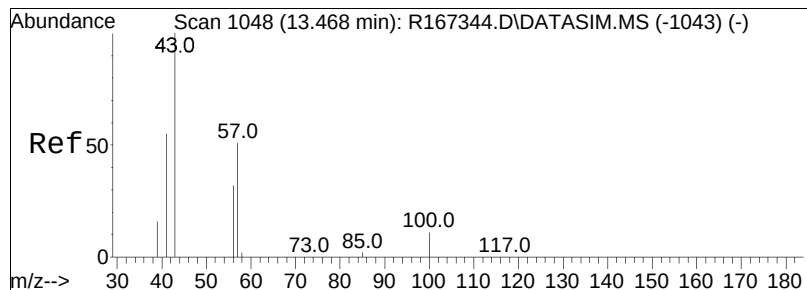




#45
 2,2,4-trimethylpentane
 Concen: 4.33 ppbV
 RT: 13.165 min Scan# 1022
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

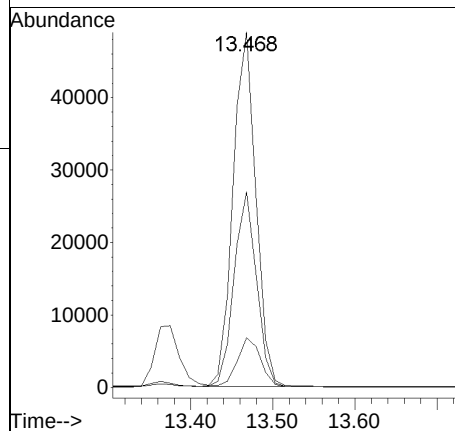
Tgt Ion	Ratio	Lower	Upper
57	100		
99	4.7	3.5	5.3
41	23.4	20.4	30.6

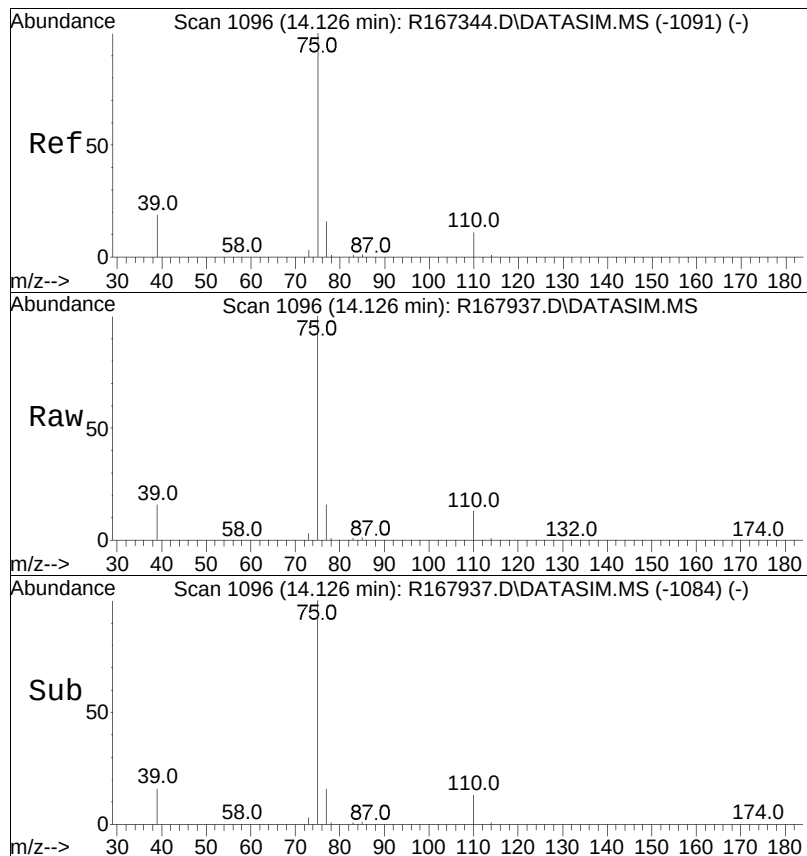




#46
heptane
Concen: 3.89 ppbV
RT: 13.468 min Scan# 1048
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

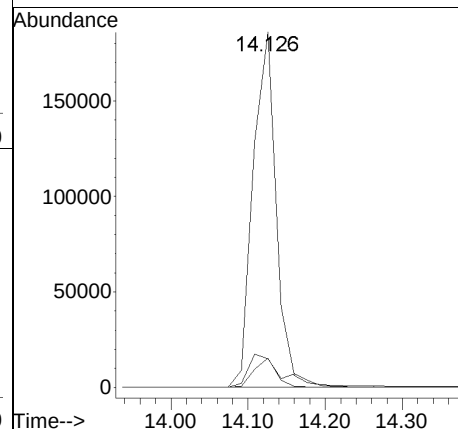
Tgt Ion	Ratio	Lower	Upper
43	100		
57	55.0	41.2	61.8
100	14.0	9.4	14.0

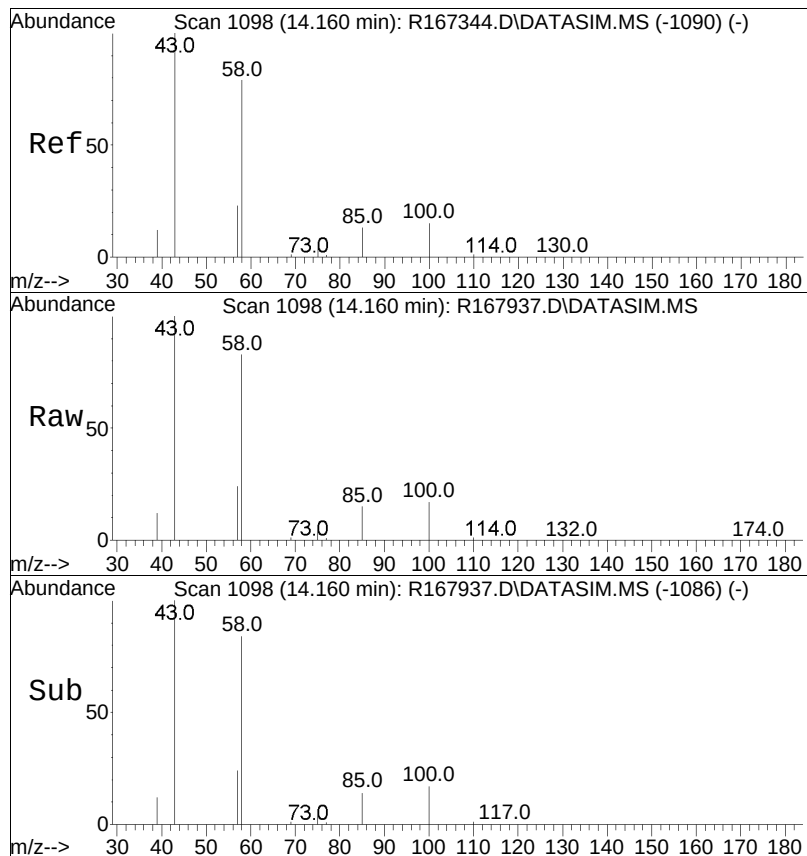




#47
 cis-1,3-dichloropropene
 Concen: 4.61 ppbV
 RT: 14.126 min Scan# 1096
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

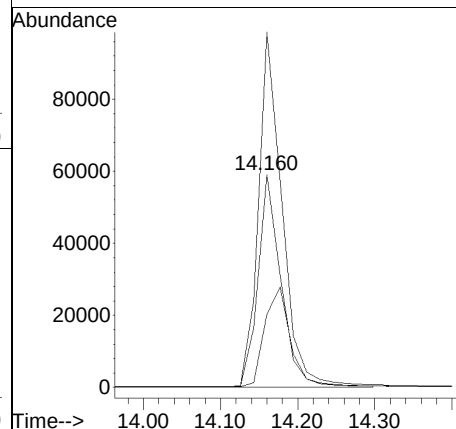
Tgt Ion	Ratio	Lower	Upper
75	100		
39	8.1	7.7	11.5
77	8.2	6.5	9.7

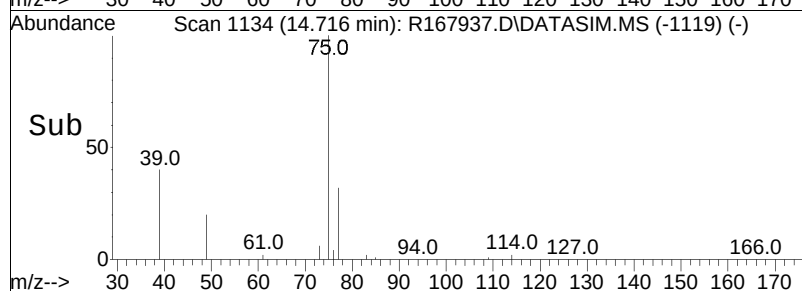
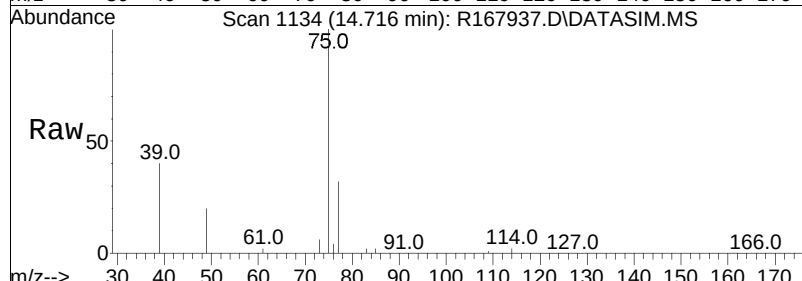
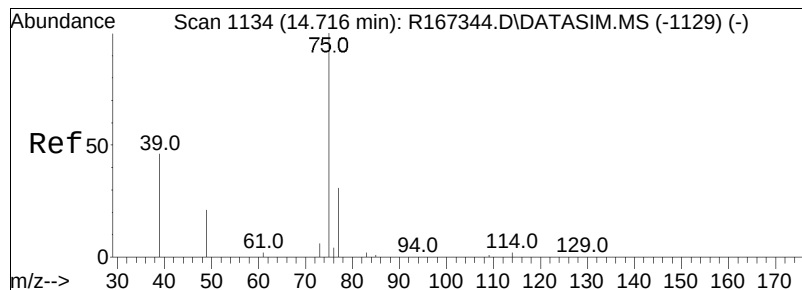




#48
 4-methyl-2-pentanone
 Concen: 4.00 ppbV
 RT: 14.160 min Scan# 1098
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

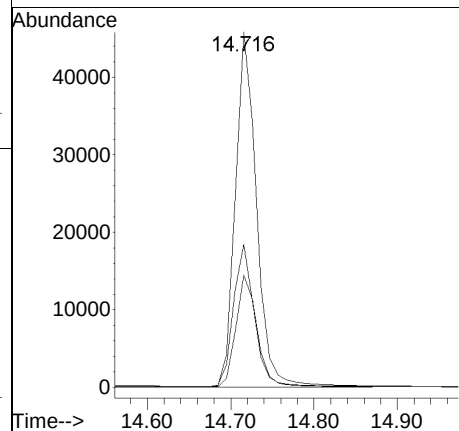
Tgt Ion:	43	58	100	Ratio	Lower	Upper
Resp:	123194					
Ratio	100	166.9	34.4			
Lower		126.2	24.2			
Upper		189.2	36.2			

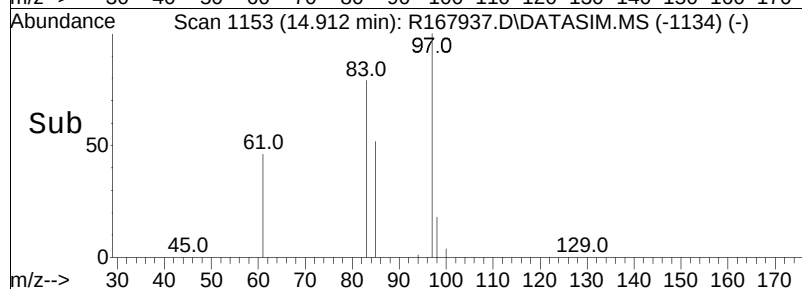
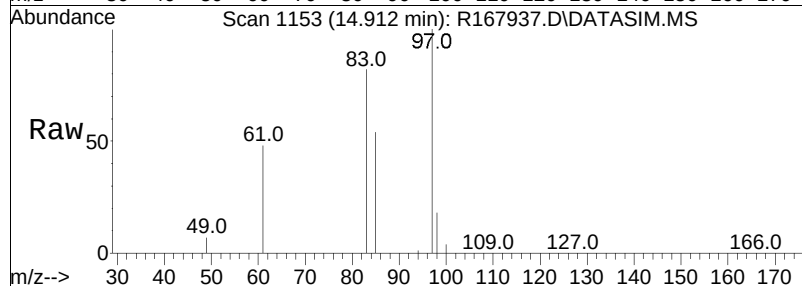
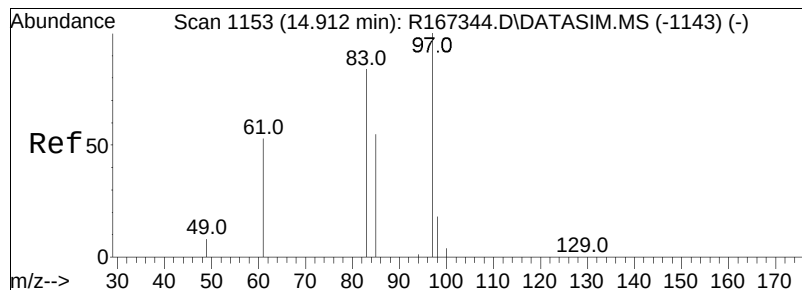




#49
 trans-1,3-dichloropropene
 Concen: 4.03 ppbV
 RT: 14.716 min Scan# 1134
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

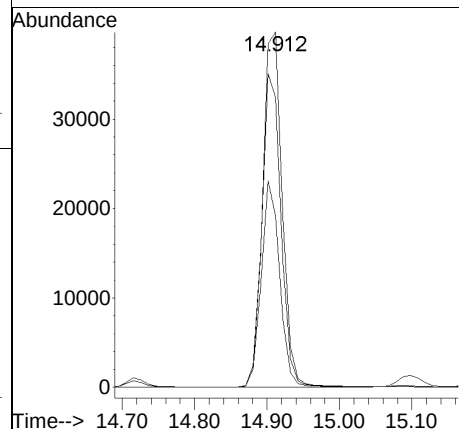
Tgt Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.1	37.7
39	40.3	36.6	55.0

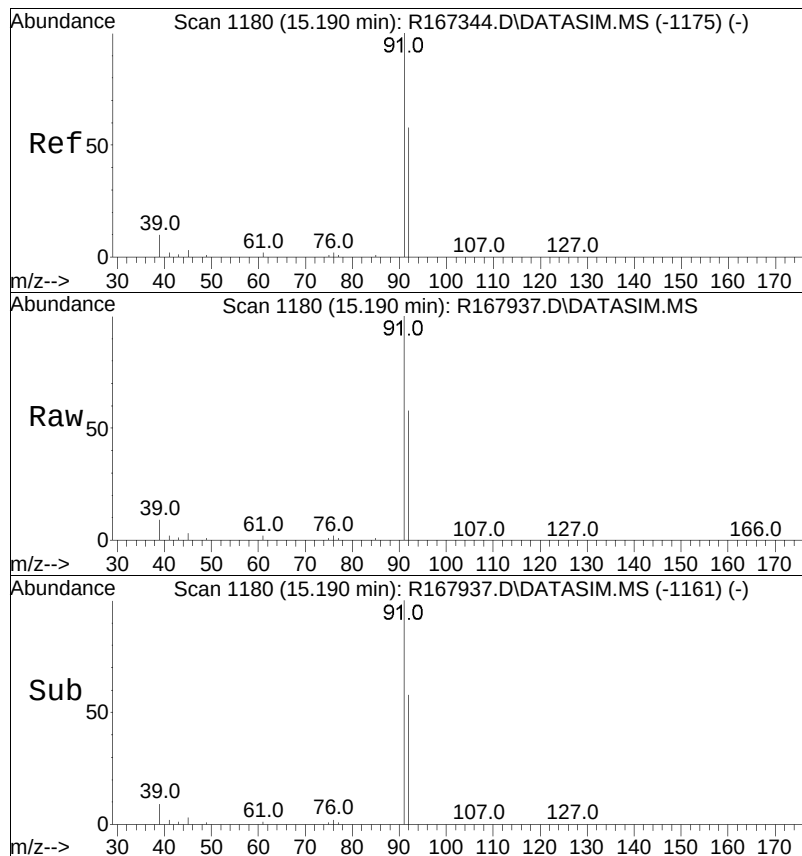




#50
 1,1,2-trichloroethane
 Concen: 4.60 ppbV
 RT: 14.912 min Scan# 1153
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

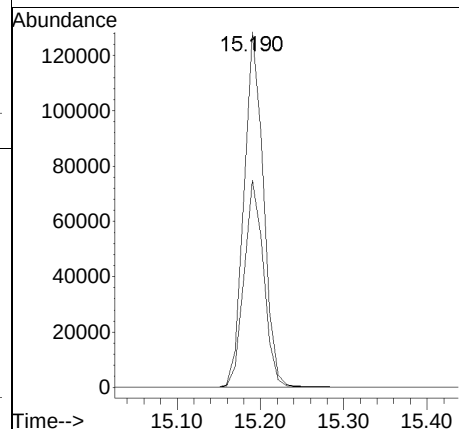
Tgt Ion	Ratio	Lower	Upper
97	100		
83	81.6	67.5	101.3
61	48.2	42.7	64.1

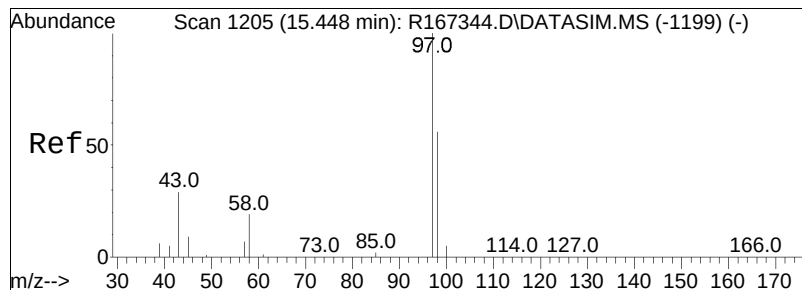




#52
 toluene
 Concen: 4.60 ppbV
 RT: 15.190 min Scan# 1180
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

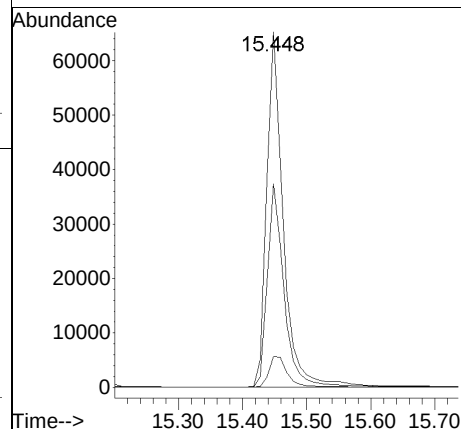
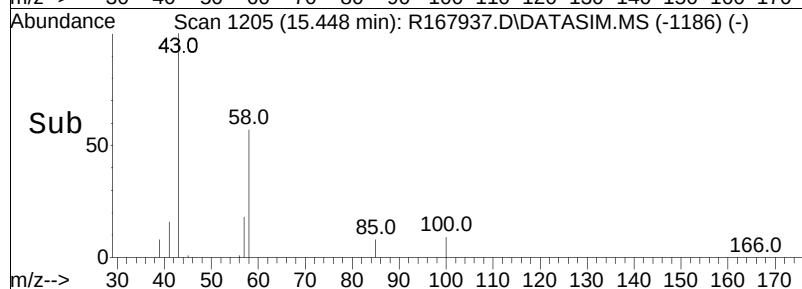
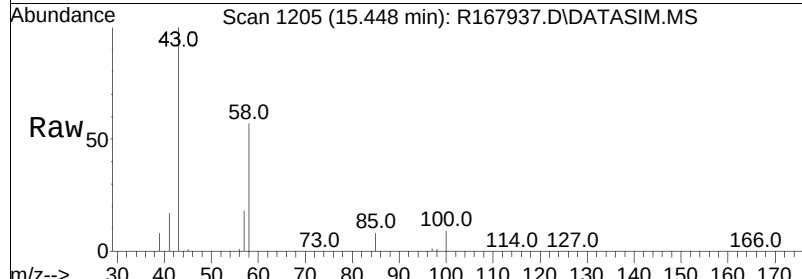
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.4	46.8	70.2

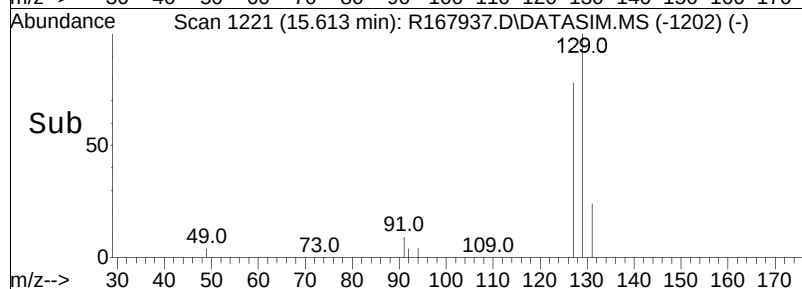
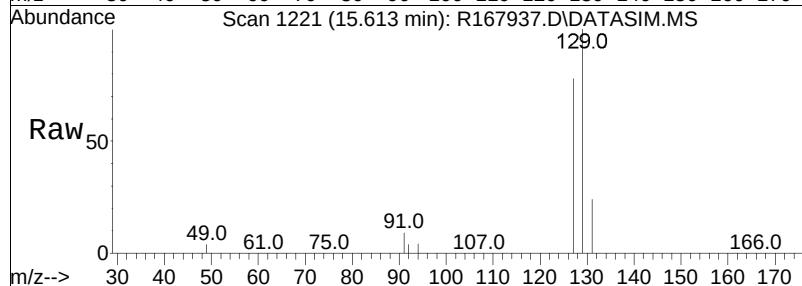
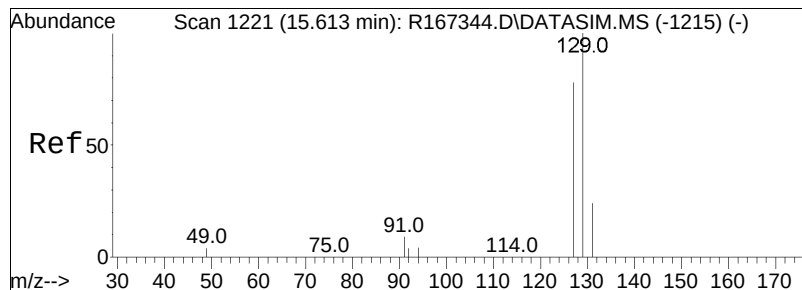




#54
 2-hexanone
 Concen: 4.58 ppbV
 RT: 15.448 min Scan# 1205
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

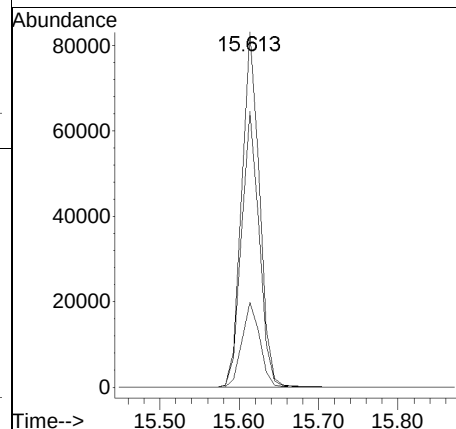
Tgt Ion:	43	Resp:	116826
Ion Ratio	Lower	Upper	
43	100		
58	57.3	51.9	77.9
100	8.7	13.6	20.4#

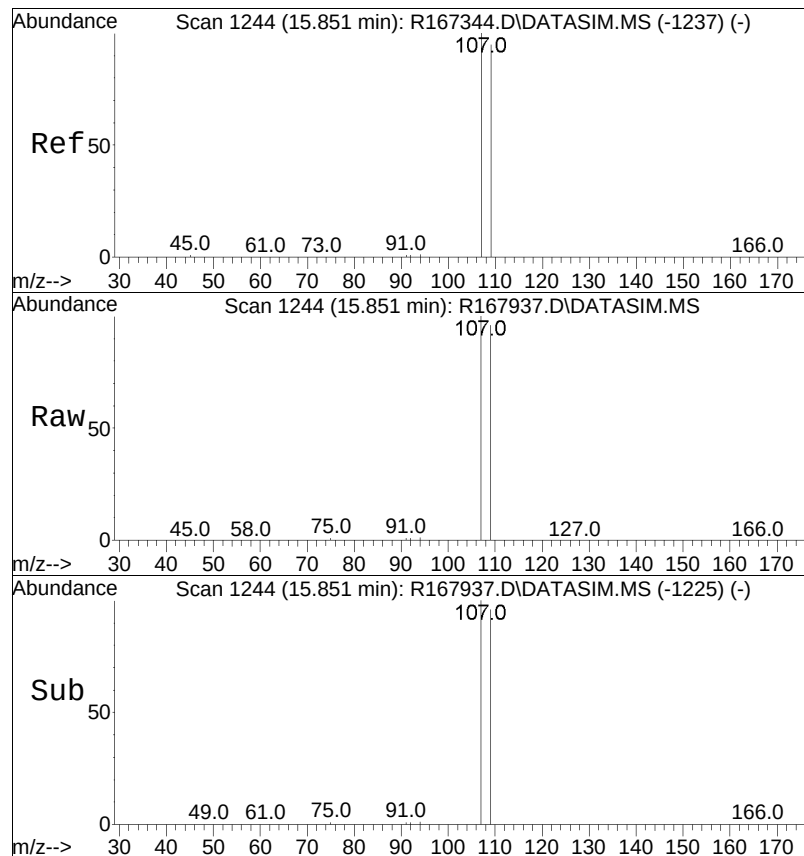




#55
 dibromochloromethane
 Concen: 5.27 ppbV
 RT: 15.613 min Scan# 1221
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

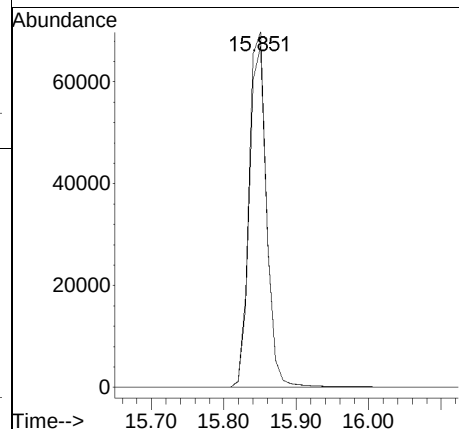
Tgt Ion	Ratio	Lower	Upper
129	100		
127	77.7	62.2	93.2
131	23.9	19.1	28.7

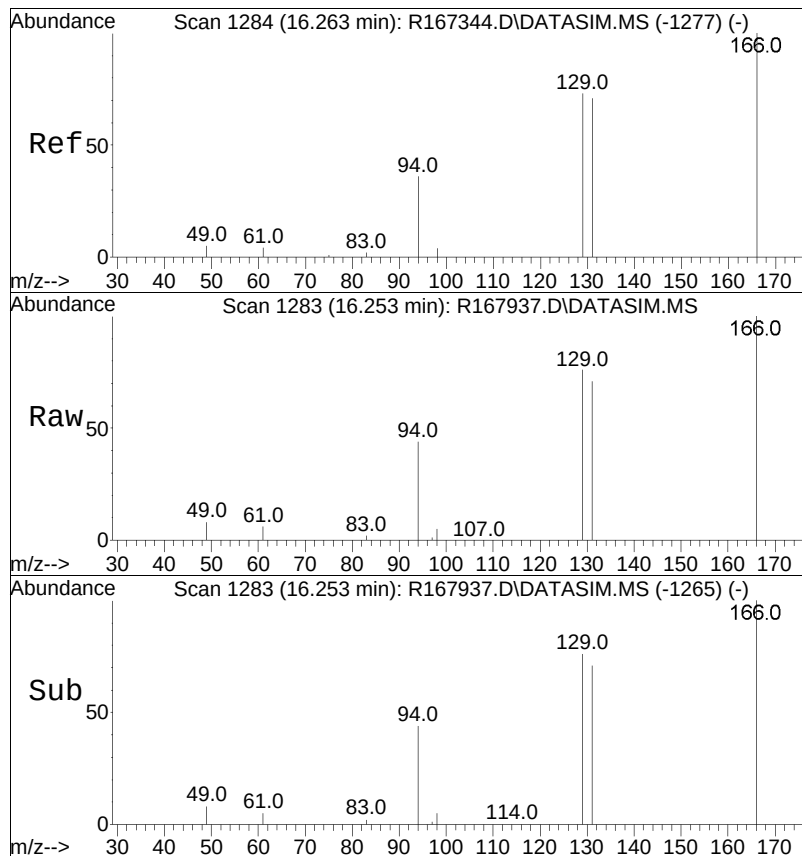




#56
 1,2-dibromoethane
 Concen: 5.08 ppbV
 RT: 15.851 min Scan# 1244
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

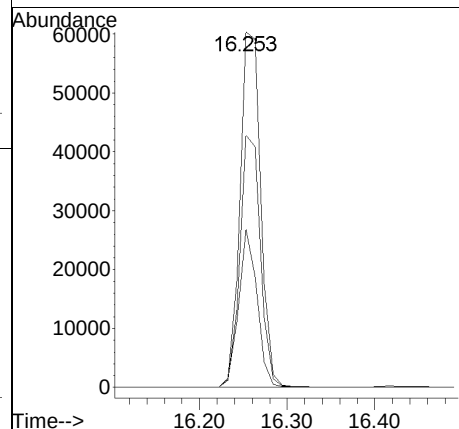
Tgt Ion	Ratio	Lower	Upper
107	100		
109	96.0	75.9	113.9

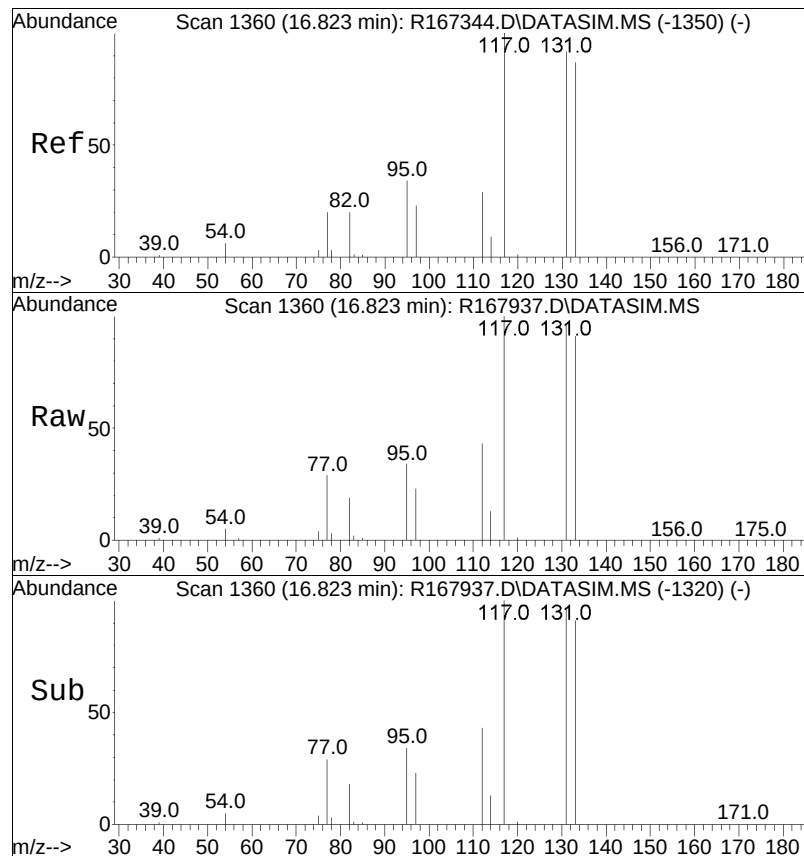




#57
 tetrachloroethene
 Concen: 5.08 ppbV
 RT: 16.253 min Scan# 1283
 Delta R.T. -0.010 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

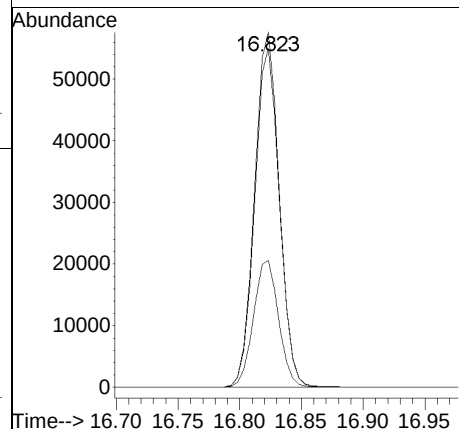
Tgt Ion	Ratio	Lower	Upper
166	100		
131	71.0	57.1	85.7
94	44.5	28.7	43.1#

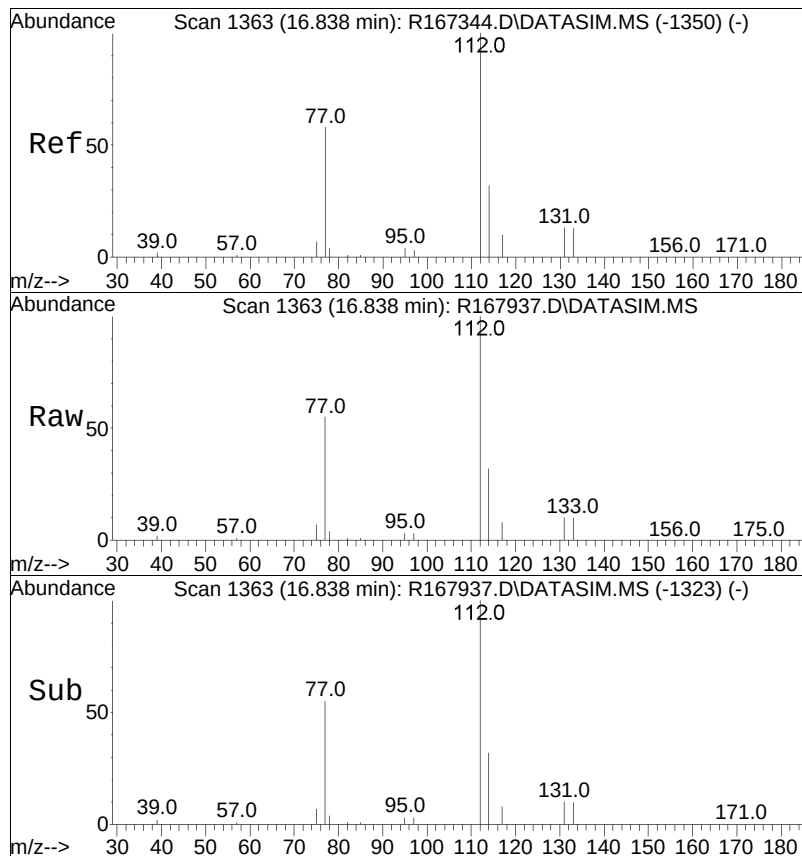




#58
 1,1,1,2-tetrachloroethane
 Concen: 4.70 ppbV
 RT: 16.823 min Scan# 1360
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

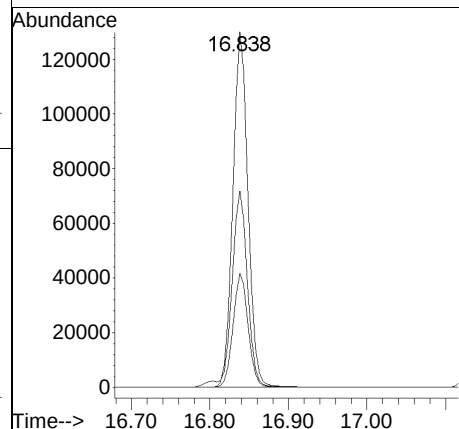
Tgt Ion	Ratio	Resp	Lower	Upper
131	100	80061		
133	95.4		75.6	113.4
95	35.8		29.8	44.6

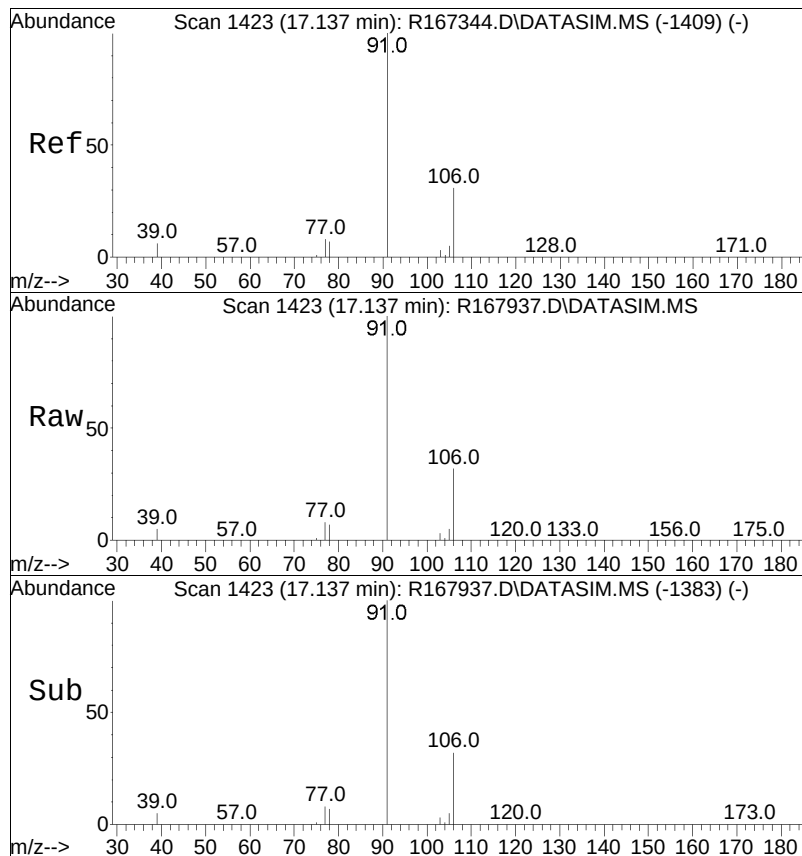




#59
chlorobenzene
Concen: 4.99 ppbV
RT: 16.838 min Scan# 1363
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

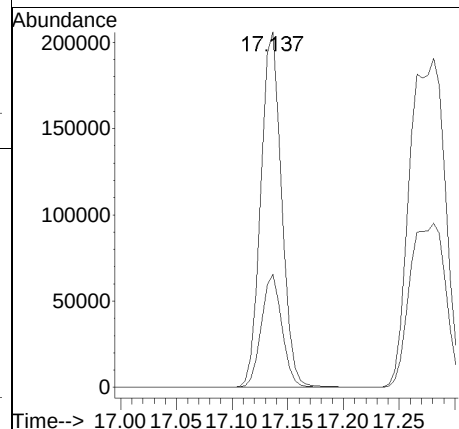
Tgt Ion	Ratio	Lower	Upper
112	100		
114	32.1	25.6	38.4
77	55.3	46.0	69.0

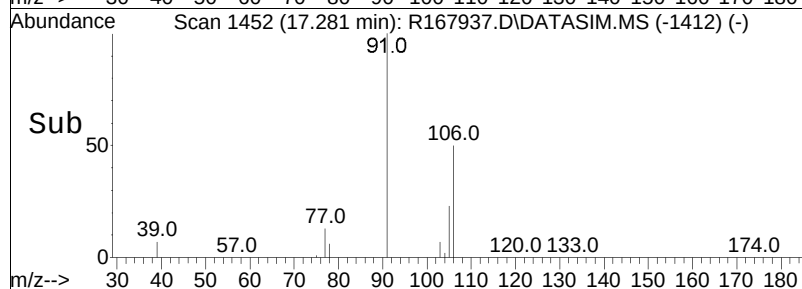
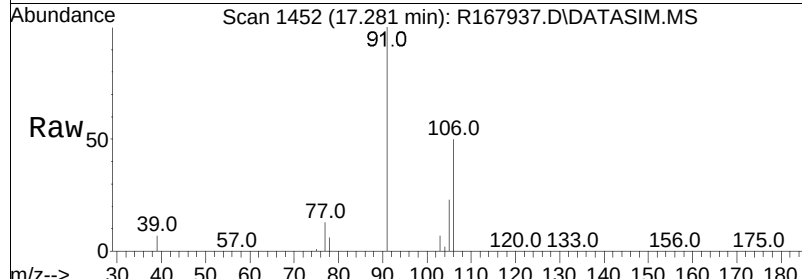
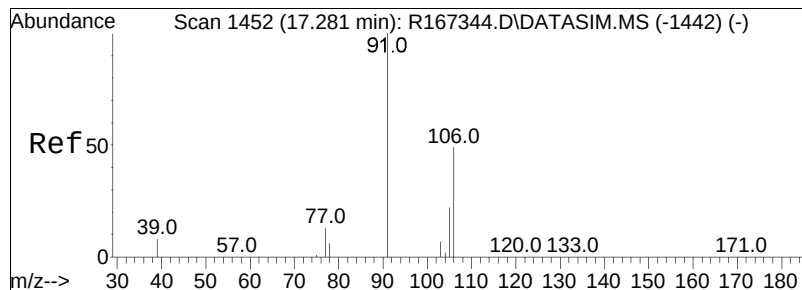




#60
ethylbenzene
Concen: 4.65 ppbV
RT: 17.137 min Scan# 1423
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

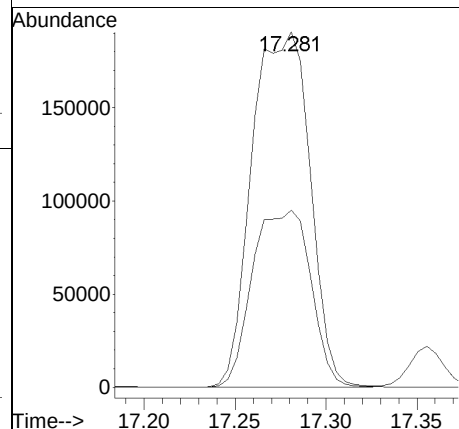
Tgt Ion	Ratio	Lower	Upper
91	100		
106	31.8	24.5	36.7

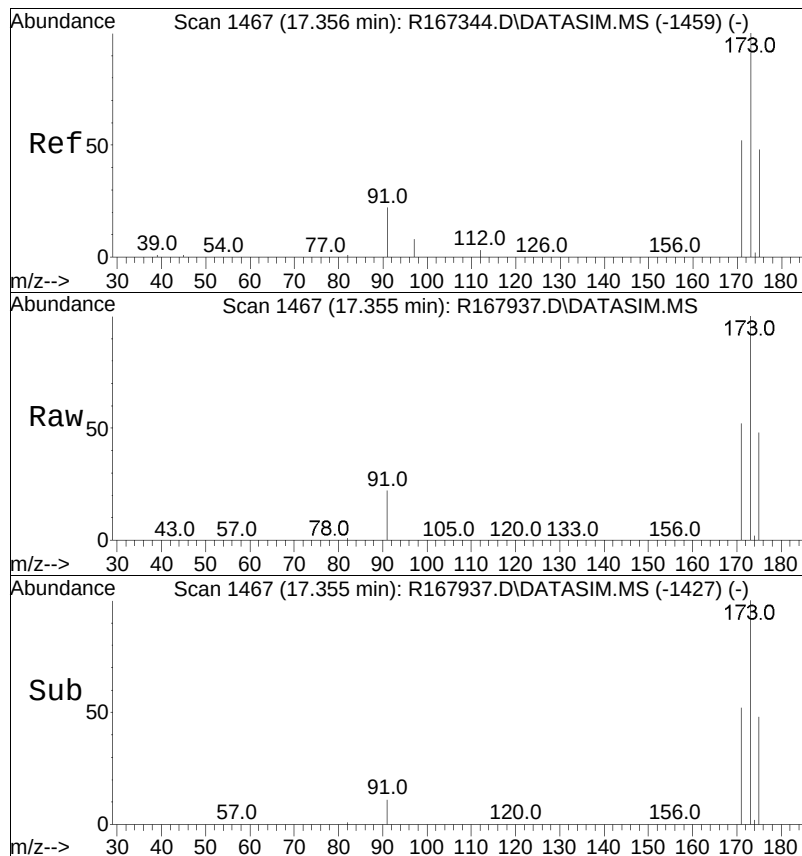




#61
 m+p-xylene
 Concen: 8.49 ppbV
 RT: 17.281 min Scan# 1452
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

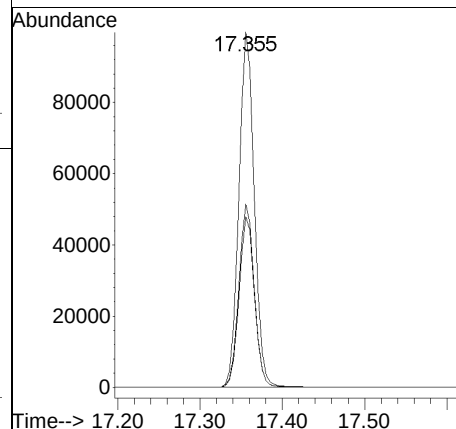
Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.9	39.4	59.0

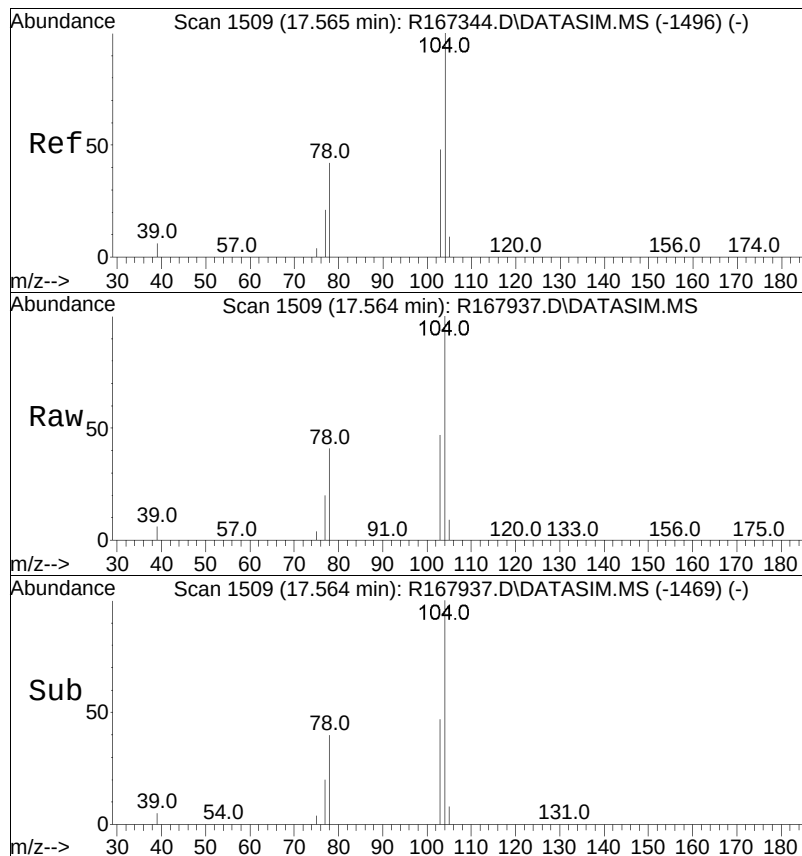




#62
bromoform
Concen: 5.48 ppbV
RT: 17.355 min Scan# 1467
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

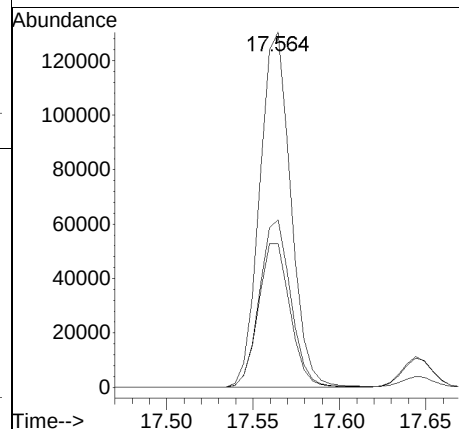
Tgt Ion	Ratio	Lower	Upper
173	100		
175	48.1	38.2	57.4
171	51.6	41.7	62.5

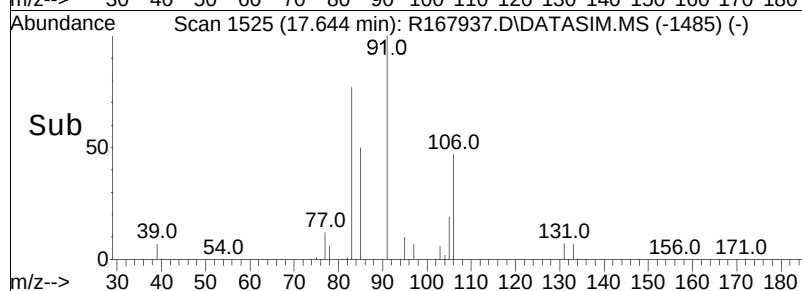
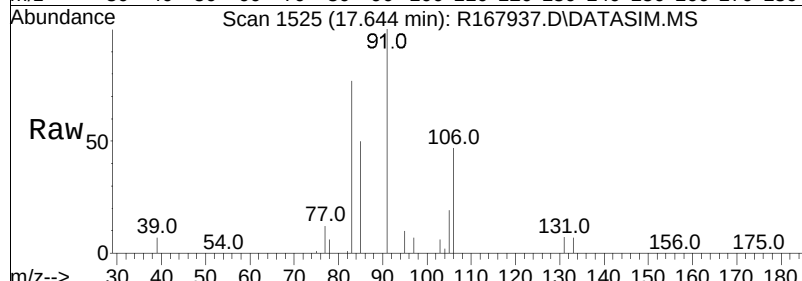
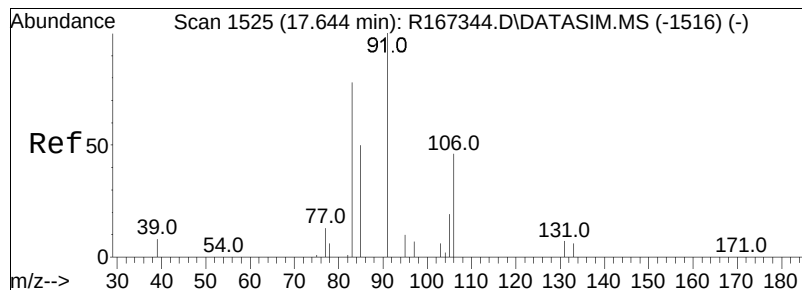




#63
styrene
Concen: 5.02 ppbV
RT: 17.564 min Scan# 1509
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

Tgt Ion	Ratio	Lower	Upper
104	100		
103	47.2	38.1	57.1
78	40.5	33.9	50.9





#64

1,1,2,2-tetrachloroethane

Concen: 4.94 ppbV

RT: 17.644 min Scan# 1525

Delta R.T. -0.000 min

Lab File: R167937.D

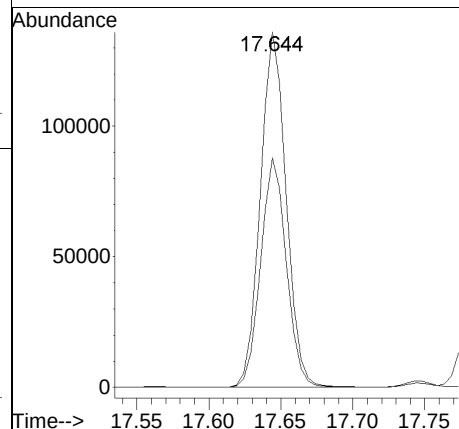
Acq: 9 Aug 2019 1:28 pm

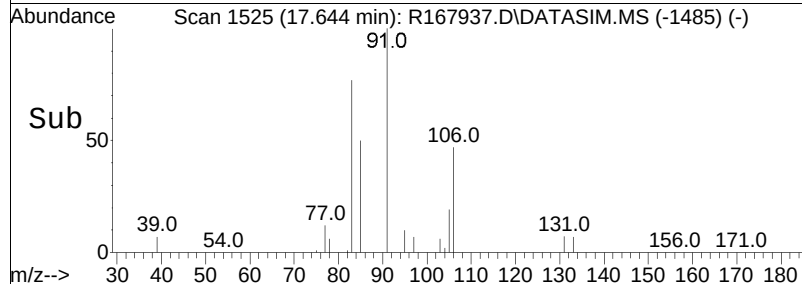
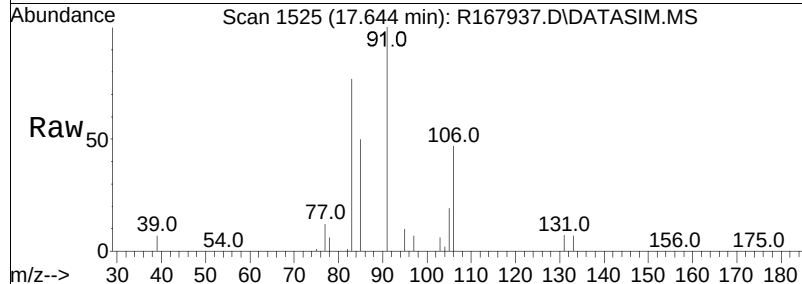
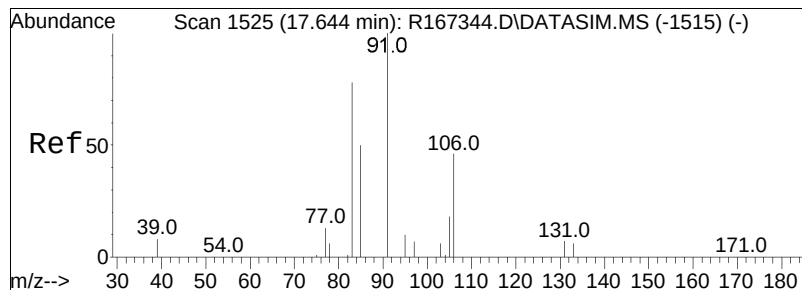
Tgt Ion: 83 Resp: 169033

Ion Ratio Lower Upper

83 100

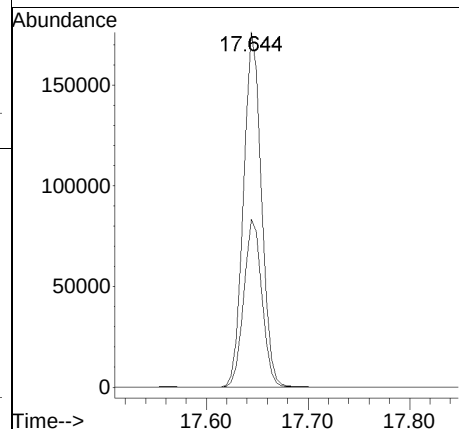
85 64.6 51.3 76.9

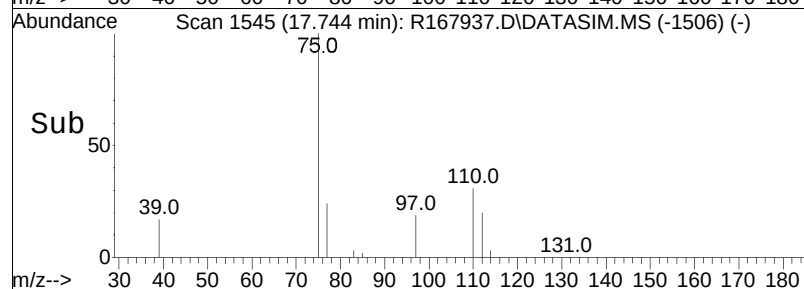
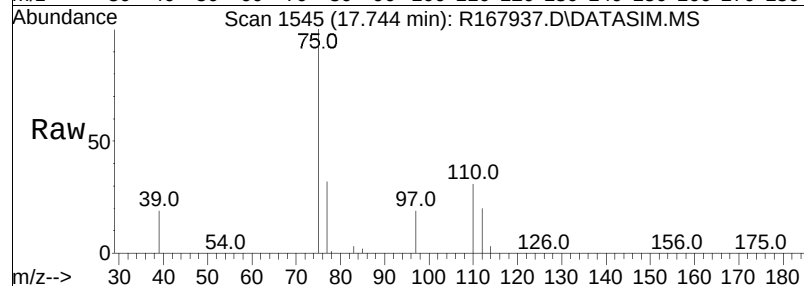
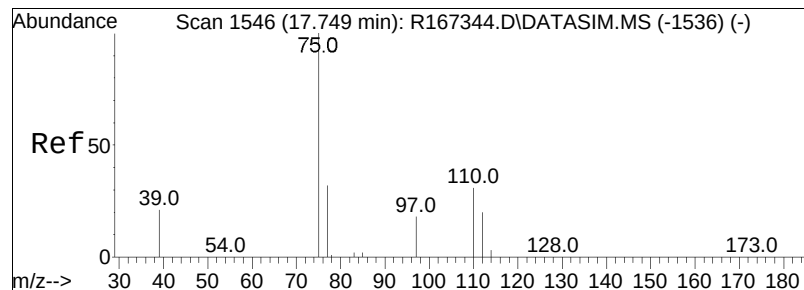




#65
o-xylene
Concen: 4.70 ppbV
RT: 17.644 min Scan# 1525
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

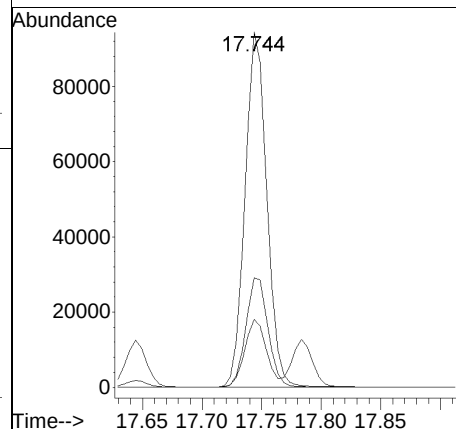
Tgt Ion	Ratio	Lower	Upper
91	100		
106	47.3	37.0	55.4

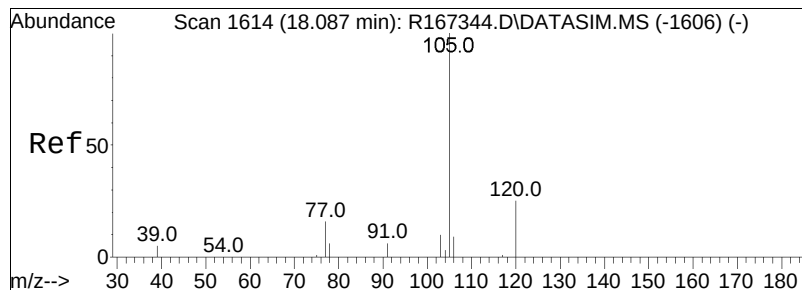




#66
 1,2,3-trichloropropane
 Concen: 4.52 ppbV
 RT: 17.744 min Scan# 1545
 Delta R.T. -0.005 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

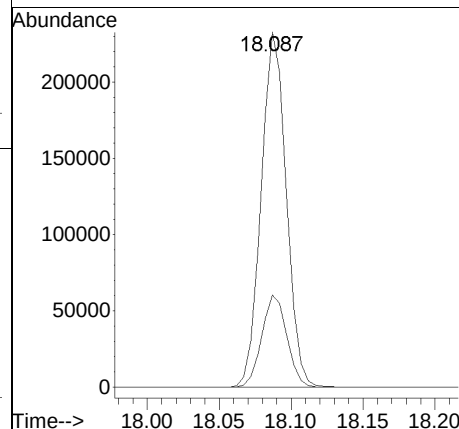
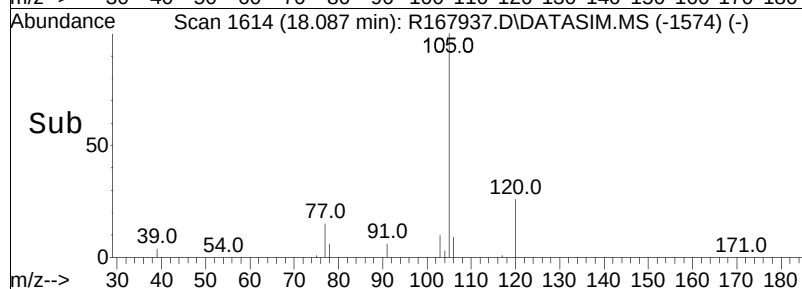
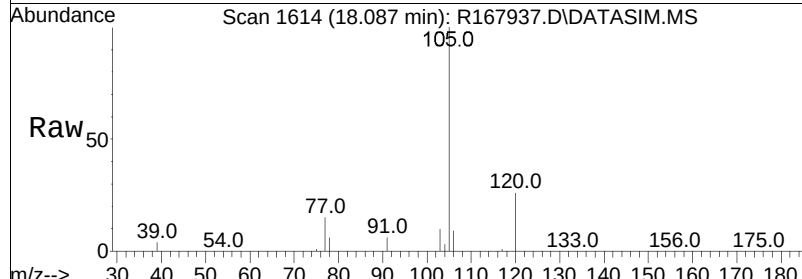
Tgt Ion	Ratio	Lower	Upper
75	100		
110	30.8	24.7	37.1
39	19.1	17.3	25.9

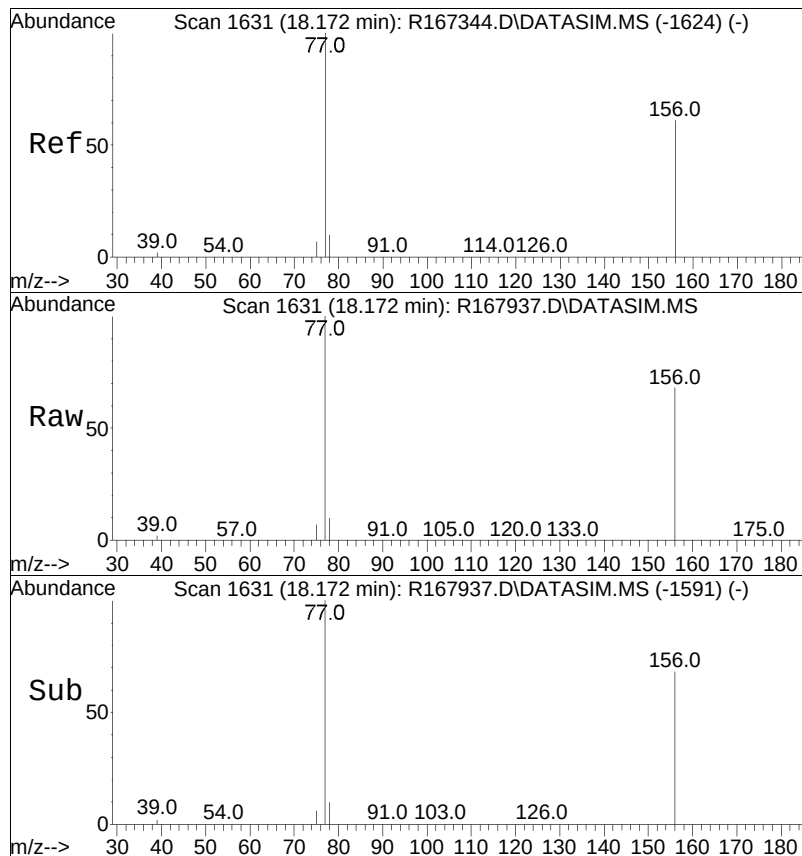




#68
 isopropylbenzene
 Concen: 4.69 ppbV
 RT: 18.087 min Scan# 1614
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

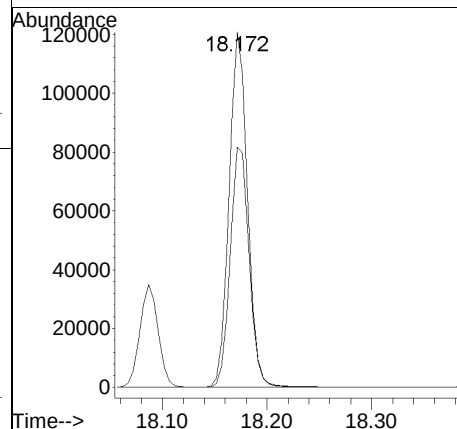
Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.0	20.2	30.4

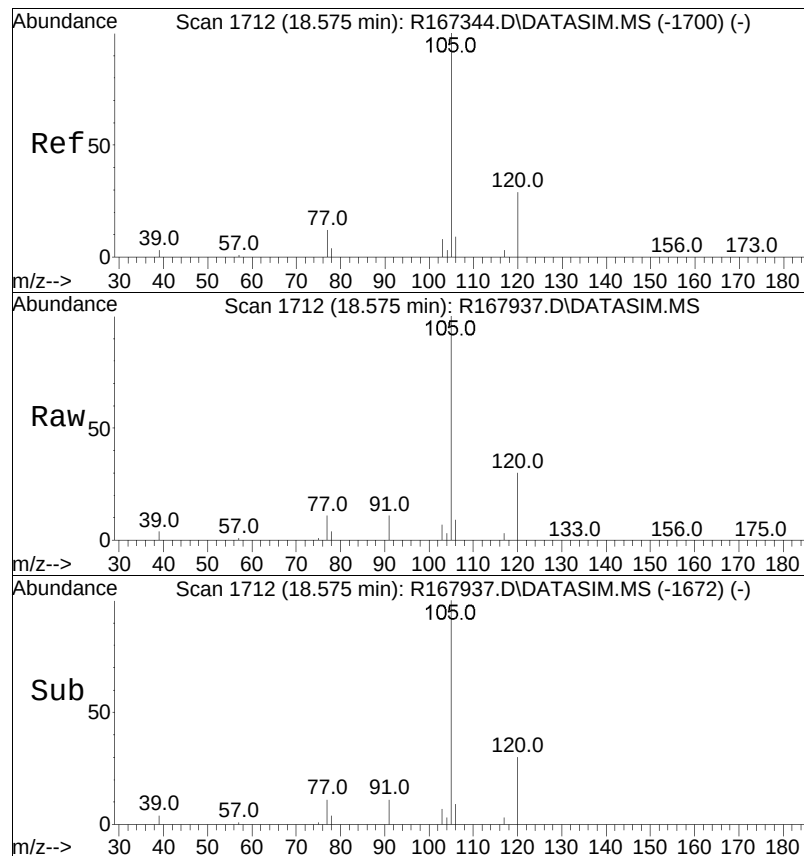




#69
bromobenzene
Concen: 4.59 ppbV
RT: 18.172 min Scan# 1631
Delta R.T. -0.000 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

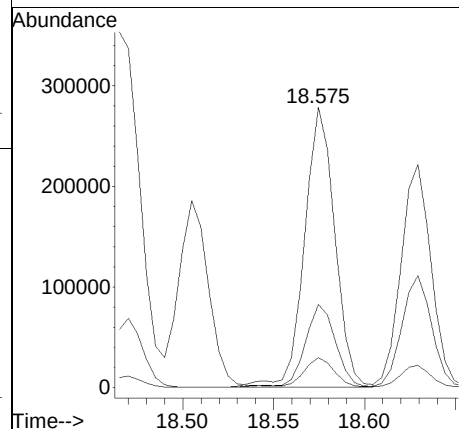
Tgt Ion	Ratio	Lower	Upper
77	100		
156	67.6	48.9	73.3

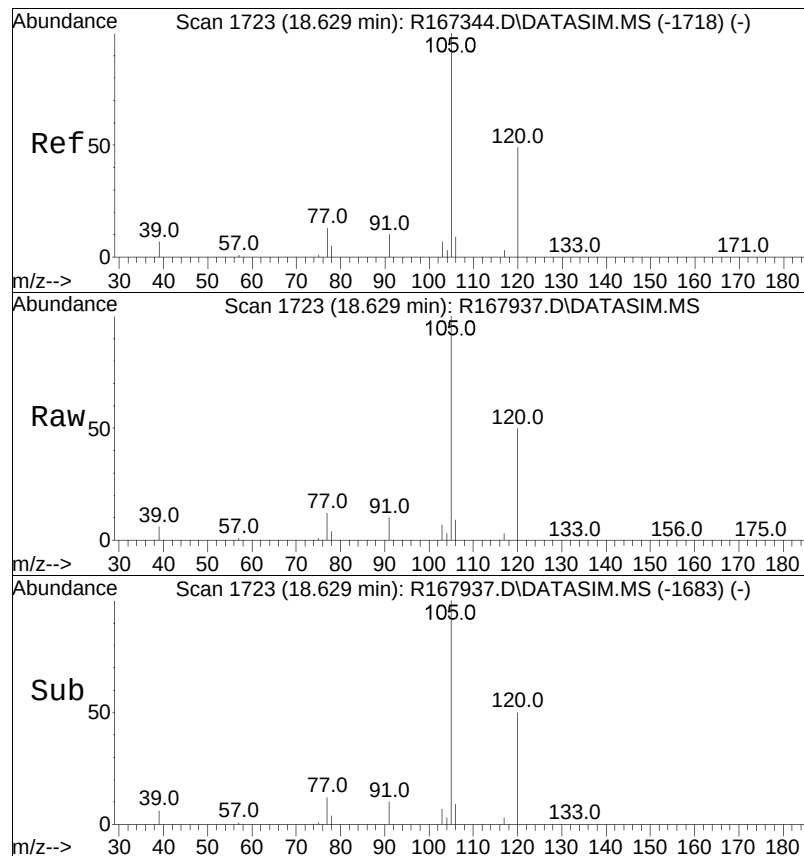




#70
 4-ethyl toluene
 Concen: 5.11 ppbV
 RT: 18.575 min Scan# 1712
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

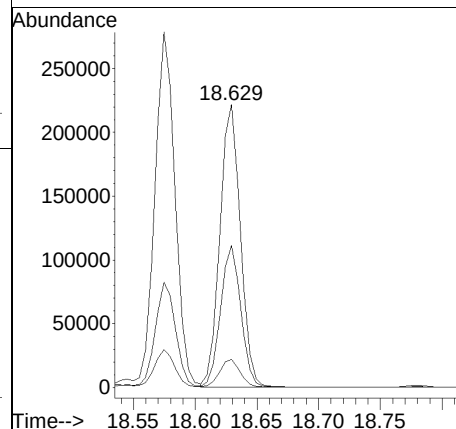
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	323581		
120	29.6		23.1	34.7
91	10.6		8.6	12.8

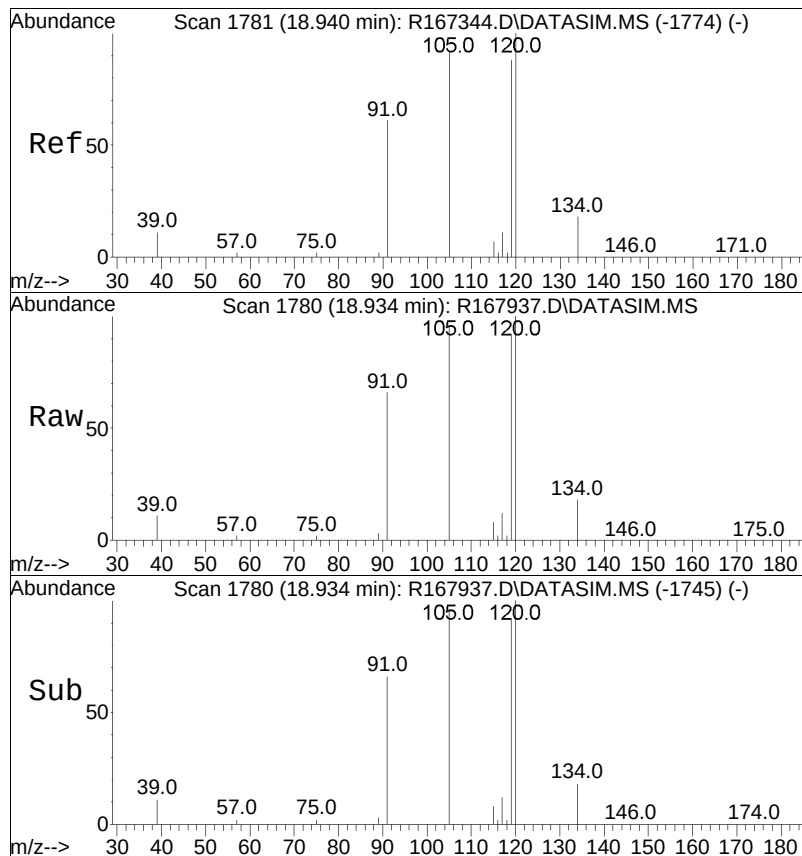




#71
 1,3,5-trimethylbenzene
 Concen: 4.94 ppbV
 RT: 18.629 min Scan# 1723
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

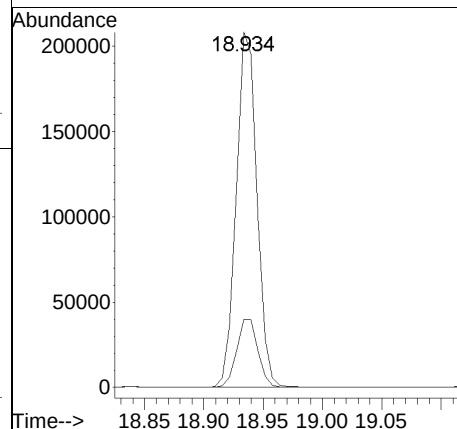
Tgt Ion	Ratio	Resp	Lower	Upper
105	100	256058		
120	50.2		38.7	58.1
91	9.9		8.0	12.0

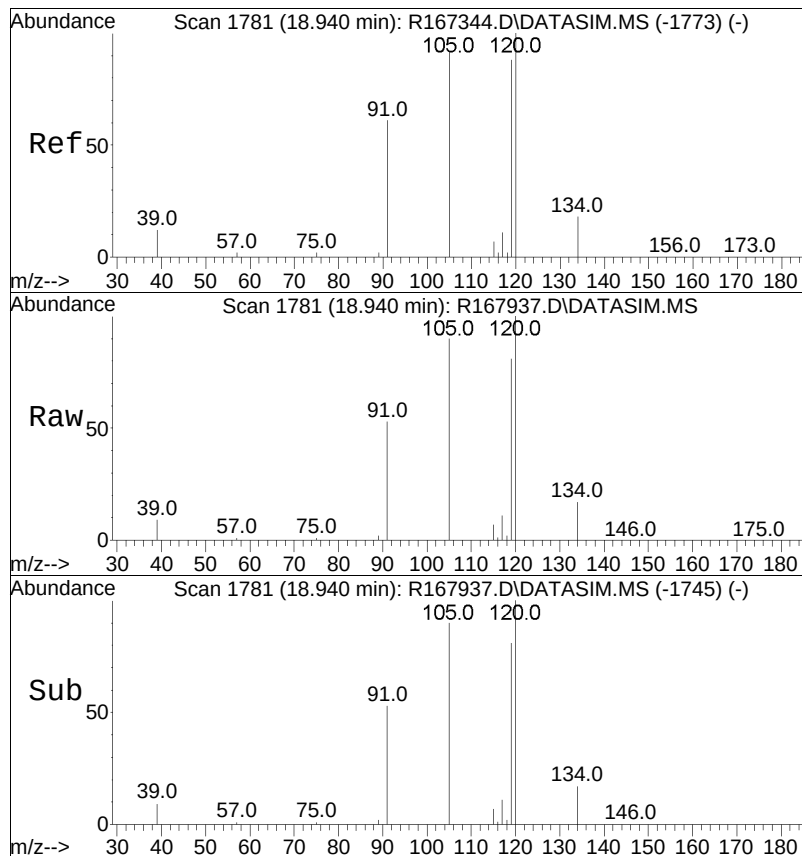




#72
 tert-butylbenzene
 Concen: 4.73 ppbV
 RT: 18.934 min Scan# 1780
 Delta R.T. -0.006 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

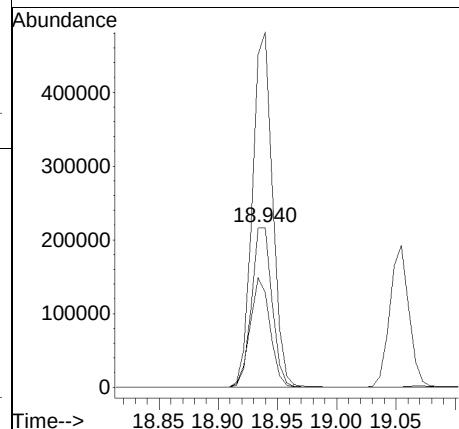
Tgt Ion	Ratio	Lower	Upper
119	100		
134	19.1	15.9	23.9

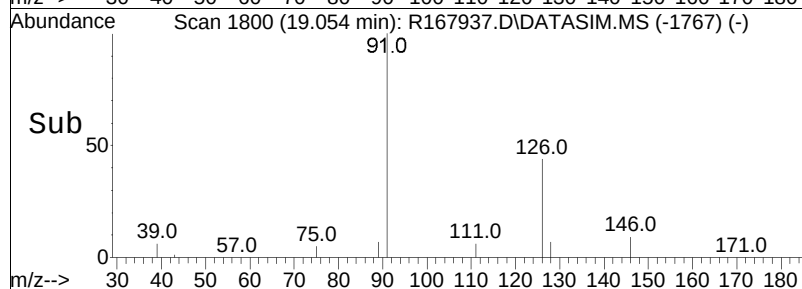
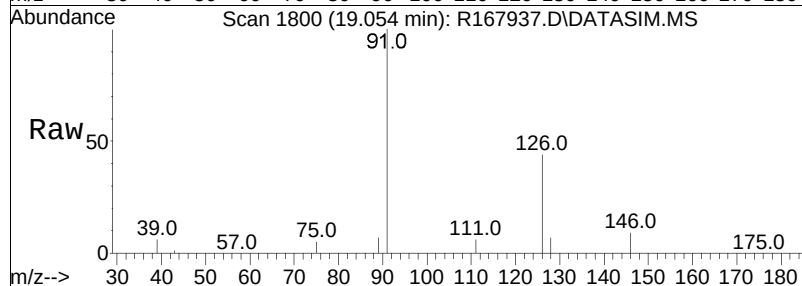
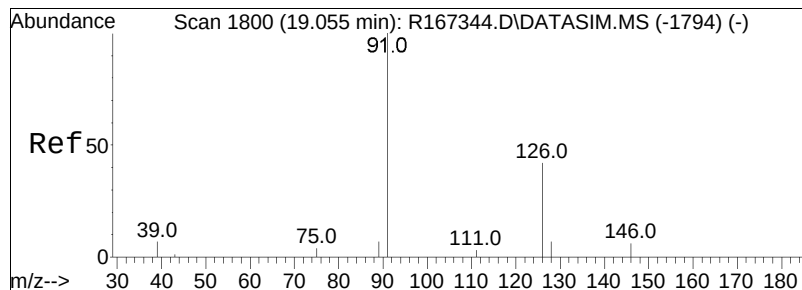




#73
 1,2,4-trimethylbenzene
 Concen: 5.33 ppbV
 RT: 18.940 min Scan# 1781
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt	Ion	Ratio	Resp	Lower	Upper
105	100		260950		
120	222.5	174.5	261.7		
91	59.4	53.4	80.2		





#74

Benzyl Chloride

Concen: 4.92 ppbV

RT: 19.054 min Scan# 1800

Delta R.T. -0.000 min

Lab File: R167937.D

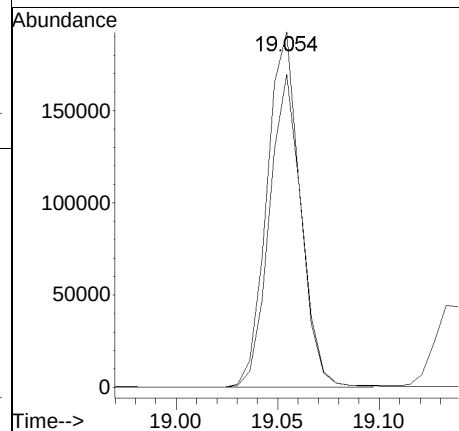
Acq: 9 Aug 2019 1:28 pm

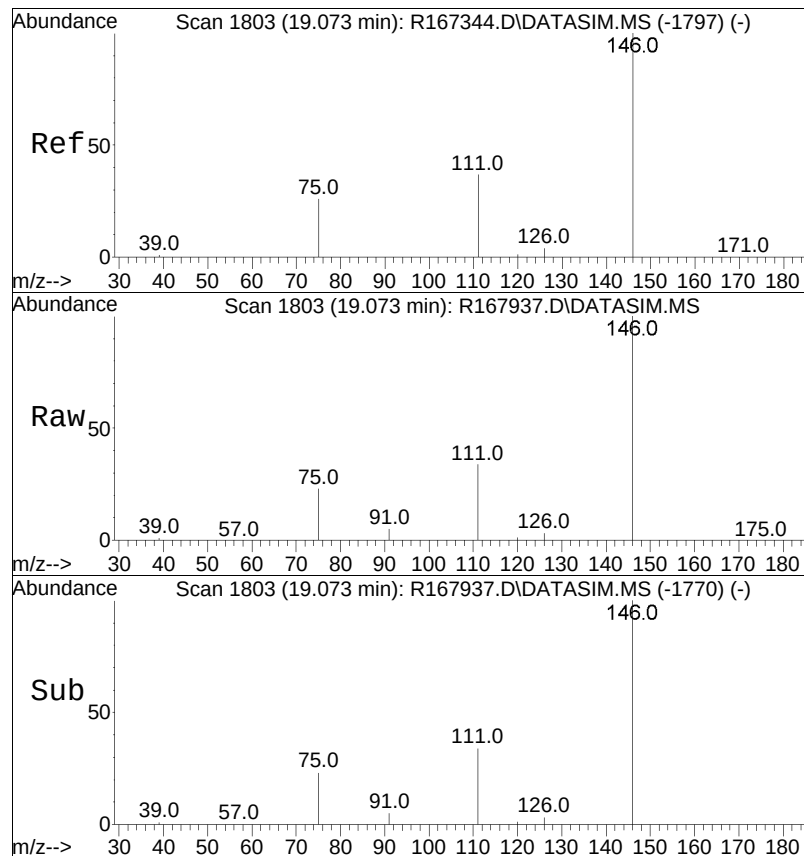
Tgt Ion: 91 Resp: 217486

Ion Ratio Lower Upper

91 100

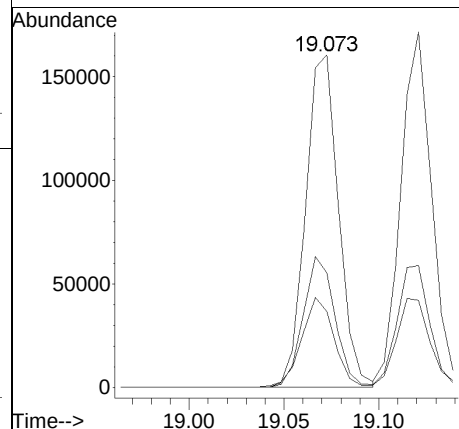
126 88.1 67.7 101.5

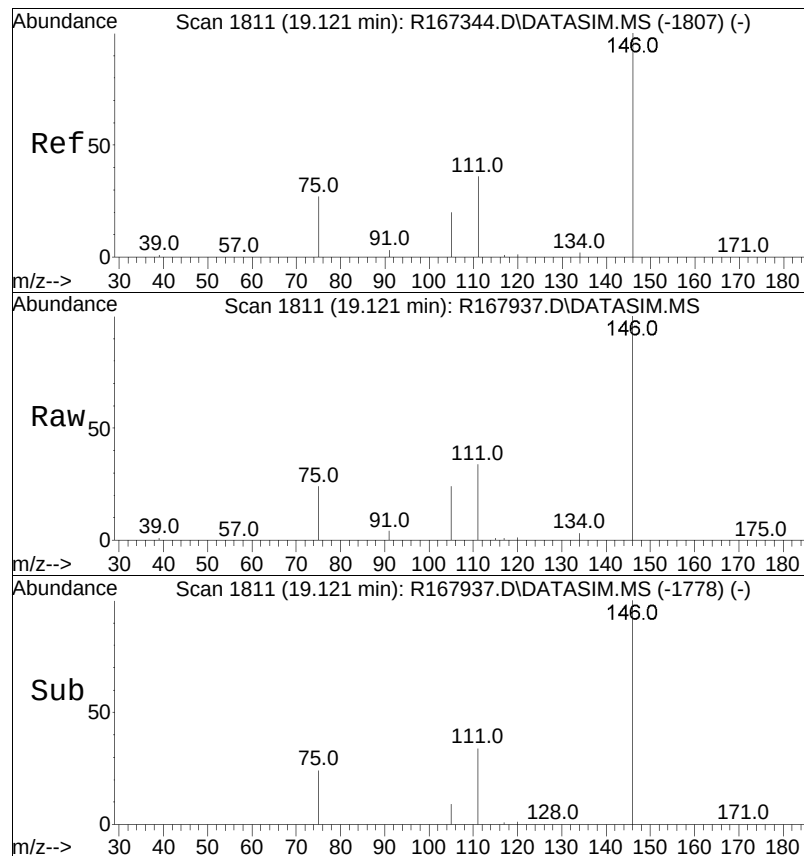




#75
 1,3-dichlorobenzene
 Concen: 5.69 ppbV
 RT: 19.073 min Scan# 1803
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

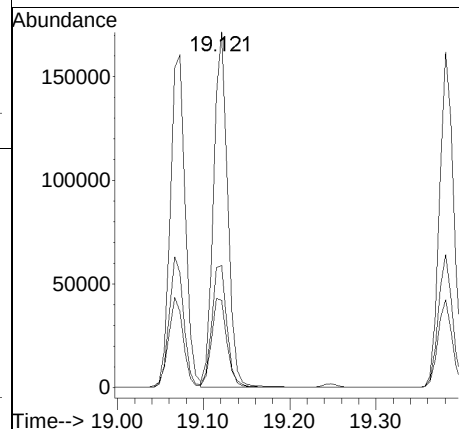
Tgt Ion	Ratio	Lower	Upper
146	100		
111	34.4	29.6	44.4
75	22.8	20.6	30.8

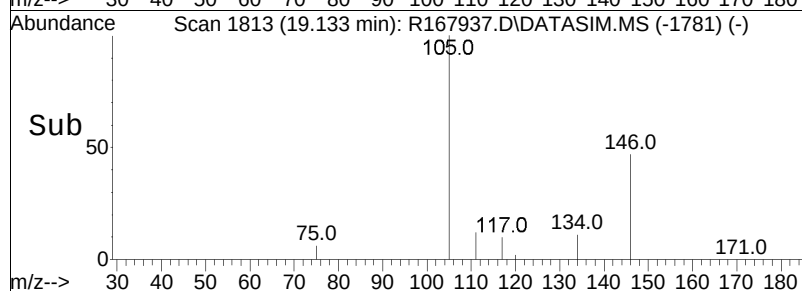
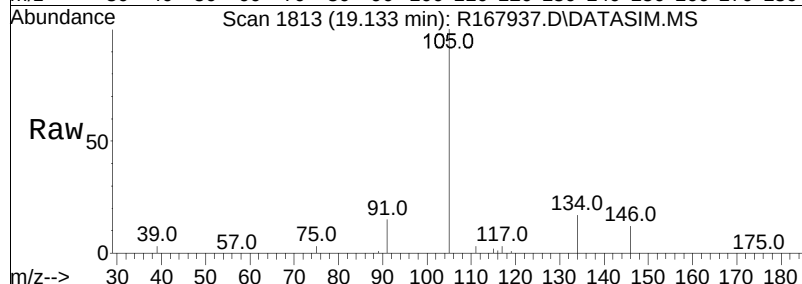
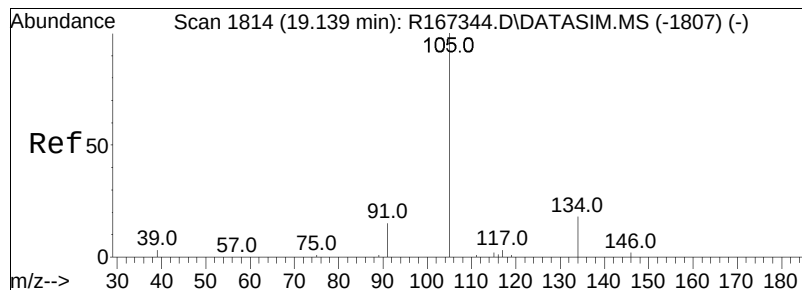




#76
 1,4-dichlorobenzene
 Concen: 5.72 ppbV
 RT: 19.121 min Scan# 1811
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt Ion	Ratio	Lower	Upper
146	100		
111	34.3	29.2	43.8
75	24.5	21.9	32.9





#77

sec-butylbenzene

Concen: 4.68 ppbV

RT: 19.133 min Scan# 1813

Delta R.T. -0.006 min

Lab File: R167937.D

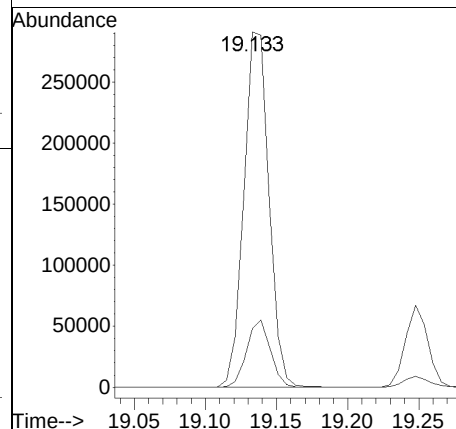
Acq: 9 Aug 2019 1:28 pm

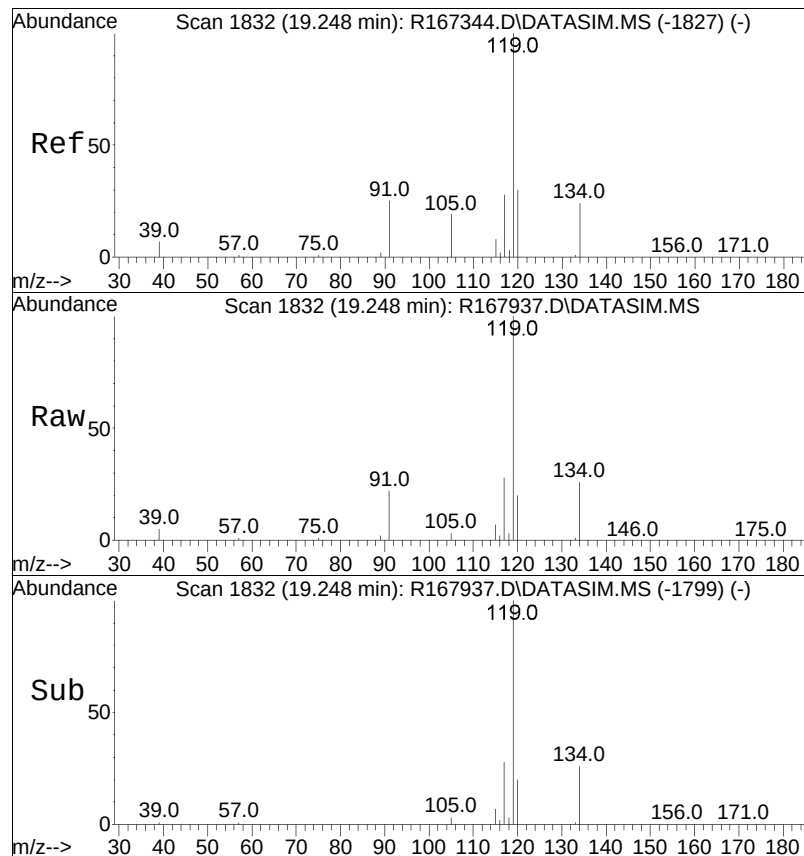
Tgt Ion:105 Resp: 357206

Ion Ratio Lower Upper

105 100

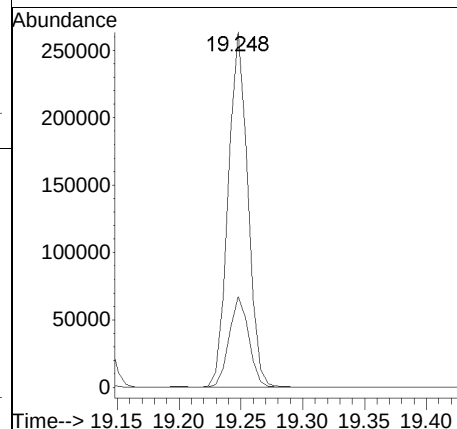
134 16.5 14.7 22.1

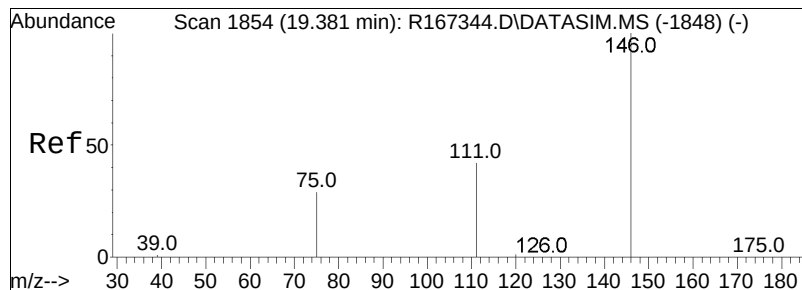




#78
 p-isopropyltoluene
 Concen: 4.34 ppbV
 RT: 19.248 min Scan# 1832
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

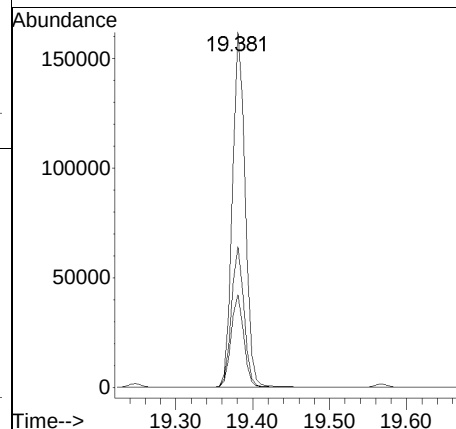
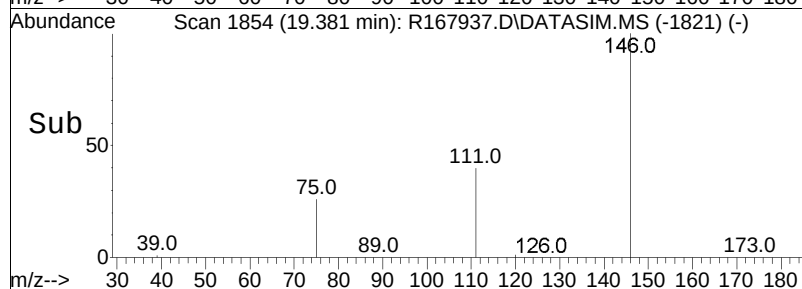
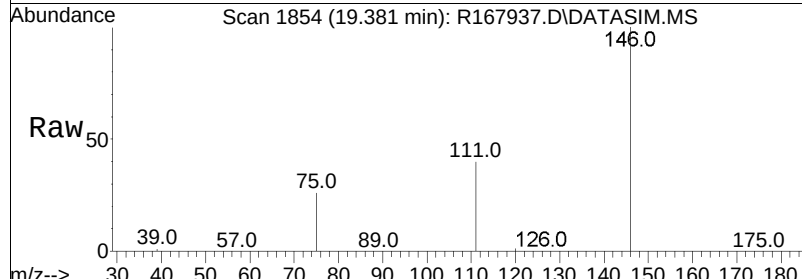
Tgt Ion	Ratio	Lower	Upper
119	100		
134	25.6	19.6	29.4

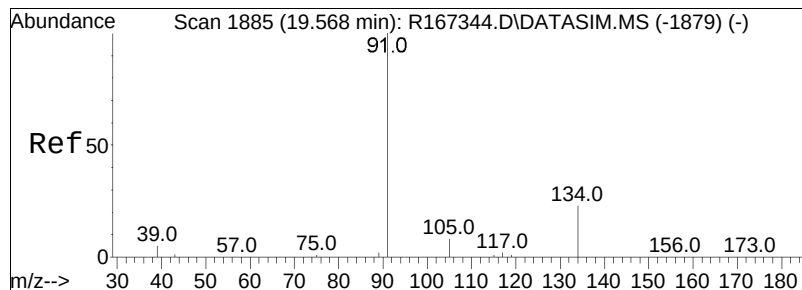




#79
 1,2-dichlorobenzene
 Concen: 5.70 ppbV
 RT: 19.381 min Scan# 1854
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

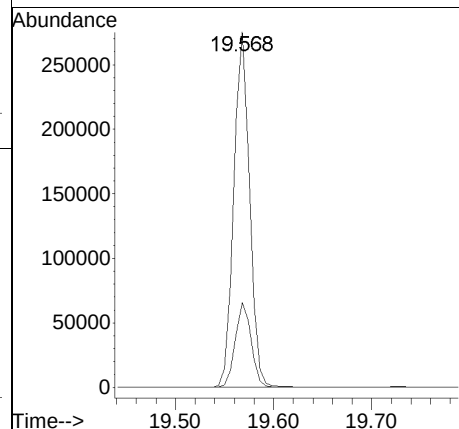
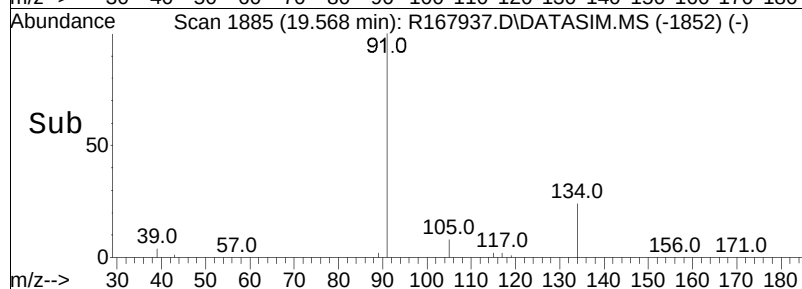
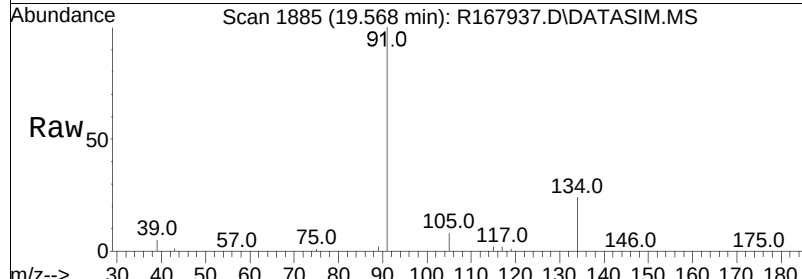
Tgt Ion:	146	Resp:	186394
Ion Ratio	Lower	Upper	
146	100		
111	39.7	33.6	50.4
75	26.1	23.3	34.9

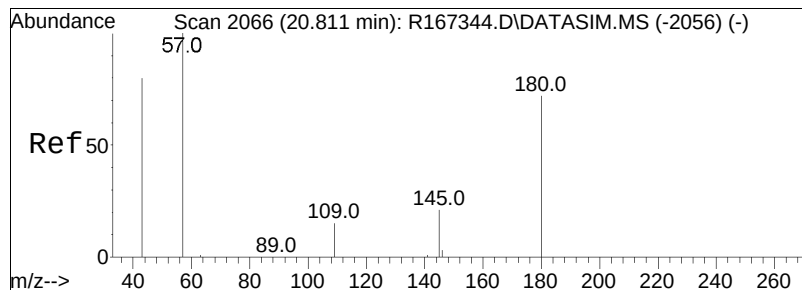




#80
 n-butylbenzene
 Concen: 5.00 ppbV
 RT: 19.568 min Scan# 1885
 Delta R.T. -0.000 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
134	23.9	18.2	27.4





#81

1,2,4-trichlorobenzene

Concen: 8.13 ppbV

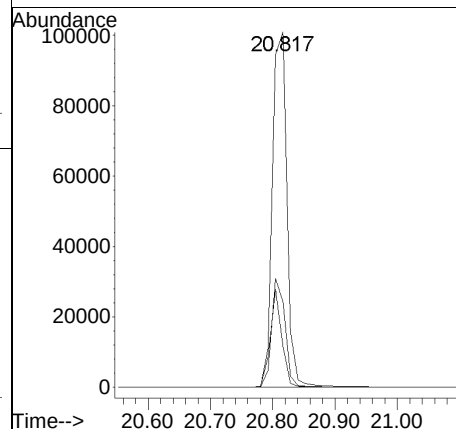
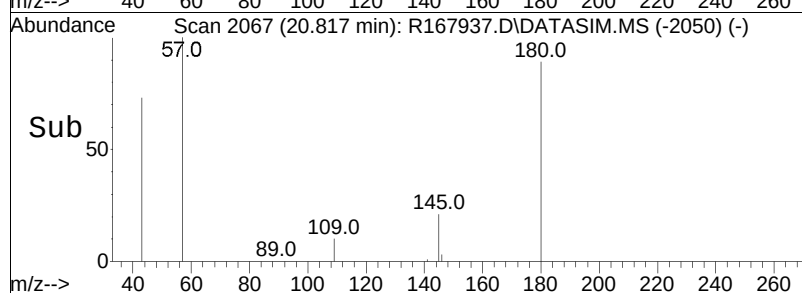
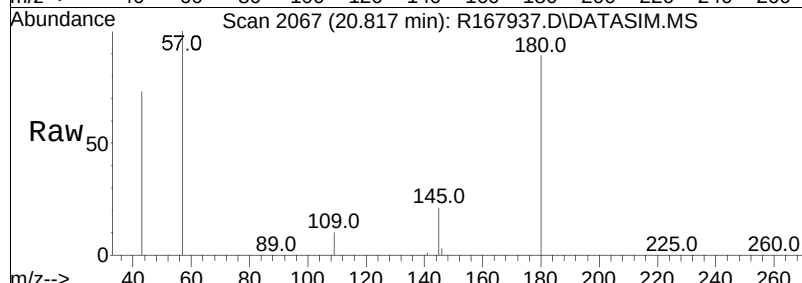
RT: 20.817 min Scan# 2067

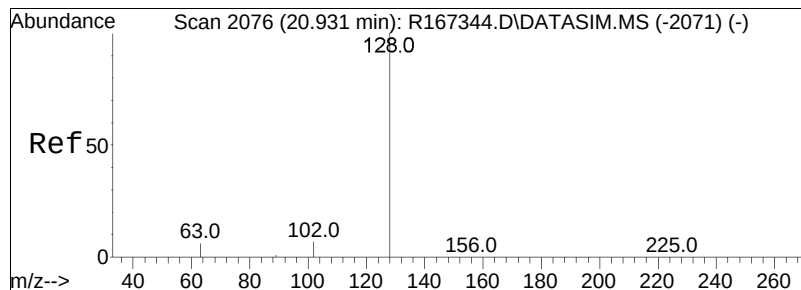
Delta R.T. 0.006 min

Lab File: R167937.D

Acq: 9 Aug 2019 1:28 pm

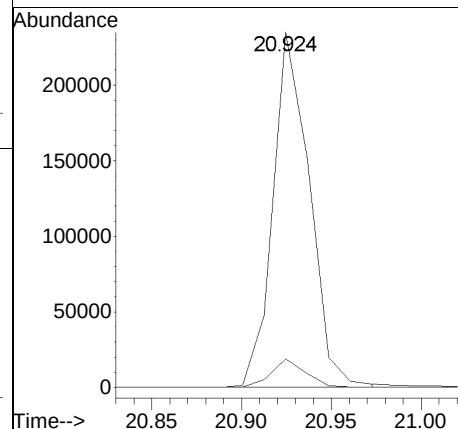
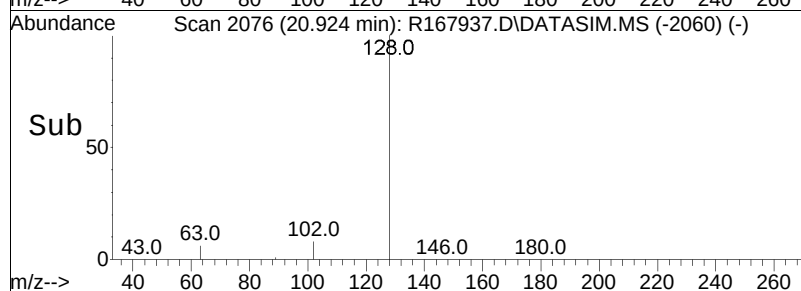
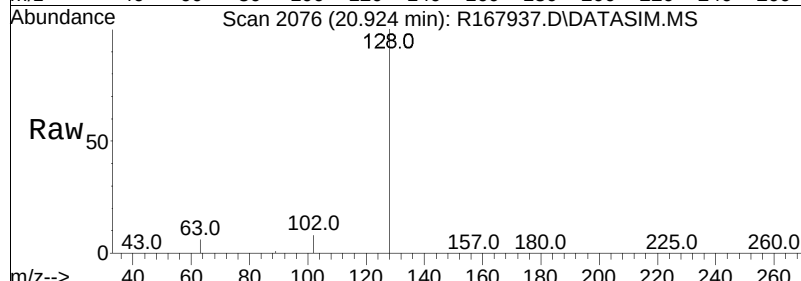
Tgt Ion:	180	Resp:	164461
Ion Ratio	Lower	Upper	
180	100		
145	24.1	23.6	35.4
109	11.5	16.9	25.3#

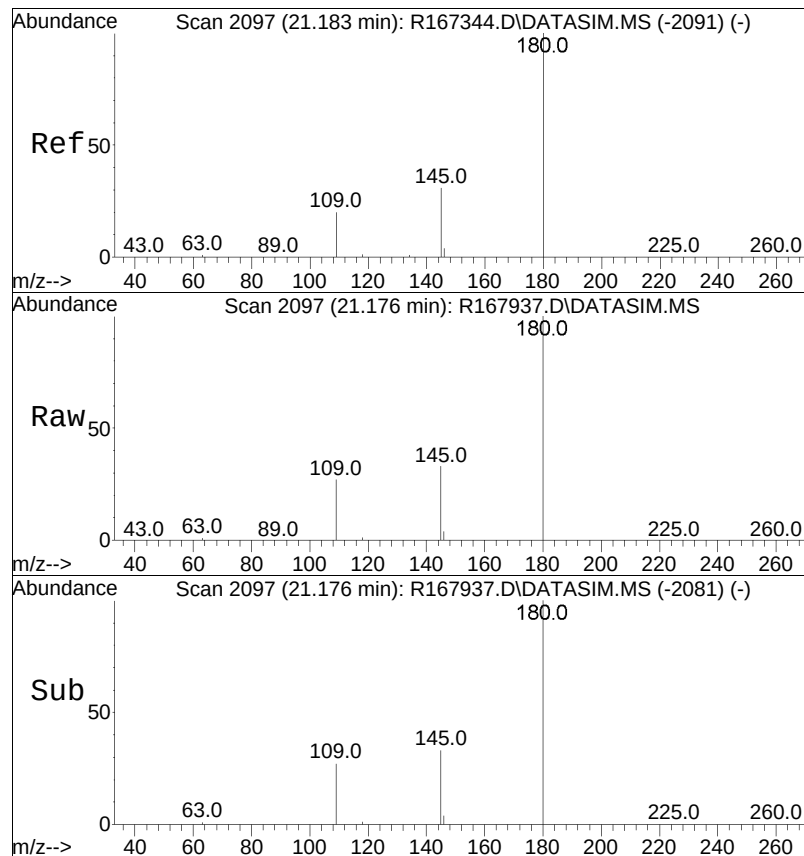




#82
naphthalene
Concen: 6.52 ppbV m
RT: 20.924 min Scan# 2076
Delta R.T. -0.006 min
Lab File: R167937.D
Acq: 9 Aug 2019 1:28 pm

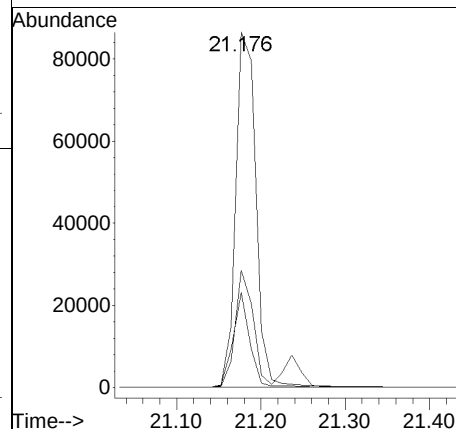
Tgt	Ion	Ratio	Lower	Upper
128	100			
102	8.0	5.9	8.9	

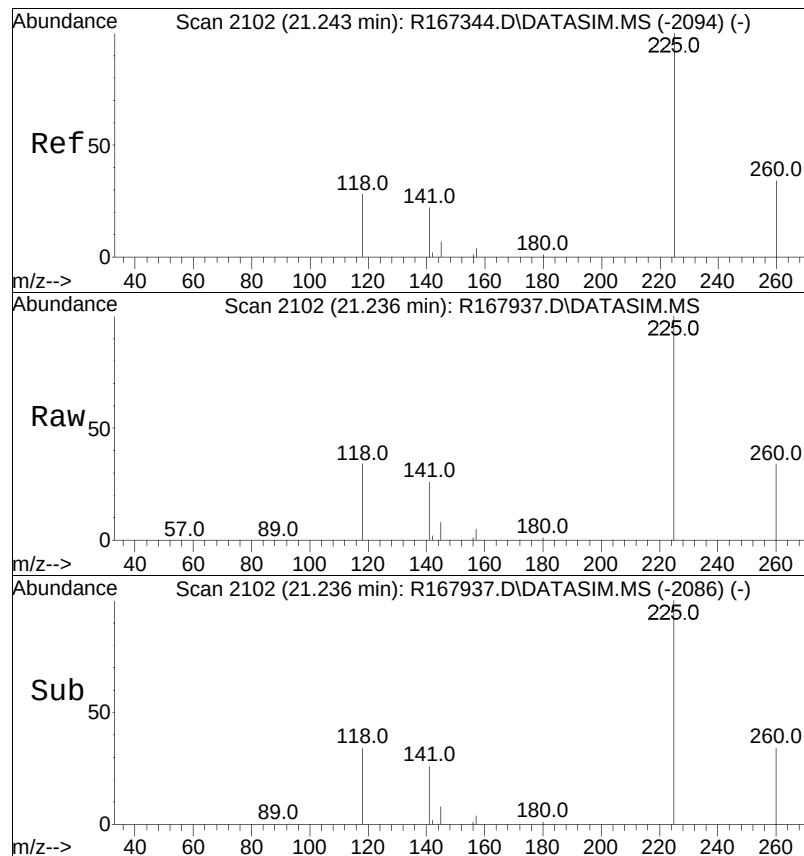




#83
 1,2,3-trichlorobenzene
 Concen: 7.41 ppbV
 RT: 21.176 min Scan# 2097
 Delta R.T. -0.006 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

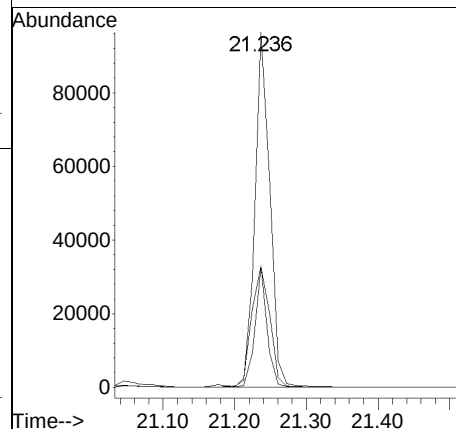
Tgt Ion	Ratio	Resp	Lower	Upper
180	100	144091		
145	32.9		24.5	36.7
109	26.7		16.2	24.4





#84
 hexachlorobutadiene
 Concen: 7.05 ppbV
 RT: 21.236 min Scan# 2102
 Delta R.T. -0.006 min
 Lab File: R167937.D
 Acq: 9 Aug 2019 1:28 pm

Tgt Ion	Ratio	Lower	Upper
225	100		
260	33.8	27.4	41.0
118	34.2	22.1	33.1#

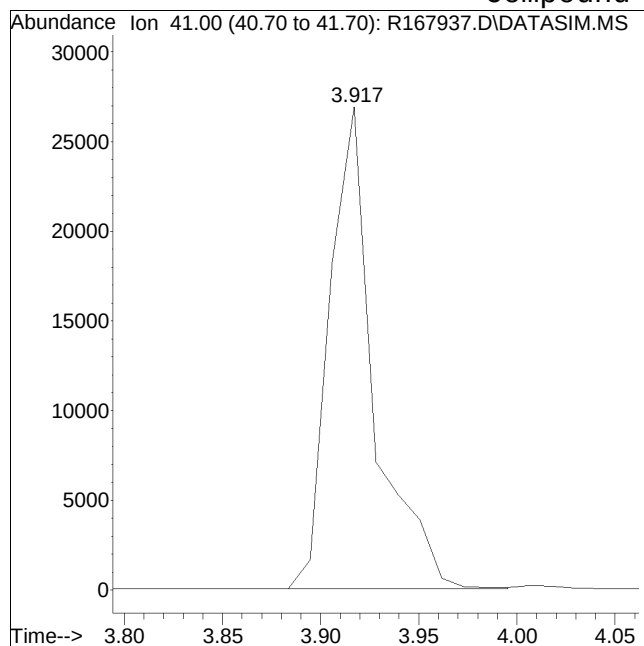


Manual Integration Report

Data Path : 0:\Forensics\Data\AIR1\20190712.M
Data File : R167937.D
Date Inj'd : 8/9/2019 1:28 pm
Sample : WG1270782-3,3,250,250

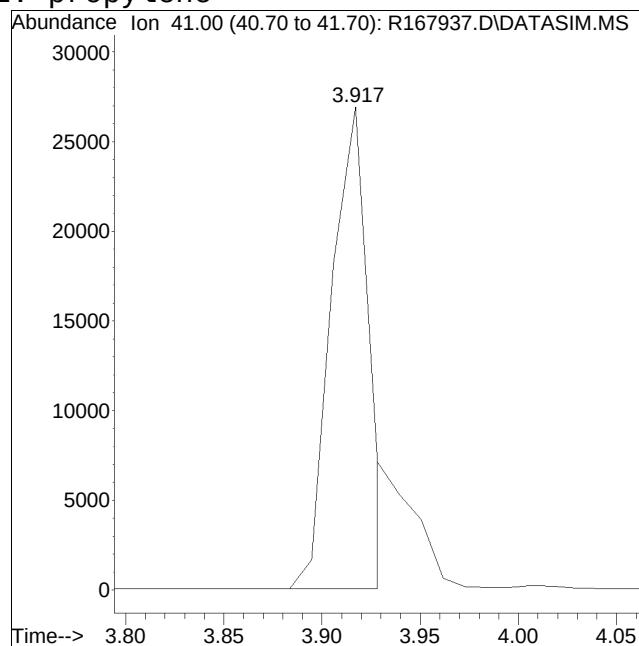
Method : TSIM1_190712.M
Operator : AIRPIAN01:EW
Instrument : Air Piano 1
Quant Date : 8/9/2019 2:02 pm

Compound #2: propylene



Original Peak Response = 42812

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

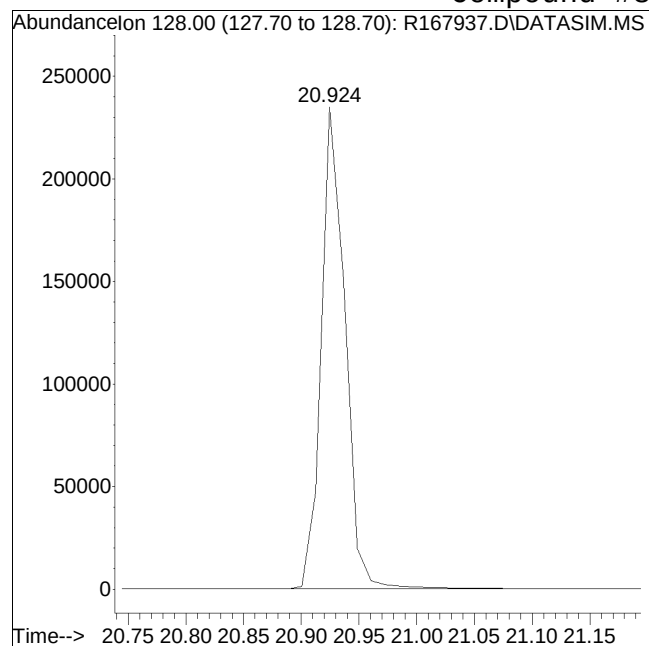


Manual Peak Response = 36076 M6

Manual Integration Report

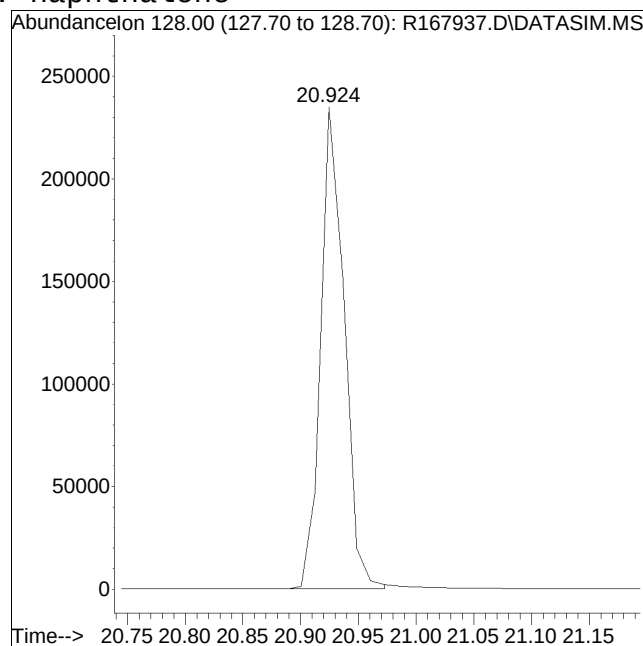
Data Path : O:\Forensics\Data\AIR1\2010Method : TSIM1_190712.M
Data File : R167937.D Operator : AIRPIAN01:EW
Date Inj'd : 8/9/2019 1:28 pm Instrument : Air Piano 1
Sample : WG1270782-3,3,250,250 Quant Date : 8/9/2019 2:02 pm

Compound #82: naphthalene



Original Peak Response = 336405

M4 = Poor automated baseline construction.



Manual Peak Response = 332369 M4

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
 Data File : R167945.D
 Acq On : 9 Aug 2019 8:30 pm
 Operator : AIRPIAN01:EW
 Sample : WG1270782-5,3,250,250
 Misc : WG1270782,ICAL15967
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 10 18:50:09 2019
 Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Jul 16 08:06:48 2019
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR1\2019\190809SIM\R167937.D
 Sub List : 7-NY-SIM - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.113	49	122066	10.000	ppbV	0.01
Standard Area = 153492			Recovery =		79.53%	
33) 1,4-difluorobenzene	12.351	114	297806	10.000	ppbV	0.00
Standard Area = 403253			Recovery =		73.85%	
51) chlorobenzene-D5	16.798	54	53435	10.000	ppbV	0.00
Standard Area = 69934			Recovery =		76.41%	

System Monitoring Compounds

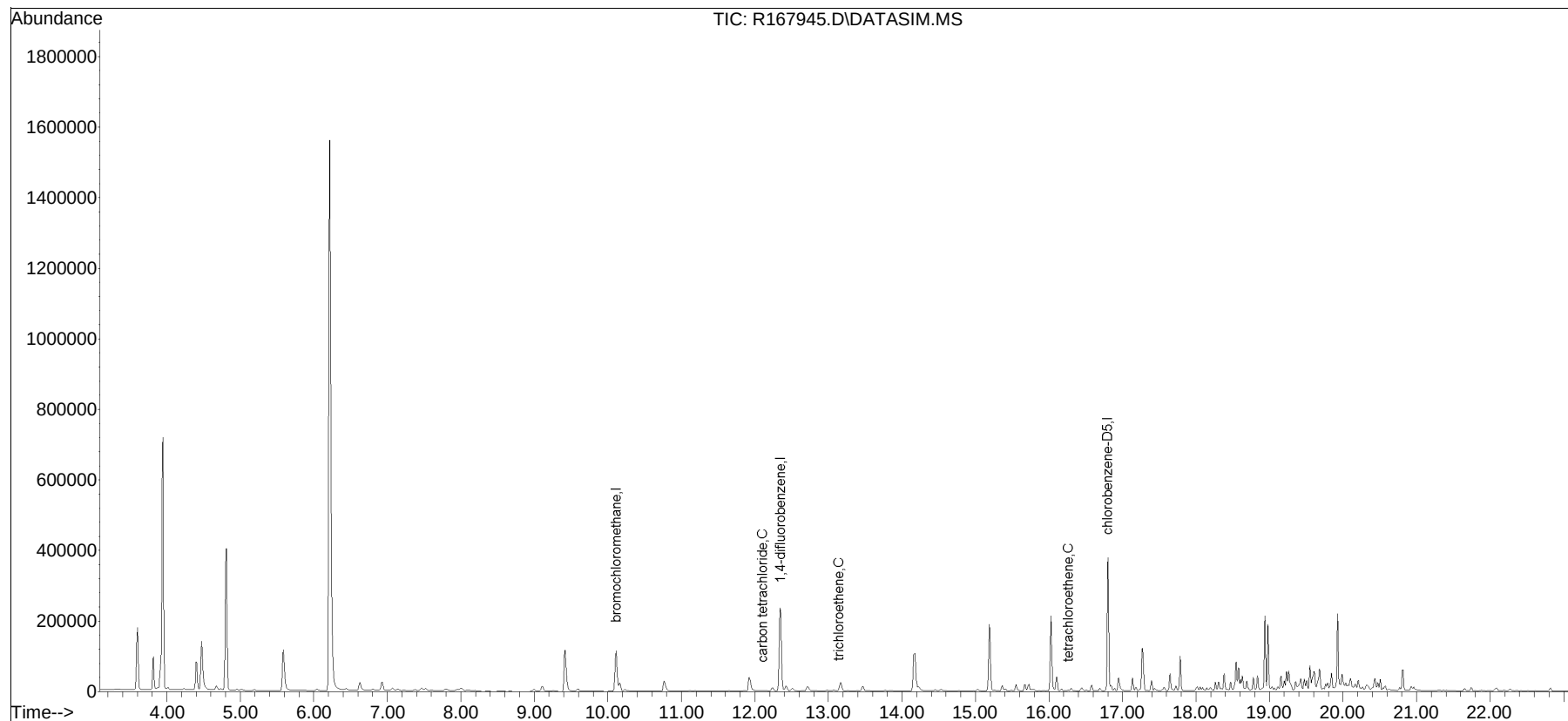
Target Compounds					Qvalue
6) vinyl chloride	0.000		0	N.D.	d
17) 1,1-dichloroethene	0.000		0	N.D.	d
28) cis-1,2-dichloroethene	0.000		0	N.D.	d
36) 1,1,1-trichloroethane	0.000		0	N.D.	d
38) carbon tetrachloride	12.106	117	1229	0.073	ppbV 96
44) trichloroethene	13.142	130	434	0.035	ppbV 95
57) tetrachloroethene	16.263	166	1290	0.087	ppbV 96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : 7-NY-SIM - .\Data\AIR1\2019\190809SIM\R167937.D

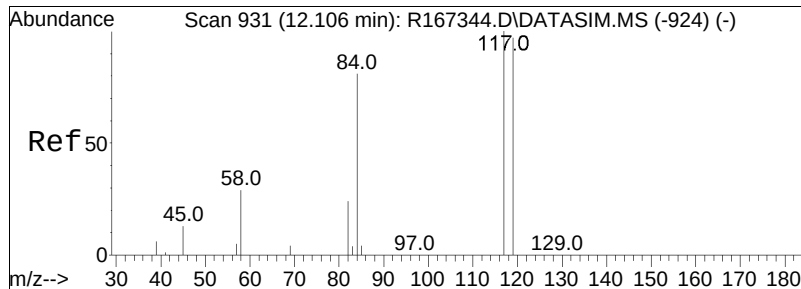
Data Path : 0:\Forensics\Data\AIR1\2019\190809SIM\
Data File : R167945.D
Acq On : 9 Aug 2019 8:30 pm
Operator : AIRPIAN01:EW
Sample : WG1270782-5,3,250,250
Misc : WG1270782,ICAL15967
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 10 18:50:09 2019
Quant Method : 0:\Forensics\Data\AIR1\2019\190809SIM\TSIM1_190712.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Jul 16 08:06:48 2019
Response via : Initial Calibration



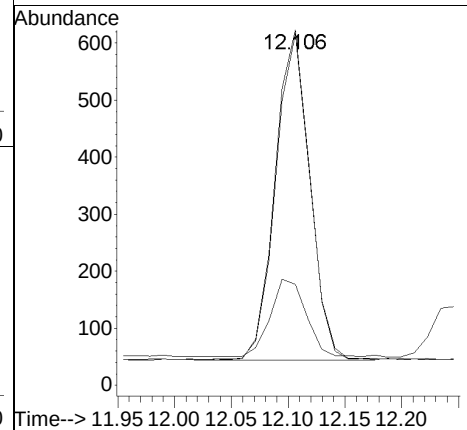
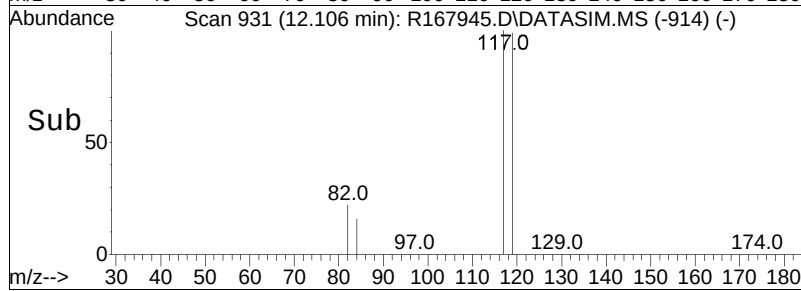
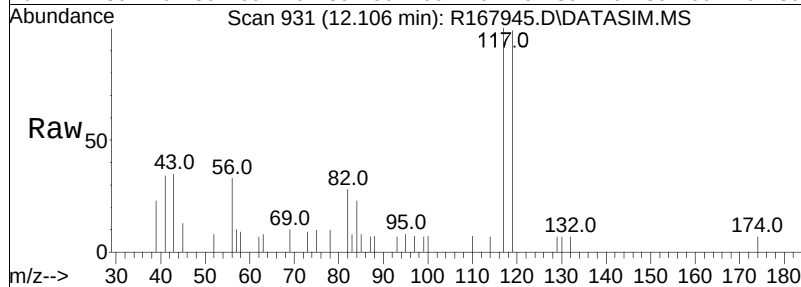
TSIM1_190712.M Sat Aug 10 18:52:14 2019

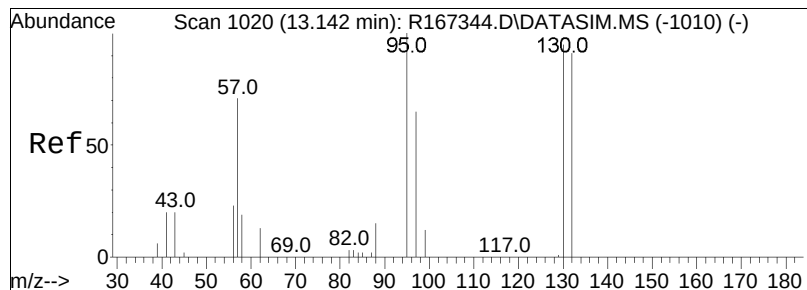
Page: 2



#38
 carbon tetrachloride
 Concen: 0.07 ppbV
 RT: 12.106 min Scan# 931
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

Tgt Ion:117 Resp: 1229
 Ion Ratio Lower Upper
 117 100
 119 99.0 77.4 116.0
 82 28.4 19.1 28.7





#44

trichloroethene

Concen: 0.04 ppbV

RT: 13.142 min Scan# 1020

Delta R.T. -0.000 min

Lab File: R167945.D

Acq: 9 Aug 2019 8:30 pm

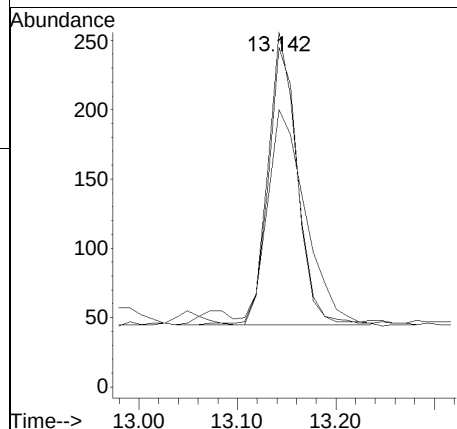
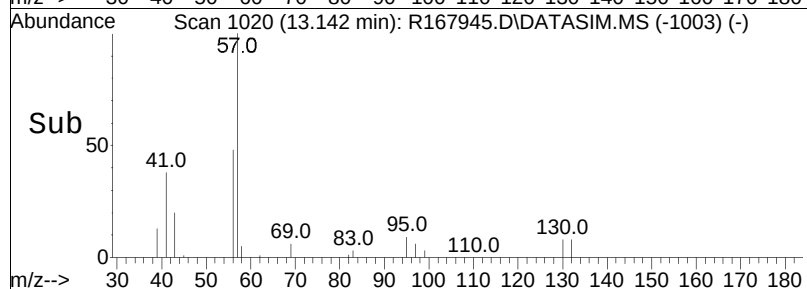
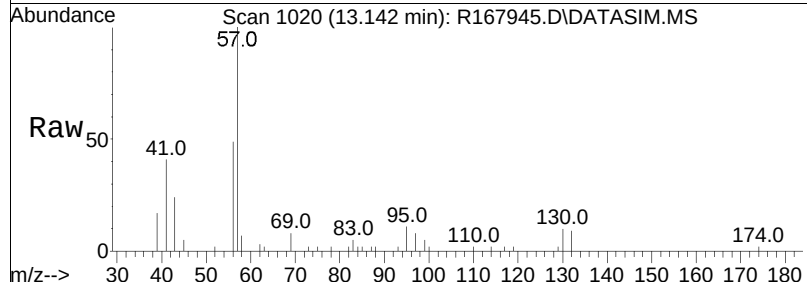
Tgt Ion:130 Resp: 434

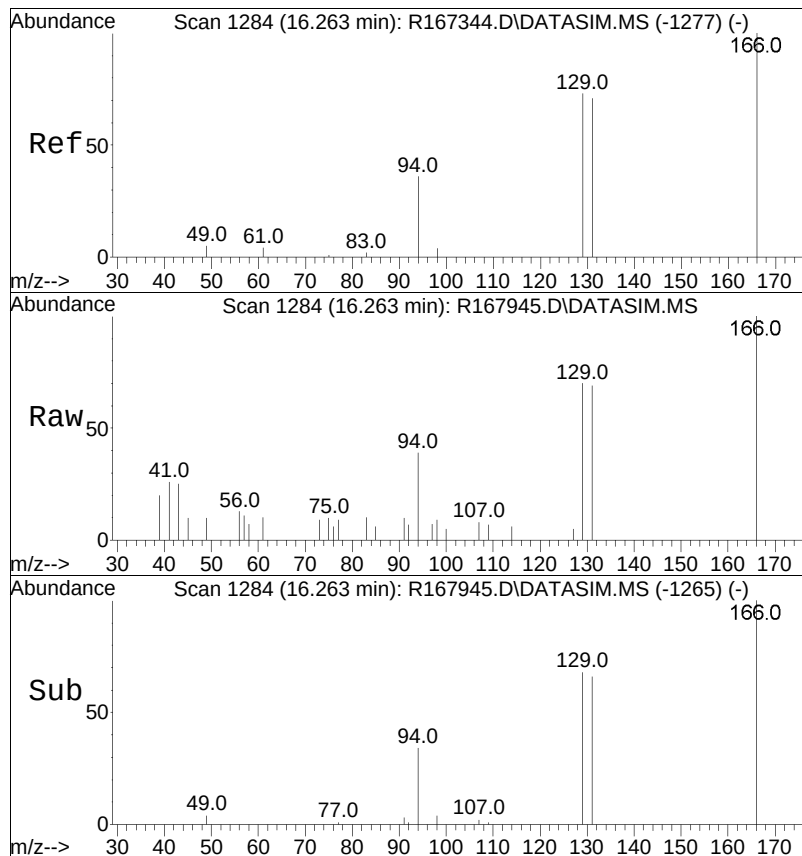
Ion Ratio Lower Upper

130 100

132 95.7 77.0 115.6

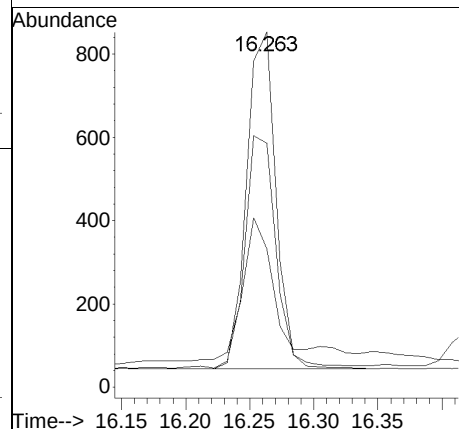
97 78.1 55.0 82.4





#57
 tetrachloroethene
 Concen: 0.09 ppbV
 RT: 16.263 min Scan# 1284
 Delta R.T. -0.000 min
 Lab File: R167945.D
 Acq: 9 Aug 2019 8:30 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	68.7	57.1	85.7
94	38.9	28.7	43.1



Manual Integration Report

Data Path	: 0:\Forensics\Data\AIR1\2019	Method	: TSIM1_190712.M
Data File	: R167945.D	Operator	: AIRPIAN01:EW
Date Inj'd	: 8/9/2019 8:30 pm	Instrument	: Air Piano 1
Sample	: WG1270782-5,3,250,250	Quant Date	: 8/10/2019 8:05 am

There are no manual integrations or false positives in this file.

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 29 2019, 12:26 pm

Work Group: WG1270782 for Department: 3 GC/MS

Created: 09-AUG-19 Due: Operator: EW

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1934161-05	IA02_073119	S	T015-SIM	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-06	IA04_073119	S	T015-SIM	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-07	IA01_073119	S	T015-SIM	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-08	IA03_073119	S	T015-SIM	AIR	DONE	U	0830	0813	1C	Can-2.7
L1934161-09	IA05_073119	S	T015-SIM	AIR	DONE	U	0830	0813	1C	Can-2.7
L1935043-04	VP-1_080619	S	T015-SIM	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
L1935043-05	VP-5_080619	S	T015-SIM	SOIL_VAPOR	DONE	U	0905	0813	S0	Can-2.7
WG1270782-1	MS BFB Tune Standard	S	T015-SIM	AIR	DONE	U				
WG1270782-2	Continuing Calibrati	S	T015-SIM	AIR	DONE	U				
WG1270782-3	Laboratory Control S	S	T015-SIM	AIR	DONE	U				
WG1270782-4	Laboratory Method Bl	S	T015-SIM	AIR	DONE	U				
WG1270782-5	Duplicate Sample	S	T015-SIM	AIR	DONE	U				
Comments:										
WG1270782-5	L1934161-07									

Alpha Analytical Air Lab Instrument Run Log

ID: Airpiano 1	Internal Standard/Surrogate IDs: SS18-030 / SS19-022
Date: 07/12/19	Internal Standard/Surrogate Volume: 100 ml
Analyst Initials: AR	Sequence File Name: 190712.S

SIM ICAL#	Full Scan ICAL# 15961		TO12 ICAL#		APH ICAL#		
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/su blis	Check Pass ? Y/N
1	BA1071201	TO15_SFS	R167335	250ml			N/A
1	BA1071202	TO15_SFS	R167336	250ml			N/A
1	TA1071201	TO15_SFS	R167337	250ml	TUNE		N/A
5	ITO15-SIMSTD0.02	TO15_SFS	R167338	SS19-015D 50ML 0.02			N/A
5	ITO15-SIMSTD0.05	TO15_SFS	R167339	SS19-015D 125ML 0.05			N/A
5	ITO15-SIMSTD0.1	TO15_SFS	R167340	SS19-015D 250ML 0.1			N/A
6	ITO15-SIMSTD0.2	TO15_SFS	R167341	SS19-015C 50ML 0.2			N/A
6	ITO15-SIMSTD0.5	TO15_SFS	R167342	SS19-015C 125ML 0.5			N/A
6	ITO15-SIMSTD1.0	TO15_SFS	R167343	SS19-015C 250ML 1.0			N/A
7	ITO15-SIMSTD5.0	TO15_SFS	R167344	SS19-015B1 125ML 5.0			N/A
7	ITO15-SIMSTD10.0	TO15_SFS	R167345	SS19-015B1 250ML 10.0			N/A
8	ITO15-SIMSTD20.0	TO15_SFS	R167346	SS19-015A 50ML 20.0			N/A
8	ITO15-SIMSTD50.0	TO15_SFS	R167347	SS19-015A 125ML 50.0			N/A
8	ITO15-LLSTD100.0	TO15_SFS	R167348	SS19-015A 250ML 100.0			N/A
1	BA1071201	TO15_SFS	R167349	250ml			N/A
1	BA1071202	TO15_SFS	R167350	250ml			N/A
2	CTO15-LLSTD10.0	TO15_SFS	R167351	SS19-016F 250ML 10.0	FULL SCAN ICV		N/A
2	CTO15-SIMSTD5.0	TO15_SFS	R167352	SS19-016F 125ML 5.0	SIM ICV		N/A

Alpha Analytical Air Lab Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: { Lab sample ID, dept #, actual volume
L1301234-01,3,250,2 analyzed (mL), nominal volume analyzed
(ml) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

ID: Airpiano 1 Internal Standard/Surrogate IDs: SS18-030 / SS19-022

Date: 08/09/19 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: EW Sequence File Name: 190809.S

SIM ICAL# 15967		Full Scan ICAL# 15961		TO12 ICAL#	APH ICAL#		
AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/su blist	Leak Check Pass ?
1	TA1080901	TO15_SFS	R167934	250ml	TUNE		N/A
2	CA1080901	TO15_SFS	R167935	SS19-015F 250ML 10.0	CC		N/A
3	CTO15-LLSTD10.0	TO15_SFS	R167936	SS19-016F 250ML 10.0	LL LCS FAILED		N/A
3	CTO15-SIMSTD5.0	TO15_SFS	R167937	SS19-016F 125ML 10.0	SIM LCS		N/A
3	CTO15-LLSTD10.0	TO15_SFS	R167938	SS19-016C 250ML 10.0	LL LCS		N/A
1	BA1080901	TO15_SFS	R167939	250ml	LL BLANK		N/A
1	BA1080902	TO15_SFS	R167940	250ml	SIM BLANK		N/A
1	L1935489-04,3,250,250	TO15_SFS	R167941	WG1270780,ICAL15961		NY	Y
2	L1934161-05,3,250,250	TO15_SFS	R167942	WG1270780,ICAL15961		NY / 7-SIM	Y
3	L1934161-06,3,250,250	TO15_SFS	R167943	WG1270780,ICAL15961		NY / 7-SIM	Y
4	L1934161-07,3,250,250	TO15_SFS	R167944	WG1270780,ICAL15961		NY / 7-SIM	Y
4	L1934161-07DUP,3,250,250	TO15_SFS	R167945	WG1270780,ICAL15961	LL / SIM DUP	NY / 7-SIM	Y
5	L1934161-08,3,250,250	TO15_SFS	R167946	WG1270780,ICAL15961		NY / 7-SIM	Y
6	L1934161-09,3,250,250	TO15_SFS	R167947	WG1270780,ICAL15961		NY / 7-SIM	Y
7	L1935043-01D,3,100,250	TO15_SFS	R167948	WG1270780,ICAL15961		NY	Y
8	L1935043-02D,3,100,250	TO15_SFS	R167949	WG1270780,ICAL15961		NY	Y
9	L1935043-03D,3,100,250	TO15_SFS	R167950	WG1270780,ICAL15961		NY	Y
10	L1935043-04D,3,7.24,250	TO15_SFS	R167951	WG1270780,ICAL15961		NY / 6-SIM	Y
11	L1935043-05D,3,35,250	TO15_SFS	R167952	WG1270780,ICAL15961		NY / 7-SIM	Y
12	L1935043-06D,3,70,250	TO15_SFS	R167953	WG1270780,ICAL15961		NY	Y
13	L1935043-07D,3,70,250	TO15_SFS	R167954	WG1270780,ICAL15961		NY	Y
14	L1935489-01,3,250,250	TO15_SFS	R167955	WG1270780,ICAL15961	TBA OVERCAL	NY	Y
15	L1935489-02D,3,100,250	TO15_SFS	R167956	WG1270780,ICAL15961	OVERDILUTED	NY	Y

Alpha Analytical Air Lab Instrument Run Log

16	L1935489-03,3,250,250	TO15_SFS	R167957	WG1270780,ICAL15961		NY	Y
14	L1935489-01D,3,50,250	TO15_SFS	R167958	WG1270780,ICAL15961	TBA ONLY	NY	Y
15	L1935489-02,3,250,250	TO15_SFS	R167959	WG1270780,ICAL15961		NY	Y
1	L1934780-01,3,250,250	TO15_SFS	R167960	WG1270780,ICAL15961		PA	Y
2	L1934780-02,3,250,250	TO15_SFS	R167961	WG1270780,ICAL15961		PA	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical, Inc. Canister Dilution Worksheet

[illegible]

*N2 = Nitrogen and H2= Hydrogen

**** Reported to 2 decimal places unless 0.01 or less; then 3 decimal places are reported**

Analyst data input fields

Analyst Comments: